

**Equity Indices Calculation
and Maintenance Methodology of
China Securities Index Company Limited**
V10.2

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Version Number	Change Time	Change Scope
1.0	200504	Rulemaking
2.0	200604	Adjustment to Category-Weighted Rules
2.1	200607	Fast Entry Rule
2.2	200609	Merger & Acquisition and Spin-off Rule
2.3	200609	Suspension from listing and Delisting Rule
2.4	200609	Long Suspension Stocks Rules
2.5	200609	Bankruptcy Rule
3.0	200707	Suspension Stocks Temporary Adjustment Rule
4.0	200802	Adjustment to Free Float Implementation Rules
5.0	201312	Adjustment to Index Regular Review Schedule
5.1	201312	Index Regular Review Schedule and Corporate Events Methodology Adjustment
6.0	201503	Adjustment to Free Float Ratio of Free Float
7.0	201612	Adjustment to Free Float Rules Description
8.0	201808	Supplementary Appendix
9.0	201907	Adjustment to Long Suspension Stocks Rules
9.1	201912	Constituents under Risk Warning Status Temporary Adjustment Rule
10.0	202006	Maintenance of Constituents
10.1	202007	Supplement the rules of IPO, Index Calculation Formula, and Exchange Rates for Index calculation, etc.
10.2	202012	Securities listed in STAR MARKET (including CDR) included in index universe, etc.

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1. Index Regular Adjustment

Based on the principle of stability and dynamic tracking, unless specifically stated in the index methodology, the constituents of equity indices shall be reviewed every 6 months in general and the constituents shall be accordingly adjusted based on the result of review.

1.1 Review Time

Unless specifically stated in the index methodology, the equity indices shall usually be reviewed during the last ten-days of May and November each year, and the constituent adjustment shall in principle be implemented on the next trading day after the 2nd Friday in June and December each year.

1.2 Data Used for Periodical Review

Usually, the data used for periodical review in May includes trading data and financial data from May 1st of the previous year to April 30th of the review year (In case of an IPO, the data since its fourth trading day after listing are used). The data used for periodical review in November includes trading data and financial data from November 1st of the previous year to October 31st of the review year (In case of an IPO, the data since its fourth trading day after listing are used).

The data used for constituent review at other times includes trading data and financial data within the time interval specified in the index methodology.

The above data comes from the exchange or data suppliers designated by CSI from time to time. All the data are objectively available or can be obtained through arms-length transactions. No exercising of “Expert Judgment” with respect to the use of data. There were no disregards of input data where it conformed to the requirements of the index methodology.

Unless specifically stated in the index methodology, the industry classification used in the index review comes from CSI Industry Classification Standard. For further details, please see CSI Industry Classification Framework.

1.3 Number of Constituents to be Adjusted

For some equity indices, the number of constituents is subject to an adjustment proportion limit in each regular adjustment. The specific adjustment proportion limit can be found in respective index methodologies.

1.4 Buffer Zone

Some equity indices adopt buffer zone rules in the regular adjustment to reduce the index adjustment turnover. The specific buffer zone ratio can be found in respective index methodologies.

1.5 Reserve List

For the purpose of improving the predictability and transparency of temporary adjustments to index constituents, some equity indices, for example, CSI 300 and CSI 100, adopt a reserve list policy. The reserve list is used for the temporary adjustment occurring between two regular adjustments. If a temporary adjustment is needed due to constituents' delisting, merger, etc., securities on the reserve list shall be added to the index in turn. When more than 50% of securities in the reserve list are used, CSI shall update the list according to the reserve list policy and make an announcement on the new reserve list. The number of securities in the reserve list can be found in respective index methodologies.

1.6 Long Suspension Security

Generally, for index constituents, in the periodic review of their eligibility:

- Constituents that have been suspended for more than 25 trading days and have not resumed trading as of the deadline of data used for constituents eligibility review, if listed on the candidate deletion list, will be classified as priority deletion securities in principle.
- CSI should report the name list of constituents that have been suspended close to 25 trading days as of the deadline of data used for constituents eligibility review to the index advisory committee. The committee will discuss and decide whether they should be classified as candidate deletion securities.
- If the delete securities are under suspension and the reason for the suspension is significant negative event, then the constituent will be deleted from the indices at the price of 0.00001 Yuan. In the event that such securities under long suspension resume trading at least one trading day prior to the effective date, then CSI will amend the deletion price to market price and release announcements. Under other conditions, suspended old constituent will be deleted from the indices at its closing market price before suspension.

For non-constituent securities, in the periodic review of their eligibility:

- Securities that are under suspension and without clear expectation about trading resumption on the date of the Index Advisory Committee meeting will not be able to be selected as candidate new additions in principle.

- Securities that have been suspended for more than 25 trading days during the data period used for constituents review can be included in the index only if they have been resumed trading for 3 months except in special circumstances approved by the Index Advisory Committee.
- For new additions suspended between the announcement date and the effective date of the periodical review, CSI will decide whether to adjust the addition or not.

1.7 Securities Experiencing Financial Losses

In principle, except securities listed in STAR MARKET, securities that suffered losses in financial report are not eligible to be selected as candidate new additions in constituents' periodical review unless the securities have a great impact on the representativeness of index.

2. Index Temporary Adjustment

In case of exceptional corporate events, CSI shall make necessary ongoing adjustments to the equity indices to maintain the representativeness of the index and ensure that they are investable.

2.1 IPO

If the total market cap of an IPO meets certain conditions, CSI shall apply the fast entry rules to some indices. For further information about the indices adopting the fast entry rules, please see respective index methodologies.

If an IPO meets the criteria of fast entry, however, the time span between its listing time and the effective day of the next constituents periodical review is less than 20 trading days, fast entry rules shall not be applied immediately but be implemented together with the next regular adjustment.

For the SSE Composite Index (000001) and some other indices, if an IPO satisfies the requirements of index universe, and its daily average market cap ranks top 10 in the market by comparing the daily average market cap of an IPO in the range from the sixth trading day after listing (including the sixth trading day) to two weeks prior to the day of three-month listing with the daily average market cap of all the securities in the same time range, it shall be added in after three months of listing. For further information about the indices adopting the above rule, please see respective index methodologies.

2.2 Merger and Acquisition

- **Two constituent companies merge, or one constituent company merges with one non-constituent company:** The security of the resulting new company shall retain constituent eligibility and remain in the index if it meets the criteria for index constituent selection. Otherwise, the security shall be deleted from the index as soon as practicable and the vacancy shall be considered whether to be filled according to the index methodology.
- **One non-constituent company merges with one constituent company:** When one non-constituent company purchases or takes over one constituent company, if the security of the resulting new company meets the criteria for index constituent selection and ranks higher than the highest-rank security in the reserve list, then the new security shall be added to the index. Otherwise, the security shall be deleted from the index as soon as practicable, and the vacancy shall be considered whether to be filled according to the index methodology.

- **Merger, spin-off, acquisition and restructuring of non-constituents:** If the total market cap of the security of the resulting new company ranks top 10 in the underlying market due to the above corporate events, fast entry rules shall be applied according to the respective index methodologies. Otherwise, these corporate events shall be considered together in the index regular adjustment.

2.3 Spin-off

If one constituent company is spun off so as to form two or more companies, then whether the resulting companies are eligible for inclusion or not depends on the index methodology and their rankings.

- If the resulting companies' securities meet the criteria for index constituent selection, or part or all of the resulting companies' securities rank higher than the lowest-rank constituent, then the resulting companies' securities that rank higher than the lowest-rank constituent shall be added to the index as new inclusion. Meanwhile, the decision on whether the lowest-rank constituent(s) shall be removed to keep the constant number of the index constituents shall depend on the index methodology.
- If all the resulting companies' securities rank lower than the lowest-rank constituent, but part or all the resulting companies' securities rank higher than the highest-rank security in the reserve list, then the highest-rank new resulting company's security shall replace the security of the former company and be added to the index as new inclusion.
- If the resulting companies' securities don't meet the criteria for index constituent selection, or all the resulting companies' securities rank lower than the lowest-rank constituent and the highest-rank security in the reserve list (if any), then the highest-rank company's security in the reserve list shall be added to the index.

2.4 Suspension

If a constituent is suspended from trading, CSI shall determine whether to remove it from the index based on its suspension reasons.

