

Methodology of TWSE RAFI® Taiwan High Compensation 100 Index

I. Profile

Index Name: TWSE RAFI® Taiwan High Compensation 100 Index

Abbreviation: Taiwan HC 100 Index

Base Date: 2014/Aug/11

Base Value: 5,000

II. Universe

The stocks listed on the Taiwan Stock Exchange (“TWSE”) are eligible for inclusion in the Taiwan HC 100 Index. However, full delivery stocks as defined in Article 49 of the “Operating Rules of the Taiwan Stock Exchange Corporation,” stocks suspended from trading as set out in Article 50 of the “Operating Rules of the Taiwan Stock Exchange Corporation,” and stocks listed by foreign issuers are not eligible to be included in the Taiwan HC 100 Index.

III. Constituent Selection

The constituents of the Taiwan HC 100 Index shall be selected according to the criteria listed in the following order:

1. Liquidity

Stocks in the lowest 20% of the average daily trading value in the past year (calculated from May of the previous year to April of the current year) are excluded.

Average daily trading value is calculated based on the number of actual trading days.

2. Compensation per employee and profitability criteria

Stocks within the index universe with sufficient liquidity must fulfill both the high compensation and profitability criteria to be eligible for selection for the Taiwan HC 100 Index.

(1) Compensation per employee: Stocks in the top one-third of companies based on the average compensation per employee in the most recent three years. (Compensation includes employee salaries, labor and health insurance, pensions, and other compensation and benefits; average compensation per employee is equal to the total compensation amount of a company divided by the number of employees).

(2) Profitability: Stocks of companies whose average net profit for the most recent three years is a positive value, and whose latest year-end book value per share is not less than NTD10.

3. The Taiwan HC 100 Index consists of the top-ranking 100 companies on the Reserve List, a list of companies which fulfill both the compensation per employee and profitability criteria ranked in descending order of total compensation amount of a company for the most recent three years.

IV. Constituent Weighting

Constituents are weighted within the Taiwan HC 100 Index by Fundamental Value rather than market capitalization:

1. The Fundamental Value is calculated using two fundamental factors

(1) Fundamental factor 1 (“FF1”):

average total compensation amount of a company for the most recent 3 years × (1 + growth rate of average compensation per employee on a rolling 3 – year basis)

(2) Fundamental factor 2 (“FF2”): average net profit for the most recent three years

2. For each constituent and both fundamental factors, the percentage of the fundamental factor of a constituent compared against the sum of that fundamental factor for all 100 constituents is calculated.

$$\left(\frac{FF1 \text{ of a constituent}}{\sum FF1} \times 100\%, \frac{FF2 \text{ of a constituent}}{\sum FF2} \times 100\% \right)$$

3. The Fundamental Value (v_i) of each constituent is calculated by taking the average of the above-described percentages for a constituent and multiplying by 1,000,000,000.

$$v_i = \frac{\frac{FF1_i}{\sum FF1} \times 100\% + \frac{FF2_i}{\sum FF2} \times 100\%}{2} \times 1,000,000,000$$

4. The High Compensation Factor c_i is calculated for each stock by dividing its Fundamental Value by its market capitalization (*stock price* \times *number of outstanding shares*) as at the close of trading on the periodic review date.

$$c_i = \frac{v_i}{\text{stock price} \times \text{number of outstanding shares}}$$

The High Compensation Factor c_i neutralizes the conventional market capitalization weighting and therefore bases the weighting of each constituent on the Fundamental Value (v_i).

5. The weighting of each constituent is capped at 10%.

V. Changes to Constituent Companies

The inclusion and removal of constituents, change in number of stocks, and adjustment of the divisor shall follow the current provisions of The TAIEX Methodology, except as otherwise provided in the following:

1. Periodic review of constituents

- (1) The Taiwan HC 100 Index will be reviewed annually (in May) based on the data at the close of May 25th. After each annual periodic review, a constant number of 100 constituents will be maintained.

- (2) To limit the turnover rate of constituents, the following buffer-zone rule is adopted. A company will be inserted as a constituent if it rises to the 80th position or above on the Reserve List. A company which is a current Index constituent will be deleted if it falls to the 121st position or below on the Reserve List.
- (3) The outcome of the periodic review will be published in a Technical Release on the 4th trading day after May 25th. After a period of five trading days following the publication of the Technical Release, the outcome of the periodic review will take effect on the 6th trading day (i.e. the 10th trading day after May 25th). The index is rebalanced over five consecutive trading days starting from the review effective date (the rebalancing period). A transitional weight is allocated to each security in the index during the rebalancing period.

