

INDEX RULE BOOK

CAC PAB

Version 25-02

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1. GENERAL

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

The CAC PAB Index seeks compliance with Paris Aligned Benchmark (PAB) objectives and reflects the price level trends in the trading of shares listed in Paris.

Euronext Paris is the Administrator of this Index Family. For this Index Family no Independent Supervisor is appointed.

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VERSION NOTES

Version	Effective date	New or changed parts	Reference/announcement
25-01	27-01-2025	Initial version	
25-02	29-01-2025	Adjusted the capping to 15%	

2. INDEX REVIEWS

2.1 REVIEW FREQUENCY AND RELEVANT DATES

Review frequency: Annually.

Review Effective Date: After the market close of the third Friday of June. Reviews are implemented spread over 5 trading days from the Review Effective Date

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

Review Announcement Date: At least two trading days before the Review Effective Date

Review Weighting Date: Three trading days before the Review Effective Date.

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

2.2 INDEX METHODOLOGY PRINCIPLES

2.2.1 General Methodology Objectives

The Index seeks compliance with Paris Aligned Benchmark (PAB) objectives.

Compliance with PAB is aimed via weight adjustments following core selection and preliminary weights.

The weights are constructed using an optimization process that aims to achieve the PAB decarbonization objectives while minimizing the weights' deviation relative to the Free Float Market Cap (FFMC) weights. (Cf section 2.4 for further details)

2.2.2 Data Partners

- ISS ESG provides research datapoints related to ESG, Energy transition, Carbon exposure, Controversies and Activity involvement.

2.2.3 Climate Impact sections

Grouping of companies based on NACE section classification (Annex I to EC Regulation No 1893/006) into two sections:

- High Climate Impact section
 - NACE Sections A to H and Section L
- Low Climate Impact section
 - NACE Sections that are not part of the High Climate Impact section

NACE Section	NACE Section Name	Climate Impact Section Group
A	AGRICULTURE, FORESTRY AND FISHING	High
B	MINING AND QUARRYING	High
C	MANUFACTURING	High
D	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLIES	High

E	WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES	High
F	CONSTRUCTION	High
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	High
H	TRANSPORTATION AND STORAGE	High
I	ACCOMMODATION AND FOOD SERVICE ACTIVITIES	Low
J	INFORMATION AND COMMUNICATION	Low
K	FINANCIAL AND INSURANCE ACTIVITIES	Low
L	REAL ESTATE ACTIVITIES	High
M	PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	Low
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	Low
O	PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY	Low
P	EDUCATION	Low
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	Low
R	ARTS, ENTERTAINMENT AND RECREATION	Low
S	OTHER SERVICE ACTIVITIES	Low
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE	Low
U	ACTIVITIES OF EXTRATERRITORIAL ORGANISATIONS AND BODIES	Low

2.3 REVIEW SELECTION

Step 1: Index Starting Universe

Index Starting Universe definition

The Index Starting Universe consists of the Constituents included in the CAC Large 60 at review.

At review means included in the Index Starting Universe after the Review Effective Date.

Step 2: Eligibility screening at reviews

The list of Constituents is reduced by a series of screens. The Companies with any of the following characteristics are excluded:

- Constituents not covered by ISS-ESG's Scope 1 Climate Emissions data
- Constituents not covered by ISS-ESG's Scope 2 Climate Emissions data
- Constituents not covered by ISS-ESG's Scope 3 Climate Emissions data

- **Breaches of international standards:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Breaches of international standards	Flagged "Red"	NBSOverallFlag

- **Tobacco Production:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Tobacco Production - Maximum Percentage of Revenues (%)	Derived turnover > 0%	TobaccoRevShareMax

- **Animal testing:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Animal Testing Pharmaceutical products	Flagged "Pharmaceutical"	AnimalWelfareAnimTestInvolvement

- **Coal Mining:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Coal Mining - Maximum Percentage of Revenues (%)	Derived turnover \geq 1%	CoalMiningRevShareMaxTotal

- **Thermal Power Generation:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Thermal Power Generation - Maximum Percentage of Revenues (%)	Derived turnover \geq 50%	PowGenRevShareThermalMax

- **Fossil Fuels:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Fossil Fuel - Maximum Percentage of Revenues (%)	Derived turnover \geq 10%	FossilFuelRevShareMax

- **SDG Impact Rating:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
SDG Impact Rating - Climate Action	Rating \leq -5,1	SDGRClimateAction
SDG Impact Rating - Life On Land	Rating \leq -5,1	SDGRLifeOnLand
SDG Impact Rating - Life Below Water	Rating \leq -5,1	SDGRLifeBelowWater
SDG Impact Rating - Responsible Consumption and Production	Rating \leq -5,1	SDGRRespCons

