

Zug, October 2nd, 2023

Overview of the Methodology Changes entering into effect March 18th, 2024

Dear customer,

STOXX Ltd., the operator of Qontigo's index business and a global provider of innovative and tradable index concepts, today published a series of new Index Guides for its DAX Index offering pursuant to methodological changes of the DAX Equity Index Framework announced on [March 27th, 2023](#).

This document provides a comparative overview of the methodological changes reflected in the DAX Equity Index Calculation Guide and the DAX Equity Index Methodology Guide entering into effect March 18th, 2024, in the tables below, as well as the section references to the respective rules both in the expiring DAX Index Guides and the new DAX Index Guides entering into force.

With this communication, STOXX Ltd. announces a deviation from the communication made on March 27th, 2023 with respect to spin-off rule and the eligibility of the spun-off for immediate addition. Following further deep dive analysis to structure the implementation of the corporate action it was found that the determination of eligibility of the spin-off was not in line with the Principles for Index Calculation outlined in section 2.1 of the DAX Equity Methodology Guide and it was therefore decided to not implement this rule change.

This document does not contain a complete list of official Index rules and is not a binding document. The purpose is to support the comprehensibility of the official new DAX Index Guides and should only be understood as a supporting material of such.

For the official index rules, please refer to the communications made for the DAX Index Guides:

[Guide to the Industry Classifications used by STOXX Ltd](#) – will contain the DAX Industry Classification (previously referred to as "Sector Classification").

[DAX Strategy Index Guide](#) – will contain only indices not related to equity underlying. The guide is available in the communication

[DAX Equity Index Methodology Guide](#) – will contain all equity underlying indices, including upcoming rules changes entering into effect March 18th, 2024. Reference is made to the communication which contains the new rules and an extended comparative document of expiring vs. new rules.

[DAX Equity Index Calculation Guide](#) – will contain all equity underlying indices, including upcoming rules changes entering into effect March 18th, 2024. Reference is made to the communication, which contains the new rules and an extended comparative document of expiring vs. new rules.

1. Changes to the DAX Index Calculation and Corporate Actions Treatment

Affected Index	Methodology Change	Former Rule	Applicable chapter in former index guide ¹	New Rule	Applicable chapter in new index guide ²
All DAX Equity Indices ³	Index Formula ⁴	Laspeyres index formula; implementation of corporate actions and index reviews via adjustment to the c_{it} and K_T factors.	6.1 Index Formulas (DAX Guide)	Divisor-based Laspeyres index formula; implementation of corporate actions and index reviews via adjustment to the divisor.	7.1. Index Formulas
	Dividend Reinvestments	Dividends smaller than or equal to 10% of the market capitalization of the distributing company are reinvested in the distributing stock via adjustments to the c_{it} factor.	8.1. Distributions (DAX Guide)	Dividends are reinvested in the whole index portfolio via adjustments to the divisor.	8.1 Corporate Actions
	Extraordinary Free float & number of shares adjustments	Extraordinary free float adjustments are only applied to selection indices.	5.1.4 Extraordinary Free Float Adjustments (DAX Guide)	Extraordinary free float adjustments (and number of shares adjustments) are applied to all indices.	8.2. Free Float Factors and Share Adjustments
	Extraordinary Free float & number of shares adjustments	Changes to the number of shares are only implemented at the next index review.	7.2 Chaining for Free Float Market Cap-Weighted Indices (DAX Guide)	Changes to the number of shares due to corporate actions <u>or</u> greater than 10% <u>or</u> greater than 10% as a combined metric with free float are implemented immediately. All other changes to number of shares are implemented at the index review.	8.2. Free Float Factors and Share Adjustments
	Extraordinary Free float & number of shares adjustments	Free float is adjusted extraordinarily in case the change is above 10 percentage points due to corporate action.	5.1.4 Extraordinary Free Float Adjustments (DAX Guide)	Free float is adjusted extraordinarily in case the change is above 5 percentage points due to corporate action.	8.2. Free Float Factors and Share Adjustments