2.5 Delisting

If a constituent is delisted, it shall be removed from the index, and whether the vacancy should be filled shall depend on the index methodology.

2.6 Bankruptcy

If a constituent company files for bankruptcy or receives a bankruptcy order, it shall be removed from the index, and whether the vacancy should be filled shall depend on the index methodology.

2.7 Constituents under Risk Warning Status

Constituents under risk warning status will be deleted from the indices on the next trading day after the 2nd Friday of the next month following the month of the implementation of risk warning of securities.

The deletions of constituents entering into risk warning status in April, in October, or between the announcement date and effective date of the periodic review will be made to coincide with the effective date of the periodic index review.

In general, the adjustment plans will be announced two trading days prior to the effective date.

2.8 Weights of Inheritance

For indices with weight restriction, if any constituent of the index is changed beyond periodical reviews, the inserted constituent will inherit the weight of the deleted constituent as of the close of one trading day before the effective date of the addition and calculate the weight factor of new security.

2.9 Other Special Cases

In circumstances where a future situation may be more complex, the index adjustment shall follow the Measures for the Implementation of Change of Index Methodologies of China Securities Index Company Limited. On rare occasions where a specific event is not covered by the rules or methodology documents, and for which the timetable precludes stakeholder consultation, CSI will determine the appropriate treatment by reference to the guiding principles documented in the CSI.

Statement of Principles. For further information, please see Appendix A.

3. Constituents Maintenance

3.1 Maintenance of Constituents

To ensure that the indices reflect trading information of related securities, CSI maintains constituents based on the following rules:

- CSI maintains constituent' corporate events based on the announcements of the listed companies.
- CSI conducts immediate or concentrated adjustments on prices or shares according to the different types of corporate events.

Immediate adjustments refer to:

Constituents' price changes due to dividend distribution shall be implemented on the

ex-dividend day.

For corporate events resulting in simultaneous change in constituents' price and shares, such as bonus issue, rights issue, stock split and consolidation, etc., adjustments shall be implemented on the ex-right day.

Concentrated adjustments refer to:

Temporary or regular adjustment shall be carried out in occurrence of other corporate events such as secondary offering, debt-to-equity swap, exercise of warrants etc. The temporary adjustment shall be made to constituents' shares when the accumulated change of the total shares exceeds or reaches 5%. Otherwise, change of shares shall be implemented in the regular adjustment. Usually, the Effective Date of temporary adjustment shall be two trading days later than the new shares listing day disclosed in the announcement made by the listed company when the accumulated change of the total shares exceeds or reaches 5%. (If the announcement day is later than the new shares listing day, the next trading day after the announcement day shall be regarded as the new shares listing day.) CSI will provide notices of temporary adjustment of corporate events in CA files for the reference of index users.

- Further information on the corporate events and their corresponding treatment is detailed in Appendix B.

3.2 Other Special Cases

In circumstances where a future corporate event may be more complex or unusual, the constituents' maintenance shall be carried out by reference to the Measures for the Implementation of Change of Index Methodologies of China Securities Index Company Limited. On rare occasions where a specific corporate event is not covered by the rules or methodology documents, and for which the timetable precludes stakeholder consultation, CSI will determine the appropriate treatment method by reference to the guiding principles documented in the CSI Statement of Principles. For further information, please see Appendix A.

4. Index Calculation

CSI calculates the closing-quotation equity indices, and also some real-time equity indices. Index calculation is based on the trading data and fundamental information. All the data are objectively available or can be obtained through arms-length transactions. No exercising of "Expert Judgment" with respect to the use of data. There were no disregards of input data where it conformed to the requirements of the index methodology.

4.1 Index Calculation Formula

The index is calculated according to the Paasche weighted composite price index formula. Generally, the calculation formula is as follows:

$$\text{Current Index} = \frac{\text{Current Total Adjusted Market Capitalization of Constituents}}{\text{Divisor}} \times \text{Base Value}$$

$$\text{Current Total Adjusted Market-Cap} = \sum (\text{Security Price} \times \text{Number of Free Float Adjusted Shares} \times \text{Weight Factor} \times \text{Exchange Rate})$$

Number of Free Float Adjusted Shares is obtained by adjusting shares of constituents using category-weighted method. Hence, the calculation of the number of the adjusted shares of constituents depends on two factors, namely free float and category-weighted method. Detailed contents of free float and category-weighted method could be found in Rule 4.3 and 4.4, respectively. The adjusted free float market cap is calculated by multiplying the security price and the number of free float adjusted shares.

The weight factor is between 0 and 1, which is calculated from the ratio of the weight to the adjusted free float market value. Unless specified, the weight factor and exchange rate are both 1. If there are other explanations for the calculation formula in the methodology, the index methodology shall prevail. If the index weighted by free float adjusted market cap and the weight of each constituent is capped at X, the weight of the constituent whose initial weight exceeds X is adjusted to X, and the remaining constituents are allocated the remaining weight according to the free float adjusted market cap ratio. If the weight of remaining constituents exceed X, then repeat the above steps.

In the situation that the index is weighted by free float market cap, the weight of each constituent is capped at X, and the total weight of top 5 constituents is capped at Y. If the weight of top 5 constituents does not exceed Y, the weight restriction is referred to X for each constituents. Otherwise, the total weight of the top 5 constituents is set to Y, and the weights of the top 5 constituents are allocated according to the adjusted free float market cap ratio. If the weight of the constituent with weights exceeds X after the distribution are adjusted to X, the top 5 constituents are distributed the remaining weight based on the free float adjusted market cap. If there are still constituent weights that exceed X after reallocation, repeat the above steps. The total weight of constituents other than the top 5 is 100%-Y, and the weights are allocated according to the free float adjusted market cap ratio, and the weight of the constituent is capped at the weight of the fifth largest constituent.

When there occur changes of the constituent list or the share structure, or constituents' market value changes due to non-trading factors, according to the index constituents' maintenance methodology, the Divisor Adjustment Methodology is used to adjust the original divisor to ensure the continuity of the index. For further details, please see Chapter 5 of Index Maintenance.

4.2 Index Real-time Calculation

The real-time calculation of the equity indices is based on the real-time price data released by Shanghai Stock Exchange and Shenzhen Stock Exchange through their quotation systems.

Steps of practical operation are as follows:

The index is calculated by using the real-time quota published by the stock exchanges during trading hours. In case there is no deal, the index is then calculated by using the reference opening price provided by the stock exchanges through their quotation system or maintained by CSI itself, and the index is real-time public released.

Price of each constituent (X) is determined as follows:

If there is no deal in the whole trading day, X equals to the reference opening price. Otherwise, X equals to the latest trading price.

CSI will decide whether to continue the index calculation in case of abnormal quotations from the two exchanges.

For real-time calculation of other equity indices, the real-time trading prices of constituents come from market quotations by data providers designated by CSI from time to time.

4.3 Free Float

To reflect the variation of the real float shares in the market, the equity indices adopt the definition of free float shares (free float) in index calculation, which exclude the restricted shares and non-free float shares due to strategic holdings or other reasons from the total shares of listed companies. The remaining shares available for trading shall be deemed as free-float shares.

For shares clearly announced as restricted by listed companies and shares that fall into the 4 types of shares below, if the holdings are 5% or greater by a shareholder or shareholders acting in concert, such shares shall be deemed as non-free float shares. The four types of shares include:

- (1) Long term holdings by founders, families, and senior executives, etc.
- (2) State-owned shares
- (3) Strategic holdings
- (4) Employee share plans

$$\text{Free Float} = \text{Total shares of constituent} - \text{non-free float shares}$$

CSI estimates free float based on various objectively available information (See Appendix C).

4.4 Category-Weighted Method

Unless otherwise stated, the calculation of equity indices use category-weighted method in which CSI will grant certain inclusion factor to the total shares of the share class according to the percentage of free float shares in total shares of the constituent to ensure index stability.

$$\text{Free Float Ratio} = \text{Free Float} / \text{Total Shares of Constituent}$$

$$\text{Adjusted Shares} = \text{Total Shares of Constituent} \times \text{Inclusion Factor}$$

Inclusion factor of the constituents of equity index shall be determined according to the chart below:

[Category-Weighted chart of the equity indices]

Free Float Ratio (%)	≤15	(15, 20]	(20, 30]	(30, 40]	(40, 50]	(50, 60]	(60, 70]	(70, 80]	>80
Inclusion Factor (%)	nearest higher percentage point	20	30	40	50	60	70	80	100

[Example of Category-Weight Method]

Security	Security A	Security B	Security C
Total A Shares	100,000	8,000	5,000
Non-Free Float	91,000	4,500	900
Free Float	9,000	3,500	4,100
= Total A Shares - Non-Free Float			
Free Float Ratio	9.0%	43.8%	82.0%
= Free Float / Total A Shares			
Inclusion Factor	9%	50%	100%
Inclusion Shares	9000	4000	5000

4.5 Total Return Index and Net Total Return Index

CSI calculates total return indices and net total return indices for some CSI indices to satisfy investors' needs.

