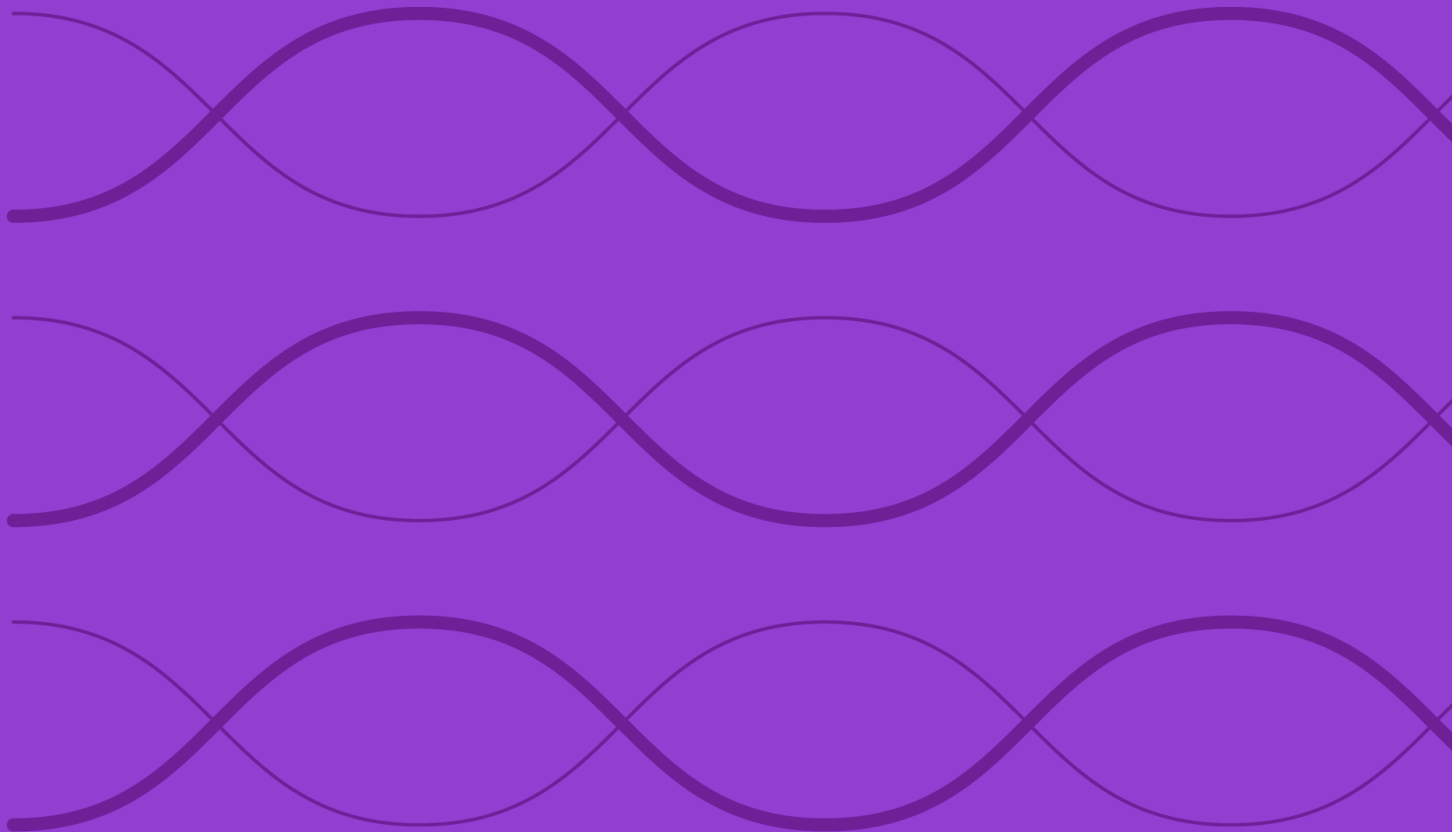


Construction Rules for the Morningstar US 10-Year Treasury Note Futures Index



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Overview

The Morningstar US 10-Year Treasury Note Futures Index is designed to track the performance of 10-year US Treasury Note Futures. It maintains a continuous rolling long position in a single CME 10-year US Treasury Note Futures contract.

This index does not incorporate environmental, social, or governance criteria.

Index Inception and Performance Start Date

The inception date of the index is Aug 17, 2023, and the performance inception date of the Index is Jun 01, 2006, when the first back-tested index value was calculated.

