GROUND RULES FOR THE MANAGEMENT OF THE

FTSE MIB SHORT STRATEGY INDEX SERIES





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1. Introduction

1.1 General

- 1.1.1 The FTSE MIB Short Strategy Index Series aims to replicate the performance of an investor attaining a multiple of the inverse daily performance of the underlying index. It is derived from the underlying headline FTSE MIB Index
- 1.1.2 The FTSE MIB Index is the primary benchmark Index for the Italian equity markets. Capturing approximately 80% of the domestic market capitalization, the Index is comprised of highly liquid, leading companies across ICB sectors in Italy. The FTSE MIB Index measures the performance of 40 Italian equities and seeks to replicate the broad sector weights of the Italian stock market. The Index is derived from the universe of stocks trading on the Borsa Italiana (BIt) main equity market. As a result, corporate actions and dividends are reflected in the FTSE MIB Short Strategy Indices as they occur and as they are captured in the underlying FTSE MIB Index.

The constituents of the FTSE MIB Index are capped at 15% at the time of the quarterly reviews

1.1.3 The FTSE MIB Short Strategy Index Series consists of the following indices:

FTSE MIB Short Strategy Index with a leverage of -1x FTSE MIB Super Short Strategy Index with a leverage of -2x FTSE MIB Ultra Short Strategy Index with a leverage of -3x

- 1.1.4 The indices are calculated on a total return basis.
- 1.1.5 The FTSE MIB Short Strategy Index Series attempts to replicate the returns experienced by an investor attaining a multiple of the daily inverse performance of the underlying headline index with a daily reset of the inverse leverage. The cost of dividends and benefit of earning interest for the short position are taken into account in the index calculation of the short index.
- 1.1.6 These indices can serve as benchmarks for the creation of ETFs, structured products or other passive investment vehicles that enable investors to gain leveraged exposure to the market or hedge portfolio exposure without the need to leverage or use derivative instruments. The FTSE MIB Short Strategy Indices is derived from the existing underlying headline FTSE MIB Index. As a result corporate actions and constituent changes are reflected in the short index as they occur. Dividends used in the index total return calculations are those declared by the company and applied on the ex-dividend date. Treatment of dividends and the calculation of the underlying total return indices can be found on the internet at http://www.ftse.com/Indices/FTSE All World Index Series/Downloads/allworld calc ulation.pdf.

1.2 Methodology

- 1.2.1 The objective of the FTSE MIB Short Strategy Index Series is to replicate the payoff of an investor selling an existing index and then effectively selling it again to create a short position to gain exposure to the inverse performance of the underlying index and receiving interest on the capital received. The index takes into account the three main components of the payoff to the short investment strategies.
 - 1. Capital gains associated with the underlying equity securities
 - 2. Cash dividends paid by the underlying securities
 - 3. The interest income from selling the initial portfolio and the short sale

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- 4. Stock borrowing costs associated with running short positions
- 1.2.2 Investment Capital



1.2.3 Index performance, interest income and stock borrowing components



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1.2.4 New Short Strategy Index value



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2. The Index

2.1 Index Calculation formula

sIndex = InversePeformanceTerm+InterestIncomeTerm-StockBorrowingTerm

$$sIndex_t = sIndex_{t0} \cdot (1+r)$$

$$sIndex_{i} = sIndex_{i0} \bullet \left\{ 1 + \left[\left(k + 1 \right) \bullet \left(\frac{ONIntRate_{0}}{DayCountBasis} \right) \bullet d_{t,t0} \right] \\ - \left[k \bullet \left(\frac{StockBorrowingRate_{0}}{DayCountBasis} \right) \bullet d_{t,t0} \right] \right\}$$

Inverse Performance Term k = 1 for short,

k = 2 for super short, K = 3 for ultra short

 $\begin{array}{l} \mbox{Interest Income Term} \\ d_{t,t0} = calendar \ days \\ \mbox{between t and t0} \end{array}$

Stock Borrowing Cost

r

Where:

•	k	=	Multiple reflecting the short ratio (1 for Short; 2 for Super Short, 3 = Ultra Short)
-	sIndex	=	Short Index Value
	TRI	=	Underlying Total Return Index
•	ONIntRate	=	Overnight Interest Rate (EONIA for EUR based indices, %p.a.) (risk free rate) e.g. 230bps. Provided daily at the end of business by the Euribor FBE between 6:45pm and 7pm (CET)
-	t	=	Time of calculation
-	t0	=	Close of last trading day prior to t
-	d _{t,t0}	=	Number of calendar days between day t and day t0
-	DayCountBasis	=	Days in year for simple interest calculation (EUR = 360)
•	StockBorrowingCost	=	Annual cost of borrowing stock e.g. 75bps

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2.2 Base date and base values

Index Name	Base Date	Base Value
FTSE MIB Short Strategy Index	30 Dec 1999	10,000
FTSE MIB Super Short Strategy Index	30 Dec 1999	10,000
FTSE MIB Ultra Short Strategy Index	30 Dec 1999	10,000

Source: FTSE Group

2.3 Computational accuracy

2.3.1 The index will be calculated to 15 decimal figures and published to 4 decimal places.

2.4 Frequency of calculation

- 2.4.1 Initially the FTSE MIB Short Strategy Indices will be calculated end-of-day (EOD); after the close of the underlying index.
- 2.4.2 It envisaged that the index will be available in real-time (RT) at some future date and will be calculated during the same period that the underlying index is being calculated.

