



恒生指數
HANG SENG INDEXES

Index Operation Guide

For Managing the
Hang Seng Family of Indexes



Amendment History

	Effective Date	Description
1.0	September 2011	<ul style="list-style-type: none">• First issue
2.0	June 2012	<ul style="list-style-type: none">• Addition of index treatment for Equal Weighted Indexes [Section 3, 4 and 5]
2.1	July 2012	<ul style="list-style-type: none">• New treatment for non-cash distribution [Section 3]
3.0	December 2012	<ul style="list-style-type: none">• Addition of index treatment for Alternative Weighting Indexes [Section 3, 4 and 5]• Include current withholding tax rates in Appendix I
3.1	March 2013	<ul style="list-style-type: none">• Addition of late dividend handling [Section 3]
3.2	March 2014	<ul style="list-style-type: none">• Specification of index treatment for non-cash distribution (to be listed) [Section 3]
3.3	April 2014	<ul style="list-style-type: none">• Index treatment of open offer of unlisted securities [Section 3]
3.4	February 2015	<ul style="list-style-type: none">• New index treatment for spin-off/demerger, non-cash distribution (listed) & non-cash distribution (to be listed) [Section 3]• Addition of abnormal noise treatment for Hang Seng Futures Index [Section 10]• Update of withholding tax rate of Italy and Japan [Appendix 1]
3.5	August 2015	<ul style="list-style-type: none">• Amendment on late dividend handling [Section 3]• Amendment on the index treatment for Equal Weighted Indexes and Alternative Weighting Indexes [Section 3 & 4]
3.6	April 2016	<ul style="list-style-type: none">• Addition of new treatment for Suspension (Due to bankruptcy / under regulatory investigation) and Prolonged Suspension [Section 3]• Addition of withholding tax rate of Malaysia [Appendix 1]



	Effective Date	Description
3.7	July 2016	<ul style="list-style-type: none">• Addition of Exclusion of Companies with High Shareholding Concentration Notices [Section 4]• Addition of Split / Reverse Split Mechanisms for Hang Seng Short / Leveraged Index Series [Section 4]• Addition of cap level information [Section 5]• Creation of new section for Hang Seng Industry Classification System [Section 7]
3.8	January 2017	<ul style="list-style-type: none">• Addition of Conditions for High Shareholding Concentration Companies to Regain Eligibility for Constituency in Hang Seng Family of Indexes [Section 4]
3.9	July 2017	<ul style="list-style-type: none">• Addition of share class definition [Section 10]• Amendment on the foreign exchange rate to convert dividend amount [Section 10]
3.10	February 2018	<ul style="list-style-type: none">• Amendment of Index Adjustment on To-be-listed Non-cash Distribution [Section 3]
3.11	August 2018	<ul style="list-style-type: none">• Amendment of links [Section 4, Section 8 and Section 9]
3.12	September 2018	<ul style="list-style-type: none">• Creation of new section for Index Treatment on Market Closures, Market Disruptions & System Failure [Section 13]
3.13	June 2020	<ul style="list-style-type: none">• Addition of WVR Shares and Secondary-Listed Greater China Companies handling [Section 6]
3.14	July 2021	<ul style="list-style-type: none">• Update index treatment for non-cash distribution (to be listed) [Section 3]
3.15	November 2021	<ul style="list-style-type: none">• Amendment of the ad-hoc issued shares update handling on Secondary-listed Greater China Companies [Section 4]• Amendment on the handling of ad-hoc recapping due to issued shares update [Section 4]• Update lock-up shares handling in freefloat-adjusted factor [Section 6]• Amendment on the treatment of freefloat-adjusted factor for Secondary-listed Greater China Companies [Section 6]



	Effective Date	Description
3.16	December 2021	<ul style="list-style-type: none">Updated the geographical classification guidelines [Section 10]
3.17	March 2022	<ul style="list-style-type: none">Amendment of newly listed companies for Hang Seng Industry Classification System [Section 7]
3.18	October 2022	<ul style="list-style-type: none">Addition of market communication in the event of index service interruption [Section 13]
3.19	December 2022	<ul style="list-style-type: none">Amendment of Other Corporate Events [Section 4]Updated treatment on secondary-listed Companies [Section 6]
3.20	May 2023	<ul style="list-style-type: none">Update the treatment on Listed Non-cash Distribution [Section 3]



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1 Introduction

- 1.1 This document describes the general maintenance policies and detailed guidelines for the management of the Hang Seng Family of Indexes.
- 1.2 Users are reminded that there might be exceptions to the general approach in some special situations.
- 1.3 Hang Seng Indexes Co Ltd (“HSIL”) reserves the right to determine the most appropriate implementation method and will announce it prior to the changes becoming effective as soon as practicable.
- 1.4 Unless otherwise stated, the policies and guidelines shall be applicable to all indexes in the Hang Seng Family of Indexes.



2 Index Family Coverage

- 2.1 Hang Seng Family of Indexes covers the Hong Kong and mainland China markets.
- 2.2 Besides standard equity indexes (including price index, gross total return index and net total return index), HSIL also compiles indexes on other asset classes, e.g. REITs, and offers indexes based on different trading strategies such as the HSI Volatility Index, Hang Seng Short and Leveraged Index Series and Dividend Point Indexes.
- 2.3 HSIL calculates both real-time and daily indexes. Some of these indexes are valued in multiple currencies to satisfy market needs.
- 2.4 For the latest update about what indexes are being managed by HSIL, please refer to our website.



3 Corporate Actions and Adjustments

- 3.1 In the event of corporate actions, our indexes will be adjusted in order to maintain continuity.
- 3.2 A minimum notice period of two trading days prior to the implementation will be given to index users for any index changes resulted from corporate actions.
- 3.3 The below table lists out our general practices for handling different corporate actions.

