



INDEX RULE BOOK

EURONEXT[®] CLIMATE OBJECTIVE 50 EW

Version 18-01

Effective from 23 November 2018

indices.euronext.com

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1. INDEX SUMMARY

Factsheet	Euronext® Climate Objective 50 EW
Index names	Euronext® Climate Objective 50 EW
Index type	Price indices; Net return index, Gross return index and Decrement return versions are also available.
Index governance structure	Euronext is the Supervisor and responsible for setting the rules and the periodical selection. Euronext acts as the Compiler and is responsible for the day-to-day management of the index.
Underlying index	the Euronext® Climate Europe
Selection	Based on climate score and liquidity.
Number of constituents	50
Weighting	Equally weighted
Capping	none
Review of composition	Annual after the close of the third Friday of November.
Base Currency	Euro

Note: the factsheet is a summary of the rule book for information purposes only. The text of the rulebook is leading.

Reference Data

Index name	Isincode	Mnemo	Bloomberg Code	Reuters code	Base date	Base value	Publication since
Euronext® Climate Objective 50 EW	NL0012328819	ECOEW	ECOEW	.ECOEW	19-11-10	1000	29/05/2017
Euronext® Climate Objective 50 EW NR	NL0012328827	ECOEN	ECOEN	.ECOEN	19-11-10	1000	29/05/2017
Euronext® Climate Objective 50 EW GR	NL0012328835	ECOEG	ECOEG	.ECOEG	19-11-10	1000	29/05/2017
Euronext® Climate Objective 50 EW Decrement 5%	NL0012328843	ECO50	ECO50EW	.ECO50	19-11-10	1000	29/05/2017

Version notes:

18-01 Change of definition of Free Float Factor

2. GOVERNANCE AND DISCLAIMER

2.1 INDICES

This rule book applies to the following indices (hereinafter “index”) owned by Euronext N.V. or its subsidiaries (hereinafter jointly “Euronext”):

- Euronext® Climate Objective 50 EW

2.2 COMPILER

Euronext is the compiler of the index (“Compiler”). The Compiler is responsible for the day-to-day management of the index and is also responsible for decisions regarding the interpretation of these rules.

2.3 SUPERVISOR

Euronext acts as supervisor of the index (“Supervisor”). The Supervisor is responsible for monitoring the selection of constituents for the index and ensuring that the index offers a reliable and representative view of the market. All Supervisor decisions will be published without delay following the decision (after market close).

2.4 CASES NOT COVERED IN RULES

In cases which are not expressly covered in these rules, operational adjustments will take place along the lines of the aim of the index. Operational adjustments may also take place if, in the opinion of the Compiler, it is desirable to do so to maintain a fair and orderly market in derivatives on this index and/or this is in the best interests of the investors in products based on the index and/or the proper functioning of the markets. The Compiler will report to the Supervisor if it took a decision about a case which is not specifically covered in the rules for comments and review.

2.5 RULE BOOK CHANGES

These rules may be supplemented, amended in whole or in part, revised or withdrawn at any time. Supplements, amendments, revisions and withdrawals may also lead to changes in the way the index is compiled or calculated or affect the index in another way. The Compiler will submit all decisions regarding supplementing, amending, revising or withdrawing these rules to the Supervisor for recommendations or approval.

2.6 LIABILITY

Euronext, the Compiler and the Supervisor are not liable for any losses resulting from supplementing, amending, revising or withdrawing the rules for the index.

The Compiler will do everything within its power to ensure the accuracy of the composition, calculation, publication and adjustment of the index in accordance with relevant rules. However, neither Euronext, nor the Compiler, nor the Supervisor are liable for any inaccuracy in index composition, share prices, calculations and the publication of the index, the information used for making adjustments to the index and the actual adjustments. Furthermore, Euronext, the Compiler and the Supervisor do not guarantee the continuity of the composition of the index, the continuity of the method of calculation of the index, the continuity of the dissemination of the index levels, and the continuity of the calculation of the index.

2.7 OWNERSHIP AND TRADEMARKS

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.

3. PUBLICATION

3.1 DISSEMINATION OF INDEX VALUES

3.1.1 Opening

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.

3.1.2 Calculation and dissemination

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 Euronext Markets stop regular daytime trading on the days when the Euronext Markets are open for trading.

3.1.3 Closing level

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

3.2 EXCEPTIONAL MARKET CONDITIONS AND CORRECTIONS

In the event that part of the constituents is reserved, suspended from trading or if technical problems prohibit normal trading, index values will continue to be calculated and published. For those constituent stocks that are not available for trading, the last known value will be used when determining index values.

