

TPEX Corporate Actions and Events Guide for Narrow-Band Stock Indices (Including Free Float and Share Maintenance)

Chapter 1 Introduction

“TPEX Corporate Actions and Events Guide for Narrow-Band Indices” (hereafter the Guide) applies to all types(themes) of narrow-band stock indices compiled and maintained by the TPEX, excluding “TPEX and Industrial Sub-Indices”. The Guide sets out to maintain indices accuracy when corporate actions or events happen. ”Corporate Actions” refers to actions related to the overall shareholder equities, such as ex-dividend/right, capital reduction or stock splits. Those actions will affect the stocks’ price or shares. On the other hand, “Corporate Events” refers to events that cause the changes of the corporate entities (existence or dissolution), which further affects whether an index constituent remains in the indices or not, such as consolidation and merger, acquisition and spin-off.

The Guide explains not only the guidance of index constituents when corporate actions and corporate events happen but also the rules when altered trading, suspension of trading, termination of trading, and special cases happen as well as well as the maintenance of indices’ free float and shares.

TPEX will also make non-periodic adjustments to the Guide based on the market conditions to ensure the accurate calculation and the representativeness of the indices.

Chapter 2 Types of Index Calculation

2.1 Market Capitalization

Capitalization-weighted stock index is calculated based on shares of the stocks, including benchmark indices such as the TPEX Labor Employment 88 Index and the TPEX Compensation Index.

$$Index\ Value = \frac{\sum Price \times Shares\ in\ Issue}{Index\ Base\ Value} \times Base\ Point$$

2.2 Modified Free Float Adjusted Market Capitalization

Modified Free Float Adjusted Market Capitalization Index is calculated based on the number of shares outstanding of the constituents. The calculation formula converts the

full market capitalization into free float market capitalization by multiplying the free float factor of each single stock, such as the TPEX High Dividend Yield Index.

$$Index Value = \frac{\sum Price \times Shares in Issue \times Free Float Factor}{Index Base Value} \times Base Point$$

If the weight of a single stock is in excess of an upper limit set by the methodology, a “weight adjustment factor” will be applied to adjust the free float market capitalization in order to comply with the methodology, including narrow-band indices such as the TPEX 200 Index and the TPEX 50 Index. Therefore, the calculation formula will be adjusted as follows:

Index Value =

$$\frac{\sum Price \times Shares in Issue \times Free Float Factor \times Weight Adjustment Factor}{Index Base Value} \times Base Point$$

2.3 Factor Weighted

In factor weighted stock index, each stock is calculated based on the designated weight given in the selection process instead of market capitalization. The usage of the factor weighted aims at emphasize the theme of an index. For example, if an index aims at high quality stocks and is calculated by factor weighted, a stock with higher score in quality factor will be given a higher weight. Since the weight is unrelated to the market capitalization of a stock, the calculation formula would be the free float market capitalization multiplied by the “weight adjustment factor”, known as “nominal market capitalization”. The designated weight will reveal by the proportion of “nominal market capitalization” to full market capitalization. An example of factor weighted index is the TPEX RGA Quality 50 Index.

Index Value =

$$\frac{\sum Price \times Shares in Issue \times Free Float Factor \times Weight Adjustment Factor}{Index Base Value} \times Base Point$$

2.4 Maintenance of Index Base Value

When corporate actions or corporate events happen in the constituents, TPEX will maintain the continuity of indices by means of adjusting the index base value. The adjustment is described as below:

Index Base Value of the Current Day

$$= \text{Index Base Value of the Previous Day} \\ \times \frac{\text{Adjusted Aggregate Market Value}}{\text{Closing Aggregate Market Value of the Previous Day}}$$

Adjusted Aggregate Market Value

$$= \text{Closing Aggregate Market Value of the Previous Day} \\ + \text{Sum of All Adjustments in Base Value}$$

The closing price would be used in the calculation of the adjustments above. In the event that the closing price is not available, the opening reference price of the stock on the effective date may be used.