¹ **DAX Guide** = Guide to the DAX Equity Indices (Version 11.3.5 – September 2023); **DAXglobals Guide** = Guide to the DAXglobal Equity Indices (Version 3.6.5 – August 2023); **World Luxury Guide** = Guide to the World Luxury Index (Version 1.4 – August 2023); **DAX Strategy Guide** = Guide to the DAX Strategy Indices (Version 3.48 – August 2023)

² Unless stated otherwise, please find applicable chapters in the new [DAX Equity Index Calculation Guide](#)

³ Corresponds to all indices referred to in the new **DAX Equity Index Methodology Guide**.

⁴ Please see Annex for a detailed overview of the changes in the DAX Equity Index calculation formula.

Extraordinary Free Float Adjustments – Tender Offers	In case of an ongoing tender offer, the target company's free float is adjusted following result publications if the change is greater than or equal to 10%.	5.1.4 Extraordinary Free-Float Adjustments (DAX Guide)	In case of an ongoing tender offer, the target company's free float is adjusted following result publications if the change is greater than or equal to 5%.	8.3.1. Target Company – Free-Float Adjustment
Tendered Shares	The target company's shares are replaced with the tendered shareline as soon as the acceptance threshold is met.	5.1.6 Conversion into Tendered Shares (DAX Guide)	The switch to the tendered shareline is announced after the end of the first offer period if the tender offer is successful. In this case, after the end of the additional offer period, the target company's shares are replaced with the tendered shareline.	8.3.3 Conversion Into Tendered Shares
Calculation & Dissemination Time	The blue chip indices start calculating as soon as a defined number of components have received an opening price (for DAX: all components have received opening prices, latest 9:06 CET).	6.3.4 Prices used, Calculation Frequency and Start (DAX Guide)	Each index starts calculating as soon as the first opening price for a component of that index is received (usually 9:00 CET for DAX).	3.2. Dissemination Period
Spin-Offs ⁵	Spin-Offs are added to the index with price of zero and are removed from the index after close on their first trading day. They're added permanently to All Share indices, if qualifying.	8.4 Spin-offs (DAX Guide)	Spin-Offs are added to the index with an estimated price and are removed from the index after close on their first trading day. They're added permanently to All Share indices, if qualifying.	8.4. Spin-Offs
Index Flags	Dissemination of index flags to indicate the state of index ticks.	6.3.6 Index Flags and Corrections (DAX Guide)	No dissemination of index flags.	-
Rights Offering	Rights issues are always applied as such without distinction based on the share ratio.	8.5. Subscription Rights on Equity (DAX Guide)	Distinctive treatment between standard rights issue and highly dilutive rights issue.	8.1.4. Rights Offering
Special Dividends	Special dividends are reinvested as gross amounts in price return indices.	8.1.1. Cash Dividends and Other Distributions (DAX Guide)	Special dividends are reinvested as net amounts in price return indices.	8.1.2. Special Cash Dividend

⁵ Determination of eligibility will not be implemented following deep dive analysis and resulting misalignment with Principles of the DAX Index Calculation

