

# INDEX GUIDE

MarketVector™ Total Global Equity Index

VERSION 1.0 | 02.2024

## CONTENTS

# Contents

<b>1</b>	<b>Index Description</b>	<b>3</b>
1.1	Index Universe . . . . .	3
1.1.1	Country Assignment . . . . .	3
1.1.2	Exclusion Criteria . . . . .	4
1.1.3	Exchange Eligibility . . . . .	4
1.2	Investable Universe . . . . .	5
1.3	Eligible Universe . . . . .	6
1.3.1	Share Class . . . . .	6
1.3.2	Pricing Source . . . . .	6
<b>2</b>	<b>Index Review</b>	<b>7</b>
2.1	Review Schedule . . . . .	7
2.2	Selection Procedure . . . . .	7
2.3	Weighting Scheme . . . . .	8
<b>3</b>	<b>Index Dissemination and Identifiers</b>	<b>9</b>
<b>4</b>	<b>General Definition</b>	<b>10</b>
4.1	Free-Float . . . . .	10
4.2	Index Types/Dividend Payments . . . . .	10
<b>5</b>	<b>Ongoing Maintenance</b>	<b>11</b>
5.1	Changes to Free-Float Factors and Number of Shares . . . . .	11
5.2	Changes due to Mergers & Takeovers . . . . .	11
5.3	Changes due to Spin-Offs . . . . .	11
5.4	Changes due to Initial Public Offerings . . . . .	11
5.5	Additions due to Replacements . . . . .	12
5.6	Changes to the Index Guide . . . . .	12
5.7	Discretion regarding the Use of Input Data . . . . .	12
5.8	Input Data and Contributor Selection . . . . .	13
<b>6</b>	<b>Calculation</b>	<b>15</b>
6.1	Index Formula . . . . .	15
6.2	Input Data . . . . .	15
6.3	Divisor Adjustments . . . . .	15
6.4	Corporate Action Related Adjustments . . . . .	16
6.5	Data Correction and Disruptions . . . . .	17
<b>7</b>	<b>Appendix</b>	<b>19</b>
7.1	Changes to the Index Guide . . . . .	19
<b>8</b>	<b>Disclaimer</b>	<b>20</b>

## Regulation and Disclosures

### Regulation

In accordance with Art. 13 No. 1 (a) of Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 (the “Benchmark Regulation”), this document provides the rules for establishing, calculating and maintaining the MarketVector™ Equity Index family, which is comprised of MVIS®, MarketVector™ and BlueStar® Indexes (together the “Indexes”).

MarketVector Indexes GmbH (the “Index Owner”) makes no warranties or representations as to the accuracy and/or completeness of the Indexes and does not guarantee the results obtained by persons using the Indexes in connection with trading funds or securities. The Index Owner makes no representations regarding the advisability of investing in any fund or security.

The Index Owner reserves the right to update the rules in this Index Guide at any time. The Index Owner also reserves the right to make, in exceptional cases or in temporary situations, exceptions to the rules in this Index Guide. The Indexes are the property of MarketVector Indexes GmbH. The Index Owner has selected an index calculator to calculate the Indexes.

MVIS® and BlueStar® are registered trademarks of Van Eck Associates Corporation and therefore protected globally against unlawful usage. The use of Indexes from the MarketVector Index family in connection with any financial products or for benchmarking purposes requires a license. Please contact MarketVector Indexes GmbH for more details.

For all indexes composed of data of BM&FBOVESPA please reference to the document “Terms and Conditions BM&FBOVESPA” available on <http://www.solactive.com>.

### Approval of Index Methodologies

The Index Owner has established the Indexes and their individual methodology covered in this Index Guide. A detailed written “Procedure for Index Development” describes the steps and approvals required to develop, document and approve an Index and its methodology. The intention of the Procedure for Index Development is to ensure that the methodology of an Index meets the requirements of Art. 12 of the Benchmark Regulation and is approved and implemented according to a robust and reliable process. The methodology for each index and its methodology covered in this Index Guide has been analysed by the Index Owner’s Index Operations department in order to ensure that it is robust and reliable, has clear rules on use of discretion, allows sustainable validation (based on reasonable back testing) and is traceable and verifiable. Furthermore, the size, liquidity and transparency of the underlying market for each methodology has been tested and particular circumstances for each relevant market have been taken into account.