Chapter 3 Corporate Actions and Corporate Events

3.1 Corporate Actions

3.1.1 Cash dividend (For Total Return Index Is Adjusted Only)

Effective date	Ex-dividend date			
Item	Price	Shares	Weight adjustment factor	Base Value
Adjustment	A	Unchanged	Unchanged	Decreased

A=The Closing Price of the Previous Trading Day – Cash Dividends Per Share

Adjustments in base value(for Total Return Index only)	
Market Capitalization	Cash dividends per share*participating outstanding shares*(-1)
Modified Free Float Adjusted Market Capitalization	Cash dividends per share*participating outstanding shares*free float factor*(-1)
Factor Weighted	Cash dividends per share*participating outstanding shares*free float factor*weight adjustment factor*(-1)

3.1.2 Stock Dividends

Effective date	Ex-right date			
Item	Price	Shares	Weight adjustment	Base Value

Effective date	Ex-right date			
			factor	
Adjustment	A	B	Unchanged	Unchanged

$A = \text{Closing Price of the Previous Trading Day} \div (1 + \text{Stock Dividend Ratio})$

$B = \text{Participating Outstanding Shares} \times (1 + \text{Stock Dividend Ratio})$

$\text{Stock Dividend Ratio} = \text{Number of Shares Issued for Stock Dividend} / \text{Participating Outstanding Shares}$

3.1.3 Rights Issue

Item	description			
Effective date	Ex-right date			
Item	Price	Shares	Weight adjustment factor	Base Value
Adjustment	Unchanged	B	C	Increased (Unchanged when factor weighted)

$B = \text{Participating Outstanding shares} \times (1 + \text{Subscription Ratio to New Issued Shares})$

$C = \text{Weight Adjustment Factor Before Adjustment} \div (1 + \text{Subscription Ratio to New Issued Shares})$

$\text{Subscription Ratio to New Issued Shares} = \text{Cash Capital Increased for Number of Issued Shares} / \text{Participating Outstanding Shares}$

Adjustments in base value	
Market Capitalization	Subscription price per new share* Number of Shares Issued for Cash Capital Increase
Modified Free Float Adjusted Market Capitalization	Subscription price per new share* Number of Shares Issued for Cash Capital Increase *free float factor
Factor Weighted	Unchanged

3.1.4 Capital Reduction

(1) Capital reduction to offset losses:

The base value of both the Price Index and the Total Return Index remain unchanged;

however, the opening reference price(A) and the shares will be adjusted accordingly based on the capital reduction to maintain the market capitalization.

(2) Capital reduction with cash payment:

Item	Description			
Suspension of trading period	The stock will be retained in the index with the closing market price one trading day prior to the date of suspension.(“Retained Value”)			
Effective date	Resume trading date			
Item	Price	shares	Weight adjustment factor	Base Value
Adjustment	A	Decreased	Unchanged	Decreased

A(*Reduced Reference Price*)

$$= \frac{\text{Closing Price on the Last Trading Day} - \text{the Amount of the Cash Refund Per Share (zero if no cash refund)}}{\text{Ratio of Reduced Outstanding Shares to Original Outstanding Shares}}$$

Adjustments in base value	
Market Capitalization	Opening reference price on the resumed trading day × the number of issued shares after capital reduction – Retained Value
Modified Free Float Adjusted Market Capitalization	(Opening reference price on the resumed trading day × the number of issued shares after capital reduction × free float factor – Retained Value
Factor Weighted	(Opening reference price on the resumed trading day × the number of issued shares after capital reduction × free float factor × weight adjustment factor) – Retained Value

3.1.5 Stock Splits or Reverse Stock Splits (Including Change of Par Value):

The base value of both the Price Index and the Total Return Index remain unchanged; however, the opening reference price and the shares will be adjusted based on the pro-rata distribution of shares (split) or a pro-rata consolidation (reverse split) of shares.

3.2 Corporate Events

When corporate events happen in the index constituents, TPEX will notify index users before the adjustment effective date if needed.