	Conversion of Preferred Shares into Ordinary Shares	<p>Specific rule that applies for the handling of conversion of preferred shares into ordinary shares:</p> <ul style="list-style-type: none"> a) Ordinary shares are already included in the index → Adjustment of number of shares only at next chaining date. b) Preferred shares are already included in the index → Preferred shares are replaced by the ordinary shares in the index without chaining. 	5.1.3 Conversion of Preferred Shares into Ordinary Shares (DAX Guide)	<p>No specific rule any longer for the conversion of preferred shares into ordinary shares in the new guide. Conversion is carried out on the basis of existing rules:</p> <ul style="list-style-type: none"> a) Ordinary shares are already included in the index → The number of shares is adjusted if the change is >10%. b) Preferred shares are already included in the index → Shares are deleted from the index and replaced according to the replacement rule applicable to the specific index. Does not apply to All Share indices. 	8.2. Free Float Factors and Share Adjustments & 8.5.3. Delisting
Dividend Points Indices	Special Dividends	Not considered	2.11 Dividend Points Indices (DAX Strategy Guide)	Reinvestment of the taxation amount	8.1.2. Special Cash Dividend
X-DAX	Calculation Time	X-DAX stops calculating in the morning as soon as DAX starts trading.	3.4.1. X-Indices (DAX Guide)	X-DAX stops calculating in the morning at 09:00:05 CET.	11. X-Indices (please see DAX Strategy Index Guide)
International Indices ⁶	Dissemination Calendar	Dissemination according to the Xetra calendar	<p>2.1. Region-oriented indices (DAXglobal Guide)</p> <p>1. General Index Information (World Luxury Guide)</p>	Dissemination according to the STOXX Global Calendar	3.1. Dissemination Calendars
	Dissemination Time	Dissemination between 09:00 and 22:15 CET	<p>3.1. Calculation Basis (DAXglobal Guide)</p> <p>1. General Index Information (World Luxury Guide)</p>	Dissemination between 00:00 and 22:15 CET	3.2. Dissemination Period

⁶ International Indices: DBIX Deutsche Börse India, DAXglobal BRIC, DAXglobal China, DAXglobal Agribusiness, DAXglobal Gold Miners, World Luxury Index

2. Changes to DAX Equity Index Methodology

Affected Index	Methodology Change	Former Rule	Applicable chapter in former index guide ⁷	New Rule	Applicable chapter in new index guide ⁸
All DAX Equity Indices	Free Float	Treasury shares are always considered as fixed holdings, irrespective of the size of the stake.	2.3 Free Float (DAX Guide)	Treasury shares are considered fixed holdings if the stake is greater than or equal to 5% of a company's number of shares.	5.7.2 Free Float
	Free Float	Shares subject to a statutory or contractual qualifying period of at least six months are always considered as fixed holdings, irrespective of the size of the stake.	2.3 Free Float (DAX Guide)	Shares subject to a statutory or contractual qualifying period are considered as fixed holdings if the combined size of the stake is equal to or greater than 5%, irrespective of the length of the period.	5.7.2. Free Float
	Underlying Data Announcement	The number of shares, free float factors and closing prices used to determine the constituents' weightings and cap factors effective at review are adjusted for all corporate actions (<u>including</u> cash dividends).	7.1 Business Forecast (DAX Guide)	The number of shares, free float factors and closing prices used to determine the constituents' weightings and cap factors effective at review are adjusted for all corporate actions (<u>excluding</u> cash dividends).	4.3.2 Underlying Data Announcement
DAX, MDAX, SDAX, TecDAX	Ranking list	In case of a trading segment change, the trading volume in the Quotation Board segment is taken into account for the calculation of the Order Book Volume.	4.1.1.2 Equity Index Rankings	In case of a trading segment change, the trading volume in the Quotation Board segment is not taken into account for the calculation of the Order Book Volume.	7.1. DAX, MDAX, SDAX, TecDAX
DAXsupersector Indices	Capping	10% capping limit on component level	3. General Index Information (DAX Guide)	No capping limit	6.4 DAX Sector Indices

⁷ **DAX Guide** = Guide to the DAX Equity Indices (Version 11.3.5 – September 2023); **DAXglobals Guide** = Guide to the DAXglobal Equity Indices (Version 3.6.5 – August 2023); **World Luxury Guide** = Guide to the World Luxury Index (Version 1.4 – August 2023); **DAX Strategy Guide** = Guide to the DAX Strategy Indices (Version 3.48 – August 2023)

⁸ Please find applicable chapters in the new [DAX Equity Index Methodology Guide](#)