Event	Description	Adjustment			
		Issued Shares ("IS")	Closing Price ("P")	Divisor ("D")	
(a)	Cash Dividend/ Distribution	Dividend/ distribution in cash	<p>No adjustment will be made to the price index. Instead, the cash dividend or distribution will be reflected in the total return index counterpart as reinvestment on the ex-date.</p> <p><i>Note:</i></p> <p>(i) Besides normal cash dividends, the following types of dividends are also considered as cash dividend equivalents</p> <ul style="list-style-type: none"> - Cash dividends with scrip option; - Scrip dividends with cash option; and - Scrip dividends with a preannounced cash value. <p>(ii) If new shares allotted from bonus, rights issues, etc. have a dividend disadvantage (i.e. the new shares receive a different dividend amount from that paid on the old shares), the dividend amount used in the index calculation will also be adjusted accordingly.</p> <p>(iii) For late dividend (a dividend that is known only after the ex-date), no adjustment will be made to the price index. Instead, the cash dividend or distribution will be reflected in the total return index counterpart as reinvestment on the payment date.</p>		



Event	Description	Adjustment			
		Issued Shares ("IS")	Closing Price ("P")	Divisor ("D")	
(b)	Bonus/ Stock Dividend	X bonus share(s) for holding of every Y existing share(s)	$IS_{adjusted} = IS_{before} * (X + Y) / Y$	$P_{adjusted} = P_{before} * Y / (X + Y)$	↔
(c)	Subdivision of Shares/ Split	X existing share(s) to be subdivided into Y subdivided share(s)	$IS_{adjusted} = IS_{before} * Y / X$	$P_{adjusted} = P_{before} * X / Y$	↔
(d)	Consolidation/ Reverse Split	X existing shares to be consolidated into Y consolidated share(s)	$IS_{adjusted} = IS_{before} * Y / X$	$P_{adjusted} = P_{before} * X / Y$	↔
(e)	Parallel Trading	Trading in a company's shares under both a temporary stock code and the original stock code. Usually applied to securities which have undergone corporate actions such as consolidation, subdivision, change in board lot size or re-organisation involving share exchange other than on a one-to-one basis.	<p>The company in concern will be included in the relevant indexes using the temporary stock code during the period where the original stock code is not available.</p> <p><i>Example:</i> Temporary stock code change of Li & Fung (from 0494.HK to 2909.HK) during 19 May to 1 June 2011 after its share subdivision.</p>		



Event	Description	Adjustment			
		Issued Shares ("IS")	Closing Price ("P")	Divisor ("D")	
(f)	Listed Non-cash Distribution	Dividend/ Distribution in specie of X share(s) in Company A for holding of every Y existing share(s) of Company B	1. For freefloat-adjusted market capitalisation weighted indexes or tilted weighted indexes:		
			$IS_B \leftrightarrow$	$P_B \text{ adjusted} = P_B \text{ before} - (P_A * X / Y)$	\leftrightarrow
			$IS_D = IS_B * X / Y$	$P_D = P_A$	
			<p><i>Note:</i></p> <ul style="list-style-type: none"> (i) A 'detached' Security D representing the entitlement of Company A arising from the event will be added to the price index at the closing price of Company A after market close on the trading day immediately prior to the ex-date. (ii) Security D will remain in the index with price equivalent to the price of Company A until the index trading day immediately before the payment date. (iii) Security D will be removed from the index after market close on the index trading day immediately before the payment date. The index weighting of Company A will be adjusted to the effect that Security D remains in the index. 		
			2. For other indexes, price adjustment will be applied to Company B as following:		
			\leftrightarrow	$P_B \text{ adjusted} = P_B \text{ before} - (P_A * X / Y)$	\downarrow



Event	Description	Adjustment		
		Issued Shares ("IS")	Closing Price ("P")	Divisor ("D")
		<p><i>Note:</i></p> <p>(i) The price of Company B will be adjusted according to the distribution terms after market close on the trading day immediately prior to the ex-date.</p>		
(g)	To-be-listed Non-cash Distribution	X share(s)/ unit(s) of the distribution for holding of every Y existing shares	<p>The price of the constituent will be suspended for index calculation on the ex-date.</p> <p>An estimated market value will be added to the price index on the trading day after ex-date until the trading day before listing of the distributed instrument. If the closing price of the concerned constituent on the ex-date drops as compared to the previous business day, the estimated market value will be calculated according to the price drop. Otherwise, the estimated market value will be calculated and added in the price index using the minimal system price (i.e. HK\$0.0001).</p> <p>The distributed instrument will be added to the price index on its listing date and removed after market close. HSIL will have the discretion to defer the removal of the distributed instrument from the index if the distribution is material.</p> <p>When performing regular index rebalancing, if the distributed instrument is listed before the effective day, the estimated market value should be deemed to be removed and ignored. Otherwise, the weight of the estimated market value will be kept unchanged before and after index rebalancing.</p>	



Event	Description	Adjustment			
		Issued Shares ("IS")	Closing Price ("P")	Divisor ("D")	
		<i>Note:</i> To-be-listed non-cash distributions include stock dividend of another company, bonus warrant, etc.			
(h)	Preferential Offer	Preferential offer of X share(s) in another unlisted company for holding of every Y share(s) at \$Z per share	To avoid stock price estimation of any unlisted company, no adjustment will be made for preferential offer.		
(i)	Rights Issue/ Open Offer	X rights/ offer share(s) for holding of every Y existing share(s) at subscription price of \$Z per rights/ offer share	$IS_{\text{adjusted}} = IS_{\text{before}} * (X + Y) / Y$	$P_{\text{adjusted}} = [(P_{\text{before}} * Y) + (X * Z)] / (X + Y)$	↑
			<i>Note:</i> Adjustment will not be made if Z is greater than the cum-rights closing price, unless the rights issue/ open offer is being fully underwritten.		
(j)	Open Offer of Unlisted Securities	Open Offer of X share(s) of unlisted securities for holding of every Y share(s) at \$Z per share	To avoid price estimation of any unlisted securities, no adjustment will be made for the open offer. <i>Note:</i> If price cannot be evaluated objectively, no adjustment will be made. However, if the unlisted securities is priced at an obvious discounted level, HSIL will analyze it on a case by case basis and reverse the right to make final decision.		
(k)	Spin-off/ Demerger	Creation of a company through the sale or distribution of new shares of an existing business/	For index adjustment of listed and to-be-listed non-cash distributions, please refer to sections 3.3 (e) & 3.3 (f) respectively. The newly spun-off/ detached entity will be		