3.2.1 The Trading of a Constituent is Terminated as a Result of Merged or Acquired:

Surviving or acquiring company	Consideration	Treatment	Note
A constituent company	Cash offer only	<ol style="list-style-type: none"> 1. The merged or acquired company will be deleted. 2. Shares of surviving or acquiring company remain the same. 	The vacancy created will be treated in accordance with the methodology of each index.
	Cash and share offer	<ol style="list-style-type: none"> 1. The merged or acquired company will be deleted. 2. Increased shares of acquiring company will be adjusted simultaneously. 	
	Share offer only	<ol style="list-style-type: none"> 1. The merged or acquired company will be deleted. 2. Increased shares of acquiring company will be adjusted simultaneously. 	
A TPEX-listed non-index constituent company	Cash offer	<ol style="list-style-type: none"> 1. The merged or acquired company will be deleted. 2. The surviving or acquiring company will replace the target company as a new constituent if it is eligible. 	
	Cash and share offer		
	Share offer		
Not a TPEX-listed company	Cash or share offer	The merged or acquired company will be deleted.	

If a constituent company will be extinguished as a result of statutory consolidation with another company, the treatment will be decided by the TPEX.

The deletion of the target will be implemented on the following timing (whenever is earlier):

1. Date of suspension of trading
2. Date of termination of trading
3. Reference date of the merger
4. The free float is below a particular percentage which varies by each index

methodology

3.2.2 A Constituent Mergers with or Acquires a Non-Constituent Company:

Consideration	Treatment
Cash offer	Unchanged
Cash and share offer	If the total shares of acquiring company increased and other adjusted shares is less than 10% of the number of shares in issue, the adjustment will be made at quarterly ¹ review. Otherwise, the adjustment will be made by case.
Share offer	

3.2.3 Spin-Off

When a constituent company is split so as to form two or more companies (hereafter the succeeding company) and carry out a capital reduction, the adjustment to the constituents of the index depends on whether the succeeding company of the spin-off fits the index methodology or not.

- (1) If the succeeding company commences trading when the constituent company resumes trading simultaneously, the constituent company will be retained in the index at first. After the close of the succeeding company first trading, TPEX will adjust the constituents in accordance with the index methodology of each index for such event and notify the index users the resulting changes of the constituents.
- (2) If the succeeding company is not listed on the TPEX, TPEX will adjust the constituent's market capitalization to its share ratio of post-reduction to pre-reduction one trading day prior to its suspension period in order to reflect the fact that the constituent company shall decrease its market capitalization as well as its weight.

Chapter 4 Altered Trading and Suspension of Trading

4.1 Altered Trading

4.1.1 Market Capitalization

If a constituent is announced to be an Altered-Trading-Method stock by TPEX, it will be deleted on the effective date of change.

4.1.2 Modified Free Float Adjusted Market Capitalization and Factor Weighted

If a constituent is announced to be an Altered-Trading-Method stock by TPEX, it will

¹ Please refer to Chapter 5: Maintenance of Free Float and Shares in Issue

be deleted after close of the fifth trading day following the change. The vacancy results from the deletion will be treated in accordance with the methodology of each index.

4.2 Suspension of Trading

4.2.1 If a constituent is suspended due to capital reduction (e.g. plan to offset company losses, capital repayment, spin-off, etc.), a conversion into a holding company and a change of par value, it will be retained in the index.

4.2.2 If a constituent is suspended due to violation of the “Taipei Exchange Rule Governing Securities trading on the TPEX”, it will be deleted from the index.

4.2.3 If a constituent is terminated right after its suspension of trading (e.g. termination of the TPEX trading as a result of converting its shares into shares of a subsidiary of another company), it will be deleted from the index on the date of suspension.

4.2.4 In all other cases, the suspended constituent will be retained in the index up to 10 trading days. If the suspension lasts beyond the tenth trading day, the constituent will be deleted from the index after close of the tenth trading day.

4.2.5 The vacancy results from the deletion will be treated in accordance with the methodology of each index.

4.3 Termination of Trading

If a constituent is delisted, it will be deleted. The vacancy results from the deletion will be treated in accordance with the methodology of each index.

Chapter 5 Guides for Special Cases in Periodic Review

5.1 Altered Trading, Suspension of Trading and Termination of Trading

5.1.1 TPEX-listed stocks will be deleted from the sampling scope or constituents list during the review if they are announced or to be announced as altered trading, suspension of trading not resulted from capital reduction, a share conversion into a holding company, and change of par value, and termination of trading within one month starting from the effective date of the review.

