

INDEX RULE BOOK

ITALIA LEVA 7

Version 21-01

Effective from 15-12-2021

indices.euronext.com

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1. INDEX

1. Index	1
2. Highlights	2
Version notes	2
3. Calculation	3
3.1 Definition and Composition of the Index	3
3.2 Calculation of the Leverage Indices	3
3.3 Calculation of the Bear and Short Indices	4
3.4 Reverse split of index level	4
3.5 Split of index level	4
3.6 Financing Adjustment Rate (FIN)	5
3.7 Exceptional Market Conditions and Corrections	5
4. References	9
4.1 Base currency	9
4.2 Publication	9
5. ESG Disclosures	10

2. HIGHLIGHTS

This document is applicable to the Euronext Short and Leverage Indices ("Index Family"), which consists of all the Indices as mentioned in the Reference Table.

The Index Family is designed to reflect the leveraged or inverse performance of the FTSE MIB with a factor of 7.

Euronext Paris is the Administrator of this Index Family.

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VERSION NOTES

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

3. CALCULATION

3.1 DEFINITION AND COMPOSITION OF THE INDEX

The leverage index tracks the performance of a strategy that has a multiple (K) exposure to an underlying index with the support of short-term financing.

The Short or Bear index tracks the performance of a strategy which reverses a multiple (K) exposure to the underlying index by combining a short position on the underlying index and exposure to a risk-free money-market instrument, (STR or another rate). The latter exposure consists of the money invested in the index plus the multiple (K) short positions.

3.2 CALCULATION OF THE LEVERAGE INDICES

The general formula of the Leverage indices is defined as follows:

$$LI_t = LI_T \left[1 + K \left(\frac{UI_t}{UI_T} - 1 \right) \right] - (K - 1) LI_T \left[\frac{IR_T}{360} \right] D_{t,T} - a(K - 1) \times LI_T \left[\frac{SPR_T}{360} \right] D_{t,T}$$

Where:

T	= Rebalancing date; for daily indices this is the previous business day.
LI_t	= Leverage index level at time of calculation t
LI_T	= Closing Leverage index level on the previous calculation day
UI_t	= Underlying index level (see Index summary) at time of calculation t
UI_T	= Closing Underlying Index level on the last rebalancing day T
IR_T	= Applicable interest rate as at the rebalancing date T. For daily indices this is €STR.
$D_{t,T}$	= the number of days between the day of the calculation and T, the rebalancing day
SPRT	= Applicable interest rate spread over the IR_T
a	= Applicable factor to apply spread over IR if not applied, a=0
K	= Leverage factor

3.3 CALCULATION OF THE BEAR AND SHORT INDICES

The general formula of the Short indexes is defined as follows:

$$BI_t = BI_T \left[1 - K \left(\frac{UI_t}{UI_T} - 1 \right) \right] + (K + 1) BI_T \left[\frac{IR_T}{360} \right] D_{t,T} - K.a.BI_T \left[\frac{FIN_T}{360} \right] D_{t,T}$$

- T = Rebalancing date; for daily indices this is the previous business day.
- BI_t = Short or Bear index level at time of calculation t
- BI_T = Closing Short index level on the previous calculation day
- UI_t = Underlying index level (see Index summary) at time of calculation t
- UI_T = Closing Underlying Index level on the previous calculation day
- $D_{t,T}$ = the number of days between the day of the calculation and T, the rebalancing day
- IR_T = Applicable interest rate as at the rebalancing date T. For daily indices this is €STR.
- FIN_T = Financing Adjustment rate. The rate reflecting the cost specifically associated with the strategy. The rate may be different for some underlying indices or may not be applied for specific indices.
- a = Applicable factor to apply FIN. If FIN rate is not applied a=0.
- K = Short factor

3.4 REVERSE SPLIT OF INDEX LEVEL

If an index has dropped below 10 it may qualify for a reverse split. This rule is applied to the indices with a factor 4 or higher or -4 or less. For the reverse split the Compiler will use a standard reverse ratio of 1 000.

