

TIP Customized Taiwan Select High Dividend Index

I. Introduction

TIP Customized Taiwan Select High Dividend Index (abbr. TIP Taiwan SHD Index) manifests the portfolio performance of high-yield/high-estimated-yield stocks of Taiwan equity markets. The index universe is composed of stocks that are listed in TWSE and TPEx. Stocks that pass liquidity screening and match descriptor criteria are sorted in descending order by their dividend yield. Top 40 stocks are finalized and weighted by dividend yield and liquidity to reflect stock portfolio performance with high dividend, profitability and liquidity.

II. Calculation and Management

1. The index types of the TIP Taiwan SHD Index include the “Price Index” and the “Total Return Index”, which are maintained and managed by Taiwan Index Plus (TIP). 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 records of all constituents.
4. Please refer to the “[General Principles 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 methods 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.
 - B. Sampling Range: The 300 stocks with the largest market capitalization in the Index Universe.
2. Criteria of Constituent Selection:
 - A. Liquidity Test:

The daily average trading amount indicator¹ is higher than NT\$80 million or NT\$60 million for existing constituents; if the number of stocks is less than 150, the vacancy is filled by the stocks in order by daily average trading amount indicators, from large to small.
 - B. Index Screening:
 - a. The after-tax ROE has been positive for the past four quarters.
 - b. The amount of cash dividends not determined to be paid out by the board of directors before the data cut-off date, or annual dividend-paying stocks that have gone ex-dividend before the effective date are excluded for the periodic review conducted in May.
 - C. Sorting Method:

Periodic review in May:

¹ The average daily trading amount in the past month or the past 6 months, whichever is lower.

The top 40 stocks are selected as constituents from among the stocks that meet the criteria in III. 2. A. and B., then sorted by dividend yield² from large to small.

Periodic review in December:

The top 40 stocks are selected as constituents from among the stocks that meet the criteria in III. 2. A. and B., then sorted by estimated dividend yield³ from large to small.

3. Weight calculation:

- A. The weight of each individual constituent is determined via its dividend yield, and then the weight is adjusted according to the liquidity indicator⁴.
- B. Calculated from dividend yield weight adjusted by liquidity, the weight of an individual constituent shall not exceed 15% and total weight of top 5 constituents shall not exceed 65%, and the lower weight limit is 0.5%.
- C. The hypothetical asset under management amount (AUM) is applied for the index weight limit which is calculated by the actual asset under management⁵ that track TIP Taiwan SHD Index multiplied by 1.2, rounded to the nearest higher multiple of 25 billion (NTD). The hypothetical AUM amount invested in proportion to the market capitalization and free-float adjusted market capitalization of a single stock shall not exceed 6% and 15%, respectively.⁶

IV. Index Calculation

1. Index Calculation Frequency:

- A. Starting July 4, 2022, the TIP Taiwan SHD 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 TIP Taiwan SHD Total Return Index, which adjusts the TIP Taiwan SHD Index after considering the cash dividend, 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 TIP Taiwan SHD Index is a “Price Index”:

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

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

$$cp_{i,t} \times s_{i,t} \times p_{i,t} = \text{index market value of constituent } i \text{ on day } t$$

² The dividend yield is the cash dividends in the past four quarters / the stock price on the cut-off date.

³ Estimated dividend yield = dividend yield * (1 + cumulative after-tax earnings per share growth rate for the same period in the first three quarters).

⁴ The liquidity indicator is the median of the daily trading amounts in the past six months.

⁵ Using closing data on the data cut-off date.

⁶ In the case of no feasible solution, the optimal value of hypothetical asset under management would be applied.

n = number of index constituents

$p_{i,t}$ = 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 “SmartBeta Investment Index Category” described in the [“TIP Corporate Actions and Events Methodology”](#).

Divisor = index divisor for the Price Index; after the market close, the index divisor is adjusted in accordance with the “SmartBeta 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

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

Note 1: The base date is set on May 5, 2022, and the base index is set at 5000 points.

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

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

B. TIP Taiwan SHD Total Return Index is a “Total Return Index”:

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

$$Index_t = \frac{\sum_{i=1}^n cp_{i,t} \times s_{i,t} \times p_{i,t}}{DivisorTR_t} \times 5000$$

DivisorTR = index divisor of the “Total Return Index”; after the market close, the index divisor is adjusted in accordance with the “SmartBeta 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

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

V. Constituent Adjustment and Index Maintenance

1. Periodic Review and Adjustment of Constituents:

- A. The constituents are reviewed twice a year, with the 17th trading day of May and the 7th trading day of December as the review dates, and the data cut-off dates are the 10th trading day of May and the last trading day of November. After each periodic review, the number of constituents is fixed at 40.
- B. Constituent adjustment buffer and constituent substitution limit: Buffer zone: Non-constituents that rank 20th place or above are added to the index. Existing constituents that rank below 61st are deleted from the index. Subsequently, existing constituents

- ranked between 21st and 60th are prioritized to be included based on the ranking order. However, for both May and December periodic review, constituents should be at least with 7 stocks that are of top 50 by their market capitalization among the index universe and at least with 20 stocks that are of top 150 by their market capitalization among the index universe and that the maximum turnover limit of 8 stocks is required during the periodic review conducted in December⁷.
- C. The constituent weights would be further reviewed twice a year, with the last trading day of February and August as the data cut-off dates and the 7th trading day following the data cut-off dates as review dates. For any constituent that fails to meet the weight limit of III.3., its weight would be reallocated until III.3. is to be satisfied among all constituents. If there are no instances of exceeding the aforementioned weight limits, no action will be taken.
 - D. The results of the constituent periodic review will become effective following a five-trading-day interval after the review date(not included). The index is rebalanced over 8 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.
 - E. For the index divisor maintenance, the closing data of the trading day before the effective date of the periodic review 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.
 - F. If the review data of holding companies or newly established companies is insufficient, and 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 SHD Index is a SmartBeta 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. Principles for implementation of the Free Float Coefficient:
- A. If the free float coefficient is lower than 10%, it will not be included in the Sampling Universe.
 - B. The update of the free float coefficient shall be in conjunction with the effective date of constituents periodic review.
 - C. The free float coefficients are updated based on the latest data generated from TIP's "[TIP Free Float Coefficient Calculation Guide](#)".

⁷ In the case that the number of constituent substitution exceeds 8 after buffer adjustment, top 32 existing constituents are prioritized based upon their estimated dividend yields from stocks that meet the criteria in III. 2. A. and B, then 8 non-existing constituents are selected; in the case where constituents that are ranked at least top 50 / 150 by their market capitalization among the index universe are less than 7/20, following previously mentioned substitution process, constituents are replaced by stocks, ordered by their dividend yield, that meet the criteria in III. 2. A. and B until constituents that are ranked at least top 50 / 150 by their market capitalization among the index universe are at least 7/20.