MarketVector™

# INDEX GUIDE

**BlueStar® Quantum Computing and Machine Learning Index**

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# Regulation and Disclosures

## Regulation

In accordance with IOSCO Principle 9 (Transparency of Benchmark Determination), 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.

## 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 IOSCO Principle 12 (Quality of the Methodology) 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 IOSCO Principle 10 (Periodic Review), 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 5.5 applies.

# 1 Index Description

The BlueStar® Quantum Computing and Machine Learning Index is a thematic index tracking the performance of companies involved in industries related to Quantum Computing or Machine Learning.

## 1.1 Index Universe

### 1.1.1 Pure-Play/Thematic Screening

The index includes companies whose business activity, products, or services include one of the following in relation to the development or commercialization of quantum computing or machine learning technology:

- Quantum Computing, including:
  - Quantum Computing Companies: Companies with at least 50% of their revenues or operating activity from quantum computing technology or services.
  - Quantum Computing Hardware Ecosystem Companies: Companies involved in the development of quantum computing hardware including, but not limited to:
    - Research, design, and manufacturing of quantum computers and related hardware systems, components, and materials, and/or
    - Integration and interaction of quantum computing with traditional computing systems.
  - Quantum Computing Software Ecosystem Companies: Companies involved in the development of quantum computing software and related technologies including, but not limited to:
    - Application of quantum computing in areas such as scientific research, optimization, and secure communications,
    - Development of specialized software and algorithms tailored for quantum computing hardware, and/or
    - Creation of quantum-enhanced encryption algorithms.
    - Companies providing telecommunications services are not included.
- Machine Learning, including:
  - Advanced computing hardware (such as GPUs, FPGAs, ASICs, NPUs, AI-specific memory chips, or other embedded artificial intelligence chips),
  - Companies that specialize in the perception, collection, or management of big data, including those that derive at least 50% of revenue from database management, data platforms, big data analytics, data-related API management software, AI-cloud infrastructure platforms, and/or
  - AI as a Service, defined as companies with at least 50% of revenue from AI-based search and Large Language Models (LLMs).

### 1.1.2 Exclusion Criteria

The index universe will include only common securities and securities with similar characteristics from financial markets that are freely investable for foreign investors and that provide real-time and historical component and currency pricing, excluding:

- Limited Partnerships (LPs).

### 1.1.3 Exchange Eligibility

Securities must be listed on an exchange in one of the following countries to qualify for the index universe: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, South Korea, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United States.

Removed: Mexico and Thailand

## 1.2 Investable Universe

### 1.2.1 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 universe.

All of the following applies for securities that are currently not included in the index:

- free-float of at least 10%,
- full market capitalization exceeding 150.00 million USD (100.00 million USD for Quantum Computing Companies),
- a three-month average daily trading volume of at least 1.00 million USD (0.50 million USD for Quantum Computing Companies) at the current quarter and at the previous two quarters, and
- at least 0.25 million shares traded per month over the last six months at the current quarter and at the previous two quarters.

All of the following applies for securities already in the index:

- free-float of at least 5%,
- a full market capitalization exceeding 75.00 million USD, and
- a three-month average daily trading volume of at least 0.20 million USD in at least two of the latest three quarters (current quarter and at the previous two quarters).

In addition, at least one of the following applies for securities already in the index:

- a three-month average daily trading volume of at least 0.60 million USD (0.40 million USD for Quantum Computing Companies) at the current quarter or at one of the previous two quarters, or
- at least 0.20 million shares traded per month over the last six months at the current quarter or at one of the previous two quarters.

### 1.2.2 Initial Public Offerings, Special Purpose Acquisition Companies, and Spin-Offs

Modified investability rules are applied for recent Initial Public Offerings (IPOs), spin-offs and post-merger/acquisition Special Purpose Acquisition Companies (SPACs). Such companies qualify for fast-track addition to the investable universe once; either at the next regularly scheduled review if it has been trading since at least the last trading day of the month two months prior to the review month or else at the following regularly scheduled review. In order to be added to the index the IPO security has to meet the size and liquidity requirements:

- the IPO must have a full market capitalization exceeding 150.00 million USD (100.00 million USD for Quantum Computing Companies), and
- the IPO must have a free-float factor of at least 10%, and
- the IPO must have an average daily trading volume of at least 1.00 million USD, and
- the IPO must have traded at least 0.25 million shares per month (or per 22 days).

## 1 INDEX DESCRIPTION

This rule is applicable for newly spun-off companies and post-merger/acquisition SPACs (using the merger/acquisition date like an IPO date) as well.

