

### Index rulebook

The Nomura Agribusiness Index comprises stocks of Japanese companies engaged in the agriculture, forestry, and fishery businesses (collectively, "agribusiness"). The index provides a benchmark for passive investment funds to create portfolios that track the share price performance of Japanese agribusiness stocks.

The scope of the index is wide, covering not only the primary industries of agriculture, forestry, and fisheries, but also related manufacturing industries such as food and beverages, agrochemicals, and agricultural machinery, and retailing/wholesale industries such as beverage and food retailing, agricultural, forestry and fishery product wholesaling, fertilizer and feedstuff wholesaling, and agricultural machinery wholesaling.

The index comprises Japanese stocks of companies where agribusiness sales account for 5% or more of total sales. We use weighted-average market cap for stock weights but also set a ceiling for a stock's index weight to prevent the index from being excessively weighted toward large caps. We also make the index more investible for passive investors by screening out stocks with low liquidity.

#### Characteristics of the Nomura Agribusiness Index

- The agribusiness sales of individual companies are calculated by Nomura based on quantitative rules, using companies' securities filings, Tokyo Stock Exchange sector categories, and Japan Standard Industrial Classification data published by the Ministry of Internal Affairs and Communications, among other materials;
- The index consists of Japanese stocks of companies where agribusiness sales account for 5% or more of total sales;
- As a rule, the index is reconstituted annually to reflect companies' involvement in agriculture, forestry and fishery industries;
- While the index is weighted by market cap, individual stock weights are capped at 5% to prevent the index from being excessively weighted toward large caps;
- To make the index more investible, individual stocks with low free float weight (FFW) adjusted market caps and low average daily turnover are screened out.

### Global Markets Research

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# 1. Introduction

The Nomura Agribusiness Index is a Japanese equities index consisting of the stocks of Japanese companies involved in agribusiness. The index provides a benchmark for passive investment funds to create portfolios that track the share price performance of Japanese agribusiness stocks.

The term agribusiness is used in its broadest sense to encompass not only the primary industries of agriculture, forestry, and fisheries, but also secondary and tertiary industries, such as agribusiness-related manufacturing, retailing, and wholesaling industries. The agribusiness sales of individual companies are calculated by Nomura based on predetermined quantitative rules, using securities filings, TSE sector categories, and Japan Standard Industrial Classification data published by the Ministry of Internal Affairs and Communications, among other materials. Stocks belonging to the TSE's fishery, agriculture & forestry category are all included in the stock selection universe.

The index consists of common stocks listed on Japanese stock exchanges, for which the company gains at least 5% of their total sales from agribusiness. Under the annual reconstitution of the index, stocks with low liquidity are screened out to ensure investability. While the portfolio is weighted by market cap, weights of individual stocks are capped to prevent the index from being excessively weighted toward large caps.

**Fig. 1: Examples of agribusiness invested in by the Nomura Agribusiness Index**

Primary industries	Secondary industries	Tertiary industries
<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Forestry</li> <li>• Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>• Food product manufacturing</li> <li>• Tobacco and beverage manufacturing</li> <li>• Fertilizer, feedstuff, and agrochemical manufacturing</li> <li>• Agricultural machinery manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>• Beverage and food retailing</li> <li>• Agricultural, forestry, and fishery product w wholesaling</li> <li>• Fertilizer and feedstuff wholesaling</li> <li>• Farm machinery w wholesaling</li> </ul>

Source: Nomura

## 2. Index composition rules

### 2.1 Periodic reconstitutions

#### 2.1.1 Execution and announcement of regular reconstitutions

Periodic reconstitutions take place once a year, on the first business day of December (ie, after close of trading on the last business day in November).

As a rule, index changes are announced on the website of Nomura Securities at 4pm (Tokyo time) 10 business days before a periodic reconstitution, except but not limited to cases of unforeseen circumstances or when information cannot be confirmed.

Website (Japanese only): <http://qr.nomura.co.jp/jp/agri/index.html>

#### 2.1.2 Reconstitution base date

The reconstitution base date is the 15th of the month that is two months prior to the periodic reconstitution date (or the preceding business day if the 15th is a non-business day). Component stocks and the number of shares in each component stock to be included in the index following its periodic reconstitution are determined on the basis of calculations using data as of the reconstitution base date.

#### 2.1.3 Stock selection universe

The universe of stocks eligible for inclusion in the index comprises all listed stocks<sup>1</sup> as of the reconstitution base date. However, the following stocks are excluded from the stock selection universe.

