



# BIST SUSTAINABILITY THEMED DEBT SECURITIES INDICES METHODOLOGY

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## 1. INTRODUCTION AND PURPOSE

### 1.1. Purpose

BIST Sustainability Themed Debt Securities Indices were created to measure the daily returns of debt securities that qualify as "Sustainable Debt Security" or "Green Debt Security" with the approval of the CMB in accordance with the conditions specified in the scope of "Guidelines on Green Debt Instruments, Sustainable Debt Instruments, Green Lease Certificates and Sustainable Lease Certificates " of the CMB.

#### ~~1.1.1.2.~~ IntroductionAdministration

Borsa İstanbul is the owner of the intellectual property rights of ~~has full control over~~ all indices calculated under this Methodology and as the administrator with full control, is responsible for all processes related to the creation, calculation and publication of these indices and their compliance with the "Principles for Financial Benchmarks" of the International Organization of Securities Commissions (IOSCO). Information on the compliance of the Financial Benchmarks calculated by Borsa İstanbul with the principles of IOSCO can be accessed from the Borsa İstanbul corporate website, [Indices - Compliance with IOSCO Principles](#) page. Borsa İstanbul Index Directorate carries out the works and operations to ensure the continuity of BIST Sustainability Themed Debt Securities Indices.

Lists of constituent securities in the indices are determined and used in the index calculations by Borsa İstanbul according to the Methodology. If the securities to be included in the indices cannot be determined due to lack of data or in case of unusual market conditions, the indices continue to be calculated with the current list. In case of the absence of any constituent for any of indices, indices are continued with the latest recorded value.

#### ~~1.1.1.1.2.1.~~ Financial Benchmarks Committee

Financial Benchmarks Committee formed and appointed by Borsa İstanbul for the sake of development of opinions and proposals on all and any issues that may be included in the scope of control and oversight of Financial Benchmarks, in order to perform the control and oversight functions described in Article 8 "Control Framework" and Article 9 "Internal Oversight" of Borsa İstanbul A.Ş. Directive on Financial Benchmarks Compliant with IOSCO Principles.

Financial Benchmarks Committee provides governance and internal oversight in regarding all aspects of Financial Benchmark determination activity. Duties and responsibilities of the Financial Benchmarks Committee are basically comprised of determination and announcement of Financial Benchmarks, and creation of Financial Benchmarks, and determination of Methodology, and calculation of Financial Benchmarks, and publishing and dissemination of Financial Benchmarks, and conduct of related operations for reporting and submission to the Decision-making Body referred to in Article 4 of Borsa İstanbul A.Ş. Financial Benchmarks Management Procedure. The Committee gathers at least once every four months. Duties, responsibilities and the membership structure of Financial Benchmarks Committee are stated in Article 5 of Borsa İstanbul A.Ş. Financial Benchmarks Management Procedure. All practices can be accessed from the Borsa İstanbul corporate website, [Indices - Compliance with IOSCO Principles](#) page.

#### ~~1.1.2.1.2.2.~~ Changes to the Index Methodology

Borsa İstanbul has implemented a governance and oversight structure with committees and policies to review the Methodology and conduct consultations with Stakeholders as needed.

The Methodology is regularly reviewed by Financial Benchmarks Committee to ensure that it continues to best reflect the change that each index aims to measure.

Needs for revision in the Methodology may arise as a result of change requests from Subscribers or Stakeholders and periodic or non-periodic reviews within the scope of the oversight of the Financial Benchmarks. ~~Borsa İstanbul has implemented a governance and oversight structure with committees and policies to review the Methodology and conduct consultations with Stakeholders as needed.~~

All changes that are decided to be made in the Methodology are made publicly available on Borsa İstanbul corporate website, [Indices - Methodologies and Changes](#) page, accompanied by the relevant explanations and rationale for the revision, before being implemented.

All practices about the Methodology are established and announced by Borsa İstanbul Management [with Financial Benchmarks Committee's advice](#).

