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## **Index Rules and Methodology**

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## **S-Network Global Water Indexes (JGI) Rule Book (Section I)**

This document provides the rules for calculating and maintaining the S-Network Global Water Indexes, hereafter referred to as the “JGI Family”. Included in these rules are the following: 1) a description of the JGI Family, 2) the design specifications for the JGI Family, and 3) the index calculation and data elements.

### **I. General Description**

The S-Network Global Water Index (Composite) (“The Composite”) is a modified capitalization weighted, float adjusted equity index designed to serve as an equity benchmark for globally traded stocks which are materially engaged in the water utilities and water technology industries.

The Composite comprises two main business segments (“the Segments”):

**Water Utilities.** Companies whose principal business is the supply of public water to countries, national sub-divisions (e.g. states or provinces) and municipalities.

**Water Technology.** Companies whose principal business is the development of water supplies and related activities including:

- **Treatment and Purification**
- **Desalinization**
- **Waste Water Treatment**
- **Enabling Technologies**

The Composite is a modified capitalization weighted, float adjusted equity index containing stocks selected from a universe of equity securities traded on recognized stock exchanges in a) the Americas, b) Europe, Middle East & Africa (EMEA) and c) Asia/Pacific, based on a set of objective screening criteria. The Composite is divided into two tranches representing each of the two Segments: i) the Utilities tranche, which represented 50% of the total weight of the Composite at inception and ii) the Technology tranche, which represented 50% of the total weight of the Composite at inception.

The selection criteria include requirements for industry participation, primary exchange listing, minimum capitalization (adjusted for free float), minimum price and minimum average daily trading volume.

The thirty stocks in each tranche with the highest average ranking for 1) market capitalization (float adjusted) and 2) 90-day average daily turnover (share price X shares traded) (in thousands USD), that meet all of the screening criteria at inception or on a rebalancing date will be included in the Composite, unless otherwise determined by the Index Committee.

Each stock’s relative weighting in the Composite will be based on its market capitalization, adjusted for free float, as a percentage of the total market capitalization of its tranche, adjusted for free float, subject to certain restrictions, limitations and modifications. The number of stocks contained in the composite will be fixed at 60.

The weight of any stock contained in the Composite will be capped at 20% of the total market capitalization of its tranche and the aggregate weight of all stocks within a tranche with individual weights of 5% or more will be capped at 42% of the total market capitalization of the tranche.

## II. Sector Sub-Indexes

The companies contained in the Composite will be divided into two sector groupings to form the sector sub-indexes. The sector sub-indexes are:

**S-Network Global Water Works (JWW).** Comprising the thirty water utility companies contained in the Composite, subject to the same weighting and capping methodologies applied to the Utilities tranche of the Composite.

**S-Network Global Water Tech (JWT).** Comprising the thirty water technology companies contained in the Composite, subject to the same weighting and capping methodologies applied to the Technology tranche of the Composite.

## III. Index Values at Inception

The Composite index will have a value at inception of 2000. JWW will have a value at inception of 1000. JWT will have a value at inception of 1000. The value of the two sector sub-indexes will add up to the value of the Composite at inception.

## IV. The Index Committee

The JGI Index Committee (“The Committee”) will be composed of not less than three members. The Committee Chairman will have extensive experience in and expertise in financial markets and stock market characteristics. Two of the members will have some expertise in at least one of the above-named sectors.

The Committee will be responsible for maintaining a comprehensive list of companies that are principally engaged in one of the business segments and the list will form the Composite universe of stocks.

Impartial selection criteria will then be applied to these stocks to determine whether or not they should be included in the index.

The Committee will then review the stocks to be included in the Composite and may reject any stock that it believes does not meet its overall standards for risk and sound business practice.

The Committee will meet quarterly, either in person or via teleconference, to discuss index issues and organize the semi-annual or special rebalancings.

The composition of the Committee may from time to time be changed to reflect changes in market conditions.

## V. Eligibility Criteria

Only companies that meet the following eligibility criteria for their applicable index tranche (the “Qualified Universes”) may be considered for inclusion in the Composite index. Certain eligibility requirements differ between the two tranches:

- i) The company has been classified by the Committee as being materially engaged (>30% of gross revenues derived from business directly related to one of the two business segments) in either of the above specified segments.

