

Index Consultation Regarding the Introduction of the “Weighting cap” on the  
constituents of the Nikkei Stock Average, and others

Nikkei Inc. is considering amendments to the methodology of the Nikkei Stock Average (Nikkei 225). Nikkei is amending the methodology, two years in a row, to better serve the users of the index either as a measure of the market or as an underlying for financial products.

Nikkei 225 is the best-known index of the Japanese equity market and widely used not only for evaluation of the equity market but for various financial assets. Nikkei keeps the basic features of the index unchanged, namely, its constituents selected from highly liquid stocks with considerations to the industrial sector balance. It will continue to be calculated as a price-weighted index and maintains continuity of the index with history of more than 70 years.

Based on the above policy, Nikkei intends to amend the methodology in consideration of the impact it might have on the market where the size of the assets linked to the index needs attention. Nikkei values the opinions received through this consultation and will continue to review the rules of the Nikkei 225 to reflect the changes in the market in the future.

Nikkei consults on the specific subjects listed below. The changes will be implemented from the periodic review in the year of 2022.

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

Considering the diversification of the constituents and maintenance/improvement of the quality of the Nikkei 225 as a yardstick of the market, Nikkei will introduce “cap” to the weight of constituents to keep the maximum weight under a certain level. In the calculation of the index, “Capping Ratio”, will be applied to reduce the weight of a constituent which is extremely high. The level of the weight to which the cap is applied

(weight cap threshold) will be 12% at the time of introduction and will be reduced to 11% and 10% at the periodic reviews in October 2023 and October 2024 respectively.

Currently, the Nikkei 225 is calculated as a sum of prices adjusted by the price adjustment factor (PAF) divided by the divisor. Under the new rule, if a constituent weight exceeds the weight cap threshold, a capping ratio will be considered in addition to the PAF. After introducing the capping ratio, the Nikkei 225 will be calculated as a sum of adjusted prices (by PAF or PAF + capping ratio) divided by the divisor. As such, the method of the index calculation is not affected.

[Example] When the price of a constituent is 90,000 yen and the PAF is 1, if the capping ratio of 0.9 is applied, the adjusted price in the calculation will be  $90,000 \times 1 \times 0.9 = 81,000$  yen.

The capping ratio of 0.9 will be applied to a constituent whose weight exceeds the weight cap threshold. If some capping ratio was already applied to such a constituent, the capping ratio will be decreased by 0.1.

Based on the increase of the frequency of the periodic review to twice a year as described under ② below, the weight cap threshold will be changed as follows.

Periodic review	Weight cap threshold
October 2022	12%
April 2023	12%
October 2023	11%
April 2024	11%
October 2024 and after	10%

If the weight of a constituent to which capping ratio is applied becomes lower than 5% due to decline in the share price etc. on the base date of a periodic review, its capping ratio will be increased by 0.1. The capping ratio will be cancelled if the capping ratio before the change is 0.9.

In principle, the capping ratio is applied, revised, or cancelled on the effective date of the constituent change resulting from the periodic reviews. However, depending on the liquidity of the constituent, changes in the capping ratio may be implemented in two or

more steps.

[Index Guidebook] 3: Calculation method, Preamble

Current Rule	Proposed new rule
Adjusted stock price = stock price x price adjustment factor	Adjusted stock price = stock price x price adjustment factor (*)
Nikkei Stock Average = sum of Adjusted stock price / Divisor	Nikkei Stock Average = sum of Adjusted stock price / Divisor
	(*) <u>For a constituent to which a capping ratio is applied, price adjustment factor will be replaced by “capped price adjustment factor”.</u>

[Index Guidebook] 3: Calculation method, (3) Capping ratio (numbers to the items below this new (3) will be increased by 1)

Current Rule	Proposed new rule
(New)	<p><u>Capping ratio is a number which is used to temporarily 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.</u></p> <p><u>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.</u></p> <p><u>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.</u></p>

