

(Reference Translation)

# Tokyo Stock Exchange High-Speed Index Guidebook

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# 1 . Introduction

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- Tokyo Stock Exchange, Inc. (TSE) calculates and publishes “High-Speed Price Index” which is updated at the every last sales price change, “Best Offer Index” and “Best Bid Index”, which are calculated using best offer and bid quotes respectively (hereafter collectively called "High-Speed Index"),in accordance with the methods described in this document. When an event that is not specified in this document occurs, or if the TSE decides it is difficult to use the methods described in this document, the TSE may use an alternative method of index calculation as it deems appropriate.
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## 2. Outline

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### (1) Outline

- High-Speed Index consists of High-Speed Price Index updated at the every last sales price change, Best Offer Index calculated using best offer quotes and Best Bid Index calculated using best bid quotes. While the constituents of the High-Speed Index is the same as TOPIX etc, calculation and dissemination of the High-Speed Index is aimed to be completed on the millisecond level after the underlying stock price changes.
- The Constituent selection, Free-Float Weight (FFW), Number of shares for index calculation and Base Market Value applied to the Target indices below section (2) as described in the “Tokyo Stock Exchange Index Guidebook” are applied to High-Speed Index as well.

### (2) Target indices used for calculating High-Speed Index

- High-Speed Index is calculated as for the following indices:
  - a. TOPIX
  - b. TOPIX Core30
  - c. TOPIX 500

## 3. Calculation Method

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### (1) Calculation

- Index value is not expressed in Japanese yen but indicated in points rounded off to the second decimal place.

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

CMV: Current free-float adjusted market value

BMV: Base Market Value

- The base point and base date of indices are following.

Index	Base Date	Base Point
TOPIX	1968/01/04	100
TOPIX Core30, TOPIX500	1998/04/01	1000

- The CMV is calculated as the number of shares for index calculation multiplied by the prices for index calculation described in the following section (2).
- The same number of shares for index calculation and BMV for the Target indices described in the “Tokyo Stock Exchange Index Guidebook” are used.

### (2) Prices for index calculation

#### a. High-Speed Price Index

- The prices for the calculation of the CMV are prices from auction trading on TSE and are adopted based on the following priority.
  1. Special quote or sequential trade quote
  2. Contract price
  3. Base price for index calculations as obtained based on the following priority
    - i. Ex-rights theoretical price
    - ii. The latest special quote or sequential trade quote of the preceding day
    - iii. The latest contract price of the preceding day

b. Best Offer Index and Best Bid Index

Case		Prices for the calculation
When a best bid/offer quote exists	After decided opening price	Best quote price
	Before the opening price or first special quote is determined	In principle, the price at which aggregated buy orders and sell orders cross
When there is no best quote	If there is both buy and sell orders, and special quote is displayed	Special quote price
	If only bid OR offer quote exists	The price for the highest priority quote on the side where the quote exists. (Special quote price is used if displayed)
	If neither bid nor offer quote exists	Price used for High-Speed Price Index calculation described in above a.

## 4 . Others

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### (1) Publication

#### a. Index value

High-Speed Index is calculated and disseminated to securities firms and information vendors, etc. in real-time through the TSE's Market Information System (MAINS). Index values of High-Speed Index, such as open/high/low/close price, is not the official value of the Target indices.

#### b. Index data

The TSE provides daily index data such as base market value, number of shares for index calculation etc. through “Tokyo Market Information (TMI)”.

### (2) Licensing

The trademarks of TOPIX and Core30 are subject to the intellectual property rights owned by TSE. High-Speed Index calculated and published by the TSE are the intellectual property of the TSE. All rights regarding High-Speed Index including but not limited to calculation, publication, dissemination, and use of High-Speed Index are reserved by the TSE.

A license agreement with TSE is required when using the indices to create or sell financial products such as funds and linked bonds (including OTC derivatives such as options, swaps, warrants, etc.). Such agreement is also required when using the indices for commercial purposes such as dissemination to third parties.

### (3) Contact

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