Package 'treasury'

March 21, 2026

Title Client for US Treasury XML Feed and Published Data

Version 0.5.0

Description Download daily interest rates from the US Treasury XML feed.
Leveraging
<<https://home.treasury.gov/treasury-daily-interest-rate-xml-feed>>,
this package serves as a wrapper, facilitating the retrieval of daily
treasury rates across various categories, including par yield curves,
treasury bills, long-term rates, and real yield curves.

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URL <https://m-muecke.github.io/treasury/>,
<https://github.com/m-muecke/treasury>

BugReports <https://github.com/m-muecke/treasury/issues>

Depends R (>= 4.1.0)

Imports curl, data.table (>= 1.16.0), httr2 (>= 1.0.0), xml2

Suggests ggplot2, readxl, scales, testthat (>= 3.0.0)

Config/testthat/edition 3

Encoding UTF-8

RoxygenNote 7.3.3

NeedsCompilation no

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Repository CRAN

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tr_bill_rate   *Daily treasury bill rates*

Description

These rates are the daily secondary market quotations on the most recently auctioned Treasury Bills
for each maturity tranche (4-week, 8-week, 13-week, 17-week, 26-week, and 52-week) for which
Treasury currently issues new bills.

Usage

```
tr_bill_rate(date = NULL)

tr_bill_rates(date = NULL)
```

Arguments

date   (NULL | character(1) | numeric(1))
                    Date in format yyyy or yyyymm. If NULL, all data is returned. Default NULL.

Details

Market quotations are obtained at approximately 3:30 PM each business day by the Federal Reserve
Bank of New York. The Bank Discount rate is the rate at which a bill is quoted in the secondary
market and is based on the par value, amount of the discount and a 360-day year. The Coupon
Equivalent, also called the Bond Equivalent, or the Investment Yield, is the bill's yield based on
the purchase price, discount, and a 365- or 366-day year. The Coupon Equivalent can be used to
compare the yield on a discount bill to the yield on a nominal coupon security that pays semiannual
interest with the same maturity date.

Value

A `data.table::data.table()` containing the rates or NULL when no entries were found.

Deprecated functions

`tr_bill_rates()` has been deprecated and will be removed in a future version. Please use `tr_bill_rate()`
instead.

Source

https://home.treasury.gov/treasury-daily-interest-rate-xml-feed

See Also

Other interest rate: [tr_long_term_rate()](), [tr_real_long_term()](), [tr_real_yield_curve()](),
[tr_yield_curve()]()

Examples

```
# get data for a single month
tr_bill_rate("202201")
# or for the entire year
tr_bill_rate(2022)
```

---

tr_cache_dir   *Get or manage the treasury API cache*

Description

tr_cache_dir() returns the path where cached API responses are stored. tr_cache_clear()
clears all cached responses.

Usage

```
tr_cache_dir()

tr_cache_clear()
```

Details

The cache is only used when enabled with options(treasury.cache = TRUE). Cached responses
are stored for 1 day by default, but this can be customized with options(treasury.cache_max_age
= seconds).

Value

- tr_cache_dir(): A string with the path to the cache directory.

- tr_cache_clear(): No return value, called for side effects.

Examples

```
tr_cache_dir()
```

---

tr_curve_rate *Download Treasury Coupon Issues and Corporate Bond Yield Curves*

Description

The Yield Curve for Treasury Nominal Coupon Issues (TNC yield curve) is derived from Treasury nominal notes and bonds. The Yield Curve for Treasury Real Coupon Issues (TRC yield curve) is derived from Treasury Inflation-Protected Securities (TIPS). The Treasury Breakeven Inflation Curve (TBI curve) is derived from the TNC and TRC yield curves combined.

Usage

```
tr_curve_rate(
  x = c("hqm", "tnc", "trc", "tbi"),
  type = c("monthly", "end-of-month"),
  year = NULL
)

tr_par_yield(x = c("hqm", "tnc", "trc"), type = c("monthly", "end-of-month"))

tr_par_yields(x = c("hqm", "tnc", "trc"), type = c("monthly", "end-of-month"))

tr_forward_rate(
  x = c("tnc", "trc", "tbi"),
  type = c("monthly", "end-of-month")
)
```

Arguments

x	(character(1))
	One of the following options:

- `"hqm"`: The Treasury High Quality Market (HQM) Corporate Bond Yield Curve.
- `"tnc"`: The Treasury Nominal Coupon-Issue (TNC) Yield Curve.
- `"trc"`: The Treasury Real Coupon-Issue (TRC) Yield Curve.
- `"tbi"`: The Treasury Breakeven Inflation (TBI) Curve.

type	(character(1))
	Either `"monthly"` or `"end-of-month"`. Default is `"monthly"`.
year	(NULL	integer(1))
	Year to download. Default is `NULL`. If `NULL`, then all available years are downloaded.

