

INDEX RULE BOOK

Euronext® V.E ESG-World-Select 75

Bund/SV Index

Version 21-02

Effective from 15-12-2021

indices.euronext.com

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2. HIGHLIGHTS

This document is applicable to the V.E ESG-World-Select 75 Bund/SV Index ("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 Globally. The Index seeks compliance with Climate Transition Benchmark (CTB) objectives.

Euronext Paris is the Administrator of this Index Family. The Expert Committee acts as Independent Supervisor of the Index Family.

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VERSION NOTES

Version	Effective date	New or changed parts	Reference/announcement
21-01		initial version	
21-02	15-12-2021	restyled version in view of newly published Calculation and Corporate Actions rulebooks	

3. INDEX REVIEWS

3.1 REVIEW FREQUENCY AND RELEVANT DATES

Review frequency: Annual

Review Effective Date: After the market close of the last trading day in June

Review Cut-Off Date: After the market close of the penultimate Friday of May

Review Announcement Date: At least 6 trading days before the Review Effective Date.

Review Weighting Announcement Date: Two days before the Review Effective Date.

3.2 REVIEW SELECTION

Step 1: Index Universe

The Index Universe consists of the Companies included in the Euronext Europe 500 index, North America 500 Index and Euronext Asia Pacific 500 Index who have their Main Listing in Japan Australia, United Kingdom, Switzerland, United States of America or Canada whose domicile and country of incorporation is equal to its Main Listing. At reviews this means included in the Index after the Review Effective Date.

Step 2: Eligibility screening at reviews

Step 2a: Basic eligibility screening

Companies with the following characteristics at the Review Cut-Off date are not eligible:

- 3 month average daily turnover of less than €20m.
- Free Float Market Capitalisation (FFMC) less than €3bn.
- Facing critical controversies with regards to UNGC principles (VE research field Level of integration of GC principles = Non communicative and/or Controversial)
- Involvement in controversial weapons (VE research field MIL 1.2 = Yes)
- Production of tobacco (VE research field TOB 1.2 > 0%)
- Nuclear power generation (VE research field NUCL 1.2 = Generation)
- ESG score less than 30
- Stocks not covered by VE research on ESG, Carbon Emissions or Energy Transition

Step 2b: Worst in class exclusions

Companies that have passed the basic eligibility screenings from Step 2a are then ranked on ESG score and Free Float Market Capitalization in decreasing order (i.e. following the principle of better ESG score = better rank and in case of equal ESG score, higher FFMC stock will rank higher). These ranks are done in each ICB industry separately.

The 25% bottom ranked Companies in each industry are not eligible. The actual number of stocks that constitute these 25% in each industry is rounded down (e.g. in an industry consisting of 35 stocks, 8 (35 * 0.25 rounded down) will be excluded).

Companies passing this ESG worst-in-class screen are then, in a similar fashion, ranked on Energy Transition score. The 25% bottom ranked Companies in each ICB industry are not eligible. This ranking and exclusion uses the same principles as the ESG worst-in-class screen.

Step 3: Selection Ranking

After all the exclusions, preliminary exposure to ICB industries are calculated using FPMC-based weights and compared to the industry exposure of the Index Universe. The FPMC of the stocks in the index are then multiplied by an adjustment ratio (AR_i) defined below to arrive to modified FPMC preliminary weights.

Value of i	AR_i
All ICB Industries	$AR_i = \frac{MIU_i}{PREL_i}$ <p>where</p> <p>MIU_i = Weight of ICB Industry i in the Index Universe</p> <p>$PREL_i$ = Preliminary Index Weight in ICB industry i</p>

Companies are ranked on their Adjusted FPMC based on the above.

Step 4: Selection of constituents at the reviews

The ranking will result in the following Composition:

Euronext V.E ESG-World-Select 75 Bund/SV Index consists of 75 Companies:

In each ICB industry, up to 4 largest Companies are selected (as there could be industries with fewer available stocks), based on the modified FPMC weight from step 3.

In each country, up to 2 largest Companies are selected (as there could be countries with fewer available stocks), based on the modified FPMC weight from step 3.