Each index methodology and the related detailed analysis was presented by the Index Operations Department to the Independent Oversight Function for its approval. Based on the aforementioned approval process and its documentation each Index Methodology was presented to the Management Board (Geschäftsführer) of the Index Owner for final approval.

### Review of this Index Guide

According to Art. 13 No. 1 (b) of the Benchmark Regulation, the Index Owner reviews this Index Guide on an annual basis and immediately in case of special circumstances that require a review. The review takes place in meetings attended by the Independent Oversight Function and the Management Board of the Index Owner. If changes to this Index Guide are considered necessary, the process described in Section 5.6 applies.

# 1 Index Description

The MarketVector™ Total Global Equity Index is a broad global index tracking the performance of companies from circa 150 markets, targeting a coverage of 95% of the free-float market capitalization of the eligible universe of each country.

## 1.1 Index Universe

### 1.1.1 Country Assignment

Each company in the index universe is assigned to a country. The steps below are applied in order to detect the country assigned to each company. Once a country is assigned to a company at a given step, the rest of the steps are not applied.

1. If the primary listing of a company is the same as the country of incorporation, then that country is assigned to the corresponding company.
2. If the primary listing of a company is the same as the country of headquarters, then that country is assigned to the corresponding company.
3. If country of incorporation of a company is the same as the country of headquarters, then that country is assigned to the corresponding company.
4. If the country of assets as indicated under segments information of a company is at least 30% and it is the same as the country of headquarters, then that country is assigned to corresponding company.
5. If the country of assets as indicated under segments information of a company is at least 30% and it is the same as the country of incorporation, then that country is assigned to corresponding company.
6. If the country of revenues as indicated under segments information of a company is at least 30% and it is the same as the country of headquarters, then that country is assigned to corresponding company.
7. If the country of revenues as indicated under segments information of a company is at least 30% and it is the same as the country of incorporation, then that country is assigned to corresponding company.
8. If the country of assets as indicated under segments information of a company is at least 30% and it is the same as the primary listing of a company, then that country is assigned to corresponding company.
9. If the country of revenues as indicated under segments information of a company is at least 30% and it is the same as the primary listing of a company, then that country is assigned to corresponding company.
10. If there is a mismatch between the primary listing of a company, country of incorporation and country of headquarters, then:
  - (a) If the country of assets is at least 30%, then that country is assigned to the company.
  - (b) If the country of revenues is at least 30%, then that country is assigned to the company.

## 1 INDEX DESCRIPTION

- (c) If a. and b. does not apply, then further comprehensive research is applied to detect the country to be assigned to the company. Parameters such as the location of operations, asset and revenue concentration, company address are used.

The initial three steps of the country assignment process may lead to the assignment of a company to a jurisdiction with favorable taxation rates for foreign entities, potentially prompting companies to relocate their registration to a jurisdiction with favorable tax rates while conducting their primary activities elsewhere. In such scenarios, a secondary level of analysis (comprising steps 4 through 10) is employed to validate or revise the country assignment.

### **1.1.2 Exclusion Criteria**

The index universe will include only common securities and securities with similar characteristics from financial markets. The index does not consider sanctions imposed by any jurisdiction.

### **1.1.3 Exchange Eligibility**

The index universe includes common securities and securities with similar characteristics from financial markets that provide end-of-day and historical component and currency pricing.

