Guide to the GEX® Equity Indices

Formerly known as Guide to the German Entrepreneurial Index (GEX) of Deutsche Börse AG

Version 2.1.5
August 2022
General Information

With effect to August 2019 Deutsche Börse AG has transferred the administration of the GEX Equity Indices formerly known as the Guide to the German Entrepreneurial Index (GEX) of Deutsche Börse AG to its affiliate STOXX Ltd.

STOXX Ltd. develops, creates and publishes Indices for certain uses, e.g., the issuance of Financial Instruments. In general, an Index is any figure published or made available to the public that is regularly determined by the application of a formula (or any other method of calculation, or by an assessment) on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or survey.

All GEX Equity Indices are governed by the respective index methodology applicable to the respective index or index family. Purpose of this Guide is to provide for a comprehensible index methodology in continuity of the former Guide to the German Entrepreneurial Index (GEX) of Deutsche Börse AG as last amended with effect from 15 March 2017 (version 1.4).

In order to ensure the highest quality of each of its indices, STOXX Ltd. exercises the greatest care when compiling and calculating equity indices on the basis of the rules set out in this Guide.

However, STOXX Ltd. cannot guarantee that the various indices, or the various ratios that are required for index compilation and computation purposes, as set out in this Guide, are always calculated free of errors. STOXX Ltd. accepts no liability for any direct or indirect losses arising from any incorrect calculation of such indices or ratios.

The GEX Equity Indices in no way represent a recommendation for investment. In particular, the compilation and calculation of the various indices shall not be construed as a recommendation of STOXX Ltd. to buy or sell individual securities, or the basket of securities underlying a given index.
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## History of Amendments to the Rules and Regulations

All amendments listed with effect prior to July 2019 are amendments to the Rules and Regulations of the former German Entrepreneurial Index (GEX) of Deutsche Börse AG.

Amendments listed as of July 2019 are amendments to the Rules and Regulations of the GEX Equity Indices, of STOXX Ltd. in continuation of those Rules and Regulations of the former German Entrepreneurial Index (GEX) of Deutsche Börse AG.

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<th>Version</th>
<th>Changes</th>
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<td>03 August 2022</td>
<td>2.1.5</td>
<td>- Methodology Change of quarterly Review Process by introduction of the quarterly underlying data announcement and preponement of review schedule to 2nd Friday (t-5) in section 4. Insertion of new section 4.1 to reflect changes</td>
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<td>09 October 2020</td>
<td>2.1.4</td>
<td>- Clarification of Section 3.6.2 for deletion price used</td>
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<td>4 Oct. 2019</td>
<td>2.1.1</td>
<td>- Clarification relating to EU Benchmark Regulation of former version 2.1</td>
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<td>19 Dec. 2014</td>
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<td>Version 1.1</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>- Clarification of selection criterion 5</td>
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1 General Index Information

1.1 GEX®

The GEX® (German Entrepreneurial Index) - introduced on 3 January 2005 - reflects the segment of German so-called Entrepreneurial Firms that are listed at the Frankfurt Stock Exchange (FWB®). The GEX® was developed in cooperation with the Center for Entrepreneurial and Financial Studies (CEFS) at Technische Universität München (TUM). The continuous review of selection criteria is performed by STOXX Ltd annually in March based on shareholder structure data from Marketline.

The GEX® constitutes an All Share Index comprising all German companies listed in the Prime Standard at the Frankfurt Stock Exchange which fulfil specific selection criteria for Entrepreneurial Firms (cf. chapter 2.1). Entrepreneurial Firms – according to the understanding applied in the GEX® – are characterized by the following two attributes:

- **Inside-Ownership:** Top management (i.e. the members of the management board (“Vorstand”) and the supervisory board (“Aufsichtsrat”) hold a significant stake in their company. Thereto, the group of so-called GEX®-relevant persons (cf. chapter 2.1) must hold at least 25 percent of the company’s ordinary shares.

- **Post-IPO-Age:** The company still copes with the transition from a closely-held to a publicly-held company. Since the IPO, or the listing of the ordinary shares respectively, no more than ten years may have passed. (cf. chapter 2.1).

A detailed description of the specific selection criteria of the GEX® can be found in chapter 2.1.

A historical time series of the GEX® was computed which dates back to 24 June 2002 (cf. chapter 1.7).

1.2 Calculation Basis

The base value and date for the GEX® is listed in the table in the following section (chapter 1.3).

1.3 Weighting and Cap Limit

The GEX® Index is capital-weighted, whereby the weight of any individual issue is proportionate to its respective share in the overall capitalisation of all index component issues.

Weighting in the GEX® is based exclusively on the free-float portion of the issued share capital of any class of shares involved (cf. chapter 1.4). Both the number of shares included in the issued share capital and the free float factor are updated during each quarterly chaining process (cf. chapter 4.2). Subscription rights are taken into account as early as with the issue of new shares, using the appropriate adjustment factor (cf. chapter 3.5.2).

During the chaining process, the number of shares of individual companies might be capped for the GEX® to achieve a limited weight of such companies within the respective index (cf. chapter 3.4).
The cap limit for issues in the GEX® is indicated in the table below.

<table>
<thead>
<tr>
<th>Index</th>
<th>No. shares</th>
<th>Calc. basis</th>
<th>Base date</th>
<th>Sector</th>
<th>Segment</th>
<th>Trading form</th>
<th>Cap limit</th>
<th>Calc. interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEX</td>
<td>-</td>
<td>1000</td>
<td>30 Jul. 2004</td>
<td>Tech &amp; Classic</td>
<td>Prime</td>
<td>Continuous</td>
<td>10.00%</td>
<td>60 sec.</td>
</tr>
</tbody>
</table>

1.4 Free Float

The calculation of the GEX index is based on a free-float weighting. Only ordinary shares may qualify for the GEX® considering the importance of the control structure among the selection criteria for Entrepreneurial Firms (cf. chapter 2.1).

For the determination of the free-float portion, used to weight a company’s class of shares in the respective index, the following definition applies accordingly:

1. Free float refers to the freely tradeable shares of a company that are not held in fixed ownership. The following rules apply to determine the free float: All shareholdings of an owner which, on an accumulated basis, account for at least 5 percent of a company’s share capital attributed to a class of shares are considered to be non-free float. Shareholdings of an owner also include shareholdings

- held by the family of the owner as defined by section 19 of the Market Abuse Regulation (MAR),
- for which a pooling has been arranged in which the owner has an interest,
- managed or kept in safe custody by a third party for the account of the owner,
- held by a company which the owner controls as defined by section 290 (2) of the German Commercial Code (HGB),
- subject to a statutory or contractual qualifying period of at least six months.

This does not include shareholdings of

- asset managers and trust companies,
- funds and pension funds,
- investment companies or foreign investment companies in their respective special fund assets

insofar as they are held as part of short-term investment strategies and the size of a shareholding does not exceed 25 percent of a company’s share capital. This does not apply to shareholdings held by venture capital companies, government funds or shareholdings held by their financial agencies, or supranational funds.