To reach the target number of Companies, the rest of eligible Companies that have not yet been selected are ranked by the modified FPMC weight from Step 3 and the largest N stocks are selected, N being the number of stocks still needed to reach the target number of companies in the index.

3.3 PERIODICAL WEIGHTING UPDATE

Weighting method

The index is Non-Market Capitalisation weighted, based on the CTB weighting procedure

The Weighting Factors are explained in the following paragraphs.

Number of shares

The new weightings are calculated such that each constituent will have the weight in accordance with the outcome of the weighting procedure detailed in 3.4.

The Number Of Shares are determined based on the closing prices of the Companies to be included in the Index on the Review Weightings Announcement Date.

Free Float factor

The Free Float Factor is not applicable for this Index Family.

Capping Factor

The Capping Factor is not applicable for this Index Family.

3.4 WEIGHT CALCULATION

3.4.1 ICB Exposure alignment #2

Similar to step 3 of the selection process, the index constituents are given temporary weights based on their modified FPMC, with the exposure of the index to all ICB industries being measured and compared to the ICB exposure of the Index Universe. The index temporary weights are then multiplied by the adjustment ratio, analogous to step 3 of the selection process to arrive to index preliminary weights.

A maximum weighting of 7.5% is applied to each constituent. The surplus weight (weight above the capping for a specific company) is rebalanced to all the other index components within the same ICB industry, proportional to their weights, subject to the capping constraint. In case the surplus weight cannot be reallocated within the same ICB industry, it is split in proportion among the rest of the stocks from all the ICB industries.

3.4.2 Climate impact allocation constraint

CTB indices must comply with exposure constraints to sectors linked to climate impact. This will be achieved via proportional adjustments of the Preliminary Index Weights that were computed in sections above.

Each stock in the Index selection is assigned to a NACE Letter Section. Companies belonging to NACE Sections A to H and L (subject to change in line with regulation) will be collectively referred to as High Climate Impact Section (HCIS). The rest of stocks in the Index selection will be referred to as Low Climate Impact Section (LCIS).

The Preliminary Index Weights will be aggregated and grouped by the two Climate Impact Sections. The same will be done with weights of the Index Universe. Depending on the comparison of these weights, the index preliminary weight may or may not be adjusted, as described in the following two sections. Options 1 and 2 outlined below are mutually exclusive and only one of them will be true at any given Index Review.

Option 1)

If the sum of Preliminary Index Weights in the HCIS is *lower* than the sum of weights in the HCIS of the Index Universe, adjustments will be performed. The objective is to increase the exposure of the index to the HCIS and make it at least equivalent to the exposure of the Index Universe.

Ex:	Index Preliminary Weights	Index Universe	Adjustments Needed to Index Preliminary Weights?
High Climate Impact Section	60%	70%	Yes, +10%

Low Climate Impact Section	40%	30%	Yes, -10%
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- Preliminary weights will be multiplied by an Adjustment Ratio where AR_i is the Adjustment Ratio depending on the Climate Section (i) of the corresponding stock whose weight is being adjusted, according to the following definition

Value of i	Climate Name	Section	AR_i
HCIS	High Climate Impact		$AR_{HCIS} = \frac{MIU_{HCIS}}{PREL_{HCIS}}$ <p>where</p> <p>MIU_{HCIS} = Weight of HCIS in the Index Universe</p> <p>$PREL_{HCIS}$ = Preliminary Index Weight of HCIS</p>
LCIS	Low Climate Impact		$AR_{LCIS} = \frac{MIU_{LCIS}}{PREL_{LCIS}}$ <p>where</p> <p>MIU_{LCIS} = Weight of LCIS in the Index Universe</p> <p>$PREL_{LCIS}$ = Preliminary Index Weight of LCIS</p>

- A maximum weight of 7.5% is still maintained for each index constituent. The surplus weight resulting from the Climate Impact Section adjustments (weight above the capping for a specific company) is rebalanced to the other index components in the same Climate Impact Section, proportional to their weight, subject to the capping constraint.

Option 2)

If the sum of Preliminary Index Weights in the HCIS is *higher or equal* than the sum of weights in the HCIS of the Index Universe, no adjustments will be performed.

