

# ATHEX

Athens Stock Exchange



## Ground Rules Management & Calculation Hellenic Corporate Bond Index

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# 1 Introduction

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## 1.1 Purpose of the Document

The purpose of this document is to outline the Ground Rules for the Management and Calculation of Hellenic Corporate Bond Index, which is designed, calculated, and reviewed by the Athens Stock Exchange in accordance with the provisions set out in this document.

## 1.2 Index Objective

The objective of the index is to serve as a useful tool for measuring the performance of corporate bonds and to be widely used by institutional investors, mutual fund managers, and professional advisors.

The index will be calculated in two versions:

- «Hellenic Corporate Bond Price Index» (Capital Index), which will be calculated using the price of each bond.
- «Hellenic Corporate Bond Index» (Performance Index), which will be calculated using the price, accrued interest, and coupon payments of each bond.

## 1.3 Calculation Methodology

This document defines the Ground Rules for the Management and Calculation of the Hellenic Corporate Bond Index.

The purpose of the index is to track the performance of corporate bonds issued by Greek companies that are traded in Greece and abroad.

This is achieved by creating an index – comprising corporate bonds that meet specific eligibility criteria – to calculate their performance.

On a monthly basis, the index composition will be reviewed, and bonds will be added or removed accordingly, while new weighting factors (Capping Factors) will be calculated.

The composition of the index remains unchanged throughout the month, except in exceptional circumstances.

## 2 Eligibility Criteria

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### 2.1 Determination of Eligible Bonds

Corporate bonds must meet specific eligibility criteria, as described below, in order to be included in the index composition.

- 2.1.1 The index includes bonds issued by Greek companies, their domestic or foreign subsidiaries, as well as foreign companies operating in Greece, whether listed or not on Regulated Markets.
- 2.1.2 There are no restrictions on the sector classification of the issuing companies. Bonds issued by banking institutions may be included in the index, provided that they meet the other eligibility criteria.
- 2.1.3 Bonds must be issued in Euros or U.S. dollars and be listed on a Regulated Market or traded on Multilateral Trading Facilities (MTFs).
- 2.1.4 Only plain vanilla bonds (option-free) or bonds with call or put options may be included in the index. Convertible bonds are excluded from index participation.
- 2.1.5 Bonds must have fixed or floating coupon payments.
- 2.1.6 Bonds must be issued according to «Regulation S». Bonds issued according to «Regulation 144a» are excluded from index participation.
- 2.1.7 Bonds must be senior or covered securities and not of lower seniority (Subordinated).
- 2.1.8 Bonds listed on a Regulated Market or traded on MTFs in foreign markets must have a minimum issue amount of at least €100mil to be eligible for inclusion in the index  
Bonds listed on ATHEX Regulated Market or traded on ATHEX MTF Market may be included in the index regardless of their issue size.
- 2.1.9 Reliable trading prices must be available for at least three (3) consecutive trading days in order for a bond to be eligible for inclusion in the index

## 3 Index Determination & Reviews

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### 3.1 Review Periods

The index is reviewed on a monthly basis, with any changes taking effect after the close of trading on the 3<sup>rd</sup> Friday of the month.

In the event of changes to the index composition (additions, deletions, or changes in the nominal value of an issue), capping of the bonds within the index will be carried out in accordance with [section Error! Reference source not found.](#)

Change will be announced two (2) business days prior to the effective date, allowing sufficient time for portfolio managers tracking the index to adjust their positions accordingly.

### 3.2 Bond Capping

The bonds included in the composition of the index will be capped on a quarterly basis after the close of trading on the 3<sup>rd</sup> Friday of March, June, September, and December.

Capping Factors will be calculated using the closing prices of the bonds three (3) business days prior to the effective date.

### 3.3 Calculation of Capping Factors

The calculation of Capping Factors for the bonds in the composition of the index will be carried out in two steps.

#### Step 1

Bonds traded on ATHEX MTF Market will be collectively capped at a maximum of 5% of the total index value.

#### Step 2

Bonds listed on foreign Regulated Markets or traded on foreign MTFs will be capped per issuer at a maximum of 15% of the total index value.