In this context, shares for which the acquirer has at the time of purchase clearly and publicly stated that strategic goals are being pursued and that the intention is to influence the company
policies and ongoing business of the company in the long-term are not considered a short-term investment. In addition, shares having been acquired through a public purchase offer will not be considered a short-term investment.

2. Shares of an owner that are subject to a statutory or contractual qualifying period of at least six months with regard to their disposal and shares held by the issuing company (treasury shares) are – irrespective of the size of a shareholding – always considered fixed holdings.

3. In case of an ongoing takeover, shares that are under the control of the overtaking companies via derivatives will also be considered for the determination of the stock’s free float. The derivatives need to be subject to registration and correspondingly registered according to legislation in Securities Trading Act (WpHG) and Securities Acquisition and Takeover Act (WpÜG).

The various criteria laid down in numbers 1 to 3 are also fully applied to classes of shares that are subject to restrictions of ownership. For the purpose of the determination of the free float as described above, each ISIN under which shares are traded is considered a separate share class.

1.5 Prices Used and Calculation Frequency

If STOXX Ltd. determines and publishes a company’s free float within the framework of a scheduled chaining, this free float factor will only be changed or corrected at the next scheduled chaining date. This is also the case if STOXX Ltd. learns of facts or circumstances following the determination of the free float that would have resulted in the determination of a different free float factor had they been known at the time of the determination. Prices Used and Calculation Frequency

GEX® calculation is performed on every exchange trading day of FWB® Frankfurt Stock Exchange, using prices traded on Deutsche Börse’s electronic trading system Xetra® whereby the last determined prices are used.

The GEX® performance as well as the GEX® price index are calculated continuously every 60 seconds.

As long as opening prices for individual shares are not available, the particular closing prices of the previous day are taken instead of calculating the indices.

In the event of a suspension during trading hours, the last price determined before such a suspension is used for all subsequent computations. If such suspension occurs before the start of trading, the closing price of the previous day is used instead. The closing index level is calculated using the respective closing prices (or last prices) established on Xetra®.

GEX uses the values of the constituent elements (applying currency conversion, if necessary) in calculation its index value and is expressed in index points, reflecting the index-specific currency. The intraday currency conversion is based on the spot rates provided by Refinitiv previously Financial and Risk business of Thomson Reuters. The WM/Reuters currency fixing rates from 5:00 pm CET are used to calculate the index’s closing values. GEX is available in the currencies set forth in the Vendor Code Sheet which is available under https://www.dax-indices.com/ressources.
1.6 Alpha Codes, ISINs and Sector Assignment (Tech / Classic)

<table>
<thead>
<tr>
<th>Index</th>
<th>Alpha (Perf.)</th>
<th>ISIN (Perf.)</th>
<th>Alpha (Price)</th>
<th>ISIN (Price)</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEX</td>
<td>E1FX</td>
<td>DE000A0AER17</td>
<td>E1FY</td>
<td>DE000A0AER09</td>
<td>Tech &amp; Classic</td>
</tr>
</tbody>
</table>

1.7 Historical Data

Historical data for the GEX® dates back to 24 June 2002. The time series is based on Xetra® price data.

The computation of the GEX® time series required some modifications. First, it was checked which companies listed in the Prime Standard fulfilled the specific selection criteria using 19 September 2004, as the cut-off date. Then, all 144 companies which fulfilled the selection criteria were used to calculate a historical time series dating back to 24 June 2002 (beginning of index weighting on a free-float basis).

The GEX® history is composed as follows:

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning</th>
<th>End</th>
<th>Cut-off date for review of selection criteria</th>
<th>Number of GEX® companies</th>
<th>Additions to GEX®</th>
<th>Deletions from GEX®</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
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<td>...</td>
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<td>...</td>
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</tbody>
</table>

1.8 Annual composition review

The compilation of the GEX® is reviewed by STOXX Ltd. on an annual basis. Specifically, the process includes a review of all current GEX® constituents with regard to fulfilment of the selection criteria. Additionally, it is checked whether companies outside the GEX® have to be added to the index due to compliance with the specific selection criteria (cf. chapter 2.1). Cut-off date for the review is the Friday approximately seven weeks before the next chaining date.

1.9 Index Termination Policy

For termination of an index or an index family that underlie financial products issued on the market, to the knowledge of STOXX Ltd., a market consultation will be conducted by STOXX Ltd. in advance of the termination in line with STOXX Transition Policy and STOXX Consultation Policy (publicly available on STOXX website). The length of the consultation period will be defined in advance based on the specific issues of each proposed termination subject to STOXX Benchmark Transition Policy (Discretionary Rule, see Section 6.5.1). During the consultation period, clients and third parties will
have the chance to share their concerns regarding the termination of the index or index family. Based on the collected feedback, STOXX Ltd. may rethink its decision to terminate an index or an index family (Discretionary Rule, see Section 6.5.1). At the end of the consultation period, STOXX Ltd. will publicly announce its final decision about the termination. A transition period will be granted in the event of termination (Discretionary Rule, see Section 6.5.1).

For termination of an index or an index family that do not underlie financial products issued on the market, no market consultation will be conducted.
2 GEX® Composition

The composition of the GEX® represents a modified All-Share index. The GEX® comprises any of the shares listed in the relevant market segment or sector (Prime Standard), which additionally meet the specific selection criteria (cf. chapter 2.1). As an All-Share index the GEX® is not restricted to a certain number of issues. Hence, the GEX® performance index measures the performance of the entire segment of so-called Entrepreneurial Firms.

The GEX® composition is regularly reviewed on an annual basis. Quarterly chaining is carried out on the maturity date of the DAX® futures of Eurex, i.e. on the third Friday of the last month of a quarter (March, June, September, December). Cut-off date for the review is the Friday approximately 7 weeks before the relevant chaining date.

After the conformance of the GEX® constituents with the selection criteria (cf. chapter 2.1) has been validated, the GEX® composition is adjusted on the following chaining date. Besides so-called Ordinary Adjustments (cf. chapter 2.2) Extraordinary Adjustments (cf. chapter 2.3) may take place.

2.1 Selection Criteria

To be included or to remain in the GEX®, companies have to satisfy certain prerequisites. Since the GEX® measures the performance of Entrepreneurial Firms, GEX®-constituents have to comply with the following five selection criteria. Criteria 1 to 3 distinguish Entrepreneurial Firms from the universe of all listed companies. Criteria 4 and 5 further constrain the GEX®-constituents to German Prime Standard listed companies.

Companies`ordinary shares are included in the GEX® if

1) the group of so-called GEX®-relevant persons cumulatively holds a stake of at least 25 percent of the companies`ordinary shares. The group of GEX®-relevant persons consists of

   A) active members of the management board and their families,
   B) active members of the supervisory board and their families,
   C) former members of the management board and supervisory board and their families.