## 1 INDEX DESCRIPTION

### 1.2 Investable Universe

#### Market Capitalization and Liquidity Criteria

Securities must meet the following size and liquidity requirements to be included in the investable universe (if composite country volume data exists, it will be used to identify the investable index universe; once a company has qualified for the investable index universe, the most liquid single exchange price source within the country is selected):

For securities that are currently not included in the index:

- free-float (or shares available to foreign investors) of at least 10%, and
- full market capitalization exceeding 150.00 mn USD, and
- a three-month average daily trading volume of at least Cutoff ADTV at the current review and at the previous two reviews following the formula below,

$$\text{Cutoff ADTV} = \frac{1,000,000 \text{ USD}}{2^n} \quad \text{Where, } n \geq 0$$

For securities already in the index the following applies:

- free-float (or shares available to foreign investors) of at least 5%, and
- a full market capitalization exceeding 75.00 mn USD, and
- a three-month average daily trading volume of at least Cutoff ADTV at the current review and at the previous two reviews following the formula below,

$$\text{Cutoff ADTV} = \frac{1,000,000 \text{ USD}}{2^{n+1}} \quad \text{Where, } n \geq 0$$

The following considerations guide the process:

- $n$  is set in a way that there is at least one security that fulfills the Cutoff ADTV at the current review and at the previous two reviews. The process involves setting  $n = 0$  testing whether at least one security fulfills the criteria. If there is no security that fulfills the criteria,  $n$  is increased incrementally by 1 until at least one security fulfills the Cutoff ADTV at the current review and at the previous two reviews.
- In case a market does not have securities that fulfill both the full market capitalization and liquidity requirements as described above, the full market capitalization rule does not apply and only the liquidity requirements are applied.
- If the stock exchange in the respective market does not trade on a regular basis, the last closing price is used in the calculation of the market capitalization.

## 1 INDEX DESCRIPTION

### 1.3 Eligible Universe

#### 1.3.1 Share Class

All share classes of each company in the investable universe are included in the eligible universe.

#### 1.3.2 Pricing Source

For each company in the investable universe one pricing source qualifies for the eligible universe. In cases where a company has multiple listings (e.g. ADRs, GDRs, or listings on markets other than in the home country), the home market is chosen as the pricing source.

The price sources will be selected to the eligible universe in the following order:

1. Home-market price source.
2. US price source,
3. UK price source - London Stock Exchange International Order Book (IOB) only,
4. Most liquid foreign-market price source.

Once a company has qualified for the investable universe, only the most liquid single exchange price source within the country qualifies for the eligible universe.

In exceptional cases, the Index Owner can assign alternative pricing sources.

## 2 Index Review

### 2.1 Review Schedule

Components of the index are reconstituted and rebalanced on a quarterly basis according to the following schedule:

1. The eligible universe and component selection is determined based on the closing data on the last business day in January, April, July, and October. If a security does not trade on the last business day in January, April, July, or October, the last available price for this security will be used.
2. Component weights are determined based on closing data as of the Wednesday prior to the second Friday of March, June, September, and December.
3. The underlying review and rebalance data (e.g. weights, shares outstanding, free-float factors, and/or new weighting cap factors) is announced on the second Friday of March, June, September, and December.
4. Changes will be implemented and based on the closing prices as of the third Friday of March, June, September, and December. If the third Friday is not a business day, the review will take place on the last business day before the third Friday. If a security does not trade on the third Friday of March, June, September, or December, then the last available price for this security will be used. Changes become effective on the next index dissemination day.

### 2.2 Selection Procedure

Upon an index reconstitution, securities included in the eligible universe are selected to the index based on the following procedure. The index targets a coverage of 95% of the free-float market capitalization of the eligible universe of each country. The index aims to cover all major stock exchanges of each country. The following selection procedure is applied on country level for all markets:

1. All securities in the eligible universe are sorted in terms of free-float market capitalization in descending order.
2. Securities covering the top 90% of the free-float market capitalization of the eligible universe qualify for selection.
3. Current components between 90% and 98% of the free-float market capitalization of the eligible universe also qualify for selection.
4. If the coverage is still below 95% of the free-float market capitalization of the eligible universe, the largest remaining securities will be selected until both the target coverage and minimum number of components is reached.
5. In case the securities selected to the index do not cover all major local stock exchanges of a given country, at least one security from each not-covered major local exchange will be selected to the index to cover all the major markets within the country. This rule includes the coverage of only one local stock exchange in case only foreign listings are selected. Such securities are selected by applying the above eligibility and selection rules separately to local exchanges only.

