

Package ‘concordance’

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Type Package

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 HS (Combined), ISIC Rev. 2,3, and SITC1,2,3,4 product classification codes, as well as BEC, NAICS, and SIC classifications. It also provides code nomenclature / descriptions look-up, Rauch classification look-up (via concordance to SITC2) and trade elasticity look-up (via concordance to SITC2/3 or HS3.ss).

License GPL-2

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concordance-package *Product Concordance*

Description

Convert between HS0/1/2/3/4/Combined, ISIC Rev. 2/3, SITC1,2,3,4, NAICS, SIC, and BEC; also code nomenclature and trade elasticity look-up.

Details

Package: concordance
 Type: Package
 Version: 1.6
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 License: GPL-2

Author(s)

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References

Data consolidated from - World Integrated Trade Solution (WITS), World Bank (http://wits.worldbank.org/product_concordance)
 - UN Statistics Division (<http://unstats.un.org/unsd/trade/conversions/HS>) - Schott and Pierce's site (http://faculty.som.yale.edu/peterschott/sub_international.htm) - Broda and Weinstein's site (<http://www.columbia.edu/~dew3>)
 See also - Justin R. Pierce and Peter K. Schott, "Concording U.S. Harmonized System Codes Over Time". - C. Broda and D. Weinstein, "Globalization and the Gains from Variety," Quarterly Journal of Economics Volume 121, Issue 2 - May 2006

Examples

```
data(concord_data, package="concordance")
```

```

codes.of.origin <- concord_data$isic2 # Vector of values to be converted
concord(codes.of.origin, "isic2", "sitc4")

concord("00121", "sitc3", "hs")
## % Returns vector 10410

desc("8702", "hs")
## % Returns
## % [1] "Motor vehicles for the transport of ten or more persons, including the driver."
concord("8702", "hs", "sitc4")
## % [1] "78311" "78319"

desc("6522", "sitc1")
## % [1] "Cotton fabrics, woven, other than grey"
concord("6522", "sitc1", "hs")
## % [1] "580310" "580219" "580124" "580125" "580126" "580123" "580122" "580121" "520941"
## % [10] "520949" "520823" "520829" "520951" "520943" "520821" "520921" "520822" "520839"
## % [19] "520851" "520939" "520959" "520852" "520843" "520942" "520849" "520931" "520842"
## % [28] "520952" "520929" "520922" "520833" "520932" "520832" "520841" "520859" "520853"
## % [37] "581100" "520831" "521149" "521041" "521143" "521152" "521159" "521031" "521214"
## % [46] "521051" "521121" "521222" "521059" "521129" "521213" "521142" "521039" "521049"
## % [55] "521132" "521139" "521225" "521224" "521022" "521032" "521151" "521215" "521029"
## % [64] "521212" "521122" "521052" "521021" "521042" "521131" "521223" "521141"

proddiff("020", "hs", setting="lib")
## % Returns "rauch"
## % n r w
## % 1 2 3"
proddiff("020", "hs", prop='w')
## % Returns "w"
## % 0.5"

sigma("847", "HS")
# returns [1] 17.48601
sigma("847", "HS", "KOR")
# returns [1] 2.545708

listSigma(c("100", "010"), "HS", "USA")
# Returns [[1]]
# [1] 2.6 2.3 4.2 1.4 9.6 11.6 2.1 7.1 3.9 1.8 15.9 5.7 1.6 2.7 5.7
# [16] 2.0 1.7 4.4 1.5 4.4 2.0 2.7 3.4
#
# [[2]]
# [1] 1.4

```

Description

Trade elasticity look-up table, using HS codes only

Usage

```
data("BWSigma")
```

Format

A data frame with 13972 observations on the following 4 variables.

- hs
- sigma
- hs4
- hs6

Source

Data from Broda and Weinstein's site <http://www.columbia.edu/~dew35/TradeElasticities/TradeElasticities.html>

See also C. Broda and D. Weinstein, "Globalization and the Gains from Variety," Quarterly Journal of Economics Volume 121, Issue 2 - May 2006

codedesc

Table of Product Classification Descriptions

Description

Data table containing descriptions for HS, ISIC, SITC, NAICS and BEC codes. Does not currently contain SIC nomenclature.

Usage

```
data("codedesc")
```

Format

A data frame with 7630 observations on the following 29 variables.

