

Package ‘brfinance’

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Title Simplified Access to Brazilian Financial and Macroeconomic Data

Version 0.2.1

Description It offers simplified access to Brazilian macroeconomic and financial indicators selected from official sources, such as the 'IBGE' (Brazilian Institute of Geography and Statistics) via the 'SIDRA' API and the 'Central Bank of Brazil' via the 'SGS' API. It allows users to quickly retrieve and visualize data series such as the unemployment rate and the Selic interest rate. This package was developed for data access and visualization purposes, without generating forecasts or statistical results. For more information, see the official APIs: <<https://sidra.ibge.gov.br/>> and <<https://dadosabertos.bcb.gov.br/dataset/>>.

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URL <https://github.com/efram2/brfinance>

BugReports <https://github.com/efram2/brfinance/issues>

Encoding UTF-8

RoxygenNote 7.3.2

Depends R (>= 4.1.0)

Imports dplyr, ggplot2, scales, httr2, lubridate, sidrar, stringr,
janitor

Suggests testthat (>= 3.0.0), rmarkdown

NeedsCompilation no

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Contents

get_selic_rate	2
get_unemployment	2
plot_selic_rate	3
plot_unemployment	4

Index**5**

get_selic_rate	<i>Get daily Brazilian SELIC rate data (annualized, base 252)</i>
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Description

Downloads the daily SELIC rate series (ID 1178) from the Central Bank of Brazil's SGS (Time Series Management System) API. Returns a tidy data frame.

Usage

```
get_selic_rate(start_year, end_year, language = "eng")
```

Arguments

start_year	Starting year (e.g., 2020)
end_year	Ending year (e.g., 2024)
language	Language for column names: "pt" for Portuguese or "eng" (default) for English

Value

A tibble with SELIC rate data between the selected years.

Examples

```
## Not run:  
selic_data <- get_selic_rate(2020, 2024)  
  
## End(Not run)
```

get_unemployment	<i>Retrieve Brazil's quarterly unemployment rate</i>
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Description

Downloads and cleans data from IBGE's Continuous PNAD via SIDRA API.

Usage

```
get_unemployment(start_year, end_year, language = "eng")
```

Arguments

start_year	Starting year (e.g., 2015)
end_year	Ending year (e.g., 2024)
language	Language of labels: "eng" (default) or "pt"

Value

A tibble with columns: date and rate

Examples

```
## Not run:  
data <- get_unemployment(2018, 2024, language = "pt")  
  
## End(Not run)
```

plot_selic_rate

Plot Brazilian SELIC rate (annualized, base 252)

Description

Generates a time series plot of the SELIC interest rate using data from `get_selic()`. The SELIC rate ("Sistema Especial de Liquidação e de Custódia") represents the effective annualized rate (252-business-day basis) for overnight interbank loans and is the main instrument of Brazil's monetary policy.

Usage

```
plot_selic_rate(data, language = "eng")
```

Arguments

<code>data</code>	Tibble returned by <code>get_selic_rate()</code>
<code>language</code>	Language for titles and labels: "pt" (Portuguese) or "eng" (English).

Value

A `ggplot2` object showing the SELIC rate over time.

Examples

```
## Not run:  
# Example 1: English version  
selic_data <- get_selic_rate(2020, 2024)  
selic_plot <- plot_selic_rate(selic_data)  
print(selic_plot)  
  
# Example 2: Portuguese version  
dados_selic <- get_selic_rate(2020, 2024, language = "pt")  
grafico_selic <- plot_selic_rate(dados_selic, language = "pt")  
print(grafico_selic)  
  
## End(Not run)
```

`plot_unemployment` *Plot Brazil's quarterly unemployment rate*

Description

Generates a ggplot2 line chart of unemployment rate in Brazil.

Usage

```
plot_unemployment(data, language = "eng")
```

Arguments

<code>data</code>	Tibble returned by <code>get_unemployment()</code>
<code>language</code>	Language for column names: "pt" for Portuguese or "eng" (default) for English

Value

A ggplot2 object

Examples

```
## Not run:  
# Example 1: English version  
unemployment_data <- get_unemployment(2020, 2024)  
unemployment_plot <- plot_unemployment(unemployment_data)  
print(unemployment_plot)  
  
# Example 2: Portuguese version  
dados_desemprego <- get_unemployment(2020, 2024, language = "pt")  
grafico_desemprego <- plot_unemployment(dados_desemprego, language = "pt")  
print(grafico_desemprego)  
  
## End(Not run)
```

Index

`get_selic_rate`, [2](#)
`get_unemployment`, [2](#)

`plot_selic_rate`, [3](#)
`plot_unemployment`, [4](#)