Swiss Index

Methodology Rulebook Governing Equity and Real Estate Indices

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1 Introduction

This document is an integral part of the Swiss Index Rules. These consist of the rules for Equity and Real Estate Indices, Bond Indices, Strategy Indices and Swiss Reference Rates. The present rulebook is the rulebook for Equity and Real Estate Indices. The first section "Basic Principles" explains the guiding principles this rulebook is based on. The next section provides an overview of the definitions used. This is followed by a section containing the theory behind the calculation of index values and the administration of index components and index composition. Subsequently, the rulebook is structured by the indices offered by SIX. Further information on the individual indices is provided in the corresponding section.

Each index-specific section is divided into four subsections. The "Overview"' section provides a brief explanation of the market measured by the index. The "Calculation Method" section describes the variables on the basis of which the index value is calculated. The section "Index Composition" describes which deadlines and index specific rules are used for the selection of the index components. The last section "Component Weighting" regulates the weighting of the individual index components.

The document concludes with remarks on correction guidelines, governance, external communication and trademark protection.

1.1 Revision History

Version/Date	Description
1.80	Revision and harmonization with DE version
	Definition of trading segments
	Free float adjustment in case of M&A
	Automatic inclusion of all foreign issuers in the Swiss All Share Index
	Change of data source for SXI Switzerland Sustainability 25 Index
	Adjustment of the rating cut-off date for ESG Indices
1.90	Methodology update for SPI ESG indices & introduction of UNGC screening
	Updates to thresholds in Critical Sectors

2 Basic Principles

This rulebook is based on the following basic principles. SIX follows the basic principles when situations arise that are not foreseen in the rulebook or in case of doubt.

- **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 practice 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.

3 Definitions

3.1 Instrument Definitions

SIX indices replicate the performance of a weighted group of financial instruments. Because this rulebook primarily describes equity indices, the essential attributes of equities are defined below:

Term	Definition
Bearer shares	The bearer share is an equity instrument with which the holder of the share owns a stake in the issuing company. The issuer of bearer shares does not maintain a register of shareholders, nor is he informed when the shares are transferred. The rights of the share are transferred when the ownership of the share passes from the seller to the buyer.
Capping factor	A capping factor is used to limit the weight of an index component in the index. If an index foresees a predefined weighting of its components it is described in the "Component Weighting" section of the corresponding index.
Candidate	A candidate is an instrument from the universe of an index. An index is selected from its universe. For indices with a fixed number of components the selectable candidates are on a selection list.
Capital event (Corporate Action)	Companies use a capital event to adjust their capital structure. Capital events include among others dividends, share splits or rights issues. For the calculation of the index values, capital events are considered which have an effect on the parameters of the index calculation.
Ex-date (ex-dividend date)	The ex-date is the first trading date from which a share is traded without entitlement to a dividend or a capital event. The holder of a share is entitled to a capital event immediately before the ex-date.
Free float factor	The free float factor is the relative proportion of the number of shares that are not in fixed ownership and are therefore freely tradable. As a rule, only freely tradable shares are taken into account when calculating market capitalization. The free float factor puts the freely tradable shares in relation to the number of shares in a share line. The rules for determining the free float factor are described in section 5.1.
Free float market capitalization	The free float market capitalization is calculated by multiplying the share price by the number of shares and the free float factor. This expresses the size of an instrument.
Instrument currency	Each instrument is traded in a currency in which shares are bought and sold. The majority of the index components are traded in Swiss Francs (CHF). However, it is possible that an index component is traded in a foreign currency. This case will be explained in more detail in section 5.2.
Number of shares	The number of shares is the number of shares in circulation. They constitute the total share capital, which is fully subscribed and fully or partially paid in and registered in the Commercial Register. The capital in circulation does not include conditional or authorized capital. The number of shares is used to calculate the free float market capitalization. The number of shares is regularly reviewed to ensure that it is up to date and the reviewed values are included in the review list, which is described in section 5.1.
Order book turnover	The order book turnover is the total traded volume in trading currency of an index component over a defined period of time.
Participation certificates	The participation certificate is an equity instrument that gives the holder the right to a dividend, but no voting rights. An issuer can use participation certificates to raise additional capital without changing the ownership structure.
Primary listing	The primary listing is the main exchange on which an issuer's instruments are admitted for trading. It is possible for an issuer to have multiple primary listings.
Registered shares	The registered share is an equity instrument in which the owner of the shares is registered in the share register of the issuer. The issuer knows its shareholders structure and is informed in the event of transfers.
Sector classification	Each issuer is assigned to an industry sector. SIX uses the 'Industry Classification Benchmark' (ICB) standard which assigns a four-digit code for classification. In this code, the first digit designates the industry and the second the supersector. The remaining two digits are not relevant for SIX.

Term	Definition
Trading segments	Instruments traded on the following trading segment are eligible: SIX Swiss Exchange: equity market SIX Swiss Exchange: investment funds SIX Swiss Exchange: SPARKS

3.2   Equity Index Definitions

Regarding equity indices, this document uses the following definitions:

Term	Definition
Buffer	Indices with a fixed number of components use a selection list to decide whether to include a candidate in the index or exclude a component from it. Some indices use a buffer in this selection process to limit the fluctuation of index components. If an existing index component ranks within the buffer in the selection list, the index component remains in the index. Candidates that are not yet part of the index are included in the index as soon as they rank above the buffer in the selection list. Detailed information on the buffers can be found in the corresponding sections of the indices.
Calculation method	The calculation method defines how the index value of an index is calculated. For each index, the method used to calculate the index value is defined in the section "Index Calculation". In most cases this is the Laspeyres formula, which is described in more detail in section 4.1.
Cut-off date	The information on the selection of the index components from the index universe is fixed on the cut-off date. Changes after the close of trading on the cut-off date are considered in the subsequent index review. Cut-off dates for indices that do not follow the standard SPI process are described in the corresponding index description.
Effective date	Ordinary and extraordinary index adjustments from the effective date are considered in the index calculation.
Fixed or variable number of components	Each index consists of either a fixed or variable number of components. For indices with a fixed number of components, the number is constant. For indices with a variable composition number of components, the number is not predefined and may vary at each regular index review or at each extraordinary index adjustment. The "Overview" section indicates for each index-specific subsection whether the index has a fixed or variable number of components.
Index	An index measures the performance of a defined market. In each index-specific chapter the "Overview" section describes which market is measured by the index.
Index candidate	An index candidate is an instrument of the index universe which can be selected for the index. All candidates of an index form the universe.
Index component	The index components are instruments that together form the index composition.
Index composition	The index composition consists of the index components. During the selection process, candidates are selected from the index universe based on the selection criteria of the index. Selected candidates are index components.
Index currency	Each index has a currency. Index components listed in another currency are converted into the index currency for the index calculation.
Index normalization	In principle, indices are standardized to a meaningful value (mostly 100 or 1'000) at their base date. From the base date, the index is continuously updated to reflect market changes and index adjustments.
Index type	SIX basically offers three types of equity indices. In contrast to the price return type, the gross return type assumes that dividend income is reinvested. The net return type takes into account dividend income after deduction of withholding tax.
Index universe	For each index there is a defined index universe. The index universe is a group of instruments that share common characteristics and from which the index components are selected. The universe consists of index candidates and is explained in the section "Index Composition" of the respective index.

Term	Definition
Instrument	An instrument is issued by the issuer to raise capital. There are different types of instruments such as equities, bonds or funds. In this rulebook the term "instrument" refers only to equities and real estate funds.
Review List	List with which number of shares and free float factor are communicated.
Selection list	A selection list is created on the basis of the index universe to determine which candidates will make up the index composition. The rules for creating the selection list are explained in the section "Index Composition" of the respective index section.
Weight	Each index component has a weight. In most cases, the weight is based on the free float market capitalization. If an index has a deviating rule for weight determination, this is listed in the section "Component Weighting" of the respective index section.

4 Calculation of Index Values

4.1 Laspeyres Formula

SIX measures the performance of most of its indices according to a formula that goes back to Prof. Etienne Laspeyres. Prof. Laspeyres' formula measures the change in value of a basket of goods relative to its initial value.

The index formula for calculating an index value (I) divides a market value (M) by a divisor (D) at a given time (t) as follows:

$$I_t = \frac{M_t}{D_t}$$

Legend:

I Index value

M Market value

D Divisor

t Time

The Divisor has two raisons d'être. On the one hand, it is used to standardize the index value to a meaningful size at inception of the index. The divisor is updated from the day on which the base value of the index was determined. On the other hand, it is used throughout the life of the index to compensate for external effects that may lead to a potential daily change in the market value (ΔM).

$$D_t = \frac{M_{t-1} + \Delta M_t}{I_{t-1}}$$

Legend:

ΔM Change in market value

These effects normally take the form of corporate actions and have a defined effective date. Therefore, the divisor is adjusted daily and kept constant within a day. The new divisor is calculated in the evening of the day before the corporate action becomes effective.

4.1.1 Weighting According to Free Float Market Capitalization

The most common form of the Laspeyres index formula at SIX is the one used to calculate a free float market capitalization-weighted index. The vast majority of the equity indices are calculated this way:

$$I_t = \frac{M_t}{D_t} = \frac{\sum_{i=1}^{n} s_{i,t} f_{i,t} c_{i,t} p_{i,t} x_{i,t}}{D_t}$$

Legend:

s Number of shares

f Free float factor

c Capping factor

p Price

x Exchange rate

i Specific index component

n Number of index components

The weight of a particular index component is derived from the proportion of shares available on the market, which is defined as the product of the listed shares ($s_{i,t}$) and the free float factor ($f_{i,t}$). Depending on the index concept, a capping factor ($c_{i,t}$) can be used to further scale the relative weight of an index component. To obtain the free float market capitalization of the component, the weight is multiplied by the price ($p_{i,t}$) in the index currency ($x_{i,t}$).

4.1.2 Weighting According to Weighting Factor

Another form of the Laspeyres index formula is used by SIX to calculate indices with a weighting according to an external weighting factor with a basis other than free float market capitalization. Compared to the free float market capitalization variant, only a few indices are calculated using this method:

$$I_t = \frac{M_t}{D_t} = \frac{\sum_{i=1}^{n} w_{i,T} p_{i,t} x_{i,t}}{D_t}$$

Legend:

w Weighting factor

The weight of an instrument in the index is determined by the rules of the individual index and is expressed in the weighting factor (w). The weighting factor is usually kept constant within one trading day. As with the free float

market capitalization-weighted index, the weights of the index components are multiplied by the price ($p_{i,t}$) in the index currency ($x_{i,t}$) to obtain the market value.

4.1.3 Adjustments of Corporate Actions

Depending on whether the index components are weighted by the free float market capitalization or their weight is determined differently and expressed as a weighting factor, a corporate action may affect the market value of an instrument. This results in an adjustment of the divisor according to the equation in section 4.1 with respect to $M_{t-1} + \Delta M_t = M_t$. These effects are usually predictable and have to be considered in terms of the market expectation at the effective date. The change of the market value in the index is the sum of the changes in the index components:

$$\Delta M_t = \sum_{i=1}^{n} \Delta M_{i,t}$$

In order to meet the market expectation, different adjustments can be made according to the weighting method to determine ΔM_i. Further details and examples of corporate actions are explained in section 4.3.

4.2 Performance Attribution Formula

In addition to the widely used Laspeyres formula, SIX also calculates indices that follow a performance attribution approach, where returns are reinvested through the index components in two defined ways. In principle, it does not deviate from the standard Laspeyres formula and the Laspeyres formula can probably be converted into the performance attribution representation. However, since the interpretation of the formulas is slightly different, it is worth treating the two separately.

4.2.1 Performance Attribution with Relative Weighting

An index value is calculated by weighting the daily performance of the instruments with a weight according to the index method. The weights add up to 100%. The sum of the returns weighted in this way is then scaled by the index value of the previous day and added to it to obtain the current index value.

$$I_t = I_{t-1} + I_{t-1} \sum_{i=1}^{n} \left(\frac{p_{i,s}}{p_{i,t-1} a_{i,t}} - 1 \right) g_{i,t}$$

Where

$$\sum_{i=1}^{n} g_{i,t} = 1$$

Legend:

g Normalized weighting factor

a Price adjustment factor for corporate actions

t Time of calculation

4.2.2 Performance Attribution with Equal Weighting

An index value is calculated by weighting the daily instrument performance equally according to the number of index components. As with the calculation with relative weighting, the sum of the weighted returns is multiplied by the index value of the previous day and added to it to obtain the current index value.

$$I_t = I_{t-1} + I_{t-1} \sum_{i=1}^{n} \left(\frac{p_{i,s}}{p_{i,t-1} a_{i,t}} - 1 \right) / n$$

4.2.3 Adjustments of Corporate Actions

Price Changes due to corporate actions are adjusted using the following formula:

$$a_{i,t} = \frac{p - p'}{p'} + 1$$

Legend:

p' Price adjustment due to a capital event

Compared to the Laspeyres formula described above, no weights need to be adjusted, as only the previous closing price is considered in the adjustment.

4.3 Capital Events (Corporate Actions)

4.3.1 Dividend Payments

Unless otherwise mentioned, SIX calculates the types price return and gross return as a standard for all indices. For selected indices, the type net return is calculated. The type gross return assumes a full reinvestment of all dividends into the index. The type net return takes into account dividend distributions after deduction of withholding tax. The type price return type does not recognize any reinvestments of dividends.

