

(Reference Translation)

TSE Index Guidebook

(J-Stock Index)

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Tokyo Stock Exchange, Inc.

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Record of Changes

DATE	Changes
2013/8/13	* Adjustment rule for “Rights Offering” is added
2014/6/2	*Change for the Inclusion or Removal of Constituents (Corporate Consolidation, etc.)
2018/7/23	*Clarification of the treatment of “Rights Offering” and “Gratis Allotment of Shares”
2019/8/30	*Clarification of the Inclusion or Removal of Constituents
2020/3/31	*Revised the date for adjusting base market value following the shortening of stock settlement cycle to T+2
2020/12/25	Clarification of the stock price used for calculation, etc.

Introduction

- This document describes calculation methods and related matters concerning J-Stock Index, which is calculated and disseminated by Tokyo Stock Exchange, Inc. (TSE). If an event not specified in this document occurs, or if TSE determines that it is difficult to use the methods described in this document, TSE may calculate the index using an alternative method that it deems appropriate.
- Copyright of this document is owned by TSE and any copies, reproductions, and reprints of this document in whole or in part are prohibited in any form without the prior approval of TSE. This document is prepared solely for the understanding of indices calculated and published by TSE, and is not to be construed as a solicitation for trading any securities or related financial instruments. TSE shall accept no liability or responsibility for any loss or damage arising from errors, delays, or termination of the calculation or publication of J-Stock Index, changes to its calculation or publication method, the use of J-Stock Index or all or any part of this document or other similar events.
- TSE only calculates a price return version of the J-Stock Index.

I. Outline of Stock Price Index

- The J-Stock Index is composed of 100 issues chosen from the constituents of the JASDAQ Index, which comprises all domestic common stocks listed on the JASDAQ market, based on the market value and trading value of each issue (trading value is from auction trading on TSE. The same shall apply hereinafter).
- The base date of the index is February 28, 2002, and the base value is 1000.00 points.

II. Index Calculation

1. Outline

- The J-Stock index is calculated using market value weighting. The index is denominated in points and is calculated to the second decimal place (values beyond the second decimal are rounded).

2. Formula

$$\text{Index} = \frac{\text{CMV}}{\text{BMV}} \times \text{Base Point}$$

CMV = Current market value

BMV = Base market value

$$\text{Current Market Value} = \sum (\text{Number of Shares for Each Constituent} \times \text{Stock Price for Each Constituent})$$

3. Stock Price Used for Calculation

- The stock prices used for calculating and adjusting base market values for J-Stock Index are prices from auction trading on TSE and are determined according to the following order of priority:

(1) Special Quote or Sequential Trade Quote, (2) Contract Price, (3) Base Price for Index Calculation when neither (1) or (2) are available (determined in the following order: (1) Theoretical Ex-rights Price, (2) Most Recent Special Quote or Sequential Trade Quote on or before the previous trading day, (3) Most Recent Contract Price before the previous trading day.)

4. Number of Shares Used for Index Calculation

- The number of shares used for index calculation is the total number of listed shares.

$$\begin{aligned} \text{Number of Shares Used for Index Calculation for Each Stock} \\ = \text{Total Number of Listed Shares} \end{aligned}$$

- In general, the total number of listed shares used for index calculation in the above formula is equal to the number of listed shares, but in some cases these numbers are different due to corporate actions such as stock splits. For example, in a stock split, the number of listed shares changes on the listing change date, which comes after the effective date. On the other hand, the total number of listed shares used in index calculation (before FFW adjustment) changes on the ex-rights date, resulting to a brief period in which the two numbers are different.