Event	Description	Adjustment		
		Issued Shares ("IS")	Closing Price ("P")	Divisor ("D")
		division of a parent company. A spin-off is a type of divestiture.	considered inclusion into the index family according to regular schedule.	
(l)	Merger and Acquisition	The combination of two or more constituents into one, through a mutual agreement or a tender offer.	The enlarged company will remain in the relevant index with a potential adjustment in its issued shares and weighting factors, subject to the terms of the transaction. <i>Example: Merger between China Unicom and China Netcom in Oct 2008.</i>	
(m)	Withdrawal of Listing	Delisting of a company. It might be resulted from privatization, takeover or other corporate actions.	The company in concern will be removed from the relevant index as soon as practicable.	

Remarks:

1. If the above involves removal of a constituent from index with a fixed number of components, a new constituent will be selected from the corresponding index reserve list as for the replacement.
2. Constituent will be removed from the relevant index at its last traded price. For events which have a clear ex-date or effective date, e.g. bonus, rights issues, consolidation, etc., index adjustment will be implemented after market close on the trading day immediately prior to the ex-date or effective date.



Removal of suspended constituents

3.4 The below table lists out the index adjustment in relation to the removal of suspended constituents.

Constituents	Event	Description	Adjustment
Hang Seng Index and Hang Seng China Enterprises Index	Suspension	Trading in a company's shares has been suspended for any reasons.	<p>Last traded price will be used for index calculation during the suspension period.</p> <p>Constituency of suspended constituents in these two indexes will be reviewed in their regular index reviews and removed on the effective date if needed.</p> <p>Should a suspended constituent need to be removed from the relevant indexes, it will be removed at the lowest system price, i.e. \$0.0001 in the security's price currency, or an official residual price (if available). Such price will be used for index calculation on the trading day preceding the effective date of the removal.</p>
Other Indexes	Suspension (due to bankruptcy / under regulatory investigation)	<p>Trading in a company's shares has been suspended for the following reasons:</p> <ul style="list-style-type: none"> - Bankruptcy - Under regulatory investigation 	<p>The constituent will be removed from the relevant index as soon as possible. Under normal circumstances, five trading days' notice will be given for any constituent changes before the effective date of the removal.</p> <p>Last traded price will be used for index calculation during the suspension period and it will be adjusted down to \$0.0001 in the security's price currency for index calculation on the trading day preceding the effective date of the removal.</p>
	Prolonged Suspension	Trading in a company's shares has been suspended for three months for one or more	



Constituents	Event	Description	Adjustment
		reasons, e.g., - Failure to release/Delay in releasing financial results - Insufficient public float - Pending announcement of material information	<u>For Indexes without Replacement</u> The suspended constituent will subsequently be removed from the index on the effective date of the removal. <u>For Indexes with Replacement</u> The suspended constituent will be replaced by the highest rank candidate on the latest Reserve List on the effective day of the constituent changes.

Remarks:

1. In exceptional circumstances, a suspended constituent may be retained in the index only if it is believed that its shares are highly likely to resume trading in the near future.

Should the suspended constituent resumes trading after announcement, HSIL may cancel the removal / constituent changes provided that its trading resumes at least two trading days before the effective date of the removal / constituent changes.



Hang Seng China AH Premium Index

- 3.5 The Hang Seng China AH Premium Index (“HSAHP”) measures the absolute price premium (or discount) of A shares over H shares for the largest and most liquid mainland China companies with both A-share and H-share listings.
- 3.6 For the following corporate actions, the above methodology is not fully adopted in the HSAHP since it will give an unfair comparison of the AH prices when the two classes of shares have different effective dates of the corporate actions.
- (a) Subdivision of Shares/ Split
 - (b) Consolidation/ Reverse Split
 - (c) Bonus/ Stock Dividend
 - (d) Rights Issue/ Open Offer
- 3.7 In such cases, HSIL will postpone the index adjustment for both share classes until the later effective dates.

Equal Weighted Indexes and other Alternative Weighting Indexes (including enhanced freefloat-adjusted MV-weighted indexes)

- 3.8 A key principle of corporate action handling in the Equal Weighted Indexes (“EWIs”) and other alternative weighting indexes is to keep the constituent’s weight unchanged pre and post the index adjustment.
- 3.9 EWIs and other alternative weighting indexes apply the same treatment to bonus issues, share splits and share consolidations as traditional market-cap indexes such as the Hang Seng Index. However, this is not applied to rights issues or open offers. In the event of a rights issue, open offer or listed/to-be-listed non-cash distribution, the constituent adjustment factor will be altered so as to offset the potential weight change.



4 Rebalancing

Frequency

- 4.1 Issued shares (“IS”) and freefloat-adjusted factors (“FAFs”) of index constituents are reviewed quarterly, based on data as of calendar quarter-end (March, June, September and December).
- 4.2 Cap factors (“CFs”) are also quarterly updated such that no individual constituent in the index will have a weighting exceeding a predetermined cap level on the index capping date.