The total return indices and net total return indices are derived indices from the price index. Their difference with the price index is that the calculation of total return index and net total return index takes the reinvestment income of constituents before-tax and after-tax cash dividends into consideration, which enables investors to measure index performance from different aspects.

The formula of total return index and net total return index is:

Total return index (TRI):

$$TRI_t = TRI \text{ Closing Data}_{t-1} \times \frac{\sum(\text{Sample Closing Price}_t \times \text{Adjusted Shares} \times \text{Weight Factor} \times \text{Exchange Rate})}{\sum(\text{Sample Opening Reference Price}_t \times \text{Adjusted Shares} \times \text{Weight Factor} \times \text{Exchange Rate})}$$

T represents any trading day, t-1 represents the previous trading day of t, Opening Reference Price refers to the opening reference price adjusted on the same day in accordance with corporate events (such as cash dividends).

Net total return index (NTRI):

$$NTRI_t = NTRI \text{ Closing Data}_{t-1} \times \frac{\sum(\text{Sample Closing Price}_t \times \text{Adjusted Shares} \times \text{Weight Factor} \times \text{Exchange Rate})}{\sum(\text{Sample Opening Reference Net Price}_t \times \text{Adjusted Shares} \times \text{Weight Factor} \times \text{Exchange Rate})}$$

T represents any trading day, t-1 represents the previous trading day of t, the Opening Reference Net Price is the after-tax opening reference price adjusted on the same day based on corporate events (such as cash dividends), tax rate used for index calculation is 10%.

The difference between the total return index, net total return index and the price index is on the treatment of cash dividend. When the constituent company distributes cash dividends, the total return index and net total return index shall not fall naturally.

4.6 Exchange Rates for Index calculation

Unless otherwise stated, Exchange Rate refers to the exchange rate sourced from the data providers as designated by CSI from time to time. The real-time Exchange Rate is used to calculate the real-time index; the Exchange Rate at index closing time is used to calculate the closing-quotation index.

The exchange rate of RMB in index calculation will normally use on shore exchange rate (CNY). If other exchange rate of RMB is used in index calculation, such as CNH, CSI will mark this in the index name.

The prices of B shares in the constituents of the SSE Composite Index (000001) and the SSE Sector Indices (000004-000008) are converted into CNY using the applicable exchange rate (USD/CNY Central Parity Rate on the last trading day of each week published by China Foreign Exchange Trade System).

5. Index Maintenance

In the event of a change in constituent list or a capital change in the index constituents, or constituents' market value fluctuates due to non-trading factors, the divisor is adjusted to prevent the discontinuities in the index. Accordingly, the equity indices adopt the Divisor Adjustment Methodology to adjust the old divisor.

5.1 Formula of Divisor Adjustment Methodology

$$\frac{\text{Adjusted Market Cap before Adjustment}}{\text{Old Divisor}} = \frac{\text{Adjusted Market Cap after Adjustment}}{\text{New Divisor}}$$

Adjusted Market Cap after Adjustment = Adjusted Market Cap before Adjustment + Adjusted Market Cap increased or decreased

The new divisor derived from this formula shall be used for the future index calculation. Examples are illustrated in Appendix D.

5.2 Circumstances for Index Adjustment

5.2.1 Corporate events that may affect the price of constituents

- Ex-Dividend: No index shall be adjusted in the event of an ex-dividend (dividend payment), and its natural fall shall not be interfered. The total return index and net total return index are adjusted based on the reference ex-dividend price before the ex-dividend date of the constituent.
- Ex-Right: If the bonus issue, rights issue, stock split or consolidation occurs, the index shall be adjusted the day before the ex-right day. Calculation of Adjusted Market Cap is based on new shares and prices.

Adjusted Market Cap after Adjustment = Ex-right Price × Adjusted No. of Shares + Adjusted Market Cap before Adjustment (excluding securities adjusted for bonus issue, rights issue, stock split or consolidation)

5.2.2 Other corporate events that affect the index constituents

- In the event that the aggregated change in the total shares of constituents due to other corporate actions (e.g. secondary offering, debt-to-equity swap and exercise of warrants) reaches or exceeds 5%, the index is subject to temporary adjustment and shall be adjusted before the capital change in the index constituents.

Adjusted Market Cap after Adjustment = Closing Price × Adjusted Sharers after Changes

- Where the aggregated change in the total shares of constituents due to other corporate actions is less than 5%, the index is subject to regular adjustment and shall be adjusted before the Effective Date of the regular adjustment.

5.2.3 Constituents adjustment

- Indices shall be adjusted before the Effective Date of regular adjustment or temporary adjustment.

6. Index Dissemination

6.1 Dissemination Channels

The equity indices are published through the following official channels:

- (1) Disseminate real time quote via INDEXPRESS or the Data Dissemination System (DDS);
- (2) Daily dissemination via CSI data service platform;
- (3) Daily dissemination on CSI's website: www.csindex.com.cn.

In case of a doubt as to the index, the information published through CSI official channels shall prevail.

6.2 Publication Frequencies

- The real-time equity indices are calculated and published real time, and update frequency of the indices is subject to the INDEXPRESS and the Data Dissemination System.
- The closing-quotation equity indices are calculated and published daily on each trading day of index.

7. Index Methodology Review

7.1 Non-scheduled Review

CSI may take non-scheduled reviews on the index rules documents such as Index Calculation and Maintenance Methodology and index methodologies, based on, but not limited to, one of the following:

- Underlying market environment review;
- Market participant feedback;
- Problems identified in index management;
- Unusual corporate events treatment.

During the process of review, if any circumstance necessitating the changes to index methodologies is identified, such changes shall be effected according to the Measures for the Implementation of Change of Index Methodologies of China Security Index Company.

7.2 Regular Review

CSI annually reviews the Index Calculation and Maintenance Methodology, Index Methodologies and other index rule documents to ensure that the index calculation and maintenance is in line with the objective of indices. After the regular review is completed, an annual review report shall be produced and presented to the Index Oversight Committee.

During the process of review, if any circumstance necessitating the changes to index methodologies is identified, such changes shall be effected according to the Measures for the Implementation of Change of Index Methodologies of China Security Index Company.

Appendix A: CSI Statement of Principles

For certain events not covered in the Calculation and Maintenance Methodology and index methodologies etc., CSI shall determine the appropriate treatment by reference the statement of principles below. These principles apply to any equity, bond, and multi-asset index families managed by CSI. Where there is an actual or potential conflict between the Index Methodology and this statement of principles concerning any decision on the index families' management, the precedence shall be given to this statement of principles.

- 1、 Generally, in the course of index adjustment, in order to avoid unnecessary changes, it is imperative to ensure the constituents can be invested and conform to the index description.
- 2、 The index calculation methods shall be easy to understand and follow by index users. The index calculation shall use public data whenever possible.
- 3、 The corporate data used for index calculation shall come from an authoritative source, which in principle shall be published by constituent companies and provided by reliable local market vendors. Market prices used for index calculation shall originate from reliable sources to reflect the trading in the market.
- 4、 The treatment about corporate events or bond events shall reflect the impact to the investment portfolios and shall be in line with the requirements in the index methodology. The treatment should normally be designed to minimize the trading activity required by the index users to track the index performance.
- 5、 To promote the predictability of the treatment about corporate events or bond events, the stability in calculation methods and data usage shall be maintained wherever practical. In assessing the best practice, CSI may conduct market consultations it considers appropriate to ensure that the indices continue to meet current and future market needs.
- 6、 To ensure that no index user can procure any advantage from predicting the future composition of an index, the index methodology documents shall include a description of the data used for the determination of the eligibility and weights of index constituents.
- 7、 The interests of all users and stakeholders should be considered in the index management. In determining the index rules, unless a single or specific group of markets is involved, CSI shall maintain the consistency in the treatment at the best effort and make decisions that incorporate the views of all users and stakeholders. The stakeholders include relevant product managers and clients of customized indices who take indices as the investment target or benchmark.