In the broader sense stakes will be attributed to the group of GEX®-relevant persons if

   D) asset management-, investments- or holding-companies indirectly hold ownership stakes for the aforementioned group of GEX®-relevant persons, i.e. the asset management-, investments- or holding-companies themselves are owned by GEX®-relevant persons or
   E) companies holding at least 30 percent of the considered company (threshold for mandatory offers) themselves are by at least 25 percent owned by “their” respective group of GEX®-relevant persons. In this case an adjusted ownership stake is considered which is calculated as the product of both relative ownership stakes (criterion 1).
• Exp: In Company A the management board of Company A holds 20% and Company B 50%. The remaining 30% are free float. The chairman of the supervisory board of Company B owns 60% of Company B. Does Company A comply with criterion 1?

Yes. The GEX®-relevant stake is 50% and, therefore, higher than the mandatory 25% (criterion 1). Calculation: 20% + (50% x 60%) = 20% + 30% = 50%

2) the group of GEX®-relevant persons cumulatively holds a stake of not more than 75 percent of the companies` ordinary shares. Looking at GEX®-relevant stakes according to criterion 1.E it must be considered that neither the direct ownership stake of the owner dominated holding company nor the calculated adjusted ownership stake may exceed the 75 percent threshold (criterion 2).

3) the Post-IPO-age does not exceed ten years. The Post-IPO-age is determined by the period between cut-off date for the review of the selection criteria and the Initial Public Offering (IPO) or the listing of the ordinary shares respectively (criterion 3).

Furthermore, GEX® component issues must be

4) companies based in Germany (criterion 4) and must be

5) listed in the Prime Standard segment of FWB® and is continuously traded on Xetra® (criterion 5).

No further selection based on order book turnover or free-float market capitalisation takes place.

STOXX Ltd. continuously reviews the composition of the GEX® considering the aforementioned selection criteria (cf. chapter 2.2).

2.2 Ordinary Adjustments

The GEX® is subject to ordinary adjustments on an annual basis: The GEX® composition is regularly reviewed on the third Friday in March. Cut-off date for the review is the Friday approximately seven weeks before the following chaining date.

Regular Exit: An index component issue which does not comply with the selection criteria on a review cut-off date is removed from the GEX® on the following chaining date.

Regular Entry: A company outside the index which complies with the five selection criteria on a review cut-off date is included in the GEX® on the following chaining date.

2.3 Extraordinary Adjustments

Extraordinary adjustments to index composition have to be performed, regardless of ‘Regular Exit’ or ‘Regular Entry’ rules, upon occurrence of specific events such as insolvency. Here:
• Constituents subject to Insolvency Events are deleted, but not replaced, pursuant to the provisions in section 5.1.1 of the Guide to the DAX Equity Indices. For the avoidance of doubt, a constituent deleted pursuant to the above-mentioned section is not replaced in the GEX®.

• Companies no longer meeting the criterion 5 (Prime Standard Listing) are removed immediately and without substitution from the GEX®. Where non-compliance with these rules on a future date is already certain, the relevant company is to be replaced as early as on the next chaining date.
3 \hspace{1cm} \text{Calculation Method}

3.1 \hspace{1cm} \text{Index Formula}

The GEX Equity Indices are conceived according to the Laspeyres formula set out below:

\[
\text{Index}_t = K_T \cdot \frac{\sum_{i} p_i \cdot f_{ff_i} \cdot q_i \cdot c_i}{\sum_{i} p_{0_i} \cdot q_{0_i}} \cdot \text{Base} 
\]

whereby:

- \( c_i \) = Adjustment factor of company \( i \) at time \( t \)
- \( f_{ff_i} \) = Free float factor of share class \( i \) at time \( T \)
- \( n \) = Number of shares in the index
- \( p_{0_i} \) = Closing price of share \( i \) on the trading day before the first inclusion in the index
- \( p_i \) = Price of share \( i \) at time \( t \)
- \( q_{0_i} \) = Number of shares of company \( i \) on the trading day before the first inclusion in the index
- \( q_{T_i} \) = Number of shares of company \( i \) at time \( T \)
- \( t \) = Calculation time of the index
- \( K_T \) = Index-specific chaining factor valid as of chaining date \( T \)
- \( T \) = Date of the last chaining
- \( \text{Base} \) = 1000
The formula set out below is equivalent in analytic terms, but designed to achieve relative weightings:

\[
\text{Index}_t = \frac{\sum_{i=1}^{n} p_i \cdot (K_T \cdot \frac{f_{it}}{\sum_{i=1}^{n} q_{iT}} \cdot \frac{q_{iT}}{\sum_{i=1}^{n} q_{iT}} \cdot 100 \cdot c_{it})}{\sum_{i=1}^{n} p_{i0} \cdot \frac{q_{i0}}{\sum_{i=1}^{n} q_{i0}} \cdot 100} \cdot \text{Base} = \frac{\sum_{i=1}^{n} p_{i0} \cdot F_{iT}}{A} \cdot \text{Base}
\]

whereby:

\[
A = \frac{\sum_{i=1}^{n} p_{i0} \cdot q_{i0} \cdot 100}{\sum_{i=1}^{n} q_{i0}}
\]

and:

\[
F_{iT} = K_T \cdot \frac{f_{it}}{\sum_{i=1}^{n} q_{iT}} \cdot \frac{q_{iT}}{\sum_{i=1}^{n} q_{iT}} \cdot 100 \cdot c_{it}
\]

Index calculation can be reproduced in simplified terms by using the expression \(F_i\):

- Multiply the current price by the respective \(F_i\) weighting factor;
- take the sum of these products; and
- divide this by the base value \((A)\) which remains constant until a modification in the index composition occurs.

The \(F_i\) factors provide information on the number of shares required from each company to track the underlying index portfolio.

### 3.2 Computational Accuracy

The \(K_T\) chaining factors are used and published as figures rounded to seven decimal places.

The \(c_{it}\) adjustment factors are included in the index formula on the basis of six decimal places. In the event of several adjustment events coinciding, such as ‘ex-dividend’ and ‘ex subscription right’ markdowns on the same day, only one single adjustment factor (six decimal places) is computed using the total markdown. Where several adjustment events are required for a single share but at
different times, the factors rounded that way are multiplied by each other, and the product is rounded to six decimal places again.

When determining the $c_{it}$ adjustment factor for subscription rights, the rights value is used as a figure with two decimal places. Only in the case of a capital increase out of company reserves, such rights value is not rounded at all. If a dividend disadvantage has to be prorated (e.g. for three months), the value of such disadvantage used for index calculation is rounded to two decimal places.

The free-float factors are used as figures rounded to four decimal places.

The indices are rounded to two decimal places and published accordingly. The $F_1$ factors are rounded to five decimal places and published accordingly, changing with each share-specific adjustment.