Ex:	Index Preliminary Weights	Index Universe	Adjustments Needed to Index Preliminary Weights?
High Climate Impact Section	80%	70%	No
Low Climate Impact Section	20%	30%	No

3.4.2.1 Climate Impact Section-Adjusted Preliminary Weights

Following the process above, the weights of the index will be referred to as Climate impact Section-Adjusted Preliminary Weights. This is for differentiation purposes and consistency, even if no adjustments were made due to Option 2. Once the total weights of the two sections are established, they are locked and will not change on aggregate, even if individual stock weights within each of these sections can be adjusted further to comply with decarbonization objectives, as described in the next section.

3.4.3 Decarbonization objectives

3.4.3.1 Carbon Intensity calculation and targets

Euronext will calculate the Carbon Intensity (CI) (see Step 2 below) for each of the companies in the Index as well as for each company in the Index Universe.

The target metric for decarbonization objectives is the Weighted Average Carbon Intensity (WACI) (see Step 3 below). The following two objectives need to be respected at the same time – they form the **CTB Double Cap**.

i) Carbon Intensity reduction of the Index vs the Index Universe of at least 30%

- The WACI of the Index each year will be compared to the WACI of the Index Universe

ii) Year-on-year self-decarbonization trajectory of the Index

- During the review in base year Euronext will calculate the WACI of the Index and calculate a decreasing trajectory of carbon intensity target for future years, with 7% annual geometrical decrease
- This self-decarbonization trajectory will be made public

Ex:	Index WACI Trajectory	Trajectory Formula
Base Year T	1000	$WACI_T$
Year T+1	930	$(1 - 0.07) * WACI_T$
Year T+2	864.9	$(1 - 0.07)^2 * WACI_T$

3.4.3.2 Weight adjustments to achieve decarbonization objectives

Climate Impact Section-Adjusted Preliminary Weights (see section above) will be further adjusted iteratively, one company at a time, until the WACI of the Index complies with the targets. This process is described in the following steps.

Step 1: Initialize the Temporary Index weights

- The initial stock weights used for the Index in this iterative process are set to be the Climate Impact Section-Adjusted Preliminary Weights (section 5.8.1)

Step 2: Establish the CI and weighted CI of all companies individually

- For each stock in Index and in the Index Universe calculate:

$$CI = \frac{\text{Sum of Emissions}}{\text{Enterprise Value incl. Cash}}$$

- Emissions are Scope 1+2+3 carbon emission, provided by VE
- Enterprise Value incl. Cash = Market capitalization + Debt

- For Index:

$$\text{Stock-level weighted CI} = CI * \text{Temporary Index weight}$$

- For Index Universe:

$$\text{Stock-level weighted CI} = CI * \text{FFMC weight}$$

Step 3: Establish the WACI of the Index and the Index Universe

- Both follow a generic calculation for a portfolio of stocks
- $WACI \text{ of Portfolio} = \sum \text{Stock-level weighted CI}$

Step 4: Establish the targets for decarbonization objectives

- Target 1 = 30% * WACI of Index Universe in the year of the review
- Target 2 = WACI value of the self-decarbonization trajectory in the year of the review
 - N.B.: Target 2 in Base Year (2021) is not applicable, applies only from Base Year + 1
- The minimum of Target 1 and Target 2 is the CTB Double Cap

Step 5: Compare the WACI of the Index from Step 3 with the CTB Double Cap from Step 4

- Condition: WACI of the Index needs to be lower or equal to the CTB Double Cap
 - If this condition is satisfied, stop with the process, no more adjustments to the Temporary Index weights are done and they become the final index weights, proceed to Step 11

- If this condition is *not* satisfied, continue with the process

Next steps comprise the iterative process itself and are only executed if the condition in Step 5 is not satisfied.

