

# Nikkei Indexes

## User's Guide

Index Business Office, Nikkei Inc.

## ■ About This Site

This site is managed by Index Business Office of Nikkei Inc. which manages the Nikkei's indexes such as Nikkei Stock Average (Nikkei 225). This site is prepared for in-depth understanding of the Nikkei's indexes, but is not for the purpose of soliciting any sale or purchase of financial instruments and like, which are based on, or otherwise refer to, the Nikkei's indexes. The contents of this site are subject to add, change or delete without notice. Please click "[contact](#)" in the menu bar on the left side of the pages to contact the Index Business Office if you have any inquiries regarding this site.

## ■ Brief Description of the pages

### - Top Page

The value of the Nikkei 225 at top of the page is updated automatically while Tokyo Stock Exchange opens. Click "More Details" at upper right corner to go to the detailed index page of Nikkei 225 to refer to the open, high, low value of Nikkei 225 in the day and the divisor.

"News&Release" displays the latest news and releases published by Nikkei on the "Nikkei Indexes". Important news and releases from Nikkei such as component changes in Nikkei 225, launch of a new index etc. are displayed at the top of the list with "Important" mark.

To go back to the Top Page from each page, please click the "Nikkei Indexes" Logo at the upper left corner of the page.

### - News&Release

"New&Release" summarizes the news and releases published by Nikkei on the "Nikkei Indexes" with screening function. By clicking the tags for indexes and events, news and releases which meet selected conditions are automatically shown. For example, a user can select the news and releases regarding the component changes of Nikkei 225 in 2010 by clicking "Nikkei225" from index category,

“ComponentChange” from event category and “2010” from pull-down list. The articles from 2000 to 2011 were reprinted from press releases posted at Tokyo Stock Exchange and index-related news published on the Nikkei's media in principle.

#### - **Current Values**

“Current Values” provides the current value of the indexes calculated and published by Nikkei. Click the index name to go to each detailed index page. Each index page contains the overview of the index, index value, news, charts etc. and provides the index guidebook, factsheet in PDF format, and 3 years of daily and 10 years of monthly index values in CSV format.

#### - **Download Center**

“Download Center” lists a summary of the PDF and CSV files that are provided on each index page for downloading at one place.

#### - **Daily Summary [Nikkei 225 Archives]**

“Daily Summary” is a summary page of Nikkei 225 related daily data and its components, to overview the equity market condition on a specific day in the past. It contains the open, high, low and closing values, divisor, intraday chart, the index-based valuation measures, top 10 components by index weight, sector weights, and others. The data are updated one by one after the market closes.

Click “Next day” to go to the next trading day page, and Click “Previous day” to go to the previous trading day page. Designate a specific day from Date picker to go to a specific day directly. Click a name of indicator with arrow symbol in a circle to refer to the historical data (recorded from September 30th, 2004).

#### - **Historical Data [Nikkei 225 Archives]**

“Historical Data” displays daily, monthly and annual index values of Nikkei 225 since May 16th, 1949 (inception date of Nikkei 225) and Open/High/Low values since

March 25th, 1985. The daily index valuation measures provided in “Daily Summary” are since September 30th, 2004.

Please note that the monthly index values and annual index values of Nikkei 225 are compiled from the daily closing value. For example, the monthly open is the closing value of the first trading day in the month and NOT the opening value of the first trading day in the month.

**- Records in Nikkei 225 [Nikkei 225 Archives]**

“Records in Nikkei 225” provides the top 20 days in terms of rise and fall records (i.e. “Rise width”, “Rise rate”, “Continuous rise”, “Fall width”, “Fall rate” and “Continuous fall”) of the Nikkei 225 since its inception date of May 16th, 1949.

**- Winning rate of the day [Nikkei 225 Archives]**

“Winning rate of the day” shows the rate(%) of the Nikkei 225’s rising on each day since its inception on a calendar format. In parentheses below the winning rate on each day are the number of “wins” (W) and “losses” (L) and “draws” (D) on the day. For example, “(27W23L1D)” means that the index was calculated 51(27+23+1) days and there were 27 rises, 23 declines and 1 draw on the date (same date on same month) in the past. The dates with the highest and lowest winning rates in each month are highlighted in green and red respectively.