### 3.3 Calculation Corrections

This section outlines the rules and procedures applicable in case of a calculation error meaning the provision of index values, use of index constituents or other elements or the application of weightings, capping, or other aspects of the index methodology in a manner that is not in line with this index methodology, e.g. due to a mistake, incorrect input data, etc.

#### 3.3.1 Rule-based Correction

STOXX Ltd. corrects a Calculation Error without delay on the dissemination day it occurred, provided that STOXX Ltd. becomes aware of such Calculation Error before 15:30 CET of that dissemination day and insofar as technical and operational feasible. STOXX Ltd. does not change intraday index constituents of an index.

If STOXX Ltd. became aware of a Calculation Error at or after 15:30 CET, STOXX Ltd. aims at correcting the Calculation Errors as of the end of the next dissemination day, including corrections to index constituents.

STOXX Ltd. amends without undue delay previous incorrect index values or input data only if required to calculate subsequent index values. Incorrect real-time index values disseminated before the effective time of the correction are not restated.

#### 3.3.2 Non-rule based Correction

If the above-outlined rule-based error correction cannot be applied, the relevant STOXX Committee assesses without undue delay:

- if and how the Calculation Error should be corrected, including if the index shall be restated, and/or
- if the dissemination of index values shall be suspended (Discretionary Rule, see Section 6.5.1).

An index should be restated, when the performance of the index (other than Selection Indices) can no longer be replicated. A suspension of index dissemination is triggered when the relevant STOXX
Committee decides that the correction will take significant time during which misleading index values could lead to financial, legal and reputational risks (Discretionary Rule, see Section 6.5.1).

STOXX Ltd. suspends the dissemination of an index at the latest at the end of the dissemination day after it became aware of a Calculation Error, if the Calculation Error has not been corrected by then.

STOXX Ltd. will resume the dissemination of the index as soon as the correct index calculation is feasible, and the correct historical values are available.

3.3.3 Notifications

In general, notifications take the form of an announcement on the DAX website (http://www.dax-indices.com). Announcements can (but need not, as determined by STOXX Ltd. from time to time) be published via financial relevant media.

With regard to Calculation Errors, STOXX Ltd. issues notifications in accordance with the following rules:

- STOXX Ltd. will publish a notification before correcting a Calculation Error. Notifications are effective immediately following their issuance, unless otherwise specified in the notification.
- The notification will specify if a Calculation Error will be corrected retrospectively. In case of retrospective correction, STOXX Ltd. will publish the notification using the new end of day closing price.
- If STOXX Ltd. decides under Section 3.3.2 that index dissemination is suspended until the Calculation Error is corrected also a resume notification is published specifying the point in time when index dissemination is resumed and the correction will take place.

STOXX Ltd. will refrain from the issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such Notification at a later point in time when such reasons have lapsed (Discretionary Rule, see Section 6.5). By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means (Discretionary Rule, see Section 6.5).

3.4 Cap Limit

On the day of regular quarterly chaining, the weighting of any single company in the GEX® is capped to 10 percent of the index capitalisation.

For this purpose, the index capitalisation is computed using the total number of all freely available shares. If any single class of shares accounts for a share of more than 10 percent in the capitalisation, the number of shares used as weight for that company is reduced to 10 percent of the index capitalisation (which is being reduced accordingly). Should yet another company exceed the cap limit after that, the capitalisation is to be determined with which both companies would account for exactly 10 percent of the revised index capitalisation. This procedure is repeated for as long as there
is no company exceeding the cap limit. Then the next smaller integer of shares resulting in the desired capitalisation is used as the new weight for calculating the index.

Where the capped share of a company falls or rises below or above 10 percent during the quarter, it will only be raised or lowered to 10 percent again on the following chaining date as the above-described procedure is repeated for every single chaining process.

3.5 Adjustments

The GEX Equity Indices are adjusted for exogenous influences (e.g. price-relevant capital changes) by means of certain correction factors, assuming a reinvestment according to the ‘opération blanche’.

The GEX Indices require a simultaneous adjustment of systematic price changes. The prerequisite for this is to calculate the correction factor on an ex-ante basis.

Consequently, already the first ‘ex’ price can be adequately included for index calculation purposes. The ex-ante incorporation of adjustments presupposes a general acceptance of the computation formula as well as a general availability of the parameters used.

All parameters necessary for the respective computation are available from STOXX Ltd. via its website (http://www.dax-indices.com) on the evening before each adjustment. As with all other adjustment processes, there may be differences between the computed values and the actually traded prices. However, since a preliminary correction is necessary, and any delay would be problematic, this procedure remains the most appropriate one.

The calculated adjustment factor and a synthetic price accordingly adjusted for this factor are used in the index from the ex-day of a share as long as there is no ‘ex’ price available.

3.5.1 Cash Dividends and Other Distributions

The $c_{it}$ adjustment factors for dividends, bonus and special distributions are calculated as follows:

$$c_{it} = \frac{p_{i,t-1}}{p_{i,t-1} - D_{i,t}} \cdot c_{it-1}$$

whereby:

$p_{i,t-1}$ = Closing price of the relevant share on the day before the ex-dividend day

$D_{it}$ = Cash dividend, bonus dividend or special distribution on day t

Within the framework of index calculation, the share price is thus modified by the amount of the respective cash distribution, without accounting for any corporation tax credit or capital gains tax deducted.
Dividends and bonus distributions are corrected only in terms of performance indices, with the computation also to be exclusively based on the cash dividend. Special distributions are taken account of in both performance and price indices.

### 3.5.2 Capital Increases

The $c_{it}$ adjustment factors for capital increases (against cash contributions, or out of company reserves) are determined as follows:

\[
c_{it} = \frac{p_{it-1}}{p_{it-1} - BR_{it-1}} \cdot c_{t-1}
\]

whereby:

\[
BR_{it-1} = \frac{p_{it-1} - p_B - DN}{BV + 1}
\]

and:

- $p_{it-1}$ = Closing price on the day before the ex day
- $BR_{it-1}$ = Theoretical value of subscription rights
- $p_B$ = Subscription price
- $BV$ = Subscription ratio
- $DN$ = Dividend disadvantage

For capital increases out of company reserves: $p_B = 0$

The dividend disadvantage is equivalent to the last dividend paid or the proposed dividend already published in ‘Börsen-Zeitung’, or via the Securities Master Data System (‘WSS - Wertpapier-Service-System’). For issues on which options are traded at Eurex, this procedure is coordinated with Eurex which takes account of the respective rights markdown to adjust the exercise prices of the various equity options.

### 3.5.3 Capital Reductions

The following formula is used to calculate the $c_{it}$ adjustment factor in the case of a simplified capital reduction:
\[ C_{it} = \frac{1}{V_{it}} \cdot C_{i,t-1} \]

whereby:

\[ V_{it} = \text{Reduction ratio of company i valid at time } t \]

In the event of a capital reduction and subsequent capital increase against additional contributions, the introduction of a new class of shares is handled as follows:

The old classes are removed, and the new one is included with the corresponding computation of a chaining factor. In this context, two assumptions are made: first that the last traded price could have been achieved for the purpose of the theoretical transaction, and the released capital would be invested in the new class on the subsequent day.

