



Swiss Exchange

SIX Swiss Exchange Indices

Guide Governing Leveraged Indices

Table of Content

1	Index Structure	3
1.1	Introduction	3
1.2	General principles	3
1.3	Index Commission	3
1.4	Review of index concept	3
1.5	Termination of the index calculation	4
2	Index Calculation	4
2.1	Methodology	4
2.1.1	Calculation formula	4
2.1.2	Leverage term	4
2.1.3	Financing and interest term	4
2.2	Adjustment in cases of extraordinary market conditions	4
2.2.1	Leverage index	5
2.2.2	Short and short leverage index	5
2.3	Calculation interval and publication	5
2.4	Unavailability of underlying instrument	5
2.5	Adjustment of standardisation	5
2.6	Information on index events	6
2.7	Trade suspensions and market distortions	6
2.8	Index corrections	6
3	Trademark Protection, Use And Licensing	7
3.1	Protection	7
3.2	Licensing	7
3.2.1	Free usage	7
3.2.2	Usage subject to licence	7
4	Contact	7
5	Static Data	8

1 Index Structure

1.1 Introduction

The SIX Swiss Exchange leveraged indices reflect the daily returns of the underlying indices with added leverage. With underlying indices of either equities or bonds, the following types of index are calculated: Leverage (leverage +2), Short (leverage -1) and Short Leverage (leverage -2). By publishing leveraged indices, SIX Swiss Exchange enables investors to replicate investment strategies in a transparent, rule-based and cost-efficient manner.

Given their methodology, leveraged indices are more suited to risk-friendly investors with short-term horizons than to “buy and hold” strategies. Long-term returns of leveraged indices can diverge significantly from the long-term returns of the underlying indices.

The structure, calculation and any changes to the composition of a given index basket for the relevant underlying instrument are regulated in the corresponding rules.

1.2 General principles

In order to achieve the stated index objective SIX Swiss Exchange defines the general principles that govern the index methodology. SIX Swiss Exchange publishes the index objective and rules for all indices.

- **Representative:**
The development of the market is represented by the index.
- **Tradable:**
The index components are tradable in terms of company size and market.
- **Replicable:**
The development of the index can be replicated in practise with a portfolio.
- **Stable:**
High index continuity.
- **Rules-based:**
Index changes and calculations are rule-based.
- **Projectable:**
Changes in rules are with appropriate lead time (usually at least 2 trading days) – no retrospective rule changes.
- **Transparent:**
Decisions are based on public information.

1.3 Index Commission

The Management Committee of SIX Swiss Exchange is supported by the Index Commission (advisory board) in all index-related matters, notably in connection with changes to the index rules and adjustments, additions and exclusions outside of the established review and acceptance period.

The Index Commission convenes at least twice a year. It provides valuable input on how existing products can be improved and new ones created.

1.4 Review of index concept

The validity of the index concepts and rules is reviewed on a regular basis. In exceptional cases a broad market consultation can be conducted. The changes to the index rules are publicly announced with appropriate lead time (usually 3 months).

1.5 Termination of the index calculation

A decision to discontinue will be publicly announced by SIX Swiss Exchange with appropriate lead time.

In case of existing financial products linked to the index, of which SIX Swiss Exchange is aware, a market consultation is conducted in advance and a transition period is introduced before the definitive termination.

2 Index Calculation

2.1 Methodology

2.1.1 Calculation formula

$$LI_{x,t} = \underbrace{LI_{x,T} \times \left[1 + \left(\frac{UI_t - UI_T}{UI_T} \times x \right) \right]}_{\text{LEVERAGE TERM}} + \underbrace{(1-x) \times LI_{x,T} \times \left[\left(\frac{SARON_T}{360} \right) \times D \right]}_{\text{FINANCING / INTEREST TERM}}$$

Legend:

LI: Leveraged Index

UI: Underlying Index

t: Time of calculation

T: Closing price on last trading day prior to **t**

SARON: SAR Swiss Average Rate[®] ON (published in %)

D: Number of calendar days between **t** and **T**

x = +2: Leverage Index

x = -1: Short Index

x = -2: Short Leverage Index

2.1.2 Leverage term

The leverage term describes the influence the underlying has on the corresponding leveraged index. Leverage indices reflect the daily price change in the underlying instrument with a leverage factor of 2. For short and short leverage indices, the daily change in the underlying instrument is reflected with a leverage factor of -1 and -2, respectively.