Depending on the form and nature of a dividend, extraordinary distribution may also be invested in the price index. These are distributions such as special dividends, anniversary bonuses or extraordinary dividends. Distributions of shares in another company also fall into this category. Explicitly treated as ordinary cash dividends are par value repayments by reducing the par value of shares, which are made instead of an ordinary cash dividend or are part of the ordinary distribution.

The change in the share price of an instrument that pays a dividend on the ex-date is perceived as follows:

$$p_i' = p_i - d_i$$

Legend:

d Dividend amount (gross or net)

To obtain the adjusted closing price (p_i') for a dividend payment, the corresponding dividend amount must be deducted from the closing price in the listing currency, since part of the market capitalization moves from the stock market to the shareholder.

Practitioner's Tip:

The origin of a dividend determines whether it is included only in the gross and net return indices or also in the price return indices. The consideration is reflected in the corresponding divisor. The following table describes the necessary adjustments to take a regular dividend into account:

Application of a Regular Dividend	Divisor Change		
	Gross Return	**Net Return**	**Price Return**
Adjusted Price = Price − Dividend Amount	↘	↘	→

4.3.2 Stock Split

Stock splits, reverse stock splits and stock dividends from newly listed instruments of the same share line lead to a change in the instrument price. This is offset by the change in the number of shares, as the same asset is distributed among more or fewer shares. The adjusted price p_i' of a stock split and the like is thus obtained from the relationship $p_i s_i = p_i' s_i'$. To obtain the adjusted closing price of a share, the closing price must be multiplied by the current number of shares and the product divided by the number of shares after the effective date:

$$p_i' = \frac{p_i s_i}{s_i'}$$

Legend:

s' Number of adjusted shares

Since the same ratio applies to the adjusted shares, they can be calculated using the same formula:

$$s_i' = \frac{p_i s_i}{p_i'}$$

The same is true for a potential adjusted weighting factor:

$$w_i' = \frac{p_i w_i}{p_i'} = \frac{s_i' w_i}{s_i}$$

Legend:

w' Adjusted weighting factor

💡 **Practitioner's Tip:**

Normally, the ratio of the adjusted number of shares to the original number is not based on all listed shares, but on a simplified, usually integer, ratio. A stock split could therefore be communicated as follows:

"Each shareholder receives B new shares for every A shares held".

The following table describes the necessary adjustments to account for a stock split or a reverse stock split:

Application of Stock Splits and Reverse Stock Splits	Divisor Change
$$Adjusted\ Price = \frac{Price \times A}{B}$$	
Free float Market Capitalization-Weighted Index: $$Adjusted\ Number\ of\ Shares = Number\ of\ Shares\ \frac{B}{A}$$ Weighting Factor Weighted Index: $$Adjusted\ Weightfactor = Wightfactor\ \frac{B}{A}$$	→

To communicate a stock dividend, a form is sometimes used in which the adjusted shares refer to those held and those to be received combined:

"Each shareholder receives an additional B new shares for every A shares held".

In such a case, the index adjustments would be presented as follows:

Application of a Stock Dividend	Divisor Change
$$Adjusted\ Price = \frac{Price \times A}{A + B}$$	
Free float Market Capitalization-Weighted Index $$Adjusted\ Number\ of\ Shares = Number\ of\ Shares\ \frac{A + B}{A}$$ Weighting Factor Weighted Index: $$Adjusted\ Weightfactor = Weightfactor\ \frac{A + B}{A}$$	→

4.3.3   Rights Issue

The rights issue serves either to raise capital for the company or to return capital to the shareholders. The company issues rights to shareholders so that they can buy shares at a discount or sell shares at a premium.

The adjusted price (p_i') of a rights issue results from the dilution or strengthening of the share price, provided that the shares can be bought by the shareholder at a discount or sold at a premium. This means $p_i^* < p_i$ for the case of a capital increase and $p_i^* > p_i$ for the case of a capital repayment. To obtain the adjusted closing price, the weighted price is calculated on the basis of the existing number of shares and the rights (s^*) to be distributed on the ex-date:

$$p_i' = \frac{p_i s_i + p_i^* s_i^*}{s_i + s_i^*}$$

Legend:
p^* Subscription price of the rights issued
s^* Rights issued per shares s

Since it is assumed that a rights issue is always exercised in full, the calculation of the adjusted number of shares can be made relatively simply as the sum of the existing number of shares and the subscription rights offered:

$$s_i' = s_i + s_i^*$$

Legend:
s' Number of adjusted shares

The weighting factor-weighted index determines its weights independently of market capitalization. Therefore, the rights issue may not have any influence on the market value. For this reason, in the case of the weighting factor

weighted indices, the adjustment is limited to this very factor in order to compensate for the expected price development. From this point of view, the treatment is the same as for the stock split:

$$w_i' = \frac{p_i w_i}{p_i'}$$

Legend:

w' Adjusted weighting factor

Since here, in contrast to the stock split, there is an effective dependence on the price, in practice, the new weighting factor is adjusted with the closing price two trading days prior the effective date. This ensures that an invested portfolio can react accordingly.

Practitioner's Tip:

As already explained for the stock split, the ratio of the adjusted number of shares to the original number is normally not based on all listed shares, but on a simplified, usually integer, ratio. A capital increase with subscription rights could therefore be communicated as follows:

"Each shareholder may purchase additional B new shares at the subscription price for each A shares held."

For of a capital repayment to shareholders with the issuance of subscription rights, the communication could be as follows:

"Each shareholder is offered the opportunity to tender B shares at the exercise price for each A shares held."

In these cases, the index parameters would be adjusted as follows:

Application of a Capital Increase/Capital Reduction with Subscription Price	Divisor Change	
$Adjusted\ Price = \dfrac{Price \times A \pm Subscription\ Price\ \times B}{A \pm B}$		
	Capital Increase	**Capital Decrease**
Free float Market Capitalization-Weighted Index: $Adjusted\ Number\ of\ Shares = Number\ of\ Shares\ \dfrac{A \pm B}{A}$	↗	↘
Weighting factor Weighted Index: $Adjusted\ Weightfactor = Weightfactor\ \dfrac{Price^{1}}{Adjusted\ Price}$	→	→

4.3.4 Extraordinary Corporate Actions

4.3.4.1 Initial Public Offering (IPO)

A company whose share capital is privately owned or listed on another stock exchange may be listed on SIX Swiss Exchange and offer its shares in an IPO. This offer is made at an issue price. The company decides whether the shares should have a primary or secondary listing. A primary listing means that SIX is the main stock exchange. The number of shares, the free float factor and the opening price are determined for the IPO. If a new listing meets the selection rules of an index, the new listing is included in the index. Index specific treatments are described in section 6.4.

4.3.4.2 Mergers and Acquisitions

Mergers and acquisitions are corporate actions in which the ownership structure of one or more companies is changed. This may result in the disappearance of the companies involved (delisting) and the formation of a new company (merger) or the integration of one company into the other (acquisition). The corporate action may

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[1] The closing price two trading days prior the effective date is used to calculate the adjusted weighting factor in order to give the portfolios invested in indices the necessary lead time for adjustments.

therefore lead to a new listing or a delisting, resulting in an adjustment of the index composition. In both cases, a change in the number of shares and the free float factor of the companies involved is possible, which may also lead to an adjustment outside of the regular review cycle. Such an adjustment will take effect on the basis of the interim and final end results and considering a notice period of two trading days. Index specific treatments are described in section 6.4.

4.3.4.3 Spin-off

A spin-off occurs when a company sells parts of its business into a new company and lists its shares. The shares of the newly formed company are distributed equally to the shareholders of the existing company. Therefore, the spin-off is generally treated as an extraordinary payment. However, no market price is available on the ex-date of the spin-off. In order to obtain such a market price, the spun off company is added to the index with a reference price during the ex-day. Thus, the number of index components is temporarily increased by one. The index adjustments to market value are made on the trading day following the ex-date with the closing price of the same. Estimates may be used to the spun-off company to the sub-indices by size or industry. Index-specific treatments are described in section 6.4.

4.3.4.4 Adjustments due to Share Buybacks and Ordinary Capital Increases

Extraordinary corporate actions may lead to an adjustment of the number of shares and the free float factor outside the ordinary index review if one of the following conditions is met:

–   The corporate action leads to an adjustment of the number of shares of at least 10%
–   The corporate action leads to an adjustment of the free float factor of at least 5%

Such adjustment is effective considering a notice period of two days. The effective date is based on available information. Only corporate actions that are reported to SIX by the issuer of the instrument are considered. Free float changes are made on the same information basis.

5 Management of Index Components

5.1 Review of Number of Shares and Free Float

5.1.1 Overview

The reviewed number of shares and free float factors are communicated to the market by means of a review list. This contains the number of shares and the free float factor for each index component. This is the basic information for calculating the free float market capitalization.

The communication and implementation of the reviewed number of shares and free float factors is done according to the overview below:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Communication provisional values	Monday, one month before effective date			
Data cut-off date	Friday before communication			
Communication definitive values	Monday before Implementation			
Implementation	3rd Friday March	3rd Friday June	3rd Friday September	3rd Friday December
Effective	Monday after implementation			

SIX creates a provisional and a definitive review list. The provisional review list is published one month before implementation and is purely informative. To ensure that the values are up-to-date, the definitive review list is published five trading days before implementation. SIX reserves the right to make short term adjustments up until implementation in order to react to unforeseen market developments, correct errors or take corporate action into account.

5.1.2 Determination of the Free Float Factor

The free float factor is a relative factor multiplied by the number of shares to ensure that only shares available for trading are included in the index calculation. The free float factor is only calculated for shares with voting rights. Substantial shares that reach or exceed the threshold of 5 % and are in fixed ownership are deducted from the market capitalization.

Shares that meet the following conditions are considered to be in fixed ownership:

– Shares held by individual persons or groups of persons bound by a shareholders' agreement.
– Shares held by individual persons or groups of persons who, according to publicly known facts, have a long-term interest in the company.

Irrespective of the above provisions, shares held by the groups listed below are counted as free float:

– Administrators
– Trustees
– Investment fund companies
– Pension funds
– Investment companies

If a person or a group of persons cannot be clearly classified due to their area of activity or the lack of important information, SIX assesses them at its own discretion. To calculate the stakes, SIX uses the reports submitted under Art. 120 FinMIA. In addition, SIX may rely on information from issuer surveys conducted by itself.

If an issuer has listed different categories of shares, these are considered separately when calculating the free float factor. Fund instruments are considered to be freely tradable with a free float factor of 100%.

5.2 Priority of Prices in the Reference Value Calculation

All instrument prices used to calculate the index values are unfiltered and are received by the SIX trading platforms during official trading hours. The last available price is used for the index calculation. In order to consider the different liquidity of the index components and to determine a representative opening value of the indices, two opening procedures exist. To determine the closing values, a uniform closing procedure is used for all indices described in this rulebook.

5.2.1 Opening Procedure

Standard Opening

If there is no paid price on the calculation day, the bid price applies. In the absence of a bid price, the price used to calculate the last index tick of the previous day is used. Only prices that come about via the SIX electronic order book are taken into account. To account for possible price fluctuations at the opening of trading, the index calculation starts three minutes after the start of trading.

Liquid Opening

If no paid price has been established on the calculation day, the price used to calculate the last index tick of the previous day applies. Only prices that come about via the SIX electronic order book are taken into account. In order to consider possible price fluctuations at the opening of trading, the index calculation starts two minutes after the start of trading of the order book.

5.2.2 Closing Procedure

The definitive daily closing prices of the index components from the closing auction are used to calculate the index closing level. If no daily closing price is available, the price used to calculate the last index tick is used. This could also be a bid price.

5.2.3 Final Settlement Value (FSV)

For indices on which derivatives are traded, a Final Settlement Value (FSV) is calculated. The calculation of the FSV is based on the first paid price of all index components between 9:00:00 CET and 9:02:15 CET. If no price is available for an index component in this period, the last available price of the previous day is used.

5.2.4 Index Components in a Non-Index Currency

If an index component is traded in a currency different from the index, it is converted to the currency of the index for index calculation purposes. The conversion is done in real time (tick-by-tick) using the last available Mid-Price of the respective currency pair. For the end of day calculation of the daily closing price, the last available Mid-Price of the respective currency pair of the trading day before the index closing value calculation is used.