Appendix B: Treatment on Corporate Events

Event Type	Treatment
Cash Dividend	<p>Dividends paid to shareholders in cash.</p> <p>The Price Index shall not be adjusted in the event of a cash dividend in any constituent, and its natural fall shall not be interfered. The Total Return Index takes the constituents' before-tax dividend reinvestment in the index on the ex-dividend day into account, and the index is adjusted according to the ex-dividend reference price before the ex-dividend day. The Net Total Return Index takes the constituents' after-tax dividends reinvestment in the index on the ex-dividend day into account, and the index is adjusted according to the ex-dividend reference price before the ex-dividend day.</p> <p style="padding-left: 40px;">Ex- dividend price = Closing price before ex- dividend day – Dividend per share</p> <p>In case of any currency conversion involved in cash dividend of B shares, the intermediate price published by China Foreign Exchange Trade System on the announcement day shall prevail.</p>
Stock Dividend (Bonus shares Issue or Capital or surplus reserve Issue)	<p>The distribution of additional shares to shareholders by a company limited by shares.</p> <p>There are two main forms:</p> <ol style="list-style-type: none"> 1. Shares of the company shall be paid to shareholders in the form of dividend distribution; 2. Shares of the company shall be paid to shareholders by distribution from capital reserve or surplus reserve. <p>These two forms differ in their sources and tax payment, but in practice, their resulting effect is the same.</p> $\text{Ex- right price} = \frac{\text{Closing price before ex- right day}}{1 + \text{Rights issue ratio}}$ <p>The adjusted market capitalization of the constituent after the bonus issue shall remain unchanged.</p>
Cash Dividend & Stock Dividend	See above.
Stock Split or Stock Consolidation	<p>If the shares are distributed to the existing shareholders on a pro-rata basis, or if the shares held by the existing shareholders are consolidated on a pro-rata basis, the price and shares of the security shall be adjusted accordingly on the ex-right day.</p> $\text{Ex- right price} = \text{Closing price before ex- right day} * \frac{\text{Total issued shares before ex- right day}}{\text{Total issued shares on ex- right day}}$ <p>The adjusted market capitalization of the constituent after the stock split or stock consolidation shall remain unchanged.</p>

<p>Rights Issue</p>	<p>A rights issue is a financing process in which a certain number of additional shares are offered to the existing shareholders at a specific price (usually at a discounted price) in proportion to their existing holdings.</p> <p>After the announcement of rights issue, CSI will simulate the rights issue and presume that all shareholders would not waive their rights to purchase and would accept the rights issue in proportion, so as to reflect the approximate changes of shares of the security in the future and thus provide early notification for index users.</p> $\text{Ex-right price} = \frac{\text{Closing price before ex-right day} + \text{Rights issue price} * \text{rights issue ratio}}{1 + \text{Rights issue ratio}}$
<p>Expiry of Lock-in Period for Restricted Shares</p>	<p>Restricted shares may be freely traded on the secondary market when the lock-in period expires. The restricted shares shall be deemed as non-free float within the lock-in period; The treatment of restricted shares after the lock-in period is the same as that of non-restricted shares, but its effect on free float will be reflected in regular adjustment. It is noted that the shares used for calculation on the day of ban-lifting shall remain unchanged.</p>
<p>Secondary Offering</p>	<p>Secondary offering is the financing of issuing additional shares to specific investors (such as major shareholders or institutional investors) or to all investors.</p> <p>If the accumulated change of total shares caused by the secondary offering reaches or exceeds 5%, the shares used for calculation shall be temporarily adjusted on the date of secondary listing; otherwise they shall be subject to regular adjustment.</p> <p>Where the grant of restricted shares involves an increase in the total shares, it shall be treated in the same way as the secondary offering.</p>
<p>Share Cancellation</p>	<p>The listed company buys back a certain amount of its outstanding shares from the secondary market in cash or other assets and then cancels the repurchased shares.</p> <p>If the accumulated change of total shares caused by the share cancellation reaches or exceeds 5%, the shares used for calculation shall be temporarily adjusted on the next trading day of the announcement; otherwise they shall be subject to regular adjustment.</p>
<p>Over-allotment</p>	<p>The over-allotment option, also known as the "green shoe", is an option granted by the issuer to the lead underwriter which allows the lead underwriter to oversell up to 15% shares of the original offering size at the same offering price, meaning that the lead underwriter can issue up to 115% shares of the original size to the investors.</p> <p>If the accumulated change of total shares caused by over-allotment reaches or exceeds 5%, the shares used for calculation shall be temporarily adjusted on the date of listing of over-allotment shares; otherwise they shall be subject to regular adjustment.</p>

<p>Debt-to-Equity Swap</p>	<p>The bond holder may exchange the bond for the common security in the same listed company at the predetermined price at the time of issuance. If the accumulated change of total shares caused by debt-to-equity swap reaches or exceeds 5%, the share capital used for calculation shall be temporarily adjusted in the next trading day of the announcement; otherwise they shall be subject to regular adjustment.</p>
<p>Exercise of Warrants</p>	<p>An option contract offers the holder the right to buy a certain number of shares at a fixed price at any time before or on a particular date. If the accumulated change of total shares caused by exercise of warrants reaches or exceeds 5%, the shares used for calculation shall be adjusted temporarily on the listing date of shares of exercised options; otherwise they shall be subject to regular adjustment.</p>
<p>Scrip Dividend</p>	<p>A listed company gives investors the option of either directly receiving cash dividends or using cash dividends to buy newly issued shares at market prices. CSI treats this event in accordance with regular dividend on the ex-dividend day of constituents, and completes the difference adjustment of shares after the announcement of scrip dividend. If the accumulated change of total shares caused by scrip dividend reaches or exceeds 5%, the shares used for calculation shall be temporarily adjusted in the next trading day after the announcement; otherwise they shall be subject to regular adjustment..</p>

Appendix C: Free Float

A part of outstanding shares issued by listed companies are hardly tradable in a certain period of time due to sales restriction or shareholders strategic holding, etc. Inclusion of such shares in the index calculation will result in a misrepresentation of the investment opportunities of the index constituents. Therefore, CSI adopts free float to calculate index.

1. Scope of Free Float

CSI defines free float of the constituent as shares outstanding and tradable in the security market. According to CSI's definition, free float is the total shares of the constituent minus the restricted shares and the following non-free float shares. The Free Float includes:

Long term holdings by founders, families and senior executives: Shares held by founders of the company or by their families, and by senior executives or by directors, supervisors, etc.

State-owned shares: Shares held by the government or its subsidiaries.

Strategic holdings: Shares held by strategic investors for long-term strategic interests.

Employee share plans: Shares held by employee share plans.

2. Identification of Free Float

(1) All restricted shares subject to a lock-in period shall be deemed as non-free float.

(2) For non-restricted shares, if they fall into the above four types of shares and the holdings by shareholders or shareholders acting in concert are 5% or greater, they shall be deemed as non-free float, otherwise they shall be deemed as free float.

(3) Restricted shares after the lock-in period are treated in the same way as non-restricted shares.

3. Information Source

The identification and calculation of free float by CSI are based on objective information, including but not limited to:

Prospectus and listing notice: Information of the actual controlling persons, founders, strategic investors, holdings of senior executives and employees, etc. are available.

Periodic reports: Information of the actual controlling persons, founders, strategic investors, holdings of senior executives and employees, etc. are available.

Temporary reports: Shares change notice, acquisition notice, equity impawning notice, etc. are available.

4. Adjustment of Free Float

CSI timely tracks the changes of free float shares and adjusts free float changes resulted from the shareholder's behavior every six months. Each adjustment respectively takes effect on the next trading day of the 2nd Friday in June and December.

Appendix D: Examples of Index Calculation

If 3 securities are selected as constituent securities, the base period is the adjusted total market cap of 3 securities on base date. The base value is 1000 points.