Schedule

- 4.3 Regular rebalancing is generally implemented after market close on the first Friday of the rebalancing month (June, September, December and March). Any changes made will be effective on the next trading day.
- 4.4 Index capping is performed using closing price three trading days preceding the regular index rebalancing date to determine the CFs.
- 4.5 Schedule for regular index rebalancing is available at:
https://www.hsi.com.hk/static/uploads/contents/en/products/is_update.xlsx

Ad-hoc Changes

- 4.6 For all ad-hoc rebalances, a minimum notice period of two trading days will be provided to index users prior to the effective date.
- 4.7 Corporate Actions
 - (a) IS and FAFs will be reviewed and updated simultaneously with the corporate action adjustment and will take effect on the ex-date.
 - (b) Please refer to the Section 3 for details about the adjustment methodology.



4.8 Other Corporate Events (e.g. placing, issue of new shares, etc.)

- (a) Production IS data[^] will be compared against latest figures from exchanges/ vendors on a monthly basis. Should the number of IS changes by more than 10% versus the existing, an ad-hoc FAF review will be conducted.
- (b) If the change in shareholding structure is deemed significant (such that the freefloat-adjusted shares will be +/- 10% different from production), an ad-hoc rebalancing will be arranged as soon as practicable so as to update the IS and FAF in the relevant indexes.
- (c) For Hang Seng index, Hang Seng China Enterprises Index and Hang Seng TECH Index, if the weighting of any constituent is increased and higher than the cap level after the update, it will be capped at the higher value of either the cap level or its original weighting
- (d) For the other freefloat-adjusted market capitalization-weighted indexes, if the weighting of any constituent is increased and higher than the cap level*0.3 percentage points above the cap level after the update, it will be capped at the higher value of either the cap level or its original weighting

Note: In the scenario of 4.8(c) and (d), recapping of the entire index will NOT be triggered

4.9 The update schedule for index rebalancing is available at:

https://www.hsi.com.hk/static/uploads/contents/en/products/is_update.xlsx

4.10 Constituent Changes

- (a) Indexes will be recapped only if the weighting of the newly included constituent in the corresponding index is higher than the cap level.
- (b) No recapping will be performed for constituent removal.

Exclusion of Companies with High Shareholding Concentration Notices

- 4.11 Companies that are the subject of a Securities and Futures Commission High Shareholding Concentration notice in Hong Kong are ineligible for constituency in the Hang Seng Family of Indexes. The following rules are applied to avoid the inclusion of such companies in the index.

Exclusion of Companies from Index Reviews



- (a) Companies that are the subject of a Securities and Futures Commission High Shareholding Concentration notice will not be eligible for inclusion in any indexes.
- (b) Should a company that is scheduled to be added as a constituent but the Securities and Futures Commission subsequently issued a High Shareholding Concentration notice on the company before the scheduled addition date, it generally will not be added to the relevant index(es). However, such a company will still be added to the relevant indexes if the High Shareholding Concentration notice is issued within five trading days before the scheduled addition date. Such constituents will be removed from the relevant indexes on the next regular quarterly rebalancing date.

Removal of Constituents on Quarterly Rebalancing Dates

- (i) Existing constituents in the Hang Seng Family of Indexes that are the subject of a Securities and Futures Commission High Shareholding Concentration notice will be removed from all relevant indexes on the regular quarterly rebalancing dates.

At least five trading days' advance notice will be given before the effective date of the constituent changes.

- 4.12 The companies that are included in the Securities and Futures Commission "High Shareholding Concentration Announcements" can be reconsidered for regaining their eligibility for constituency in the Hang Seng Family of Indexes if the following conditions are fulfilled:
- (a) The company needs to issue a voluntary announcement entitled "Resolving of High Shareholding Concentration" to state that the High Shareholding Concentration issue has been resolved with proper disclosure on 1) the actions taken; and 2) the updated shareholding status.
 - (b) The company will be eligible for reconsideration to regain their constituency in the next index review following an observation period of 12 months after the voluntary disclosure.

Hang Seng China AH Index Series

- 4.13 Constituent weightings in the Hang Seng China AH (A+H) Index ("HSAHX"), Hang Seng China AH (A) Index ("HSAHA") and Hang Seng China AH (H) Index (HSAHH") will be synchronized quarterly for fair index performance comparison.
- 4.14 If the HSAHX is recapped due to corporate events such as placing and issue of new shares, additional rebalancing will be performed on HSAHA and HSAHH to re-match the weightings.
- 4.15 Constituent weightings in the HSAHX, HSAHA and HSAHH will be re-synchronized again for ad-hoc constituent deletion between regular reviews.



Equal Weighted Indexes

- 4.16 The adjustment factor will be altered in the event of ad-hoc index rebalancing resulted from IS update, placing, etc. in order to keep the EWI constituent weight unchanged.
- 4.17 For constituent replacements which happen between regular index reviews, new constituents will be included in the EWI at an average weight of those removed.
- 4.18 Constituent weightings in the EWI will be reshuffled to equal for pure constituent addition(s).
- 4.19 In case of pure constituent deletion(s), weighting of the deleted stock(s) will be distributed to the remaining constituents in proportion to their respective weightings with no extra recapping.

Alternative Weighting Indexes

- 4.20 Alternative weighting indexes will be rebalanced and recapped at the same frequency as the index review.
- 4.21 The adjustment factor will be altered in the event of ad-hoc index rebalancing resulting from IS update, placing, etc. in order to keep the constituent weight unchanged.

Dividend Point Index Series

- 4.22 Dividend Point Indexes are calculated using the divisor method. The divisors will be adjusted whenever there are capitalisation change issues in the underlying indexes.
- 4.23 Please refer to the Section 3 for details about the adjustment methodology.
- 4.24 The Dividend Point Index Series is reset once a year after the market close on the second-last stock exchange trading day of December, i.e. the reset date.