- **Controversial Weapons:**

Exclusion topic	Exclusion criteria	ISS-ESG Field Name
Biological Weapons	Flagged "Red" or "Amber"	BiologicalWeaponsOverallFlag
Chemical Weapons	Flagged "Red" or "Amber"	ChemicalWeaponsOverallFlag
Cluster Munitions	Flagged "Red" or "Amber"	ClusterMunitionsOverallFlag

Depleted Uranium	Flagged "Red" or "Amber"	DepletedUraniumOverallFlag
Anti-personnel Mines	Flagged "Red" or "Amber"	APMinesOverallFlag
Incendiary weapons	Flagged "Red" or "Amber"	IncendiaryWeaponsOverallFlag
White phosphorous weapons	Flagged "Red" or "Amber"	WhitePhosphorusOverallFlag

The remaining Constituents are eligible for inclusion.

The Euronext ESG Providers Methodologies document gives a detailed background on various scoring methodologies, controversial activities and controversies assessments.

Step 3: Selection ranking

The eligible Constituents are ranked by free float market capitalization.

Step 4: Selection of constituents at the reviews

The 30 highest ranking Constituents will be selected in the index.

2.4 PERIODICAL WEIGHTING UPDATE

Weighting method

The Index is Non-Market Capitalisation weighted, based on an optimization approach.

The Weighting Factors are explained in the following paragraphs.

Number of Shares

The Number of Shares are calculated such that each constituent will have the weight in accordance with the outcome of the weighting procedure detailed in 2.5.

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

Free Float Factor

The Free Float Factor is not applied for this Index family.

Capping Factor

The Capping Factor is technically set at 1, per-stock caps and other capping mechanisms are part of the weight optimization and therefore taken into account when calculating the final Constituents weights and the derived number of shares; Cf section 2.5.2

2.5 WEIGHT CALCULATION

2.5.1 Decarbonization objectives

2.5.1.1 Carbon Intensity calculation

Euronext will calculate the Carbon Intensity (CI) for each of the Constituents in the Index as well as for each Constituents in the Index Starting Universe.

The Carbon intensities are calculated as follows:

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

- Emissions are Scope 1+2+3 carbon emission, provided by ISS-ESG ¹
- Enterprise Value including Cash = Market capitalization + Debt

- For Index:

$$\text{Stock-level weighted CI} = CI * \text{Index weight}^2$$

- For Index Starting Universe:

$$\text{Stock-level weighted CI} = CI * \text{FFMC weight}^3$$

The Weighted Average Carbon Intensity (WACI) of the Index and the Index Starting Universe are established as follows:

- WACI of Portfolio = \sum Stock-level weighted CI

2.5.1.2 Decarbonization targets

The target metric for decarbonization objectives is the WACI. The following two objectives need to be respected at the same time – they form the **PAB Double Cap**.

i) Carbon Intensity reduction of the Index vs the Index Starting Universe of at least 50%

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

ii) Year-on-year self-decarbonization trajectory of the Index⁴

- 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 as below:

$$WACI_{T+1} \leq (1 - 0.07) * WACI_T$$

- 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	$(1 - 0.07)^2 * WACI_T$

The base date and level of the carbon intensity are the following:

Base date of Carbon intensity	Carbon intensity
May-2023	413.646

¹ In case ISS-ESG does not provide Carbon Emissions then the carbon intensity is calculated as the median of the ICB Supersector carbon intensities.

² The calculation of the Index Weights are described in the section 2.5.2

³ Free Float Market Cap Weights of the components in the index starting universe

⁴ Trajectory calculation only applicable since the publication of the Index

2.5.2 Weight adjustments to achieve decarbonization objectives:

The index weights are constructed using an optimization process that aims to achieve the decarbonization objectives while minimizing the weights' deviation from the Free Float Market Cap Weights (Weight_{FFMC}).

