Package ‘micEconIndex’

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Title Price and Quantity Indices
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Depends R (>= 2.4.0)
Imports miscTools (>= 0.6-1)
Suggests Ecdat (>= 0.1-5), micEcon (>= 0.6-12)
Description Tools for calculating Laspeyres, Paasche, and Fisher price and quantity indices.
License GPL (>= 2)
URL http://www.micEcon.org
NeedsCompilation no
Repository CRAN
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Description

Calculates a Laspeyres, Paasche or Fisher price index.

Usage

priceIndex( prices, quantities, base, data, method = "Laspeyres", na.rm = FALSE, weights = FALSE )

Arguments

prices Vector that contains the names of the prices.
quantities Vector that contains the names of the quantities that belong to the prices.
base The base period(s) to calculate the indices (see details).
data Dataframe that contains the prices and quantities.
method Which price index: "Laspeyres", "Paasche" or "Fisher".
na.rm a logical value passed to 'mean()' when calculating the base.
weights logical. Should an attribute 'weights' that contains the relatives weights of each quantity be added?

Details

The argument base can be either
(a) a single number: the row number of the base prices and quantities,
(b) a vector indicating several observations: The means of these observations are used as base prices and quantities, or
(c) a logical vector with the same length as the data: The means of the observations indicated as 'TRUE' are used as base prices and quantities.

If any values used for calculating the price index (e.g. current quantities, base quantities, current prices or base prices) are not available (NA), they are ignored (only) if they are multiplied by zero.

Value

a vector containing the price indices.

Author(s)

Arne Henningsen

See Also

quantityIndex.
quantityIndex

Calculate Quantity Indices

Description

Calculates a Laspeyres, Paasche or Fisher Quantity index.

Usage

quantityIndex( prices, quantities, base, data, method = "Laspeyres", na.rm = FALSE, weights = FALSE )

Arguments

prices Vector that contains the names of the prices.
quantities Vector that contains the names of the quantities that belong to the prices.
base The base period(s) to calculate the indices (see details).
data Dataframe that contains the prices and quantities.
method Which quantity index: "Laspeyres", "Paasche" or "Fisher".
na.rm a logical value passed to 'mean()' when calculating the base.
weights logical. Should an attribute 'weights' that contains the relatives weights of each quantity be added?

Details

The argument base can be either
(a) a single number: the row number of the base prices and quantities,
(b) a vector indicating several observations: The means of these observations are used as base prices and quantities, or

Examples

data( Missong03E7.7, package = "micEcon" )
# Laspeyres Price Indices
priceIndex( c( "p.beef", "p.veal", "p.pork" ),
          c( "q.beef", "q.veal", "q.pork" ), 1, Missong03E7.7 )
# Paasche Price Indices
priceIndex( c( "p.beef", "p.veal", "p.pork" ),
          c( "q.beef", "q.veal", "q.pork" ), 1, Missong03E7.7, "Paasche" )

data( Blemuller79E25.1, package = "micEcon" )
# Laspeyres Price Indices
          c("q.A", "q.B", "q.C", "q.D" ),
          1, Blemuller79E25.1 )
# Paasche Price Indices
          c("q.A", "q.B", "q.C", "q.D" ),
          1, Blemuller79E25.1, "Paasche" )
(c) a logical vector with the same length as the data: The means of the observations indicated as 'TRUE' are used as base prices and quantities.

If any values used for calculating the quantity index (e.g. current quantities, base quantities, current prices or base prices) are not available (NA), they are ignored (only) if they are multiplied by zero.

Value

a vector containing the quantity indices.

Author(s)

Arne Henningsen

See Also

quantityIndex.

Examples

data( Missong03E7.7, package = "micEcon" )
# Laspeyres Quantity Indices
quantityIndex( c("p.beef", "p.veal", "p.pork" ),
             c("q.beef", "q.veal", "q.pork" ), 1, Missong03E7.7 )
# Paasche Quantity Indices
quantityIndex( c("p.beef", "p.veal", "p.pork" ),
             c("q.beef", "q.veal", "q.pork" ), 1, Missong03E7.7, "Paasche" )

data( Bleymueller79E25.1, package = "micEcon" )
# Laspeyres Quantity Indices
               1, Bleymueller79E25.1 )
# Paasche Quantity Indices
               1, Bleymueller79E25.1, "Paasche" )
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