**- Governance**

“Governance” contains information on the management of the Nikkei 225 and the other indexes. It also shows the procedure of the Consultation regarding the important issues on the Nikkei Indexes.

**- License**

All intellectual property rights including copyrights to the Nikkei Stock Average (Nikkei 225) and other various indexes are owned by Nikkei Inc. In the case of

using the Nikkei indexes for business purposes, please note the general matters in this page.

#### - **Subscription Service**

Nikkei Indexes "Premium Data Package" is an email & data service for financial professionals to manage their assets using Nikkei indexes e.g. Nikkei 225 in an efficient way at a reasonable cost. Annual contract and advanced payment are required. For more detail regarding "Premium Data Package", please refer to [this page](#).

#### ■ **Definition of the indicators**

- **Realized Volatility (RV)** on Nikkei 225 is calculated based on one minute intra-day returns in a day. As there are no index prices in the evening and nighttime (after the closing) and the lunch break (after the morning session), the returns at 9:01am and 12:31pm are calculated by the rate of changes from the previous day's closing and the closing in the morning session respectively.

$$RV = \sqrt{\sum_{t=1}^{300} (R_t)^2 \times 250} \times 100 \quad (\text{where } t = 1, 2, \dots, 300 \text{ when } t = 1 \text{ as } 9:01)$$
$$R_t = \ln \left( \frac{\text{Closing Value of Nikkei 225}_t}{\text{Closing Value of Nikkei 225}_{t-1}} \right)$$

- **Historical Volatility (HV)** on Nikkei 225 is calculated based on daily returns for the past 20 days.

$$HV = \sqrt{\frac{1}{20} \sum_{i=1}^{20} (R_i)^2 \times 250} \times 100$$
$$R_i = \ln \left( \frac{\text{Closing Value of Nikkei 225}_i}{\text{Closing Value of Nikkei 225}_{i-1}} \right)$$

For the detail of the calculation methodology of the **Nikkei Stock Average Volatility Index (VI)**, please refer to [the index guidebook](#).

- **Dividend Yield** shown in the “Daily Summary” are compiled with both simple average and index weight basis. In Monthly Factsheet, it contains index weight basis only.

$$\text{Dividend Yield (Simple Average)} = \frac{\sum(\text{Estimated DPS} \times \text{Unit of shares}/1000)}{\sum(\text{Stock Price} \times \text{Unit of shares}/1000)}$$

(In case Nikkei 225)

$$\begin{aligned} &\text{Dividend Yield (Index Weight Basis)} \\ &= \frac{\text{Nikkei 225 DPS}}{\text{Closing Value of Nikkei 225}} \left[ = \frac{\sum(\text{Estimated DPS} \times \text{Price Adjustment Factor})}{\sum(\text{Stock Price} \times \text{Price Adjustment Factor})} \right] \\ &\text{Nikkei 225 DPS} = \frac{\sum(\text{Estimated DPS} \times \text{Price Adjustment Factor})}{\text{Nikkei 225 Divisor}} \end{aligned}$$

(In case other indexes)

$$\begin{aligned} &\text{Dividend Yield (Index Weight Basis)} \\ &= \frac{\sum(\text{Estimated DPS} \times \text{Numner of shares or weight factor})}{\sum(\text{Estimated DPS} \times \text{Numner of shares or weight factor})} \end{aligned}$$

In the calculation, estimated DPS for whole financial year by Nikkei is used. Estimated DPS shifts to the next financial year on the next business day of the publication of earnings announcement for the end of fiscal year.

- **P/E** shown in the “Daily Summary” are compiled with both market cap basis and index weight basis. In Monthly Factsheet, it contains index weight basis only.

$$\begin{aligned} &\text{P/E (Market Cap Basis)} \\ &= \frac{\text{Sum of Market Capitalization}}{\text{Sum of Estimated Earnings}} \left[ = \frac{\sum(\text{Stock Price} \times \text{Numner of shares})}{\sum(\text{Estimated EPS} \times \text{Number of shares})} \right] \end{aligned}$$

(In case Nikkei 225)

