

INDEX RULE BOOK

CAC[®] All-Share (PAX), AEX[®] All-Share (AAX), BEL[®] All-Share (BELAS), PSI[®] All-Share (BVL), ISEQ[®] All-Share

Sector indices for France, Netherlands, Belgium, Portugal and Ireland

Version 19-01

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indices.euronext.com

Index

1. Index Summary	2
2. Governance and Disclaimer	4
2.1 Indices	4
2.2 Supervisor	4
2.3 Compiler	4
2.4 Cases not covered in rules	4
2.5 Rule book changes	4
2.6 Liability	4
2.7 Ownership and trademarks	4
3. Publication	5
3.1 Dissemination of index values	5
3.2 Exceptional market conditions and corrections	5
3.3 Announcement policy	5
4. Calculation	6
4.1 Calculation of the price index	6
4.2 Currency conversion	6
4.3 Total return index calculation	6
5. Index reviews	7
5.1 General aim and frequency of reviews	7
5.2 Index universe and selection principle	7
6. Corporate Actions	8
6.1 General	8
6.2 Removal of constituents	8
6.3 Split up / spin-off	8
6.4 Early inclusion of non-constituents	8
6.5 Dividends	8
6.6 Rights issues and other rights	8
6.7 Bonus Issues, stock splits and reverse stock splits	9
6.8 Changes in number of shares or sector classification	9
7. Index Calculation Formulas	10
8. Definitions	11
8.1 Compiler	11

1. INDEX SUMMARY

Factsheet	All-Share and Sector indices
Index names	CAC® All-Share (PAX), AEX® All-Share (AAX®), BEL® All-Share (BELAS), BEL® Continuous Stocks (BELCP), PSI® All-Share (BVL), ISEQ® All-Share Sector indices for France, Netherlands, Belgium, Portugal and Ireland
Index type	Price indices; Net return index and Gross return index versions are also available.
Index governance structure	Euronext acts as the Compiler and Supervisor of the index.
Eligible stocks	Companies admitted to listing on Euronext
Selection	All companies for which Euronext is the national or main listing. Companies incorporated outside of the Euronext markets are included if their annual velocity is at least 3%.
Number of constituents	variable
Weighting	based on full market capitalisation
Capping	not applied
Review of composition	Semi-annual effective on 1 February and 1 August
Review of free float and capping	not applied
Review of number of shares	daily
Base Currency	Euro

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

Reference Data

Index name	Isincode	Mnemo	Bloomberg Code	Reuters code	Base date	Base value	Publication since
AEX® All-Share Index	NL0000249100	AAX	AAX	.AAX	31-12-52	13.20	02-09-99
AEX® All-Share Index GR	QS0011224977	AAXG	RAAX	.AAXGR	31-12-52	13.20	02-09-99
BEL® Continuous Stocks Index	QS0011225370	BELCP	BELCP	.BELCP	31-12-08	16000	15-10-12
BEL® Continuous Stocks Index NR	BE0389552978	BELCU	BELCU	-	01-01-80	1000	21-05-01
BEL® All-Share Index	BE0389549941	BELAS	BELPRC	-	01-01-80	1000	03-10-88
BEL® All-Share Index NR	BE0389550956	BELAR	BELSTK	-	01-01-80	1000	03-10-88
CAC® All-Share Index	QS0010989141	PAX	PAX	.PAX	31-12-02	3000	03-01-05
CAC® All-Share Index NR	QS0011224217	PAXNR	PAXNR	.PAXNR	31-12-02	3000	03-01-05
PSI® All-Share Index	QS0011224308	BVL	BVL	.BVL	14-05-04	1500	15-10-12
PSI® All-Share Index GR	PTING1000005	BVLGR	BVLX	.BVLG	05-01-88	1000	05-01-88
ISEQ® All-Share	IE0001477250	ISEQ	ISEQ	.ISEQ	04-01-88	1000	04-01-88
ISEQ® All-Share GR	IE0000506851	ISEQG	ISEQTR	.IVRT	04-01-88	1000	04-01-88
CAC Sectors (NR)	multiple				30-11-05	1 000	
AEX Sectors (GR)	multiple				31-12-98	1 000	
BEL Sectors (NR)	multiple				31-12-99	1 000	
PSI Sectors (GR)	multiple				30-12-99	2732.36	
ISEQ Sectors (GR)	multiple				04-01-88	1000	

For an overview of all All-Share and Sector indices including ISIN and mnemo codes, please turn to <https://indices.euronext.com/en/directory/european-indices>

Version notes:

19-01: Inclusion of ISEQ All-share and sectors

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”):

- CAC® All-Share (PAX)
- AEX® All-Share (AAX)
- BEL® All-Share (BELAS), BEL® Continuous Stocks (BELCP)
- PSI® All-Share (BVL)
- ISEQ® All-Share (ISEQ)
- Sector Indices for France, Netherlands, Belgium, Portugal and Ireland

2.2 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.