6 Maintenance of Index Composition

6.1 Index Dependencies

An index is created by applying its selection criteria to an index universe. Because the index universe is often a different index, the index composition depends not only on the selection criteria of the index itself, but also on the selection criteria of its index universe. The resulting index dependencies are shown in the following overview:
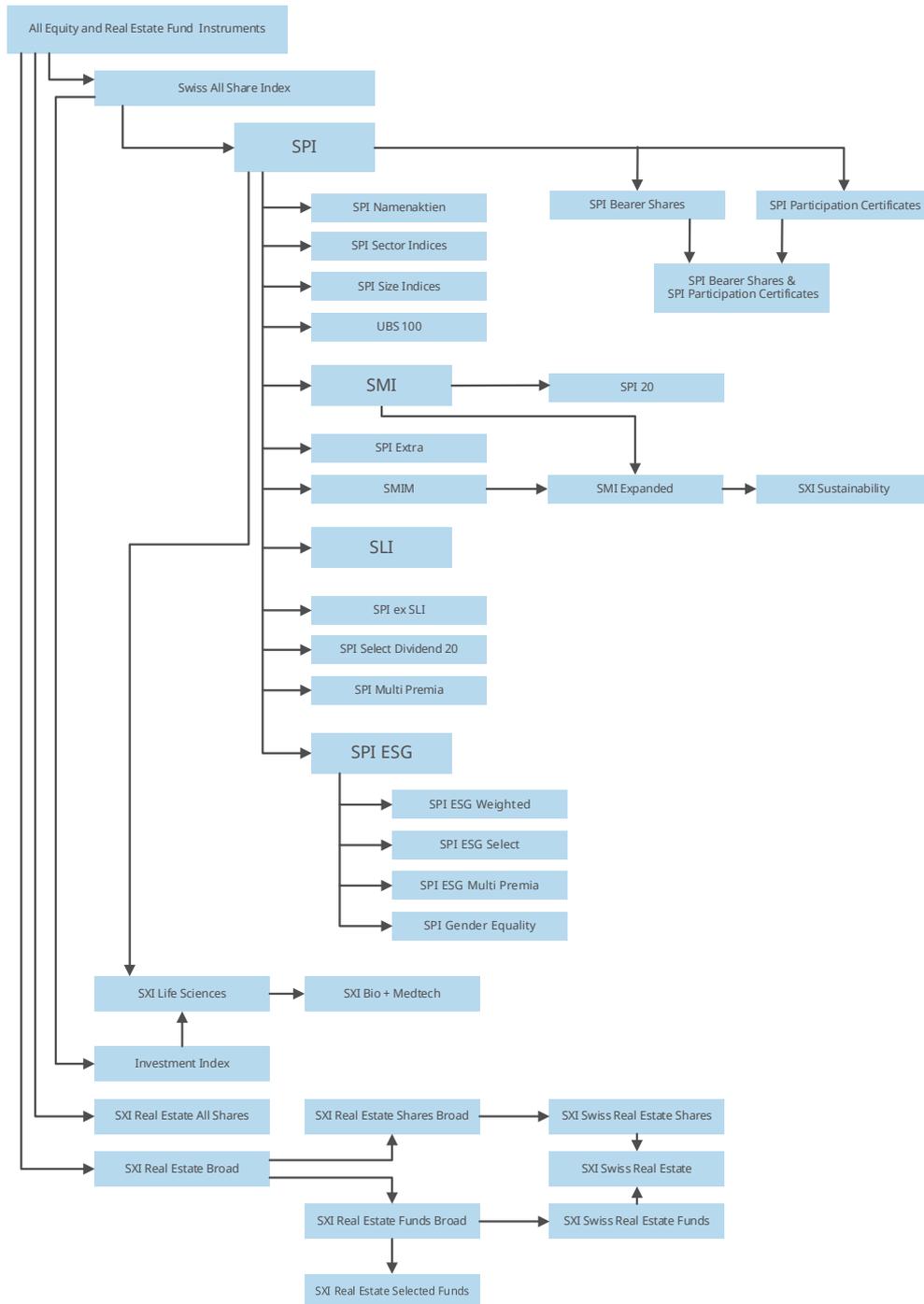
6.2 Ordinary Index Review

The ordinary index review is performed on a regular basis (quarterly, semi-annually or annually according to index-specific rules) in order to adjust the index composition to market developments.

During the ordinary index review, the adjustments of the index composition and the weighting of the index components are implemented on the 3rd Friday of the months March, June, September and December based on the last available selection list. The cut-off date of the selection list is the last trading day of the respective month. If not stated differently, the market is informed about the adjusted index composition with a notification period of at least two months.

The rules regarding the selection of the index components are set forth in the section "Index Composition" and those regarding their weighting in the section "Component Weighting" of the respective index chapter. Unless otherwise specified, the first trading day of the review month is considered the cut-off date for the selection of the components.

For some indices, a capping factor is used to influence the weighting of the index components. The adjustment of the capping factors is done according to the overview below. If an index is subject to a deviation from the overview, this will be mentioned in the index-specific section.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Component cut-off date	First trading day of the review month			
Data cut-off date	Thursday, 8 days before Implementation			
Communication capping factors	Monday before Implementation			
Implementation	3rd Friday March	3rd Friday June	3rd Friday September	3rd Friday December
Effective date	Monday after implementation			

The calculation of the capping factors is based on the definitive new number of shares and free float factors for the next ordinary index review.

6.3 Index Selection List

The index selection list is used to determine the index composition for most indices with a fixed number of components. The index selection list for the SPI and its derived indices with a fixed number of components is compiled quarterly on the cut-off dates of 31 March, 30 June, 30 September and 31 December. To compile the index selection list, the following values are calculated for each component of the SPI (section 7.2) over a 12-month period:

– Average free float market capitalization in relation to the total capitalization of the SPI
– Accumulated order book turnover in relation to the total turnover of the SPI

Both values are weighted 50% and the result is sorted in descending order.

For instruments whose listing took place during the 12-months period under review, the cumulative order book turnover is extrapolated. The first five trading days after listing are not included. The index selection list is published on the SIX website no later than two weeks after the cut-off date.

Index compositions selected on the basis of the index selection list are generally based on the June selection list, which is based on the annual data from 1 July to 30 June. On the remaining three cut-off dates, a provisional index selection list is created, which is mainly used to adjust for extraordinary corporate actions.

6.4 Extraordinary Corporate Actions: Mergers & Acquisition, IPO and Spin-offs

As described in section 4.3 extraordinary corporate actions include IPOs, merger & acquisitions, spin-offs, insolvencies or any other event leading to a listing or delisting. Although there is a clearly defined effective date for an extraordinary corporate action, its effect can usually not be anticipated with a generally valid formula. Since in

most cases an extraordinary corporate action involves index-relevant listing or delisting, an extraordinary adjustment of the index composition and its weighting is made.

Newly listed instruments that fulfill the selection criteria of an index are extraordinarily included in the respective index on the second trading day and the index is adjusted with the free float market capitalization from the end of the first trading day. The extraordinary inclusion of a new listing may lead to an extraordinary exclusion of an existing index component.

Extraordinary inclusions are usually implemented after an announcement period of five trading days. Adjusted capping factors are usually implemented after an announcement period of five trading days, but no less than one trading day. Index-specific provisions are mentioned in the respective index section.

If an IPO of a real estate instrument leads to an extraordinary inclusion, this is carried out simultaneously in all affected indices in three uniform steps. For this purpose, the instrument will be included in the index in three equal installments over three trading days starting on the second trading day after the IPO by gradually increasing the number of shares or the free float factor.

In the event of a planned delisting, the exclusion of an index component will be carried out, if possible, at the next ordinary index review on the 3rd Friday in March, June, September or December. However, if the delisting is effective prior to the next ordinary index review, the index component will excluded from the index on the effective date of the delisting. Similarly, an index component which no longer meets the criteria for remaining in an index due to a pending takeover may be excluded from the index ahead of time. In order to keep the number of components stable for indices with a fixed number of components, the extraordinarily excluded component is replaced by the first ranked candidate of the applicable selection list.

Extraordinary exclusions and inclusions are usually implemented after an announcement period of five trading days. Adjusted capping factors are usually implemented considering an announcement period of five trading days, but at least of one trading day. Index-specific provisions are described in the respective index section.

Extraordinary inclusions to the SMI (section 7.9), SMIM (section 7.13) and SLI (section 7.14) are made if the selection criteria for the index have been fulfilled during a 3 month period, this on a quarterly basis after close of trading on the 3rd Friday in March, June, September and December as follows:

Latest Listing Date	Earliest Extraordinary Inclusion Date
Five trading days before end of November	March
five trading days before end of February	June
Five trading days before end of May	September
Five trading days before end of August	December

In the event of major market changes as a result of a corporate action, the Swiss Index Committee of SIX can decide, based on the request of the Index Commission, that an instrument be included in an index outside the specified deadlines, provided that the selection criteria of the index are clearly met. For the same reasons, however, an index component may also be excluded if the requirements for remaining in the index are no longer met.

7 Indices

7.1 Swiss All Share Index

7.1.1 Overview

The Swiss All Share Index measures the performance of domestic and foreign equity instruments traded on SIX Swiss Exchange. As such, it is the broadest diversified index calculated by SIX. The Swiss All Share Index is an index with a variable number of components.

7.1.2 Calculation Method

The Swiss All Share Index is calculated according to the Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the Swiss All Share Index, the rules of the "Standard Opening" apply, which are described in section 5.2.

7.1.3 Index Composition

7.1.3.1 Frequency of Ordinary Index Review and Cut-Off Date

The index is continuously reviewed and as soon as an instrument meets the selection criteria, it is included ad-hoc in the index. As soon as a component violates the selection criteria, it is removed ad-hoc from the index.

7.1.3.2 Selection of Index Components

The index universe of the Swiss All Share Index consists of all instruments with a primary listing on SIX Swiss Exchange's main and SPARKS trading segments.

Instruments of companies domiciled outside of Switzerland are included in the index, whereby the issuer agrees to comply with the Directive on Regular Reporting Obligations[2] of SIX Exchange Regulation. If the issuer fails to comply with the Directive, its instruments are excluded from the Swiss All Share Index and its derived indices after a prior warning.

7.1.4 Weighting of Index Components

The Swiss All Share Index is weighted by the free float market capitalization of its components. The number of shares and the free float factor are reviewed quarterly as described in section 5.1.

7.2 Swiss Performance Index – SPI

7.2.1 Overview

The SPI measures the development of the more liquid and therefore more frequently traded equity instruments listed on SIX Swiss Exchange. It serves as a benchmark for the overall Swiss equity market and as the index universe for most indices, as described in section 6.1. The SPI is an index with a variable number of components.

7.2.2 Calculation Method

The SPI is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI, the provisions of the "Standard Opening" apply, which are described in section 5.2.

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[2] https://www.six-exchange-regulation.com > Fundamentals > Laws, Rules, Provisions > Regular Reporting > Directive Regular Reporting Obligations

7.2.3 Index Composition

7.2.3.1 Ordinary Index Review Frequency and Cut-Off Date

The SPI is continuously reviewed. As soon as an instrument fulfills the selection criteria, it is included into the index. As soon as a component violates the selection criteria, it is removed from the index.

7.2.3.2 Selection of Index Components

The index universe of the SPI is the Swiss All Share Index. Instruments are added to the SPI as soon as they have a free float factor of 20% or higher. An announcement period of 10 trading days applies, measured from the time when the criterion has been met for three consecutive months. Should the free float factor of a component fall below this minimum and does not reach or exceed it again during a period of three months, it will also be excluded from the SPI, after an announcement period of 10 trading days.

Instruments of investment companies investing in Swiss companies are not included in the index in order to avoid double representation of the same assets. Instruments of investment companies investing in companies that are not listed on SIX Swiss Exchange may be included at the request of the issuer.

If an issuer domiciled abroad does not have a primary listing exclusively on SIX, the following criteria must be met additionally and cumulatively for inclusion:

– The issuer's shares must not be included in an internationally significant foreign benchmark index.
– At least 50% of the total turnover of the shares must be generated on SIX or the liquidity ratio (turnover as a percentage of free float capitalization) must be at least 50%.

The instruments of companies domiciled abroad may be included in the SPI and its sector and other derived indices on request of the issuer as of their second trading day. This is subject to the condition that the relevant instrument has been listed on SIX Swiss Exchange by means of an IPO and that the issuer complies with its obligation under the Directive on Regular Reporting Obligations (section 7.1.3.2). In addition to the type of listing, other factors such as the trading segment and the free float market capitalization are considered when reviewing the application.

Instruments of Special Purpose Acquisition Companies (SPAC) are not eligible for the index. If an eligible company structure is created during the acquisition ("de-SPAC") process, the new company may be included in the index if it fulfills the selection criteria.

7.2.4 Weighting of Index Components

The SPI is weighted by the free float market capitalization of its components. The number of shares and the free float factor are reviewed quarterly as described in section 5.1.

7.3 Swiss Performance Index ESG - SPI ESG

7.3.1 Overview

The SPI ESG measures the development of the SPI considering sustainability factors in the areas of environment, social and governance. These factors are measured using a metric provided by Inrate.

7.3.2 Calculation Method

The SPI ESG is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI ESG, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.3.3 Index Composition

7.3.3.1 Frequency of Ordinary Index Review and Cut-Off-Date

The index review is performed annually in the third quarter according to the procedure described in section 5.1.

7.3.3.2 Selection of Index Components

In order to select the SPI ESG Index, the relevant factors of the Inrate[3] Metric are briefly explained below:

– Rating: The ESG Impact Rating ranges in 12 levels from D- to A+.
– Critical Sector Screening: Inrate data is used to quantify revenue in critical sectors. These critical sectors are Adult Entertainment, Alcohol, Armaments, Gambling, Genetic Engineering, Nuclear Energy, Coal, Tobacco and Oil Sands.
– Exclusions based on the United Nations Global Compact (UNGC) assessment.
– Exclusions based on the Swiss Association for Responsible Investments[4].

The index universe of the SPI ESG is the SPI. To be selected for the index, all instruments are subject to the following critical sector revenue limits, must not been recommended for exclusion by the Swiss Association for responsible Investments, need to fulfill the United Nations Global Compact assessment and must have an ESG Impact Rating of at least C+ at the annual review in September.