	<p><u>Capped price adjustment factor (CPAF)</u> <u>= Price Adjustment Factor x capping ratio</u> <u>CPAF is rounded down to the nearest 0.1.</u></p> <p><u>- 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.</u></p> <p><u>- 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.</u></p> <p><u>- 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</u></p>
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	<p><u>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.</u></p> <p><u>- 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.</u></p>
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**② Increase of the frequency of the periodic reviews to twice a year**

To maintain the quality of the index and to reflect changes in the industrial structure, Nikkei has been reviewing and reshuffling the constituents of the Nikkei 225 once a year. Nikkei introduced an upper limit of 3 constituents change at a periodic review to mitigate the impact of the trading due to constituent reshuffle from the periodic review of 2021.

During the consultation regarding the upper limit rule, Nikkei received comments from respondents that such rule may impede timely transition of the constituents. While limiting the impact on the market and accelerating the transition of the constituents, Nikkei increases the frequency of the periodic review from once (in October) to twice (in April and October) a year. Upper limit of 3 per a periodic review is retained.

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

Current Rule	Proposed new rule
Constituents are reviewed <u>annually</u> as evaluated at the end of July (base <u>date</u> ) in accordance with following rules. Results of the review become effective on	Constituents are reviewed <u>twice a year</u> as evaluated at the end of <u>January and July</u> (base <u>dates</u> ) in accordance with following rules. Results of the review become

the first trading day of October. The maximum number of the constituents reshuffled is 3.	effective on the first trading day of <u>April and October</u> . The maximum number of the constituents reshuffled <u>at a periodic review</u> is 3.
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**③ Change in a liquidity measure, from “magnitude of price fluctuation by (trading) volume” to “magnitude of price fluctuation by trading value”.**

In the periodic review of the Nikkei 225, 450 stocks selected by liquidity constitute the “high liquidity group” and this group is the base for deletion and addition of the constituents. Currently the liquidity of the stocks is assessed by two measures, “trading value” and “magnitude of price fluctuation by volume” based on the past 5 years’ data. Nikkei plans to replace the latter by the “magnitude of price fluctuation by trading value”.

The magnitude of price fluctuation by volume was introduced in the methodology revision in April 2000. Since trading value is becoming common as a measure of the liquidity, Nikkei replaces trading volume by trading value.

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

Current Rule	Proposed new rule
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 :
① Trading value of the preceding 5 years ② Magnitude of price fluctuation by <u>volume</u> (defined as (high price/low price)/ <u>volume</u> ) in the preceding 5 years	① Trading value of the preceding 5 years ② Magnitude of price fluctuation by <u>trading value</u> (defined as (high price/low price)/ <u>trading value</u> ) 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	Top 450 (double the constituent count for the index) most liquid stocks in terms of two measures constitute the “High

Liquidity Group”.	Liquidity Group”.
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[Question]

Do you agree to the following proposed amendments?

1. Introduction of the weight cap to the constituents
2. Setting weight cap threshold initially to 12% and decreasing it down to 10% in steps.
3. Increasing (or cancelling) the capping ratio for constituents whose weight become lower than 5%
4. Increasing the frequency of the periodic review from once (October) to twice (April and October) a year.
5. Changing a liquidity measure from “magnitude of price fluctuation by (trading) volume” to “magnitude of price fluctuation by trading value”.
6. If you have opinions or ideas to further improve the Nikkei 225, please provide.

Please submit your opinion from the consultation section on the following URL.

<https://indexes.nikkei.co.jp/en/nkave/governance>

Consultation closing date: June 27, 2022 (JST)

Although your contribution to this consultation is respected, Nikkei makes a decision at its own discretion. The result of the consultation will be informed as a formal announcement of the new methodologies. Your contribution will not be published although a summary without identity may be used in our documents.

Contact: [https://www1.entryform.jp/nikkei\\_indexes\\_contact\\_en/](https://www1.entryform.jp/nikkei_indexes_contact_en/)