Notwithstanding the previous paragraph, the Compiler always retains the right to delay the publication of the opening level of the index. Furthermore, the Compiler of the index always retains the right to suspend the publication of the level of the index or to mark the level of the index indicative if it believes that circumstances prevent the proper calculation of the index. If prices are cancelled, the index will not be recalculated unless the Compiler decides otherwise.

If after the market opens the index remains in pre-opening during the entire trading session, the reference closing level of the index will be calculated on the basis of the most recent traded prices, or the most recent reference price (possibly adjusted to account for corporate actions).

The general procedures in case of index outages and other situations in which the normal provision of indices is interrupted are described in Euronext Indices Correction Policy on indices.euronext.com/index-rules.

3.3 ANNOUNCEMENT POLICY

The announcement policy is described in the Euronext Indices Announcement policy document that is available on indices.euronext.com/index-rules.

4. CALCULATION

4.1 CALCULATION OF THE PRICE INDEX

The index is calculated on a price return basis. The calculation is based on the current numbers of shares included in the index of each constituent multiplied by the most recent price and subsequently divided by the divisor. The divisor was determined on the initial capitalization base of the index and the base level. The divisor is adapted as a result of corporate actions and composition changes.

4.2 CURRENCY CONVERSION

The base currency of the index is Euro (“Base Currency”).

Share prices that are quoted in other currencies than the Base Currency will be converted to the Base Currency using the last known exchange rate observed on Reuters. Closing prices will be converted based on the most recent WM/Reuters spot rates, which are published each business day around 17:00 CET.

4.3 TOTAL RETURN INDEX CALCULATION

4.3.1 Return indices

A net total return index as well as a gross total return index, is calculated and disseminated at the same frequency as the price index. The return indices are obtained by reinvesting the net and gross dividends respectively.

4.3.2 Withholding tax rate

The net dividend is calculated as the gross dividend minus the applicable withholding tax. A table detailing the percentages that are applied is available on the website of Euronext.

4.3.3 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.

4.3.4 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.

4.4 DECREMENT INDEX CALCULATION

A decrement return index is calculated and disseminated at the same frequency as the Net Return Index. The decrement return index is obtained by deducting on a daily basis a 5% rate per annum from the net return index.

5. INDEX REVIEWS

5.1 GENERAL AIM AND FREQUENCY OF REVIEWS

5.1.1 General aim of the periodical review

The general aim of the periodical review of the index is to ensure that the selection and weighting of the constituents continues to reflect the underlying market or market segment it represents.

5.1.2 Review Cut-Off Date and Review Effective Dates

The Review Cut-Off Date (see 10. Definitions) is after the market close of the last trading day of September. The Review Effective Date is after the market close of the third Friday of November.

5.2 ELIGIBLE COMPANIES AND SELECTION

5.2.1 Underlying Index

The Euronext® Climate Europe index.

5.2.2 Selection basis

Climate score

Euronext calculates a climate score by combining the Carbone 4 and CDP score. The full methodology is available in the Euronext® Climate Europe index rule book.

5.2.3 Selection process

The selection is made following a 3 steps process.

- Step 1: the stocks with a free float market capitalization below €3B or an average daily turnover over the past 6 months below €20M at the cut-off date are excluded.
- Step 2: when at least 50% of the turnover of a company (classified as utility or extractive) stems from energy, then the company will be excluded if:
 - It emits more than 379 grams of CO² per kwh produced (for utilities)
 - if the forward looking score* as defined by Carbone 4 is above C (for extractives)
- Step 3: for each ICB super sector, the target number of stocks is equal to 25% of the number of stocks included in the same super sectors as the Underlying Index (rounded up in case of not a whole number). The stocks with the worst climate scores are excluded. To decide between stocks with same Climate score, the stocks with the highest free-float capitalisation are kept.
- Step 4: the 50 highest climate score are selected with a maximum of:
 - respectively 10, 8 and 6 stocks for the high, medium and low stakes** ICB Super-sectors
 - a maximum of 15 stocks per country.

If a stock cannot be selected due to reaching the sector/country maximum, the next highest ranking stock, in terms of climate score, is taken.

* as defined by Carbone 4. Please refer to section 7 for more information.

**as defined by Carbone 4. Please refer to section 8 for more information.

5.2.4 Weighting

The new weightings in shares of the constituents are based on the new composition of the Underlying Index in combination with the closing prices of the Review Composition Announcement Date of the Underlying Index.