- ii) The company's stock must trade on a recognized North American, European or Asian stock exchange. (National Stock Exchange, formerly NASDAQ, stocks must be "reported securities" under 11Aa3-1 of the Securities and Exchange Act, i.e., National Market System stocks, and similar criteria apply to stocks with foreign listings.) Only actual common shares outstanding are eligible for inclusion. For companies with multiple share classes, the eligibility of each share class will be considered based upon overall liquidity (average daily trading volume) as if each represented a separate company. A list of approved exchanges is shown in Appendix A.
- iii) The minimum capitalization value for each stock will be determined at index inception and will be revised with each semi-annual reconstitution to reflect current market levels. The minimum capitalization value, adjusted for free float, for any stock in the technology tranche will be greater than USD 100 million, or the equivalent amount in its listing currency. The minimum capitalization value, adjusted for free float, for any stock in the utility tranche, will be greater than USD 50 million, or the equivalent amount in its listing currency.
- iv) A Composite constituent whose float-adjusted capitalization falls below 50% of the minimum on the date of the semi-annual reconstitution shall be deleted from the JGI after the close on the effective date of the reconstitution.
- v) Companies with turnover (shares traded X share price) of less than USD 500 thousand per day for the three months prior to a rebalancing date shall not be eligible for inclusion in the JGI.
- vi) A constituent whose three-month average daily trading volume falls below USD 250,000 on the date of the quarterly rebalancing shall be deleted from the JGI before the open of trading on the effective date.
- vii) If a company has been trading for fewer than three calendar months ("Recent IPO") but more than 22 trading days, the company's average daily share volume for its entire trading history shall be used to calculate turnover. Such companies may be added to the Composite on any rebalancing date at the discretion of the Committee. Recent IPOs in non-US jurisdictions will be added only after meeting relevant US regulations with respect qualifications for US ownership.
- viii) Certain companies that are not principally engaged in one or more of the two sectors, but that derive significant revenues from businesses in one or both of the sectors will be included in the Composite at the discretion of the Index Committee or its designee on a capitalization-adjusted basis, provided 1) such revenues represent more than 15% of the company's total revenues and such revenues are independently reported in the company's financial reports, 2) applicable revenues are likely to have a material impact on the company's overall share price performance, or 3) the company's applicable business is likely to have a significant impact on the water industry as a whole.

## **VI. Constituent Weightings**

- i) Each of the two tranches are subject to a separate weighting process so that the combined weights of all the components of the Utilities tranche equalled 50% of the total Composite index at inception and the combined weights of

all the components in the Technology tranche equalled 50% of the total Composite index equalled.

- ii) Candidate companies contained in the two Qualified Universes are then ranked based upon two factors: 1) their float adjusted market capitalization, and 2) their three-month ADTV. The thirty companies derived from each of the Qualified Universes with the highest average ranking are included in Composite within their respective tranche.
- iii) Index constituents are then assigned weights based on their relative float adjusted market capitalizations within their respective tranches. The combined total weight of stocks assigned to the Utilities tranche shall equal 50% of the total weight of the Composite at inception and the combined total weight of stocks assigned to the Technology tranche shall equal 50% of the total weight of the Composite at inception.
- iv) Index constituents shall be subject to limitation on their float-adjusted capitalization weighting in their respective tranche of the Composite.
  - a) No stock's weight shall exceed 20%.
  - b) The aggregate weight of stocks exceeding 5% shall not exceed 42%.
- v) The following procedure shall be used to ensure that no Composite constituent weighting exceeds a pre-determined maximum weight on the rebalancing date:

Step 1: Sort the constituents of each tranche by float market capitalization in descending order. Starting with the second largest company in the index, calculate a float adjusted market capitalization ratio for each company to the next largest company in the index.

Step 2: Adjust this ratio by the following formula:

$$NewRatio = 1 - \left( \frac{1 - OriginalRatio}{Factor} \right)$$

where:

Original Ratio = the float adjusted market capitalization ratio of each company to the next largest company calculated in Step 1.

Factor = a divisor, that starts with 1, that increases the ratio calculated in Step1

Step 3: Calculate new float adjusted market capitalization using the New Ratio for each company.

Step 4: Calculate the new weights for each company based on the new float adjusted market capitalization and check to see if the weight limits described in V(v) are satisfied.

Step 5: If the weight limits are not satisfied, repeat Steps 2 to 4, increasing the Factor by .01 for each round until the weight limits are satisfied.

Step 6: Once the weight limits are satisfied, calculate the final cap factors for each company using the float adjusted market capitalization calculated in Step 3 such that the smallest company in the index has a cap factor of 1.0.