In addition, the below special periodical cases are also considered for Quantum Computing Companies IPO/spin-offs (not considering SPACs):

- A monthly review snapshot is taken based on the last trading day of each month. The same eligibility rules as for the quarterly inclusion apply on a monthly basis (except for SPACs). The new composition is implemented after close of the third Friday of the following month. The weighting cap factors are based on closing data of the Wednesday prior to the second Friday in a quarter-end month. Additions which enter the index by this rule and not the regular quarterly review receive an equal weight with the weight reduced from existing components proportionally.
- In case an IPO/Spin-off takes place between the close of the last business day of May and November and the close of the second Wednesday of June and December, respectively: If this IPO/Spin-off exceeds a full market capitalization of USD 1bn on closing date of the IPO effective date, it will be added to the index on the review implementation date with an equal weight with the weight reduced from existing components proportionally.
- In case an IPO/Spin-off takes place after the close of the second Wednesday until the third Friday of June and December: If this IPO/Spin-off exceeds a full market capitalization of USD 1bn on the third Friday of June and December following the IPO effective date/if the third Friday is the IPO effective date, it will be added after close of the Friday of the following week with an equal weight with the weight reduced from existing components proportionally, based on the market data as of the Friday following the third Friday of June and December/if the third Friday is the IPO effective date.
- For all other time periods: If the IPO/Spin-off exceeds a full market capitalization of USD 1bn on the Friday following the IPO effective date/if the Friday is the IPO effective date, it will be added after close of the Friday of the following week with an equal weight with the weight reduced from existing components proportionally, based on the market data as of the Friday following the IPO effective date/if the Friday is the IPO effective date.

For the last three special periodical IPO/Spin-off cases, the following applies:

- The IPO must have a free-float factor of at least 5%, and
- Due to lack of historical data, no liquidity rule is applied.

## 1.3 Eligible Universe

### 1.3.1 Share Class

One share class of each company in the investable universe is included in the eligible universe. In case more than one share class fulfills the above specified market capitalization and liquidity rules, only the largest share class by free-float market capitalization qualifies for the eligible universe. In exceptional cases (e.g. significantly higher liquidity), the Index Owner can decide for a different share class.

In case the free-float market capitalization of a currently not included share class of an index component

- exceeds the free-float market capitalization of the currently selected share class by at least 25%, and
- fulfills all market capitalization and liquidity eligibility criteria for non-components

the currently selected share class will be replaced by the larger one.

In exceptional cases (e.g. significantly higher liquidity), the Index Owner can decide to keep the current share class instead.

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

1. US price source,
2. UK price source - London Stock Exchange International Order Book (IOB) only,
3. Home-market price source,
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 semi-annual basis in June and December 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 May and November. If a security does not trade on the last business day in May or November, 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 June and December. If a security does not trade on the Wednesday prior to the second Friday of June and December, the last available closing data for this security will be used.
3. The underlying review and rebalance data (i.e. weights, shares outstanding, free-float factors, and new weighting cap factors) is announced on the second Friday of June and December.
4. Changes will be implemented and based on the closing prices as of the third Friday of June 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 June and December, then the last available price for this security will be used. Changes become effective on the next index dissemination day.

In addition, recent IPOs, spin-offs, and post-merger/acquisition SPACs (using the de-SPAC/merger date as the IPO date) of Quantum Computing Companies may enter the index in March and September according to the following procedure. Companies added to the index under this procedure are added with an equal weight with the weight reduced from existing components proportionally.

1. IPOs are required to have been trading since at least the last trading day of January or June.
2. Investability is determined based on the closing data on the last business day in February and August. If a security does not trade on the last business day in February and August, the last available price for this security will be used.
3. In order to be added to the index, the IPO must be in the selection range (Review procedure for non components apply).
4. Component weights are determined based on closing data as of the Wednesday prior to the second Friday of March and September. If a security does not trade on the Wednesday prior to the second Friday of March and September, the last available closing data for this security will be used.
5. The underlying review and rebalance data (i.e. weights, shares outstanding, free-float factors, and new weighting cap factors) is announced on the second Friday of March and September.
6. Changes will be implemented and based on the closing prices as of the third Friday of March and September. 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 or September, then the last available price for this security will be used. Changes become effective on the next index dissemination day.

In case there is no addition due to the above mentioned IPOs, spin-offs, and post-merger/acquisition SPACs, new float factors and shares are applied during quarterly reviews in March and September, but an adjustment factor will account for a constant component weight and divisor at implementation.

## 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 99% of the free-float market capitalization of the eligible universe with a minimum of 70 components.