5. Periodic Review

- A periodic review is conducted on the final business day of November each year. J-Stock Index constituents are selected from among JASDAQ Index constituents as of the base date, which is the last business day in September. Constituents are announced on the 5th business day of November.
- Out of the eligible constituents for the J-Stock Index, the 200 issues with the highest trading value (judged by the total trading value in the one year preceding the base date) are chosen, then 100 issues are selected from this group in descending order of market capitalization from among those issues that had a market value of at least ¥10 billion on the base date or an average market value during the 6 months preceding the base date. These 100 issues comprise the constituents for the J-Stock Index. (There may be cases where less than 100 issues are selected).
- Issues listed for less than 1 year that have a market value of at least ¥20 billion as of the base date are considered for inclusion based on total trading value from the issue's listing date to the base date.
- New constituents will not be added outside of the periodic review (except for cases in which a J-Stock Index constituent is delisted due to corporate consolidation or similar event with the new company established due to such stock transfer, etc. being immediately listed on the JASDAQ market).

III. Adjustment to Base Market Value

Whenever the market value of the index changes due to an increase or decrease in the number of constituent issues, capital raising, or similar events other than market fluctuations, the base market value for J-Stock Index is adjusted as follows to maintain continuity.

1. Events that Require Adjustments

(1) Inclusion or Removal of Constituents

	Events Requiring Adjustment		Adjustment Date*6	Stock Price Used for Adjustment
Inclusion	Periodic Review in November		Date of change	Stock price at the end of trading on the business day before adjustment
	New listing of a newly established company resulting from a corporate consolidation, etc.*1 that results in a J-Stock Index constituent being delisted and the new company being included in J-Stock Index.		New listing date *2	Base price
Delisting	New listing of a newly formed company resulting from a corporate consolidation, etc. (*1) that results in a J-Stock Index constituent being delisted and the new company being included in J-Stock Index.		Listing date of the newly formed company (normally two business day following delisting date) *2	Stock price at the end of trading on the business day before delisting date*3
	Delisting other than those stated above (e.g. mergers or acquisitions resulting in a non-surviving company)		Delisting date	Stock price at the end of trading on the business day before adjustment date
Removal	Designation as Securities to be Delisted		Four business days after designation *4	Stock price at the end of trading on the business day before adjustment date
	Change in listed market from JASDAQ to 1 st Section, 2 nd Section, or Mothers market		Date of change*5	Stock price at the end of trading on the business day before adjustment date
	Periodic review in November		Date of change	Stock price at the end

			of trading on the business day before adjustment date
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- *1: Consolidation, acquisition, merger or split (personnel split).
- *2: If the new listing date falls on a holiday, the following business day.
- *3: The stock price at the end of trading on the business day before the delisting date is used to calculate the index for the period from the delisting date to the removal date.
- *4: If the date of the designation falls on a holiday, the following business day.
- *5: Next business day when the date of change falls on a holiday.
- *6: Adjustments to the base market value are made after the end of trading on the business day before the adjustment date (i.e., before the market opens on the adjustment date). The same shall apply hereinafter.

(2) Changes in Number of Shares Used for Index Calculation

Event Requiring Adjustment	Adjustment Date	Stock Price Used in Adjustment
Public Offering	Additional listing date (day after payment date) *1	Stock price at the end of trading on the business day before adjustment date
Capital increase with third-party allotment of shares	Five business days after additional listing date (two business days after payment date)	Stock price at the end of trading on the business day before adjustment date
Capital increase with paid-in allotment to shareholders	Ex-rights date	Payment price per share
Exercise of subscription warrants	Last business day of the month following exercise	Stock price at the end of trading on the business day before adjustment date
Conversion of preferred stock, etc.	Last business day of the month following conversion	Stock price at the end of trading on the business day before adjustment date
Cancellation of treasury stock	Last business day of the month	Stock price at the end of

Event Requiring Adjustment		Adjustment Date	Stock Price Used in Adjustment
		following cancellation	trading on the business day before adjustment date
Merger / Acquisition	Situations in which a constituent of TSE-calculated indices*2 is the non-surviving entity (mergers/acquisitions between two issues that are both constituents of an index calculated by the TSE)	Delisting date of the non-surviving entity	Stock price at the end of trading on the business day before adjustment date
	Situations other than those described above	Additional listing date (effective date)	Stock price at the end of trading on the business day before adjustment date
Rights offering (limited to case where the allotted subscription warrant securities are listed)*3		Ex-rights date	Payment price per share
Company split (merged split)		Listing change date (effective date)	Stock price at the end of trading on the business day before adjustment date
Other adjustments*4		Last business day of the month in which the information published in "Sho-ho" (TSE Notice) or the last business day of the following month	Stock price at the end of trading on the business day before adjustment date

* Since market value does not change when there is a stock price revision made due to a stock split, gratis allotment of shares (limited to case where the allotted treasury stock), reverse split, etc., no adjustment is made to the base market value.