Strategy Indexes

- 4.25 Rebalancing is not applicable to Strategy Indexes such as the Hang Seng Short and Leveraged Index Series, Hang Seng Risk Adjusted Index Series and the HSI Volatility Index.
- 4.26 Short and Leveraged Indexes are reviewed on the last trading day of each month. If the Short / Leveraged Index closes above 1,000,000, a factor-100 Split will be implemented, i.e. the index close value will be divided by 100. If the Short / Leveraged Index closes below 100, a factor-100 Reverse Split will be implemented, i.e. the index close value will be multiplied by 100.
- 4.27 The index adjustment will be effective on next effective date of regular rebalancing.



5 Capping Methodology

- 5.1 In general, the cap level of indexes with capping is set according to the number of constituents of the respective index at the quarterly index rebalancing day. Details of the cap levels are as follows:

Number of Constituents	Cap Level
≥ 15	10%
8 - 14	15%
5 - 7	25%
≤ 4	100% / Number of Constituents

- 5.2 The cap level of an index during quarterly index rebalancing days will remain unchanged.

Standard/ Modified Market Capitalisation-weighted Indexes

- 5.3 In recognition of limitations on individual stock in pension or investment portfolios, capping is applied to suppress the weighting of individual constituent to a predetermined threshold in the index, after the freefloat adjustment.
- 5.4 In general, HSIL will cap its cross-market indexes at company-level while single-market indexes at stock-level.
- 5.5 Any constituents weighing greater than the cap level will be assigned a less-than 100% cap factor ("CF") to adjust the share counts and thus reducing the weights.
- 5.6 Since the excessive weight will be distributed among other uncapped constituents, it is possible that weightings of other constituents will exceed the cap limit after downsizing the largest component. Therefore, the capping process will be repeated until all constituents are confined to the weighting rule of the corresponding index.
- 5.7 Changes in constituent underlying data due to corporate actions will be taken into account in the capping exercise if
- (a) There is no uncertainty about the corporate action; and
 - (b) The corporate action will take effect on or before the CF effective date.
- 5.8 CFs in sub-indexes will follow the same values in the parent index.



Hang Seng China AH Index Series

- 5.9 HSAHP is calculated as a ratio of the price premium (or discount) of A shares over H shares and adopts a different formula other than the market capitalisation-weighted method. Capping is not applicable to HSAHP.
- 5.10 HSAHX follows conventional freefloat-adjusted market capitalisation-weighted methodology with a cap limit at company-level.
- 5.11 To enable the branch indexes to reflect purely the effect of the different price performances of the A shares and H shares, the constituent weightings in HSAHA and HSAHH are synchronized with those in HSAHX on the quarterly index capping date.

Equal Weighted Indexes

- 5.12 An adjustment factor will be imposed on every constituent in the EWI on the index capping date such that the weighting of each constituent is equal to $1/N$ where N is the number of index constituents.

Alternative Weighting Indexes

- 5.13 An adjustment factor will be imposed on every constituent on the index capping date such that each constituent is assigned with a target weighting according to the index methodology.
- 5.14 For details of the weighting methods, please refer to individual index guidelines.



6 Freefloat-adjusted Factor

Definition

- 6.1 The freefloat-adjusted factor (“FAF”) targets to remove “illiquid” shares from index calculation. These shares might be held for strategic long-term purpose and thus not readily available for trading in the market.
- 6.2 For companies with more than one class of shares (under different stock codes), the FAF will be calculated separately for each share class.
- 6.3 FAF will be quarterly reviewed, using data as of latest calendar quarter-end.
- 6.4 Should there be any substantial changes in the company’s shareholding structure between the quarters, an ad-hoc FAF review will be performed. For details please refer to Section 5.3.
- 6.5 In general, shares held by any entities which control more than or equal to 5% of the shareholdings would be considered as non-freefloat and are excluded from index calculation.

Non-freefloat Investor Class		Definition	Threshold
(a)	Strategic holdings	Governments and affiliated entities or any other entities which hold substantial shares in the Company would be considered as non-freefloat unless otherwise proved	5% individually
(b)	Directors' and management holdings	Directors, members of the board committee, principal officers or founding members	
(c)	Corporate cross holdings	Publicly traded companies or private firms / institutions	
(d)	Lock-up shares [^]	Shareholdings with a publicly disclosed lock-up arrangement in an IPO, or placement in ad-hoc FAF review*	Nil
(e)	WVR shares	Shares carrying multiple voting rights	

[^] Any A shares with trading restriction will be classified as non-freefloat

* Please refer to the Section 4.8 for details about ad-hoc FAF review



- 6.6 However, the non-freefloat classification will NOT be applied to interests held by the following investor classes:

Freefloat Investor Class		Definition	Example
(a)	Custodians	Custodians or nominees	<ul style="list-style-type: none"> HKSCC Nominees in CCB (0939.HK)
(b)	Trustees	Trustee companies	<ul style="list-style-type: none"> Hang Seng Bank Trustee International in GZI Transport (1052.HK)
(c)	Mutual funds	Mutual funds, investment funds or unit trusts	<ul style="list-style-type: none"> Penta Master Fund in Shui On Cons (0983.HK)
(d)	Investment companies	All stakes held by investment companies/ financial institutions are included in freefloat unless the shareholding is proved to be strategic in nature	<ul style="list-style-type: none"> JPMorgan Chase in Esprit (0330.HK) Templeton in Denway Motors (0203.HK)

Secondary-listed Companies

- 6.7 Freefloat-adjusted issues shares will be based on Hong Kong-registered portion of the Total Issued Shares (“HK Shares”) deducting the HK Shares fall into the non-freefloat share classes described in 6.5, any of the HK Shares held by a depository or its custodian as underlying for overseas depository receipts will also be considered as non-freefloat shares.
- 6.8 FAF will be equal to the ratio of free-float adjusted shares to Total Issued Shares (rounding up the actual freefloat ratio to the nearest 1% for actual freefloat below 10% and otherwise to the nearest 5% for index calculation).