Periodical Review

Indices are reviewed each month on the first Friday. If an index level has reached a closing level below 10 on the previous day, the index level will be adjusted 2 weeks later by a reverse split.

Implementation of reverse split

After close of business on the 3rd Friday of the month, the closing level will be multiplied by 1,000 (one thousand).

In case the Friday is not a trading day, the review or implementation will be on the day before.

3.5 SPLIT OF INDEX LEVEL

If an index has risen above 750.000 it may qualify for a split.

This rule is applied to the indices with a factor 4 or higher or -4 or less. For the split the Compiler will use a standard ratio of 1 000.

Periodical Review

Indices are reviewed each month on the first Friday. If an index level has reached a closing level above 750 000 on the previous day, the index level will be adjusted 2 weeks later by a split.

Implementation of split

After close of business on the 3rd Friday of the month, the closing level will be divided by 1 000 (one thousand).

In case the Friday is not a trading day, the review or implementation will be on the day before.

3.6 FINANCING ADJUSTMENT RATE (FIN)

The Financing Adjustment Rate is replacing the Repo rate and is determined on 20 bps from 1-Nov-2017.

3.7 EXCEPTIONAL MARKET CONDITIONS AND CORRECTIONS

3.7.1 Unavailability of the underlying index level

In case the level of the underlying index is not available during a period outside the regular closing time of the Euronext markets, the level of the index will not be calculated.

If the unavailability extends over the closing auction time of the Euronext markets, the closing value of the index will be the last level known before the unavailability of the underlying index.

3.7.2 Extreme market movements

In case the level of the underlying index rises or falls more than a predefined percentage relative to the close of the previous trading day, the index will be either suspended or reset (see index summary).

3.7.3 Procedure for Suspension

If an index is **suspended**, the Compiler will confirm the index level to be considered as the closing index value at the market close.

3.7.4 Procedure for reset of daily leveraged/short indices

In case the level of the underlying index rises or falls by more than a predefined percentage relative to its close of the previous trading day, the Leverage or Short Index will be reset. If an index is **reset**, the index will be adjusted intraday:

- For leverage calculations only downtrend movements will trigger a reset
- For short calculations only uptrend movements will trigger the reset.

Numerically, the intraday reset condition is defined as follows (with $\alpha > 0$):

$$\frac{UI_t}{UI_T} < \alpha\% \quad (\text{C1-L}) \text{ for Leverage indices}$$

Or

$$\frac{UI_t}{UI_T} > \alpha\% \quad (\text{C1-S}) \text{ for Short/Bear indices}$$

Where:

- UI_t is the real-time price of the index at time of calculation time t;
- UI_T is the official closing level of the index on the previous rebalance day;
- $\alpha\%$ = as per the Index Summary section above under the column "Rule in case of extreme market movements".

For Leverage indices, if condition (C1-L) is met at calculation time t:

- The calculation of the index is suspended temporarily (i.e. the level that was published just before the condition is met will keep on being published).
- The prices of the Underlying Index are observed during 5 full minutes.
- The **minimum price** of the Underlying Index during the 5-minute observation period is used to reset the Leverage Index.

For Short/Bear indices, if condition (C1-S) is met at calculation time t:

- The calculation of the index is suspended temporarily (i.e. the level that was published just before the condition is met will keep on being published).
- The prices of the Underlying Index are observed during 5 full minutes.
- The **highest price** of the Underlying Index during the 5-minute observation period is used to reset the Leverage Index.

Once the observation period is over the calculation of the index is resumed as per the formula below:

$$LI_t = LI_{R1} \left[1 + K \left(\frac{UI_t}{UI_{R1L}} - 1 \right) \right]$$

Or

$$SI_t = SI_{R1} \left[1 - K \left(\frac{UI_t}{UI_{R1H}} - 1 \right) \right]$$

Where:

UI_{R1L} is the lowest recorded index level over an observation period of 5 minutes following calculation time t (time when the threshold was crossed);

LI_{R1} is the level of the index using index level UI_{R1L} ;