In case the above selection procedure results in more than 1000 index components for that is not considered as a developed market by MarketVector, an alternative selection procedure is applied for the given country:



## 2 INDEX REVIEW

1. All securities in the eligible universe are sorted in terms of free-float market capitalization in descending order.
2. Securities that are ranked in the top 800 by the free-float market capitalization of the eligible universe qualify for selection.
3. Current components that are ranked between 800 and 1200 of the free-float market capitalization of the eligible universe also qualify for selection.
4. In case the securities selected to the index do not cover all major local stock exchanges of a given country, at least one security from each not-covered major local exchange will be selected to the index to cover all the major markets within the country. This rule includes the coverage of only one local stock exchange in case only foreign listings are selected. Such securities are selected by applying the above eligibility and selection rules separately to local exchanges only.
5. If the number of selected securities is still below 1000, then the highest ranked remaining securities are selected until 1000 companies are selected.

### 2.3 Weighting Scheme

Upon an index rebalance, companies selected to the index will be weighted in proportion to their float-adjusted market capitalization with no maximum component weights.

### 3 INDEX DISSEMINATION AND IDENTIFIERS

## 3 Index Dissemination and Identifiers

This index is calculated on weekdays between 01:00 and 22:40 (CET) and index values are disseminated to data vendors on EOD ('End-of-Day') basis when either the US equity market is open for trading or at least one of the index components is available for trading.

The index is disseminated in USD.

The closing values for this index are calculated at 22:40:00 (CET) with spot exchange rates from Intercontinental Exchange (ICE) Inc.

The MarketVector™ Total Global Equity Index is calculated as a price index, a total return net index and as a total return gross index and has the following identifiers:

Index Type	ISIN	SEDOL	WKN	Bloomberg	Reuters
Price Index	DE000SLOKSQ1	BMCGMQ9	SLOKSQ	MVTGLE	.MVTGLE
Total Return Net Index	DE000SLOKSR9	BMCGMR0	SLOKSR	MVTGLETR	.MVTGLETR
Total Return Gross Index	DE000SLOKSS7	BMCGMS1	SLOKSS	MVTGLETG	.MVTGLETG

The index was launched on 29 February 2024 with a base index value of 1000.00 as of 31 December 2022.

## 4 General Definition

### 4.1 Free-Float

The indexes are free-float adjusted - the number of shares outstanding is reduced to exclude closely held shares (amount larger than 5% of the company's full market capitalization) from the index calculation.

Foreign ownership limits are not applied to the float factors used for the MarketVector™ Total Global Equity Index.

### 4.2 Index Types/Dividend Payments

The total return index includes all dividend payments (for the total return net indexes on a net-dividend basis, i.e., net dividend equals declared dividend less withholding tax, and for the total return gross indexes on a gross-dividend basis, i.e., gross dividend equals declared dividend) and the price return index only includes special dividends from non-operating income or cash dividends that are either declared as special or extraordinary, or do not coincide with the company's regular dividend distribution schedule.

Australian companies may pay dividends with or without franking credits (unfranked, partially franked or fully franked) attached. Withholding tax will only be applied on the unfranked portion of the dividend but not on the franked portion of the dividend or unfranked portion of the dividend declared to be conduit foreign income.

For the most recent list of withholding taxes, please refer to our website ([www.marketvector.com/withholding-taxes](http://www.marketvector.com/withholding-taxes)).

If the dividend amount for an index component is not available on the ex-date, an amount of zero will be applied. If for the same index component the dividend amount is available after the ex-date and applied to the price of this company, there will still be no adjustment to the index on this day either.

For dividends of Japanese and South Korean companies a post ex-date dividend adjustment is in place due to fact that they do not confirm their dividends prior to the ex-date. The delta amount between the confirmed and estimated dividend amount will be applied by using the index dividend points calculated with the number of shares on the dividend ex-date. In regards to the post ex-date dividend adjustment the historical index levels are not restated.

## 5 Ongoing Maintenance

### 5.1 Changes to Free-Float Factors and Number of Shares

Changes to the number of shares or the free-float factors due to corporate actions like stock dividends, splits, rights issues, spin-offs etc. are implemented on the ex-date.