The objective function to minimize is the following:

$$f(w_1, w_2, \dots, w_p) = \sum_{i=1}^p (w_i - w_i^{FFMC})^2$$

With:

- w_i = Weight of constituent i in the portfolio
- w_i^{FFMC} = Free Float Market Cap Weight of constituent i in the portfolio
- P = Number of constituents in the portfolio

The constraints imposed are the following:

- All weights are positive and sum to 1
- All weights are capped between 0.01% and 15%
- High Climate Impact section weight in the Index \geq High Climate Impact section weight in the Index Starting Universe
- Minimum reduction in WACI relative to Parent index of 50% (Scope 1+2+3)⁵
- Maximum reduction in WACI relative to Parent index of 60% (Scope 1+2+3)⁶. This constrain was applied in the backtest and will be removed when the index is live.
- Minimum average reduction (per annum) in WACI relative to WACI at the base year of 7%
- The sum of weights for NACE Sectors I, J, M, and K (excluding Banks) is capped at 20% within the Low Climate Impact section weight.
- The weight in the Index should satisfy the below inequality:

$$\left\{ \frac{\text{Weight}_{FFMC}}{\text{factor1}} \leq \text{Weight in the Index} \leq \text{Weight}_{FFMC} \times \text{factor1} \right.$$

- The initial value of the factor is:
 - factor1 = 1

During the annual Index review, in the event that there is no optimal solution that satisfies all the optimization constraints, the following constraints will be alternatively relaxed, until an optimal solution is found:

- Relax the factor1 in steps of 1 up to a maximum factor of 5

In the event that no optimal solution is found after all constraint relaxations are exhausted, the relevant Index will not be rebalanced for that Annual Index Review.

⁵ An additional constraint that maximizes the WACI reduction relative to Index Starting Universe at 40% was used in the backtested Index

⁶ An additional constraint that maximizes the WACI reduction relative to Index Starting Universe at 40% was used in the backtested Index

3. REFERENCES

3.1 REFERENCE TABLE

Index name	Isincode	Mnemo	Bloom-berg Code	Reuters code	Base date	Base value	Publication since	Index Type
CAC PAB	FRCLIM000478	CAPAP	CACPAB	.CAPAP	2009-12-31	1000	27-01-2025	Price Return
CAC PAB NR	FRCLIM000486	CAPAN	CACPABN	.CAPAN	2009-12-31	1000	27-01-2025	Net Return
CAC PAB GR	FRCLIM000494	CAPAG	CACPABG	.CAPAG	2009-12-31	1000	27-01-2025	Gross Return
CAC PAB Decrement 5%	FRCLIM000502	CAPAD	CACPABN5	.CAPAD	2009-12-31	1000	27-01-2025	Decrement 5% on the Net Return
CAC PAB GR Decrement 5%	FRCLIM000510	CPGD5	CACPABG5	.CPGD5	2009-12-31	1000	27-01-2025	Decrement 5% on the Gross Return
CAC PAB GR Decrement 3.75%	FRCLIM000528	CPGD3	CACPABG3	.CPGD3	2009-12-31	1000	27-01-2025	Decrement 3.75% on the Gross Return

3.2 BASE CURRENCY

The Base Currency of this index family is EUR.

3.3 PUBLICATION

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

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.

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

4. 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.	CAC PAB
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:	<ul style="list-style-type: none"> • GHG Emissions • UNGC factors • Thermal Coal mining factors • Thermal Coal Power generation factors • Fossil Fuel Involvement factors • SDG Impact rating – Climate Action • SDG Impact rating – Life on Land • SDG Impact rating – Life Below Water • SDG Impact rating – Responsible Consumption and Production • Animal Testing
b) List of social factors considered:	<ul style="list-style-type: none"> • Controversial weapons factors • UNGC factors / NBS Overall flag • Tobacco Involvement factors
c) List of governance factors considered:	<ul style="list-style-type: none"> • UNGC factors
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>	ISS ESG provides : <ul style="list-style-type: none"> • GHG EMISSIONS - PREFERRED SCOPE 1 - DIRECT EMISSIONS This factor provides the issuer's Scope 1 Direct emissions (tCO₂e). The Direct emissions data represents the final, ISS ESG reviewed and approved value based on the ISS ESG methodology, which selects the most accurate value from available sources. • GHG EMISSIONS - PREFERRED SCOPE 2 - ENERGY INDIRECT EMISSIONS This factor provides the issuer's Scope 2 Energy Indirect emissions (tCO₂e). The Energy Indirect Emissions data represents the final, ISS ESG reviewed and approved value based on the ISS ESG methodology, which selects the most

accurate value from available sources.

- **GHG EMISSIONS - SCOPE 3 - OTHER INDIRECT EMISSIONS (TCO₂E)**

This factor provides the issuer's Scope 3 "Other Indirect" emissions (tCO₂e). The Scope 3 emissions data represents the final, ISS ESG reviewed and approved value based on the ISS ESG methodology, which selects the most accurate value from available sources.

- **NBS OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's link with any breaches of international standards.

- **ANTI-PERSONNEL MINES - OVERALL FLAG:**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any anti-personnel mines program.

- **BIOLOGICAL WEAPONS - OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any biological weapons program.

- **CHEMICAL WEAPONS – OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any chemical weapons program.

