



INDEX RULE BOOK

Euronext[®] Transatlantic Leaders 50 EW

Version 20-01

Effective from 15 May 2020

indices.euronext.com

Overview of Documents relating to the Governance of Euronext Indices

The following documents, all available on 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.

COMPLIANCE STATEMENT

The Compliance Statement provides details, for both significant and non-significant benchmarks, 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.

METHODOLOGY EURONEXT INDICES(yet to be published)

The Methodology Euronext describes all aspects that apply for the

- periodical reviews,
- the calculation, and
- treatment of corporate actions

of indices provided by Euronext Indices.

PROCEDURES EURONEXT INDICES

This rulebook describes 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 'Rule 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.

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For further information in relation to Euronext Indices please contact: index-team@euronext.com

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1. GENERAL

1.1 HIGHLIGHTS EURONEXT® TRANSATLANTIC LEADERS 50 EW

Objective	The Euronext Transatlantic Leaders 50 EW family is designed to reflect the price level trends in the trading of shares listed in Europe and US. Changes are made on a quarterly basis.
Administrator	Euronext Paris is the Administrator of the Transatlantic Leaders 50 EW index family.
Supervisor	Euronext internal supervisor
Universe	The index universe consists of the 300 companies included in the Euronext Eurozone 300 index as well as the 50 largest stocks in terms of free float market capitalization from the USA.
Liquidity Analysis	No additional liquidity analysis.
Selection basis	From the universe, all eligible stocks from the Eurozone are ranked by free float market capitalization. The top 35 ranked are selected. From the universe, all eligible stocks from the USA are ranked by free float market capitalization. The top 15 ranked are selected.
Review Cut Off Date	Penultimate Friday of February, May, August and November. Penultimate means the Friday before the last Friday.
Weighting basis	Equal weight
Review frequency	Quarterly, effective after the Third Friday of March, June, September and December.
Index family	Price index; Net return index, Gross return index and Decrement 5% on Net return.
Trademarks	Euronext N.V. or its subsidiaries (hereinafter jointly "Euronext") owns all intellectual and other property rights to the index, including the name, the composition and the calculation of the index. Euronext® is a registered trademark of Euronext.

1.2 VERSION NOTES

Version	Effective date	New or changed parts
19-01	1 June 2019	Selection method updated: now based on Euronext Eurozone 300 index instead of previous 300 largest companies from various countries.
20-01	15 May 2020	Integration of ESG Disclosures

2. REFERENCE INFORMATION AND PUBLICATION OF INDEX LEVELS

2.1 REFERENCE TABLE

Index name	Isincode	Mnemo	Bloomberg Code	Reuters code	Base date	Base value	Publication since	Type of index
Euronext® Transatlantic Leaders 50 EW	NL0013216468	EUS5P	EUS50P	.EUS5P	30/12/2005	1 000	14/11/2018	Price
Euronext® Transatlantic Leaders 50 EW NR	NL0013216476	EUS5N	EUS50N	.EUS5N	30/12/2005	1 000	14/11/2018	Net Return
Euronext® Transatlantic Leaders 50 EW GR	NL0013216484	EUS5G	EUS50G	.EUS5G	30/12/2005	1 000	14/11/2018	Gross Return
Euronext® Transatlantic Leaders 50 EW Decrement 5%	NL0013216492	EUS5D	EUS50D	.EUS5D	30/12/2005	1 000	14/11/2018	Decrement 5% on NR

2.2 BASE CURRENCY

All Indices have Euro as their Base Currency.

2.3 PUBLICATION OF INDEX LEVELS

The index is calculated based on the most recent prices of transactions concluded on the main markets in each of the countries that are included in the index. The level of the index is in principle published every 15 seconds. The index is calculated from 09:00 hours until US Markets stop regular daytime trading on the days when Euronext Markets are open for trading.

The opening level is calculated using the last known prices of traded constituents or in the case of constituents that have non-traded, halted or suspended status, the previous day reference prices or estimated prices (for IPOs, buyouts and swap offers).