- Equities other than common stock  
As a general rule, only common stock is included in the stock selection universe. However, exceptions to this rule will be made if necessary.
- Stocks assigned for delisting  
Stocks assigned for delisting are not included in the universe.
- Stocks under supervision  
Stocks designated as securities under supervision are not included in the universe.
- TOB target companies  
Stocks that are the targets of tender offers may be removed from the universe of stock selection only if all of the following requirements are met:
  - The offer close date is between the reconstitution base date and the periodic reconstitution date.
  - The company conducting the tender offer announces that it will acquire all of the shares it does not already own of the target company, and
  - The company conducting the tender offer is planning to acquire all of the stock of the target company in exchange for money or stock of the company conducting the offer. In addition, the target company agrees to the offer.
- Listed investment trusts/REITs
- Foreign stocks  
Stocks listed on foreign sections of Japanese exchanges or stocks regarded as overseas companies are excluded, even if these stocks are traded in the Japanese market.
- Other exceptions  
Latent stocks, warrants, and rights on them are excluded. The Bank of Japan is also excluded.

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<sup>1</sup> Tokyo Stock Exchange (1st Section, 2nd Section, Mothers, JASDAQ, TOKYO PRO Market), Nagoya Stock Exchange, Sapporo Securities Exchange, and Fukuoka Stock Exchange.

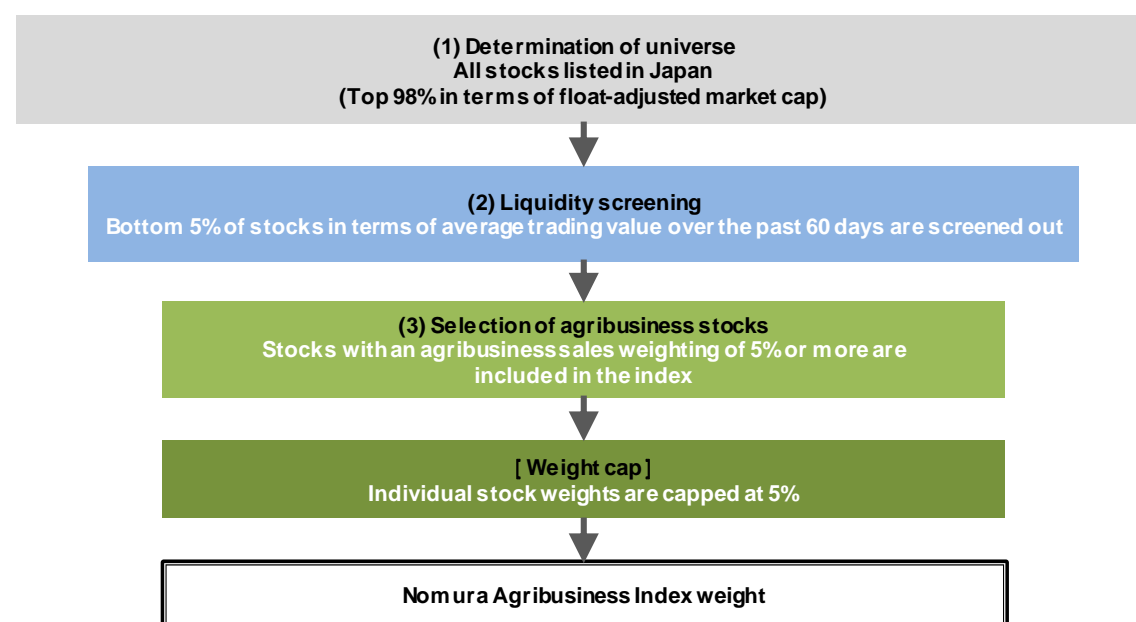
### 2.1.4 Stock selection<sup>2</sup>

Stocks are selected for the Nomura Agribusiness Index from the stock selection universe as defined in Section 2.1.3. However, stocks are screened to limit inclusion in the index of stocks with low market caps and low liquidity (Figure 2).

#### Stock selection process

- The universe comprises the top 98% of stocks under Section 2.1.3 in terms of float-adjusted market cap<sup>3</sup>.
- Stocks ranked in the bottom 5% in terms of average trading value over the past 60 days<sup>4</sup> are removed from the universe.
- Stocks for which agribusiness sales account for 5% or more of the subject company's most recent total sales are included in the Nomura Agribusiness Index<sup>5</sup>.