- RowNum
- SITC1
- SITC1.Desc
- SITC2
- SITC2.Desc
- SITC3
- SITC3.Desc
- SITC4
- SITC4.Desc
- HS

- HS.Desc
- HS0
- HS0.Desc
- HS1
- HS1.Desc
- HS2
- HS2.Desc
- HS3
- HS3.Desc
- HS4
- HS4.Desc
- ISIC2
- ISIC2.Desc
- ISIC3
- ISIC3.Desc
- BEC
- BEC.Desc
- NAICS
- NAICS.Desc

Source

Data consolidated from - World Integrated Trade Solution (WITS), World Bank (<http://wits.worldbank.org/>)

Examples

```
sitc3_descriptions <- codedesc$SITC3.Desc # Vector of descriptions for SITC3  
hs_descriptions <- codedesc$HS.Desc # Vector of descriptions for HS
```

code_lengths

Product code lengths

Description

Named list containing full length of various product classification schemes

Format

A named list with 15 entries, one for each of

- HS
- HS0
- HS1
- HS2
- HS3
- HS4
- ISIC2
- ISIC3
- SITC1
- SITC2
- SITC3
- SITC4
- BEC
- NAICS
- SIC

Source

Data consolidated from - World Integrated Trade Solution (WITS), World Bank (http://wits.worldbank.org/product_concordance)
- UN Statistics Division (<http://unstats.un.org/unsd/trade/conversions/HS>) - Schott and Pierce's site (http://faculty.som.yale.edu/peterschott/sub_international.htm)

References

See also Justin R. Pierce and Peter K. Schott, "Concording U.S. Harmonized System Codes Over Time".

concordance

concord

Description

Product Concordance

Usage

concord(sourcevar, origin, destination)

Arguments

sourcevar	Vector which contains the codes to be converted
origin	Coding scheme of origin (name enclosed in quotes "")
destination	Coding scheme of destination (name enclosed in quotes "")

Details

Supports the following classifications: HS, HS0, HS1, HS2, HS3, HS4, ISIC2, ISIC3, SITC1, SITC2, SITC3, SITC4, BEC, NAICS and SIC.

The following strings can be used as arguments for origin or destination: "hs" (for HS Combined), "hs0" (1988/92), "hs1" (1996), "hs2" (2002), "hs3" (2007), "hs4" (2012), "isic2", "isic3", "sitc1", "sitc2", "sitc3", "sitc4", "bec", "naics", "sic"

Also performs concordance of truncated (shorter) or disaggregated (longer) codes.

Value

Returns list of concorded codes. Does not differentiate between codes corresponding to different codes in input vector.

Note

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

Current full-code lengths in use are 6-digit for HS and NAICS, 4-digit for ISIC and SIC, 5-digit for SITC, 3-digit for BEC.

Author(s)

Feng Zhu

Examples

```
## data(concord_data, package="concordance")
codes.of.origin <- concord_data$isic2 # Vector of values to be converted
concord(codes.of.origin, "isic2", "sitc4")

concord("00121", "sitc3", "hs")
## % Returns vector 10410

concord(c("00121","00151"), "sitc3", "hs")
## % Returns vector 10410 10110 10111 10119
## % This list currently incomplete: WITS does not seem to have complete n-to-n data

concord("0012", "sitc3", "sitc3")
## % Returns vector 121 122 124
## % i.e. 00121, 00122, 00124 are all the SITC3 codes in the database starting with 0012

concord("0012", "sitc3", "hs")
## % Returns vector 10410 10420 20500
```

```
## % These are all the HS codes corresponding to any of the SITC3 codes starting with 0012

concord(c("030310", "030322", "030329"), "hs0", "isic2")
## % Returns vector 1310
## % These HS1988/92 codes correspond to Frozen Pacific salmon, Frozen Atlantic and Danube salmon,
## % and Frozen salmonidae (excl. Pacific, Atlantic, Danube salmon) resp.
## % The returned ISIC2 code corresponds to Ocean and coastal fishing

concord(c("30310", "30322", "30329"), "hs0", "isic3")
## % Returns vector 1512
## % The returned ISIC3 code corresponds to Processing and preserving of fish and fish products

concord("1512", "isic3", "isic2")
## % Returns vector 1301 3114
## % ISIC code 3114 corresponds to Canning, preserving and processing of fish, crustaces
## % and similar foods

concord('0111', 'ISIC3', 'BEC')
## % Returns [1] "111" "021" "112"
```

concord_data

Product Concordance Table

Description

Data table containing concordance table for HS, ISIC, SITC, and BEC classifications. Pivots on HS (Combined).