The opening index level is disseminated at the same time as the first index level.

The closing level is the last level disseminated on the trading day.

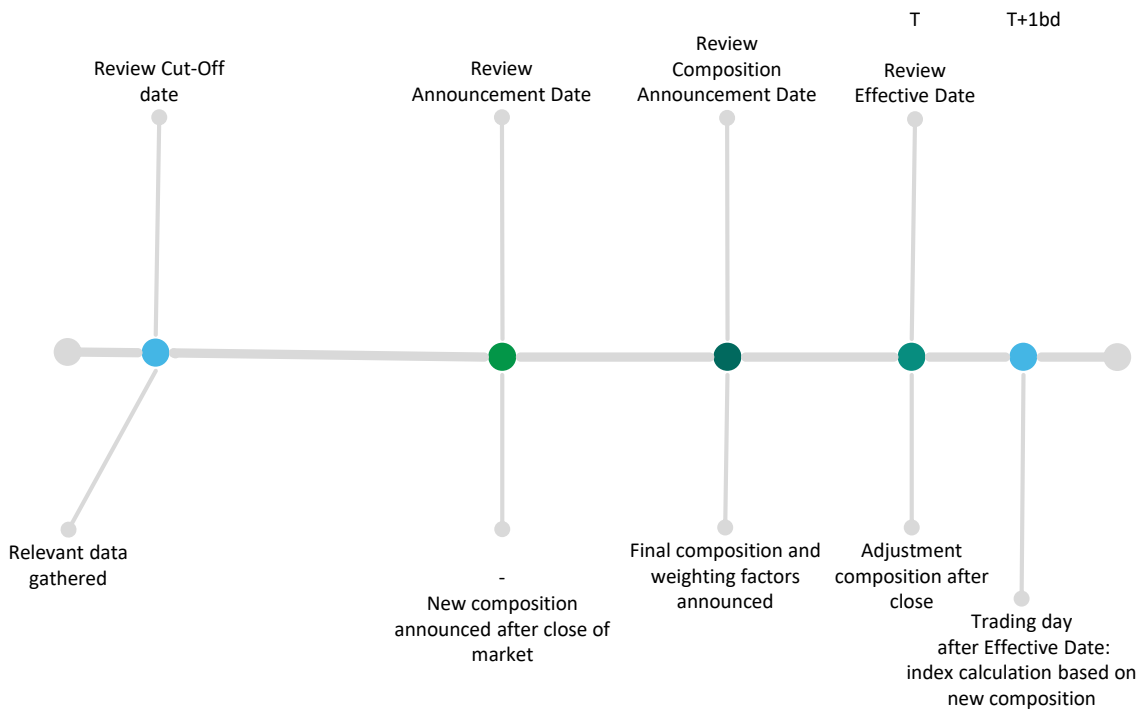
3. INDEX REVIEWS

3.1 REVIEW FREQUENCY AND RELEVANT DATES

The Review Cut-Off Date is after the market close of the penultimate Friday of February, May, August and November (for the quarterly reviews).

The Review Composition Announcement Date is at least two days before the Review Effective Date. Review There is no separate announcement for the reviews, so the Review Announcement Date is not applicable.

The Review Effective Date is after the market close of the third Friday of March, June, September and December.



3.2 SELECTION STEPS

3.2.1 Step 1: Index Universe

The Index Universe consists of the 300 companies included in the Euronext Eurozone 300 index as well as the 50 largest stocks in terms of free float market capitalisation from the USA. At reviews this means included in the reference index after the Review Effective Date.

3.2.2 Step 2: Eligibility screening at reviews and Liquidity Analysis

Step2a Liquidity Analysis

No additional liquidity analysis.

3.2.3 Step 3: Selection Ranking

The companies in the Index Universe are ranked on free float market capitalisation within either the Eurozone or the US .

3.2.4 Step 4: Selection of constituents at the annual and quarterly reviews (in March, June, September and December)

Within the Eurozone the top 35 ranked are selected. From the USA the top 15 ranked are selected.