### 3.4 Index Determination

The periodic review is conducted according to the following steps:

- I. Creation of a database containing all corporate bonds that may meet the eligibility criteria
- II. Exclusion of bonds that do not meet the eligibility criteria set out in [section Error! Reference source not found.](#) of the rules.
- III. Calculation of new Capping Factors

### 3.5 Additions to the Index

New corporate bond issues that meet the eligibility criteria will be included in the index during the next scheduled monthly review, provided they have been traded for at least three (3) business days.

### 3.6 Deletions from the Index

Bond issues approaching maturity will be removed from the index during the monthly review preceding the month of maturity.

### 3.7 Changes in Bond Characteristics

Changes to the characteristics of bonds included in the index (e.g., issued amount) will be reflected in the following monthly review.

Bonds listed on foreign Regulated Markets or traded on foreign MTFs will also be removed from index composition during the next monthly review if their outstanding amount falls below €100mil.

### 3.8 Default – Failure to Pay Coupons – Suspension of Trading

If a bond in the composition of the index

- enters a state of default,
- fails to pay scheduled coupons,
- suspended from trading

then under normal circumstances, will be removed from the composition of the index during the next monthly review.

However, the bond may remain in the index following an opinion from the Index Management Advisory Committee, particularly if there is uncertainty as to whether the situation is final and irreversible.

If the situation is deemed final and irreversible, the bond will be removed from the index at a price of zero.

## 4 Index Calculation

### 4.1 Source Data

#### 4.1.1 Bond Prices

The closing prices of the bonds used in the calculation of the index are sourced from:

- The Bloomberg financial information vendor, for bonds listed on foreign Regulated Markets or traded on foreign Multilateral Trading Facilities (MTFs). The closing prices used will be the “BGN” prices.
- The OASIS Trading Systems, for bonds listed on ATHEX Regulated Market or traded on ATHEX MTFs Market.

In cases where a closing price is not available for a bond, the most recently available price will be used.

Prices are continuously monitored to ensure they are representative of the market. In certain cases, the ATHEX may directly contact bond dealers to verify a price and take further action if deemed necessary.

#### 4.1.2 Foreign Exchange Rates

For bonds included in the index that are issued in a currency other than the Euro, the conversion of their value into Euros (amount issues, accrued interest, coupon payments) will be based on the official reference exchange rate of the European Central Bank (ECB)<sup>1</sup>.

#### 4.1.3 Index Calculation

The indices are calculated on an end-of-day basis, in accordance with the «TARGET2» business calendar.

On each business day morning, the index values for the previous day are calculated using the following closing prices:

- Bloomberg prices as of 24:00 CET,
- OASIS Trading Systems prices as recorded at the close of the previous trading session.

### 4.2 Index Price Display

The index is displayed in Euro with a precision of three decimal places.

### 4.3 Index Launch Price

The starting value for both the Capital Index and the Performance Index is set at 100points, with a base date of September 30<sup>th</sup>, 2014.

### 4.4 Index Calculation Formula

The following symbols are used in the Index Calculation Formulas:

- $PI_0$ : Price Index value on the base date (launch value)
- $TR_0$ : Total Return Index value on the base date (launch value)
- $PI_t$ : Price Index value at time t
- $TR_t$ : Total Return value at time t
- $P_{i,t}$ : Bond price of bond i at time t



- $N_{i,t}$ : Amount Issued of bond i at time t
- $F_{i,t}$ : Capping Factor of bond i at time t
- $A_{i,t}$ : Accrued Interest of bond i at time t
- $G_{i,t}$ : Coupon Value of bond i at time t
- $R_t$ : Exchange rate at time t for bonds issued in a currency other than the Euro

#### 4.4.1 Hellenic Corporate Bond Price Index (Capital Index)

$$PI_0 = 100$$

$$PI_t = PI_{t-1} * \sum_t \frac{\left(\frac{P_{i,t}}{100}\right) * N_{i,t} * F_{i,t} * R_t}{\left(\frac{P_{i,t-1}}{100}\right) * N_{i,t-1} * F_{i,t-1} * R_{t-1}}$$

#### 4.4.2 Hellenic Corporate Bond Index (Performance Index)

$$TR_0 = 100$$

$$TR_t = TR_{t-1} * \sum_t \frac{\left\{\left(\frac{P_{i,t}}{100}\right) + A_{i,t} + G_{i,t}\right\} * N_{i,t} * F_{i,t} * R_t}{\left\{\left(\frac{P_{i,t-1}}{100}\right) + A_{i,t-1}\right\} * N_{i,t-1} * F_{i,t-1} * R_{t-1}}$$

<sup>1</sup> The official reference exchange rates of the European Central Bank (ECB) are published daily at 16:00 CET, except on TARGET2 holidays ([www.ecb.europa.eu/stats/exchange/eurofxref/html/index.en.html](http://www.ecb.europa.eu/stats/exchange/eurofxref/html/index.en.html)).

