

## **INDEX RULE BOOK**

Euronext® BeNe 40 Equal Weight
Euronext® BeNe 40 Equal Weight Volatility Target

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indices.euronext.com



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## 1. INDEX SUMMARY

Factsheet	BeNe 40 Equal Weight Index				
Index names	Euronext® BeNe 40 Equal Weight index, Euronext® BeNe 40 Equal Weight Volatility Target				
Index type	Price; Net return, Gross return, Excess return, Vol Target				
Underlying Index	AEX® and BEL 20®				
Index governance structure	The index is based on the selection of the underlying indices, which are under supervision of independent steering committees. Euronext acts as the Compiler and is responsible for the day-to-day management of the index.				
Eligible stocks	Companies included in the underlying indices				
Selection	The 40 most traded companies included in the underlying indices				
Number of constituents	40				
Weighting	Rebalanced to equal weight at each quarterly review				
Capping	n.a.				
Review of composition	Follows annual/quarterly review scheme of underlying index. Effective after the third Friday of March, June, September and December.				
Rebalancing	Quarterly. Effective after the third Friday of March, June, September and December.				
Review of number of shares	n.a.				
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	Bloomber g Code	Reuters code	Base date	Base value	Publication since			
Euronext® BeNe 40 Equal Weight	NL0011376116	BNEW	BENEW	.BNEW	31-12-03	1000	21-09-15			
Euronext® BeNe 40 Equal Weight NR	NL0011376124	BNEWN	BENEWN	.BNEWN	31-12-03	1000	21-09-15			
Euronext® BeNe 40 Equal Weight GR	NL0011376132	BNEWG	BENEWG	.BNEWG	31-12-03	1000	21-09-15			
Euronext® BeNe 40 Equal Weight Excess Return	NL0011376140	BNEWE	BENEWE	.BNEWE	31-12-03	1000	21-09-15			
Euronext BeNe 40 Equal Weight Volatility Target	NL0012081418	BNEWV	BNEWV	.BNEWV	31-12-06	1000	1-12-16			



## 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® BeNe 40 Equal Weight index

#### 2.2 SUPERVISOR

The AEX Steering Committee and BEL Steering Committees respectively act as independent Supervisors of the index' underlying Blue Chip indices. 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. Euronext®, AEX®, AEX-Index®, BEL® and BEL 20® 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 official opening level is the first level published after a share price is available for all constituents. Index levels published before the official opening level is published are considered pre-opening index levels.

If, for whatever reason, share prices are not available for all constituents five minutes after Euronext Markets (as defined in the Euronext harmonised rule book) started regular daytime trading, the official opening level will be published as soon as the companies whose share prices are available of the current trading day represent at least 80% of the value of the index at the close of the previous trading day.

#### 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 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.

If the index remains in pre-opening phase during the entire trading session, the last published pre-opening level of the index will be used as the official closing level of the index for that day. In such cases, the Compiler will not calculate an official opening level for the index.

## 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 EXCESS RETURN INDEX

An excess return index is also calculated and disseminated at the same frequency as the index. The excess return index is obtained by deducting on a daily basis a 4.5% rate per annum from the net return index (see chapter 7).



#### 4.5 VOLATILITY TARGET INDEX

The Volatility Target is composed of the underlying index as well as a cash component. It aims at keeping a historical volatility (max of 20 and 60 days volatility) below or equal to a predefined level at each daily rebalancing (target volatility)

- If the historical volatility is above the targeted annual volatility, the index part will be determined based on the ratio between target volatility and historical volatility.
- If the historical volatility is below the targeted annual volatility, the index will be composed of 100% the underlying index.

leverage

The underlying index cannot represent more than 100% of the index (no leverage).



## 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 reviews become effective after the market close of the third Friday of March, June, September and December (quarterly reviews).

#### 5.2 INDEX UNIVERSE AND SELECTION PRINCIPLE

#### 5.2.1 Underlying Index

The Underlying Index of the index is the AEX-Index® in combination with the BEL 20® index.

#### 5.2.2 Selection

At each periodical review, all the companies that are announced to be included in the Underlying Index after the close of the business day on the date of the periodical adjustment represent the universe.

The companies included in the universe are ranked by turnover realised over the period of one year leading up to the Review Cut—Off Date of the Underlying Index. The 40 highest ranking companies are selected. The turnover may be extrapolated for companies listed less than one year, excluding the first 20 trading days.

#### 5.2.3 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 PERIODICAL UPDATE OF WEIGHTING

## 5.3.1 Update of number of shares

The new weightings in shares of the constituents are based on the new composition of the index in combination with the closing prices of the Review Composition Announcement date (Definition: see the Euronext Indices announcement policy in a separate document).

The new weightings are calculated such that each constituent will have an equal weight in the index. The weightings will be rounded to the nearest whole number.

## 5.3.2 Free Float

Not applied for this index.

## 5.3.3 Capping

Not applied for this index.