The new class is included in the index based on the respective opening price on the first day of the new quotation.

### 3.5.4 Nominal Value Changes and Share Splits

In the case of nominal value changes (or share splits), it is assumed that the respective price changes occur in proportion to the related nominal value (or number of shares). The adjustment factor reflects this assumption accordingly:

\[ C_{it} = \frac{N_{i,t-1}}{N_{it}} \cdot C_{i,t-1} \]

whereby:

\[ N_{i,t-1} = \text{Previous nominal value of share class } i \text{ (or new number of shares)} \]

\[ N_{it} = \text{New nominal value of share class } i \text{ (or previous number of shares)} \]

### 3.5.5 Subscription Rights on Other Share Classes

Where shareholders of a company (class A) are granted subscription rights to shares of another class (class B) of the same company, two different scenarios must be distinguished:

#### 3.5.6 The shares for which such a subscription right exists are already listed

The \( c_i \) adjustment factor is computed in line with a capital increase of class-A shares:
Theoretical value of subscription rights cannot be calculated on an ex-ante basis since there is no closing price with respect to the new class. Therefore, the index is corrected as follows:

The expected price for the new shares is determined on the basis of the price difference between ordinary and preference shares of comparable companies. This price is used in line with the procedure described above to compute the respective subscription right.

3.5.8 Spin-Offs

Where a company, A, spins off one of its divisions into new, independent companies, the adjustment is carried out as described below.

A theoretical markdown cannot be calculated on an ex-ante basis since there is no closing price for the shares of the new companies. The spun-off entities are additionally included in the index at a price of 0 on the ex-dividend date to avoid any index tracking errors. For a spin-off affecting the DAX®, for instance, this implies that the index is calculated based on more than 30 issues for at least one day. On their first trading day, following the Xetra® closing auction, the spun-off companies are removed from the index. At the same time, the c factor of company A is adjusted as follows:

$$c_{i,t}^A = \left(1 + \sum_{j=0}^N \frac{c_{i,t-1}^j \cdot p_{i,j-1}^A}{c_{i,t-1}^j \cdot p_{i,j-1}^A \cdot BV_j} \right) \cdot c_{i,t-1}^A$$

Where:
3.5.9 Subscription Rights on Fixed-Income Instruments

An evaluation of the respective fixed-income instrument on the basis of the net present value method is necessary to determine the value of rights. Future revenues are estimated without deducting capital gains tax and are first being discounted on the date on which payment of the subscription price becomes due.

No adjustment is required if there is no rights trading (in the event of issuing terms in line with prevailing market conditions).

3.5.9.1 Subscription rights on profit-participation certificates

The \( c_i \) adjustment factor for rights related to profit-participation certificates is calculated in the following way:

\[
c_i = \frac{p_{i,t-1}}{p_{i,t-1} - BR_{i,t-1}} \cdot c_{i-1}
\]

whereby:

\( p_{i,t-1} \) = Closing price of share \( i \) on the day before the ex day

\( BR_{i,t-1} \) = Theoretical value of subscription rights

Discounting is carried out using the actual/actual method.

With the purchase price being taken into account, the capital value at the time of payment is obtained according to the following equation:

\[
KW_{i,t-1} = -P + K_1 \cdot q^{-1} + K_2 \cdot q^{-\frac{365}{365}} \cdot q^{-1} + \ldots + (T + K_n) \cdot q^{-\frac{365}{365}} \cdot q^{-n+1}
\]

whereby:

\( KW_{i,t-1} \) = Capital value of the participation certificate on the day before the ex day

\( q = 1+r \)

\( r \) = Discounting interest rate
t = Period from the date of issue to the first interest due date (in days)
P = Purchase price of the profit-participation certificate
K_i = Coupon payment in year i
T = Redemption
n = Term of the participation certificate (in years)

The discounting interest rate applied here is equivalent to the yield of a zero bond with the corresponding maturity, plus a risk add-on determined in line with comparable instruments. The capital value is rounded to two decimal places.

Assuming that profit-participation certificates are offered using a z: 1 ratio, the value of rights (BR_{1,1}) per share is

\[ BR_{1,1} = \frac{KW_{1,1}}{z} \]

### 3.5.9.2 Subscription rights on bonds

The procedure is in line with that described in section 3.5.9.1, with the respective bond to be valued by means of the net present value method. After that, the subscription ratio is taken into account and the correction factor established.

### 3.5.9.3 Subscription Rights on Instruments with Embedded Options

The procedure for subscription rights that involve instruments vesting an option right also facilitates the computation of the various correction factors on an ex-ante basis. Experience with previous issues appears to support the chosen method as being a good approximation of actual market conditions.

### 3.5.9.4 Subscription rights on profit-participation certificates cum warrants

The \( c_4 \) adjustment factor for subscription rights on profit-participation certificates cum warrants is determined according to the following pattern:

1) Valuation of the fixed-interest component of the profit-participation certificates cum warrants issue

2) Valuation of warrants

3) Calculation of the value of subscription rights

4) Computation of the adjustment factor
to 1) Valuation of the fixed-interest component of profit-participation certificates cum warrants

The valuation of the fixed-interest component of profit-participation certificates cum warrants \((KW_{t-1})\) is consistent with the valuation of profit-participation certificates set out in section 3.11.

to 2) Valuation of warrants

Warrants are valued using the binomial option pricing model which permits dividend payments to be taken into account during computation. The dividend used is the average of the last three dividends paid. Where a dividend has already been announced, then the aggregate of this value and the two preceding dividend payments is taken for averaging purposes. The volatility used is the annualised 250-day volatility of the underlying instrument. The interest rate applied here is equivalent to the yield of a zero-coupon bond with a maturity corresponding to the option’s lifetime.

The option is valued at the time of issue of the respective profit-participation certificates cum warrants, irrespective of its exercise period. The option value is rounded to two decimal places.

The dilution effect is taken into account as follows:

\[
O = \frac{O_B \cdot N}{N + n}
\]

whereby:

- \(O\) = Option value
- \(O_B\) = Value of the option right without dilution effect
- \(N\) = Number of shares prior to the exercise of option rights
- \(n\) = Potential number of shares ensuing from the exercise of option rights

to 3) Calculation of the value of subscription rights

The capital value of the profit-participation certificate and the option value are aggregated to form the total value of a profit-participation certificate cum warrants.

Assuming that profit-participation certificates cum warrants are offered using a \(z:1\) ratio, the value of rights \((BR_{t-1})\) per share is

\[
BR_{t} = \frac{KW_{t-1} + O}{z}
\]

to 4) Computation of the adjustment factor

The adjustment factor is computed as follows:

\[
c_t = \frac{p_{t-1} - BR_{t-1}}{p_{t-1} \cdot c_{t-1}}
\]
3.5.9.5 Subscription rights on bonds with warrants or convertible bonds

Computation is in line with the procedure described in section 3.5.9.4 above. The fixed-interest and option components are valued on a separate basis and then aggregated. The dilution effect and subscription ratio are subsequently taken into account, and the adjustment factor is determined.