## 5 Use of the Index & Disclaimer

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### 5.1 Use of the Index

- 5.1.1 The Hellenic Corporate Bond Index is a Benchmark Index that tracks the performance of corporate bonds which meet specific eligibility criteria.
- 5.1.2 The Benchmark Administrator considers the appropriate use of the indices for research purposes, performance benchmarking, or the creation of financial products.  
This list is indicative, and users of the indices may also use them for other purposes.

### 5.2 Disclaimer

- 5.2.1 The Benchmark Administrator informs index users that various factors, including external factors beyond the administrator's control, may lead to changes or even the discontinuation of index calculations.  
Therefore, any financial products or other financial instruments that use the index as a reference should be able to handle potential changes or even discontinuation of index calculations.
- 5.2.2 Index users who decide to use them as benchmarks or purchase products that claim to track the performance of the index, should evaluate the index management and calculation methodology and seek independent investment advice before investing their own or their clients' funds.
- 5.2.3 The Benchmark Administrator (or any person engaged in the preparation or publication of the index Ground Rules) shall not be liable, whether due to negligence or any other cause, for any losses, damages, claims, or expenses incurred by any person as a result of:
- applying the index Ground Rules or/end
  - any errors or inaccuracies in the index Ground Rules or/end
  - any failure to implement or incorrect application of the policies and procedures described in the index Ground Rules or/end
  - any error or inaccuracies in the composition of the indices or any of their components

## 6 Management Responsibilities

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### 6.1 ATHEX Index Oversight Committee

6.1.1 The ATHEX Index Oversight Committee appoints the members of the Index Management Advisory Committee and approves any changes to the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index.

### 6.2 Index Management Advisory Committee

6.2.1 The Index Management Advisory Committee is composed of members from both the domestic and international investment community, as well as representatives from the Athens Exchange.

6.2.2 The Index Management Advisory Committee shall meet at least once a year, and on an ad-hoc basis when deemed necessary due to market conditions.

6.2.3 The Index Management Advisory Committee is responsible for:

- Providing input on matters related to the proper implementation of the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index,
- Supporting the operational management of the index,
- Advising on the eligibility of corporate bonds for inclusion in the index,
- Recommending actions in the event of extraordinary changes in the index composition, in line with the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index,
- Proposing amendments to the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index to the ATHEX Index Oversight Committee,
- Providing informed opinions to the ATHEX Index Oversight Committee regarding the modification, enforcement, or exemption from the index rules and policies, if circumstances warrant.

## 7 Changes – Exceptions to Ground Rules

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The Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index are subject to regular review (at least once a year) by the Benchmark Administrator to ensure they continue to best reflect the objectives of the index.

### 7.1 Change to Ground Rules

- 7.1.1 Changes to the structure of the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index should be implemented gradually rather than through radical modifications.
- 7.1.2 Proposed changes are prepared by ATHEX Index Team, reviewed by Index Management Advisory Committee and submitted for approval to the ATHEX Index Oversight Committee.
- 7.1.3 Changes approved by ATHEX Index Oversight Committee will be effective at the meeting of the Index Management Advisory Committee held at the next index review.

### 7.2 Exceptions to Ground Rules

- 7.2.1 Exceptions to Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index can only be granted by ATHEX Index Oversight Committee following a recommendation from Index Management Advisory Committee.
- 7.2.2 If the ATHEX Index Oversight Committee deems that an exception should be granted in the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index, it must not contradict the intent of the rules and must be sufficiently justified.
- 7.2.3 Any exception granted to the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index should not be considered as a precedent for future decisions by the ATHEX Index Oversight Committee
- 7.2.4 The Index Management Advisory Committee reviews whether the Ground Rules for the Management & Calculation of Hellenic Corporate Bond Index require updates to enhance clarity and submits proposals for their improvement to the ATHEX Index Oversight Committee.

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