4. PERIODICAL UPDATE OF WEIGHTING

4.1 WEIGHTING FACTORS

The index calculation of this index is based on Equal Weight.

For this index only the Number of Shares is relevant.

4.2 QUARTERLY REVIEW

The new weightings are calculated such that each constituent will have an equal weight in the index. The weightings will be rounded to the nearest whole number. The weightings are determined based on the closing prices observed on the closing day prior to the Review Composition Announcement Date, generally the Tuesday.

5. CORPORATE ACTIONS

5.1 EVENTS THAT CHANGE THE COMPOSITION

Mergers and acquisitions

Acquisitions in cash

In the event of a bid in cash, the target company will be removed from the index. The removal will take place with effect after the close of the first full business day following the acceptance of the bid. If a company is removed from the index, the divisor will be adapted to maintain the index level.

Mergers and takeovers in shares

In the event of a merger, acquisition or similar situation where the bid is made in the form of shares, the constituent will be replaced by the newly formed company, provided that this company complies with the requirements for inclusion in the index in line with the criteria defined in the index reviews section. The replacement will take place in line with the schedule of the transaction. The replacement of the shares of the relevant index constituent by the shares of the newly formed company will be executed on the basis of the bid ratio.

Mixed transactions

In case of a mixed bid of cash and shares the Compiler will treat the bid as a share bid if the share part amounts to at least 75% of the offer price, on the day of the publication of the terms of the offer. The replacement of the shares of the relevant index constituent by the shares of the company that continues to be traded will be executed on the basis of the bid ratio. The divisor will be adapted only for the cash part of the offer price.

Continued inclusion or specific treatments

The Compiler reserves the right to apply a specific treatment in non-standard situations including but not limited to:

- Competing bids with differing closing dates or structures;
- Offers made without the intention to gain full control.

In case of a specific treatment a separate announcement detailing the specific treatment will be issued timely to the market.

Inclusion of new companies

As a rule newly listed companies are considered for inclusion in the index at the time of the periodical index review.

Suspensions, Company distress and Delistings

Suspension

If a constituent is suspended, the Compiler will consider whether the constituent should be removed or not within five trading days. If it is decided to maintain the constituent a further reassessment date will be set. The Compiler reserves the right to take action before that date if new developments give reason to do so.

In case a constituent is removed following suspension, it will be removed from the index as soon as possible and on a day announced by the Compiler. The company will be removed from the index after the close of the markets assuming a price of zero unless the Compiler sets a different price, where possible supported by an objective source.

If it has been announced that a constituent will be delisted from the relevant market, it will be removed from the index as soon as possible and on a day announced by the Compiler. The company will be removed from the index based on either the last known price established during regular daytime trading or on a price determined by the Compiler, whereby the company may also be removed at a price of zero.

Removing assuming a price of zero implies no divisor change because of the removal. If another price is set, the divisor will change based on the removal of the value of that company from the index portfolio when applying that price.

In the event that the trading in shares is suspended, the last known price established during regular daytime trading will be used.

SPLIT UP / SPIN-OFF

In the event that a company included in the index is split up, the companies resulting from the split, including the original company where appropriate will continue to be included in the index providing they meet the requirements for inclusion of the index. This means, in line with section 4.2, that the resulting entity should remain listed on one of the markets on which the index is based.

The index may then temporarily consist of fewer than, or more than the standard number of constituents until the next periodical review takes place.

For the purposes of these rules a split up is taken to mean a legal demerger, a spin-off or another situation which the Compiler deems to be similar.

In case the shareholder of the company which was originally included in the index does not automatically receive shares in a company which is created as a result of the split up, this company is considered to be a newly listed company.

The removal of any non-qualifying company resulting from a split up will take place after the close of the first day of trading in the shares of that company. If all companies resulting from the split are to be removed, the removal will take place at the close of the last trading day before the split.

In case a company resulting from the split up will not be admitted to listing on a main market in one of the countries that are included in the index, the Compiler will select an appropriate price source for the calculation of the index and the removal of the spun off company on the first trading day after the spin off.