✓ **No adjustment is required. Index is calculated as usual.**

Base Day

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	5	45,000
B	8,000	3,500	44%	50%	4,000	9	36,000
C	5,000	4,100	82%	100%	5,000	20	100,000
Total Adjusted Market Cap							181,000

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
181,000	181,000	1000	1000

Day 1

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	5.1	45,900
B	8,000	3,500	44%	50%	4,000	9.05	36,200
C	5,000	4,100	82%	100%	5,000	19	95,000
Total Adjusted Market Cap							177,100

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
177,100	181,000	1000	978.45

✓ **No index adjustment is required for dividend payment.**

Security B distributes cash dividend: ¥0.50/share. The next day is ex-dividend day. No adjustment is required.

Day 2

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	5.05	45,450
B	8,000	3,500	44%	50%	4,000	9.1	36,400
C	5,000	4,100	82%	100%	5,000	19.2	96,000
Total Adjusted Market Cap							177,850

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
177,850	181,000	1000	982.60

✓ Bonus issue, rights issue

Security B is to be traded ex-bonus for all shareholders at the ratio of 10 for 10 and the next day is ex-right day. Security C is to be traded ex-right for all shareholders at the ratio of 3 for 10 at ¥18/share and it is to be suspended from trading the next day.

Ex-right price for Security B is $9.1/(1+1) = ¥4.55$. Index adjustment is required.

Index Adjustment

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Ex-right Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	5.05	45,450
B	16,000	7,000	44%	50%	8,000	4.55	36,400
C	5,000	4,100	82%	100%	5,000	19.2	96,000
Total Adjusted Market Cap							177,850

Total Adjusted Market Cap before Adjustment (Yuan)	Total Adjusted Market Cap after Adjustment (Yuan)	Old Divisor	New Divisor
(1)	(2)	(3)	(3) * (2) / (1)
177,850	177,850	181,000	181,000

Day 3

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	4.9	44,100
B	16,000	7,000	44%	50%	8,000	4.5	36,000
C	5,000	4,100	82%	100%	5,000	19.2	96,000
Total Adjusted Market Cap							176,100

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
176,100	181,000	1000	972.93

✓ Rights issue

Security A is going to issue 1000 shares on the next day. Because the accumulated shares change of Security A account for only 1%, it is unnecessary to adjust the index immediately. Security B is going to be suspended from trading the next day. The rights offering of Security C succeeds. Security C is to resume trading the next day which is also the ex-right date of Security C. Ex-right price for Security C is $(19.2 + 18 \times 0.3) / (1 + 0.3) = \text{¥}18.923$.

Index Adjustment

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Ex-right Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	4.9	44,100
B	16,000	7,000	44%	50%	8,000	4.5	36,000
C	6,500	5,330	82%	100%	6,500	18.923	123,000
Total Adjusted Market Cap							203,100

Total Adjusted Market Cap before Adjustment (Yuan)	Total Adjusted Market Cap after Adjustment (Yuan)	Old Divisor	New Divisor
(1)	(2)	(3)	(3) * (2) / (1)
176,100	203,100	181,000	208,751

Day 4

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	100,000	9,000	9%	9%	9,000	4.8	43,200
B	16,000	7,000	44%	50%	8,000	4.5	36,000
C	6,500	5,330	82%	100%	6,500	19.1	124,150
Total Adjusted Market Cap							203,350

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
203,350	208,751	1000	974.13

✓ Secondary offering

Security A is going to issue 7000 shares on the next day. Because the accumulated shares change of Security A are 1000+7000=8000 shares which account for 8%, it is necessary to adjust the index immediately. Security B is to resume trading on the next day.

Index Adjustment

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Ex-right Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	4.8	103,680
B	16,000	7,000	44%	50%	8,000	4.5	36,000
C	6,500	5,330	82%	100%	6,500	19.1	124,150
Total Adjusted Market Cap							263,830

Total Adjusted Market Cap before Adjustment (Yuan)	Total Adjusted Market Cap after Adjustment (Yuan)	Old Divisor	New Divisor
(1)	(2)	(3)	(3) * (2) / (1)
203,350	263,830	208,751	270,837

Day 5

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	4.85	104,760
B	16,000	7,000	44%	50%	8,000	4.6	36,800
C	6,500	5,330	82%	100%	6,500	19.1	124,150
Total Adjusted Market Cap							265,710

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
265,710	270,837	1000	981.07

Day 6

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	4.8	103,680
B	16,000	7,000	44%	50%	8,000	4.65	37,200
C	6,500	5,330	82%	100%	6,500	19.5	126,750
Total Adjusted Market Cap							267,630

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
267,630	270,837	1000	988.16

Security C announces share changes and listing of right offerings: The total shares increases to 6470 and negotiable shares to 5300. Because the accumulated shares change of Security C are 30 shares which account for 0.5%, it is unnecessary to adjust the index immediately. The next day is the listing date of the right offerings.

Day 7

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	4.9	105,840
B	16,000	7,000	44%	50%	8,000	4.6	36,800
C	6,500	5,330	82%	100%	6,500	19.6	127,400
Total Adjusted Market Cap							270,040

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
270,040	270,837	1000	997.06

✓ Constituents adjustment

Security B is acquired by Security C, Security B is to be delisted the next day. Security D is the highest-ranking security on the reserve list.

Index Adjustment

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Ex-right Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	4.9	105,840
C	6,500	5,330	82%	100%	6,500	19.6	127,400
D	8,000	6,000	75%	80%	6,400	9.1	58,240
Total Adjusted Market Cap							291,480

Total Adjusted Market Cap before Adjustment (Yuan)	Total Adjusted Market Cap after Adjustment (Yuan)	Old Divisor	New Divisor
(1)	(2)	(3)	(3) * (2) / (1)
270,040	291,480	270,837	292,340

Day 8

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	5.1	110,160
C	6,500	5,330	82%	100%	6,500	20	130,000
D	8,000	6,000	75%	80%	6,400	9.5	60,800
Total Adjusted Market Cap							300,960

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
300,960	292,340	1000	1029.49

✓ Dividend Payment and Bonus Issue

Security C distributes cash dividend ¥1/share, and is to be traded ex-bonus for all shareholders at the ratio of 10 for 10. The next day is ex-right day.

Index Adjustment

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Ex-right Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	5.1	110,160
C	13,000	10,660	82%	100%	13,000	10	130,000
D	8,000	6,000	75%	80%	6,400	9.5	60,800
Total Adjusted Market Cap							300,960

Total Adjusted Market Cap before Adjustment (Yuan)	Total Adjusted Market Cap after Adjustment (Yuan)	Old Divisor	New Divisor
(1)	(2)	(3)	(3) * (2) / (1)
300,960	300,960	292,340	292,340

Day 9

Security	Total Shares	Negotiable Shares	Negotiable Shares Ratio	Inclusion Factor	Adjusted Shares	Closing Price (Yuan)	Adjusted Market Cap (Yuan)
A	108,000	17,000	16%	20%	21,600	5	108,000
C	13,000	10,660	82%	100%	13,000	9	117,000
D	8,000	6,000	75%	80%	6,400	10.5	67,200
Total Adjusted							292,200

Index Calculation

Total Adjusted Market Cap (Yuan)	Divisor	Base Index	Closing Index
(1)	(2)	(3)	(3) * (1) / (2)
292,200	292,340	1000	999.52

Appendix E: CSI Index Glossary

Key Term	Definition
Security	The security in this methodology refers to the stocks of listed companies and CDR.
Share	When the constituents are CDR, the share refers to the number of depositary receipts.
Weight Restriction	Refers to the requirements for the weight of the constituents, such as the weight of all samples are equal, or the weight of a single sample does not exceed 5%, etc.
Announcement Date	The date on which results of index review are published.
Average Daily Total Market Capitalization	The arithmetic means of the daily total market capitalization of a company over a certain period of time before the Data Cutoff Date (excluding the suspension days).
Average Daily Trading Value	The arithmetic means of the daily trading value of a company over a certain period of time before the Data Cutoff Date (excluding the suspension days).
Base Date of the Index	The date on which the index has its initial value (Base Level) and against which the performance of the index is measured.
Base Level	The initial value of an index. The benchmark value from which ongoing calculations are done and compared to.
Buffer Zone	Buffer Zone Rules is applicable to certain CSI indices in regular adjustment for the sake of minimum turnover. The buffer zone ratio is specified in each index methodology.
Capped Weight	The weight of the constituents shall not exceed the upper limit.
Category-Weighted Method	CSI will grant certain inclusion factor to the security according to the percentage of free float shares in total shares to ensure index stability.
Corporate Event	Corporate Events include cash dividend, stock dividend, secondary offerings and other price or shares changing events.
CSI Industry Classification Standard	CSI classifies listed companies into specific industries according to their main business activities, such industry classification comprises of four levels.