P/E (Index Weight Basis)

$$= \frac{\text{Closing Value of Nikkei 225}}{\text{Nikkei 225 EPS}} \left[ = \frac{\sum(\text{Stock Price} \times \text{Price Adjustment Factor})}{\sum(\text{Estimated EPS} \times \text{Price Adjustment Factor})} \right]$$

$$\text{Nikkei 225 EPS} = \frac{\sum(\text{Estimated EPS} \times \text{Price Adjustment Factor})}{\text{Nikkei 225 Divisor}}$$

(In case other indexes)

P/E (Index Weight Basis)

$$= \frac{\sum(\text{Stock Price} \times \text{Numner of shares or weight factor})}{\sum(\text{Estimated EPS} \times \text{Number of shares or weight factor})}$$

In the calculation, estimated EPS by Nikkei is used. Estimated EPS shifts to the next financial year on the next business day of the publication of earnings announcement for the end of fiscal year. Market capitalization of a component stock is calculated with the number of issued common shares excluding treasury stocks (the number of issued common shares including treasury stocks had been used until Jan 23, 2015). Estimated EPS is calculated by dividing estimated earnings by the number of issued common shares excluding treasury stocks (same as above).

- **P/B** shown in the "Daily Summary" are compiled with both market cap basis and index weight basis. In Monthly Factsheet, it contains index weight basis only.

P/B (Market Cap Basis)

$$= \frac{\text{Sum of Market Capitalization}}{\text{Sum of Equity Capital}} \left[ = \frac{\sum(\text{Stock Price} \times \text{Number of shares})}{\sum(\text{BPS} \times \text{Number of shares})} \right]$$

(In case Nikkei 225)

P/B (Index Weight Basis)

$$= \frac{\text{Closing Value of Nikkei 225}}{\text{Nikkei 225 BPS}} \left[ = \frac{\sum(\text{Stock Pirce} \times \text{Price Adjustment Factor})}{\sum(\text{BPS} \times \text{Price Adjustment Factor})} \right]$$

$$\text{Nikkei 225 BPS} = \frac{\sum(\text{BPS} \times \text{Price Adjustment Factor})}{\text{Nikkei 225 Divisor}}$$

(In case other indexes)

$$P/E \text{ (Index Weight Basis)} = \frac{\sum(\text{Stock Price} \times \text{Number of shares or weight factor})}{\sum(\text{BPS} \times \text{Number of shares or weight factor})}$$

In the calculation, BPS reported on most recent quarterly financial result is used. It had used BPS on annual financial result at the end of fiscal year only until May 31, 2016. The book value used for BPS has been based on common stock (i.e. excluding capital payment through preferred stocks) since June 1, 2016. BPS shifts to the most recent financial result on the next business day of the publication of earnings announcement. Market capitalization of a stock is calculated with the number of issued common shares excluding treasury stocks (the number of issued common shares including treasury stocks had been used until Jan 23, 2015). BPS is calculated by dividing equity capital by the number of issued common shares excluding treasury stocks (same as above).

- **ROE** shown in the Monthly Factsheet is compiled with index weight basis.

$$ROE = \frac{\sum(\text{Estimated EPS} \times \text{Number of shares or weight factor})}{\sum(\text{BPS} \times \text{Number of shares or weight factor})} \left[ = \frac{\text{PBR}}{\text{PER}} \right]$$

- **Total Market Cap** and **Total Trading Value** measure sum of the market capitalization values and sum of trading values of the Nikkei 225 components respectively. Figures with "**Share in Market**" represent the percentages of "Total Market Cap" and "Total Trading Value" of Nikkei 225 components to the total market cap and total trading value of domestic stocks in Tokyo Stock Exchange (TSE) Prime Market (the target market had been TSE 1st section until April 1, 2022).

- **Nikkei 225 In Other Currencies** are denominated in both spot rate of US dollar and Euro which are used in the calculation of the Nikkei 225 Currency Hedged Index.

$$\text{Nikkei 225 (USD Denominated)} = \frac{\text{Closing Value of Nikkei 225}}{\text{Spot Rate of USD/JPY}}$$

$$\text{Nikkei 225 (EUR Denominated)} = \frac{\text{Closing Value of Nikkei 225}}{\text{Spot Rate of EUR/JPY}}$$

For the details of the calculation methodology for each index, please refer to the index guidebook on the each index page or “Download Center”.