1. All securities in the eligible universe are sorted in terms of free-float market capitalization in descending order.
2. Securities covering the top 98.5% of the free-float market capitalization of the eligible universe qualify for selection.
3. Current components between 98.5% and 100% of the free-float market capitalization of the eligible universe also qualify for selection.
4. In addition, all securities that meet the eligibility criteria and are Quantum Computing Companies will be selected.
5. If the coverage is still below 99% of the free-float market capitalization of the eligible universe or the number of components in the index is still below 70, the largest remaining securities will be selected until both the target coverage and minimum number of components are reached.
6. In case the number of eligible securities is below the minimum of 70, additional securities are added by the Index Owner's decision until the number of securities selected to the index reaches the minimum of 70 components.

## 2.3 Weighting Scheme

Upon an index rebalance, components selected to the index will be equally weighted subject to a maximum component weight according to the following procedure:

- The maximum security weight is the security's three-month average daily trading volume in USD divided by 100.00 million.
- Components are weighted equally accordingly: Let "N" be the number of components in the index. The weight for any single security is 1/N.
- If a security's weight exceeds the maximum weight, the weight will be reduced to the maximum weight and the excess weight shall be redistributed among uncapped components equally.
- This process is repeated until the sum of all components' weights is equal to 100% and no component's weight exceeds the maximum security weight.

The nominal value used in the liquidity overlay may be adjusted downward to allow the aggregate weight of all index components to equal to 100% while satisfying all other capping scheme constraints.

# 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 every 15 seconds on days 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.

Real-time index values are calculated with the midpoint between the latest available real-time bid- and ask-prices. The closing values for this index are calculated at 22:40:00 CET with fixed 16:00 London time exchange rates from WM company.

The BlueStar® Quantum Computing and Machine Learning Index is calculated as a price return index, a total return net index and a total return gross index and has the following identifiers:

| Index Type | ISIN | SEDOL | WKN | Bloomberg | Reuters |
|---|---|---|---|---|---|
| Price Return Index | DE000SL0FUQ7 | BQ0GS05 | SL0FUQ | BQTUM | .BQTUM |
| Total Return Net Index | DE000SL0FUR5 | BQ0GS16 | SL0FUR | BQTUMNTR | .BQTUMNTR |
| Total Return Gross Index | DE000SLA5JF2 | BMGR4X9 | SLA5JF | BQTUMTR | .BQTUMTR |

The price return version was launched on May 5, 2022 with a base index value of 100.00 as of December 18, 2015, the total return net version was launched on May 5, 2022 with a base index value of 100.00 as of December 18, 2015 and the total return gross version was launched on June 7, 2018 with a base index value of 100.00 as of December 18, 2015.

# 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.

At times, other adjustments are made to the share count to reflect foreign ownership limits or sanctions. These are combined with the block-ownership adjustments into a single factor. To avoid unwanted double counting, either the block-ownership adjustment or the restricted stocks adjustment is applied, whichever produces the higher result.

Free-float factors are reviewed quarterly.

## 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).

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.

Any secondary issuance, share repurchase, buy back, tender offer, Dutch auction, exchange offer, bought deal equity offering or prospectus offering will be updated at the quarterly review if the change is smaller than 20%. Changes larger than 20% will be pre-announced (three trading days notice) and implemented on the first dissemination day of the following month (on a best effort basis). If necessary and information is available, resulting float changes will be taken into consideration.

Share changes that result from M&As shall impact all indexes of the MarketVector™ Equity Index family that contain affected companies on the merger effective date with no weighting cap factor change; the 20% share change restriction is removed. Nevertheless, share changes due to M&As in the MarketVector™ Total Global Equity Index or its derived subset indexes may not result in adjustments to other indexes, nor may changes in other indexes have any effect on them.

## 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).
Securities are deleted from the index at their last traded price. If a security is delisted or suspended from trading before the effective date of the deletion, the last traded price continues to be used until that date. An exception applies if it is known at the time of the announcement of the index treatment that the security will cease trading before the effective date. On the day no active trading has occurred, the closing value will reflect the value of the Deal Terms of the transaction.
The following treatments are applied for mergers and takeovers containing stock 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 index market capitalization of the merged company corresponds to the market capitalization of the two separate companies.

- If a non-index component merges with or takes over an index component:
  - If the surviving security meets the eligible index universe requirements, it will be added to the index. Its shares and float will be adjusted according to the terms of the merger/takeover and will replace the current index component.
  - If the surviving security does not meet the eligible index universe requirements, it will not be added to the index and the current index component will be deleted immediately from the index.

The following treatments are applied for mergers and takeovers with cash terms only:

- 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 the index 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. If the spun-off does not qualify for the index it will be deleted after two trading days based on its respective closing price.