2.3 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.

2.4 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. AEX®, CAC®, BEL®, ISEQ®, PSI® and AAX® are registered trademarks 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 level is the first level published for the index after the opening of the market.

3.1.2 Calculation and dissemination

The index is calculated based on the most recent prices of transactions concluded on Euronext Markets. The level of the index is in principle published every 15 seconds. The index is calculated from 09:00 hours CET 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

The Compiler retains the right to delay the publication of the opening level of the index. Furthermore, the Compiler retains the right to suspend the publication of the level of the index 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.

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 market capitalization 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 and/or 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.

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 Effective date of reviews

The semi-annual review becomes effective on the first trading day of February and August. Changes are implemented the day before, after the close. The assessment date for the review is 31 December and 30 June of each year (the last trading day of the respective months).

5.2 INDEX UNIVERSE AND SELECTION PRINCIPLE

5.2.1 Index universe

The universe of the index is defined as companies that have been admitted to listing on Euronext. For the ISEQ All-Share and related sector indices the universe of the index is defined as companies admitted to listing on Euronext Dublin or Euronext Growth Dublin.

5.2.2 Exclusion of constituents

The index includes all companies admitted to listing except:

- Convertible preference shares, loan stocks until converted, equities temporary listed, warrants, rights and other derivative securities
- Companies of which the Country of Incorporation differs from the country that corresponds to the Market of Reference and whose (extrapolated) velocity is less than 3%. The period for the assessment of velocity is a year. A company must be listed at least 20 trading days on the assessment date in order to qualify for inclusion. Velocity is calculated on a daily basis by dividing the number of shares traded by the number of shares listed. The velocity threshold is not applied for companies solely admitted to listing on Euronext or companies for which Euronext is the main place of listing. For the ISEQ All-Share and related sector indices, the velocity threshold is not applied for companies who are incorporated in Northern Ireland.

5.2.3 Selection BEL Continuous

The BEL Continuous Stocks index consists of all companies included in the BELAS that are traded continuously.

5.2.4 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. Monoholdings are included as a separate company.

5.2.5 Annual sector index creation or discontinuation

The Compiler will publish sector indices based on the ICB classification for each Industry (level 1). If a sector index (level 1) lacks, it will be published from 1 February with a base date of 1 January of that year and a base level of 1000.

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

A constituent will be removed from the index if it is delisted from Euronext.

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

6.3 SPLIT UP / SPIN-OFF

In the event that a constituent is split up, the entities resulting from the split, including the original stock will continue to be included in the index. If the sector classification changes for one of the resulting entities, the respective companies will be allocated to the new sector indices after the first day of trading.

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

6.4 INCLUSION OF NEWLY LISTED COMPANIES

As a rule newly listed companies are included in the index effective the second day of trading. However, companies that are incorporated outside the country of their corresponding market of reference will not be included until the semi-annual review unless all trading in that company takes place on Euronext. For the ISEQ All-Share and related sector indices, companies who are incorporated in Northern Ireland will be included effective on the second day of trading.

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 divisor of the index will be adjusted in such a way that the value of the index remains the same. The divisor will be adjusted on the basis of the theoretical value of the rights issue as calculated by the Compiler.

Adjustments shall be made 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. Since the event won't change the value of the company included in the index, the divisor will not be changed because of this.

6.8 CHANGES IN NUMBER OF SHARES OR SECTOR CLASSIFICATION

Changes in the number of shares listed will be reflected in the index immediately. If newly listed shares aren't fungible with the existing shares, the inclusion will be delayed until they are.

As the shares are fungible when added, the new shares will be added using the closing price of the existing shares.

If a company will be assigned a different sector classification it will be removed from and included in the applicable sector indices in accordance with the official notice.

Changes regarding trading group (continuous or not) will be reflected in the BELCP immediately.

7. 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

8. DEFINITIONS

8.1 COMPILER

Committee of Euronext officials appointed by Euronext.