## 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 a merger or acquisition follows the treatment in the Underlying Index.

#### **6.2.2** Delistings, suspensions and company distress

The company will be deleted from the index based on either the last known price established during regular daytime trading or else a price determined by the Compiler, whereby the company may also be deleted at EUR 0.

#### **6.2.3** Pricing sources

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

## 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 continue to be included in the Underlying Index. The index may then temporarily consist of fewer than, or more than the normal number of companies 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

The composition of the index is based on the Underlying Index at the quarterly review.

#### 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

Not applied for this index.



## 7. INDEX CALCULATION FORMULAS

## 7.1 PRICE INDEX FORMULA

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

$$I_{t} = \frac{\sum\limits_{i=1}^{N}Q_{i,t}F_{i,t}f_{i,t}C_{i,t}X_{i,t}}{d_{t}} \label{eq:interpolation}$$
 Where:

t Time of calculation

N Number of constituent equities in index

Q<sub>i,t</sub> Number of shares of equity i included in the index on day t

F<sub>i,t</sub> Free Float factor of equity i <sup>1</sup>

f<sub>i,t</sub> Capping factor of equity i <sup>1</sup>

C<sub>i,t</sub> Price of equity i on t

X<sub>i,t</sub> Current exchange rate on t <sup>1</sup>

d<sub>t</sub> Divisor of the index on day t

#### 7.2 TOTAL RETURN INDEX FORMULA

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:

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

## Where:

N Number of constituent equities in index

g<sub>i</sub> The announced dividend per share of the i<sup>th</sup> component stock (for net return index withholding tax is deducted from this dividend);

w<sub>i</sub> The weighting of the i<sup>th</sup> 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.

$$TR_{t} = TR_{t-1} \left( \frac{IV_{t} + XD}{IV_{t-1}} \right)_{\text{Where:}}$$

TR<sub>t-1</sub>: Total return index value yesterday;

TR<sub>t</sub>: Total return index value on t;

IV<sub>t-1</sub>: Underlying price index yesterday;

IV<sub>t</sub>: Underlying price index on t;

<sup>1</sup> Factor is equal to 1 if not applied for the index



#### 7.3 EXCESS RETURN INDEX FORMULA

The Excess return index uses the following formula:

$$ER_{t} = ER_{t-1} \left( \frac{NR_{t}}{NR_{t-1}} - ExcRt \cdot \frac{day}{365} \right)$$
 Where:

ER<sub>t-1</sub>: Excess return index value yesterday;
 ER<sub>t</sub>: Excess return index value on t;
 NR<sub>t-1</sub>: Net return index value yesterday;
 NR<sub>t</sub>: Net return index value on t;

ExcRt: 4.5%

day: number of calendar days between index business day t-1 and t

#### 7.4 VOLATILITY TARGET INDEX FORMULA

The formula of the **Volatility Target Index** is defined as follows:

$$Ind_{D} = Ind_{D-1} *W_{D-2} * \frac{unInd_{D}}{unInd_{D-1}} + Ind_{D-1} *(1 - W_{D-2}) *(1 + IR * \frac{CD}{360})$$

Where:

 $Ind_D$  = Volatility Target Index at time of calculation

 $Ind_{D-1}$  = Last close of the Volatility Target Index

 $W_{\rm D-2}$  = Percentage weight of the underlying index in the index, based on D-2

 $unInd_D$  = Underlying index level at time of calculation

 $unInd_{D-1}$  = Last close of the Underlying Index

IR = Applicable interest rate at time of calculation. It is D-1 Euribor 3 Month.

CD = Number of calendar days between  $Ind_{D}$  and  $Ind_{D-1}$ 

**Calculation of**  $W_p$  1st step: calculation of the 20 and 60 days annualized historical volatility

$$Vol_{ND} = \sqrt{\frac{252}{N} * \sum \left[ \ln(\frac{unInd_t}{unInd_{t-1}}) \right]^2}$$

Where:

ND =20 or 60 Days

 $unInd_t$  = Underlying index closing level at time "t", "t" ranging from today closing to today closing-N

 $unInd_{t-1}$  = Underlying index closing level at time "t-1", "t-1" ranging from last closing to last closing-N

2nd step: calculation of  $W_D$ 

$$W_{D} = Min \left[ \frac{TVol}{Max(Vol_{20D}; Vol_{60D})}; CapInd \right]$$

Tvol = is the targeted annual volatility (10%)

CapInd = is the maximum percentage of Underlying index in the Index on rebalancing.



## 8. **DEFINITIONS**

## 8.1 INDEX STEERING COMMITTEE

Committee consisting of independent persons which acts as supervisor to the (underlying) index and to which all decisions regarding supplementing, amending, revising or withdrawing these rules are submitted for approval. The composition and responsibilities of the Index Steering Committee are laid down in the Rules of Procedure document that is available on the website indices.euronext.com .

## 8.2 COMPILER

Committee of Euronext officials appointed by Euronext.