July 27, 2022
Nikkei Inc.

Changes to the Index Guidebook and the Constituents Selection Rules of the Nikkei Stock Average

From May 23 to June 27, Nikkei consulted about the introduction of the "Weighting cap" on the constituents of the Nikkei Stock Average (Nikkei 225), and other amendments of the methodology. Nikkei asked 5 questions and the majority of the answers to all of these questions were affirmative. As a result, Nikkei concluded that its proposals were supported. For the purpose of clarification, Nikkei partially revised the proposed languages as presented in Exhibit 1 "Details of the changes to the Index Guidebook and the Constituents Selection Rules". The changes will be implemented from the periodic review in October 2022.

In addition to the 5 specific questions, Nikkei also invited consultation participants' "opinions and ideas to further improve the Nikkei 225" as question No.6. Summary of comments to the question No.6 is shown in Exhibit 2. Nikkei intends to treat these comments as valuable inputs to further improve the quality of the Nikkei 225.

Contact: Index Business Office, Nikkei Inc. https://www1.entryform.jp/nikkei_indexes_contact_en/

Exhibit 1: Details of the changes to the Index Guidebook and the Constituents Selection Rules
(Changes are underlined. Changes after the consultation are in **bold**)

① Introduction of the weight cap to the constituents of the Nikkei 225

[Index Guidebook] 3: Calculation method

Current Rule	Proposed rule at consultation	New rule after consultation
(Preamble) Adjusted stock price = stock price x price adjustment factor Nikkei Stock Average = sum of Adjusted stock price / Divisor	(Preamble) Adjusted stock price = stock price x price adjustment factor (*) Nikkei Stock Average = sum of Adjusted stock price / Divisor (*) For a constituent to which a capping ratio is applied, price adjustment factor will be replaced by "capped price adjustment factor".	Same as the left
(New)	(3) Capping ratio Capping ratio is a number which is used to temporally decrease the weight of a constituent when such weight exceeds a certain threshold ("weight cap threshold").	(3) Capping ratio Capping ratio is a number which is used to temporally decrease the weight of a constituent when such weight exceeds a certain threshold ("weight cap threshold").

	The capping ratio is applied, revised, or cancelled as stipulated below. Weight cap threshold is 12% upon introduction at the periodic review of October 2022. It will be reduced to 11% and 10% respectively at the periodic reviews in October 2023 and October 2024. For a constituent to which a capping ratio is applied, the price of such a constituent is adjusted by "capped price adjustment factor" as shown below. Capped price adjustment factor (CPAF) = Price Adjustment Factor x capping ratio CPAF is rounded down to the nearest 0.1. - If, on the base date of a periodic review, the weight of a constituent to which any capping ratio is not yet applied exceeds the weight cap threshold, a capping ratio of 0.9 is applied on the effective date of the constituent change resulting from the	The capping ratio is applied, revised, or cancelled as stipulated below. Weight cap threshold is 12% upon introduction at the periodic review of October 2022. It will be reduced to 11% and 10% respectively at the periodic reviews in October 2023 and October 2024. For a constituent to which a capping ratio is applied, the price of such a constituent is adjusted by "capped price adjustment factor" as shown below. Capped price adjustment factor (CPAF) = Price Adjustment Factor x capping ratio CPAF is rounded down to the nearest 0.1. - If, on the base date of a periodic review, the weight of a constituent to which any capping ratio is not yet applied exceeds the weight cap threshold, a capping ratio of 0.9 is applied on the effective date of the constituent change resulting from the

	periodic review. If a capping ratio was already applied to such a constituent, capping ratio will be decreased by 0.1. However, if no change is observed in the CPAF after the application of the new capping ratio, the capping ratio will be decreased further until there is a change in the CPAF. - If, on the base date of a periodic change, weight of a constituent to which a CPAF is applied is below 5%, the capping ratio will be increased by 0.1 on the effective date of the constituent change resulting from the periodic review. However, if no change is observed in the CPAF after the application of the new capping ratio, the capping ratio will be increased further until there is a change in the CPAF. If the current capping ratio is 0.9, capping ratio will be cancelled. - When a constituent to which CPAF is	periodic review. If a capping ratio was already applied to such a constituent, capping ratio will be decreased by 0.1. However, if no change is observed in the CPAF after the application of the new capping ratio, the capping ratio will be decreased further until there is a change in the CPAF. - If, on the base date of a periodic change, weight of a constituent to which a CPAF is applied is below 5%, the capping ratio will be increased by 0.1 on the effective date of the constituent change resulting from the periodic review. However, if no change is observed in the CPAF after the application of the new capping ratio, the capping ratio will be increased further until there is a change in the CPAF. If the **new** capping ratio **after the increment is 1**, capping ratio will be cancelled. - When a constituent to which CPAF is