#### ~~1.2.1.1. Purpose~~

~~BIST Sustainability Themed Debt Securities Indices were created to measure the daily returns of debt securities that qualify as "Sustainable Debt Security" or "Green Debt Security" with the approval of the CMB in accordance with the conditions specified in the scope of "Guidelines on Green Debt Instruments, Sustainable Debt Instruments, Green Lease Certificates and Sustainable Lease Certificates" of the CMB.~~

## 2. ABBREVIATIONS AND DEFINITIONS

### 2.1. Abbreviations

Included in this Methodology;

- BVAL: "Bloomberg Valuation Service" offered by the company Bloomberg Finance L.P.,
- Borsa, Borsa İstanbul: Borsa İstanbul A.Ş.,
- CBRT: Central Bank of the Republic of Türkiye,
- CMB: Capital Markets Board of Türkiye,
- ISIN: International Securities Identification Number,
- Methodology: BIST Sustainability Themed Debt Securities Methodology,
- PDP: Public Disclosure Platform,
- TRY: Turkish Lira,
- USD: American Dollar,

expresses.

### 2.2. Definitions and Expressions

Included in this Methodology;

- Accrued Interest: The amount of interest accrued on a bond between the last coupon date and the index date,
- Clean Price: The price of the security that does not include accrued interest,
- Coupon Rate: The interest rate paid by fixed income securities such as bonds or bonds in certain periods,
- Daily Return: The return of an asset or investment on a specific day,
- Dated Date: The date on which interest accrued on debt instruments begins to accrue,
- Day Count Convention: The calendar conventions used to calculate accrued interest or other cash flow analytics for a given security,
- Default: Default refers to the situation where the security is not paid when the coupon or principal payment date arrives,
- Dirty Price: The price of the security, including accrued interest,
- Eurobond: A debt instrument issued in a foreign country, generally in foreign currency, and traded in international markets,

- **Fixing:** The pricing process in which the value of a particular financial instrument is fixed, usually with reference to a certain time of day,
- **Green Debt Security:** As defined in the guidelines, any debt security whose proceeds will be used exclusively for partial or total financing or refinancing of new and/or existing green projects in conformity with the eligible green project definition,
- **Guidelines:** “Guidelines on Green Debt Instruments, Sustainable Debt Instruments, Green Lease Certificates and Sustainable Lease Certificates” published by CMB,
- **Index:** It refers to indicators which are regularly determined and published or made available by application of a specific formula or another calculation method or by assessment through use of certain assets, prices, returns or rates included therein (also including estimated prices or interest rates, standing orders or other values or observations),
- **Maturity:** Maturity refers to ~~a finite~~the period ~~date at the end of~~ which the instrument will no longer exist and the principal is repaid with interest,
- **Nominal Amount:** The nominal value written on a financial instrument, its principal,
- **Redemption:** Redemption is the repayment of the accrued interest and principal of the security on the maturity date determined at the time of issue of the security,
- **Settlement Date:** The settlement date of the transactions carried out,
- **Sustainable Debt Security:** As defined in the guidelines, any debt security whose proceeds will be used exclusively for partial or total financing or refinancing of projects in which environmental and social positive impact co-exist
- **T+0:** The day a financial transaction occurs,
- **Yield to Maturity (YTM):** Internal rate of return calculated assuming a bond will be held until maturity,
- **30/360:** It is a day counting method used in interest calculations. A system in which each month is considered to have 30 days and each year to have 360 days

expresses.

### 3. CALCULATED INDICES

#### 3.1. BIST Green Corporate Eurobond Indices

**Purpose:** BIST Green Corporate Eurobond Indices are created to measure the daily USD denominated returns on USD denominated eurobonds issued abroad by Turkish companies, which qualify as "Green Debt Security" with CMB approval obtained in accordance with the terms specified in the Guidelines, and their TRY denominated returns calculated with indicative forex buying rates determined by the CBRT at 15:30. The codes and names of these indices are given in Annex Index List.