Step 6 [Outer Loop]: Determine the candidate stock for reduction of Temporary Index weight

- 1st iteration only
 - Choose the company with the highest weighted CI
- 2nd - 5th iteration
 - Choose the company with the highest weighted CI subject to it being different from stocks already chosen in the 1st-5th iteration
- Principle - perform loops in batches of 5 iterations where stocks will be selected based on highest weighted CI but always at least 5 different stocks will be chosen successively (6th-10th iter., 11th-15th iter. and so on) until the targets are met
 - N.B.: As a consequence of these rules and as an example of permissible action, if stock has had its weight reduced in the first batch (1st-5th iteration), its weights can be further reduced in the next batches if it happens to still have the highest weighted CI at any point

Step 7 [Inner Loop]: Decrease the Temporary weight of the candidate stock from Step 6

- First decrease of -10%
- If CTB targets not met (Step 10), further 2 decreases, each of -10%, for an aggregated maximum reduction of -30%

Ex:	Weight of Stock ABC
Temporary weight when entering Step 7	4%
Temporary weight after -10%	$3.6\% = 4\% \times (1 - 0.1)$
Temporary weight after -20%	$3.2\% = 4\% \times (1 - 0.2)$
Temporary weight after -30%	$2.8\% = 4\% \times (1 - 0.3)$

Step 8: Determine stocks eligible for rebalancing the weight decreased in Step 7

Companies with the following attributes are eligible for weight increase rebalancing:

- Same Climate Impact Section as stock from Step 6
- Lower CI (*not* necessarily weighted CI) compared to stock from Step 6
- No weight reduction so far within the current batch
 - N.B.: this in no way contradicts the further 10% decrements in Step 7 as the stocks being eligible for weight rebalancing are by definition different from the stock in step 7
- Not capped

Step 9: Rebalance the weight taken in Step 7 to eligible companies from Step 8

- The weight redistribution is proportional to $1/(\text{Carbon Intensity})$, taking into account only the CI of the eligible companies, subject to the following constraints:
 - Maximum stock weight in the index is 7.5% is maintained
 - If a stock reaches one of the weight limits before the reallocation of the weight corresponding to its proportion according to the $1/(\text{Carbon Intensity})$ principle, the weight is capped at maximum and the excess weight that was not allocated is distributed among the rest of the eligible stocks using the $1/(\text{Carbon Intensity})$ principle again, excluding the Carbon Intensity of the capped stock
 - If the weight to be rebalanced from Step 7 is higher than the total weight that can be allocated to the eligible companies due to the maximum weight limit of 7.5%, the weight decrease from Step 7 will be adjusted to be as large as possible while respecting these limits

Ex:	Temporary weight (Step 1)	Carbon Intensity (Step 2)	Weighted Carbon Intensity	Stock weight to be decreased?	Eligible to rebalance into?	$1/(\text{Carbon Intensity})$	Weight changes (Step 9)
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			(Step 2)	(Step 6)	(Step 8)	[absolute; relative]	
Stock 1	4%	100	4	Yes, -10%	-	-	-0.4% = - 10%*4%
Stock 2	2%	150	3	No	No	-	-
Stock 3	5%	70	3.5	No	Yes	0.014; 36%	+0.15% = 36%*0.4%
Stock 4	7%	40	2.8	No	Yes	0.025; 64%	+0.25% = 64%*0.4%

Step 10: Compare the new WACI of the re-weighted Index against the CTB Double Cap

- Condition: WACI of the Index needs to be lower or equal to CTB Double Cap
- If this condition is satisfied, stop with the iterations and proceed to Step 11
- If this condition is *not* satisfied, continue with the iterations
 - If the weight in stock in Step 7 has been decreased *less than 3 times* within this instance of the inner loop
 - Stay within the inner loop, go back to Step 7 and decrease the weight by further 10%
 - If the weight in stock in Step 7 has been decreased *3 times* within this batch of iterations
 - Keep the rebalanced weights, exit the inner loop and go back to Step 6 to select a different stock

Step 11: Final weights, publish index and the final WACI

In case the algorithm above does not converge to a solution, stock selection from Section 3.2 Step 4 is modified such as the stock with the highest Carbon Intensity is replaced by the largest FPMC eligible stock with lower Carbon intensity. Section 3.4 is performed again. This might continue iteratively until the index meets all the objectives.