2. Corporate actions and events

- (1) If a constituent is removed in case of being a full delivery stock, suspended from trading, or delisted, the vacancy will not be filled, which may result in fewer than 100 constituents between periodic reviews. If a constituent is suspended due to a corporate event, such as reissuance of shares due to a capital reduction to cover accumulated deficits, a capital reduction by cash, or a change in par value, merger, division, or conversion to a financial holdings company, it will not be removed from the list of constituents. Where stocks retained within the constituents in the period of suspended trading, the retained market value included in the calculation of the index is the “Fundamental Market Cap” obtained by the closing price, number of shares issued, and High Compensation Factor on the previous day of suspended trading. If the stocks are ex-dividend on the date of suspended trading, the retained market value included in the calculation of the index is the “Fundamental Market Cap”

obtained by the closing price minus the amount of the dividend per share, number of shares issued, and High Compensation Factor on the previous day of suspended trading.

- (2) If two or more constituent companies merge to create a new entity and the new entity is eligible, it will remain a constituent of the Taiwan HC 100 Index. The Fundamental Market Cap, or market capitalization adjusted by the High Compensation Factor, of the original constituents will be used to calculate the High Compensation Factor of the new constituent. If a vacancy is created as a result of the merger, the vacancy will be filled at the next periodic review.
- (3) In the case that a constituent converts into a financial holdings company or investment holdings company, or establishes a new financial holdings company or investment holdings company jointly with another company, if the converted or newly-established financial or investment holdings company is eligible, it will remain a constituent of the Taiwan HC 100 Index. The Fundamental Market Cap of the original constituent will be used to calculate the High Compensation Factor of the new constituent. If a vacancy is created as a result of the share conversion, the vacancy will be filled at the next periodic review.
- (4) If a constituent is acquired by a non-constituent through an all-stock or cash/stock merger, and the resulting company or newly-established company is eligible, it will replace the acquired company as a new constituent. The Fundamental Market Cap of the original constituent will be used to calculate the High Compensation Factor of the new constituent.
- (5) If a constituent is acquired by a non-constituent through a cash acquisition, the company will be removed from the Taiwan HC 100

Index and a vacancy will be created. The vacancy will be filled at the next periodic review.

(6) If a constituent splits and forms two or more companies, and any of the new entities are eligible, those new entities will be retained in the Taiwan HC 100 Index or included as a new constituent. The Fundamental Market Cap of the original constituents will be used to calculate the High Compensation Factor of the new constituent(s). As a result of the split, there may be more than 100 constituents between periodic reviews.

3. The deletion price of the constituent in case of being a full delivery stock, suspended from trading, or delisted.

If a constituent changes to a full delivery stock as defined in Article 49 of the “Operating Rules of the Taiwan Stock Exchange Corporation,” or to be suspend trading as set out in Article 50, or to be delisted as set out in Article 50-1, it will be removed from the Taiwan HC 100 Index at a stock price of 0. At the time of deletion, the Taiwan HC 100 Index’s divisor will not be adjusted downward, and the index will drop to show the decrease of the stock price.

VI. Index Calculation

1. The Price Index (divisor not adjusted for cash dividends) is calculated and disseminated during trading hours of the stock market.

Price Index

$$= \frac{\text{sum of Fundamental Market Cap for all constituents}}{\text{divisor}} \times \text{base value}$$

The Price Index is calculated using the algorithm below.

$$Index_{(t)} = \frac{\sum_{i=1}^n p_{i(t)} \times S_{i(t)} \times C_i}{Divisor_{(t)}} \times 5000$$

Where,

- n is the number of constituents in the Taiwan HC 100 Index.
- $p_{i(t)}$ is the stock price of the component security on day t .
- $s_{i(t)}$ is the number of outstanding shares of the component security on day t .
- c_i is the High Compensation Factor, which is calculated by dividing the Fundamental Value (v_i) by market capitalization:

$$\frac{v_i}{p_{i(t_{rec})} \times s_{i(t_{rec})}}$$

- v_i is the Fundamental Value.
- t_{rec} is the most recent rebalance date.
- $Divisor_{(t)}$ is the divisor of Price Index on day t .
- The Fundamental Market Cap is the market capitalization of the component security adjusted by its High Compensation Factor. The Fundamental Market Cap for constituent i on day t is calculated thusly:

$$p_{i(t)} \times s_{i(t)} \times c_{i(t)}$$

* Note 1: The base value is set at 5,000.