**Components of the Indices:** The selection pool of eurobonds to be included in the indices includes eurobonds issued by Turkish companies in USD abroad, which have been qualified as "Green Debt Security" with the CMB approval obtained in accordance with the terms specified in the Guidelines and whose completed issuance has been announced on PDP, and whose Bloomberg BVAL pricing exists. In addition, the selection pool includes eurobonds issued by Turkish companies in USD abroad, which have been issued before the publication of the Guidelines and confirmed as "Green Debt Security" from Bloomberg Terminal.

From the selection pool, **zero coupon and fixed rate coupon** eurobonds issued with only REG S sales method or eurobonds issued with both 144A and REG S sales methods, eurobonds which have REG S characteristics and classified as bullet bonds (principal value is paid all at once on the maturity date and cannot be redeemed early by an issuer) are included in the indices. USD denominated lease certificates issued by Turkish companies in foreign markets, subordinated debt instruments, defaulted (fail to pay coupon or principal payment) debt

instruments are not included in the corresponding indices. For eurobonds issued with both 144A and REG S sales methods, the total nominal amount in circulation is taken into account regardless of the sales methods.

If the eurobonds (with permanent ISIN code) in the indices have additional eurobonds (with temporary ISIN code) issued in order to increase their nominal amount, these temporary ISIN's are included in the indices during periodic index review.

**Periodic Index Review:** BIST Green Corporate Eurobond Indices have four index periods, February-April, May-July, August-October and November-January. Results of the periodic reviews on indices will be effective from the first trading day of the following index period. In periodic reviews, debt securities which are issued in respect of 15th business day evening prior to the next index period are taken into consideration. These changes are announced at least three days prior to the first trading day of each index period on Borsa İstanbul corporate website.

**Value Dates of the Indices:** Indices are calculated with T+0 value date prices.

**Maturity Breakdown of Indices:** There is no distinction between the indices in terms of maturity lengths.

**Prices Used in Index Calculations and Data Hierarchy:** In the calculations of BIST Green Corporate Eurobond Indices dirty prices are used. Accrued interest is added over BVAL Mid Prices determined at London 12:00 pm fixing time (for half days determined at Tokyo 05:00 pm fixing time) obtained through Bloomberg Valuation Services (BVAL) in order to find dirty prices. For securities issued with both 144A and REG S sales methods, the BVAL price of the ISIN with REG S feature is used. If the BVAL prices of the securities used in the indices remain the same or cannot be reached due to the existence of unusual market conditions, the indices continue to be calculated with the prices found by adding accrued interest to the latest BVAL mid prices.

**Weighting Method:** Indices are market value weighted indices. The method of weighting securities is explained in "4. Weighting Method" of this Methodology.

**Calculation Method of Indices:** It is explained in the article "5. Calculation Method" of this Methodology.

**Exclusion from Indices:** Securities remain in the indices for the last time at the maturity date, or if it is a holiday, then the next business day with the face amount (with coupon payment, if any).

Defaulted eurobonds are excluded from BIST Green Corporate Eurobond Indices effective from their default date. Even if their default situation disappears, they are not included in indices until the next index period. If a constituent eurobond in BIST Green Corporate Eurobond Indices matures, it is excluded from the indices and no new security is included instead of it. Inclusion in the indices will only be effective with the results of quarterly periodic reviews.

**Nominal Amounts:** The nominal amount of reissued or partially redeemed green corporate eurobonds are determined in the quarterly periodic reviews and changed to be effective as of the first trading day of next index period.

In the index calculations on the day of the merger of additional eurobonds (temporary ISIN) issued in order to increase the nominal amounts of the eurobonds (permanent ISIN) included in the indices, the security with temporary ISIN is revalued with the price of the security with permanent ISIN. The nominal amount of the temporary ISIN is added to the nominal amount of the permanent ISIN to be taken into account starting from the next day's index calculations. This completes merging for index calculations.