5.1.2 When a newly reviewed constituent is deleted due to 5.1.1, the list of the constituents as well as the reserve list will be revised in accordance with the

methodology of each index based on the review data. If the reviewed result has been announced, a modified version should be announced as soon as possible.

5.2 Fast Entry for Newly TPEX-listed Stocks

If a newly TPEX-listed stock is qualified for fast entry between the data date and the effective date, a constituent at the lowest ranking among the original constituents should be deleted. The treatment is as follows:

5.2.1 If the official trading date is before the review result announcement, a constituent with the lowest ranking in the index on the official date will be deleted, and the review result will be adjusted correspondingly.

5.2.2 If the official trading date is on and after the review result announcement, a constituent remaining in the index at the lowest ranking will be deleted.

Chapter 6 Maintenance of Free Float and Shares in Issue

6.1 Maintenance of Free Float

6.1.1 Free Float

Free float refers to the number of issued shares in issue minus free float restrictions. Free float restrictions include the following:

- (1) Shares held by directors, supervisors, managerial officers, including those held by their spouses, minor children and those held under the names of other parties.
- (2) Shares held by shareholders holding more than ten percent of the total shares, including those held by their spouses, minor children and those held under the names of other parties.
- (3) Shares that have been imposed restrictions by Competent Authority and the restrictions have not yet been lifted.

6.1.2 Free Float Factor

Free float ratio is the ratio of free float to the number of issued shares, calculated by rounding to the nearest 1%, and free float factor is adjusted according to the following terms:

- (1) If the free float ratio is less than or equal to 20%, the free float factor will be adjusted according to the actual ratio.
- (2) If the free float ratio is greater than 20% but less than 97%, the free float factor will only be adjusted if the cumulative free float ratio changes greater than 3%.
- (3) If the free float ratio is greater than or equal to 97%, the free float factor will be

adjusted to 100%.

- (4) If the foreign ownership restriction is less than the free float ratio, the restriction will be applied as the free float factor. If the foreign ownership restriction is more than or equal to the free float ratio, the free float factor is adjusted according to the rules above.

6.1.3 Periodic Adjustments

Periodic adjustments to the free float factor will be made quarterly after the close of trading on the third Friday of January, April, July and October.

6.1.4 Non-periodic Adjustment

- (1) If the change of free float results from an activity such as private placement, TPEX will evaluate whether or not to adjust immediately. If the change will be adjusted between two quarterly periodic adjustments, TPEX will notify index users in advance.
- (2) If a constituent is acquired and a sharp decrease in shares outstanding occurs while it is not deleted from the index, in such a case, TPEX will evaluate whether or not to adjust immediately case by case. If the change is to be implemented between two quarterly periodic adjustments immediately, TPEX will notify index users in advance.

6.2 Maintenance of Shares in Issue

6.2.1 Capitalization-Weighted

The maintenance is implemented in accordance with “TPEX and Industrial Sub-Indices”.

6.2.2 Market Cap Weighted and Float-Adjusted and Factor Weighted

- (1) For changes of shares in issue arise from corporate actions, the change in shares will be adjusted simultaneously upon the corporate action.
- (2) For changes of shares in issue not arising from corporate actions, changes will not be made if the accumulated changes of shares in issue are equal to or less than 1%. If the accumulated changes of the number of shares in issue are less than 10% but more than 1%, changes will be made periodically after the close of trading on the third Friday of January, April, July and October.
- (3) For changes of shares in issue not arising from corporate actions, if the accumulated changes of shares in issue are equal to or more than 10%, TPEX will evaluate whether or not to adjust immediately. If the change is to be implemented between two quarterly periodic adjustments immediately, TPEX will notify index

users in advance.

6.2.3 Except where otherwise prevented by market conditions, all adjustments are made before the of index calculation for the day.

Chapter 7

Since capital market progress constantly, if the Guide no longer fits the corporate actions or events, TPEx reserves the right to determine the most appropriate treatments for any situation which is not covered here.