ON_T : is the Overnight rate: €STR

$$LI_{R1} = LI_{T-1} \left\{ 1 + K \left[\frac{UI_{R1L}}{UI_T} - 1 \right] - (K - 1) * \left[\frac{ON_T}{360} \right] * D_{T,T-1} - (K - 1) * \left[\frac{SPR_T}{360} \right] * D_{T,T-1} \right\}$$

UI_{R1H} is the highest recorded index level over an observation period of 5 minutes following calculation time t (time when the threshold was crossed);

SI_{R1} is the level of the index using index level UI_{R1H} ;

$$SI_{R1} = SI_{T-1} \left\{ 1 - K \left[\frac{UI_{R1H}}{UI_T} - 1 \right] + (K + 1) * \left[\frac{ON_T}{360} \right] * D_{T,T-1} - K * \left[\frac{FIN_T}{360} \right] * D_{T,T-1} \right\}$$

Note that no additional refinancing costs are calculated after an intraday reset occurs.

An intraday reset may occur more than once during the same scheduled calculation date. After a first intraday reset occurs, the condition becomes the following:

$$\frac{UI_t}{UI_{R1L}} < \alpha\% \quad (C2-L) \text{ for Leverage indices}$$

Or

$$\frac{UI_t}{UI_{R1H}} > \alpha\% \quad (C2-S) \text{ for Short/Bear indices}$$

Where:

UI_t is the index level used at time of calculation t;

UI_{R1L} as defined above;

UI_{R1H} as defined above;

$\alpha\%$ as defined above.

If the above condition (C2) is met, another intraday reset is triggered. The calculation in real-time resumes as follows:

$$LI_t = LI_{R2} \left[1 + K \left(\frac{UI_t}{UI_{R2L}} - 1 \right) \right]$$

Or

$$SI_t = SI_{R2} \left[1 - K \left(\frac{UI_t}{UI_{R2H}} - 1 \right) \right]$$

Where:

UI_{R2L} is the lowest recorded index level over an observation period of 5 minutes following calculation time t (time when condition (C2-L) is met).

$$LI_{R2} = LI_{R1} \left[1 + K \left(\frac{UI_{R2L}}{UI_{R1L}} - 1 \right) \right]$$

UI_{R2H} is the lowest recorded index level over an observation period of 5 minutes following calculation time t (time when condition (C2-S) is met).

$$SI_{R2} = SI_{R1} \left[1 - K \left(\frac{UI_{R2H}}{UI_{R1H}} - 1 \right) \right]$$

The same procedure is followed for any other intraday reset following another crossing of the predefined threshold.

The closing level of the index will be calculated in accordance with the last parameters defined for the last reset event as described above.

In case $LI_{R1} \leq 0$ or $SI_{R1} \leq 0$, the index level will be fixed at 0.001. This index level will continue to be broadcasted for 4 weeks after the reset occurred. Subsequently the index will be discontinued.

4. REFERENCES

Mnemo	Full name	Underlying index	Factor	Rule for exceptional trading circumstances	ISIN	Base level and date
FTSE MIB Based						
ITX7L	Italia Leva 7 Long	FTSE MIB Net Tax return index (Reuters code:.TRIFTSEMIBN)	7	Reset if Underlying Index < 90% of close of previous day	NL0010661898	1,000 at 28 Dec 2012
ITX7S	Italia Leva 7 Short	FTSE MIB Total Return Index (Reuters Code: .TRIFTSEMIB)	-7	Reset if Underlying Index > 110% of close of previous day	NL0010661906	1,000 at 28 Dec 2012

4.1 BASE CURRENCY

The Base Currency of this index family is Euro.

4.2 PUBLICATION

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 Euronext Markets are open for trading.

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.	ITALIA LEVA 7
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
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:	Not applicable
b) List of social factors considered:	Not applicable
c) List of governance factors considered:	Not applicable
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>	Not applicable
b) Verification of data and guaranteeing the quality of those data. <i>Describe how data are verified and how the quality of those data is ensured.</i>	Not applicable
c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i>	Not applicable
Information updated on:	2 nd of December 2021