**Day Count Convention:** In accrued interest calculations 30/360 day count convention is used.

### 3.2. BIST Sustainable Corporate Eurobond Indices

**Purpose:** BIST Sustainable Corporate Eurobond Indices are created to measure the daily USD denominated returns on USD denominated eurobonds issued abroad by Turkish companies, which qualify as "Sustainable Debt Security" with CMB approval obtained in accordance with the terms specified in the Guidelines, and their TRY denominated returns calculated with indicative forex buying rates determined by the CBRT at 15:30. The codes and names of these indices are given in Annex Index List.



**Components of the Indices:** The selection pool of eurobonds to be included in the indices includes eurobonds issued by Turkish companies in USD abroad, which have been qualified as "Sustainable Debt Security" with the CMB approval obtained in accordance with the terms specified in the Guidelines and whose completed issuance has been announced on PDP, and whose Bloomberg BVAL pricing is included.

From the selection pool, **zero coupon and fixed rate coupon** eurobonds issued with only REG S sales method or eurobonds issued with both 144A and REG S sales methods which have REG S characteristics and classified as bullet bonds (principal value is paid all at once on the maturity date and cannot be redeemed early by an issuer) are included in the indices. USD denominated lease certificates issued by Turkish companies in foreign markets, subordinated debt instruments, defaulted (fail to pay coupon or principal payment) debt instruments are not included in the corresponding indices. For eurobonds issued with both 144A and REG S sales methods, the total nominal amount in circulation is taken into account regardless of the sales methods.

If the eurobonds (with permanent ISIN code) in the indices have additional eurobonds (with temporary ISIN code) issued in order to increase their nominal amount, these temporary ISIN's are included in the indices during Periodic Index Review.

**Periodic Index Review:** BIST Sustainable Corporate Eurobond Indices have four index periods, February-April, May-July, August-October and November-January. Results of the periodic reviews on indices will be effective from the first trading day of the following index period. In periodic reviews, debt securities which are issued in respect of 15th business day evening prior to the next index period are taken into consideration. These changes are announced at least three days prior to the first trading day of each index period on Borsa İstanbul corporate website.

**Value Dates of the Indices:** Indices are calculated with T+0 value date prices.

**Maturity Breakdown of Indices:** There is no distinction between the indices in terms of maturity lengths.

**Prices Used in Index Calculations and Data Hierarchy:** In the calculations of BIST Sustainable Corporate Eurobond Indices dirty prices are used. Accrued interest is added over BVAL Mid Prices determined at London 12:00 pm fixing time (for half days determined at Tokyo 05:00 pm fixing time) obtained through Bloomberg Valuation Services (BVAL) in order to find dirty prices. For securities issued with both 144A and REG S sales methods, the BVAL price of the ISIN with REG S feature is used. If the BVAL prices of the securities used in the indices remain the same or cannot be reached due to the existence of unusual market conditions, the indices continue to be calculated with the prices found by adding accrued interest to the latest BVAL mid prices.

**Weighing Method:** Indices are market value weighted indices. The method of weighting securities is explained in "4. Weighting Method" of this Methodology.

**Calculation Method of Indices:** It is explained in the article "5. Calculation Method" of this Methodology.

**Exclusion from Indices:** Securities remain in the indices for the last time at the maturity date, or if it is a holiday, then the next business day with the face amount (with coupon payment, if any).

Defaulted eurobonds are excluded from BIST Sustainable Corporate Eurobond Indices effective from their default date. Even if their default situation disappears, they are not included in indices until the next index period. If a constituent eurobond in BIST Sustainable Corporate Eurobond Indices matures, it is excluded from the indices and no new security is included instead of it. Inclusion in the indices will only be effective with the results of quarterly periodic reviews.