Index Construction

Security Selection

The Morningstar US 10-Year Treasury Note Futures Index is a single contract futures index. It holds one CME 10-year US Treasury Futures Contract at any point of time, known as the Constituent Contract. The Constituent Contract can either be the contract closest to its expiry (Near Month Futures Contract) or the contract that expires immediately after the Near Month Futures Contract, which is known as the Far Month Futures Contract.

Refer to the Index Maintenance section for more details on rolling from the Near Month Futures Contract to the Far Month Futures Contract.

Index Weighting

The index is a single-contract index with 100% weight in the Constituent Contract.

Index Maintenance and Calculation

Scheduled Maintenance

Index files are published according to the CME calendar schedule.

CME 10-year US Treasury Futures contracts have quarterly expirations as of the last business day of March, June, September, and December. To avoid settlement, the futures contract due to expire next month is replaced with a contract with a longer term. This is called a “roll-over”.

The which is the last business day of the month preceding the expiry month of the Constituent Contract.

Index reconstitution, where the Constituent Contract is rolled from the Near Month Futures Contract into the Far Month Futures Contract on ‘Roll-day’, is implemented quarterly after the close of business on the last business day of February, May, August and November and is effective the following business day (first business day of March, June, September and December respectively). The business day following the roll-day is the ‘Roll-effective day’. It is on this day that the Far Month Futures Contract becomes the new Constituent Contract. Business days other than Roll-day constitute a “non-roll period”.

Rollover example:

- The rollover that involves the index's Constituent Contract rolling over from the March 2022 futures contract (Near Month Futures Contract) to June 2022 futures contract (Far Month Futures Contract) takes place on the last business day of February 2022, which is the month preceding the month of expiry of the Constituent Contract (March 2022 futures contract).
- The rollover is carried out using the settlement prices of the CME US 10-year Treasury Futures published on the Roll-day (28 February 2022). Refer to Appendix 1 for details on official settlement price.

Index Calculation

Excess Return Index Calculation

The excess return of the index is calculated from the change in price of the Constituent Contract. On a business day 't', the level of the index is calculated in the following manner:

$$ER_t = ER_{t-1} * (1 + DRCC_t)$$

Where:

ER_t	=	The Excess Return index level on the business day
ER_{t-1}	=	The Excess Return index level on the business day preceding the business day of calculation
DRCC	=	Daily Return of the Constituent Contract as on the business day of calculation

Daily Return of the Constituent Contract (DRCC) calculation

The Daily Return of the Constituent Contract is calculated as follows:

$$\text{Daily Return of the Constituent Contract (DRCC}_t) = \frac{CCP_t}{CCP_{t-1}} - 1$$

Where:

CCP_t	=	Settlement price as on 't' of the Constituent Contract
CCP_{t-1}	=	Daily Return of the Constituent Contract as on the business day of calculation

Please refer to Appendix 2 to understand how the Daily Return of the Constituent Contract (DRCC) is calculated on the roll-day.

Total Return Index Calculation

$$TR_t = TR_{t-1} * (1 + IndexTR_t)$$

Where:

TR_t	=	Total Return index level on the business day
TR_{t-1}	=	Total Return index level on the business day preceding the business day of calculation
$IndexTR_t$	=	Excess return from holding the Constituent Contract

For a funded investment, risk free return is included in the total return between dates 't-1' and 't':

$$\text{IndexTR}_t = (1 + DRCC_t + \text{RiskFreeRate}_t) * (1 + \text{RiskFreeRate}_t)^{\text{Delta}_t}$$

Where:

$$\text{Delta}_t = \text{number of non-business days since the previous business day}$$

$$\text{RiskFreeRate}_t = (1 + \text{Annualized RFR}_{t-1})^{1/365} - 1$$

Where:

$$\text{Annualized RFR} = \text{the annualized 91-day US Treasury Bill rate}$$

Market Disruptions during the roll period

Situations where no trading is possible due to unforeseen events are called market disruptions. If a market disruption happens on the roll day and we do not have a settlement price for the contract on the roll day, the roll will take place on the roll day using the settlement price of the previous business day.

Sources of Data

The calculation of the index only uses the official settlement prices in the underlying CME U.S 10-year Treasury Note Futures contract. Refer to Appendix 1 for details on official settlement price.

Methodology Review and Index Decommissioning Policy

The index methodology is continually reviewed to ensure it achieves all stated objectives. These reviews consider corporate action treatment, selection, and maintenance procedures. Subscribers to the index will be notified before any methodology changes are made. For more details, refer to the [Morningstar Index Methodology Change Policy](#).