Fig. 2: Overview of Nomura Agribusiness Index composition methodology



Source: Nomura

<sup>2</sup> The stock selection criteria may be revised at Nomura's discretion in response to changes in the economic situation, etc. In this case, a revised rulebook will be published at least two weeks before the periodic reconstitution date.

<sup>3</sup> In order to reflect the number of shares that investors can actually invest in, the stable shareholding (the number of shares considered to be held on a stable basis) out of the number of shares outstanding for index calculation purposes is first calculated, and the free-float market cap is then calculated as follows:

Nomura composite share price × (shares outstanding for index calculation purposes - stable shareholding)

The Nomura composite share price is the price on the exchange that is judged to have the most accurate price for the stock, based on the percentage of days traded and trading volume over the previous 60 business days (i.e., its primary exchange). As a general rule, the primary exchange is selected on a daily basis. The share price is selected according to the following order of precedence:

Contract price on selected exchange (see note) > standard price on selected exchange > Nomura composite share price on previous business day

Note: Priority is given to the special quotation price or continuous confirmed quotation price on the selected exchange if these are available.

<sup>4</sup> Average trading value over the past 60 days is calculated as the average of [Nomura composite share price × trading volume] over the past 60 days, including the reconstitution base date.

<sup>5</sup> The agribusiness sales of individual companies are calculated by Nomura based on pre-determined quantitative rules, using securities filings, TSE sector categories, and Japan Standard Industrial Classification data published by the Ministry of Internal Affairs and Communications, among other materials. Stocks belonging to the category of fishery, agriculture & forestry among the TSE's 33 sector categories that meet criteria (1) and (2) in the stock selection process are included in the index.

### 2.1.5 Number of shares included in index for each component stock

Weights for each component stock in the index are calculated using the float-adjusted market cap as of the reconstitution base date. First, the float-adjusted market cap weight for each component stock is calculated, with individual stock weight capped at 5%. The combined weight of stocks for which float-adjusted market cap weights exceed 5% is subtracted from 1, and this figure is proportionately allocated among other component stocks based on float-adjusted market cap size to determine index weights for individual stocks.

The number of shares included in the index for each component stock is calculated by first calculating its adjustment coefficient. The adjustment coefficient is determined using the formula below to ensure that the weight of each stock as of the reconstitution base date is equal to the weight determined in line with the above adjustment (see footnote 3 regarding the Nomura composite share price).

No. of shares included for stock (i) =

no. of shares outstanding for index calculation purposes (i)<sup>6</sup> × adjustment coefficient (i)

$$\text{Adjustment coefficient for stock (i)} = \frac{\text{index market cap} \times \text{stock (i)'s weight}}{\text{no. of shares outstanding for index calculation purposes (i)} \times \text{closing Nomura composite share price (i)}}$$

## 2.2. Unscheduled reconstitutions

Even in the event that the status of a company's agribusiness activities changes between periodic reconstitutions, no changes to the index will be made and the inclusion or removal of said company will instead be considered at the time of the next periodic reconstitution.

As a general rule, an announcement will appear on the website by five business days before an unscheduled reconstitution, except in cases of unforeseen circumstances or when information cannot be confirmed.

Website (Japanese only): <http://qr.nomura.co.jp/jp/agri/index.html>

### 2.2.1 Addition of stocks

- Treatment of newly listed stocks

Stocks newly listed in the period following a periodic reconstitution will be considered for inclusion in the index at the time of the next periodic reconstitution. No newly listed stocks will be added to the index between periodic reconstitutions.

### 2.2.2 Removal of stocks

- Designation as securities to be delisted

Stocks designated as securities to be delisted are removed from the index four business days later (or on the following business day if this is a non-business day). However, those stocks listed on more than one market and have not been designated for delisting on one or more of the markets will not be removed.

- Delisting

Stocks delisted for reasons other than those noted in Section 2.2.3 will be removed from the index on the delisting date.

- Marked loss of eligibility for inclusion in stock selection universe

In the case of an event that is considered to seriously damage a component stock's eligibility for inclusion in the stock selection universe, the stock may be removed from the index following an official announcement by the company in question, the stock exchange, or a government/regulatory authorities.

<sup>6</sup> In accordance with the timing of adjustments resulting from changes in capital structure set out in Fig. 3 of Section 3.3, the number of shares outstanding reflects changes in the number of shares.