**Nominal Amounts:** The nominal amount of reissued and partially redeemed sustainable corporate eurobonds are determined in the quarterly periodic reviews and changed to be effective as of the first trading day of next index period.

In the index calculations on the day of the merger of additional eurobonds (temporary ISIN) issued in order to increase the nominal amounts of the eurobonds (permanent ISIN) included in the indices, the security with temporary ISIN is revalued with the price of the security with permanent ISIN. The nominal amount of the

temporary ISIN is added to the nominal amount of the permanent ISIN to be taken into account starting from the next day's index calculations. This completes merging for index calculation.

**Day Count Convention:** In accrued interest calculations 30/360 day count convention is used.

#### 4. WEIGHTING METHOD

BIST Green Corporate Eurobond Indices and BIST Sustainable Corporate Eurobond Indices are market value weighted indices. The market value of a security is calculated by multiplying the nominal amount with the dirty price.

#### 5. CALCULATION METHOD

BIST Green Corporate Eurobond Indices and BIST Sustainable Corporate Eurobond Indices are calculated on the basis of following formula:

$$\text{Index}_t = \text{Index}_{t-1} \times \left( 1 + \frac{\sum_{i=1}^n w_{i,t-1} \times a_{i,t} \times r_{i,t}}{\sum_{i=1}^n w_{i,t-1} \times a_{i,t}} \right)$$

$\text{Index}_t$ : Value of index on day t (previous business date)  $w_{i,t-1} = N_{i,t-1} \times P_{i,t-1}$

$w_{i,t-1}$ : Market value of debt security i on day t-1

$N_{i,t-1}$ : Nominal amount of debt security i on day t-1

$P_{i,t-1}$ : Weighted average settlement price of security i on day t-1

$r_{i,t}$ : Return of debt security i on day t

$n$ : Number of debt securities in indices

$a_{i,t}$ : Weighting factor of debt security i on day t (%)

##### 5.1. Data Precision

Data precision of the parameters used in the index calculations is shown in the table below.

Data	Data Precision
Index Value	Rounded to 5 decimal places

#### 6. CORRECTION IN INDEX VALUES

No retroactive correction is made in the index values calculated and published in real time. Retroactive correction in the index values calculated and published at the end of day can be permitted only by the decision of the Borsa İstanbul Management

#### 7. UPDATE FREQUENCY

This Methodology is reviewed at least once a year and updated as needed.

#### 1-8. EFFECTIVE DATE

This Methodology takes effect on ~~13/05/2024~~DD09/0912/2025. The current version of the Methodology should be confirmed on the Borsa İstanbul corporate website, Indices - Methodologies and Changes page.

#### 2-9. APPENDIX

The List of Indices covered by this Methodology is given by the table in Annex.



## Annex Index List

Index Group	Index Name	Index Code	ISIN Code	Exchange Rate	Value Date	Remaining Days to Maturity*	Calculation and Publication Interval	Index Base Value	Index Base Date
BIST Green Corporate Eurobond Indices	BIST GREEN CORPORATE EUROBOND USD	YEOSE	TRAXIST04386	USD	T+0	All Maturities	Once in a day	1000	10.05.2024
BIST Green Corporate Eurobond Indices	BIST GREEN CORPORATE EUROBOND USD (TRY)	YEOSETL	TRAXIST04378	TRY	T+0	All Maturities	Once in a day	1000	10.05.2024
BIST Sustainable Corporate Eurobond Indices	BIST SUSTAINABLE CORPORATE EUROBOND USD	SUOSE	TRAXIST04360	USD	T+0	All Maturities	Once in a day	1000	10.05.2024
BIST Sustainable Corporate Eurobond Indices	BIST SUSTAINABLE CORPORATE EUROBOND USD (TRY)	SUOSETL	TRAXIST04352	TRY	T+0	All Maturities	Once in a day	1000	10.05.2024

\*Days to maturity refers to the value calculated according to the days to maturity calculation method used in the index calculation for the securities in the indices.

