Package 'GetTDData'

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Title Get Data for Brazilian Bonds (Tesouro Direto)

Version 1.7.2

Description Downloads and aggregates data for Brazilian government issued bonds directly from the website of Tesouro Direto <https://www.tesourodireto.com.br/>.

Depends R (>= 4.1.0)

Imports stringr, readxl, utils, stats, curl, bizdays, tidyr, rvest (>= 1.0.0), xml2, dplyr, fs, cli, ggplot2, tibble, lifecycle

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BugReports https://github.com/msperlin/GetTDData/issues/

URL https://github.com/msperlin/GetTDData/, https://msperlin.github.io/GetTDData/

Encoding UTF-8

Suggests knitr, rmarkdown, testthat, covr

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`get_asset_info` *Returns metadata and information about Tesouro Direto bond types*

Description

Provides metadata for Brazilian government bond types, including their official names, indexers (e.g., IPCA, SELIC, Fixed rate), payment frequency, and description.

Usage

```
get_asset_info(asset_codes = NULL)
```

Arguments

`asset_codes`	Optional character vector of asset codes (e.g. 'LTN', 'NTN-B'). If 'NULL', returns info for all assets.

Value

A tibble with asset metadata.

Examples

```
get_asset_info()
get_asset_info("LTN")
```

`get_cache_folder` *Returns the cache directory path*

Description

Returns the cache directory path

Usage

```
get_cache_folder(persistent = getOption("GetTDData.persistent_cache", FALSE))
```

Arguments

`persistent`	Logical. If 'TRUE', uses a user-persistent directory via 'tools::R_user_dir'. If 'FALSE', defaults to session temporary directory. Can also be set globally via 'options(GetTDData.persistent_cache = TRUE)'. Defaults to 'FALSE'.

Value

A character string representing the folder path.

Examples

```
get_cache_folder()
```

`get_td_names` *Returns the available asset names at the Tesouro Direto (TD) website*

Description

Returns the available asset names at the Tesouro Direto (TD) website

Usage

```
get_td_names(online = FALSE)
```

Arguments

`online`	Logical. If 'TRUE', attempts to query the Tesouro Direto CDN server for live asset names. Defaults to 'FALSE'.

Value

A character vector of names.

Examples

```
get_td_names()
```

`get_yield_curve` *Gets the current yield curve*

Description

Downloads and parses information about the current Brazilian yield curve from Anbima.

Usage

```
get_yield_curve()

get.yield.curve()
```

Value

A data frame with information about the yield curve.

Examples

```
## Not run:
df_yield <- get_yield_curve()
str(df_yield)

## End(Not run)
```

`plot_td_series` *Plot Tesouro Direto Time Series Data*

Description

Plots price or yield time series trajectories for Tesouro Direto assets downloaded using `td_get`.

Usage

```
plot_td_series(df_td, type = c("price", "yield"))
```

Arguments

`df_td`	A data frame or tibble returned by `td_get`.
`type`	Character string indicating what to plot: `"price"` (price_bid) or `"yield"` (yield_bid). Defaults to `"price"`.

Value

A `ggplot` object.

Examples

```
## Not run:
df_td <- td_get("LTN", 2020, 2022)
plot_td_series(df_td, type = "price")

## End(Not run)
```

plot_yield_curve *Plot the ANBIMA Yield Curve*

Description

Plots the yield curve data frame downloaded using `get_yield_curve`.

Usage

```
plot_yield_curve(df_yc)
```

Arguments

`df_yc`	A data frame or tibble returned by `get_yield_curve`.

Value

A `ggplot` object.

Examples

```
## Not run:
df_yc <- get_yield_curve()
plot_yield_curve(df_yc)

## End(Not run)
```

td_get *Downloads data for Brazilian government bonds directly from the website*

Description

‘r lifecycle::badge("deprecated")‘

Usage

```
td_get(
  asset_codes = "LTN",
  first_year = 2005,
  last_year = as.numeric(format(Sys.Date(), "%Y")),
  dl_folder = get_cache_folder()
)
```

Arguments

asset_codes	A character vector identifying the assets (one or more) in the names of the Excel files (e.g., 'LTN'). If 'NULL', downloads all available assets.
first_year	The first year of data (minimum of 2005).
last_year	The last year of data.
dl_folder	Path of the folder to save Excel files from Tesouro Direto (will create if it does not exist). Defaults to a session-temporary directory. To avoid redownloading files across different R sessions, you can pass a persistent path (e.g., a local folder path, or using tools::R_user_dir("GetTDData", which = "cache")).