### 2.2.3 Response to stock swaps, stock transfers, etc

Unscheduled reconstitutions are carried out in response to various forms of corporate reorganization, based on the following rules. Changes are made on a case-by-case basis taking the situation following the restructuring into account. The objective is to avoid temporary exclusions of companies that have conducted a stock swap, stock transfer or similar, and thus maintain the consistency of the stocks included in the index.

- Stock swaps, mergers, etc

When a stock is delisted because it is about to become a wholly owned subsidiary or be merged into another company, it may be included in the index after its delisting but must be removed from the index on the day of the merger. Following its delisting, and until its removal from the index, the stock's valuation will be based on the market value of the company that will become the parent or the surviving company multiplied by the exchange or merger ratio. The adjustment coefficient will also be changed to reflect the exchange or merger ratio, so that the number of shares included in the index is the number of shares in the company that is to become a wholly owned subsidiary or merged into another company multiplied by the exchange or merger ratio.

- Stock transfers, etc

When an unlisted parent company assumes the operations of another company and becomes listed after a short period of time, the stock of the wholly owned subsidiary is removed from the index on the date of the parent company's listing. The price of the delisted subsidiary used is the price on the day before its delisting. The parent company is included in the index on the date of its new listing. The number of shares in the newly listed stock included in the index is the number of shares in the component stock before the stock transfer multiplied by the exchange ratio.

## 3. Index calculation

### 3.1. Index maintenance

Component stocks and their adjustment coefficients are changed in line with the methodology set out in this rulebook. Component stocks are also replaced in periodic reconstitutions and when necessary for other reasons.

### 3.2 Calculation of index values

The index must be protected from changes in share price and market capitalization that are not due to market fluctuations. This is done by adjusting the index's base market capitalization<sup>7</sup> as follows.

#### 3.2.1 Base date and index base values, publication start date

The base date for the Nomura Agribusiness Index is 29 December 2000 (=10,000).

The index was launched on 31 July 2013.

#### 3.2.2 Index excluding dividends

Base market cap ( $t$ ) = market cap ( $t-1$ ) + adjusted market cap ( $t$ )

$$\text{Return } (t) = \frac{\text{market cap } (t)}{\text{base market cap } (t)} - 1$$

$$\text{Index value } (t) = \text{index value } (t-1) \times [1 + \text{return } (t)]$$

#### 3.2.3 Index including dividends

Base market cap ( $t$ ) = market cap ( $t-1$ ) + adjusted market cap ( $t$ ) - adjusted total dividends ( $t$ )

$$\text{Return } (t) = \frac{\text{market cap } (t) + \text{total dividends } (t)}{\text{base market cap } (t)} - 1$$

$$\text{Index value } (t) = \text{index value } (t-1) \times [1 + \text{return } (t)]$$

#### 3.2.4 Method for reflecting dividends

For the index including dividends, dividend data are reflected on the ex-dividend date. However, on the ex-dividend date, the amount of the dividend is not yet definite, and thus it is reflected in the index in the following way. The stock issuer's dividend forecast is used on the ex-rights date<sup>8</sup>. In the event of a difference between the dividend forecast and the actual dividend, the base market capitalization is adjusted on the last business day of the month of the company's earnings announcement. However, if the company announces its earnings on the last business day of the month, the adjustment is made on the last business day of the following month.

### 3.3 Adjustment of base market capitalization

The base market capitalization is readjusted in the following cases:

- When a change in the capital structure of a component stock causes an increase or decrease in market capitalization that is not due to market changes
- When a change in the composition of the index causes market capitalization to increase or decrease

No adjustment to base market capitalization is made for capital changes not requiring payment, including stock splits, reverse stock splits, and changes in face value, as these do not affect market capitalization.

<sup>7</sup> In Sections 3.2.2 and 3.2.3, "adjusted market cap" is calculated as the change in market cap accompanying changes in capital structure of component stocks of the index or the change in market cap accompanying changes in the component stocks of the index. "Adjusted total dividends" is calculated as the difference between the dividend forecast and the actual dividend in cases where the dividend forecast differs from the actual dividend.

<sup>8</sup> This rule is effective from fiscal years ended end-December 2011 onward. For fiscal years before this, the actual dividend is used on the ex-rights date.