* Note 2: The divisor is the sum of the Fundamental Market Cap of all constituents on the base date (*launch*).

$$\sum_{i=1}^n p_{i(\text{launch})} \times s_{i(\text{launch})} \times c_i$$

The Index value at base date is calculated using the algorithm below:

$$\begin{aligned} Index_{(\text{launch})} &= \frac{\sum_{i=1}^n p_{i(\text{launch})} \times s_{i(\text{launch})} \times c_i}{\sum_{i=1}^n p_{i(\text{launch})} \times s_{i(\text{launch})} \times c_i} \times 5000 \\ &= 1 \times 5000 = 5000 \end{aligned}$$

* Note 3: To maintain the continuity of the Taiwan HC 100 Index, the divisor will be adjusted by the High Compensation Factor, and also in accordance with Article 5 of The TAIEX Methodology. However, in the case of a merger, conversion to a holdings company, or division of a constituent company as set out in “Corporate actions and events” in this Methodology, and the High Compensation Factor of the new

constituent is calculated based on the Fundamental Market Cap of the original constituent company, then the divisor will not be adjusted.

2. The Total Return Index (divisor adjusted for cash dividends) is disseminated once a day after the market close.

$$\text{Total Return Index} = \frac{\text{sum of Fundamental Market Cap for all constituents}}{\text{divisor of Total Return Index}} \times \text{base value}$$

The Total Return Index is calculated using the algorithm below.

$$\text{Index}_{(t)} = \frac{\sum_{i=1}^n p_{i(t)} \times s_{i(t)} \times c_i}{\text{DivisorTR}_{(t)}} \times 5000$$

Where $\text{DivisorTR}_{(t)}$ is the divisor of the Total Return Index on day t .

When a constituent company distributes dividends, the divisor is adjusted.

Divisor

= divisor of previous day

$$\times \frac{\text{adjusted sum of the Fundamental Market Cap of all constituents at close of previous day} - \text{sum of cash dividends distributed by all constituents}}{\text{sum of the Fundamental Market Cap of all constituents at close of previous day}}$$

The adjusted divisor is calculated using the algorithm below.

$$\text{DivisorTR}_{(t)} = \text{DivisorTR}_{(t-1)} \times \frac{\sum_{i=1}^n p_{i(t-1)} \times s_{i(t-1)} \times c_i \text{ after the adjustment(s) by Article 5} - \sum_{i=1}^n d_{i(t)} \times c_i}{\sum_{i=1}^n p_{i(t-1)} \times s_{i(t-1)} \times c_i \text{ before the adjustment(s) by Article 5}}$$

* Note 1: The “adjusted sum of the Fundamental Market Cap of all constituents at close of previous day” refers to the sum of Fundamental Market Cap of all constituents after adjustment(s) made in accordance with Article 5 of The TAIEX Methodology.

* Note 2: The “sum of the Fundamental Market Cap of all constituents at close of previous day” refers to the sum of the Fundamental Market Cap of all constituents before adjustment(s) made in accordance with Article 5 of The TAIEX Methodology.

* Note 3: $\sum_{i=1}^n d_{i(t)} \times c_i$ is the sum of cash dividends distributed on day t by all constituents, adjusted by the High Compensation Factor, where $d_{i(t)}$ is

cash dividend distributed on day t by a constituent company (total cash dividend per constituent).

3. The divisor is adjusted on the date of reissuance of shares of a constituent company.

Divisor

= divisor of previous day

$$\times \frac{\text{sum of the Fundamental Market Cap of all constituents at previous day of reissuance of shares} \\ - \text{difference in the Fundamental Market Cap}}{\text{sum of the Fundamental Market Cap of all constituents at previous day of reissuance of shares}}$$

Where the difference in the Fundamental Market Cap is calculated by:

retained market value – (reference price at resumption of trade × number of reissued shares × c_i)

VII. Calculation Frequency

1. The Price Index is calculated every five seconds during trading hours of the stock market.
2. The Total Return Index is calculated once a day after the market close.

NOTE: The English version is for reference only. If there is any discrepancy between the English version and the Chinese version, the Chinese version will prevail.