Critical Sectors Screening	Share
Adult Entertainment	< 5%
Alcohol	< 5%
Defense	< 5%
Gambling	< 5%
Genetic Engineering	= 0%
Nuclear Energy	
Generation of nuclear electric power	= 0%
Minority interest generation of nuclear power	= 0%
Minority interest products & services for the nuclear industry	< 15%
Products & services for the nuclear industry	< 15%
Oil Sands	= 0%
Coal	< 5%
Tobacco	
Goods related to tobacco	< 5%
Retail of tobacco products	< 5%
Tobacco distribution	< 5%
Minority interest tobacco products	= 0%
Tobacco products	= 0%

To prevent potentially high turnover, tracking error and reflect the market structure of the Swiss equity market index components with a weight in the SPI index of more than 10% are kept in the SPI ESG Index, as long as the company commits to ESG and the Principles of the UN Global Compact or these are part of the company's strategy.

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[3] This data is sourced from Inrate. More detailed information can be found on https://www.inrate.com/

[4] More detailed information can be found on https://www.svvk-asir.ch/

The following graphic shows the different filter applied:

Swiss All Share Index

SPI Index

Free float >= 20%

Exclusion of:
- Investment companies
- SPACs

Issuers with primary listing on another stock exchange:

Turnover ratio or liquidity ratio >=50% and not part of an internationally significant foreign benchmark

Critical sector screening
Adult Entertainment, Alcohol, Armaments, Gambling, Genetic Engineering, Nuclear Energy, Coal, Tobacco, Oil Sands

SARI/SVVK – "Swiss Association for responsible Investments"

UNGC United Nations Global Compact

ESG Impact Rating

SPI ESG

Weighting

SPI ESG Weighted

~230

~215

7.3.4 Weighting of Index Components

The SPI ESG is weighted by the free float market capitalization of its components. The number of shares and the free float factor are reviewed quarterly as described in section 5.1.

7.4 SPI ESG Weighted

7.4.1 Overview

The SPI ESG Weighted measures the performance of the SPI considering sustainability factors in the areas of environment, social affairs and governance. These factors are measured using a metric provided by Inrate. Compared to the SPI ESG the components of the SPI ESG Weighted are overweighted and underweighted according to their ESG Impact Rating.

7.4.2 Calculation Method

The SPI ESG Weighted is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI ESG Weighted, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.4.3 Index Composition

7.4.3.1 Ordinary Index Review and Cut-Off-Date

The review of the capping factors is carried out four times a year according to the procedure as described in section 5.1.

7.4.3.2 Selection of Index Components

The index components of SPI ESG Weighted are always identical to the index components of the SPI ESG.

7.4.4 Weighting of Index Components

The SPI ESG Weighted is weighted by the free float market capitalization of its components. The number of shares and the free float factor are reviewed quarterly as described in section 5.1.

In the same context, capping factors are calculated based on the ESG Impact Ratings to provide an updated underweight or overweight of the index components. Based on the twelve ratings from D- to A+, a factor from 0.0 and 2.0 is assigned for each component. The capping factors are distributed linearly.

ESG Impact Rating	Cap-factor (example illustration rounded to four decimals)
A+	2.0000
A	1.8182
A-	1.6364
B+	1.4545
B	1.2727
B-	1.0909
C+	0.9091
C	0.7273
C-	0.5455
D+	0.3636
D	0.1818
D-	0

7.5 SPI ESG Select

7.5.1 Overview

The SPI ESG Select measures the development performance of the SPI considering sustainability factors in the areas of environment, social and governance. The number of components is limited to half the number in the SPI. Like the SMI, the SPI ESG Select Index applies capping factors to limit the maximum weight of an index component and is thus sufficiently diversified for the UCITS guidelines (Undertakings for Collective Investments in Transferable Instruments).

7.5.2 Calculation Method

The SPI ESG Select is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI ESG Select, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.5.3 Index Composition

7.5.3.1 Ordinary Index Review and Cut-Off-Date

The review of the capping factors is carried out four times a year according to the procedure described in section 5.1. The review of the composition is carried out annually in September.

7.5.3.2 Selection of Index Components

In principle, the SPI ESG Select is derived from the SPI ESG. Candidates are selected according to their ESG Impact Rating and their free float market capitalization in descending order until half of the components in the SPI are reached. If there are not enough components in the SPI ESG to reach this number, the remaining components are selected from the SPI according to the same criteria.

7.5.4 Weighting of Index Components

The SPI ESG Select is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1. In the same context, the weight of the index components with a free float market capitalization of more than 18% of the total market capitalization is limited to these 18% with a capping factor.

In addition, the index components will be capped at 18% between two ordinary index reviews as soon as two components exceed the weight of 20%. If such a limit violation is detected at the close of trading, the new capping factors are calculated so that the respective index component has a maximum weight of 18%. This capping factor becomes effective after the close of trading on the following trading day.

If an issuer has issued more than one equity instrument (e.g. registered shares, bearer shares, participation certificates, dividend-right certificates), the issuer may be represented in the index with more than one instrument. In this case, their free float market capitalization is cumulated for the calculation of the capping factors. If the cumulated index weighting exceeds the threshold of 18%, the weighting is capped accordingly. The cumulated, capped index weighting is allocated again to the individual shares according to the proportion of their free float market capitalization.

7.6 SPI Sector Indices

7.6.1 Overview

The SPI Sector Indices measures the development of a specific sector. The sector definition is based on the sector classification standard of ICB[5]. The SPI Sector Indices are indices with a variable number of components.

7.6.2 Calculation Method

The SPI Sector Indices are calculated according to Laspeyres' concept as free float market capitalization-weighted indices. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI Sector Indices, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.6.3 Index Composition

7.6.3.1 Ordinary Index Review Frequency and Cut-Off Date

The quarterly index review takes place on the ordinary dates of the 3rd Friday in March, June, September and December.

7.6.3.2 Selection of Index Components

The index universe of the SPI Sector Indices is the SPI. The allocation of the SPI index components is based on the ICB classification standard, which groups shares according to the issuer's business activity. The standard provides for 10 industries and 18 supersectors. The dependencies between industries and supersectors are shown in the table below:

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[5] An overview is available here: www.six-group.com/exchanges/downloads/indexinfo/online/share_indices/spi/ICB_Structure.pdf

More details can be found on the following website: www.icbenchmark.com

10 Industries		18 Supersectors	
Code	Industry	Code	Supersector
0001	Oil & Gas	0500	Oil & Gas
1000	Basic Materials	1300	Chemicals
		1700	Basic Resources
2000	Industrials	2300	Construction & Materials
		2700	Industrial Goods & Services
3000	Consumer Goods	3300	Automobiles & Parts
		3500	Food & Beverages
		3700	Personal & Household Goods
4000	Health Care	4500	Health Care
5000	Consumer Services	5300	Retail
		5500	Media
		5700	Travel & Leisure
6000	Telecommunications	6500	Telecommunications
7000	Utilities	7500	Utilities
8000	Financials	8300	Banks
		8500	Insurance
		8700	Financial Services
9000	Technology	9500	Technology

7.6.4 Weighting of Index Components

The SPI Sector Indices are weighted by the free float market capitalization of their components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.7 SPI Size Indices

7.7.1 Overview

The SPI Size Indices aim to measure the development of instruments of the same magnitude. Therefore, the index components of the SPI are grouped into three sub-indices (SPI Large, SPI Mid and SPI Small) and two combinations (SPI Mid & Large, SPI Small & Mid). The weighting of the index components of the SPI Size Indices is based on their free float market capitalization. The SPI Large, SPI Mid as well as the SPI Mid & Large are indices with a fixed number of components. The SPI Small and the SPI Small & Mid are indices with a variable number of components.

7.7.2 Calculation Method

The SPI Size Indices are calculated according to Laspeyres' concept as a free float market capitalization-weighted indices. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI Sub-indices by Size, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.7.3   Index Composition

7.7.3.1   Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list. A provisional selection list is created for the cut-off dates of 31 March, 30 September and 31 December. It serves as a basis for the adjustment of extraordinary corporate actions.

7.7.3.2   Selection of Index Components

The index universe of the SPI Size is the SPI. The selection list ranks the components of the SPI according to their free float market capitalization over 12 months in relation to the capitalization of the entire index universe. In the annual index review, the approximately 200 components of the SPI are distributed among the three sub-indices and the two combinations according to the following chart:
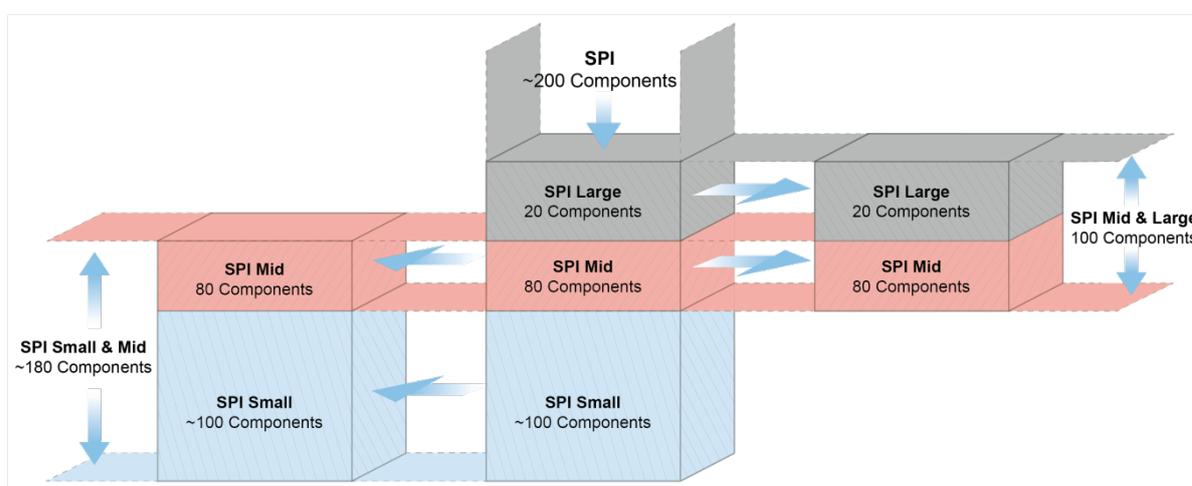
The selection of the index components of the SPI Large, SPI Mid and SPI Small is shown in the following table:

Index	Number of Index Components	Direct Selection	Buffer
SPI Large	20	Rank 1-18	Rank 19-22
SPI Mid	80	Rank 21-92	Rank 93-108
SPI Small	Variable	All remaining instruments	-

The 20 index components of the SPI Large are selected from the selection list. In order to reduce fluctuations in the index, a buffer is used for ranks 19 to 22, i.e. the first 18 candidates are included directly in the index. From the candidates on the ranks 19 to 22, those are included with priority which are currently already in the index. After that, new components are added from the buffer until the index has 20 components. The SPI Size Indices do not know any liquidity restrictions. In this case, the SPI Large differs from the SMI and SPI 20.

The 80 components for the SPI Mid are selected in the same way. The remaining index components of the SPI form the SPI Small, which consists of approximately 100 instruments. Since this index contains the remaining index components of the SPI, no buffer is used in its index selection.

The SPI Mid & Large consists of the index components of the SPI Mid and the SPI Large and thus represents a market with 100 components. The SPI Small & Mid comprises the index components of the SPI Small and the SPI Mid and thus represents a market of approximately 180 components.

The inclusion of instruments into the SPI may result in a redistribution in the indices according to size. The last available selection list is used as a guide. For IPOs, the assignment to the size indices is based on the free float market capitalization at which the inclusion in the SPI takes place. For normal additions to the SPI, the size is assigned based on the free float market capitalization, as of the date on which the SPI inclusion criterion is fulfilled.

Deleted components in the Large and Mid indices are replaced by the highest ranked candidate on the selection list in each case in order to keep the number of index components constant.

7.7.4 Weighting of Index Components

The SPI Size Indices are weighted by the free float market capitalization of their components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.8 UBS 100 Index

7.8.1 Overview

The UBS 100 Index measures the development of a broad part of the large and mid Swiss equity market. The 100 Swiss instruments listed on SIX Swiss Exchange with the largest free float market capitalization are selected for this index. The UBS 100 Index is an index with a fixed number of components.

7.8.2 Calculation Method

The UBS 100 Index is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the UBS 100 Index, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.8.3 Index Composition

7.8.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list. A provisional selection list is created for the cut-off dates of 31 March, 30 September and 31 December. It serves as a basis for the adjustment of extraordinary corporate actions.

7.8.3.2 Selection of Index Components

The index universe of the UBS 100 Index is the SPI. The selection list ranks the SPI index components according to their free float market capitalization over 12 months relative to the capitalization of the entire index universe. In the annual review, the 100 largest instruments are selected as index components. Index components that are no longer among the top 100 are excluded from the index.

7.8.4 Weighting of Index Components

The UBS 100 Index is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.9 Swiss Market Index – SMI

7.9.1 Overview

The SMI measures the development of the Swiss Blue Chip equity market. The index components are the 20 largest and most liquid equity instruments traded on SIX. The index represents more than 75% of the free float market capitalization of the entire Swiss equity market. In contrast to the SPI 20, the SMI is calculated with a capping factor to limit the maximum weight of an index component and is therefore sufficiently diversified for the UCITS guidelines (Undertakings for Collective Investments in Transferable Instruments). The SMI is an index with a fixed number of components.