**Fig. 3: Timing of adjustments resulting from changes in capital structure**

	Type of change in capital structure	Adjustment date	Share price used
Stock replacement	Stock transfer, stock swap, merger	Date of listing change	Previous day's price
	Corporate divestiture (company/division spinoff)	Ex-rights date	(Not used) <sup>9</sup>
	Stock replacement	Replacement date	Previous day's price
Capital increase	Rights offering	Ex-rights date	Issue price
	Gratis allocation of stock acquisition rights	Ex-rights date	Exercise price
	Gratis allocation of treasury stock	Ex-rights date	Previous day's price
	Public offering	Business day following payment date (listing date of new shares when settlement is on the issuance date)	Previous day's price
	Capital increase via third-party placement	Five business days after date of listing change	Previous day's price
	Conversion of preferred stock into common stock	Last business day of month in which number of converted shares becomes known	Previous day's price
	Conversion of CBs	Last business day of month in which number of new shares for which rights were exercised becomes known	Previous day's price
	Exercise of stock acquisition rights		
Corporate divestiture (new shares in continuing company)	Date of listing change	Previous day's price	
Capital decrease	Retirement of treasury stock	Last business day of month following month in which shares are retired	Previous day's price
	Rights offering refusal	Last business day of month in which rights offering refusal is announced (or last business day of following month if announcement is within five business days of month-end)	Previous day's price
	Capital reduction with compensation	Effective date	Previous day's price
Other	Other adjustments	Other adjustments to the base market capitalization, if required, are made on the last business day of the month of the announcement of the relevant report (or the last business day of the following month if the announcement is within five business days of month-end)	Previous day's price

Source: Nomura

<sup>9</sup> In the case of a corporate divestiture (company/division spinoff), the base market capitalization is adjusted for the reduction in capital. Definitions of reductions in capital are as follows:

(1) when the company does not announce the value of the divested division or of the shares of the divested company:

capital reduction = amount by which shareholders' equity is expected to be reduced; and

(2) when the company does announce the value of the divested division or of the shares of the divested company:

capital reduction = value of divested division or value of divested company's shares × total number of shares

### 3.4 Adjustments resulting from changes in capital structure

When the following changes in capital structure result in a change in the number of shares outstanding for index calculation purposes, for a particular stock, the adjustment coefficient is adjusted on the date of the change in the number of shares outstanding for index calculation purposes in order to keep the number of shares in the stock included in the index unchanged.

- Capital increase via third-party placement
- Retirement of treasury stock
- Exercise of convertible bonds with stock acquisition rights, exercise of bonds with stock acquisition rights, conversion of preferred shares, exercise of stock acquisition rights
- Stock swap, stock transfer, merger<sup>10</sup>
- Rights offering, public offering, and rights offering refusal
- Corporate divestiture (new shares in surviving company)
- Other adjustments

## 4. Data services

### Nomura Agribusiness Index data provision<sup>11</sup>

Data for the Nomura Agribusiness Index are provided via the following medium:

Website (Japanese only): <http://qr.nomura.co.jp/jp/agri/index.html>

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<sup>10</sup> See 2.2.3.

<sup>11</sup> Published data are all for reference only.

## Policies with regard to NSC's indices

The below index-related policies are published on our website.

See the following link for details:

<http://qr.nomura.co.jp/en/guides/index.html>

- Index Calculation Policy
- Complaints Handling Policy
- Glossary (Equity)
- Index Governance Framework
- Conflicts of Interest Policy

# Appendix A-1

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The distribution of all ratings published by Nomura Group Global Equity Research is as follows:

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As at 31 March 2019.

\*The Nomura Group as defined in the Disclaimer section at the end of this report.

\*\* As defined by the EU Market Abuse Regulation

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## STOCKS

A rating of '**Buy**', indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months. A rating of '**Neutral**', indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months. A rating of '**Reduce**', indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months. A rating of '**Suspended**', indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies. Securities and/or companies that are labelled as '**Not rated**' or shown as '**No rating**' are not in regular research coverage. Investors should not expect continuing or

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## Target Price

A Target Price, if discussed, indicates the analyst's forecast for the share price with a 12-month time horizon, reflecting in part the analyst's estimates for the company's earnings. The achievement of any target price may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimates.

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When Japanese government bonds (JGBs) for individual investors are purchased via public offerings, only the purchase price shall be paid, with no sales commission charged. As a rule, JGBs for individual investors may not be sold in the first 12 months after issuance. When JGBs for individual investors are sold before maturity, an amount calculated via the following formula will be subtracted from the par value of the bond plus accrued interest: (1) for 10-year variable rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used, (2) for 5-year and 3-year fixed rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used.

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