

TIP Taiwan Semiconductor Total Market Select 30 Index

I. Introduction

Semiconductors are an important industry in Taiwan's economic development and play an important role in the world. In order to measure the overall performance of stocks listed on the Taiwan Stock Exchange (TWSE) and Taipei Exchange (TPEX) in the domestic semiconductor industry and meet index investment application demand, the Taiwan Index Plus Corporation (TIP) compiled the “TIP Taiwan Semiconductor Total Market Select 30 Index” based on the “TIP Taiwan Semiconductor Total Market Index” as the parent index, and selects the top 30 constituents of the parent index by market capitalization as the constituents. The index is calculated using the free-float adjusted market capitalization weighting method, in order to serve as the benchmark index of representative stocks in Taiwan's semiconductor industry.

II. Calculation and Management

1. The index types of TIP Taiwan Semiconductor Total Market Select 30 Index include the “Price Index” and the “Total Return Index”, which are maintained and managed by Taiwan Index Plus (TIP). Taiwan Stock Exchange (TWSE) is designated to carry out the real-time calculation and dissemination.
2. TIP conducts periodic reviews of constituents according to the index rules.
3. TIP retains the closing market capitalization for all constituents.
4. Please refer to the “[General Rules for TIP Securities Indices](#)” for the principles of index development, maintenance and management.

III. Eligibility of Constituents

1. Sampling Universe:
 - A. Index Universe: Common stocks listed on the TWSE and the TPEX, excluding managed stocks, emerging stocks, and stocks with altered trading method or suspended from trading; however, those suspended from trading due to corporate actions, including but not limited to, capital reduction, conversion to holding companies, exchange of shares into the shares of newly established companies or change of par value may still be included in the Index Universe.

Reference only, the Chinese version shall prevail.

B. Sampling Range: Constituents of “TIP Taiwan Semiconductor Total Market Index”.

2. Criteria of Constituent Selection: Top 30 stocks are selected based on market capitalization in descending order.

3. Weighting Method

A. The weight of each individual constituent is determined via its free-float adjusted market capitalization.

B. According to the free-float adjusted market capitalization, the weight of each constituent shall not exceed 30%, and the total weight of the top five constituents shall not exceed 60% , whereas in the case that constituent weights in Taiwan Stock Exchange Capitalization Weighted Stock Index (TAIEX) exceed 30%, then their weights are capped at their weight in TAIEX.

IV. Index Calculation

1. Index Calculation Frequency:

A. Starting September 13, 2021, the Taiwan Semiconductor Total Market Select 30 Index is calculated and disseminated every five seconds during the trading hours of the TWSE and the TPEx, based on the latest trading prices of the constituent stocks. The end-of-day (EOD) index is calculated once a day after the market closes.

B. TIP also compiles the Taiwan Semiconductor Total Market Select 30 Total Return Index, which adjusts the Taiwan Semiconductor Total Market Select 30 Index after considering the cash dividend factor, in order to reflect the cash dividend-included return. The index is calculated and disseminated once every day after the market closes.

2. Calculation Formula:

A. The Taiwan Semiconductor Total Market Select 30 Index is a “Price Index”:

$$\text{Index} = \frac{\text{Total Index Market Values}}{\text{Index Divisor}} \times \text{base value}$$

$$\text{Index}_t = \frac{\sum_{i=1}^n \text{cp}_{i,t} \times \text{s}_{i,t} \times \text{p}_{i,t}}{\text{Divisor}_t} \times 5000$$

$$\text{cp}_{i,t} \times \text{s}_{i,t} \times \text{p}_{i,t} = \text{“index market value” of constituent } i \text{ on day } t$$

Reference only, the Chinese version shall prevail.

n = number of index constituents

$p_{i,t}$ = trading price of constituent i on day t

$s_{i,t}$ = number of issued shares of constituent i on day t

$cp_{i,t}$ = the adjustment coefficient of constituent i on day t is decided in accordance with the “Market-Value Investment Index Category” described in the “[TIP Corporate Actions and Events Methodology](#)”.

Divisor = index divisor of the Price Index; after the market closes, the index divisor is adjusted in accordance with the “Market-Value Investment Index Category” described in the “[TIP Corporate Actions and Events Methodology](#)”, to maintain the index continuity. The adjustment method is as follows:

$$\text{Index divisor} = \text{index divisor on the previous day} \times \left(\frac{\text{total index market values at the previous day's close} \pm \text{total index market values changes}}{\text{total index market values at the previous day's close}} \right)$$

Note 1: The base date is December 31, 2020, and the base index is set at 5000points.

Note 2: The index divisor on the base date is the total index market values at that time.

$$\sum_{i=1}^n cp_{i,launch} \times s_{i,launch} \times p_{i,launch}, \text{ launch} = \text{base value}$$

B. Taiwan Semiconductor Total Market Select 30 Total Return Index is a “Total Return Index”:

$$\text{Index} = \frac{\text{Total Index Market Values}}{\text{Index Divisor}} \times \text{base value}$$

$$\text{Index}_t = \frac{\sum_{i=1}^n cp_{i,t} \times s_{i,t} \times p_{i,t}}{\text{DivisorTR}_t} \times 5000$$

DivisorTR = index divisor of the Total Return Index ; after the market closes, the index divisor is adjusted in accordance with the “Market-Value Investment Index Category” described in the “[TIP Corporate Actions and Events Methodology](#)” to maintain the index continuity. The adjustment method is as follows:

Index divisor = index divisor on the previous day

Reference only, the Chinese version shall prevail.

$$\times \left(\frac{\text{total index market values at the previous day's close} \pm \text{total index market values changes}}{\text{total index market values at the previous day's close}} \right)$$

V. Constituent Adjustment and Index Maintenance

1. Periodic Review and Adjustment of Constituents:

- A. The constituents are reviewed four times a year, with the 7th trading day of March, June, September and December as the review dates, and the data cut-off date is the last trading day of February, May, August and November. After each periodic review, the number of constituents is fixed at 30.
- B. The results of the periodic constituent review will become effective following a five-trading-day interval after the review date(not included).
- C. For index divisor maintenance, the closing data of each previous trading day during the rebalancing period is adopted to calculate the difference, which is used as the total index market value changes between the total index market value of the new portfolio and the original one.
- D. If the review data of holding companies or newly established companies is insufficient, and if the representative companies of the converted stocks meet the Sampling Universe qualification, the data of the representative companies or their stocks may also be used in the review.

- 2. TIP Taiwan Semiconductor Total Market Select 30 Index is a Market-Value Investment Index Category. The related maintenance such as the non-periodic adjustment of constituents, the adjustment coefficient, the number of issued shares, and the index divisor is handled in accordance with the “[TIP Corporate Actions and Events Methodology](#)”. If a constituent is removed as a result of the above reasons, the vacancy created will not be filled.

3. Principle for implementation of the Free Float Coefficient:

- A. The update for the free float coefficient shall be in conjunction with the effective date of constituents periodic review.
- B. The free float coefficient of constituents are updated base on the latest data generated from TIP’s “[TIP Free Float Coefficient Calculation Guide](#)”.