Usage

```
data("concord_data")
```

Format

A data frame with 8024 observations on the following 13 variables.

- HS
- HS0
- HS1
- HS2
- HS3
- HS4
- ISIC2
- ISIC3
- SITC1

- SITC2
- SITC3
- SITC4
- BEC

Source

Data consolidated from - World Integrated Trade Solution (WITS), World Bank (http://wits.worldbank.org/product_concordance)
- UN Statistics Division (<http://unstats.un.org/unsd/trade/conversions/HS> - Schott and Pierce's site
(http://faculty.som.yale.edu/peterschott/sub_international.htm)

References

See also Justin R. Pierce and Peter K. Schott, "Concording U.S. Harmonized System Codes Over Time".

concord_long

HS-NAICS-SIC Concordance Table

Description

Data table containing concordance table for HS, NAICS, and SIC classifications. Pivots on HS (Combined).

Format

A data frame with 54412 observations on the following 3 variables.

- HS
- SIC
- NAICS

Source

Data consolidated from - World Integrated Trade Solution (WITS), World Bank (http://wits.worldbank.org/product_concordance)
- UN Statistics Division (<http://unstats.un.org/unsd/trade/conversions/HS> - Schott and Pierce's site
(http://faculty.som.yale.edu/peterschott/sub_international.htm)

References

See also Justin R. Pierce and Peter K. Schott, "Concording U.S. Harmonized System Codes Over Time".

concord_test	<i>concord_test</i>
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Description

Package testing scripts

Usage

```
concord_test()
```

Note

Should pass. Kindly report any error messages to the package author / maintainer.

Author(s)

Feng Zhu

desc	<i>desc</i>
------	-------------

Description

Product classification description

Usage

```
desc(sourcevar, origin)
```

Arguments

sourcevar	Vector which contains the codes to be described
origin	Coding scheme of origin (name enclosed in quotes "")

Details

Supports the following classifications: HS, HS0, HS1, HS2, HS3, HS4, ISIC2, ISIC3, SITC1, SITC2, SITC3, SITC4, BEC, NAICS.

The following strings can be used as arguments for origin or destination: "hs" (for HS Combined), "hs0" (1988/92), "hs1" (1996), "hs2" (2002), "hs3" (2007), "hs4" (2012), "isic2", "isic3", "sitc1", "sitc2", "sitc3", "sitc4", "bec", "naics".

Also accepts truncated (shorter) or disaggregated (longer) codes.

Value

Returns list of code nomenclatures. Does not differentiate between codes corresponding to different codes in input vector.

Note

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

Current full-code lengths in use are 6-digit for HS, 4-digit for ISIC, and 5-digit for ISIC.

Author(s)

Feng Zhu

Examples

```
codes.of.origin <- codedesc$sitc3 # Vector of values to be converted
desc(codes.of.origin, "sitc3")

desc("00121", "sitc3")
## % Returns vector "Meat sheep/goat fr/ch/fz"

desc("0012", "sitc3")
## % Returns vector of length 6:
## % "Meat sheep/goat fr/ch/fz" "Pork fresh/chilled/frozn" "Poultry fresh/chld/frozn"
## % "Meat, equine, frsh/chl/frz" "Edible offal, frs/chl/frz" "Meat/offal nes, fr/ch/frz"
## % these are descriptions for all the codes starting with 0012
```

desclen

Product code lengths

Description

Matrix containing code lengths to use for nomenclatures of various product classification schemes

Format

A 14 by 6 matrix, with columns indexed by lengths (1 through 6) and rows named

- HS
- HS0
- HS1
- HS2
- HS3
- HS4
- ISIC2

- ISIC3
- SITC1
- SITC2
- SITC3
- SITC4
- BEC
- NAICS

Source

Data consolidated from - World Integrated Trade Solution (WITS), World Bank (http://wits.worldbank.org/product_concordance)
 - UN Statistics Division (<http://unstats.un.org/unsd/trade/conversions/HS>) - Schott and Pierce's site (http://faculty.som.yale.edu/peterschott/sub_international.htm)

References

See also Justin R. Pierce and Peter K. Schott, "Concording U.S. Harmonized System Codes Over Time".

