

**S&P Dow Jones  
Indices**

A Division of **S&P Global**

# **Short iBoxx \$ Treasuries Total Return Index Methodology**

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# 1 Short iBoxx \$ Treasuries Total Return Indices

This document details the technical calculation of the Short iBoxx \$ Treasuries Total Return Indices.

The index measures the performance of holding a short position in the iBoxx \$ Treasuries Index (hereafter referred to as the “underlying index”) and a long position in the US Effective Fed Funds and repo rate respectively.

The returns from U.S. Effective Fed Funds and the repo rate stem from the fact that the indices are long funding from investors’ subscriptions and the funding received from holding short positions in the constituent bonds of the indices. This means that the fund can invest twice the funding in the money market. In addition to the two rates, the index also captures the rebalancing cost relating to the bid-ask spread of the underlying index.

# 2 Index calculation

## 2.1 Index Calculation Short iBoxx \$ Treasuries Total Return Index

The indices calculate daily, for each day on which a U.S. Effective Fed Funds rate is officially published and the underlying bond index is published. The daily returns for the indices calculate as follows:

$$t^{Daily} = \left( \frac{TR_t^{underlyingindex}}{TR_{t-1}^{underlyingindex}} - 1 \right) + \left( r_{t-1}^{FloatingRate} + r_{t-1}^{Repo} \right) \frac{days(t-1, t)}{360}$$

The corresponding index levels calculate as follows:

$$TR_t^{ShortiBoxx} = \left( 1 + tr_t^{daily} \right) \times TR_{t-1}^{ShortiBoxx}$$

where:

$r_{t-1}^{FloatingRate}$	U.S. Effective Fed Funds Rate on day $t-1$
$days(t-1, t)$	Number of calendar days between $(t-1)$ and $t$ , including $t$ but excluding $(t-1)$
$r_{t-1}^{Repo}$	Assumed repo rate on day $(t-1)$
$t$	Calculation day $t$
$(t-1)$	Calculation day $(t-1)$
$tr_t^{Daily}$	Daily return of the Short Markit iBoxx Index on day $t$
$TR_t^{underlyingindex}$	Total return index level of underlying index on day $t$
$TR_t^{ShortiBoxx}$	Index level of the Short Markit iBoxx Index on day $t$

## 2.2 Other input factors

**U.S. Effective Fed Funds Rate:** The U.S. Overnight Average as published by the Federal Reserve.

**Repo rate:** The assumed repo rate is the U.S. Effective Fed Funds Rate – COST\_repo %. The COST\_repo rate is published on <https://www.spglobal.com/en/>.

## 2.3 Publication of the index

The Short iBoxx \$ Treasuries Total Return Index calculates end-of-day and distributes once daily after the close of U.S. markets.

Bond and index analytical values calculate end of day Monday to Friday using that day's closing prices. In addition, bond and index analytical values calculate using the previous trading day's closing prices on the last calendar day of each month if that day is not a regular trading day as well as on common bank

holidays as published in the iBoxx index calculation calendar. The index calculation calendar is available on <https://www.spglobal.com/spdji/en/> under iBoxx Indices Calendars. Index data is also available from the main information vendors.

Closing index values and key statistics are published at the end of each calculation day in the Indices section on <https://www.spglobal.com/spdji/en/> for registered users.

## 2.4 Data publication and access

The table below summarizes the publication of Short iBoxx \$ Treasuries Total Return Indices in the *Indices* section of the webpage for registered users and on the FTP server.

Frequency	File Type	Access
Daily	Indices file – Index level	IHS Markit FTP Server / IHS Markit website / Bloomberg for index levels only

The index identifiers for the publication channels are:

Index Name	Short iBoxx \$ Total Return Index
Return Type	TRI
ISIN	GB00B5ZW4D62

## 3 Governance and regulatory compliance

IHS Markit Benchmark Administration Limited (IMBA UK) is the Index Administrator of iBoxx indices. Information on IMBA UK's governance and compliance approach can be found [here](#). This document covers:

- Governance arrangements
- Input data integrity
- Conflicts of interest management
- Market disruption and Force Majeure
- Methodology changes and cessations
- Complaints
- Errors and restatements
- Reporting of infringements and misconduct
- Methodology reviews
- Business continuity

More details about IMBA UK can be found on the [Administrator's website](#).

## 4 Further information

### **Client support**

For client support please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com).

### **Formal complaints**

Formal complaints should be emailed to [spdji\\_compliance@spglobal.com](mailto:spdji_compliance@spglobal.com).

Please note: [spdji\\_compliance@spglobal.com](mailto:spdji_compliance@spglobal.com) should only be used to log formal complaints.

### **General index inquiries**

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# A ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY [1]		
1	Name of the benchmark administrator.	IHS Markit Benchmark Administration Limited (IMBA)
2	Underlying asset class of the ESG benchmark. [2]	N/A
3	Name of the S&P Dow Jones Indices benchmark or family of benchmarks.	<a href="#">iBoxx Benchmark Statement</a>
4	Do any of the indices maintained by this methodology take into account ESG factors?	No
Appendix latest update:		April 2024
Appendix first publication:		April 2024

[1] The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK (The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019).

[2] The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

# Disclaimer

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Where applicable, S&P Dow Jones Indices and its index-related affiliates (“S&P DJI”) defines various dates to assist our clients by providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index’s Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company’s public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed “Date of introduction”) is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index’s public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index’s launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

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