Derived Index	A derived index is constructed using a parent index as its universe of construction. For example, the CSI 300 Total Return Index and the CSI 300 Net Return Index are both the derived indices of the CSI 300 Index.
Divisor	A component of the index calculation formula which is used to adjust the index to ensure that the index values remain comparable over time.
Effective Date	The date on which the adjustment is implemented.
Fast Entry Index	The securities eligible for fast entry shall be added in the index after the close of the tenth trading day.
Free Float (free float shares)	The outstanding shares available for purchase in the public security markets
Free Float Proportion	The percentage of free float in the total shares
Free Float Regular Review	The regular review of the shareholder information used to estimate free float. It is carried out for all securities in the constituents universe. The adjustment is periodically carried out twice a year, each shall be effective on the next trading day of the second Friday in June and December.
Free Float-Adjusted Market Capitalization	The market capitalization of a security adjusted by Inclusion Factor Obtained by multiplying full market capitalization of the security by the inclusion factor.
Full Market Capitalization	The total value of the company's equity capital which is derived from multiplying the total number of shares issued by its market price.
Growth Factor	The main indicator assigned to a growth company in the CSI style indices, which uses three variables to specify the growth investment style characteristics, including sales growth rate, net profit growth rate, and internal growth rate.
Growth Z-Score	In the CSI style indices, the Growth Z-Score is obtained by taking the average of the three growth variables' Z-Scores.
Inclusion Factor	The proportion derived from the adjustment of free float proportion according to the CSI series index classification method.

Industry Indices	Industry Index aims to represent the performance of companies in different industries and sectors, such industries and sectors are specified in CSI Industry Classification Standard or the CSRC Listed Company Industry Classification Guidelines.
Market Cap Used for Index Calculation	The market value used for the index calculation is derived from multiplying the free float-adjusted capitalization by the Weight/Cap Factor.
Net Total Return Index	The Index takes account of the interests of dividend provided that the post-tax dividend of the security is reinvested in the index on the ex-dividend date.
Number of Constituents Adjustment Limit	The limit on the proportion of the number of constituents to be replaced in the index regular adjustment.
Regular Adjustment	The periodical reassessment of the eligibility of index constituents and their weights by CSI, (usually performed monthly, quarterly, semi-annually or annually). The review process ensures that the index continue to accurately represent the performance of the underlying market or market segment at the time of its construction.
Price Adjustment Factor	Multiplier applied to the market price of a security on the effective date of a corporate event to offset the price movement related to the corporate event only.
Real Time	Real Time allows information to be obtained instantaneously without delay.
Reference Open Price for Next Trading Day	The Reference Open Price for the next trading day adjusted by corporate events, that is, the ex-right and Ex-dividend price.
Reference Open Net Price for Next Trading Day	The Reference Open Net Price for the next trading day adjusted by corporate events, that is, the net ex-right and ex-dividend price.
Reserve List	A reserve list will be prepared for each index regular adjustment. When there is a vacant for index constituent due to events such as delisting or M&As of the previous existing constituents, or when a temporary change to the constituent is in need due to other reasons, the top-ranked securities on the reserve list shall be included as new constituents in sequence. The number of securities in the reserve list is generally 5% of the number of constituents in the index.

Equity Index of Price	The performance of the index is calculated by the index constituents' market prices.
Shareholder Behavior	Mainly refers to the increase, decrease, or transfer of shares by shareholders.
Strategy Indices	Strategy Index is based on alternative weighting schemes, in which a tilt towards one or more factors such as momentum, volatility and beta is introduced to capture additional systematic risk premium.
Style Indices	Style Index allows investors to measure the performance of growth or value companies.
Style Weighting Factor	One of the elements in the calculation of the CSI style indices, which is assigned based on the ratio of growth Z-Score rank to the value Z-Score rank. For further details on Style Weighting Factor. (see the CSI 800 Style Index Methodology).
Thematic Indices	Thematic Index seeks to identify the long-term trend in the economies and the driving factors behind, and then include related industries and listed companies into the investment target range. The thematic index often cuts across traditional sector and geographical boundaries and can provide diversified targets for the top-down thematic investment.
Total Issuing Market Capitalization	The total value of the equity capital of a company, derived from multiplying the total number of shares issued by its issue price.
Total Return Index	Total Return Index takes account of the interests of dividend provided that the pre-tax dividend of the security is reinvested in the index on the ex-dividend date.
Value Factor	The main indicator assigned to a value company in the CSI style indices, which uses four variables to specify the value investment style characteristics, including dividend yield (D/P), book value-to-price ratio (B/P), cash flow-to-price ratio (CF/P), and earnings-to-price ratio (E/P).

Value Z-Score	In the CSI style indices, the Value Z-Score is obtained by taking the average of the four value variables' Z-Scores.
Weight/Cap Factor	The factor used to adjust the initial weight of the constituents to meet the weight requirements.
Winsorizing the Variables	A method of extreme value treatment applied to the observations to ensure that the observations are less affected by extreme values.
Z-score	The number of standard deviations an observation is away from the mean.

Appendix F: Summary of Calculation and Maintenance Methodology Changes

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Adjustment to Category-Weighted Rules	2006-04	The exact float ratio is used as the inclusion factor if it is less or equal to 20%.	The exact float ratio is used as the inclusion factor if it is less or equal to 10%, and if the exact float is more than 10% but less or equal to 20%, the inclusion factor shall be 20%.
Fast Entry Rule	2006-07		<p>Additional Rules:</p> <p>If the total A share market cap of an IPO meets certain conditions, CSI shall apply the fast entry rules to some indices such as CSI 300 Index and CSI 100 Index. The specific rules are as follows:</p> <p>If the total A share market cap of an IPO (which equals to issue price multiplied by total A shares) ranks top 10 (compared with all the A-share securities by average daily A share market cap during the past year before the listing announcement date of the IPO) in the overall market and it satisfies the requirements of index universe, then fast entry rules shall be applied to the index. That is, it shall be added in the index after the close of the tenth trading day. Meanwhile, for some indices such as CSI 300 Index and CSI 100 Index, the lowest constituent ranked by daily average market cap of the most recent year will be deleted from the index.</p> <p>If an IPO meets the criteria of fast entry, however, the time span between its listing time and the effective day of the next constituents periodical review is less than 20 trading days, fast entry rules shall not be applied immediately but be implemented together with the next regular adjustment.</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Merger & Acquisition and Spin-off Rule	2006-09		<p>Additional Rules.</p> <p>√ Merger and Acquisition</p> <ul style="list-style-type: none"> - Two constituent companies merge, or one constituent company merges with one non-constituent company: The stock of the resulting new company shall retain constituent eligibility and remain in the index if it meets the criteria for index constituent selection. Otherwise, the stock shall be deleted from the index as soon as practicable and the vacancy shall be considered whether to be filled according to the index methodology. - One non-constituent company merges with one constituent company: When one non-constituent company purchases or takes over one constituent company, if the stock of the resulting new company meets the criteria for index constituent selection and ranks higher than the highest-rank stock in the reserve list, then the new stock shall be added to the index. Otherwise, the stock shall be deleted from the index as soon as practicable, and the vacancy shall be considered whether to be filled according to the index methodology. - Merger, spin-off, acquisition and restructuring of non-constituents: If the total market cap of the stock of the resulting new company ranks top 10 in the underlying market due to the above corporate events, fast entry rules shall be applied according to the respective index methodologies. Otherwise, these corporate events shall be considered together in the index regular adjustment. <p>√ Spin-off</p> <ul style="list-style-type: none"> - If one constituent company is spun off so as to form two or more companies, then whether the resulting companies are eligible for inclusion or not depends on the index methodology and their rankings. - If the resulting companies' securities meet the criteria for index constituent selection, or part or all of the resulting companies' securities rank higher than the lowest-rank constituent, then the resulting companies' securities that rank higher than the lowest-rank constituent shall be added to the index as new inclusion. Meanwhile, the decision on whether the lowest-rank constituent(s) shall be removed to keep the constant number of the index constituents shall depend on the