7.9.2 Calculation Method

The SMI is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres concept and its weighting methods are described in section 4.1. For the SMI, the provisions of the "Liquid Opening" apply, which are described in section 5.2. SIX calculates a Final Settlement Value for the SMI.

In addition to the price and the gross return, the following indices are calculated:

Additional SMI Indices	
SMI Ask Index	Measures the development of the SMI components using the lowest ask quotes.
SMI Bid Index	Measures the development of the SMI components using the highest bid quotes.
SMI Current Spread	Outlines the spread between the SMI Ask Index and the SMI Bid Index.
SMI Average Spread	Outlines the arithmetic mean of the SMI Current Spread quotes at the end of each trading day.
SMI Monthly Average Spread	Outlines the arithmetic mean of the SMI Average Spread quotes at the end of each month.

7.9.3 Index Composition

7.9.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list. A provisional selection list is created for the cut-off dates of 31 March, 30 September and 31 December. It serves as a basis for the adjustment of extraordinary corporate actions.

7.9.3.2 Selection of Index Components

The index universe of the SMI is the SPI. The following table provides an overview of how the SMI is selected from the SPI using the index selection list:

Index	Number of Index Components	Direct Selection	Buffer
SMI	20	Rank 1-18	Rank 19-22

The 20 components of the SMI are selected from the selection list. To reduce fluctuations in the index, a buffer is used for the ranks 19 to 22, i.e. the first 18 candidates are selected directly in the index. From the candidates on the ranks 19 to 22, those are included with priority which are currently already in the index. After that, new components are added from the buffer until the index has 20 components.

Instruments that have a primary listing on more than one stock exchange and generate less than 50% of their total turnover at SIX, need to fulfill additional liquidity criteria in order to be selected for the SMI. For this purpose, at the ordinary index review in September, all index components of the SPI are ranked in descending order according to their cumulative order book turnover of the last 12 months relative to the total turnover of the index universe. For this list, only turnover from exchanges where the instrument has a primary listing is considered. Such an instrument with multiple primary listings may not be ranked lower than 18th on this list in order to be selected for the index. If such an instrument, which is an index component, is ranked at position 23 or lower, it will be excluded from the index.

7.9.4 Weighting of Index Components

The SMI is weighted by the free float market capitalization of its index components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1. In the same context, the weight of the index components with a free float market capitalization of more than 18% of the total market capitalization is limited to this 18% with a capping factor.

In addition, the index components will be capped at 18% between two ordinary index reviews as soon as two components exceed a weight of 20% each. If such a limit violation is detected at the close of trading, the new capping factors are calculated so that any component again have a maximum weight of 18%. This capping factor becomes effective after the close of trading on the following trading day.

If an issuer has issued more than one equity instrument (e.g. registered shares, bearer shares, participation certificates, bonus certificates), the issuer may be represented in the index with more than one instrument. In this case, their free float market capitalization is cumulated for the calculation of the capping factors. If the cumulated index weighting exceeds the threshold of 18%, the weighting is capped accordingly. The cumulated, capped index weighting is allocated again to the individual shares according to the proportion of their free float market capitalization.

7.10 SPI 20

7.10.1 Overview

The SPI 20 measures the development of the Swiss Blue Chip equity market. It is a parallel index to the SMI. Therefore, the index components are also the 20 largest and most liquid equity instruments traded on SIX. The index represents between 80 and 85% of the free float market capitalization of the entire Swiss market volume. The SPI 20 is an index with a fixed number of components.

7.10.2 Calculation Method

The SPI 20 is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI 20, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.10.3 Index Composition

7.10.3.1 Ordinary Index Review Frequency and Cut-Off Date

The timing of the selection of the index components and their communication follow the SMI schedule (section 7.9).

7.10.3.2 Selection of Index Components

The index universe of the SPI 20 is the SMI. The index components of SPI 20 are always identical to the index components of the SMI.

7.10.4 Weighting of Index Components

The SPI 20 is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1. In Contrast to the SMI, the index components of the SPI 20 are not capped.

7.11 SPI Extra

7.11.1 Overview

The SPI Extra measures the development performance of small and medium-sized Swiss companies outside the SMI (section 7.9). The index represents the SPI universe without the components of the SMI and can therefore be used as an alternative to the SPI Small & Mid in order to preclude any overlap with the SMI. The index comprises approximately 180 index components and is an index with a variable number of components.

7.11.2 Calculation Method

The SPI Extra is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI Extra, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.11.3 Index Composition

7.11.3.1 Ordinary Index Review Frequency and Cut-Off Date

The timing of the selection of the index components and their communication follow the schedule of the SPI (section 7.2) and the SMI (section 7.9).

7.11.3.2 Selection of Index Components

The index universe of the SPI Extra is the SPI. For the selection of the SPI Extra, the SMI components are removed from the SPI.

7.11.4 Weighting of Index Components

The SPI Extra is weighted by the free float market capitalization of its components. The number of shares and the free float factor are reviewed quarterly as described in section 5.1.

7.12 SMI Expanded

7.12.1 Overview

The SMI Expanded measures the performance of the 50 largest and most liquid instruments of the Swiss Equity Market. The SMI Expanded represents more than 90% of the free float market capitalization of the entire Swiss market. The SMI Expanded is an index with a fixed number of components.

7.12.2 Calculation Method

The SMI Expanded is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SMI Expanded, the provisions of the "Liquid Opening" apply, which are described in section 5.2.

7.12.3 Index Composition

7.12.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list. A provisional selection list is created for the cut-off dates of 31 March, 30 September and 31 December. It serves as a basis for the adjustment of extraordinary corporate actions.

7.12.3.2 Selection of Index Components

The index universe of the SMI Expanded is the SPI. The following table provides an overview of how the SMI Expanded is selected from the SPI using the index selection list:

Index	Number of Index Components	Direct Selection	Buffer
SMI Expanded	50	Rank 1-47	Rank 48-53

The 50 components of the SMI Expanded are selected from the index selection list. To reduce fluctuations in the index, a buffer is used for ranks 48 to 53, i.e. the first 47 candidates are included directly in the index. From the

candidates on the ranks 48 to 53, those are included with priority which are currently already in the index. After that, new components are added from the buffer until the index has 50 components.

Instruments that have a primary listing on more than one exchange and generate less than 50% of their total turnover on SIX must also meet a liquidity criterion in order to be selected for the SMI Expanded. The procedure for determining the liquidity criterion corresponds to that of the SMI and is explained in section 7.9.3.2.

Such an instrument with multiple primary listings may not be ranked lower than 47th on this list in order to be selected for the index. If such an instrument, which is an index component, is ranked at position 54 or lower on this list, it will be excluded from the index.

7.12.4   Weighting of Index Components

The SMI Expanded is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.13   SMI Mid - SMIM

7.13.1 Overview

The SMIM measures the development the largest mid-sized Swiss equity market of the 30 components of the SMI Expanded that are not already included in the SMI. The SMIM measures the development the 30 largest mid-sized stocks on the Swiss equity market of the 30 components of the SMI Expanded that are not already included in the blue-chip-index SMI. The SMIM is an index with a fixed number of components.

7.13.2 Calculation Method

The SMIM is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SMIM, the provisions of the "Liquid Opening" apply, which are described in section 5.2. SIX calculates a Final Settlement Value for the SMIM.

7.13.3 Index Composition

7.13.3.1 Ordinary Index Review Frequency and Cut-Off Date

The timing of the selection of the index components and their communication follow the schedule of the SMI Expanded (section 7.12).

7.13.4 Selection of Index Components

The index universe of the SMIM is the SMI Expanded. For the selection of the SMIM, only those candidates are selected from the SMI Expanded that are not in the SMI.

7.13.5 Weighting of Index Components

The SMIM is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.14   Swiss Leader Index – SLI

7.14.1 Overview

The SLI measures the performance of the Swiss equity market based on the 30 largest and most liquid instruments of the SPI. The SLI can be considered as an alternative to the SMI with differences in certain key aspects. By including 10 additional instruments and due to the capping factors, the SLI increases the weight of smaller index components and distributes the exposure to price movements more evenly across all index components. The SLI is an index with a fixed number of components.

7.14.2 Calculation Method

The SLI is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SLI, the provisions of the "Liquid Opening" apply, which are described in section 5.2. SIX calculates a Final Settlement Value for the SLI.

7.14.3 Index Composition

7.14.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list. A provisional selection list is created for the cut-off dates of 31 March, 30 September and 31 December. It serves as a basis for the adjustment of extraordinary corporate actions.

7.14.3.2 Selection of Index Components

The index universe of the SLI is the SPI. The selection of the index components of the SLI is shown in the following table:

Index	Number of Index Components	Direct Selection	Buffer
SLI	30	Rank 1-27	Rank 28-33

The 30 components of the SLI are selected from the index selection list. To reduce fluctuations in the index, a buffer is used for ranks 28 to 33, i.e. the first 27 candidates are directly included in the index. From the candidates on the ranks 28 to 33, those are included with priority which are currently already in the index. After that, new components are added from the buffer until the index has 30 components.

Instruments that have a primary listing on more than one exchange and generate less than 50% of their total turnover on SIX must also meet a liquidity criterion in order to be selected for the SLI. The procedure for determining the liquidity criterion corresponds to that of the SMI and is explained in section 7.9.3.2.

Such an instrument with multiple primary listings may not be ranked lower than 27th on this list in order to be selected for the index. If such an instrument, which is an index component, is ranked at position 34 or lower on this list, it will be excluded from the index.

7.14.4 Weighting of Index Components

The SLI is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1. In the same context the 9%/4.5% capping model is calculated, where the four index components with the largest free float market capitalization are capped to a weight of 9%. The remaining components are capped to a weight of 4.5%.

The four index components that are capped at 9% are determined in the regular index review in September based on the half-year ranking. This is based on the average daily capitalization of the two preceding quarters (01.01. - 30.06.). The timing corresponds to the table in section 6.2. The calculation considers the definitive number of new shares and free float factors for the upcoming adjustment date.

If an issuer has more than one equity instrument (e.g. registered shares, bearer shares, participation certificates, dividend-right certificates), the issuer may be represented in the index with more than one instrument. In this case, their free float market capitalization of all instruments is cumulated for the calculation of the capping factors. If the cumulated index weighting exceeds the threshold of 9% or 4.5%, respectively, the weighting is capped accordingly. The capped, accumulated weighting is allocated to the individual instruments according to the proportion of their free float market capitalization.

7.15 SPI ex SLI

7.15.1 Overview

The SPI ex SLI measures the market development of small and medium-sized Swiss companies outside the SLI (section 7.14) in order to use the index as a benchmark for the SLI. The SPI ex SLI consists of the SPI universe excluding the components of the SLI and represents approximately 170 index components. The SPI ex SLI is an index with a variable number of components.

7.15.2 Calculation Method

The SPI ex SLI is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI ex SLI, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.15.3 Index Composition

7.15.3.1 Ordinary Index Review Frequency and Cut-Off Date

The timing of the selection of the index components and their communication follow the schedule of the SPI (section 7.2) and the SLI (section 7.14).

7.15.4 Selection of Index Components

The index universe of the SPI ex SLI is the SPI. For the selection of the SPI ex SLI, the SLI components are removed from the SPI.

7.15.5 Weighting of Index Components

The SPI ex SLI is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.16 SPI Select Dividend 20 Index

7.16.1 Overview

The SPI Select Dividend 20 Index measures the development of the highest-yielding instruments of the SPI. These are the 20 instruments with the highest dividend payout and solid profitability as measured by the SPI's return on invested capital (ROIC). The SPI Select Dividend 20 Index is an index with a fixed number of components.

7.16.2 Calculation Method

The SPI Select Dividend 20 Index is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the SPI Select Dividend 20 Index, the provisions of the "Standard Opening'" apply, which are as described in section 5.2.

7.16.3 Index Composition

7.16.3.1 Ordinary Index Review Frequency and Cut-Off Date

The annual index review is implemented on the 3rd Friday in March. For this purpose, a pre-selection list is created based on the last trading day in February as the cut-off date. For the annual index review, only ordinary dividends are considered which the issuer of the instrument has officially submitted to SIX by the data cut-off date at the end of February.

7.16.4 Selection of Index Components

The index universe of the SPI Select Dividend 20 Index is the SPI. To be included in the pre-selection list, candidates need to fulfil the following three criteria:

– Average daily traded volume (ADTV) over 12 months of at least CHF 2 million.

– The issuer must have paid a dividend in at least four of the last five financial years. This includes dividend announcements or dividend payments of the current year and dividend payments of the previous four years.

– A positive payout ratio ($\frac{Gross\ dividend\ per\ share}{Earnings\ per\ share}$). Instruments with a positive payout ratio qualify for the pre-selection list if they are not among the largest 10% of all instruments with the highest payout ratio.

The instruments in the pre-selection list are sorted by their dividend yield ($\frac{Gross\ dividend\ per\ share}{Price\ of\ the\ share}$) in descending order. If an issuer is represented with more than one share on the pre-selection list, only the best ranked instrument is considered in the further selection process.

