Package: treasury (via r-universe)

October 9, 2026

Title Client for US Treasury XML Feed and Published Data

Version 0.7.0.9000

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. In addition, it provides access to the monthly published yield curve datasets, including the High Quality Market (HQM) corporate bond yield curve and the Treasury nominal and real coupon-issue (TNC, TRC) and breakeven inflation (TBI) 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

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Contents

tr_bill_rate 2
tr_cache_dir 3
tr_curve_rate 4
tr_long_term_rate 5
tr_real_long_term 6
tr_real_yield_curve 7
tr_yield_curve 8

Index **9**

`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 for which Treasury currently issues new bills. The tranches offered change over time, so the maturities returned depend on the requested `date`.

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.

The `maturity_date` and `cusip` columns give the maturity date and CUSIP of the specific bill quoted for each maturity tranche.

Value

A data.table::data.table() containing the rates, or NULL when no entries were found. The updated_at column gives the feed's last update time as a POSIXct (UTC).

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()` returns a string with the path to the cache directory.

`tr_cache_clear()` is called for its side effect of clearing the cached responses and returns `NULL` invisibly.

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. The earliest year available depends on x: 1978 for "tnc", 1984 for "hqm", and 2003 for "trc" and "tbi".

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 resumed 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. The adjustment factor is returned in the extrapolation_factor column and is NA outside of that period.

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. The updated_at column gives the feed's last update time as a POSIXct (UTC).

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. The updated_at column gives the feed's last update time as a POSIXct (UTC).

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. The updated_at column gives the feed's last update time as a POSIXct (UTC).

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. The updated_at column gives the feed's last update time as a POSIXct (UTC).

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)
```

Index

∗ **interest rate**
    tr_bill_rate, 2
    tr_long_term_rate, 5
    tr_real_long_term, 6
    tr_real_yield_curve, 7
    tr_yield_curve, 8
∗ **yield curve**
    tr_curve_rate, 4

data.table::data.table(), *3*, *5–8*

tr_bill_rate, 2
tr_bill_rate(), *3*, *6–8*
tr_bill_rates *(*tr_bill_rate*)*, 2
tr_bill_rates(), *3*
tr_cache_clear *(*tr_cache_dir*)*, 3
tr_cache_dir, 3
tr_curve_rate, 4
tr_forward_rate *(*tr_curve_rate*)*, 4
tr_long_term_rate, 5
tr_long_term_rate(), *3*, *7, 8*
tr_par_yield *(*tr_curve_rate*)*, 4
tr_par_yield(), *5*
tr_par_yields *(*tr_curve_rate*)*, 4
tr_par_yields(), *5*
tr_real_long_term, 6
tr_real_long_term(), *3*, *6*, *8*
tr_real_yield_curve, 7
tr_real_yield_curve(), *3*, *6–8*
tr_yield_curve, 8
tr_yield_curve(), *3*, *6–8*