3.6 Changes in Composition of GEX®

3.6.1 New listings and deletions

The listing of a new class of shares in the Prime Standard or General Standard segments of the Frankfurt Stock Exchange leads to its inclusion in the corresponding All-Share index (Prime / Classic / Technology All-Share or CDAX®). The inclusion of any new listing in the GEX® may take place on the next chaining date at the earliest given that the listing happened before the relevant cut-off date.

Deletions from the various indices are effective after the close of trading on the day on which the respective share was last quoted in the corresponding segment.

After a new listing or deletion has occurred, a chaining factor is calculated in line with the quarterly chaining process in order to avoid a gap in the index, however, without adjusting the number of shares or the freefloat and $c_f$ factors.

3.6.2 Merger of companies

Companies which have been taken over are deleted immediately after their delisting, with the index to be chained accordingly. The capital of the company which has taken over remains unchanged. The $q_f$ and $f_f$ factors of the latter are subject to adjustment on the next regular chaining date, with no change to the $q_{io}$ factor.

In cases where the new shares do not constitute the continued quotation of one of the original companies, they are included in the index as a completely new issue, the current capital of which is reflected by $q_{io}$. The index is also chained accordingly.

Generally, the absorbed company is deleted at the last traded price of the company. If the absorbed company is not trading anymore (delisted or suspended before its deletion), a new artificial price based on the acquisition/merger terms is calculated and the absorbed company is kept/deleted with this price instead of the last traded one. For the calculation of the artificial price only ordinary cash and stock terms will be used. Other instruments such as Contingent Value Rights will not be considered.

<table>
<thead>
<tr>
<th>Payment Type</th>
<th>Artificial Price</th>
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<tbody>
<tr>
<td>Cash</td>
<td>Deletion Price = Cash term</td>
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<tr>
<td>Stock</td>
<td>Deletion Price = Close price acquirer*Stock term</td>
</tr>
<tr>
<td>Cash and Stock</td>
<td>Deletion Price = Cash term + Close price acquirer * Stock term</td>
</tr>
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<td>--------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Cash or Stock</td>
<td>Deletion Price = Cash term</td>
</tr>
</tbody>
</table>
4 Chaining

In line with the concept conceived by STOXX Ltd. for the GEX Equity Indices, dividend payments and capital changes are initially reflected through an adjustment of the respective $c_t$ adjustment factors. Quarterly chaining is carried out on the maturity date of the various equity index futures of Eurex, implying that on this day (i.e. on the third Friday of the last month of a quarter), the index is calculated for the last time on the basis of weights valid up to that point. Chaining is based on the Xetra® closing prices established on that day, with the new weights to be applied as from the following trading day.

A change in the index composition also becomes necessary in the event of an index component issue being or becoming subject to extraordinary circumstances, such as deletion, composition proceedings, bankruptcy, new admission, etc.

4.1 Business Forecast

The business forecast is published at the quarterly underlying data announcement date, five trading days before the chaining date (i.e. at the second Friday in March, June, September, and December). It contains the constituents weightings and cap factors for the new index compositions effective from the trading day following the third Friday of a review month.

The new number of shares, free float factors and closing prices used to determine the constituents weightings and cap factors are fixed at the trading day prior to the quarterly underlying data announcement date (T-6). For this purpose, the $c_t$ adjustment factors are set to 1.

The business forecast will be republished on the Wednesday before the chaining date (T-2), taking into account all corporate actions with ex-dates effective during the period between the quarterly underlying data announcement date and the chaining date (including delistings and IPOs) STOXX became aware of since the initial publication of the business forecast at the quarterly underlying data announcement date.
4.2 Regular Chaining

The quarterly chaining procedure encompasses the following measures:

▪ Changes to the composition of the GEX® (cf. chapter 2)

▪ The number of shares and the respective free-float-factors are updated in accordance with the capital changes carried out.

▪ The accumulated income from distributions and capital changes is allocated to the index component issues according to the respective new weights. For this purpose, the individual $c_{it}$ adjustment factors are set to 1.

▪ A chaining factor is calculated to avoid a gap in the respective index.

These measures help to prevent the weighting scheme from “ageing” due to capital changes and the accumulation of income.

Chaining is carried out in three steps:

a) *Calculation of the index value on the chaining date according to the old weighting scheme*

   The following applies accordingly:

   \[
   \text{Index}_i = K_T \cdot \frac{\sum_{i=1}^{n} p_{it} \cdot f_{it} \cdot q_{iT} \cdot c_{it}}{\sum_{i=1}^{n} p_{i0} \cdot q_{i0}} \cdot \text{Base}
   \]
This value corresponds to the closing index published on the date of chaining and is used with two decimal places (as published) for all subsequent calculations.

b) Computation of an interim value

The interim value is computed using the number of shares valid on the chaining date \( q_{i,T+1} \) and the current free-float factors \( ff_{i,T+2} \). The \( c_{it} \) adjustment factors are set to 1.

The following applies accordingly:

\[
\text{Interim value} = \frac{\sum_{i=1}^{n} p_i \cdot ff_{i,T+1} \cdot q_{i,T+1}}{\sum_{i=1}^{n} p_i \cdot q_i} \cdot \text{Base}
\]

The interim value is used as an exact figure for subsequent calculations.

c) Calculation of the new chaining factor

The following applies accordingly:

\[
K_{T+1} = \frac{\text{Index}_{T}}{\text{Interim value}}
\]

After chaining, the index is computed on the basis of the new chaining factor \( K_{T+1} \).

After calculation of the chaining factor, capital changes and dividend payments due on the date of chaining are taken into account via the \( c_{it} \) factor.

The \( F_i \) weighting factors of the index formula based on relative weights are calculated as follows:

\[
F_i = K_{T+1} \cdot \frac{ff_{i,T+1} \cdot q_{i,T+1} \cdot c_{it}}{\sum_{i=1}^{n} q_i} \cdot 100
\]

4.3 Unscheduled Chaining

In the event of a change in the index composition, chaining is carried out in line with the procedure described in section 4.1 above, however, without adjustment to the number of shares and the various \( c_{it} \) factors. Newly included issues are taken into account with their respective current number of shares.

