

Package ‘BacenAPI’

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Version 0.3.1

Title Data Collection from the Central Bank of Brazil

Description Provides tools to facilitate the access and processing of data from the Central Bank of Brazil API. The package allows users to retrieve economic and financial data, transforming them into usable tabular formats for further analysis. The data is obtained from the Central Bank of Brazil API: https://api.bcb.gov.br/dados/serie/bcdata.sgs.{series_code}/dados?formato=json&dataInicial={start_date}&dataFinal={end_date}.

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URL <https://github.com/LissandroSousa/BacenAPI.r>

BugReports <https://github.com/LissandroSousa/BacenAPI.r/issues>

Imports httr, httr2, jsonlite, magrittr

Encoding UTF-8

LazyData true

RoxygenNote 7.3.2

NeedsCompilation no

Depends R (>= 3.5)

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bacen_search	<i>Search for Financial Indicators Series Number</i>
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Description

Performs a search for financial indicator series based on a keyword.

Usage

```
bacen_search(keyword)
```

Arguments

keyword	A string containing the search term in Portuguese - BR (e.g., "câmbio", "juros", "Bovespa").
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Value

A data frame with the columns 'Code', 'Full_Name', 'Unit', 'Periodicity', and 'Start_Date' corresponding to the search results.

A data frame with the columns 'Code', 'Full_Name', 'Unit', 'Periodicity', and 'Start_Date' corresponding to the search results.

Examples

```
# Search for indices related to Fortaleza
bacen_search("fortaleza")
```

bacen_series	<i>Retrieve Data from BACEN API</i>
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Description

This function establishes a connection with the Central Bank of Brazil (BACEN) API to retrieve data in JSON format and convert it into a readable format such as a data frame or list. The connection is attempted up to 3 times in case of failure.

Usage

```
bacen_series(urls, httr = TRUE)
```

Arguments

urls	A string containing the BACEN API URL for the desired series.
httr	A logical value. If 'TRUE', the function uses the 'httr' package to connect. If 'FALSE', the function uses the 'httr2' package. Default is 'TRUE'.

Value

Returns the content of the API response converted into an R object (usually a list or data frame), or 'NULL' if the connection fails after 3 attempts.

Examples

```
# Example using the httr package
url <- bacen_url(c('433', '13005'), "01/01/2023", "31/12/2023") # Date format: "dd/mm/yyyy"
bacen_series(url, httr = TRUE)
```

bacen_url

Creation of URLs to Access the Central Bank API

Description

This function generates URLs to access specific time series data provided by the Central Bank of Brazil API.

Usage

```
bacen_url(series, start_date, end_date)
```

Arguments

series	Desired series code(s). Must be a number or a vector of numbers.
start_date	Start date of the period of interest, in the format "dd/mm/yyyy".
end_date	End date of the period of interest, in the format "dd/mm/yyyy".

Value

Returns a vector containing the generated URLs for each provided series.

Examples

```
# Generate a URL for series 433 (IPCA) from 01/01/2003 to 31/12/2023.
bacen_url(433, "01/01/2020", "31/12/2023") # in the format "dd/mm/yyyy"
```

dataset

Financial Indicators Dataset

Description

This dataset contains information on financial indicator series available from BacenAPI.

Usage

dataset

Format

A data frame with multiple rows and 5 columns:

Code (character) The unique series number.

Full_Name (character) The name of the financial series.

Unit (character) The unit of measurement for the data.

Periodicity (character) The frequency of data collection (e.g., daily, monthly, yearly).

Start_Date (Date) The starting date of the series.

Source

Central Bank of Brazil (Bacen)

Examples

```
data("dataset")  
head(dataset)
```

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