## VII. Division into Sector Sub-Indexes

- i) Upon completion, the Composite will be divided into the two sector sub-indexes based on the inclusion of the constituents in the two tranches described herein.
- ii) The stocks contained in the sub-indexes shall be fixed at 30 stocks in each sub-index.
- iii) The weighting of each of the stocks contained in the sub-indexes shall be determined on a capitalization-weighted, float-adjusted basis, using methodology described in Section V herein.

## VIII. Rules for Calculation and Dissemination

The Composite and the related sub-indexes are calculated by S-Network Global Indexes (“Calculation Agent”). The Calculation Agent is also responsible for index maintenance and price dissemination. The calculation, maintenance and dissemination rules are as follows:

**Index Changes.** Shares outstanding totals for component stocks are updated during the quarterly review; however, if the number of float-adjusted shares outstanding for an index component changes by more than 5% due to a corporate action, the shares’ total will be adjusted immediately after the close of trading on the date of the event. Whenever possible, changes will be announced at least two business days prior to its implementation. The effective date for changes in shares outstanding due to stock dividends, splits and other corporate actions are adjusted at the discretion of the index committee its designee.

**Index Reconstitutions.** The Indexes are reconstituted semi-annually; during which the Index Committee submits to the Calculation Agent a candidate list of all identifiable companies worldwide that are principally engaged in the business (as described above) including current Index constituents and recent IPOs. All candidates and current constituents are screened against the Composite selection criteria, and additions to and deletions from the Composite and related sub-indexes are determined. Once the Committee has approved additions and deletions, the Indexes are rebalanced to reflect all changes.

**Additions and Deletions.** Additions to the Indexes are made at the close of trading on the semi-annual reconstitution dates (third Fridays of June and December), or on the next quarterly rebalancing date after an index vacancy is created by an intra-quarter index deletion. Additions may also be made to the Composite and the sub-indexes at the close of trading on the quarterly rebalancing dates (third Friday of last month of the calendar quarter) in the case of certain recent Initial Public Offerings that occurred more than 22 trading days prior to the rebalancing date.

Deletions to the Indexes are made 1) at the close of trading on the semi-annual reconstitution dates (third Fridays of June and December) for companies that fail to meet the inclusion criteria and 2) at any time, in the event a company is de-listed, files for bankruptcy, is acquired or merges with another company.

## IX. Roles of Parties in the Semi-annual Reconstitutions.

- i) The Committee, or its designee, will submit to the Calculation Agent a list of index constituents for possible inclusion in JGI at the close of US markets on the Monday following the third Friday of the month prior to the rebalancing month.
- ii) The Calculation Agent will use the remaining criteria in V to statistically screen the list of index constituents to confirm their eligibility for the index based on closing prices and values as of last trading date of the second month of each calendar quarter.
- iii) On the first Friday of the rebalancing month, the Calculation Agent shall provide the Committee, or its designee, with a list of constituents for the JGI.
- iv) The Committee shall approve or reject the changes and notify the calculation agent of its decisions not later than the Wednesday following the first Friday of the rebalancing month.
- v) Not later than the Wednesday following the first Friday of the rebalancing month, the Index Committee or its designee will issue a press release announcing additions and deletions to JGI. The press release will be posted on the JGI web site. (Announcement date.)
- vi) The Calculation Agent will provide final share weights to the Committee or its designee on the second Friday of the rebalancing month. Weights will be based on prices as of the close of trading on the preceding Thursday, or the Thursday prior to the second Friday of the rebalancing month.
- vii) The JGI Index Committee or its designee will approve the final share weights prior to the close of US markets on the second Friday.
- viii) The Calculation Agent will distribute final share weights to all approved parties via email and FTP after the close of US markets on the second Friday.
- ix) The effective date of the rebalancing will be the third Friday of the rebalancing month. The Calculation Agent will post all final rebalancing data and information on its FTP server on the second Friday of the rebalancing month barring the Index Committee Approval.
- x) JGI will post all rebalancing data on its website prior to the open on the next business day following the rebalancing date.

**X. Calculation of Index Values**

- i) The Calculation Agent will calculate index values using price data on each reported trade it receives on each component security.
- ii) The Calculation Agent will distribute index values to vendors at set 15-second intervals, provided the index value has changed from the previously distributed value.
- iii) The index calculations will start at 18:00 (EST - US) for the next trading day (opening price). At that time, the index will begin changing as new prices or exchange rates are processed.