The new weightings are calculated such that each constituent will have an equal weight in the index.

5.2.5 Selected line

As only one listing – the most active one - is permitted per company, the listing representing the company's ordinary shares is generally used.

5.3 ADJUSTMENTS TO THE OUTCOME OF THE REVIEW

In the event of a takeover or other exceptional circumstances, the Compiler has the right to revise the selection from the time the announcement is published up to the Review Composition Announcement Date.

The Compiler will not change the outcome of the review for events that happen after the Review Composition Announcement Date. Corporate actions happening before the Review Effective Date will lead to an update of the new composition that is in line with the treatment according to chapter 6.

6. CORPORATE ACTIONS

6.1 GENERAL

The index may be adjusted in order to maintain the continuity of the index level and the composition. The underlying aim is that the index continues to reflect as closely as possible the value of the underlying portfolio.

Adjustments take place in reaction to events that occur with constituents in order to mitigate or eliminate the effect of that event on the index.

6.2 REMOVAL OF CONSTITUENTS

Constituents which are removed from the Underlying Index will be removed simultaneously from the index.

If a company is removed from the index, the divisor will be adapted to maintain the index level.

6.2.1 Mergers and acquisitions

The treatment in case of mergers and acquisitions follows the treatment that is applied for the Underlying Index.

6.2.2 Suspensions and delistings

The treatment in case of suspensions and delistings follows the treatment that is applied for the Underlying Index.

6.3 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 remain included in the Underlying Index. 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.

6.4 EARLY INCLUSION OF NON-CONSTITUENTS

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

6.5 DIVIDENDS

6.5.1 Distinction ordinary and special dividend

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.

6.5.2 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.

6.6 RIGHTS ISSUES AND OTHER RIGHTS

In the event of a rights issue 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.

6.7 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 in accordance with 6.5.1.

6.8 CHANGES IN NUMBER OF SHARES OR FREE FLOAT FACTOR

Not applied for this index.

6.9 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.

7. THE FORWARD LOOKING SCORE

Carbon emissions measures only give an historical viewpoint of a firm's carbon impact, whereas financial analysis requires a more forward-looking evaluation of carbon impact. Such an evaluation includes an analysis of investments and R&D expenditures that will contribute to decrease carbon emissions, as well as an analysis of the firm's positioning and strategy regarding the low-carbon transition. A progress indicator would allow analysts to project how induced and avoided emissions of the firm will evolve in the coming years.

The forward looking score ranges from A to D, A being excellent and D poor.

More information available on <http://www.carbone4.com/sites/default/files/CarbonImpactAnalytics.pdf>

8. SUPER-SECTORS EQUIVALENCE TABLE

Challenges regarding the low-carbon transition vary depending on the characteristics of each economic sector.

Therefore, Carbon Impact Analytics differentiates “high stakes”, “medium stakes” and “low stakes” sectors, and provides specific insights for high and medium stakes sectors with tailored calculation principles for each sector.

Low stakes sectors include companies with a limited impact on global warming as well as companies for which the current standards of disclosure are insufficient to perform a reliable CIA analysis.

Super Sectors	Classification
Automobiles & Parts	High stake
Banks	Low Stake
Basic Resources	High stake
Chemicals	High stake
Construction & Materials	High stake
Financial Services	Low Stake
Food & Beverage	High stake
Health Care	Low Stake
Industrial Goods & Services	High stake
Insurance	Low Stake
Media	Low Stake
Oil & Gas	High stake
Personal & Household Goods	Medium stake
Real Estate	High stake
Retail	Low Stake
Technology	Low Stake
Telecommunications	Low Stake
Travel & Leisure	Medium stake
Utilities	High stake

9. 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;
- IV_t : Underlying price index on t;

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

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

$$DI_t = DI_{t-1} \left(\frac{NR_t}{NR_{t-1}} - Dcrt \cdot \frac{day}{365} \right) \quad \text{Where:}$$

- DI_{t-1}: Decrement index value previous calculation date;
- DI_t: Decrement index value on t;
- NR_{t-1}: Net return index value previous calculation date;
- NR_t: Net return index value on t;
- Dcrt: 5%
- day: number of calendar days between index business day t-1 and t

10. DEFINITIONS

10.1 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).

10.2 COMPILER

Committee of Euronext officials appointed by Euronext.

10.3 REVIEW RELEVANT 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 Announcement Date** is the date on which, after the market close, the changes relating to the periodical review are announced as well as the preliminary free float factors.

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.

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.