Morningstar Indexes notifies all subscribers and stakeholders of the index that circumstances might arise that require a material change to, or a possible cessation of, the index. These circumstances are generally not within Morningstar's control and may include significant changes to the underlying market structure, inadequate access to necessary data, geo-political events, and regulatory changes. In addition, factors such as low usage or methodology convergence may result in the cessation of an index.

Because the cessation of the index or benchmark index could disrupt subscriber products that reference this index, all subscribers are encouraged to have robust fallback procedures if an index is terminated. For more details, refer to the [Morningstar Index Decommissioning Policy](#).

Data Correction and Precision

Intraday Index Data Corrections

Commercially reasonable efforts are made to ensure the accuracy of data used in real-time index calculations. If incorrect price or corporate action data affects index calculations, corrections are applied prospectively.

Index-Related Data and Divisor Corrections

Incorrect pricing and corporate action data for individual issues in the database will be corrected upon detection. In addition, an incorrect divisor of an index, if discovered if discovered within two days of its occurrence will be fixed retroactively on the day it is discovered to prevent an error from being carried forward. Commercially reasonable efforts are made to correct an older error subject to its significance and feasibility.

For more details, refer to the [Recalculation Guidelines](#).

Exceptions

While Morningstar will seek to apply the method described above, the market environment, supervisory, legal, financial, or tax reasons may require an alternative approach to be adopted. A decision to take an alternative approach will be made by the relevant Morningstar Indexes Methodology Committee, and in all instances, the application of a nonstandard process will be reported to the Morningstar Indexes Oversight Committee.

Appendixes

Appendix 1: Settlement prices and trading hours

US Treasury Futures begin trading on CME Globex at 5:00 p.m. CT and will trade through the next day until 4:00 p.m. CT. However, the daily settlement price is established by CME Group staff based on trading activity on CME Globex between 01:59:30 p.m. and 2:00 p.m. CT.

Appendix 2: DRCC Roll-day calculation.

Let us consider the previous example in the rulebook where we roll from the March 2022 contract into the June 2022 contract on February 28, 2022. Here, we have the hypothetical price data for the March 2022 contract and June 2022 contract.

Date	March Contract price	June Contract Price	Constituent Contract
26-Feb-2022 (non-roll day)	100.00	101.00	March 2022
27-Feb-2022 (non-roll day)	100.25	101.50	March 2022
28-Feb-2022 (roll-day)	100.50	101.75	March 2022
01-Mar-2022 (roll-effective day)	100.75	102.00	June 2022

The DRCC would be calculated on the above dates as follows:

1. Non-roll day - 27 Feb:

$$DRCC_t = (100.25/100.00) - 1$$

2. Roll-day - 28 Feb:

$$DRCC_t = (100.50/100.25) - 1$$

3. Roll-effective Day – 1 Mar:

$$DRCC_t = (102.00/101.75) - 1$$

Appendix 3: Modifications to the Rulebook

Section	Description of Change	Update Date
Entire Rulebook	Minor formatting changes Computational and Reporting Precision Section removed	May 2025

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Morningstar Index Methodology Committee

The Morningstar Index Methodology Committee oversees all new indexes development, index methodology changes, and cessation of indexes for any indexes where Morningstar owns the Intellectual Property. This committee is also charged with ensuring that indexes align with Morningstar Research principles and values. The group is comprised of members of the index team with index research, product development, product management, client service, index implementation and operation expertise who provide the first layer of governance over index design and methodology.

Morningstar Index Operations Committee

The Morningstar Index Operations Committee governs the processes, systems and exception handling of the day-to-day management of all live indexes, including index rebalancing and reconstitution, restatements, market classification and contingency management. The committee oversees the annual review of index methodology (as required by UK & EU Benchmark Regulations “BMR”), ensuring methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group is comprised of members of the index team with data, operations, corporate actions, product development, index launch, client service and index management experience who provide the first layer of governance over index operations.

Morningstar Index Oversight Committee

The Morningstar Index Oversight Committee is responsible for the index oversight function as per the requirements of the UK & European BMR--providing independent oversight of all aspects of the governance of benchmark administration as required by the relevant BMR. Its remit extends to all calculation and administration-related business activities of Morningstar Indexes including administration of Morningstar-owned benchmarks as well as client-owned benchmarks and index calculation. The oversight function is part of the organizational structure of Morningstar but is separate and independent from the Index business, Index Management and the other Index Committees.

www.indexes.morningstar.com

Contact Us

indexes@morningstar.com

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