- **CLUSTER MUNITIONS – OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any cluster munitions program.

- **DEPLETED URANIUM – OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any depleted uranium program.

- **INCENDIARY WEAPONS – OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any incendiary weapons program.

- **WHITE PHOSPHORUS WEAPONS - OVERALL FLAG**

This factor assigns an overall Red, Amber, or Green flag to an issuer based on the issuer's involvement in any white phosphorus weapons

program.

- **POWER GENERATION - THERMAL MAXIMUM PERCENTAGE OF REVENUES (%)**

This factor provides the maximum percentage of recent-year revenues for the issuer's involvement in the generation of electric power using fossil fuels.

- **COAL MINING AND POWER GEN - MAXIMUM PERCENTAGE OF REVENUES (%)**

This factor provides the maximum percentage of recent-year revenues for the issuer's involvement in both coal mining, including thermal and metallurgical coal, and the generation of electric power using coal. The maximum percentage of revenues values are based on the best available data, which may include reported revenues, reported percentage of revenues, or estimated revenues based on available information.

- **FOSSIL FUEL - TOTAL MAXIMUM PERCENTAGE OF REVENUES (%)**

This factor provides the maximum percentage of recent-year revenues for the issuer's total involvement in fossil fuel, including any exposure in Production, Exploration, Distribution, and Services. The maximum percentage of revenues values are based on the best available data, which may include reported revenues, reported percentage of revenues, or estimated revenues based on available information.

- **TOBACCO - PRODUCTION MAXIMUM PERCENTAGE OF REVENUES (%)**

This factor identifies the maximum percentage value of revenue derived from involvement in the production of tobacco.

- **SDG IMPACT RATING - CLIMATE ACTION**

This factor assesses an issuer's impact on Sustainable Development Goal 13 – Climate Action. The rating is determined by the issuer's Products and Services, Operations, and Controversies Scores for this goal. Ratings range on a scale from -10.0 (significant negative impact) to +10.0 (significant positive impact). For funds and other aggregated issuers, the score is based on the median score among holdings.

- **SDG IMPACT RATING - LIFE ON LAND**

This factor assesses an issuer's impact on Sustainable Development Goal 15 – Life On Land. The rating is determined by the issuer's Products and Services, Operations, and Controversies Scores for this goal. Ratings range on a scale from -10.0 (significant negative impact) to +10.0

	<p>(significant positive impact). For funds and other aggregated issuers, the score is based on the median score among holdings.</p> <ul style="list-style-type: none"> • SDG IMPACT RATING - LIFE BELOW WATER <p>This factor assesses an issuer's impact on Sustainable Development Goal 14 – Life Below Water. The rating is determined by the issuer's Products and Services, Operations, and Controversies Scores for this goal. Ratings range on a scale from -10.0 (significant negative impact) to +10.0 (significant positive impact). For funds and other aggregated issuers, the score is based on the median score among holdings.</p> <ul style="list-style-type: none"> • SDG IMPACT RATING - RESPONSIBLE CONSUMPTION AND PRODUCTION <p>This factor assesses an issuer's impact on Sustainable Development Goal 12 – Responsible Consumption and Production. The rating is determined by the issuer's Products and Services, Operations, and Controversies Scores for this goal. Ratings range on a scale from -10.0 (significant negative impact) to +10.0 (significant positive impact). For funds and other aggregated issuers, the score is based on the median score among holdings..</p>
<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>ISS ESG 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>ISS ESG Norm-Based Research is aligned with the Principles of the U.N. Global Compact and the OECD Guidelines for Multinational Enterprises. These globally endorsed standards translate obligations established in international norms into expectations of what constitutes Responsible Business Conduct. Principles of international law referenced and translated for business in leading global frameworks for Responsible Business Conduct include the following:</p> <ul style="list-style-type: none"> • Human rights (among others): <ul style="list-style-type: none"> ○ The International Covenant on Civil and Political Rights (ICCPR)

- The International Covenant on Economic, Social and Cultural Rights (ICESCR)
- The Geneva Conventions
- Labour rights:
 - International Labour Organization (ILO) Conventions
- Environmental standards (among others):
 - The Rio Declaration on Environment and Development
 - The Convention on Biological Diversity
 - The UN Framework Convention on Climate Change
 - The Paris Agreement
- Anti-corruption standards:
 - The UN Convention against Corruption

Regarding Controversial Weapons, these are the relevant standards:

- Anti-personnel mines: Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction
- Biological weapons: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction
- Chemical weapons: Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction
- Cluster munitions: Convention on Cluster Munitions

Information updated on:

27-01-2025