<code>extend_concordance</code>	<i>extend_concord</i>
---------------------------------	-----------------------

Description

Product Concordance (for NAICS and SIC)

Usage

```
extend_concord(sourcevar, origin, destination)
```

Arguments

<code>sourcevar</code>	Vector which contains the codes to be converted
<code>origin</code>	Coding scheme of origin (name enclosed in quotes "")
<code>destination</code>	Coding scheme of destination (name enclosed in quotes "")

Details

Should not be called directly.

Used by `concord()` function to perform concordance to and/or from NAICS and SIC (via HS.) The following strings can be used as arguments for `origin` or `destination`: "hs" (for HS Combined), "hs0" (1988/92), "hs1" (1996), "hs2" (2002), "hs3" (2007), "hs4" (2012), "isic2", "isic3", "sitc1", "sitc2", "sitc3", "sitc4", "sic", "naics", and "bec".

Also performs concordance of truncated (shorter) or disaggregated (longer) codes.

Value

Returns list of concorded codes. Does not differentiate between codes corresponding to different codes in input vector.

Author(s)

Feng Zhu

Examples

```
extend_concord('0272', 'SIC', 'NAICS')
## % Returns vector 112920
```

getRauch	<i>getRauch</i>
----------	-----------------

Description

getRauch is used to return a measure of product differentiation for a given product.

Usage

```
getRauch(sourcevar, origin, setting="CON", verbose=FALSE)
```

Arguments

sourcevar	Vector which contains the codes to be converted
origin	Coding scheme of origin (should be either "naics" or "hs")
setting	For Rauch classification: choose "CON" (conservative, default) or "LIB" (liberal)
verbose	For print out warning messages

Details

Rauch classifies each SITC Rev. 2 industry according to three possible types: differentiated products ('n'), reference priced ('r'), and homogeneous goods traded on an organized exchange ('w').

Supports the following classifications: HS, NAICS

The following strings can be used as arguments for origin: "hs" (for HS Combined), "naics".

setting may be set to 'CON' (conservative, the default setting) or 'LIB' (liberal.)

Value

Concords given input to list of SITC2 codes, then uses this as input to concord to a Rauch product differentiation index.

Note

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

Current full-code lengths in use are 6-digit for HS, and 6-digit for NAICS.

Author(s)

Feng Zhu, Princeton University, <zucxjo@gmail.com> and

In Song Kim, MIT, <insong@mit.edu>

References

Rauch, James E. "Networks versus markets in international trade." *Journal of international Economics* 48.1 (1999): 7-35.

Examples

```
getRauch("020", "hs")
getRauch("32411", "naics")
getRauch("020", "hs", setting="LIB")
```

getSigma

getSigma

Description

getSigma is used to return trade elasticities (import demand elasticities) for a given product.

Usage

```
getSigma(sourcevar, origin, continuous=TRUE, verbose=FALSE)
```

Arguments

sourcevar	Codes to be converted
origin	Coding scheme of origin (name enclosed in quotes "")
continuous	Logical. If 'TRUE', returns a numeric value. If 'FALSE', returns one of 'low', 'medium', 'high', where 'low' is less than 33th percentile (differentiated), and 'high' is above 66th percentile (substitutable).
verbose	If 'TRUE', displays verbose messages for debugging purposes

Details

Supports the following classifications: HS, NAICS

The following strings can be used as arguments for origin: "hs" (for HS Combined), "naics".

Note

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

Author(s)

Feng Zhu, Princeton University, <zucxjo@gmail.com> and
In Song Kim, MIT, <insong@mit.edu>

References

C. Broda and D. Weinstein, "Globalization and the Gains from Variety," Quarterly Journal of Economics Volume 121, Issue 2 - May 2006

Examples

```
getSigma("1111", "naics")
```

hs2sitc

HS-SITC2 conversion table

Description

Quick conversion table used in elasticity look-up functions.

Usage

```
data("rauch")
```

Format

A data frame with 11542 observations on the following 2 variables.

- hs
- sitc2

Source

Data from Jon Haveman's International Trade Data page: <http://www.macalester.edu/research/economics/PAGE/HAVEMAN>

<code>listSigma</code>	<i>listSigma</i>
------------------------	------------------

Description

`listSigma` is used to return trade elasticities (import demand elasticities) for a list of product, separating elasticities for each product in the list.