### 5.2 Changes due to Mergers & Takeovers

A merger or takeover is deemed successful if it has been declared wholly unconditional and has received approval of all regulatory agencies with jurisdiction over the transaction. The result of a merger or takeover is typically one surviving security and one or more non-surviving securities that may not necessarily be delisted from the respective trading system(s).

The following treatments are applied for mergers and takeovers containing security terms:

- If an index component merges with or takes over another index component:  
The surviving security remains in the index and the other security is deleted immediately from the index. Its shares and float are adjusted according to the terms of the merger/takeover.

The following treatments are applied for mergers and takeovers with cash terms and/or stock terms:

- If a non-index component merges with or takes over an index component:
  - The index component will be deleted.

### 5.3 Changes due to Spin-Offs

The spun-off company will be added to all indexes where the parent company is an index constituent according to the transaction terms, with a price of zero, on the ex-date. If the spun-off does not start trading on the ex-date a fixed indicative price will be used until the first trading day. If an indicative price is not possible to be calculated the spun-off company will be added with a price of zero to the index.

### 5.4 Changes due to Initial Public Offerings

Modified investability rules are applied for recent Initial Public Offerings (IPOs). Such companies qualify for fast-track addition to the index after the closing of third Friday of the month following the month of their IPO date.

In order to qualify for the index, they should fulfill the requirements below based on the country assigned:

- the IPO must have a free-float factor of at least 10%, and
- the IPO must have an average-daily-trading volume of the basis level used in the most recent index review as defined in Section 1.2.

Once added to an index, the size and liquidity requirements apply for IPOs and newly spun-off companies following the country of the company. The liquidity requirement is applied only for the liquidity available (i.e. liquidity since listing date) until liquidity is available for the current review and at least previous two reviews.

The following selection procedure is applied to IPO stocks that fulfill the requirements:

## 5 ONGOING MAINTENANCE

- the free-float market capitalization of the IPO must be above the free-float market capitalization of the security that ranked at 90% of the eligible index universe in the most recent index review, or
- if the most recent index review for the corresponding country resulted in 1000 securities, then the free-float market capitalization of the IPO must be above the free-float market capitalization of the security that ranked at 800 of the eligible index universe in the most recent index review.

IPO stocks that do not qualify for fast-track addition to the index according to the monthly procedure might qualify at the next quarterly review if they meet the market capitalization and liquidity criteria outlined in section 1.2 . The liquidity requirements apply only to the available liquidity as of the next quarterly review for IPO stocks.

### 5.5 Additions due to Replacements

For all corporate events that result in a security deletion from the index, there is no replacement. The additional weight resulting from the deletion will be redistributed proportionally across all other index constituents.

### 5.6 Changes to the Index Guide

Any changes to the Index Guide will be reviewed and approved by the Legal and Compliance Department. Legal and Compliance may also request a conclusive description and further information on any change and may consult the operations department on such changes. The key elements to be analyzed in this phase of the change process are robustness, transparency, reliability and integrity. The result of the review will be communicated to the operations department. The email will be archived by the operations department.

In case of changes that might immediately change the composition of an index or must be considered material for any other reason also need to be approved by the Independent Oversight Function (“IOF”) prior to their publication and implementation.

In case of material changes an advance notice will be published and provided to users. MarketVector Indexes will generally disseminate a notification related to an Index Guide change 30 days prior to the change. A shorter period of time may be applied at MarketVector Indexes’ discretion if the relevant index has not been licensed for a financial product to a third party. The notice will describe a clear time frame that gives the opportunity to analyze and comment upon the impact of such proposed material change. Any material comments received in relation to the Index Guide change and MarketVector Indexes’ response to those comments will be made publicly accessible after any consultation, except where confidentiality has been requested by the originator of the comments.

### 5.7 Discretion regarding the Use of Input Data

Pursuant to Art. 12 No.1. (b), MarketVector Indexes has established the following rules identifying how and when discretion may be exercised in the administration of an index.

