

Package ‘rbcB’

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Type Package

Title R Interface to Brazilian Central Bank Web Services

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Description The Brazilian Central Bank API delivers many datasets which regard economic activity, regional economy, international economy, public finances, credit indicators and many more. For more information please see <<http://dadosabertos.bcb.gov.br/>>. These datasets can be accessed through 'rbcB' functions and can be obtained in different data structures common to R ('tibble', 'data.frame', 'xts', ...).

URL <https://github.com/wilsonfreitas/rbcB>

BugReports <https://github.com/wilsonfreitas/rbcB/issues>

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Encoding UTF-8

LazyData true

Imports httr, jsonlite, tibble, xts, xml2, utils

RoxygenNote 6.0.1

Suggests testthat

NeedsCompilation no

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get_all_currencies	<i>All currency values</i>
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Description

Gets all currency values

Usage

```
get_all_currencies(date)
```

Arguments

date	reference date
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Value

A data.frame with all currency values from the given date. The currency rates come quoted in BRL.

Examples

```
get_all_currencies("2017-03-10")
```

get_currency	<i>Get currency values for a given period</i>
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Description

Given a currency symbol and a time interval (in dates) this function returns the bid and ask time series of currency rates.

Usage

```
get_currency(symbol, start_date, end_date, as = c("tibble", "xts",
"data.frame", "text"))
```

Arguments

symbol	currency symbol
start_date	time interval initial date
end_date	time interval last date
as	the object's returning type

The symbol argument is a three digits character which represents one currency. The symbols can be obtained with `list_currencies`. The time series date range is defined by `start_date` and `end_date`.

Value

The time series with the bid and ask currency rates regarding the given symbol quoted in BRL. The default returning is a tibble-fashioned data.frame with the three columns: date, ask and bid. The as argument also accepts data.frame to return old fashioned data frames, xts to return a xts object with two variables (bid and ask) and text which returns the text content download from BCB site.

Examples

```
get_currency("USD", "2017-03-01", "2017-03-10")
```

```
get_currency_cross_rates
```

Get currency matrix from BCB

Description

The currency matrix has the currency cross rates for all currencies present in the BCB system.

Usage

```
get_currency_cross_rates(date, ref = c("ask", "bid"))
```

Arguments

date	reference date
ref	reffers to bid or ask rates (default ask)

date is the reference date by which the currency rates must be downloaded. ref defaults to ask and bid returns all currency cross rates calculated with bid rates.

Value

A square matrix with colnames and rownames filled with currency symbols The cells must be read as ROW in COL, for example, BRL (row) in USD (column) means Brazilian Reals in American Dollars.

Examples

```
x <- get_currency_cross_rates("2017-03-10")
currencies <- c("USD", "BRL", "AUD", "EUR", "CAD")
x[currencies, currencies]
```

get_series	<i>Get the series from BCB</i>
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Description

Get the series from BCB

Usage

```
get_series(code, start_date = NULL, end_date = NULL, last = 0,
           name = NULL, as = c("tibble", "xts", "data.frame", "text"))
```

Arguments

code	series code
start_date	series initial date. Accepts ISO character formatted date and Date.
end_date	series final date. Accepts ISO character formatted date and Date.
last	last items of the series
name	series name to be used in the returning object
as	the returning type: tibble, xts, data.frame

code argument can be obtained in the SGS system site. In this site searches can be executed in order to find out the desired series and use the series code in the code argument.

The arguments start_date, end_date and last are optional. If none of these arguments are set, then the entire time series is downloaded. Define start_date and end_date to download a period of data and to download the last N registers define the last argument to N a positive integer. Once last is provided it overrides the arguments start_date and end_date.

If name argument is set the returning series is properly named, if not the code argument is used. Note that the code is numeric.

Value

tibble is the default returning class, but the argument as can be set to xts, data.frame, or text to return these other types. text returns the JSON data provided by the remote API.

Examples

```
# download the entire series
## Not run: get_series(1)
# download a period of dates
## Not run: get_series(1, start_date = '2016-12-01')
## Not run: x <- get_series(1, start_date = '2016-12-01', end_date = '2016-12-31')
# download the last register
x <- get_series(1, last = 1)
```

list_currencies	<i>List all currencies</i>
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Description

Lists all currencies and presents their name, symbol, numeric code, country name and county numeric code

Usage

```
list_currencies()
```

Value

A data.frame with information of all currencies

Examples

```
list_currencies()
```

rbcdb	<i>R interface to Brazilian Central Bank RESTful API</i>
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Description

The Brazilian Central Bank API delivers many datasets which regard economic activity, regional economy, international economy, public finances, credit indicators and many more. These datasets can be accessed through rbcdb functions and can be obtained in different data structures common to R (tibble, data.frame, xts, ...).

search_series	<i>Search for series in dadosabertos.bcb.gov.br site</i>
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Description

Search for series in dadosabertos.bcb.gov.br site

Usage

```
search_series(q, page = 1)
```

Arguments

q	query string
page	page number to visualize of returning search The page argument defaults to 1 which shows the first page of a returning search. The search results also show the number of pages and the other pages can be showed by changing this argument to the page to be presented.

Value

Display the search results on the screen

Examples

```
search_series("IPCA")
```

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