Computation of the interim value is based on the component issues of the revised index portfolio.
Interim value = $\sum_{i=1}^{n} p_i \cdot f_{iT} \cdot q_T \cdot c_i \cdot \text{Base} \over \sum_{i=1}^{n} p_{i0} \cdot q_{i0}$

With the new chaining factor to result as

$K_{T+1} = \frac{\text{Index}_t}{\text{Interim value}}$
Limitations

This section applies in the event of Limitations that occur in case of

- insufficient rules, meaning the absence of a methodology rule, provision or procedure which leads to the failure of determining the respective index value or which leads to an index value that does not properly reflect the concept / nature of the index, e.g.:
  - performance of the index can no longer be physically replicated;
  - insufficiently available index constituents to fulfil the requirements of the Index Methodology; or
  - market disruption which results in the performance of the index being unable to be tracked,

- unclear rules, meaning a situation in which the rules leave multiple possible interpretations on how a certain rule shall be applied to a specific situation

- failing to produce index values as intended,

- data insufficiency, meaning a scenario in which the calculation of an index is no longer possible due to insufficient data quantity or quality, and

- extreme market events, meaning events that by their nature cannot be foreseen or whose impact on an index or the economic reality the index represented cannot be determined in advance. Examples may be, but are not limited to, the following: (i) a country announces changes to its currency convertibility or restrictions on capital flows; (ii) a country experiences a market disruption, an event that materially negatively influences the aggregated liquidity and market capitalization of entire markets.

If a Limitation has occurred, the IGC shall decide if and how the Limitation shall be rectified (Discretionary Rule, see Section 6.5). Any such rectification may comprise deviations from the index methodology which may apply as long as the Limitation persists (Discretionary Rule, see Section 6.5).

If a decision to deviate from the index methodology is taken, it will be communicated as soon as possible in form of an Announcement or Press Release. STOXX Ltd. will refrain from the issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such notification at a later point in time when such reasons have lapsed (Discretionary Rule, see Section 6.5). By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means.

Any measures will be implemented two dissemination days later and will enter into effect the next dissemination day after implementation, unless a different effective date is specified in the notification.
6 Methodology Review

The purpose of the methodology review is to maintain integrity of the index, i.e. that the index methodology remains executable and results in an accurate and reliable representation of the market / economic realities the index seeks to measure.

6.1 Frequency of Review

In order to ensure the index integrity is maintained, the methodology is reviewed annually and ad hoc if a Limitation has occurred. If a Limitation cannot be addressed with by a methodology review, this may give rise to an index cessation or index transition. STOXX Ltd. shall not be liable for any losses arising from any decisions taken as part of a methodology review.

6.2 Review Procedure

6.2.1 Initiation of Methodology Review

The IMC proposes an annual methodology review schedule for approval by the IGC (Discretionary Rule, see Section 6.5).

The IMC is in charge of initiating ad hoc methodology reviews in case of a Limitation or based on recommendations to initiate a Methodology Review by other STOXX Ltd. Committees (Discretionary Rule, see Section 6.5).

6.2.2 Decision and Escalation

The following STOXX Committees are responsible for making the decisions on amendments to an index methodology:

The IMC decides on changes to the index methodology, unless

a) a material change to the index methodology is proposed (see Section 6.2.1 below),

b) the change is triggered by an Unclear Rule or Insufficient Rule (as part of a Limitation, Section 5), or

c) it relates to a request for a market consultation

d) financial products relating to the index have a notional value/notional amount of more than EUR 100 mn.

If any of the conditions a) to d) above is met, the decision is taken by IGC.

6.3 Material Changes with Consultation

As described in the STOXX Changes to Methodology Policy and in STOXX Consultation Policy (publicly available on STOXX website), prior to proposed material changes to the index methodology, a consultation will be performed.
A change to an index methodology shall be considered material in the event of:

a) a substantial change in the index objective or market/economic reality the index aims to represent (e.g. market leader components vs. mid cap companies), or

b) a substantial change of the index methodology in aspects such as, but not limited to, the ones listed below and that would result in altering the overall concept or the nature of the index:
   i. calculation methods or formulas with a substantial impact on the index performance, or
   ii. rules regarding the determination of index constituents by application of the index methodology, or
   iii. rules regarding the determination of the weights of index constituents by application of the index methodology, or
   iv. rules regarding the treatment of corporate actions.

On the contrary, index methodology updates resulting from the application of existing methodology principles or minor clarifications of existing rules or corrections without altering the overall concept or the nature of the index are generally considered non-material.

The IMC determines whether an amendment is material as defined above. In case such determination is not possible, the proposed amendment shall be treated as material.

(Discretionary Rule, see Section 6.5.1).

In case of Changes to Methodology as described in STOXX Changes to Methodology Policy a STOXX consults with reasonably affected stakeholders (“Stakeholders”) prior to take decision.

Stakeholders mean (a) persons or entities who have an index license with STOXX regarding a benchmark administered by STOXX (Subscriber) and/or as far as STOXX is reasonable aware (b) persons or entities and/or third parties who own contracts or financial instruments that reference a benchmark administered by STOXX (Investors)

Taking into account the Principle of Proportionality, STOXX informs affected Stakeholders as follows:

- either via public consultation open to the entire market and performed via STOXX website;
- or, when the relevant Stakeholders are known, on a restricted basis directly on the Stakeholders e-mail address.

STOXX shall inform in writing the Stakeholders on:

- the key elements of the proposed relevant changes
- the rationale for any proposed relevant changes
- the specific questions to be answered
- the deadline for receiving feedback
The consultation shall enable Stakeholders to submit comments.

The standard consultation period shall be 1 month with the option to shorten or extend this period.

The IGC may decide to shorten the 1-month period in the following cases:

- in extreme or exceptional market conditions or analogous extraordinary situations
- in urgent cases, such as a situation in which the Index cannot be replicated anymore;
- in situations where there is no known Stakeholders impact or only a limited number of Stakeholders;
- in order to align the effective date of a proposed changed with Index Maintenance; e.g. an Equity/Bond Index Rebalancing, Index Review, and Corporate Action Adjustment, or
- any other similar cases applying the principle of proportionality.

The IGCs will consider the feedback received and decide whether the relevant changes shall become effective.

The IGC is not bound by any feedback received. Moreover, if the received feedback is ambiguous, or if no Stakeholders participated, the IGC may decide to conduct another consultation, which again will not be binding.

If the IGC decides that relevant changes shall become effective, STOXX will communicate a timeline on the implementation of the relevant changes, if not already communicated in the consultation material.

STOXX will after the consultation make available the Stakeholders feedback received in the consultation and STOXX’s summary response to those comments, except where confidentiality has been requested by the respective Stakeholders.

The decision will be communicated as soon as possible in the form of an Announcement or Press Release.

STOXX Ltd. will refrain from issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such notification at a later point in time when such reasons have lapsed.

By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means.
At the end of each consultation STOXX Ltd. will make available the feedback received from Stakeholders in the consultation together with a summary of its response to that feedback, except where confidentiality has been requested by the respective Stakeholders. (Discretionary Rule, see Section 6.5.1).

6.4 Non-Material Changes without Consultation

Non-material changes of the index methodology, including a description of the impact and the rationale, will be announced via Announcement or Press Release, effective immediately following publication, unless otherwise specified in the notification (Discretionary Rule, see Section 6.5). STOXX Ltd. will refrain from the issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such notification at a later point in time when such reasons have lapsed (Discretionary Rule, see Section Error! Reference source not found.). By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means.