- iv) Index calculation will cease each trading day at 17:00 (EST-US) and official summaries will be disseminated between 17:00 (EST-US) and 19:00 (EST-US) (closing price).
- v) Each week, the indexes will be calculated starting Sunday night at 18:00 through Friday night at 17:00.
- vi) If, during periods when the index is calculated, one or more markets are closed, the index calculation will continue using the last closing price for those stocks that trade on the closed exchange(s).
- vii) Stocks denominated in foreign currencies will be converted to USD with each reported price using exchange rates derived from Reuters. Official closing prices for the indexes will be calculated using the WM Rates (4PM London fixing).
- viii) The indexes will be calculated and disseminated in USD and EUR.
- ix) The indexes will also be calculated and disseminated in USD and EUR using Luxembourg Dividend Tax Rates to calculate net total return.

## XI. Dissemination

Index values will be disseminated in US dollars via Chicago Mercantile Exchange using the following tickers:

<u>Index</u>	<u>Ticker</u>
S-Network Global Water Index (Composite)	JGI
S-Network Global Water Works	JWW
S-Network Global Water Tech	JWT

Index values will be disseminated in EUR via the Chicago Mercantile Exchange using the following tickers:

<u>Index</u>	<u>Ticker</u>
S-Network Global Water Index (Composite)	JGIE
S-Network Global Water Works	JWWE
S-Network Global Water Tech	JWTE

## XII. Ongoing Maintenance

- i) In addition to the scheduled quarterly reviews, the JGI Family is reviewed on an ongoing basis. Changes in index composition and related weight adjustments are necessary whenever there are extraordinary events such as delisting, bankruptcy, mergers or takeovers involving index components. In these cases, each event will be taken into account as soon as it is effective. **A rebalance of the index or indices affected by these events is at the discretion of the index committee or its designee in the event a significant component is affected by any of the above corporate actions.** Whenever possible, the changes in the index's components will be announced at least two business days prior to their implementation date.

- ii) **Changes of Eligible Securities.** In the event that a component no longer meets the eligibility requirements described in Section V herein, it will be removed from the index.
- iii) **Changes of Industry Classification.** Companies are eligible for inclusion in the Composite based on the revenues received from its applicable business segment. Mergers, takeovers, and spin-offs, as well as organic growth in a company's business segments, may cause a company to lose its eligibility. In such a circumstance, the company will be deleted from the index. A company's classification may also require an immediate change as the result of a special event such as a merger, takeover or spin-off.
- iv) **Splits and Spin-offs.** If an index constituent splits or spins off a portion of its business to form one or more new companies, all of the companies involved in the spin-off will be immediately included in the JGI Family, if they would otherwise qualify for membership.
- v) **Mergers.** If two index constituents merge, their component positions will be replaced by the surviving company immediately. The Calculation Agent will adjust the float-adjusted shares outstanding for the surviving company to reflect the changes in both its total shares and any float blocks, regardless of the percentage changes in the survivor. If an index constituent merges with a non-component company, its component position will be replaced by the new company, if the new company meets all eligibility criteria described in Section IV herein. In the event of mergers of equals, the combined trading history of the predecessor companies shall be used for evaluation.
- vi) **Takeovers.** If an index component is taken over by another component company, the former will be removed from the index immediately upon completion of the takeover. If an index component is taken over by a non-component company, it will be replaced by the acquiring company immediately, if the acquiring company meets all the eligibility criteria described in Section IV herein. **The Calculation Agent will maintain a watch list of eligible replacement companies; in the event a constituent of one of the sector sub-indexes is deleted from one of the sector sub-indexes, the next highest ranking non-component will be added to the index.**
- vii) **Share Offerings, Tenders and Purchases.** If a component is involved in a secondary share offering, rights offering, or conversion of debt or preferred stock to common shares that results in an increase of more than 5% in float-adjusted shares outstanding, the Calculation Agent will adjust the shares outstanding and float as soon as practicable following completion of the transaction, subject to a two-day notification period. The Calculation Agent also will adjust float-adjusted shares outstanding decreases of 5% or more due to Dutch auctions, share repurchase programs, and block purchases by insiders, subject to a two-day notification period.
- viii) **Removal of Companies Due to Delisting, Bankruptcy or Extreme Financial Distress.** If an index constituent is de-listed by its primary market, or is in bankruptcy proceedings, it will be removed from the index.

\* If an index component is de-listed by its primary market due to failure to meet financial or regulatory requirements, it will be removed from the index.

