

Package ‘GetBCBData’

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Type Package

Title Imports Datasets from BCB (Central Bank of Brazil) using Its Official API

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Description Downloads and organizes datasets using BCB's API <<https://www.bcb.gov.br/>>. Offers options for caching with the 'memoise' package and , multicore/multisession with 'furry' and format of output data (long/wide).

Depends R (>= 3.3.0)

Imports stringr,stats, RCurl, lubridate, readr, utils, curl,dplyr, future, furry, jsonlite, memoise, purrr

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BugReports <https://github.com/msperlin/GetBCBData/issues>

URL <https://github.com/msperlin/GetBCBData/>

LazyData true

RoxygenNote 6.1.1

Suggests knitr, rmarkdown, testthat, ggplot2, tidyverse

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gcbcd_get_default_cache_folder
Returns default cache folder

Description

Internal use. Use the same default cache folder for all other functions.

Usage

```
gcbcd_get_default_cache_folder()
```

Value

A path to directory

Examples

```
my.cache.folder <- gcbcd_get_default_cache_folder()
```

gcbcd_get_JSON_fct *Function for switching functions depending on using cache or not*

Description

Internal use. Simply switches a function given a choice for using memoise.

Usage

```
gcbcd_get_JSON_fct(use.memoise = TRUE,  
  cache.path = gcbcd_get_default_cache_folder())
```

Arguments

use.memoise	Logical. Sets the use of caching system - TRUE (default) or FALSE
cache.path	Path to save cache files - 'rbc2_cache' (default)

Value

A JSON function that will use cache or not

Examples

```
fct_get_JSON <- gcbcd_get_JSON_fct()
```

gcbcd_get_series	<i>Imports time series data from BCB-SGS System (Banco Central do Brasil, sistema de series temporais)</i>
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Description

Using BCB's official API at <<https://www.bcb.gov.br/>>, this function will download data for a specific set of ids and dates. The main advantage is the use of caching and parallel computing for fast operations. You can search for available series at <<http://www.bcb.gov.br/?sgs>>

Usage

```
gcbcd_get_series(id, first.date = Sys.Date() - 10 * 365,
  last.date = Sys.Date(), format.data = "long", be.quiet = FALSE,
  use.memoise = TRUE, cache.path = gcbcd_get_default_cache_folder(),
  do.parallel = FALSE)
```

Arguments

id	Id of time series. The name of the vector sets the name of the series in the output (e.g <code>i.d <- c('SELIC' = 11)</code>). You can search for ids in the official BCB-SGS webpage < http://www.bcb.gov.br/?sgs >
first.date	First date of time series
last.date	Last date of time series
format.data	The format of the datasets - long (default, series incremented by rows) or wide (series incremented by columns)
be.quiet	Logical. Should functions output messages to screen? - FALSE (default) or TRUE
use.memoise	Logical. Sets the use of caching system - TRUE (default) or FALSE
cache.path	Path to save cache files - 'rbc2_cache' (default)
do.parallel	Logical for parallel data importation - FALSE (default)

Value

A dataframe with requested datasets

Examples

```
my.id <- c('Taxa de juros - Selic' = 11)
df <- gcbcb_get_series(my.id)
```

gcbcb_get_single_series

Gets a single series from BCB-SGS (internal use)

Description

This function should not be called directly. Its a helper for gcbcb_get_series

Usage

```
gcbcb_get_single_series(id, series.name = paste0("SGS ", id),
  first.date = Sys.Date() - 360, last.date = Sys.Date(),
  format.data = "long", be.quiet = FALSE, use.memoise = TRUE,
  cache.path = gcbcb_get_default_cache_folder())
```

Arguments

id	Id of series from BCB-SGS
series.name	Name of time series
first.date	First date of time series
last.date	Last date of time series
format.data	The format of the datasets - long (default, series incremented by rows) or wide (series incremented by columns)
be.quiet	Logical. Should functions output messages to screen? - FALSE (default) or TRUE
use.memoise	Logical. Sets the use of caching system - TRUE (default) or FALSE
cache.path	Path to save cache files - 'rbc2_cache' (default)

Value

A dataframe for a single series

Examples

```
df <- gcbcb_get_single_series(id = 1)
```

gcbcd_message	<i>Custom function for printing messages</i>
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Description

Custom function for printing messages

Usage

```
gcbcd_message(str.in, be.quiet)
```

Arguments

str.in	Message string
be.quiet	Logical. Should print it or not?

Value

Nothing

Examples

```
gcbcd_message('Test', FALSE)
```

gcbcd_test_internet	<i>Tests for an internet conection</i>
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Description

A helper function that testa and make sure the user has a live internet conection.

Usage

```
gcbcd_test_internet()
```

Value

Logical TRUE/FALSE

Examples

```
inet.flag <- gcbcd_test_internet()
```

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