4. REFERENCES

Index name	Isin code	Mnemo	Bloomberg Code	Reuters code	Base date	Base value	Publication since	Index Type
Euronext V.E ESG-World-Select 75 Bund/SV	NL0015000ED5	EVEWP	ESGWS75P	.EVEWP	30/06/2010	1000	09/07/2021	Price Return
Euronext V.E ESG-World-Select 75 Bund/SV GR	NL0015000EA1	EVEWG	ESGWS75G	.EVEWG	30/06/2010	1000	09/07/2021	Gross Return
Euronext V.E ESG-World-Select 75 Bund/SV NR	NL0015000EG8	EVEWN	ESGWS75N	.EVEWN	30/06/2010	1000	09/07/2021	Net Return

4.1 BASE CURRENCY

The Base Currency of this index family is Euro.

4.2 PUBLICATION

The level of the Indices are in principle published every 15 seconds starting from 09:00. Index levels published before the official opening level is published are considered pre-opening index levels.

The official opening level is the first level published.

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 Paris
Item 2. Type of benchmark	Equity Benchmark
Item 3. Name of the benchmark or family of benchmarks.	Euronext V.E ESG-World-Select 75 Bund/SV Index
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	Yes
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:	<p>Exclusion:</p> <ul style="list-style-type: none"> • Facing critical controversies with regards to UNGC principles • Involvement in controversial weapons • Production of tobacco • Nuclear power generation • ESG score less than 30 • Stocks not covered by VE research on ESG, Carbon Emissions or <p>Energy Transition</p> <ul style="list-style-type: none"> • 25% worst-in-class stocks based on ESG score in each ICB industry • 25% worst-in-class stocks based on Energy Transition score in each ICB industry <p>Weighting:</p> <ul style="list-style-type: none"> • Weighting based on Free Float Market Capitalisation. • Further weighting adjustments to meet CTB objectives, If the weights stemming from the core methodology and alignment of High Carbon Impact sections do not satisfy the decarbonization targets, we proceed to an iterative reweighting of the constituents. The weight of the highest Weighted Carbon Intense stock in the index is diminished up to 30% and rebalanced in in its Super-sector, to less Carbon Intense companies. We reiterate this process with a second company if needed and so on, until the index is compliant with the CTB Carbon Intensity requirements.
b) List of social factors considered:	<i>Refer to a)</i>
c) List of governance factors considered:	<i>Refer to a)</i>
Item 6. Data and standards used.	

<p>a) Data input.</p> <p><i>(i) Describe whether the data are reported, modelled or, sourced internally or externally.</i></p> <p><i>(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</i></p>	<p>Vigeo-Eiris: Section 10 provide detailed definition</p> <ul style="list-style-type: none"> • ESG score • Energy Transition score • Carbon Emissions • Critical controversies with regards to UNGC principles • Nuclear power generation • Production of tobacco • Involvement in controversial weapons
<p>b) Verification of data and guaranteeing the quality of those data.</p> <p><i>Describe how data are verified and how the quality of those data is ensured.</i></p>	<p>Vigeo-Eiris represents and warrants that to the best of its knowledge the Methodology is robust and reliable, rigorous and capable of validating and verifying including, but not limited to, the following:</p> <ul style="list-style-type: none"> • shall promptly correct any errors made in its computations of the Data and inform Euronext thereof, immediately. • periodically review the Methodology • has clear written rules identifying how and when discretion may be exercised when deviating from the methodology • will inform Euronext prior to making any material change to the Methodology and will provide Euronext with the rationale for such change.
<p>c) Reference standards</p> <p><i>Describe the international standards used in the benchmark methodology.</i></p>	<p>Vigeo-Eiris: the methodology behind ESG performance indicators and the assessment of controversies severity is based on the following international standards :</p> <ul style="list-style-type: none"> • Global Reporting Initiative (GRI) • OECD Guidelines for Multinational Enterprises, and sectorial guidance • G20/OECD recommendations on Corporate governance • UN Conventions and recommendations, • UN Global Compact Principles • UN Sustainable Development Goals • ILO Conventions , including the core ones, and recommendations • TFCF recommendations • Paris Agreement (UNFCCC)
<p>Information updated on: 15th of December 2021</p>	

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.