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
			<p>index methodology.</p> <ul style="list-style-type: none"> - If all the resulting companies' securities rank lower than the lowest-rank constituent, but part or all the resulting companies' securities rank higher than the highest-rank stock in the reserve list, then the highest-rank new resulting company's stock shall replace the stock of the former company and be added to the index as new inclusion - If the resulting companies' securities don't meet the criteria for index constituent selection, or all the resulting companies' securities rank lower than the lowest-rank constituent and the highest-rank stock in the reserve list (if any), then the highest-rank company's stock in the reserve list shall be added to the index.
Suspension from listing and Delisting Rule	2006-09		<p>Additional Rules:</p> <p>If a constituent company is suspended from listing or delisted from the A share market, it shall be removed from the index and be replaced by the highest-ranking company in the reserve list.</p>
Long Suspension Securities Rules	2006-09		<p>Additional Rules:</p> <p>√ Generally, for CSI index constituents, in the periodic review of their eligibility:</p> <ul style="list-style-type: none"> - If the constituent has been suspended for 3 months and has not resumed trading as of the Data Cutoff Date, it shall be classified as the candidate stock to be removed. - If the constituent has been suspended for close to 3 months and has not resumed trading yet as of the Data Cutoff Date, it shall be reported to the Index Advisory Committee. The Committee shall discuss and decide whether it should be classified as the candidate stock to be removed. - If the constituent has been suspended for 3 months during the period of time for constituent review but has been resumed trading now, and satisfies the constituent eligibility, it shall remain in the index in principle. <p>√ For non-constituent securities, in the</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
			<p>periodic review of their eligibility:</p> <ul style="list-style-type: none"> - If the stock has been suspended for 3 months and has not resumed trading as of the Data Cutoff Date, it shall not be selected as a candidate new addition. - If the stock has been suspended for close to 3 months and has not resumed trading yet as of the Data Cutoff Date, it shall be reported by CSI to the Index Advisory Committee. - If the stock has been suspended for 3 months during the period of time for constituent review, it shall regain its eligibility of being included in the index only after 3 months of the resumption of trading.
Bankruptcy Rule	2006-09		<p>Additional Rules: If a constituent company files for bankruptcy or receives a bankruptcy order, it shall be removed from the index, and whether the vacancy should be filled shall depend on the index methodology.</p>
Suspension Securities Temporary Adjustment Rule	2007-07		<p>Additional Rules: If a constituent is suspended from trading, CSI shall determine whether to remove it from the index based on its suspension reasons.</p>
Adjustment to Free Float Implementation Rules	2008-02	The Category-Weighted float shall be used for Index Calculation.	<p>The Category-Weighted free float shall be used for Index Calculation. Changes of free float shares caused by non-corporate events (such as the ban-lift of "big non-tradable shares") shall be adjusted every half year. The adjustment will take effect from the first trading days of every January and July.</p>
Adjustment to Index Regular Review Schedule	2013-12	The index regular review shall be implemented on the first trading day in January and July.	<p>The index regular review shall be implemented on the next trading day after the close of the second Friday in June and December.</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Index Regular Review Schedule and Corporate Events Methodology Adjustment	2013-12	<p>Meetings of CSI Index Advisory Committee are usually held in the mid of June and December every year.</p> <p>Index constituents Corporate Events Methodology will be adjusted strictly according with the ex-right day or listing day.</p>	<p>Meetings of CSI Index Advisory Committee are usually held in the end of May and November every year.</p> <p>The effective day of index regular review will be adjusted from the first trading day in January and July to the next trading day after the second Friday in June and December.</p> <p>Index constituents Corporate Events Methodology will be adjusted to Concentrated Implementation method instead of strictly according with the ex-right day or listing day.</p> <ul style="list-style-type: none"> • If the stock dividends, rights issues, stock split and stock consolidation corporation events lead to constituents shares change, the adjustment will be implemented on the ex-right day. • For other corporation events, such as second offering and exercise of warrants, if the accumulated change of constituents shares is more than 5%, the adjustment will be implemented immediately. If the accumulated change of constituents shares is less than 5%, the adjustment will be implemented in the next regular review.
Adjustment to Free Float Ratio of Free Float	2015-03	<p>If the exact float ratio is between 0 and 10%, the inclusion factor shall be reserved to 4 decimal places of the free float ratio.</p>	<p>If the exact float ratio is between 0 and 15%, the inclusion factor shall be rounded up to the nearest percentage point. The rest of the free float methodology shall remain unchanged.</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Adjustment to Free Float Rules Description	2016-12	<p>According to CSI's definition, free float is total A shares minus the restricted trading shares and the following 6 types of non-negotiated shares:</p> <ol style="list-style-type: none"> 1、 Long term holdings by founders, families and senior executives: Shares held by founders or by their families, as well as shares held by senior executives, directors and supervisors 2、 State-owned shares: Shares held by the government or its subsidiaries. 3. Strategic holdings: Shares held by strategic investors for long-term strategic interests in lock-in period. 4. Restricted employee shares: Securities held by enterprise employee include employee pension plan, annuities for employees or management staff. 5. Frozen shares: Frozen shares held by investors before being released. 6. Cross holdings: Cross holding is the practice of two or more businesses holding shares issued by one another for specific purpose. 	<p>According to CSI's definition, free float is total A shares minus the restricted trading shares and the following 4 types of non-negotiated shares:</p> <ol style="list-style-type: none"> 1、 Long term holdings by founders, families and senior executives: Shares held by founders or by their families, as well as shares held by senior executives, directors and supervisors. 2、 State-owned shares: Shares held by the government or its subsidiaries. 3、 Shares held by strategic investors: Shares held by strategic investors for long-term strategic interests. 4、 Shares held within employee share plans.

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Adjustment to Long Suspension Securities Rules	2019-12	<p>Generally, for index constituents, in the periodic review of their eligibility:</p> <ul style="list-style-type: none"> □ If the constituent has been suspended for 3 months and has not resumed trading as of the Data Cutoff Date, it shall be classified as the candidate stock to be removed. □ If the constituent has been suspended for close to 3 months and has not resumed trading yet as of the Data Cutoff Date, it shall be reported to the Index Advisory Committee. The Committee shall discuss and decide whether it should be classified as the candidate stock to be removed. □ If the constituent has been suspended for 3 months during the period of time for constituents review but has been resumed trading now, and satisfies the constituent eligibility, it shall remain in the index in principle. <p>For non-constituent securities, in the periodic review of their eligibility:</p> <ul style="list-style-type: none"> □ If the stock has been suspended for 3 months and has not resumed trading as of the Data Cutoff Date, it shall not be selected as a candidate of new additions. 	<p>Generally, for index constituents, in the periodic review of their eligibility:</p> <ul style="list-style-type: none"> □ Constituents that have been suspended for more than 25 trading days and have not resumed trading as of the deadline of data used for constituents eligibility review, if listed on the candidate deletion list, will be classified as priority deletion securities in principle. □ CSI should report the name list of constituents that have been suspended close to 25 trading days as of the deadline of data used for constituents eligibility review to the index advisory committee. The committee will discuss and decide whether they should be classified as candidate deletion securities. □ If the delete securities are under suspension and the reason for the suspension is significant negative event, then the constituent will be deleted from the indices at the price of 0.00001 Yuan. In the event that such securities under long suspension resume trading at least one trading day prior to the effective date, then CSI will amend the deletion price to market price and release announcements. Under other conditions, suspended old constituent will be deleted from the indices at its closing market price before suspension. <p>For non-constituent securities, in the periodic review of their eligibility:</p> <ul style="list-style-type: none"> □ Securities that are under suspension and without clear expectation about trading resumption on the date of the Index Advisory Committee meeting will not be able to be selected as candidate new additions in principle. □ Securities that have been suspended for more than 25 trading days during the data period used for constituents

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
		<ul style="list-style-type: none"> <li data-bbox="639 271 935 600">□ If the stock has been suspended for close to 3 months and has not resumed trading yet as of the Data Cutoff Date, it shall be reported by CSI to the Index Advisory Committee. <li data-bbox="639 611 935 1010">□ If the stock has been suspended for 3 months during the period of time for constituents' review, it shall regain its eligibility of being included in the index only after 3 months of the resumption of trading. 	<p data-bbox="1090 271 1485 465">review can be included in the index only if they have been resumed trading for 3 months except in special circumstances approved by the Index Advisory Committee.</p> <ul style="list-style-type: none"> <li data-bbox="1034 477 1485 667">□ For new additions suspended between the announcement date and the effective date of the periodical review, CSI will decide whether to adjust the addition or not.