The 30 best ranked instruments will be included in the final selection list. If less than 30 candidates meet the criteria, all of them will be included in the final selection list. On the final selection list, the remaining candidates are ranked in descending order of profitability (ROIC). The top 20 ranked instruments are selected as index component.

If components are excluded from the index between two review dates due to extraordinary corporate actions, they will be replaced at the next ordinary index review. The candidates are selected on the basis of the most recent selection list. In each case, the highest ranked non-components are included in the index composition until there are again 20 components in the index. The new index components are weighted on the basis of their free float market capitalization and their normalized dividend yield from the previous annual index review.

7.16.5 Weighting of Index Components

The index components are weighted on the basis of their dividend yield. For this purpose, the free float market capitalization is multiplied by a capping factor. The normalized dividend yield is adjusted at the annual index review. The cut-off date for the weighting is the last trading day in February. The capping factor also ensures that no component has a weighting that exceeds 15%.

7.17 SPI Multi Premia Indices

7.17.1 Overview

SIX calculates two sets of Multi Premia Indices. One is based on the SPI, the other one on the SPI ESG. The SPI Multi Premia Indices follow a smart beta strategy to outperform the Swiss equity market based on statistical patterns. Seven Single Premium Indices and one Multi Premia Index are calculated based on the SPI as well as SPI ESG.

The following SPI Single Premium Indices are offered:

Index	Factor Premium
Value premium	Undervalued instruments
Size premium	Small instruments
Momentum premium	Systematic trends
Residual momentum premium	Instrument-specific trends
Reversal premium	Trend reversal
Low-risk premium	Stable instruments
Quality premium	Profitable instruments

To construct the SPI Multi Premia Index and the SPI ESG Multi Premia Index, the components of the Single Premium Indices are first selected and weighted. Then, the SPI Multi Premia Index and the SPI ESG Multi Premia Index are aggregated from a combination of seven Single Premium Indices in each case.

7.17.2 Calculation Method

All SPI Multi and Single Premia Indices as well as the SPI ESG Multi and Single Premia Indices are calculated according to Laspeyres' concept. The weights are determined using a weighting factor. The Laspeyres formula and its weighting methods are described in section 4.1. For all the above mentioned indices, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.17.3 Index Composition

7.17.3.1 Ordinary Index Review Frequency and Cut-Off Date

In the following sections, the cut-off date for data collection is understood to be the Friday four weeks before the ordinary adjustment date. As of this date, the data required to calculate the index allocation is fixed and cleaned. The SPI Multi Premia Indices and the SPI ESG Multi Premia Indices are indices with a variable number of components.

The 60 candidates are determined once a year on the September cut-off date.

The index composition of each SPI Single Premium Index, each SPI ESG Single Premium Index, the SPI Multi Premium Index and SPI ESG Multi Premium Index is adjusted quarterly on the 3rd Friday in March, June, September and December. Components that leave the index outside the review cycle will not be replaced.

7.17.3.2 Selection of Index Components

The index universe of the SPI Single Premia Indices is the SPI. The index universe of the SPI ESG Single Premia Indices is the SPI ESG. Once a year, 60 candidates for the Single Premium Indices are selected on the basis of the index selection list. To do so they must fulfill the following criteria:

– The instruments must have a price history of at least three years.
– In the case of multiple listings of the same issuer, only the best-ranked listing is considered.
– Current index components of the SPI Single Premium Indices that rank as high as 66 will be considered first.
– For the selection of the SPI ESG Single Premium Indices, candidates must be part of the SPI ESG Index on the cut-off date.

From these 60 candidates, the maximum of 30 index components of each Single Premium Index are selected on a quarterly basis as described in the following sections. The SPI Multi Premia Index comprises all components of the seven SPI Single Premia Indices. This also applies to the relationship between the SPI ESG Multi Premium Index and the SPI ESG Single Premia Indices.

Excluded index components are only replaced by corresponding candidates at the next ordinary index review.

7.17.3.2.1 Single-Premium Indices

The 60 candidates are subsequently analyzed for specific characteristics for each of the seven Single Premium Indices (incl. ESG Single Premium Indices). This is done using various key figures that characterize the relevant factor premium in each case.

To ensure the comparability and the combinability of the individual indicators, they are standardized as follows:

$$z_i = \frac{S_i - \bar{S}}{\sigma(S)}$$

In this case, S_i represents one of the key indicators for instrument i, e.g. its price-to-book- ratio. $\bar{S}$ is the mean and $\sigma(S)$ is the standard deviation of the same key indicator for all instruments for which the corresponding key indicator is available.

To reduce sensitivity to statistical outliers, values below the 5% percentile or above the 95% percentile are set equal to the value of the 5% percentile or the value of the 95% percentile respectively, for each key figure before standardization.

In a next step, an aggregated factor score is derived for each of the seven Single Premium Indices from the collected key indicators, which reflects the factor-specific characteristics of the security in question. To calculate the aggregated factor score, the standardized key indicators are summed up as follows:

$$Aggregated - Factor - Score_i^j = \sum_{k=1}^{m} \varphi^k z_i^k$$

In this case, (m) represents the number of key indicators recorded for the factor premium (j). z_i^k is the standardized key indicator (k) for instrument (i). φ^k is the weight of key indicator z_i^k, where all weights add up to 1, $\sum_{k=1}^{m} \varphi^k = 1$.

For an instrument to be included in a Single Premium Index, all key indicators described in the following sections must be available.

7.17.3.2.2 Value Premium Index

Two groups of fundamental value indicators are used to select the index components of the SPI Value Premium Index and the SPI ESG Value Premium Index:

Net Asset Value Indicators:

– Book value to price ratio (B/P): The recorded book value per share is divided by the share price on the cut-off date.

Earnings Value Indicators:

– Earnings to price ratio (E/P): The recorded earnings per share are divided by the share price on the cut-off date.
– Dividend yield (D/P): The recorded gross dividend per share is divided by the share price on the cut-off date.

To obtain the aggregated value score, the two groups of indicators are weighted 50% each. Within the earnings value group, the key indicators are also weighted equally. This results in the following formula for calculating the aggregated value score (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{Value} = \frac{1}{2} z_i^{B/P} + \frac{1}{4} z_i^{E/P} + \frac{1}{4} z_i^{D/P}$$

7.17.3.2.3 Size Premium Index

Two key indicators are used to select the index components of the SPI Size Premium Index and the SPI ESG Size Premium Index:

– The logarithmized free-float market capitalization (MCAP) on the cut-off date.
– The logarithmized total assets (TotalAssets) of the company

In order to obtain the aggregate size score, the two key indicators are equally weighted (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{Size} = \frac{1}{2} z_i^{MCAP} + \frac{1}{2} z_i^{TotalAssets}$$

7.17.3.2.4 Momentum Premium Index

Two key indicators are used to select the index components of the SPI Momentum Premium Index and the SPI ESG Momentum Premium Index:

– 52 minus 4 weeks gross return (52-4 TR)
– 26 minus 4 weeks gross return (26-4 TR)

X minus 4 weeks gross return (TR) means that the return is calculated from the ordinary adjustment date minus X weeks to the adjustment date minus 4 weeks.

To obtain the aggregate momentum score, the two key indicators are equally weighted (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{Momentum} = \frac{1}{2} z_i^{52-4TR} + \frac{1}{2} z_i^{26-4TR}$$

7.17.3.2.5 Residual Momentum Premium Index

Two key indicators are used to select the index components of the SPI Residual Momentum Premium Index and the SPI ESG Residual Momentum Premium Index:

– 52 minus 4 weeks residual return (52-4 RR)
– 26 minus 4 weeks residual return (26-4 RR)

Residual returns (RR) represent the standardized market-independent excess returns at the component level[6].

X minus 4 weeks residual return means that the residual return is calculated from the ordinary adjustment date minus X weeks to the adjustment date minus 4 weeks.

To obtain the aggregate residual momentum score, the two key indicators are equally weighted (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{ResidualMomentum} = \frac{1}{2} z_i^{52-4RR} + \frac{1}{2} z_i^{26-4RR}$$

7.17.3.2.6 Reversal Premium Index

Two key indicators are used to select the index components of the SPI Reversal Premium Index and the SPI ESG Reversal Premium Index:

– 260 minus 52 weeks gross return (260-52 TR)
– 156 minus 52 weeks gross return (156-52 TR)

X minus 52 weeks gross return means that the return is calculated from the ordinary adjustment date minus X weeks to the adjustment date minus 52 weeks.

To obtain the aggregate reversal score, the two key indicators are equally weighted (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{Reversal} = \frac{1}{2} z_i^{260-52TR} + \frac{1}{2} z_i^{156-52TR}$$

7.17.3.2.7 Low-Risk Premium Index

Three key indicators are used to select the index components of the SPI Low Risk Premium Index and the SPI ESG Low Risk Premium Index:

– Volatility of gross returns (*Vola*)
– 90% Value-at-Risk for the gross returns (*VaR*)
– Correlation coefficient between the gross returns of the share and the gross return of the SPI/SPI ESG (*Correl*).

All key indicators are calculated on the same weekly data basis over a 156 week period.

To obtain the aggregated low risk score, the three key indicators are equally weighted (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{LowRisk} = \frac{1}{3} z_i^{Vola} + \frac{1}{3} z_i^{VaR} + \frac{1}{3} z_i^{Correl}$$

7.17.3.2.8 Quality Premium Index

Two key indicators are used to select the components of the SPI Quality Premium Index and the SPI ESG Quality Premium Index:

– Return on Assets (*RoA*): The gross income recorded for the issuer is divided by the recorded value of its assets.
– Net Profit Margin (*NetMargin*): The recorded earnings per share are divided by the recorded revenue per share.

To obtain the aggregated quality score, the two key indicators are equally weighted (section 7.17.3.2.1):

$$Aggregated - Factor - Score_i^{Quality} = \frac{1}{2} z_i^{RoA} + \frac{1}{2} z_i^{NetMargin}$$

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[6] For the calculation a CAPM regression over 156 weeks on SPI/SPI ESG returns is used. SARON is used as a the risk free interest rate.

7.17.3.2.9 Single Premia Indices Selection Process

The index components of the Single Premia Indices are determined based on the corresponding aggregated factor scores. For this purpose, the aggregated factor scores for the Value Premium Index, the Momentum Premium Index, the Residual Momentum Premium Index and the Quality Premium Index are sorted in descending order and for the Size Premium Index, the Reversal Premium Index and the Low-Risk Premium Index in ascending order. Then the 30 best selectable instruments are selected in each case.

To reduce turnover, existing index components are given preference by leaving the index only if they take a position worse than rank 33. An exiting index components is replaced by the next-best eligible instrument that was not previously included in the index.

7.17.4 Weighting of Index Components

Unlike most other indices, the SPI Multi Premia Indices and the SPI ESG Multi Premia Indices use a risk-based weighting scheme

7.17.4.1 Risk Parity

Risk parity means that the portfolio risk is distributed equally among different risk drivers (e.g. index components or sub-indices). In a risk parity weighting, the relative risk contribution of a risk driver is defined as follows:

$$rc_i = w_i \frac{\left(\frac{\partial \sigma(w)}{\partial w_i}\right)}{\sigma(w)}$$

In this case (w_i) represents the weight of risk driver i and ($\sigma(w)$) the risk measure (e.g. volatility or tracking error) with respect to index weights (w). The risk contributions add up to 1, hence $\sum_{i=1}^{n} rc_i = 1$

To obtain weights corresponding to risk parity, the following optimization problem is solved:

$$w^* = \underset{w}{\operatorname{argmin}} \sum_{i=1}^{n} (rc_i - \frac{1}{n})^2$$

This optimization problem minimizes the sum of the squared deviations between the risk contributions of the individual risk drivers (rc_i) and the desired risk contribution of ($1/n$). This yields a balanced individual risk contribution per risk driver.

7.17.4.2 Weighting of the Single Premium Indices

The weights of the components in the Single Premium Indices (single-factor indices) are determined according to risk parity. The procedure is described in section 7.17.4.1 above.

The index components serve as risk drivers and volatility is used as a risk measure.

The covariance is collected based on the weekly total return time series of the Single Premium Index components as of the reporting date over a period of 156 weeks.

The constraints of risk parity optimization are:

- The index is always fully invested $\sum_{i=1}^{n} w_i = 1$.
- The weighting of an index component is between 0% and 8%: $0 \leq w_i \leq 0.08$.
- The weighting of an index component is constrained to be three times a reference weight w_i^{ref}: $w_i \leq 3 * w_i^{ref}$. The reference weighting of an index component is calculated as the theoretical market capitalization weighting in a portfolio of equal components and a maximum individual security weight of 8%.

In addition, the squared deviations between the new and previous weights are penalized during optimization to further reduce index turnover.

7.17.4.3 Weighting of Equities in the Multi Premia Ind

The weighs of the components of the Multi Premia Indices (multi-factor indices) are determined according to risk parity. The procedure is described in section 7.17.4.1.

In contrast to the Single Premium Indices, the Single Premia Indices themselves are used as risk drivers for the Multi Premium Index. The risk measure used for the SPI Multi Premia Index is the tracking error against the SPI as of the reporting date over a period of 156 weeks. For the SPI ESG Multi Premium Index, the tracking error over the same period against the SPI ESG is also used.

