

Package ‘GetBCBData’

January 21, 2021

Type Package

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

Version 0.6

Date 2021-01-21

Maintainer Marcelo Perlin <marceloperlin@gmail.com>

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 'furr' and format of output data (long/wide).

Depends R (>= 3.3.0)

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

License GPL-2

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

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

LazyData true

RoxygenNote 7.1.1

Suggests knitr, rmarkdown, testthat, ggplot2

VignetteBuilder knitr

Encoding UTF-8

NeedsCompilation no

Author Marcelo Perlin [aut, cre]

Repository CRAN

Date/Publication 2021-01-21 17:40:07 UTC

R topics documented:

gcbcd_get_default_cache_folder	2
gcbcd_get_JSON_fct	2
gcbcd_get_series	3
gcbcd_get_single_series	4
gcbcd_message	5
gcbcd_test_internet	6

Index	7
--------------	----------

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(cache.path = tempdir())
```

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

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 i.d <- c('SELIC' = 11)). 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, cache.path = tempdir())
```

`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

<code>id</code>	Id of series from BCB-SGS
<code>series.name</code>	Name of time series
<code>first.date</code>	First date of time series
<code>last.date</code>	Last date of time series
<code>format.data</code>	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 <- gcbcd_get_single_series(id = 1, cache.path = tempdir())
```

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

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 *Tests for an internet conection*

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()
```

Index

[gcbcd_get_default_cache_folder](#), 2
[gcbcd_get_JSON_fct](#), 2
[gcbcd_get_series](#), 3
[gcbcd_get_single_series](#), 4
[gcbcd_message](#), 5
[gcbcd_test_internet](#), 6