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Constituents under Risk Warning Status Temporary Adjustment Rule	2019-12		<p>Additional Rules:</p> <p>Constituents under risk warning status will be deleted from the indices on the next trading day after the second Friday of the next month following the month of the implementation of risk warning of securities.</p> <p>The deletions of constituents entering into risk warning status in April, in October, or between the announcement date and effective date of the periodic review will be made to coincide with the effective date of the periodic index review.</p> <p>In general, the adjustment plans will be announced two trading days prior to the effective date.</p>
Maintenance of Constituents	2020-06	<p>Temporary adjustment or regular adjustment shall be made according to the types of corporate events. The rules are as follows:</p> <p>If the bonus issue, rights issue, stock split and consolidation result in a change in the constituents' price and shares, the adjustment will be implemented on the ex-right day.</p> <p>Temporary or regular adjustment shall be carried out in occurrence of other corporate events such as secondary offering, debt-to-equity swap and exercise of warrants, etc. The temporary</p>	<p>CSI conducts immediate or concentrated adjustments on prices or shares according to the different types of corporate events.</p> <p>Immediate adjustments refer to:</p> <p>Constituents' price changes due to dividend distribution shall be implemented on the ex-dividend day.</p> <p>For corporate events resulting in simultaneous change in constituents' price and shares, such as bonus issue, rights issue, stock split and consolidation, etc., adjustments shall be implemented on the ex-right day.</p> <p>Concentrated adjustments refer to:</p> <p>Temporary or regular adjustment shall be carried out in occurrence of other corporate events such as secondary offering, debt-to-equity swap, exercise of warrants etc. The temporary adjustment shall be made to</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
		<p>adjustment shall be made when the accumulated change of the total share capital exceeds or reaches 5%. Otherwise, the regular adjustment shall be made.</p> <p>Usually, the Effective Date of temporary adjustment is consistent with the indicated date in the announcement made by the listed company when the accumulated change of the total share capital exceeds or reaches 5%. If the date of announcement time is later than the indicated date in the announcement, then the Effective Date shall be the next trading day of the announcement. Where the threshold is triggered, CSI will provide CA reference files for the index users after the market close.</p>	<p>constituents' shares when the accumulated change of the total shares exceeds or reaches 5%. Otherwise, change of shares shall be implemented in the regular adjustment. Usually, the Effective Date of temporary adjustment shall be two trading days later than the new shares listing day disclosed in the announcement made by the listed company when the accumulated change of the total shares exceeds or reaches 5%. (If the announcement day is later than the new shares listing day, the next trading day after the announcement day shall be regarded as the new shares listing day.) CSI will provide notices of temporary adjustment of corporate events in CA files for the reference of index users.</p>
<p>Supplement the rules of IPO, Index Calculation Formula, and Exchange Rates for Index calculation, etc.</p>		<p>2.1 IPO</p> <p>If the total A share market cap of an IPO meets certain conditions, CSI shall apply the fast entry rules to some indices such as CSI 300 Index and CSI 100 Index. The specific rules are as follows:</p> <p>If the total A share market cap of an IPO (which equals to issue price multiplied by total A shares) ranks top 10 (compared with all the A-share securities by average daily A share market cap during the past year before the listing announcement date of the IPO) in the overall market and it satisfies the requirements of index universe, then fast entry rules shall be applied to the index. That is, it shall be added in the index after the close of the tenth trading day. Meanwhile, for some indices such as CSI 300 and CSI 100, the lowest constituent ranked by daily average market cap of the most recent year will be deleted</p>	<p>2.1 IPO</p> <p>If the total A share market cap of an IPO meets certain conditions, CSI shall apply the fast entry rules to some indices such as CSI 300 Index and CSI 100 Index. The specific rules are as follows:</p> <p>If the total A share market cap of an IPO (which equals to issue price multiplied by total A shares) ranks top 10 (compared with all the A-share securities by average daily A share market cap during the past year before the listing announcement date of the IPO) in the overall market and it satisfies the requirements of index universe, then fast entry rules shall be applied to the index. That is, it shall be added in the index after the close of the tenth trading day. Meanwhile, for some indices such as CSI 300 and CSI 100, the lowest constituent ranked by daily average market cap of the most recent year will be deleted from the index.</p> <p>For IPO which are not A-share, if the total issuing market cap meets certain conditions, CSI shall adopt the fast entry rules for some indices. For further information about the indices adopting the fast entry rules, please see respective index methodologies.</p> <p>If an IPO meets the criteria of fast entry,</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
		<p>from the index.</p> <p>For IPO which are not A-share, if the total issuing market cap meets certain conditions, CSI shall adopt the fast entry rules for some indices. For further information about the indices adopting the fast entry rules, please see respective index methodologies.</p> <p>If an IPO meets the criteria of fast entry, however, the time span between its listing time and the effective day of the next constituents periodical review is less than 20 trading days, fast entry rules shall not be applied immediately but be implemented together with the next regular adjustment.</p> <p>4.5 Multi Currency Index CSI calculates multi-currency indices for some indices to satisfy investors' needs. The adjusted market cap calculation of multi-currency index formula is:</p> $\text{Adjusted Market Cap} = \sum (\text{Price} * \text{Adjusted No. of Shares} * \text{Foreign Exchange Rate})$ <p>Unless otherwise stated, here Foreign Exchange Rate refers to the exchange rate sourced from the data providers as designated by CSI from time to time. The real-time Foreign Exchange Rate is used to calculate the real-time index; the Foreign Exchange Rate at index closing time is used to calculate the closing-quotation index.</p> <p>The exchange rate of RMB in index calculation will normally use on shore exchange rate (CNY). If other exchange rate of RMB is used in index calculation, such as CNH, CSI will mark this in the index name.</p>	<p>however, the time span between its listing time and the effective day of the next constituents periodical review is less than 20 trading days, fast entry rules shall not be applied immediately but be implemented together with the next regular adjustment.</p> <p>If an IPO satisfies the requirements of index universe, and its daily average market cap ranks top 10 in the market by comparing the daily average market cap of an IPO in the range from the sixth trading day after listing (including the sixth trading day) to two weeks prior to the day of three-month listing with the daily average market cap of all the A-share securities in the same time range, it shall be added into some indices including the SSE Composite Index (000001) after three months of listing. For further information about the indices adopting the above rule, please see respective index methodologies.</p> <p>Add Rule 4.1 Index Calculation Formula.</p> <p>4.6 Exchange Rates for Index calculation Unless otherwise stated, Exchange Rate refers to the exchange rate sourced from the data providers as designated by CSI from time to time. The real-time Exchange Rate is used to calculate the real-time index; the Exchange Rate at index closing time is used to calculate the closing-quotation index.</p> <p>The exchange rate of RMB in index calculation will normally use on shore exchange rate (CNY). If other exchange rate of RMB is used in index calculation, such as CNH, CSI will mark this in the index name.</p> <p>The prices of B shares in the constituents of the SSE Composite Index (000001 and the SSE Sector Indices (000004-000008) are converted into CNY using the applicable exchange rate (USD/CNY Central Parity Rate on the last trading day of each week published by China Foreign Exchange Trade System).</p>

Adjustments	Effective Date	Before the Adjustment	After the Adjustment
Securities listed in STAR MARKET (including CDR) included in index universe, etc.	2020-12	<p>1.7 Securities Experiencing Financial Losses</p> <p>In principle, securities that suffered losses in financial report are not eligible to be selected as candidate new additions in constituents' periodical review unless the securities have a great impact on the representativeness of index.</p>	<p>1.7 Securities Experiencing Financial Losses</p> <p>In principle, except securities listed in STAR MARKET, securities that suffered losses in financial report are not eligible to be selected as candidate new additions in constituents' periodical review unless the securities have a great impact on the representativeness of index.</p> <p>2.8 Weights of Inheritance</p> <p>For indices with weight restriction, if any constituent of the index is changed beyond periodical reviews, the inserted constituent will inherit the weight of the deleted constituent as of the close of one trading day before the effective date of the addition and calculate the weight factor of new security.</p>

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