The constraints of risk parity optimization are:

– The index is always fully invested $\sum_{i=1}^{7} w_i = 1$

– The weight of a Single Premia Index is between 11% and 17.5%: $0.11 \leq w_i \leq 0.175$

7.18 Investment Index

7.18.1 Overview

The Investment Index measures the performance of the market for equity investment vehicles. Therefore, the index components are selected where the issuer engages in collective investment activities to earn a return on the invested capital without engaging in any actual entrepreneurial activity as such. The Investment Index is an index with a variable number of components.

7.18.2 Calculation Method

The Investment Index is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres formula and its weighting methods are described in section 4.1. For the Investment Index, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.18.3 Index Composition

7.18.3.1 Ordinary Index Review Frequency and Cut-Off Date

The Investment Index is continuously reviewed. As soon as an instrument fulfills the selection criteria, it is included in the index. As soon as a component violates the selection criteria, it is removed from the index.

7.18.3.2 Selection of Index Components

The index universe of the Investment Index is the Swiss All Share Index. In principle, only companies domiciled in Switzerland with a primary listing on the SIX segment "investment companies"[7] are eligible for the Investment Index. However, at its request, equities from an issuer domiciled abroad with a primary listing on SIX may be included in the Investment Index, whereby the issuer undertakes to comply with the Directive on Regular Reporting Obligations of SIX Exchange Regulation.

If an issuer domiciled abroad is not exclusively listed on SIX Swiss Exchange, the following criteria must be fulfilled cumulatively:

– The issuer's shares are not included in an internationally significant foreign benchmark index.

– At least 50% of the total turnover of the shares is generated at SIX or the liquidity ratio (turnover as a percentage of free float capitalization) is at least 50%.

To be included in the Investment Index, an instrument requires a free float of at least 20%. If the free float factor falls below this minimum and does not reach or exceed it within three months, the relevant index component will be excluded from the Investment Index. An instrument that is not yet included in the index composition of the Investment Index will be included in the Investment Index as soon as it has continuously reached or exceeded a free float factor of 20% during a period of three months. The adjustments are implemented considering an announcement period of 10 trading days.

The free float factor of the index components is reviewed according to the description in section 5.1. If the listing segment of an index component changes, it will be excluded from the Investment Index as of the effective date.

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[7] According to Art. 3 of the additional rules for the listing of investment companies in the SIX Listing Rules.

7.18.4 Weighting of Index Components

The Investment Index is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.19 SXI Switzerland Sustainability 25 Index

7.19.1 Overview

The SXI Switzerland Sustainability 25 Index measures the performance of Swiss companies that are considered sustainable according to Inrate's ESG Impact Rating. The top 25 ranked companies by ESG Impact Rating are selected for the index. The SXI Switzerland Sustainability 25 Index is an index with a fixed number of components.

7.19.2 Calculation Method

The SXI Switzerland Sustainability 25 Index is calculated according to Laspeyres' concept as a free float market capitalization-weighted index. The Laspeyres concept and its weighting methods are described in section 4.1. For the SXI Switzerland Sustainability 25 Index, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.19.3 Index Composition

7.19.3.1 Ordinary Index Review Frequency and Cut-Off Date

The index composition is adjusted at the annual ordinary index review on the 3rd Friday in September.

7.19.3.2 Selection of Index Components

The index universe of the SXI Switzerland Sustainability 25 Index is the SMI Expanded. Each Index components is assigned a sustainability score based on Inrates ESG Impact Rating. The components are ranked descending first by the Free Float Market capitalization and then by the Sustainability score. The 25 highest ranked instruments are included in the index. If an issuer has more than one instrument on the selection list, the instrument with the larger free float market capitalization is selected.

The new index composition is communicated to the market considering an announcement period of 2 weeks.

7.19.4 Weighting of Index Components

The SXI Switzerland Sustainability 25 Index is weighted by the free float market capitalization of its index components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1. At the quarterly ordinary index review, the weight of each the index components is limited to 15%.

7.20 SPI Gender Equality Index

7.20.1 Overview

The SPI Gender Equality Index measures the performance of the largest Swiss equities according to the gender equality orientation of their issuers. The Gender Equality Index is an index with a variable number of components. All components are equally weighted. The corresponding data is provided by Inrate.

7.20.2 Calculation Method

The SPI Gender Equality Index is calculated according to Laspeyres' concept. The weights are determined using a weighting factor. The Laspeyres concept and its weighting methods are described in section 4.1. For the SPI Gender Equality Index, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.20.3 Index Composition

7.20.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in December, the index composition is adjusted based on the selection data of 1 December. Components that leave the index outside the ordinary review cycle are not replaced.

7.20.3.2   Selection of Index Components

Index candidates are the 100 largest shares of the SPI. To be selected, a candidate must have between 20% and 80% women on the Board of Directors and between 15% and 85% women on the management board as of the cut-off date.

7.20.4 Weighting of Index Components

The SPI Gender Equality Index is an equally weighted index. The weighting factors are calculated at each quarterly review to ensure equal weighting of the components. The calculation and communication of the weighting factors follows the schedule described in section 5.1.

7.21   SXI Special Industry: Life Sciences

7.21.1 Overview

The SXI Life Sciences Index measures the performance of the Swiss life science equity market. Therefore, only instruments that are listed on SIX Swiss Exchange and whose issuer is active in the life sciences sector are selected for the index. The SXI Life Sciences Index is an index with a variable number of components.

7.21.2 Calculation Method

The SXI Special Industry Indices are calculated according to Laspeyres' concept as free float market capitalization-weighted indices. The Laspeyres concept and its weighting methods are described in section 4.1. For the SXI Special Industry Indices, the provisions of the "Standard Opening" apply, which are described in section 5.2.

7.21.3 Index Composition

7.21.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list.

7.21.3.2   Selection of Index Components

The SXI Life Sciences Index comprises instruments with an average free float market capitalization of at least CHF 100 million over a period of 12 months. The index universe of the SXI Life Sciences Index is the SPI (section 7.2) as well as the Investment Index (section 7.18). However, investment companies are only included if no more than 50% of their investment portfolio consists of SXI index components. The structure of the investment companies is reviewed and adjusted at the ordinary index review. If no reliable information can be found on the structure of the investment company's shareholdings, the relevant investment company will not be included in the index or will be excluded from the index.

The index components are selected on the basis of the selection list according to their sector classification. The Supersector "4500 Health Care" is eligible for the index. An instrument not yet classified may be included in the index if the issuer's business activity can be clearly assigned to one of the predefined subsectors.

7.21.4 Weighting of Index Components

The SXI Life Sciences Index is weighted by the free float market capitalization of its components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1. In the same context, capping

factors are calculated under the following conditions. If the index consists of 10 or less components, they are equally weighted. If there are more than 10 index components, the weight of an index component is capped at 10% during the ordinary index review.

If a single issuer has issued more than one equity instrument (e.g. registered shares, bearer shares, participation certificates, dividend-right certificates), the issuer may be represented in the index with more than one instrument. In this case their free float market capitalization is cumulated for the calculation of the capping factors. If the cumulated index weighting exceeds the threshold of 10%, the weighting is capped accordingly. The capping is performed on the smallest index components of the issuer. If there are several instruments of an issuer and one of them already has a weighting of more than 10%, the smaller instruments are not included in the index.

7.22 SXI Special Industry: Bio+Medtech

7.22.1 Overview

The SXI Bio+Medtech Index is a sub-index of the SXI Life Sciences Index and measures the performance of the Swiss bio and medtech equity market. Therefore, only instruments that are listed on SIX Swiss Exchange and whose issuer is active in the life sciences sector, excluding pharmaceuticals, are selected for the index. The SXI Bio+Medtech Index is an index with a variable number of components.

7.22.2 Calculation Method

SXI Special Industry Indices are calculated according to Laspeyres' concept as free float market capitalization-weighted indices. The Laspeyres concept and its weighting methods are described in section 4.1. For the SXI Special Industry Indices, the rules of the "Standard Opening" apply, which are described in section 5.2.

7.22.3 Index Composition

7.22.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition is adjusted on the basis of the June selection list.

7.22.4 Selection of Index Components

The index universe of the SXI Bio+Medtech Index is the SXI Life Sciences Index (section 7.21). The index composition consists of all index components of the SXI Life Sciences Index, excluding the index components of the pharmaceutical sector. An instrument not yet classified may be included in the index if the issuer's business activity can be clearly assigned to one of the predefined subsectors.
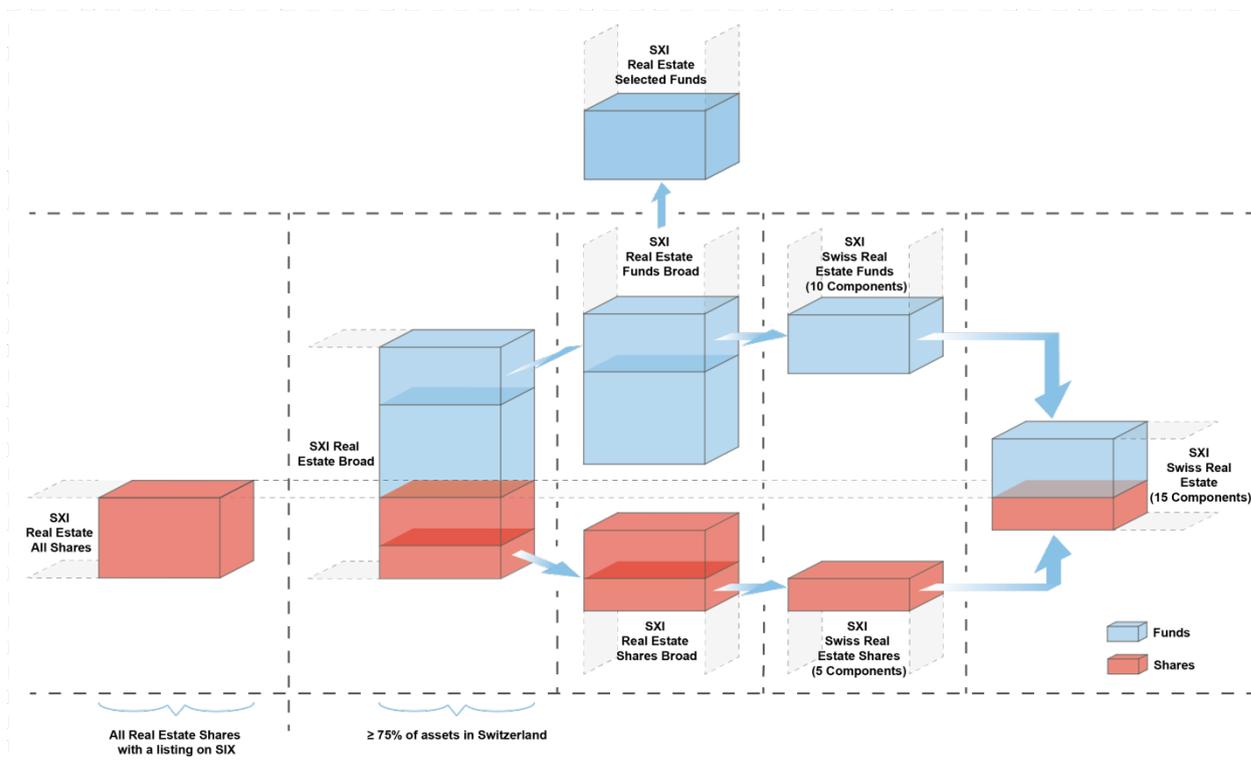
7.22.5 Weighting of Index Components

The same rules apply to weighting limitations as for the SXI Life Sciences Index (section 7.21.4).

7.23 SXI Real Estate Indices

7.23.1 Overview

The Real Estate Indices measure the performance of the Swiss real estate market according to the following chart:

The SXI Swiss Real Estate Shares Index, the SXI Swiss Real Estate Funds Index and the SXI Swiss Real Estate Index are indices with a fixed number of components.

The SXI Real Estate All Shares Index, the SXI Real Estate Broad Index, the SXI Real Estate Funds Broad Index and the SXI Real Estate Shares Broad Index are indices with a variable number of components.

The SXI Real Estate Selected Funds Index is calculated and weighted differently than the rest of SXI Real Estate Indices and is explained separately in section 7.24.

7.23.2 Calculation Method

SXI Real Estate Indices are calculated according to Laspeyres' concept as free float market capitalization-weighted indices. The Laspeyres concept and its weighting methods are described in section 4.1. For the SXI Real Estate Indices, the provisions of the "Standard Opening" apply, which are described in section 5.2. For the SXI Real Estate Funds Broad Index, SIX calculates the index type net return in addition to the index types price and gross return.

7.23.3 Index Composition

7.23.3.1 Ordinary Index Review Frequency and Cut-Off Date

At the annual ordinary index review on the 3rd Friday in September, the index composition of each SXI Real Estate Index, with the exception of the SXI Real Estate Selected Funds Index, is adjusted on the basis of the respective June selection list. For the cut-off dates on 31 March, 30 September and 31 December, a provisional selection list is created. It serves as a basis for adjustments of extraordinary corporate actions.

7.23.3.2 Selection of Index Components for SXI Real Estate All Shares

The SXI Real Estate All Shares Index comprises all real estate shares with a primary listing on SIX in accordance with the regulatory standard for real estate companies[8]. Adjustments in the index composition due to changes in the regulatory standard of an index component will be made at the next ordinary annual index review in September.