	Liquidity Requirement	Only companies with an ADTV (average daily traded value) of at least €1 million qualify for the super sector indices.	3.3 Sector Indices (DAX Guide)	No ADTV requirement	6.4 DAX Sector Indices
World Luxury Index DAXglobal Agribusiness	Universe	Unspecified scope of index universe	1.1 World Luxury Index (World Luxury Guide) 2.2.1 DAXglobal Agribusiness (DAXglobal Guide)	International Equities Investable Universe applies	13.3. World Luxury Index 13.1. DAXglobal Agribusiness
DAXglobal China	Universe	Hongkong Stock Exchange, Singapore Stock Exchange, London Stock Exchange, Nasdaq and New Stock Exchange as eligible exchanges	2.1.3 DAXglobal China (DAXglobal Guide)	Deletion of Singapore Stock Exchange as eligible exchange	12.3. DAXglobal China
DAXglobal Gold Miners	Universe	Outdated scope of index universe	8.2 Eligible and non-eligible exchanges for selection of instruments and input data (DAXglobal Guide)	Updated scope of index universe	13.2. DAXglobal Gold Miners
DAXglobal China DAXglobal Gold Miners DBIX Deutsche Börse India World Luxury Index	Capping	-	-	Switch to equal weight capping in case of a shortfall of index components.	12.3. DAXglobal China 13.2. DAXglobal Gold Miners 12.1. DBIX Deutsche Börse India 13.3. World Luxury Index
DAXglobal BRIC	Extraordinary Replacements	The replacing stock enters the index with the same weight as the deleted stock.	4.9.3. Unscheduled Chaining	Admission of extraordinary replacements based on free-float market capitalization.	12.2. DAXglobal BRIC

World Luxury Index			(DAXglobal Guide) 2.6.3. Unscheduled Chaining (World Luxury Guide)		13.3. World Luxury Index
General All Share Scale All Share DAXsector All Share DAXsubsector All Share Scale 30 DAXglobal Agribusiness DAXglobal BRIC DBIX Deutsche Börse India World Luxury Index	Weighting Scheme	Full market capitalization weighted	3. General Index Information (DAX Guide) 3.3 Weighting and Capping Methods (DAXglobal Guide) 1.1 World Luxury Index (World Luxury Guide)	Free float market capitalization weighted	6. DAX All Share Indices 7.7. Scale 30 13.1. DAXglobal Agribusiness 12.2. DAXglobal BRIC 12.1. DBIX Deutsche Börse India
DAXplus Export Strategy	Weighting Scheme	Free float market capitalization weighted	2.3. DAXplus Export Strategy (DAX Strategy Guide)	Equal weighted	11.1. DAXplus Export Strategy
DAX Equal Weight idDAX 50 Equal Weight	Extraordinary Deletions	Processing of extraordinary replacements based on closing prices at t-1	7.2.2. Unscheduled Chaining (DAXguide) 3.1.8. Unscheduled Chaining	Processing of extraordinary replacements based on closing prices at t-4	7.3. DAX Equal Weight 14.1. idDAX 50 Equal Weight Index

DAXglobal China			(DAX Strategy Guide) 4.9.3. Unscheduled Chaining (DAXglobal Guide)		12.3. DAXglobal China
DAXglobal Gold Miners	Component Selection	Components with less than 0.5% index weight at review are not included in the index.	3.3. Selection Criteria (DAXglobal Guide)	No exclusion of components at review based on component weight.	13.2. DAXglobal Gold Miners
DAXplus Minimum Variance Germany DAXplus Maximum Sharpe Ratio Germany	Weight Factor Calculation	Weight factor calculation based on closing prices of the last trading day of the month preceding the review month.	3.4. DAXplus Minimum Variance and Maximum Sharpe Ratio Germany (DAX Strategy Guide)	Weight factor calculation based on closing prices of the Thursday before the 2 nd Friday in the review month, i.e. T-6.	10.1 DAXplus Minimum Variance Germany 10.2 DAXplus Maximum Sharpe Ratio Germany