Usage

```
listSigma(sourcevar, origin, country="USA", use_SITC=FALSE)
```

Arguments

<code>sourcevar</code>	Vector which contains the codes to be converted
<code>origin</code>	Coding scheme of origin (name enclosed in quotes "")
<code>country</code>	Country for which to return import demand elasticity (default=USA)
<code>use_SITC</code>	Set to TRUE if you wish to look up elasticities via SITC instead of HS. Only available for the US.

Details

Works by calling `sigma` using `lapply`.

For further documentation re: input parameters see documentation for `sigma`.

Value

Concords given list of codes to list of SITC3 codes (for the US) or 3-digit HS3 codes (for other countries), then uses this as input to `concord` to import demand elasticities. Unlike `sigma`, differentiates between codes corresponding to different codes in input vector.

Note

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

Current full-code lengths in use are 6-digit for HS, 4-digit for ISIC, and 5-digit for SITC.

Author(s)

Feng Zhu, Princeton University, <zucxjo@gmail.com> and In Song Kim, MIT, <insong@mit.edu>

Examples

```
listSigma(c("100","010"), "HS", "USA")
# Returns [[1]]
# [1] 2.6 2.3 4.2 1.4 9.6 11.6 2.1 7.1 3.9 1.8 15.9 5.7 1.6 2.7 5.7
# [16] 2.0 1.7 4.4 1.5 4.4 2.0 2.7 3.4
#
# [[2]]
# [1] 1.4
```

long_codes	<i>List of separately concorded codes</i>
------------	---

Description

List containing names of codes listed in concord_long instead of concord_data.

Format

List with 2 entries

proddiff	<i>proddiff</i>
----------	-----------------

Description

proddiff is used to return a measure of product differentiation for a given product.

Usage

```
proddiff(sourcevar, origin, setting='CON', prop='')
```

Arguments

sourcevar	Vector which contains the codes to be converted
origin	Coding scheme of origin (name enclosed in quotes "")
setting	For Rauch classification: choose "CON" (conservative, default) or "LIB" (liberal)
prop	If set to 'w', 'r', or 'n', counts proportion of letter in resulting vector of Rauch classifications.)

Details

Rauch classifies each SITC Rev. 2 industry according to three possible types: differentiated products ('n'), reference priced ('r'), and homogeneous goods traded on an organized exchange ('w').

Supports the following classifications: HS, HS0, HS1, HS2, HS3, HS4, ISIC2, ISIC3, SITC1, SITC2, SITC3, SITC4, NAICS

The following strings can be used as arguments for `origin`: "naics", "hs" (for HS Combined), "hs0" (1988/92), "hs1" (1996), "hs2" (2002), "hs3" (2007), "hs4" (2012), "isic2", "isic3", "sitc1", "sitc2", "sitc3", "sitc4".

Also accepts aggregated (shorter) or disaggregated (longer) codes.

setting may be set to 'CON' (conservative, the default setting) or 'LIB' (liberal.)

prop may be set to 'w', 'r', or 'n', in which case the function will return the proportion of 'w', 'r', or 'n' in the resulting vector of Rauch indices (or, at the moment, NA if the proportion is zero.) If prop is not set to any of these then the function returns a table showing counts of 'w', 'r', and 'n' in the resulting vector of Rauch indices.

You may also wish to look up the `getRauch` function, which has similar but more specialised functionality, and may work better in some cases.

Value

Concords given list of codes to list of SITC2 codes, then uses this as input to concord to Rauch product differentiation indices. Does not differentiate between codes corresponding to different codes in input vector.

Note

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

Current full-code lengths in use are 6-digit for HS, 4-digit for ISIC, and 5-digit for SITC.

Author(s)

Feng Zhu, Princeton University, <zucxjo@gmail.com> and

In Song Kim, MIT, <insong@mit.edu>

References

Rauch, James E. "Networks versus markets in international trade." *Journal of international Economics* 48.1 (1999): 7-35.

