

INDEX RULE BOOK

AEX EXT Index

Version 21-01

Effective from 15 Dec 2021

indices.euronext.com

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2. HIGHLIGHTS

This document is applicable to the AEX EXT ("Index Family"), which consists of all the Indices as mentioned in the Reference Table.

The Index Family is designed to reflect the price level trends in the trading of shares listed in The Netherlands.

Euronext Amsterdam is the Administrator of this Index Family. No Independent Supervisor is appointed for the Index Family.

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Previous version notes

18-01 Removal of the 2W Eonia Swap (Euro) and replacement of the 2M Eonia Swap (Euro) by the MM Eonia Swap (Euro).

19-01 Removal of the 3W Eonia Swap (Euro) and replacement of EONIA rates by recalibrated EONIA (€STR plus a spread) and Euribor rates. Update of governance naming.

20-01 Integration of ESG Disclosures

Version notes

Version	Effective date	New or changed parts	Reference/announcement
21-01	15 Dec 2021	Replacement of recalibrated EONIA (€STR plus a spread) by €STR restyled version in view of newly published Calculation and Corporate Actions rulebooks	EIA 2021-365

3. CALCULATION OF THE EXT INDEX

3.1 DEFINITION

The EXT Index aims to give investors an indicator of the levels of the Underlying index outside the regular Euronext trading period.

3.2 CALCULATION

The EXT Index is calculated on the basis of the futures contracts traded on the Euronext exchange, adjusted for interest payments and dividends (see below).

3.3 FUTURE MATURITY AND PRICES

The values of the EXT Index are calculated using the last traded prices of the 1st month futures traded on Euronext.

3.4 PUBLICATION FREQUENCY

The level of the EXT index is in principle published every 15 seconds.

3.5 SESSION

The calculation of the levels of the EXT index starts at 8.00 a.m. to 6.30 p.m.

3.6 ROLLOVER

Rolling between the first month futures and the second month futures takes place one day before the expiration date.

3.7 EXCEPTIONAL EVENT

If there is a disruption event of the Underlying index, the EXT index will continue to be calculated using the latest prices available on the future market.

If the futures exchange fails to open or halts due to unforeseen circumstances, the Administrator may decide to stop the calculation and broadcast of the EXT index. As a rule, the EXT index will not be recalculated.

3.8 FORMULA

The general formula of the EXT Index is defined as follows:

$$\text{EXT Index} = F_t e^{-r^* t} + D_t$$

Where:

F_t = Last prices of the 1st month future at time t

t = Number of days to expiration of the 1st month future maturity / 360

r^* = Interpolated risk free interest rate (see section below)

D_t = Dividend to be paid by the components of the underlying index until the 1st month future maturity

3.8.1 Risk Free rate (r^*)

The risk free interest rate (r) is calculated by a linear interpolation of the recalibrated EONIA (€STR plus a spread) or Euribor swap rates as described below:

$$r^* = r_1 + \frac{r_2 - r_1}{t_2 - t_1} \times t_* - t_1$$

Where

r^* = Risk free rate, i.e interpolated rate between r_1 and r_2

r_1 = Listed €STR or Euribor swap rate with closest maturity **before** the futures expiration date.

r_2 = Listed Euribor swap rate with closest maturity **after** the futures expiration date.

t_1 = Number of days to maturity for r_1

t_2 = Number of days to maturity for r_2 where $t_1 < t^* < t_2$

t^* = Number of days to maturity for r^*

Name	Maturity
€STR	1D
1W Euribor Swap (Euro)	1 Week
1M Euribor Swap (Euro)	1 Month
3M Euribor Swap (Euro)	3 Months

3.8.2 Dividends (D_t)

D_t represents the total amount of dividend points to be paid by the components of the Underlying index until the 1st month future maturity. For each index constituent the dividend amount considered for the calculation is equal to the amount of ordinary gross dividend calculated in index points.

Most of the times, companies announced their dividend before the 1st month future expiration. If not, dividend forecasts (amount and ex-date) will be based on dividend estimates.

4. REFERENCES

Index name	Isin code	Mnemo	Bloomberg Code	Reuters code
AEX® EXT	QS0011257225	AEEXT	AEEXT	.AEEXT

4.1 BASE CURRENCY

The Base Currency of this index family is Euro.

4.2 PUBLICATION

The EXT Index is calculated and distributed every 15s from 8.00 a.m. till 6:30 p.m. on days that Euronext is open.

5. ESG DISCLOSURES

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	Euronext Amsterdam
Item 2. Type of benchmark	Equity Benchmark
Item 3. Name of the benchmark or family of benchmarks.	AEX-EXT
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
Item 5. If the response to Item 4 is positive, please find below the ESG factors that are taken into account in the benchmark methodology and how they are used for selection, weighting and exclusion	
a) List of environmental factors considered:	Not applicable
b) List of social factors considered:	Not applicable
c) List of governance factors considered:	Not applicable
Item 6. Data and standards used.	
a) Data input. <i>(i) Describe whether the data are reported, modelled or, sourced internally or externally.</i> <i>(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</i>	Not applicable
b) Verification of data and guaranteeing the quality of those data. <i>Describe how data are verified and how the quality of those data is ensured.</i>	Not applicable
c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i>	Not applicable

Information updated on:

30th April 2020

Overview of Rulebooks and other documents applicable for Euronext Indices

The following documents, all available on or via the following link: <https://www.euronext.com/en/indices/index-rules> should be read in conjunction with this document or provide other relevant information for the reader.

BENCHMARK STATEMENT

The Benchmark Statement identifies the primary features of an index family or families of indices in the context of the EU Benchmark regulation. For ESG based indices it also contains disclosure of ESG factors and reporting of scores.

COMPLIANCE STATEMENT

The Compliance Statement provides details, for both significant and non-significant benchmarks, for which provisions the Administrator has chosen not to apply, and offers an explanation as to why it is appropriate not to apply each provision.

GOVERNANCE EURONEXT INDICES

The purpose of the 'Governance Euronext Indices' is to describe the role and responsibilities of each of the governance bodies that are part of the Benchmark Administrators of Euronext.

RULEBOOK OF EACH FAMILY OF INDICES

Each index is part of an index family that shares the basis for selection (universe) and which is managed in a comparable way. A separate rulebook is provided for each index family that will describe the specific features of that index family as well as specific elements of each index within that family.

INDEX CALCULATION AND PERIODICAL REVIEW Euronext Indices

The Methodology Euronext describes all common aspects that apply for the

- periodical reviews, and
- the calculation of indices

EURONEXT INDICES CORPORATE ACTION RULES

- treatment of corporate actions

of indices provided by Euronext Indices.

EURONEXT ESG PROVIDERS METHODOLOGIES

An overview of various methods applied by providers of ESG scorings and labels

PROCEDURES EURONEXT INDICES

These rulebooks describe the various procedures that are applied for all Euronext Indices:

- Correction Policy
- Announcement Policy
- Complaints Procedure
- Consultations Procedure
- Procedure For Cessation of Indices

RULES OF PROCEDURE INDEPENDENT SUPERVISORS

For each Independent Supervisor Euronext publishes a 'Rules of Procedure' that describes the responsibilities and composition of each Independent Supervisor.

BENCHMARK OVERSIGHT COMMITTEE CHARTER

The Benchmark Oversight Committee Charter describes the role and responsibilities of the Benchmark Oversight Committee.