	applied goes for a large-scale stock split or reverse split and the PAF is adjusted by the ratio of split or reverse split, the capping ratio may be revised so that the new CPAF does not change the weight of the constituent. For such a constituent, the capping ratio may have fractions after 0.1 and be increased/decreased by the number other than 0.1 in the next revision of the capping ratio. - In principle, the capping ratio is applied, revised, or cancelled on the effective date of the constituent change resulting from the periodic review. However, depending on the liquidity of the constituent, changes in the capping ratio may be implemented in two or more steps.	applied goes for a large-scale stock split or reverse split and the PAF is adjusted by the ratio of split or reverse split, the capping ratio may be revised so that the new CPAF does not change the weight of the constituent. For such a constituent, the capping ratio may have fractions after 0.1 and be increased/decreased by the number other than 0.1 in the next revision of the capping ratio. - In principle, the capping ratio is applied, revised, or cancelled on the effective date of the constituent change resulting from the periodic review. However, depending on the liquidity of the constituent, changes in the capping ratio may be implemented in two or more steps.

② Increase of the frequency of the periodic reviews to twice a year

[Constituent Selection Rules] 2: Rules of the Periodic Review, Preamble

Current Rule	Proposed rule at consultation	New rule after consultation

Constituents are reviewed annually as evaluated at the end of July (base date) in accordance with following rules. Results of the review become effective on the first trading day of October. The maximum number of the constituents reshuffled is 3.	Constituents are reviewed twice a year as evaluated at the end of January and July (base dates) in accordance with following rules. Results of the review become effective on the first trading day of April and October. The maximum number of the constituents reshuffled at a periodic review is 3.	Same as the left

For the increase in the frequency of the periodic reviews to twice a year, we have acknowledged a comment that this change might bring an impact on the index values due to increasing of the turnover. Nikkei will continue to examine the constituent change rule and its administration which will consider the continuity and turnover of the index while keeping regeneration of the index constituents.

③ Change in a liquidity measure, from "magnitude of price fluctuation by (trading) volume" to "magnitude of price fluctuation by trading value"

[Constituent Selection Rules] 2: Rules of the Periodic Review, ① Assessment of liquidity ("High Liquidity Group")

Current Rule	Proposed rule at consultation	New rule after consultation
Choose highly liquid stocks from the Tokyo Stock Exchange Prime Market and group them as the "High Liquidity Group". The measures to assess the liquidity are :	Choose highly liquid stocks from the Tokyo Stock Exchange Prime Market and group them as the "High Liquidity Group". The measures to assess the liquidity are :	Same as the left

① Trading value of the preceding 5 years ② Magnitude of price fluctuation by volume (defined as (high price/low price)/volume) in the preceding 5 years Top 450 (double the constituent count for the index) most liquid stocks in terms of two measures constitute the "High Liquidity Group".	① Trading value of the preceding 5 years ② Magnitude of price fluctuation by trading value (defined as (high price/low price)/trading value) in the preceding 5 years Top 450 (double the constituent count for the index) most liquid stocks in terms of two measures constitute the "High Liquidity Group".	

In addition to the above amendments, simple replacements of the words/concepts are made to the text of the Index Guidebook and the Constituents Selection Rules. Please refer to the revised Index Guidebook and Constituents Selection Rules for detail.

Exhibit 2: Summary of comments to Q6 “opinions and ideas to further improve the Nikkei 225”

In this consultation, Nikkei asked a general question (question No. 6) regarding possible measures to maintain and improve the quality of the Nikkei 225. Please find below the summary of the comments to this question No. 6.

[from Security & Financial institution] Price adjustment factor for a constituent with low free-float ratio should be lowered to reduce the weight in the index since index linked purchase of such shares has excessive impact on the market. Capacity of index linked asset management will be improved and so will the quality of the Nikkei 225.
[from Security & Financial institution] The Nikkei 225 is a simple index. It's what makes it so appealing.
[from Security & Financial institution] We would welcome further transparency on the liquidity calculations.
[from Security & Financial institution] Last year, Nikkei introduced a PAF assign rule for newly added stocks as their weight will be equal or less than 1%. Nikkei should consider introducing a rule to determine whether the PAF of such stocks should be increased at the subsequent periodic reviews. If the PAF of such stocks is increased, the impact of some highly priced stocks to the Nikkei 225 can be mitigated.
[from Security & Financial institution] Further clarification of the stock selection rules such as limiting the constituents in the same sector to 2 to 5 stocks or avoiding dual selection of parent and subsidiary shall be presented. A committee should be established to make such decisions, like the case of the DJIA.
[from Security & Financial institution] As the market environment changes drastically and major stocks and sectors continue to change, we expect Nikkei continues periodical consultations and listens to the opinions in the market to keep the Nikkei 225 as a vessel which reflects such changes

properly.
[from Business Corporation] The PAF should be in increments of 0.05 instead of the current 0.1 increments.
[from Self-employed, Individual, Others] To improve the situation where the Nikkei 225 is affected by a few highly priced constituents, Nikkei 225 should be calculated as a market cap weighted index, like S&P 500, rather than a price weighted index. Stocks with large market cap should be included to the index regardless of the industry sector.
[from Self-employed, Individual, Others] A weight restriction should be needed for a stock which is held over a long term due to shareholder special benefits.