## ■ Update Schedule on "Nikkei Indexes"

The Nikkei indexes and indicators in this site are updated as scheduled below. However, the site will not be updated on the Exchange Holidays.

Nikkei Stock Average (Nikkei 225) Nikkei 225 Leveraged Index Nikkei 225 Inverse Index Nikkei 225 Double Inverse Index JPX-Nikkei Index 400 JPX-Nikkei Mid and Small Cap Index Nikkei SEG-REIT Index Nikkei 225 Climate Change 1.5 °C Target Index	Real time	9:00 am - 3:00 pm JST
Nikkei Stock Average Volatility Index	Real time	9:00am – 3:15 pm JST
Nikkei 225 Currency Hedged Index	Daily	Next Business Date (roughly 2:00 pm JST)
JPX-Nikkei 400 Currency Hedged Index	Daily	Next Business Date (roughly 9:30 am JST)
Nikkei 225 DP Nikkei 225 EDP "Price Adjustment Factor" of the Nikkei 225 components	Daily	Roughly 2:30 pm JST
Other indexes	Daily	After the TSE market closes (roughly 4:00 pm JST)
Top 10 components by Weights etc.	Daily	After the TSE market closes (roughly 4:00 pm JST)
Records in Nikkei 225	Daily	roughly 6:30 pm JST
Valuation Measures (P/E, P/B etc.)	Daily	roughly 7:00 pm JST
Nikkei 225 Divisor	Daily	roughly 9:00 pm JST
Component Weights (Nikkei 225)	Monthly	First business date on next month
Component Weights (JPX-Nikkei 400, JPX-Nikkei Mid Small)	Monthly	First business date on the month after next
Monthly Factsheet	Monthly	First business date on next month

## ■ About the contents of this site

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Appendix: List of Data Provision by Index

Index Name	Interval	Component List	Component Weights	Others
Nikkei Stock Average (Nikkei 225)	Real	✓	✓	History of Changes
Nikkei 225 Climate Change 1.5°C Target Index	Real	✓	✓	ESG Factors
Nikkei 225 Total Return Index	Daily			Ex-dividends
Nikkei 225 Covered Call Index	Daily			
Nikkei 225 Covered Call ATM Index	Daily			
Nikkei 225 Risk Control Index	Daily			
Nikkei 225 Leveraged Index	Real			
Nikkei 225 Inverse Index	Real			
Nikkei 225 Double Inverse Index	Real			
Nikkei 225 USD Hedged Index	Daily			
Nikkei 225 EUR Hedged Index	Daily			
Nikkei Stock Average Volatility Index	Real			
Nikkei 225 VI Futures Index	Daily			
Nikkei 225 Domestic Exposure 50 Index	Daily	✓		
Nikkei 225 Global Exposure 50 Index	Daily	✓		
Nikkei 225 Dividend Point Index	Daily			
Nikkei 225 Estimated Dividend Point Index	Daily			
Nikkei 225 High Dividend Yield Stock 50 Index	Daily	✓	✓	Dividend Yield
Nikkei Consecutive Dividend Growth Stock Index	Daily	✓		
Nikkei Progressive and High Dividend Stock Index	Daily	✓		
Nikkei ESG-REIT Index	Real	✓	✓	
Nikkei High Yield REIT Index	Daily	✓	✓	Dividend Yield
JPX-Nikkei Index 400	Real	✓	✓	
JPX-Nikkei Mid and Small Cap Index	Real	✓	✓	
JPX-Nikkei 400 Net Total Return EUR Hedged Index	Daily			

JPX-Nikkei 400 Net Total Return USD Hedged Index	Daily			
JPX-Nikkei 400 Net Total Return GBP Hedged Index	Daily			
JPX-Nikkei 400 Net Total Return CHF Hedged Index	Daily			
JPX-Nikkei 400 Leveraged (2x) Index	Daily			
JPX-Nikkei 400 Inverse (-1x) Index	Daily			
JPX-Nikkei 400 Double Inverse (-2x) Index	Daily			
Nikkei Stock Index 300	Daily	✓	✓	History of Changes
Nikkei 500 Stock Average	Daily	✓		