2.1.3 Financing and interest term

Financing term and interest term are two rate components that result from the underlying strategy. In the case of a leverage index, capital is obtained on which interest must be paid. With short and short leverage indices, the base capital and proceeds from short sales are invested and therefore generate interest income.

The closing level of SAR Swiss Average Rate ON (SARON) recorded for the previous trading day **T** is used for calculating the rate component during the current trading day **t**.

2.2 Adjustment in cases of extraordinary market conditions

In order to limit the risk of a total loss, all leveraged indices feature a safety mechanism, which is triggered upon the occurrence of a predefined daily change in the underlying instrument.

2.2.1 Leverage index

If the underlying instrument at any point in time t falls by 25% compared to the previous day's closing level, a new trading day will be simulated intraday on the basis of adjusted UI_T and LI_T values. During a trading day, this adjustment process may be repeated as often as required. As a part of this, no financing costs will be taken into account for that particular day.

Threshold value:	$\left(\frac{UI_t}{UI_T} - 1 \right) \leq -25\%$
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Simulation of a new trading day:	$UI_{T,new} = UI_{T,old} \times 0.75$
	$LI_{T,new} = LI_{T,old} \times (1 - 0.25 \times x)$
	$D = 0$

2.2.2 Short and short leverage index

If the underlying instrument at any point in time t rises by 25% compared to the previous day's closing level, a new trading day will be simulated intraday on the basis of adjusted UI_T and LI_T values. During a trading day, this adjustment process may be repeated as often as required. As a part of this, no interest income will be taken into account for that particular day.

Threshold value:	$\left(\frac{UI_t}{UI_T} - 1 \right) \geq 25\%$
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Simulation of a new trading day:	$UI_{T,new} = UI_{T,old} \times 1.25$
	$LI_{T,new} = LI_{T,old} \times (1 + 0.25 \times x)$
	$D = 0$

2.3 Calculation interval and publication

All leveraged indices are calculated in realtime and immediately published. As soon as there is a change in the price level of the underlying instrument, the corresponding index reading is re-calculated and published. The shortest calculation interval is one second.

All relevant index data are disseminated by SIX Exfeed (a subsidiary of SIX Group).

2.4 Unavailability of underlying instrument

If the price level of the given leveraged index's underlying instrument is not available at some time during regular SIX Swiss Exchange trading hours, the level of that leveraged index will not be calculated.

If the price level of the index's underlying instrument persists beyond the closing auction, the closing price level of the given leveraged index will be based on the last available reading for the underlying instrument.

2.5 Adjustment of standardisation

SIX Swiss Exchange reserves the right to re-standardise the leveraged indices if it considers such to be necessary.

2.6 Information on index events

Any relevant forthcoming extraordinary corporate events that result in an adjustment to the indices are published by e-mail via Investor Service.

The registration form is available on the [SIX Swiss Exchange Website](#). SIX Swiss Exchange accepts no liability for Investor Service Equity.

2.7 Trade suspensions and market distortions

Should a data source (for example a price source) not be available as result of challenging economic conditions or other market distortions the last available data will normally be used.

In extreme cases a deviation from the rules defined in this rulebook can occur, for example, shifting the schedule of a regular index review.

All changes will be publicly announced at least two trading days in advance.

2.8 Index corrections

Index corrections distinguish between calculation errors and incorrect input data.

Calculation errors detected within a trading day are corrected immediately. Intraday tick data are not corrected retrospectively.

Calculation errors that are older or based on erroneous input data are corrected if technically possible and economically viable. If significant differences exist, index values can also be corrected retrospectively.

Interested parties may subscribe to an e-mail notifications service on the website. SIX Swiss Exchange distributes notifications over this channel on

- Changes in corporate actions and dividends
- Updates to the periodic index reviews
- Problems and error in the index calculation
- The launch of new indices
- General information on SMI indices

3 Trademark Protection, Use And Licensing

3.1 Protection

The [SIX Swiss Exchange Indices Trademarks](#) are internationally registered trademarks of SIX Swiss Exchange.

3.2 Licensing

3.2.1 Free usage

The [SIX Swiss Exchange Indices Trademarks](#) may be freely used for the purpose of honest reporting of the relevant index. Insofar as it is technically possible, the symbols [®] and [™] should be used, possibly with a footnote stating that these names are registered trademarks of SIX Swiss Exchange, Zurich.