\* If an index component enters bankruptcy proceedings, it will be removed from the index and will remain ineligible for re-inclusion until it has emerged from bankruptcy. However, the Committee may, following a review of the bankrupt company and the issues involved in the filing, decide to keep the company in the index.

\* The Committee may, at its discretion, remove a company it has determined to be in extreme financial distress from any JGI Family index to which it belongs, if the Committee deems the removal necessary to protect the integrity of the index and the interests of investors in products linked to that index.

ix) Pricing of Stocks in Extreme Financial Distress for Index Maintenance.

\* When a stock is suspended from trading due to financial distress and subsequently de-listed by its primary market prior to resumption of trading, the Calculation Agent will use the best-available alternate pricing source to determine the value at which the company should be removed from the index.

\* If the stock's primary market price is no longer available due to its suspension or de-listing, a current price from another exchange, such as a regional or electronic marketplace, may be used. In the absence of those prices in the case of U.S. securities, OTC Bulletin Board, OTC Equity (non-OTCBB stocks), and Pink Sheet traded prices could be applied in that order.

\* If neither a traded price nor a bid/asked range is available, the Committee will evaluate the status of the suspended stock. The Committee may consult with managers of portfolios linked to indexes in which the stock is a constituent in determining the value of the stock. If the Committee concludes that the security has become worthless or is likely to remain too illiquid to be traded, it will be removed from the index at .01 local currency of the stock.

### **XIII. Float Adjustment**

The JGI Family indexes are constructed and weighted using free-float market capitalization. Float-adjusted rather than full market capitalization is used to reflect the number of shares actually available to investors.

i) Qualifications. A company's outstanding shares are adjusted by block ownership to reflect only truly tradable and investable shares. The following four types of block ownership are considered during float adjustment:

\* Cross ownership – shares that are owned by other companies (including banks and life insurance companies)

\* Government ownership – shares that are owned by governments (central or municipal) or their agencies

\* Private ownership – shares that are owned by individuals, families or charitable trusts and foundations

\* Restricted shares – shares that are not allowed to be traded during a certain time period. However, a company's outstanding shares are not adjusted by institutional investors' holdings, which include, but are not limited to, the following categories:

- ii) **Threshold.** A company's outstanding shares are adjusted if, and only if, an entity in any of the four qualified categories listed above owns 5% or more of the company. Its shares will not be adjusted if the block ownership is less than 5%.
- iii) **Foreign Restriction.** The float adjustment rules also apply to foreign companies that have cross ownership of 5% or more. If a government has a foreign ownership restriction of 5% or more, the lesser of free-float shares or the portion that is available for foreign investment will be used for index calculation.

#### XIV. Calculation and Adjustments

##### i) Input Data Sources

\* Real-time stock prices are provided by Reuters. The latest trading price is used for index calculation.

\* The number of shares is determined separately for each class of stock. This information is obtained from regulatory filings and a variety of data vendors. The data also may be sourced from the companies themselves.

\* Corporate actions are sourced from public news services, regulatory filings and data vendors. The companies themselves may be used as an additional source.

\* Float data are obtained from a variety of sources including data vendors, exchanges, regulators and the companies themselves.

- ii) **Index Formula.** The index is calculated using a Laspeyres formula. This formula is used for the calculation of the return index and the price index. The only difference is that the divisor  $D_t$  is different for the two indexes (return index and price index).

The index is computed as follows:

$$\text{Index}_t = \frac{\sum_{i=1}^n (p_{it} \times q_{it})}{C_t \times \sum_{i=1}^n (p_{i0} \times q_{i0})} \times \text{Base Index Value} = \frac{M_t}{B_t} \times \text{Base Index Value}$$

The above mentioned formula can be simplified as:  $\text{Index}_t = \frac{M_t}{D_t}$

Where:

$$D_t = \frac{B_t}{\text{base index value}} = \text{divisor at time (t)}$$

$n$  = the number of stocks in the index

$p_{i0}$  = the closing price of stock  $i$  at the base date (June 25, 2002)

$q_{i0}$  = the number of shares of company  $i$  at the base date (June 25, 2002)

$p_{it}$  = the price of stock  $i$  at time  $(t)$

$q_{it}$  = the number of shares of company  $i$  at time  $(t)$

$C_t$  = the adjustment factor for the base date market capitalization

$t$  = the time the index is computed

$M_t$  = market capitalization of the index at time  $(t)$

$B_t$  = adjusted base date market capitalization of the index at time (t)

Dividend payments are not taken into account in the price indexes, whereas dividend payments are reinvested in the index samples of the total return indexes.