5.2 EVENTS THAT CHANGE THE WEIGHTING FACTORS

Dividends

Criteria for determining special dividends

The price index will be adjusted for dividends that are special.

The following criteria will be applied to decide whether a dividend should be considered a special dividend:

- a) The declaration of a company of a dividend additional to those dividends declared as part of the company's normal results and dividend reporting cycle; merely an adjustment to the timing of the declaration of a company's expected dividend would not be considered as a special dividend circumstance; or
- b) The identification of an element of a dividend paid in line with a company's normal results and dividend reporting cycle as an element that is unambiguously additional to the company's normal payment.

For the purpose of clarification, no adjustment will be made for the following situations:

1. Payment of ordinary dividends, irrespective of how they are financed;
2. Issue of redeemable shares or any other entitlement in lieu of an ordinary dividend; or
3. Unexpected increase or decrease, resumption or cessation, or change in frequency to an ordinary dividend.

Adjustment for special dividend

The adjustment of the index takes place by a reduction of the closing price of the share in question. Subsequently the divisor will be adapted in order to maintain the index level. The adjustments will be based on gross amounts.

Ordinary dividends in shares

If a dividend is distributed in the form of shares only and if this is regarded as ordinary dividend, the return index will be reinvesting a cash equivalent of the dividend. If shareholders may choose between cash or shares the amount which is reinvested will be based on the cash option.

Conversion of dividends declared in other currencies

If a dividend for a constituent is declared in another currency than the Base Currency of the index, then the Compiler will in first instance use the Base Currency amount if investors have the option to be paid in that currency. If the dividend amount is available only in currencies that deviate from the Base Currency, the Compiler will convert the dividend amount using the reference rate for the cum-day (the business day prior to the ex-date). In principle the reference rate will be based on the foreign exchange reference rates as published daily by the ECB.

Bonus issues, stock splits and reverse stock splits

For bonus issues, stock splits and reverse stock splits, the number of shares included in the index will be adjusted in accordance with the ratio given in the corporate action. The divisor will not be changed because of this. The Compiler may regard a bonus issue as the issue of an entitlement in lieu of an ordinary dividend and therefore treat this as a dividend.

Rights issues and other rights

In the event of a rights issue an adjusted closing price will be applied as calculated by the Compiler. The index is adjusted based on the value of the rights only. The divisor will be adapted in such a way that the level of the index remains the same.

The index will be adjusted only if the rights represent a positive value.

The index will also be adjusted if a value can be attributed to a subscription right for convertible bonds, bonds with warrants or warrants with preferential rights for shareholders or similar situations. If the value cannot be attributed straightforward, the Compiler may also decide to include the detached instrument for one day and adjust the index at the close based on the closing price for that subscription right on that day.

Partial tender offers on own shares

The Compiler will adjust the divisor of the index if the premium represents more than 5% of the share price of the close on the penultimate day before the ex-date (the day prior to the last day before the ex-day). The premium is calculated as the difference between the offered price and the closing price, multiplied by the percentage of the share capital targeted in the offer. If the divisor is adjusted, the number of shares in the index will be adjusted as well.

6. INDEX CALCULATION FORMULAS

The general formula for the **price index** is:

$$I_t = \frac{\sum_{i=1}^N Q_{i,t} F_{i,t} f_{i,t} C_{i,t} X_{i,t}}{d_t}$$

Where:

- t Time of calculation
- N Number of constituent equities in index
- $Q_{i,t}$ Number of shares of equity i included in the index on day t
- $F_{i,t}$ Free Float Factor of equity i ¹
- $f_{i,t}$ Capping factor of equity i ¹
- $C_{i,t}$ Price of equity i on t
- $X_{i,t}$ Current exchange rate on t ¹
- d_t Divisor of the index on day t

The **total return index** calculation takes two steps: the first step is to transpose the announced dividend payment into index points. This is called the XD adjustment. This uses the following formula:

$$\text{XD adjustment} = \sum_{i=1}^N \frac{g_i * w_i}{d}$$

Where:

- N Number of constituent equities in index
- g_i The announced dividend per share of the i^{th} component stock (for net return index withholding tax is deducted from this dividend);
- w_i The weighting of the i^{th} component stock in the index, based on number of shares included in the index, Free Float Factor, capping factor and exchange rate;
- d Divisor of the index.