3.2.2 Usage subject to licence

Any additional use of the [SIX Swiss Exchange Indices Trademarks](#) or any commercial use of the index figures (e.g., issue of index-linked financial instruments or capital insurance with or without mention of the trademark in the name or description) is only permissible with a valid licensing agreement.

Offering prospectuses must include the disclaimer which is available on the [SIX Swiss Exchange Website](#).

4 Contact

Information concerning the indices of SIX Swiss Exchange (index adjustments, announcements etc.) is available at the following Internet address:

http://www.six-swiss-exchange.com/indices_en.html

Any requests with respect to the indices may be directed to the following address:

SIX Swiss Exchange Ltd
Selnaustrasse 30
P.O. Box
CH-8021 Zurich

Email: indexsupport@six-group.com

Phone: +41(0)58 399 22 29

5 Static Data

Underlying index	Symbol	ISIN		
SMI® Swiss Market Index Total Return	SMIC	CH0000222130		
Leveraged indices	Symbol	ISIN	Initial date	Initial value
SMI Daily Leverage TR	SMILEV	CH0049815555	31.12.2008	1'000
SMI Daily Short	SMISHT	CH0049815563	31.12.2008	10'000
SMI Daily Short Leverage	SMISL	CH0049815571	31.12.20088	10'000

Underlying index	Symbol	ISIN		
SMI® Swiss Market Index Price	SMI	CH0009980894		
Leveraged indices	Symbol	ISIN	Initial date	Initial value
SMI Daily Leverage PR	SMILEP	CH0111500531	31.12.2008	1'000

Underlying index	Symbol	ISIN		
SLI® Swiss Leader Index Total Return	SLIC	CH0030252909		
Leveraged indices	Symbol	ISIN	Initial date	Initial value
SLI Daily Leverage TR	SLILEV	CH0049815589	31.12.2008	1'000
SLI Daily Short	SLISHT	CH0049815597	31.12.2008	10'000
SLI Daily Short Leverage	SLISL	CH0049815605	31.12.2008	10'000

Underlying index	Symbol	ISIN		
SLI® Swiss Leader Index Price	SLI	CH0030252883		
Leveraged indices	Symbol	ISIN	Initial date	Initial value
SLI Daily Leverage PR	SLILEP	CH0111500556	31.12.2008	1'000

Underlying index	Symbol	ISIN		
SBI® Domestic Government Mid 3-7 Total Return	SBGM3T	CH0024313691		
Leveraged indices	Symbol	ISIN	Initial date	Initial value
SBGM3T Daily Leverage	SBI3L	CH0049815613	31.12.2008	100
SBGM3T Daily Short	SBI3S	CH0049815639	31.12.2008	1'000
SBGM3T Daily Short Leverage	SBI3SL	CH0049815654	31.12.2008	1'000

Underlying index	Symbol	ISIN		
SBI® Domestic Government Mid 3-7 Price	SBGM3P	CH0024313618		
Leveraged indices	Symbol	ISIN	Initial date	Initial value
SBGM3P Daily Leverage	SBI3LP	CH0111500606	31.12.2008	100

Underlying index	Symbol	ISIN
SBI® Domestic Government Mid 7-15 Total Return	SBGM7T	CH0024313774

Leveraged indices	Symbol	ISIN	Initial date	Initial value
SBGM7T Daily Leverage	SBI7L	CH0049815662	31.12.2008	100
SBGM7T Daily Short	SBI7S	CH0049815670	31.12.2008	1'000
SBGM7T Daily Short Leverage	SBI7SL	CH0049815696	31.12.2008	1'000

Underlying index	Symbol	ISIN
SBI® Domestic Government Mid 7-15 Price	SBGM7P	CH0024313758

Leveraged indices	Symbol	ISIN	Initial date	Initial value
SBGM7P Daily Leverage	SBI7LP	CH0111500630	31.12.2008	100

Zinssatz	Symbol	ISIN
SAR Swiss Average Rate® ON	SARON	CH0049613687

A current list of all indices calculated by SIX Swiss Exchange is accessible at the SIX Swiss Exchange Website:

www.six-swiss-exchange.com/.../calculated_indices.xls

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