6.5 Discretion

Save for the cases expressly described in this Guide, the index methodology is entirely rule-based and automatic. Discretion only applies if expressly stated and must be exercised as provided for in this Guide.

6.5.1 Exercise of Discretion

Discretion may only be exercised by STOXX Committee(s) (as defined hereafter) with a view to resolve issues arising in maintaining the prevailing index methodology in response to events, with an overarching aim to accurately and reliably measure the market or economic realities as defined in this Guide.

Discretion shall be exercised in line with the following principles:

- The body or person(s) exercising discretion must not be affected by a conflict of interest;
- The body or person(s) exercising discretion must have the requisite skills, knowledge and experience to exercise such discretion;
- All facts and circumstances relevant for the exercise of discretion must have been established and properly documented prior to the exercise of discretion;
- The exercise of discretion must comply with all applicable laws and regulations;
- The body or person(s) exercising discretion must act on the basis of the relevant facts and circumstances only, must give proper weight to the various considerations and ignore irrelevant facts and circumstances;
- The body or person(s) exercising discretion must act with a view to maintain the integrity of the market or economic reality by aiming to ensure that indices remain representative and can be replicated, taking into account, inter alia, some, or all of the following:
  - Relevance of the event to the DAX indices
The body or person(s) exercising discretion must act honestly, reasonably, impartially and in good faith.

As part of the decision-making process, STOXX may consult with external stakeholders.

**Discretionary Rule:** Any exercise of discretion must take into account the rationale of the index, the purpose of the rules with regard to which discretion is exercised, the objective to preserve market integrity and reliability of the index calculation to avoid undue market impact, the technical feasibility and economic reasonability, and the interest of licensees or investors.

The cases in which STOXX Ltd. may exercise discretion regarding the index methodology and its application are noted in the respective rules of this Guide.

The following bodies (hereafter each of them separately also referred to as “STOXX Committee”) are involved in the decision-making process relevant for the indices governed by this Guide:

- Product Initiation Committee (PIC),
- Product Approval Committee (PAC),
- Index Operations Committee (IOC),
- Index Management Committee (IMC),
- Index Governance Committee (IGC),
- Oversight Committee (OC),
- Management Board (MB).

The following table summarizes the cases in which STOXX Committee(s) may exercise discretion regarding the index methodology and its application:

<table>
<thead>
<tr>
<th>Case</th>
<th>Responsible STOXX Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index Termination and Transition</td>
<td>IGC</td>
</tr>
<tr>
<td>Sector Affiliation</td>
<td>IGC</td>
</tr>
<tr>
<td>Exclusion from Rankings</td>
<td>IGC</td>
</tr>
<tr>
<td>Deviation from Fast Exit/Fast Entry rules and Regular Exit/Regular Entry rules in exceptional cases</td>
<td>IGC</td>
</tr>
</tbody>
</table>
### Guide to the GEX Equity Indices

<table>
<thead>
<tr>
<th>Topic</th>
<th>Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure in case of a breach of the Basic Criteria</td>
<td>IGC</td>
</tr>
<tr>
<td>Determination of expected price to new shares in case of Subscription Rights on Other Share Classes</td>
<td>IGC</td>
</tr>
<tr>
<td>Procedure for Subscription Rights on Instruments with Embedded Options</td>
<td>IGC</td>
</tr>
<tr>
<td>Limitations</td>
<td>IGC</td>
</tr>
<tr>
<td>Review and approve treatment of Calculation Errors. Non-rule-based Correction.</td>
<td>IOC, IGC</td>
</tr>
<tr>
<td>Annual methodology review schedule</td>
<td>IGC</td>
</tr>
<tr>
<td>Initiation of ad hoc methodology reviews</td>
<td>IMC</td>
</tr>
<tr>
<td>Determination regarding materiality of changes to the index methodology</td>
<td>IMC,</td>
</tr>
<tr>
<td>Deviation from standard consultation period in case of material changes of the index methodology</td>
<td>IGC</td>
</tr>
<tr>
<td>Deviations from notification procedure in case of non-material changes of the index methodology</td>
<td>IMC</td>
</tr>
<tr>
<td>Extreme or exceptional market conditions or analogous extraordinary situations to be addressed in a fast track way (e.g. Pandemic)</td>
<td>IGC</td>
</tr>
<tr>
<td>Periodic review of current index methodologies (e.g. matching of underlying interest) including initiation of ad-hoc reviews of benchmarks or benchmark families and clarification of methodologies (if required).</td>
<td>IGC</td>
</tr>
<tr>
<td>(Annual) Review of the control framework (including identification of operational risks and definition of measures that address operational risks).</td>
<td>IOC, IMC</td>
</tr>
<tr>
<td>Review and approve reports on monitoring of outsourced service providers, contributors, risks and incidents reporting (Art. 10 BMR relevant)</td>
<td>IGC</td>
</tr>
<tr>
<td>Consideration and follow-up on the implementation of remedial actions based on results of internal and external audits.</td>
<td>IGC</td>
</tr>
<tr>
<td>Monitoring of input data (including input data from contributors).</td>
<td>IOC, IGC, OC</td>
</tr>
<tr>
<td>Review and approval of special cases identified during index review</td>
<td>IOC, IMC, IGC</td>
</tr>
<tr>
<td>Review and approval of complex corporate actions (disagreement on treatment of corp. action or application of rules)</td>
<td>IOC, IMC, IGC</td>
</tr>
<tr>
<td>Decisions with respect to complaints.</td>
<td>IGC</td>
</tr>
<tr>
<td>Review and approve periodic reporting requirements under the Periodic Review Policy.</td>
<td>IGC</td>
</tr>
<tr>
<td>Review and approve changes in case thresholds of significant or critical benchmarks exceeded and notify competent authority</td>
<td>IGC</td>
</tr>
<tr>
<td>Approval of introduction of new internal or strategic projects for new product ideas.</td>
<td>PIC</td>
</tr>
<tr>
<td>Responsibilities for clients requests: Decision to proceed or not or further analysis required.</td>
<td>PIC</td>
</tr>
<tr>
<td>Approval of launch of new products, including checks on suitability based on Positioning Paper. (including Regulatory Checklist, financial products that will be used and confirmation that any maintenance tool will be delivered by the launch date).</td>
<td>PAC, IGC</td>
</tr>
<tr>
<td>Responsibilities for clients, strategic or internal requests:</td>
<td></td>
</tr>
<tr>
<td>-Final estimation of costs and revenues and final launch date</td>
<td>PAC, IGC</td>
</tr>
<tr>
<td>-Final Positioning Paper (including Regulatory Checklist, financial products that will be used and confirmation that any maintenance tool will be delivered by the launch date).</td>
<td>PAC, IGC</td>
</tr>
</tbody>
</table>
6.6 **Contact**

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