C. Broda and D. Weinstein, "Globalization and the Gains from Variety," *Quarterly Journal of Economics* Volume 121, Issue 2 - May 2006

Examples

```
proddiff("020", "hs")
## % Returns "rauch"
## % n r w
```

```
## % 1 2 3"

proddiff("020", "hs", setting="lib")
## % Returns "rauch"
## % n r w
## % 1 2 3"

proddiff("020", "hs", prop='w')
## % Returns "w"
## % 0.5"

proddiff("020", "hs", setting='lib', prop='r')
## % Returns "r"
## % 0.3333333"
```

Rauch

Table of Rauch classifications

Description

Rauch classification look-up table using 4-digit SITC4 codes

Usage

```
data("rauch")
```

Format

A data frame with 1189 observations on the following 3 variables.

- sitc4
- con
- lib

Source

Data from Jon Haveman's International Trade Data page: <http://www.macalester.edu/research/economics/PAGE/HAVEMAN>

sigma	<i>sigma</i>
-------	--------------

Description

sigma is used to return trade elasticities (import demand elasticities) for a given product.

Usage

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

Arguments

sourcevar	Vector which contains the codes to be converted
origin	Coding scheme of origin (name enclosed in quotes "")
country	Country for which to return import demand elasticity (default=USA)
use_SITC	Set to TRUE if you wish to look up elasticities via SITC instead of HS. Only available for the US.
give_avg	Set to FALSE if you wish to obtain a vector of output elasticities for all matching codes. When set to TRUE (as by default) the output will be a simple average of all elasticities in this vector.

Details

Supports the following classifications: HS, HS0, HS1, HS2, HS3, HS4, ISIC2, ISIC3, SITC1, SITC2, SITC3, SITC4, NAICS

The following strings can be used as arguments for origin: "naics", "hs" (for HS Combined), "hs0" (1988/92), "hs1" (1996), "hs2" (2002), "hs3" (2007), "hs4" (2012), "isic2", "isic3", "sitc1", "sitc2", "sitc3", "sitc4".

Also accepts aggregated (shorter) or disaggregated (longer) codes.

Use ISO3 codes to specify country. Data is available for 74 countries (the US + 73 others.) For a list of available countries, load the package and type "unique(sigmatable\$iso3)".

Concords given list of codes to list of SITC3 codes (for the US) or 3-digit HS3 codes (for other countries), then uses this as input to concord to import demand elasticities. Does not differentiate between codes corresponding to different codes in input vector.

You may also wish to look up the getSigma function, which has similar but more specialised functionality, and may work better in some cases.

Note

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

Current full-code lengths in use are 6-digit for HS, 4-digit for ISIC, and 5-digit for SITC.

Author(s)

Feng Zhu, Princeton University, <zucxjo@gmail.com> and
In Song Kim, MIT, <insong@mit.edu>

References

C. Broda and D. Weinstein, "Globalization and the Gains from Variety," Quarterly Journal of Economics Volume 121, Issue 2 - May 2006

Examples

```
sigma("847", "HS")  
# returns [1] 17.48601  
  
sigma("847", "HS", "KOR")  
# returns [1] 2.545708  
  
sigma("261", "HS3", "KOR")  
# returns [1] 3.071524
```

sigmatab

Table of trade elasticities

Description

Trade elasticity look-up table, using HTS and SITC_x codes for the US and HS codes for 73 other countries

Usage

```
data("sigmatab")
```

Format

A data frame with 44799 observations on the following 5 variables.

- iso3
- sigma
- HS3
- SITC2
- SITC3

Details

Uses 10-digit HS3 codes for US elasticities; also has option to use 3/4/5-digit SITC2 codes for USA 1972-1988 elasticities and 3/4/5-digit SITC3 codes for USA 1990-2001 elasticities.

Uses 3-digit HS3 codes for international elasticities.

Source

Data from Broda and Weinstein's site <http://www.columbia.edu/~dew35/TradeElasticities/TradeElasticities.html>

See also C. Broda and D. Weinstein, "Globalization and the Gains from Variety," *Quarterly Journal of Economics* Volume 121, Issue 2 - May 2006

sitc2_rauch

Table of Rauch classifications

Description

Rauch classification look-up table using 4-digit SITC2 codes

Usage

```
data("sitc2_rauch")
```

Format

A data frame with 1189 observations on the following 3 variables.

- SITC2
- CON
- LIB

Source

Data from Jon Haveman's International Trade Data page: <http://www.macalester.edu/research/economics/PAGE/HAVEMAN>

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