7.23.3.3 Selection of Index Components for SXI Real Estate Broad

The SXI Real Estate Broad Index contains real estate shares with a primary listing on SIX in accordance with the regulatory standard for real estate companies[9] as well as real estate funds that have a primary listing on SIX and invest at least 75% of their assets or funds in Switzerland. The balance sheet and the fund structure are reviewed at each ordinary annual index review with regard to the 75% threshold.

The SXI Real Estate Broad Index is divided into the SXI Real Estate Funds Broad Index and the SXI Real Estate Shares Broad Index. The SXI Real Estate Funds Broad Index contains all funds and the SXI Real Estate Shares Index contains all equity instruments from the SXI Real Estate Broad Index.

7.23.3.4 Selection of Index Components for SXI Swiss Real Estate Fund Indices

The index universe of the SXI Swiss Real Estate Funds Index is the SXI Real Estate Funds Broad Index.

The index components of the SXI Swiss Real Estate Funds Index are selected according to the following table:

Index	Number of Index Components	Direct Selection	Buffer
SXI Swiss Real Estate Funds Index	10	Rank 1-9	Rank 10-11

The ten components of the SXI Swiss Real Estate Funds Index are selected from the selection list for real estate funds. This selection list ranks the real estate funds according to the following two criteria:

– Average free float market capitalization of the last 12 months in relation to the capitalization of the entire index universe
– Accumulated order book turnover of the last 12 months in relation to the total turnover of the index universe

To reduce fluctuations in the index, a buffer is used for ranks 10 and 11, i.e. the first nine candidates are directly included in the index. From the candidates on ranks 10 and 11, those that are currently already in the index are included with priority until the index has 10 components.

All listed real estate funds are considered to be freely tradable, which means that their free float factor is 100%.

7.23.3.5 Selection of Index Components for SXI Swiss Real Estate Share Indices

The index universe of the SXI Swiss Real Estate Shares Index is the SXI Real Estate Shares Broad Index. The five index components of the SXI Swiss Real Estate Shares Index are selected from the selection list for real estate shares. This selection list weights the following two criteria at 50% each:

– Average free float market capitalization of the last 12 months in relation to the capitalization of the entire index universe
– Accumulated order book turnover of the last 12 months in relation to the total turnover of the index universe

The combined criterion is sorted in descending order and candidates ranked 1 to 5 are selected as components.

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[8] See SIX Listing Rules Art. 77 Definition

SIX Listing Rules: www.six-exchange-regulation.com > Issuer > Admission > Listing

[9] See SIX Listing Rules Art. 77 Definition

SIX Listing Rules: www.six-exchange-regulation.com > Issuer > Admission > Listing

7.23.3.6 Selection of Index Components for SXI Swiss Real Estate Index

The index compositions of the SXI Swiss Real Estate Funds Index (section 7.23.3.4) and the SXI Swiss Real Estate Shares Index (section 7.23.3.5) are combined in the SXI Swiss Real Estate Index with 15 components.

7.23.4 Weighting of Index Components

The SXI Real Estate Indices are weighted by the free float market capitalization of their components. The number of shares and the free float factor are adjusted quarterly as described in section 5.1.

7.24 SXI Real Estate Selected Funds Index

7.24.1 Overview

The SXI Real Estate Selected Funds Index measures the performance of large Swiss real estate funds. It is an index with a fixed number of components, containing the 10 largest Swiss real estate funds. In contrast to the SXI Real Estate Funds Index, which is explained in section 7.23, the SXI Real Estate Selected Funds Index uses a different calculation method and has different selection rules.

7.24.2 Calculation Method

The SXI Real Estate Selected Funds Index is a performance attribution index that is either weighted by the Net Asset Value (NAV) of the components or equally weighted by the number of index components. The NAV weighted version also exists with a capped version, where the maximum weights of the components are regularly limited to 18%. All three indices are dividend-adjusted. The performance attribution formula and the weighting methods are described in detail in section 4.2.

7.24.3 Index Composition

7.24.3.1 Ordinary Index Review Frequency and Cut-Off Date

The index composition and NAV values are reviewed semi-annually in June and December. The changes become effective on the first trading day in July and January. The relevant cut-off date of the index universe for determining the index composition is eight trading days prior to the effective date. The results of the index review with updated index composition and NAV values will be communicated eight trading days before the effective date.

7.24.3.2 Selection of Index Components

The index universe of the SXI Real Estate Selected Funds Index is the SXI Real Estate Funds Broad Index. The selection list ranks the candidates in descending order based on NAV.

To be included in the index, a fund must meet the following criteria:

– A fund that is already part of the index universe requires a NAV that exceeds that of the smallest existing index component by at least 1.5% in two consecutive reviews.

– A fund that has been part of the index universe since the last semi-annual index review requires a NAV that exceeds the of the smallest existing index component by at least 1.5%.

The ten largest funds in terms of NAV are selected for the index. If a fund leaves the index universe, it is simultaneously excluded from the SXI Real Estate Selected Funds Index.

7.24.4 Weighting of Index Components

The index components of the SXI Real Estate Selected Funds NAV Index are weighted semi-annually based on their NAV on the first trading day in January and July.

Also effectively on the first trading day in January and July, the capping factors for the SXI Real Estate Selected Funds NAV Capped Index are updated to limit the maximum weight of the components to 18%.

8 Primary Data Sources

Structured information is used to calculate the SIX Equity indices. The following table provides an overview of the primary data sources used.

Information	Source
Price information and Quotes	SIX Swiss Exchange
Corporate Actions	SIX Swiss Exchange
ESG Sector Coverage, UN GC and Impact Ratings	Inrate
Gender Equality Data	Inrate
Sector Classification (ICB)	FTSE Russell
Fundamental data for selection of Multi Premia indices	Refinitiv
Currency Rates	SIX Financial Information

9 Correction Policy

An index-related correction can occur for two reasons. Either because the necessary data is not available or is incorrect.

9.1 Unavailable Data

If SIX does not have data necessary to determine the price or weighting of an index component due trading suspensions or market distortions the latest available data will be used. Such cases may lead to a deviation from the basic principles of the indices defined in the respective rulebooks. These changes may relate to review schedules, ordinary reviews as well as adjustments in the index composition or weighting outside the ordinary reviews and will be publicly announced considering an announcement period of at least two trading days.

9.2 Incorrect Data

Incorrect required data may result from calculation errors or incorrect input data.

Calculation errors which are detected within one trading day will be corrected immediately. Intraday tick data will not be corrected retrospectively. Calculation errors older than one trading day and incorrect input data will only be corrected as far as technically possible and economically reasonable. If the correction leads to a significant deviation-of the index values, these can also be corrected retrospectively.

10 Governance

The Index Team at SIX is responsible for managing the indices. The team ensures that the index rules are adhered to and that the indices meet the required quality standards. The Index Team is subject to a regulatory framework, with structured processes in place to ensure compliance. The main elements and concepts are as follows:

In case of doubt, the German language version of the rule books shall be decisive.

Index Commission

SIX is supported by the Index Commission. The Index Commission provides input on index-related matters, in particular in connection with changes to the index rules as well as adjustments, inclusions and exclusions outside the defined periodic reviews.

The Commission meets at least twice a year and provides valuable input on how to improve existing products and create new ones.

Review of the Index Concepts

The validity of the index concepts and the rules is reviewed on a regular basis and at least once a year. In exceptional cases, a broad market consultation may be conducted for this purpose. Changes to index rules are made in accordance with the relevant governance processes.

The effective date of changes to index rules will be aligned with the regular index review where possible to avoid any exceptional impact on clients and other stakeholders. Significant changes to the index rules should be publicly announced as standard three months prior to their implementation. SIX may decide to shorten the announcement period in some cases:

- In exceptional or urgent cases, or in situations that have no impact on clients or other stakeholders and where immediate communication is not possible. For example, when an investor can no longer replicate index performance with their portfolio. In such cases, changes or additions to the rules must be announced on the same day the new index rule or change is implemented.
- For immaterial changes to the index rules, i.e. clarifications of the rules.
- To coordinate with the dates of the regular index review and rebalancing of the index.

Market Consultations

Where possible, SIX consults with representatives of affected clients and other stakeholders for all material changes to index rules and the discontinuation of indices. In this context, a material change to the index rules means a change that "significantly alters the procedures used to determine an index" and thus materially affects the index value compared to an unchanged scenario.

The timing and duration of the consultation period depends on the materiality of the proposed changes to the index rules. By default, a market consultation for material changes lasts one month.

A summary of the market consultation comments and SIX' summary response to those comments will be made available to clients and stakeholders after each consultation period, unless the originator of the comments has requested confidentiality.

Discontinuation of Indices

SIX will publicly announce a decision to discontinue an index with reasonable advance notice. The period depends on the impact. By default, a period of one month is scheduled.

SIX is not responsible for determining or offering an alternative index when an index is discontinued.

If there are financial products on the index of which SIX is aware, a market consultation will be conducted in advance and a transition period will be granted in the event of a final discontinuation. Otherwise, no market consultation will be carried out.

Determination of an Index

All indices in this rulebook use available prices ("Input Data") received from SIX Swiss Exchange during official trading hours.

The index rules do not use extrapolation to determine the index value.

The minimum data required for each instrument to be potentially eligible for index inclusion is the instrument's reference data and a listing on SIX Swiss Exchange. The latter is important to ensure a regularly determined price for an instrument. No threshold is set for the frequency or number of price updates per instrument because this contradicts the objective of measuring the market defined per index as described in the relevant sections of this document. This includes the use of the last available price.

When an index is calculated intra-day, the prices defined in section 5.2 of this rulebook are used, e.g. the last available bid price.

The composition of the indices in this rulebook is carried out in accordance with the sections "Index Composition" and "Weighting of Index Components" of the relevant index sections.

Potential Limitations in the Determination of an Index

If data necessary to determine the price or weighting of an index component is not available to SIX due to trading suspensions or market distortions, the last available data will be used. Such cases may lead to a deviation from the basic principles of the indices. These changes may relate to review schedules, ordinary reviews as well as adjustments in the index composition or weighting outside the ordinary reviews and will be publicly announced considering an announcement period of at least two trading days.

In the event of structural changes in the market or economic environment, or if interest in a market has waned or is not functioning, the reliability of a methodology can no longer be guaranteed. SIX reviews the rulebooks at least once a year to anticipate such changes and mitigate their impact by making appropriate adjustments to the methodology.

Controls and Rules for the Exercise of Expert Judgement

The rules for the individual indices have been designed to eliminate discretionary or expert judgement in the index calculation as far as possible. Due to unforeseen market events or unavailable data, the following situations may occur:

- unexpected events, such as complex corporate actions, macroeconomic shocks, market disruptions, natural catastrophes
- technical reasons, such as missing closing prices due to a computer failure on the stock exchange or the inability of a data provider to deliver certain data points in a timely manner
- when a rule allows for multiple interpretations ("unclear rule")
- the absence of a rule that could potentially lead to a reduction in the meaningfulness of an index ("insufficient rule")
- Incorrect assessment of materiality in the case of changes to index rules
- determination of prices in the case of rights issues

An escalation process has been implemented for such unexpected cases. As part of this process, SIX will evaluate and document the use of discretion. To the extent possible, the current rulebook will be updated to cover such unexpected cases with a new transparent rule.

In addition, any feedback from market participants on the use of discretion will generally be discussed in the upcoming Index Commission meeting.

Further documentation on regulation and processes can be found on the SIX website[10]. SIX reserves the right to adjust the index composition, the weightings of the components or the announcement periods based on the basic principles mentioned in section 2.

11 External Communication

SIX uses the following tools to inform the market about index changes. These include changes to index compositions, the weighting of indices as well as ordinary and extraordinary index adjustments.

Reports

SIX creates and maintains reports containing information on index compositions, weighting of index components, corporate action announcements and other index-related information. SIX publishes the reports on its website, whereby the majority, however, is only made available to licensees. Some reports contain index-specific information, which is why the number of relevant reports varies from index to index. Depending on the timeliness of their information, the reports are updated with varying frequencies from daily to annual.

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[10] www.six-group.com/swiss-indices > Benchmark Regulation

Vendor Code Sheet

The Vendor Code Sheet contains information on the current ticker symbols, normalizations, launch dates and calculation parameters of the indices and is published on the SIX website[11].

Newsletter Email Service

SIX provides detailed information on equity and real estate indices, historical index values, corporate actions and index composition through the newsletter option "Swiss Index Service Equity". Interested parties can register for the newsletter e-mail service on the SIX website[12]. Through this channel, SIX distributes all index-related communications. These include, among others:

- Changes to corporate actions and dividends

- Updates due to periodic index reviews

- Problems and errors in the index calculation

- The launch or discontinuation of indices

- Market consultations

- Issuer surveys

Index Messages

The index messages of the newsletter e-mail service in connection with index adjustments are published on the SIX website[13]. The index messages are publicly available and do not require a subscription or license agreement.

Media Release

For index messages that are of broad public interest, SIX may publish a media release to inform the public about the index adjustment. In addition, media releases may be used for marketing purposes that are not related to index adjustments.

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[11] https://www.six-group.com/dam/download/market-data/indices/six-calculated-indices.xls

[12] www.six-group.com/swiss-indices > Request account

[13] www.six-group.com/swiss-indices > Index messages

12   Trademark Protection, Use of Licensing

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[14] www.six-group.com/swiss-indices > Licensing

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