Data Sources

- 6.9 Data used for the freefloat adjustment is taken from publicly available sources.



- 6.10 These include financial reports, IPO prospectuses, company announcements, the Disclosure of Interests Notification History Reports from the Hong Kong Stock Exchange, FactSet and / or other research databases.

Calculation and Illustration

- 6.11 For each stock, its actual freefloat ratio is calculated as

$$\text{Actual Freefloat Ratio} = \text{Freefloat Shares} / \text{Total Issued Shares}$$

where Freefloat Shares is defined as Total Issued Shares less the sum of shares held by one or more of the non-freefloat investor classes mentioned above. The FAF is then derived by rounding up the actual freefloat ratio to the nearest 1% for actual freefloat below 10% and otherwise to the nearest 5% for index calculation.

- 6.12 Examples

- (a) FAF calculation for CCB (0939.HK) as of 30 June 2010

Shareholder	Interest in H-shares	Investor Class
Huijin	133,262,144,534 (59.31%)	Strategic
Bank of America	26,864,958,529 (11.96%)	Strategic
Temasek	13,576,203,750 (6.04%)	Strategic
Total Non-Float	173,703,306,813 (77.31%)	

$$\text{Actual Freefloat} = 100\% - 77.31\% = 22.69\%$$

$$\text{FAF} = 25\%$$

- (b) FAF calculation for PetroChina (601857.SS) as of 30 June 2010

Shareholder	Interest in A-shares	Investor Class
China National Petroleum Corp	157,764,597,259 (97.68%)	Strategic
Total Non-Float	157,764,597,259 (97.68%)	



Actual Freefloat = 100% - 97.68% = 2.32%

FAF = 3%

(c) FAF calculation for BABA-SW (9988.HK) as of 30 September 2022

Shareholder	Interest in HK Shares	Investor Class
HK Shares	13,600,011,508 (64.20%)	
Citibank N.A.	3,304,235,867 (15.60%)	ADS Depositary
Total Issued Shares	21,185,107,544 (100.00%)	

Actual Freefloat = 64.20% - 15.60% = 48.60%

FAF = 50%



7 Hang Seng Industry Classification System

Definition

- 7.1 The Hang Seng Industry Classification System (“HSICS”) is a comprehensive industry classification system designed for the Hong Kong stock market. Prompted by the listing of a wide variety of companies in different industries in Hong Kong, it meets the need for a detailed industry classification that reflects stock performance in different sectors.

Classification Guidelines

- 7.2 The primary parameter of industry classification is the sales revenue from each business area of a listed company. Profit or assets will also be taken into consideration where these better reflect the company's business.
- 7.3 A company will be assigned to a sector if the majority of its sales revenue (or profit or assets if relevant) are derived from that sector or its business fits most closely within that sector.
- 7.4 To preserve stability in the classification of a company, once a company is classified in one sector, it should remain so unless the breakdown of its revenues/profits/assets (whichever is more appropriate) derived from that sector falls below 35% in that year, or falls below 50% for two consecutive years.

Classification of Companies

Newly Listed Companies

- 7.5 Classification of an IPO stock will be undertaken before a company is listed. The assessment of sector classification will be based on the information obtained from the company's IPO prospectus.
- 7.6 HSICS will not cover companies listed under Chapter 18B of HKEX listing rules.

Regular Review

- 7.7 A company will be assigned to a sector according to its principle business activity (as defined as more than 50% of its total operations), which is primarily assessed by the “revenue” breakdown of the company. Other criterion, such as “operating profit”, “profit before interest and tax” or “total assets” will be used if HSIL deems that to be more appropriate.
- 7.8 A company with none of the sector dominated in turnover (or profit or assets if relevant) may be considered as “Conglomerates”, i.e. diversified companies engaged in three or more businesses classified in different sectors with each business contributing more than 10% but not substantially to turnover



- 7.9 The classification for each stock will be reviewed annually after June or December of each year when the latest annual report is available.

Special Review

- 7.10 In the event of (i) a company's request for a re-classification, or (ii) change of a company name, HSIL will undertake a special review on the classification of the company.

Classification Results

- 7.11 HSIL retains the final decision if a company disputes its classification, and may refer the case to HSI Advisory Committee which decision is final.



8 Dissemination

Holiday Schedule

- 8.1 Hang Seng Indexes might not be disseminated on trading days on which the respective markets are closed.
- 8.2 The index holiday table is available at <https://www.hsi.com.hk/static/uploads/contents/en/products/holiday.xlsx>

Publishing Hours

- 8.3 In general, Hang Seng Indexes will be published according to the trading hours of the respective markets of the underlying instruments.
- 8.4 Please refer to the index dissemination time (<https://www.hsi.com.hk/static/uploads/contents/en/products/timetable.xlsx>) provided on our website for further details.

Arrangements During Typhoons and Black Rainstorms

- 8.5 Index dissemination when a typhoon signal or black rainstorm warning is issued will generally follow the rules of trading arrangements during typhoons and black rainstorms for securities and derivatives markets set by the stock exchanges.
- 8.6 If the relevant markets have to close early due to extreme conditions, closing index for day-end indexes will be available about 30 minutes after market close.
- 8.7 For the Dividend Point Index Series, index will be disseminated 10 minutes before trading resumes after cancellation of the typhoon signal or black rainstorm warning.



9 Index Status

9.1 Real-time Hang Seng Indexes may exist in the following states:

(a) Opening Index

Calculated once a day and published at the end of the opening auction session.

For cross-market indexes, this will be calculated when the opening auction session of the first trading system in the respective markets ends.

Not available for the HSI Volatility Index.

(b) Trading Index

Continuous real-time index disseminated at 2- or 15-second interval during the index publish hours.

Please refer to the index dissemination time (<https://www.hsi.com.hk/static/uploads/contents/en/products/timetable.xlsx>) provided on our website for further details.