Value

A [data.table::data.table()](#) containing the treasury rates.

Deprecated functions

tr_par_yields() has been deprecated and will be removed in a future version. Please use tr_par_yield()
instead.

Source

https://home.treasury.gov/data/treasury-coupon-issues-and-corporate-bond-yield-curves

Examples

```
## Not run:
# TBI Treasury Curve Breakeven Rates
tr_curve_rate("tbi")
tr_curve_rate("trc", "end-of-month", 2024L)
# TRC Treasury Yield Curve Par Yields, Monthly Average
tr_par_yield("trc")
# TNC Treasury Yield Curve Forward Rates, End of Month
tr_forward_rate("tnc", "end-of-month")

## End(Not run)
```

---

tr_long_term_rate   *Daily treasury long-term rates*

Description

Treasury ceased publication of the 30-year constant maturity series on February 18, 2002 and re-
sumed that series on February 9, 2006. To estimate a 30-year rate during that time frame, this series
includes the Treasury 20-year Constant Maturity rate and an "adjustment factor," which may be
added to the 20-year rate to estimate a 30-year rate during the period of time in which Treasury did
not issue the 30-year bonds.

Usage

```
tr_long_term_rate(date = NULL)
```

Arguments

date   (NULL | character(1) | numeric(1))
                Date in format yyyy or yyyymm. If NULL, all data is returned. Default NULL.

Value

A data.table::data.table() containing the rates or NULL when no entries were found.

Source

https://home.treasury.gov/treasury-daily-interest-rate-xml-feed

See Also

Other interest rate: `tr_bill_rate()`, `tr_real_long_term()`, `tr_real_yield_curve()`, `tr_yield_curve()`

Examples

```
# get data for a single month
tr_long_term_rate("202212")
# or for the entire year
tr_long_term_rate(2022)
```

---

tr_real_long_term   *Daily treasury real long-term rate averages*

Description

The Long-Term Real Rate Average is the unweighted average of bid real yields on all outstanding TIPS with remaining maturities of more than 10 years and is intended as a proxy for long-term real rates.

Usage

```
tr_real_long_term(date = NULL)
```

Arguments

date   (NULL | character(1) | numeric(1))
                Date in format yyyy or yyyymm. If NULL, all data is returned. Default NULL.

Value

A `data.table::data.table()` containing the rates or NULL when no entries were found.

Source

https://home.treasury.gov/treasury-daily-interest-rate-xml-feed

See Also

Other interest rate: `tr_bill_rate()`, `tr_long_term_rate()`, `tr_real_yield_curve()`, `tr_yield_curve()`

Examples

```
## Not run:
# get data for a single month
tr_real_long_term("202201")
# or for the entire year
tr_real_long_term(2022)

## End(Not run)
```

tr_real_yield_curve *Daily treasury par real yield curve rates*

Description

The par real curve, which relates the par real yield on a Treasury Inflation Protected Security (TIPS) to its time to maturity, is based on the closing market bid prices on the most recently auctioned TIPS in the over-the-counter market. The par real yields are derived from input market prices, which are indicative quotations obtained by the Federal Reserve Bank of New York at approximately 3:30 PM each business day. Treasury began publishing this series on January 2, 2004. At that time Treasury released 1 year of historical data.

Usage

```
tr_real_yield_curve(date = NULL)
```

Arguments

date   (NULL | character(1) | numeric(1))
            Date in format yyyy or yyyymm. If NULL, all data is returned. Default NULL.

Value

A data.table::data.table() containing the rates or NULL when no entries were found.

Source

<https://home.treasury.gov/treasury-daily-interest-rate-xml-feed>

See Also

Other interest rate: tr_bill_rate(), tr_long_term_rate(), tr_real_long_term(), tr_yield_curve()

Examples

```
# get data for a single month
tr_real_yield_curve("202201")
# or for the entire year
tr_real_yield_curve(2022)
```

---

tr_yield_curve   *Daily treasury par yield curve rates*

Description

This par yield curve, which relates the par yield on a security to its time to maturity, is based on the closing market bid prices on the most recently auctioned Treasury securities in the over-the-counter market. The par yields are derived from input market prices, which are indicative quotations obtained by the Federal Reserve Bank of New York at approximately 3:30 PM each business day.

Usage

```
tr_yield_curve(date = NULL)
```

Arguments

date   (NULL | character(1) | numeric(1))
                    Date in format yyyy or yyyymm. If NULL, all data is returned. Default NULL.

Value

A `data.table::data.table()` containing the rates or NULL when no entries were found.

Source

https://home.treasury.gov/treasury-daily-interest-rate-xml-feed

See Also

Other interest rate: `tr_bill_rate()`, `tr_long_term_rate()`, `tr_real_long_term()`, `tr_real_yield_curve()`

Examples

```
# get data for a single month
tr_yield_curve("202201")
# or for the entire year
tr_yield_curve(2022)
```

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