Details

This function looks into the Tesouro Direto website (<https://www.tesourodireto.com.br/>) and downloads all files containing prices and yields of government bonds. You can use the input 'asset_codes' to restrict the downloads to specific bonds.

Due to the closure of the Tesouro Direto data application in August 2026, 'td_get()' is deprecated and resulting data will only go as far as August 2026. Users should use td_get2, which retrieves the same data from the Tesouro Transparente CKAN portal.

Value

A data frame containing the asset data (prices and yields).

Examples

```
## Not run:
df_td <- td_get("LTN", 2020, 2022)

## End(Not run)
```

---

td_get2 *Downloads data for Brazilian government bonds from Tesouro Transparente (CKAN)*

Description

This function downloads historical prices and yields of Brazilian government bonds directly from the Tesouro Transparente CKAN open data portal (<https://www.tesourotransparente.gov.br/ckan/dataset/taxas-dos-titulos-ofertados-pelo-tesouro-direto/>). It serves as the modern replacement for td_get, which relied on the legacy Tesouro Direto application shut down in August 2026.

Usage

```
td_get2(
  asset_codes = "LTN",
  first_year = 2005,
  last_year = as.numeric(format(Sys.Date(), "%Y")),
  dl_folder = get_cache_folder(),
  force_download = FALSE,
  dataset_url = get_default_ckan_url()
)
```

Arguments

asset_codes	A character vector identifying the assets to download (e.g., 'LTN', 'NTN-B', 'LFT', 'NTN-B Principal', 'NTN-F', 'NTN-C', 'NTN-B1', 'Educa+', 'RendA+'). You can also pass official names such as 'Tesouro Prefixado', 'Tesouro Selic', etc. If 'NULL', downloads all available assets. Defaults to 'LTN'.
first_year	The first year of data (minimum of 2005). Defaults to 2005.
last_year	The last year of data. Defaults to the current year.
dl_folder	Path of the folder to save data files from Tesouro Transparente. Defaults to get_cache_folder().
force_download	Logical. If 'TRUE', forces redownloading the data even if a cached version from today is present. If the download fails, the existing cache is used as a fallback. Defaults to 'FALSE'.
dataset_url	The URL to the CKAN dataset page, a direct CSV file link, or the path to a local CSV file with the same layout. Defaults to "https://www.tesourotransparente.gov.br/ckan/dataset/taxas-dos-titulos-ofertados-pelo-tesouro-direto/".

Details

The downloaded file is validated before it replaces any cached copy: error pages and incomplete downloads are rejected instead of being silently parsed as an empty data set. Parsed data is cached in dl_folder as an RDS file for the rest of the day. The cache is only reused when it was produced from the same dataset_url.

Value

A tibble (data frame) containing the asset data:

ref_date Reference date (Date)

yield_bid Annual purchase yield / rate in decimal format (numeric, e.g. 0.1183 for 11.83%)

price_bid Unit purchase price in BRL (numeric)

asset_code Standard bond identifier (character, e.g. 'LTN 010123')

matur_date Maturity date of the bond (Date)

Examples

```
## Not run:
df_td <- td_get2("LTN", 2020, 2022)
head(df_td)

## End(Not run)
```

`td_get_current` *Returns current TD prices and yields*

Description

Fetches current prices and yields of Tesouro Direto (TD) assets by downloading the latest daily data available from the website.

Usage

```
td_get_current(asset_codes = NULL, dl_folder = get_cache_folder())
```

Arguments

`asset_codes`	A character vector identifying the assets (e.g., 'LTN', 'NTN-B'). If 'NULL', returns all available assets.
`dl_folder`	Path of the folder to save files. Defaults to a session-temporary directory.

Value

A tibble with current asset prices, yields, and maturity dates.

Examples

```
## Not run:
df_current <- td_get_current()
head(df_current)

## End(Not run)
```

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