

TIP Taiwan TPEX CSR Index

Chapter 1 Introduction

TIP Taiwan TPEX CSR Index (hereafter TIP TPEX CSR Index) uses public information, including corporate social responsibility reports, annual reports, government information, financial figures and more to be added, collecting from the Taiwan Index Plus Corporation (TIP), the Taipei Exchange (TPEX), and the Business Council for Sustainable Development of Taiwan (BCSD Taiwan) to design the evaluation model for producing corporate social responsibility evaluation scores to select the TPEX companies. TIP TPEX CSR Index is designed to represent the investment portfolio performance of the TPEX companies which implement the CSR in Taiwan.

Chapter 2 Calculation and Management

- 2.1 The index types of TIP TPEX CSR Index include the “Price Index” and the “Total Return Index”, which are compiled by the TIP. Taiwan Stock Exchange (TWSE) is designated to carry out the real-time calculation and dissemination.
- 2.2 TIP conducts periodic reviews of constituents according to the index rules.
- 2.3 TIP retains the closing market capitalization records of all constituents.

Chapter 3 Eligibility of Constituents

3.1 Sampling Universe

3.1.1 Index Universe: Common stocks listed on the TWSE and the TPEX are included in the Index Universe (excluding altered trading method or suspended trading stocks; however, suspended ones resulting from capital reduction, transformation into holding companies, or exchange into new stocks by newly established companies may still be included in the Index Universe.)

3.1.2 Sampling Range: At the review cut-off date, common stocks that

both stay in the index universe and meet the following criteria would be included in the sampling range:

- (i) the full market capitalization of TWSE-listed common stocks with a ranking in descending order and ranked after 50 are qualified, with 20% buffer zone.
- (ii) Common stocks listed on TPEX in the index universe are qualified.

3.2 Criteria of Constituent Selection

3.2.1 Liquidity Criteria

TPEX-listed stocks in the sampling range are ranked in descending order and both fall in the bottom 10% of the following indicators will be removed:

- (i) The trading value indicator of the stocks for the most recent trailing 12 months.
- (ii) The turnover rate indicator of the stocks for the most recent trailing 12 months.

3.2.2 Selection of Indicators

- A. Companies had previous year's corporate governance evaluation result as well as completed previous year's corporate social responsibility report uploaded to the designated information reporting system¹ before the data cut-off date for the evaluation.
- B. The "Sustainable Risk-Adjusted Factor"(SRA Factor), calculated based on "Corporate Social Responsibility Evaluation Model²" and "Violation Points Principles", is designed to adjust the original evaluation score³. Companies with adjusted evaluation score below 70 will be removed. TPEX-listed companies with qualified adjusted evaluation score will be selected.
- C. Companies with positive returns on equity over the last 3 consecutive fiscal years will be included.

3.2.3 Weighting Method

¹ According to Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies, it refers to Market Observation Post System (MOPS).

² BSCD Taiwan licenses and applies the SASB Materiality Map® General Issue Categories in our work.

³ The original evaluation score is set at 100.

- A. The weight of the individual constituent is determined by the free-float adjusted market capitalization.
- B. The initial weight of the free float market capitalization of each constituent will be adjusted based on its SRA Factor.
- C. The adjusted weight of each constituent is capped with 20%, and the total weight of the top 5 constituents shall not exceed 60%.

Chapter 4 Index Algorithm and Calculation Method

4.1 Index Calculation Frequency

4.1.1 From June 29, 2020, the “Price Index” is calculated and disseminated every 5 seconds based on the most recent trade prices of the constituents during the trading hours of the TWSE and the TPEX, and the end-of-day (EOD) index is calculated once a day after the daily close.

4.1.2 TIP also compiles the “Total Return Index”, which makes an adjustment to the Index by taking the cash dividend factor into consideration, in order to reflect the return on cash dividends. The index is calculated and published once a day after the daily close.

4.2 Calculation Formula

4.2.1 TIP TPEX CSR Index (Price Index)

$$Index = \frac{\text{total index market values}}{\text{index divisor}} \times \text{base value}$$

$$Index_{(t)} = \frac{\sum_{i=1}^n c_i \times f_i \times s_{i(t)} \times p_{i(t)}}{Divisor_{(t)}} \times 5000$$

$c_i \times f_i \times s_{i(t)} \times p_{i(t)}$ = index market value of constituent i on day t

n=number of constituents determined by Criteria of Constituent Selection stated in 3.2 above, while the total stock number is variable

$p_{i(t)}$ = the latest trade price of constituent i on day t

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

f_i = free-float coefficient of constituent i

c_i = weight-adjustment coefficient of constituent i

Divisor = index divisor: After the market close, 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 of the previous day

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

Note 1: The base date is June 19, 2020, and the base value is 5000 points.

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

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

4.2.2 TIP TPEX CSR Index (Total Return Index)

$$\text{Index} = \frac{\text{total index market values}}{\text{index divisor}} \times \text{base value}$$

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

DivisorTR = index divisor of the total return index

The index divisor adjustment formula when constituents go ex-dividend is as follows:

index divisor of the total return index =

index divisor of the total return index on the previous day

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

Chapter 5 Constituent Adjustment and Index Maintenance

5.1 Periodic Review and Adjustment of Constituents

5.1.1 The constituents are reviewed once a year, and the review date is on the 12th trading day of June, with the market data cut-off date on

the last trading day of May. The number of constituents may be variable after each review.

- 5.1.2 The data cut-off date of the sampling universe and of the evaluation model is the last trading day of April.
 - 5.1.3 The results of the review will be announced upon the release of technical notice on the review date, and will be effective after 5 trading days.
 - 5.1.4 For the index divisor maintenance, the closing data of the previous trading day before the effective date is adopted to calculate the difference, which is used as the total index market value changes, between the index market value of the new portfolio and the original one (the total market value of the index after the adjustment of the weight-adjustment coefficient and the free-float coefficient).
 - 5.1.5 For the regular review of holding companies or newly established companies, if the sampling period of the selected data of constituents is insufficient, but 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.
- 5.2 TIP TPEX CSR Index is a Market-Value Investment Index. The related maintenance such as the non-periodic adjustment of constituents, the weight-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 to be delisted, it will be removed on the date of delisting. The divisor will also be adjusted.
- 5.3 Principles for Implementation of the Free-Float Coefficient
- 5.3.1 The update of the free-float coefficient of all constituents shall be in conjunction with the effective date of constituents periodic review or weight adjustment.
 - 5.3.2 The free-float coefficients of constituents are updated based on the latest data generated from TIP's "TIP Free Float Adjustment Methodology".