In case input data are or appear to be qualitatively inferior or different sources provide different data, an extraordinary event, or a situation is not covered by the index rules, MarketVector Indexes may use or change data/index composition at its own discretion according to the following discretion policy after a plausibility check. Regarding input data, this may include:

- Liquidity and size data,

## 5 ONGOING MAINTENANCE

- Ownership structures,
- Revenue and asset breakdowns,
- Corporate action information,
- Dividends, volatility and other secondary data.

Regarding extraordinary events, this may include:

- Trading stops,
- Regulatory actions,
- Detection of fraud,
- Tradability,
- Etc.

Any changes must be subject to reasonable discretion. The decision on any change must be required, appropriate, commensurate and in line with the respective index scope and objective and must reasonably consider in a balanced way the interest of Users, investors in related products and the integrity of the market.

Index operations ensure consistency in the use of discretion in its judgement and decision. Employees involved in the operations team must have shown the respective experience and skills. Significant decisions are subject to sign-off by a supervisor. In case of material changes to data the relevant situation will be analyzed in detail, described and presented to the IOF and discussed and reviewed with the IOF.

The broad range of possible data quality problems does not allow to define specific steps for each possible instance. MarketVector Indexes will always weight the different interests of the index users, the integrity of the market and other involved parties and determine the least disadvantageous measure that equally considers the relevant interests best.

In order to avoid individual decisions on the use of data in similar cases for the future an update of the index rules can be taken into consideration if applicable. Other possible mitigation measures are the change of input data sources or providers and/or own data research where possible and reasonable.

Records are kept about material judgement or discretion by MarketVector Indexes and will include the reasoning for said judgement or discretion.

### 5.8 Input Data and Contributor Selection

According to the input data requirements under Art. 11 of the Benchmark Regulation, the following shall apply with regard to the input data used for the management and provision of an index and the relevant input data providers (“Contributors”):

- the input data shall be sufficient to represent accurately and reliably the market or economic reality that the benchmark is intended to measure;
- the input data shall be transaction data, if available and appropriate. If transaction data is not sufficient or is not appropriate to represent accurately and reliably the market or economic reality that the index is intended to measure, input data which is not transaction data may be used, including estimated prices, quotes and committed quotes, or other values;

## 5 ONGOING MAINTENANCE

- the input data shall be verifiable;
- clear guidelines regarding the types of input data, the priority of use of the different types of input data and the exercise of expert judgement, to ensure compliance with the Index Guide and index methodology and the aforementioned requirements are defined in the Code of Conduct for Contributors; and
- where an index is based on input data from Contributors, MarketVector Indexes will obtain, where appropriate, the input data from a reliable and representative panel or sample of Contributors so as to ensure that the resulting index is reliable and representative of the market or economic reality that the index is intended to measure.

In order to control the quality of contributors, MarketVector Indexes will conduct the following controls:

- Evaluate market share, reputation, quality and cost of possible input data sources and providers before selecting them on the basis of the gathered information and data;
- Compare the input data of one Contributor with the input data from one or more other Contributors in order to ensure the integrity and accuracy of the input data and in case of bad quality replace a Contributor with another Contributor.

MarketVector Indexes will not use input data from a contributor if it has any indication that the Contributor does not adhere to its Code of Conduct for Contributors and in such a case shall obtain representative publicly available data.

## 6 CALCULATION

### 6 Calculation

#### 6.1 Index Formula

The index is calculated using the Laspeyres' formula:

$$\text{Index Value} = \frac{\sum_{i=1}^n p_i * q_i * ff_i * cf_i * fx_i}{D} = \frac{M}{D}$$

Where (for all securities (i) in the index):

- $p_i$  = security price,
- $q_i$  = number of shares,
- $ff_i$  = free-float factor,
- $fx_i$  = exchange rate (local currency to index currency),
- $cf_i$  = weighting cap factor (if applicable, otherwise set to 1),
- $M$  = free-float market capitalization of the index,
- $D$  = divisor.