2.5 Adjustment due to extreme market movements

- 2.5.1 In order to alleviate the risk of total loss due to extreme market movements, a test is carried out on the last received price for the underlying Total Return Index compared to the previous trading day's closing level.
- 2.5.2 For EOD calculations the total daily loss to the index incurred from the inverse performance term is limited to 50%. The daily adverse movement in the underlying index is capped at a multiple of 50% based on the negative leverage factor (short ratio), using the formula

Where:

- DailyMaxLoss = 50%
 - k = Multiple reflecting the short ratio (1 for Short; 2 for Super Short; 3 for Ultra Short)

2.6 Finance cost calculation

- 2.6.1 The interest income is calculated on a simple basis.
- 2.6.2 For EUR based indices a day count of 360 days will be used, in line with market convention. Hence, interest income per day would be

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$$\left(\frac{ONIntRate_0}{DayCountBasis}\right)$$

Where:

- ONIntRate_{t0} = Interest rate per annum (EONIA)
- DayCountBasis = Days in year for simple interest calculation (EUR = 360)
- 2.6.3 The actual interest income for $d_{t,t0}$ calendar days would be:

Where:

-	d _t , to	=	number of calendar days between t and t_0 .
	k	=	Short ratio (1 for Short; 2 for Super Short; 3 for Ultra Short)

2.7 Stock Borrowing Costs

- 2.7.1 If an investor opens a short position in an underlying stock he has to borrow that stock to be able to deliver it to the purchaser. The investor has to pay a fee to the stock lender for borrowing the stock in the same way as he would have to pay interest on borrowed money until repaid. These are not transaction costs but an inventory cost associated with running the short position until the position is closed by buying it in the market and delivering it to the stock lender.
- 2.7.2 The stock borrowing cost is amortised on a daily basis as a cost against the daily return of the short position.

2.8 Trading suspension

2.8.1 The FTSE MIB Short Strategy Index Series is calculated on the same days as the underlying FTSE MIB Index. If there is suspension of the underlying FTSE MIB Index the FTSE MIB Short Strategy Index Series will be calculated using the latest prices available.

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3. Glossary

3.1 EONIA – Euro OverNight Index Average

3.1.1 Eonia® (Euro OverNight Index Average) is the effective overnight reference rate for the euro. It is computed as a weighted average of all overnight unsecured lending transactions undertaken in the interbank market, initiated within the euro area by the contributing banks.

Eonia® is computed with the help of the European Central Bank.

3.1.2 The banks contributing to Eonia® are the same as the Panel Banks contributing to Euribor®.

The contributors to Euribor® are the banks with the highest volume of business in the euro zone money markets. The panel of banks contributing to Euribor® consists of:

- > Banks from EU countries participating in the euro from the outset.
- > Banks from EU countries not participating in the euro from the outset.
- Large international banks from non-EU countries but with important euro zone operations.
- 3.1.3 Historical data back to 1999 can be found at <u>http://www.euribor.org/html/content/eonia_data.html</u>
- 3.1.4 The ECB shall aim to make the computed rate available to Telerate (now Reuters) for publication as soon as possible so that Eonia® be published between 6.45 p.m. and 7.00 p.m. (CET) on the same evening.
- 3.1.5 Reuters publishes the Eonia® reference rate on Reuters page "EONIA=", which is made available to all its subscribers and to other data vendors.
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Source: Euribor FBE

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4. Appendix

4.1 Example Calculation

4.1.1 Calculate the FTSE MIB Super Short Strategy Index value for Friday 02 January 2009

Model Inputs:

EONIA	= 226.50bps
Day count basis	= 360
Stock Borrowing Rate (t_0)	= 50bps
Prev FTSE MIB Short Strategy Index Value (sIndex _{t0})	= 10228.9191
Prev Closing FTSE MIB Index (TRI _{t0})	= 27061.78
Current Closing FTSE MIB Index (TRI _t)	= 27747.69
Prev Trading Day (t_0)	= 30 Dec 2008
Prev Trading Day (t ₀)	= 30 Dec 2008
ShortRatio	= 2

= 3

= 9715.3328

Model Outputs

Number of Days Interest (dt,t0) New Short Index Value (sIndex_t)

4.2 Stock Borrowing Rate History

Period	Stock Borrowing Rate (bps)
Up to 30 Dec 2008	50
02 Jan 2009 onwards	75

Source: FTSE Group

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4.3 Contacting FTSE

Further information on the FTSE MIB Short Strategy Index is available from FTSE and Borsa Italiana, who will also welcome comments on these Ground Rules.

Enquiries should be addressed in the first instance to:

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APH 07/07/2009