## 5.4 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.

## 5.5 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.

## 5.6 Discretion regarding the Use of Input Data

Pursuant to IOSCO Principle 8 (Hierarchy of Data Inputs), 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,
- 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 subject to reasonable discretion. The decision on any change must be required, appropriate, commensurable and in line with the respective index scope and objective and must reasonably consider in a balance weight the interest of Users, investors in related products and the integrity of the market.

Index operations ensures 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 interest 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.

## 5.7 Input Data and Contributor Selection

According to the input data requirements under IOSCO Principle 7 (Data Sufficiency), 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;
- the input data shall be verifiable;

## 5 ONGOING MAINTENANCE

- 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

## 6.1 Index Formula

The index is calculated using the Laspeyres' formula:

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

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:
  - free-float factors ($ff_i$),
- Rounding to 3 decimal places:
  - index values,
- 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.

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

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

## 6.4 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 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.

- *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. In case of no change, the divisor change is 0.

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.
- MarketVector Indexes recalculates missing EOD data points and disseminates to vendors and clients.

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.

## 6 CALCULATION

- 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.
- MarketVector Indexes recalculates missing EOD data points and disseminates to vendors and clients.
- 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 notify the competent authority where required.
- 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 January 1, 2018.

| Date | IG Version | Change |
|---|---|---|
| March 19, 2021 | - | Inclusion of SPAC treatment (like for IPOs) |
| May 21, 2021 | - | Clarification of eligibility |
| June 1, 2021 | - | Individual eligibility changes |
| June 1, 2021 | - | Individual selection changes |
| June 1, 2021 | - | Changes for BlueStar branded Indexes (as announced in details on 12 April 2021): - Standardised cut-off date, - Liquidity: standardised ADTV criterion/liquidity overlay, removal of bid-ask spread, minimum monthly volume, - Eligibility changing from currencies to resp. exchanges, - Standardised IPO rule, - Standardised holiday calendar, - Standardised free float rule |
| August 2, 2021 | - | 30 days announcement period for Index Guide changes |
| September 9, 2021 | - | Explanation of discretion for adding components during review in case of not enough eligible tickers |
| December 6, 2021 | - | Updated IPO/Spin-off/SPAC rule |
| December 6, 2021 | - | Individual selection changes |
| May 4, 2022 | - | Inclusion of price return version and net return version |
| May 4, 2022 | - | Inclusion of price return version and a net return version |
| August 31, 2022 | - | Pricing source: exceptions removed from BlueStar Indexes |
| August 31, 2022 | - | Discretion in case of extraordinary events |
| August 31, 2022 | - | Share changes implemented on a monthly basis |
| February 28, 2023 | - | The nominal value used in the liquidity overlay may be adjusted downward to allow the aggregate weight of all index components to equal to 100% while satisfying all other capping scheme constraints |
| February 28, 2023 | - | Removal of 10% share change restriction for M&As for surviving companies |
| May 1, 2024 | - | SPACs not eligible for addition in March and September |
| May 27, 2024 | 1.00 | Initial publication of the individual index guide and discontinuation of the MarketVector Global Equity Index Guide |
| November 29, 2024 | 1.01 | Removal of Luxembourg from the list of eligible exchanges |
| January 31, 2025 | 1.02 | Decommissioning of BUQFC |
| May 30, 2025 | 1.03 | Market Capitalization and Liquidity Criteria & Selection Adjustment, Dissemination of 3 decimals |
| January 1, 2026 | 1.04 | De-scoping under the amended EU BMR |
| February 27, 2026 | 1.05 | Threshold for Monthly Share Change increases to 20% |
| September 15, 2026 | 1.06 | Deletion at deal terms for suspended securities |

## 7 APPENDIX

| | | |
|---|---|---|
| September 30, 2026 | 1.07 | Index name change to BlueStar® Quantum Computing and Machine Learning Index. Update in section 1.1.1 Thematic Screening. Addition of a special IPO rule. Removal of Mexico and Thailand from the list of eligible exchange. |

# 8 Disclaimer

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# 9 Regulatory Status

All indexes administered by MarketVector Indexes GmbH currently qualify as non-significant benchmarks within the meaning of Article 3 (27) of the EU Benchmarks Regulation (Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, as amended by Regulation (EU) 2025/914). Accordingly, the administration of these indexes no longer falls within the direct scope of the EU Benchmarks Regulation as of 1 January 2026. As benchmark usage evolves over time, MarketVector may consider voluntarily opting in to EU Benchmarks regulation supervision should relevant regulatory thresholds be met. Regardless of regulatory classification, MarketVector continues to apply the organizational, operational, and governance frameworks developed under the EU Benchmarks Regulation. MarketVector continues to administer its benchmarks in line with the IOSCO Principles for Financial Benchmarks and recognized index-industry best practices, ensuring the integrity, transparency, and reliability of its entire suite of index offerings.