#### 6.2 Input Data

The following rounding procedures are used for the index calculation:

- Rounding to 2 decimal places:
  - index values,
  - free-float factors ( $ff_i$ ),
- Rounding to 4 decimal places:
  - security prices ( $p_i$ ),
- Rounding to 6 decimal places:
  - divisors ( $D$ ),
- Rounding to 12 decimal places:
  - exchange rates ( $fx_i$ ),
- Rounding to 16 decimal places:
  - company-weighting cap factors ( $cf_i$ ).

#### 6.3 Divisor Adjustments

Index maintenance - reflecting changes in shares outstanding, capital actions, addition or deletion of securities to the index - should not change the level of the index. This is accomplished with an adjustment to the divisor. Any change to the securities in the index that alters the total market value of the index while holding security prices constant will require a divisor adjustment.

$$\text{Divisor}_{\text{new}} = \text{Divisor}_{\text{old}} * \frac{\sum_{i=1}^n p_i * q_i * ff_i * cf_i * fx_i \pm \Delta MC}{\sum_{i=1}^n p_i * q_i * ff_i * cf_i * fx_i}$$

$\Delta MC$  = Difference between closing and adjusted closing market capitalization of the index.



## 6 CALCULATION

### 6.4 Corporate Action Related Adjustments

Corporate actions range widely from routine share issuances or buy backs to unusual events like spin-offs or mergers. These are listed on the table below with notes about the necessary changes and whether the divisor will be adjusted.

$p_i$  = security price,

$q_i$  = number of shares.

- Cash dividend (for total return indexes only) Divisor change: Yes

$$p_{(i,adjusted)} = p_i - (Dividend * (1 - Withholding Tax))$$

(In total return gross indexes the withholding tax is 0.)
- Special cash dividend (for price and total return indexes) Divisor change: Yes

$$p_{(i,adjusted)} = p_i - (Dividend * (1 - Withholding Tax))$$

(In total return gross indexes the withholding tax is 0.)
- Split Divisor change: No

Shareholders receive 'B' new shares for every 'A' share held.

$$p_{(i,adjusted)} = p_i * A/B$$

$$q_{(i,adjusted)} = q_i * B/A$$
- Rights Offering Divisor change: Yes

Shareholders receive 'B' new shares for every 'A' share held. If the subscription-price is either not available or not smaller than the closing price, no adjustment will be made.

$$p_{(i,adjusted)} = ((p_i * A) + (Subscription Price * B))/(A + B)$$

$$q_{(i,adjusted)} = q_i * (A + B)/A$$
- Stock dividend (withholding taxes are applied, if applicable) Divisor change: No

Shareholders receive 'B' new shares for every 'A' share held.

$$p_{(i,adjusted)} = p_i * A/(A + B)$$

$$q_{(i,adjusted)} = q_i * (A + B)/A$$
- Stock dividend from treasury (withholding taxes are applied, if applicable) Divisor change: Yes

Stock dividends from treasury are adjusted as ordinary (adjustments for price and total return indexes) or special (adjustments for total return indexes only) cash dividends. Shareholders receive 'B' new shares for every 'A' share held.

$$p_{(i,adjusted)} = p_i - (p_i * B)/(A + B)$$
- Stock dividend of a different company security (withholding taxes are applied, if applicable) Divisor change: No

The shares of the different company will be added according to the terms.
- Addition/Deletion of a company Divisor change: Yes

Net change in free-float market value determines the divisor adjustment.

## 6 CALCULATION

- Changes due to a merger/takeover
Divisor change: Yes  
 Net change in free-float market value determines the divisor adjustment. In case of no change, the divisor change is 0.
- Spin-offs
Divisor change: No  
 Shareholders receive 'B' new shares for every 'A' share held.
- Changes in shares outstanding
Divisor change: Yes  
 Net change in free-float market value determines the divisor adjustment.

With corporate actions where cash dividends or other corporate assets are distributed to shareholders, the price of the security will drop on the ex-dividend day (the first day when a new shareholder is eligible to receive the distribution.) The effect of the divisor adjustment is to prevent this price drop from causing a corresponding drop in the Index.

Corporate actions are announced at least four days prior to implementation.

### 6.5 Data Correction and Disruptions

MarketVector Indexes will usually receive information about errors or disruption from calculation agent, client, internal systems (IT) or by monitoring the respective output.