*1: If the additional listing date falls on a holiday, the next business day (the same applies hereafter)

*2: Constituents of TSE-calculated indices include domestic common shares, domestic preferred equity subscription securities, domestic participating classified stocks, foreign stocks with exclusive listing on TSE, and REITs.

*3: The number of shares for Rights offering used for calculating indices will correspond to the number of shares to

be allocated to shareholders. The case where the allotted subscription warrant securities are not listed is treated as "Exercise of subscription warrants".

*4: For example, cases in which an issuer of convertible bonds or other securities conducts a stock split; the number of shares calculated based on ratios for stock splits, reverse splits, paid-in allotment to shareholders, etc. is different than the final number of shares determined after the effective date; or revisions are made by listed companies after data has been reflected in index calculation.

(3) Data Source

- Information on the reason for base market value adjustments, details on the adjustment, the adjustment date and other data is available through the "Sho-ho" (TSE Notice) published daily by TSE based on reports, etc. made by listed companies.
- If a listed company revises the contents of a previously published report that resulted in an index adjustment, retroactive index adjustments will NOT be made based on the revised contents.

2. Adjustment Method

(1) Adjustment Method

- Base market value will be adjusted according to the formula below in order to maintain the continuity of the index:

$$\frac{\text{Previous Business Day Market Value}}{\text{Pre - Adjustment Base Market Value}} = \frac{(\text{Previous Business Day Market Value} \pm \text{Adjustment Amount})}{\text{New Base Market Value (After Adjustment)}}$$

Adjustment Amount = Increase (Decrease) in Number of Shares Used for Index Calculation × Stock Price Used for Adjustment

Therefore,

$$\text{New Base Market Value} = \frac{\text{Old Base Market Value} \times (\text{Previous Business Day Market value} \pm \text{Adjustment Amount})}{\text{Previous Business Day Market Value}}$$

(2) Adjustment Example

- If, for example, the old base market value is 20 trillion yen and the previous day's market value is 400 trillion yen, the J-Stock Index on the previous day will be:

$$\text{Previous Day J-Stock Index} = \text{¥400 tn} \div \text{¥20 tn} \times 100 = 2,000.00$$

- Now, suppose that Stock A increases the number of listed shares used for index calculation by 100 million shares due to a public offering. If the closing price of the stock on the previous day was ¥2,000, the adjustment amount is 100 million shares x ¥2,000 = ¥200 billion. The new base market value, therefore, is:

$$\text{New Base Market Value} = \text{¥20 tn} \times (\text{¥400 tn} + \text{¥200 bn}) \div \text{¥400 tn} = \text{¥20.01 tn}$$

- As illustrated below, if there is no price change in any constituent, the value for the J-Stock Index today is the same as the previous day: 2000 points. Thus, continuity in the index is maintained though adjustments to base market values even if the market value of constituents changes due to public offerings, etc.

$$(\text{¥400 tn} + \text{¥200 bn}) \div \text{¥20.01 tn} = 2,000 \text{ points}$$

IV. Other

1. Publication/Dissemination of Index Data

(1) Index Values

- The J-Stock Index values are disseminated in real-time (15 second intervals) through the Market Information System to securities companies, news media, and other institutions all over the country.

(2) Index Data

- Index data relating to the J-Stock Index (base market value, number of shares for each constituent, etc.) is provided for a fee through the Index Data Service.

2. Licensing

- TSE reserves all calculation, publication, and other rights pertaining to the J-Stock Index. As such, commercial use of the J-Stock Index in the composition and/or sale of financial products such as funds or linked bonds (including using the index as the basis

for options, swaps, warrants, or other OTC derivatives) or provision of index data requires a license from TSE.

3. Contact

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