(c) Closing Index

Calculated once a day based on the official exchange closing prices.

For indexes published in multiple sessions, there would be Session Closing Index available for each individual session.

9.2 Daily indexes are calculated and published only once a day.

(a) Day-open Index

Disseminated before the respective markets of the underlying constituents open. For examples, the Dividend Point Indexes.

(b) Day-end Index

Compiled when the trading session of the underlying instrument ends or at a pre-defined time after the trading session closes.



10 Data Definition

Stock Price

- 10.1 Nominal price is used for stocks listed on the Hong Kong Stock Exchange for index calculation.
- 10.2 Last traded price is taken for stocks traded on other exchanges.
- 10.3 The stock price is provided by stock exchanges and/ or vendors.

Foreign Exchange Rate

- 10.4 Real-time indexes calculated in currency other than the trading currency of the index underlying instruments are updated based on the latest foreign exchange rate available.
- 10.5 Day-end indexes in multiple currencies are valued by converting the index market capitalisation from the primary index currency to the target index currency at the exchange rate captured at around 16:00 HKT.
- 10.6 If a constituent declares dividend in a currency other than its stock trading currency, the dividend will be converted into the stock trading currency using the relevant exchange rate captured at around 16:00 HKT on the dividend cum date for index calculation on the ex-dividend date.
- 10.7 Post-FX-adjustments are applied in some indexes to eliminate the discrepancies between the preliminary and actual exchange rates. For details, please refer to individual index methodologies.

Issued Shares

- 10.8 Number of issued shares refers to the number of shares as per that particular constituent share class.
- 10.9 For examples, if only the H-share class of a company is considered as constituent in an index, the number of issued shares will include the "H-shares" portion only.

Share Class

- 10.10 Constituent companies listed on Stock Exchange of Hong Kong are classified into "Mainland" or "Hong Kong" according to the geographical distribution of their sales revenue. Profits, total assets and/ or headquarters location are used for the classification if they can better reflect the geographical status of the companies. Companies incorporated in the PRC will always be defined as "Mainland".



- 10.11 To preserve stability, once a company is classified as a Mainland (non-Mainland) company, it should normally remain so unless the share of its sales revenue or profits or assets from (outside) the Mainland falls below 35% in that year, or falls below 50% in two consecutive years. This will trigger HSIL to review if reclassification is appropriate.
- 10.12 Mainland companies are further sub-divided into H-shares, Red-chips and other Mainland companies.
- (a) H-shares
H-share companies classified by the Stock Exchange of Hong Kong
 - (b) Red-chips
Securities with a minimum of 30% of shareholdings held by the Mainland entities (including state-owned organisations, provincial or municipal authorities of the Mainland)
 - (c) Other Mainland companies
Mainland companies that are neither H-shares nor Red-chips

Withholding Tax

- 10.13 Dividend payments included in the net Total Return Index Series are net dividends, i.e. declared dividend discounted by the withholding tax rate.
- 10.14 For current withholding tax rate by share classes and/ or countries, please refer to Appendix I.

P/E Ratio and Dividend Yield

- 10.15 P/E Ratio
- (a) Stock-level
Determined by dividing the stock price by its earnings per share reported in the latest final results.
 - (b) Index-level
Index market capitalisation divided by the total earnings of index constituent stocks⁴.



10.16 Dividend Yield

(a) Stock-level

Company's full-year dividend (per share basis) reported in the latest final results divided by its stock price.

(b) Index-level

Total dividend of index constituent stocks^Δ divided by the index market capitalisation.

^ΔShares used for total earning or dividend calculation have been adjusted for freefloat and capping (if appropriate). Companies which have not announced any final results would be excluded from the calculation.

Index Turnover

10.17 Aggregation of the dollar amount of shares traded for all index constituents.

10.18 Expressed in the index currency.



Estimated Average Settlement Index

10.19 The average of index values taken at

- (a) Five minute intervals from five minutes after the start of, and up to five minutes before the end of, the index dissemination session; and
- (b) The closing index

10.20 Available for selective indexes only.

Currently adopted as the settlement price for

- (a) Hang Seng Index Futures and Options (including Flexible Hang Seng Index Options)
- (b) Mini-Hang Seng Index Futures and Options
- (c) H-shares Index Futures and Options (including Flexible H-shares Index Options)
- (d) Mini H-shares Index Futures and Options

For details about trading futures and options, please contact the corresponding exchanges.



11 Exceptions Treatment

Constituent Stock Price (For Equity Indexes Only)

- 11.1 If the stock price of an index constituent deviates more than a preset threshold of its last valid price used for index calculation, it is considered abnormal.
- 11.2 An abnormal price will be discarded from index computation, and the last valid price in the system will be used.
- 11.3 However, if an abnormal price persists for five minutes, it will then be treated as normal and used for index computation again.
- 11.4 The special abnormal price treatment will not be applied to opening and closing index calculation.
- 11.5 Below please find the thresholds of abnormal price by share classes.

Hong Kong-listed	:	25%
H-shares	:	25%
A-shares	:	10%
B-share	:	10%

Foreign Exchange Rate

- 11.6 If the foreign exchange rate deviates more than a preset threshold of its last valid quote used for index calculation, it is considered abnormal.
- 11.7 An abnormal quote will be discarded from index computation, and the last valid value in the system will be used.
- 11.8 However, if an abnormal quote persists for five minutes, it will then be considered normal and used for index computation again.
- 11.9 The special treatment will not be applied to opening and closing index calculation.
- 11.10 The threshold for all currencies covered is now set at 2%.

Abnormal Noise Treatment (for HSI Volatility Index only)

- 11.11 If the tick-by-tick index movement is more than 5% from the last disseminated index value, it will be considered as abnormal.
- 11.12 The abnormal index value will be discarded, and the HSI Volatility Index will carry the last disseminated index value.