The second step of the calculation uses the figures calculated in step one (XD adjustment). The dividend is assumed to be reinvested at the close of the ex-date.

$$\text{TR}_t = \text{TR}_{t-1} \left(\frac{\text{IV}_t + \text{XD}}{\text{IV}_{t-1}} \right)$$

Where:

- TR_{t-1} : Total return index value yesterday;
- TR_t : Total return index value on t;
- IV_{t-1} : Underlying price index yesterday;

¹ Factor is equal to 1 if not applied for the index

IV_t : Underlying price index on t;

The **Decrement return index** uses the following formula:

$$DI_t = DI_{t-1} \left(\frac{NR_t}{NR_{t-1}} - Dcr \times \frac{day}{365} \right)$$

Where:

DI_{t-1} Decrement Return Index value on day t-1

DI_t Decrement Return Index value on day t

NR_{t-1} Net Return Index value on day t-1

NR_t Net Return Index value on day t

Dcr 5%

day Number of calendar days between day t and day t-1

7. DEFINITIONS

7.1 REVIEW DATES

The **Review Cut-Off Date** is the date on which, after the market close, relevant data are gathered that will serve as basis for the periodical review of the index.

The **Review Composition Announcement Date** is the date on which, after the close, the full details are announced regarding the index composition that will come into effect after the review effective date. This includes numbers of shares, free float factors and capping factors of all companies included in the new index portfolio.

The **Review Effective Date** is the date on which, after the market close, the changes relating to the periodical review are being effectuated in the index portfolio.

7.2 FREE FLOAT FACTOR

The Free Float Factor is the percentage representing all listed securities of the selected line of the relevant company eligible for index inclusion (as described in section 5.2), minus any shareholdings that are considered non-free float. The Free Float Factor is based on public information available on the Review Cut-Off Date. The Free Float Factor will be rounded to the nearest 5%.

The following shareholdings are considered non-free float (based on public information available on the Review Cut-Off Date):

- Any single shareholder who holds 5% or more of the listed securities in the selected line eligible for index inclusion, with the exception of collective entities or pension funds.
Collective entities are those entities that fulfill all the following criteria:
 - i. are open for investment to investors or tradable on the market; and
 - ii. have a diversified portfolio; and
 - iii. have an open ended structure.Collective entities include mutual funds and other open end-funds.
- Collective entities or pension funds that hold 5% or more of the listed securities in the selected line eligible for index inclusion and are represented in any governing body of the company in question.
- Parties acting in concert that collectively hold 5% or more of the listed securities in the selected line eligible for index inclusion.
- Employee shareholding plans, employee pension plans, individual employees, management or members of the board of directors of the relevant company when their cumulative shareholding is 5% or more of the listed securities in the selected line eligible for index inclusion.
- Shares held by the relevant company that represent 5% or more of the listed securities in the selected line eligible for index inclusion (e.g. treasury shares).

7.3 TURNOVER

The Turnover is based on the trading volume on the specific listing used.

If a company's value of Turnover is not available for the entire relevant period, the available value of Turnover will be extrapolated to the entire relevant period. In such cases, the value of Regulated Turnover during the first twenty trading days that the company listed will be ignored.

In the event of a spin-off, a split-up or a similar corporate event, the value of Turnover before the corporate event will be assigned to the companies resulting from the corporate event based on the ratio of the corporate event. The ratio is determined based on the market capitalisation of the resulting entities after the first day of trading. The value of Turnover will be assigned if a spun-off division is listed as an independent company.

8. 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.	Euronext Transatlantic Leaders 50 EW
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:	30 th April 2020