Incorrect or missing input data will be corrected immediately:

- The error is immediately communicated to the calculation agent, if applicable.
- Calculation agent will be asked to investigate the reason for the error.
- An email will be sent to all affected clients to inform them about the error; this includes the reason for the issue and an estimate on when the issue will be solved.

In case of a material error,

- Legal and Compliance to check the relevant agreements for liability of the calculation agent.
- If MarketVector Indexes identifies any conduct that may involve manipulation or attempted manipulation of an index by calculation agent it will report this to the regulator.
- Where possible and economically reasonable MarketVector Indexes will try use another calculation agent.

Investigations and communication regarding disruptions with calculation agents will be handled by Compliance and Senior Management. They are either caused by disruptions in calculation or dissemination, which might affect different servicers.

- The disruption is immediately communicated to the calculation/dissemination agent, if applicable.
- Calculation/dissemination agent will be asked to investigate the reason for the disruption.
- An email will be sent to all affected clients to inform them about the disruption; this includes the reason for the issue and an estimate on when the issue will be solved.
- MarketVector Indexes prompts calculation agent to make all efforts to restart index calculation.
- MarketVector Indexes prompts Dissemination agent to make all efforts to restart index dissemination.

## 6 CALCULATION

- Legal and Compliance to check the relevant agreements for liability of the calculation/dissemination agent.
- If MarketVector Indexes identifies any conduct that may involve manipulation or attempted manipulation of an index by calculation/dissemination agent it will report this to BaFin.
- Where possible and economically reasonable MarketVector Indexes will try use another calculation and/or dissemination agent.

## 7 Appendix

### 7.1 Changes to the Index Guide

This table contains all changes to the index guide after 1 January 2018, when the European Benchmark Regulation became effective.

Date	IG Version	Change
-	-	-

## 8 Disclaimer

Copyright © 2024 MarketVector Indexes GmbH ('MarketVector™'). All rights reserved. The MarketVector™ family of indexes (MarketVector™, Bluestar®, MVIS®) is protected through various intellectual property rights and unfair competition and misappropriation laws. MVIS® is a registered trademark of Van Eck Associates Corporation that has been licensed to MarketVector Indexes GmbH. MarketVector™ and MarketVector Indexes™ are pending trademarks of Van Eck Associates Corporation. BlueStar®, BlueStar Indexes®, BIGI® and BIGITech® are trademarks of MarketVector Indexes GmbH. Redistribution, reproduction and/or photocopying in whole or in part are prohibited without written permission. All information provided by MarketVector Indexes™ is impersonal and not tailored to the needs of any person, entity or group of persons. MarketVector Indexes™ receives compensation in connection with licensing its indexes to third parties. You require a license from MarketVector Indexes™ to launch any financial product that is linked to a MarketVector™ Index to use the index data for any business purpose and for all use of the MarketVector™ name or name of the MarketVector™ Index. Past performance of an index is not a guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments or products based on that index. MarketVector Indexes™ does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any MarketVector™ Index ('Financial Product'). MarketVector Indexes™ makes no assurance that investment products based on any MarketVector™ Index will accurately track index performance or provide positive investment returns. MarketVector Indexes™ is not an investment advisor, and it makes no representation regarding the advisability of investing in any Financial Product. A decision to invest in any Financial Product should not be made in reliance on any of the statements set forth in this document.

Prospective investors are advised to make an investment in any Financial Product only after carefully considering the risks associated with investing in such Financial Product, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the Financial Product. Inclusion of a security within an index is not a recommendation by MarketVector Indexes™ to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit related analyses and data, model, software or other application or output therefrom) or any part thereof ('Content') may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of MarketVector Indexes™. The Content shall not be used for any unlawful or unauthorized purposes. MarketVector Indexes™ and its third party data providers and licensors (collectively 'MarketVector Indexes™ Parties') do not guarantee the accuracy, completeness, timeliness or availability of the Content. MarketVector Indexes™ Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN 'AS IS' BASIS. MARKETVECTOR INDEXES™ PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall MarketVector Indexes™ Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.