- 11.13 However, if the index value has persisted at that level for three consecutive ticks, it will then be regarded as normal and disseminated at the fourth tick without any condition.
- 11.14 This treatment will not be applied for calculating the first and last tick index in each trading session.

Abnormal Noise Treatment (for Hang Seng Futures Indexes only)

- 11.15 If the futures price or VWAP movement is more than 1% from the last valid futures price or VWAP, it will be considered as abnormal.
- 11.16 Abnormal futures prices or VWAPs will be ignored for the purposes of index computations, and the last valid futures price or VWAP in the system will be used.
- 11.17 However, if an abnormal futures price or VWAP persists for 15 seconds or more, it will be treated as normal and included in index computations.
- 11.18 This treatment will not be applied in calculating the first and last tick index in each trading session.

Stop-loss Index (for Hang Seng Short and Leveraged Indexes only)

- 11.19 If the index drops by more than 50 percent at the time of calculation compared to the previous closing index, the stop loss mechanism will be triggered and the index calculation will be suspended.
- 11.20 The index value will remain unchanged until end of the trading day.



12 Index Recalculation and Correction

[This section does not apply to the HSI Volatility Index.]

Recalculation (for periods when no index was disseminated)

- 12.1 Indexes calculated using contingency mode# are considered official.
- 12.2 Will not recalculate any missing indexes, except opening, morning closing and day-end closing indexes.

Correction (for indexes already disseminated)

- 12.3 Opening/ Morning close/ Day-end close indexes
Correction will be made as soon as it is discovered.
- 12.4 Real-time indexes
Correction will be made if errors occur are deemed to be significant and retrieval of real-time data is feasible and timely.
- 12.5 Final decision to recalculate or correct an index value is at HSIL's discretion.

HSIL will activate its cold backup system to calculate index at every 15-minute interval in order to maintain real-time index service during the contingency mode.



13 Index Treatment on Market Closures, Market Disruptions & System Failure

Index Treatment on Market Closures, Market Disruptions & System Failure

- 13.1 This section sets out the HSIL's contingency plan on index treatment in the event of market closures, including scheduled and unscheduled market closures and trading halts. HSIL defines scheduled market closures as announced market holidays and defines unscheduled market closures as extreme weather, technical issues at stock exchanges, or any other unexpected market disruption events that result in insufficiency of data for index calculation.
- 13.2 In the event of a full-day market closure, regardless of whether it is a scheduled or unscheduled one, HSIL carries forward the latest available closing price to calculate its indexes.
- 13.3 In the event of unexpected market closure during trading hours, HSIL will use the prices up to the point of market closure to calculate indexes until the market opens again. If the market does not open again for that particular day, HSIL will confirm with the corresponding exchanges the official closing prices, if possible. Otherwise, the prices up to the point of market closure will be regarded as closing prices for index calculation.

Index Rebalancing

- 13.4 In general, the index rebalancing schedule is determined taking into account scheduled market holidays in Hong Kong and China. If either the Capping Date or Implementation Date falls on a scheduled Hong Kong or China holiday, the index rebalancing will be deferred to the subsequent week.
- 13.5 In the event of unscheduled partial day market closures (such as extreme weather or technical issues), HSIL will proceed the index rebalancing as announced.
- 13.6 In the event of unscheduled full day market closures, HSIL will review the scenario on a case-by-case basis, but will generally proceed the index rebalancing as announced.



AH Share Switching

- 13.7 In general, the AH share switching schedule is determined taking into account scheduled market holidays in Hong Kong and China. If either the AH Price Ratio Calculation Date or Implementation Date falls on a scheduled Hong Kong or China holiday, the AH share switching will be deferred to the subsequent week.
- 13.8 In the event of unscheduled partial day market closures, HSIL will proceed the AH share switching as announced.
- 13.9 In the event of unscheduled full day market closures, HSIL will review the scenario on a case-by-case basis, but will generally proceed the AH share switching as announced.

Corporate Actions

- 13.10 In general, the implementation of the corporate action will proceed as announced if there is any unscheduled market closure, regardless of whether it is a full day or partial day closure, on the last trading day before effective date of a corporate action.
- 13.11 If there is an unscheduled full day market closure on the effective date of a corporate action, the implementation of the corporate action will be handled on a case-by-case basis but generally be postponed until the market reopens for regular trading or postponed in accordance with the company's latest announcement.
- 13.12 If there is an unscheduled half day market closure on the effective date of a corporate action, the implementation of the corporate action will be handled on a case-by-case basis but generally proceed as announced, unless the company announces another effective date.
- 13.13 If the trading of a company is suspended on the stock exchange, HSIL will review on a case-by-case basis to determine if the implementation of the corporate action should be proceeded or postponed. HSIL will at its best effort check the company announcement and/ or



the corresponding stock exchange to confirm whether the implementation of the corporate action is deferred.

Index Service Interruption

- 13.14 In any cases (including system failure) that HSIL index service is disrupted, HSIL follows its Index Recalculation Policy as appropriate.
- 13.15 Index notice will be published on HSIL website in the events of system outages resulting in failure disseminating index values of Hang Seng Index, Hang Seng China Enterprises Index and Hang Seng TECH Index.



14 Contact Information

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15 Disclaimer

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APPENDIX I: Withholding Tax Rates

Country	Share Class	Withholding Tax Rate (%)
Brazil		0
Canada		25
Cayman Island		0
China	A-shares	10
	B-shares	10
Hong Kong	H-shares	10
	Others*	0
Italy		26
Japan		15.315
Jersey		0
Luxembourg		15
Malaysia		0
Singapore		0
United Kingdom		0
United States of America		0

* Some Hong Kong-listed China companies are also subject to a 10% withholding tax pursuant to the "Enterprise Income Tax Law of the PRC". HSIL will review on a case by case basis to decide whether to apply withholding tax on such companies.