- iii) Divisor Adjustments. Corporate actions affect the share capital of component stocks and therefore trigger increases or decreases in the index. To avoid distortion, the divisor of the index is adjusted accordingly.

\* Formulae for Divisor Adjustment. The following formulae will be used for divisor adjustments. (Note: No divisor adjustments are necessary for stock splits, since market capitalization does not change and the share number and share price are adjusted prior to the opening of trading on the split's ex-date.)

$$D_{t+1} = D_t \times \frac{\sum (p_{it} \times q_{it}) \pm \Delta MC_{t+1}}{\sum (p_{it} \times q_{it})}$$

Where:

$D_t$  = divisor at time (t)

$D_{t+1}$  = divisor at time (t+1)

$p_{it}$  = stock price of company i at time (t)

$q_{it}$  = number of shares of company i at time (t)

$\Delta MC_{t+1}$  = add new components' market capitalization and adjusted market capitalization (calculated with adjusted closing prices and shares effective at time t+1 and/or minus market capitalization of companies to be deleted (calculated with closing prices and shares at time t)

Note: If the current trading price of an issue is unavailable, the previous trading session's closing price is used. However, if the issue is affected by any corporate action that requires an adjustment, then the adjusted price is used.

\* Adjustments for Corporate Actions. An index divisor may decrease (▼) or increase (▲) or keep constant (■) when corporate actions occur for a component stock. Assuming shareholders receive "B" new shares and "A" shares are originally held for the following corporate actions:

▼ A) CASH DIVIDEND (applied for return index only)  
adjusted price = closing price - dividend announced by the company

▼ B) SPECIAL CASH DIVIDEND (applied for price and return index)  
adjusted price = closing price - dividend announced by the company

■ C) SPLIT AND REVERSE SPLIT  
adjusted price = closing price \* A / B  
new number of shares = old number of shares \* B / A

▲ D) RIGHTS OFFERING  
adjusted price = (closing price \* A + subscription price \* B) / (A + B)  
new number of shares = old number of shares \* (A + B) / A

■ E) STOCK DIVIDEND  
adjusted price = closing price \* A / (A + B)

new number of shares = old number of shares \* (A + B) / A

▼ F) STOCK DIVIDEND OF A DIFFERENT COMPANY SECURITY

adjusted price = (closing price \* A - price of the different company security \* B) / A

▼ G) RETURN OF CAPITAL AND SHARE CONSOLIDATION

adjusted price = (closing price - dividend announced by company) \* A / B

new number of shares = old number of shares \* B / A

▼ H) REPURCHASE SHARES-SELF TENDER

adjusted price = [(price before tender \* old number of shares) - (tender price \* number of tendered shares)] / (old number of shares - number of tendered shares)

new number of shares = old number of shares - number of tendered shares

▼ I) SPIN-OFF

adjusted price = (closing price \* A - price of spun-off shares \* B) / A

▲ J) COMBINATION STOCK DISTRIBUTION (DIVIDEND OR SPLIT) AND RIGHTS OFFERING

Shareholders receive B new shares from the distribution and C new shares from the rights offering for every A shares held:

\* If rights are applicable after stock distribution (one action applicable to other). adjusted price = [closing price \* A + subscription price \* C \* (1 + B / A)] / [(A + B) \* (1 + C / A)] new number of shares = old number of shares \* [(A + B) \* (1 + C / A)] / A

\* If stock distribution is applicable after rights (one action applicable to other). adjusted price = [closing price \* A + subscription price \* C] / [(A + C) \* (1 + B / A)] new number of shares = old number of shares \* [(A + C) \* (1 + B / A)]

▲ K) STOCK DISTRIBUTION AND RIGHTS (NEITHER ACTION IS APPLICABLE TO THE OTHER) adjusted price = [closing price \* A + subscription price \* C] / [A + B + C] new number of shares = old number of shares \* [A + B + C]

- iv) Computational Precision. Index values are rounded to two decimal places and divisors are rounded to integers. Any values derived by the index calculation engine from a corporate action used for the divisor adjustments and index computations are rounded to seven decimal places.

## XV. Data Correction Policy

To maintain a high standard of data integrity, a series of procedures have been implemented to ensure accuracy, timeliness and consistency. Input prices are monitored using a variety of computerized range-check warning systems for both ticker-plant and real-time index systems. Fault tolerant methods are employed in the collection of market and corporate action data. Various verification and audit tasks are performed to ensure the quality of the real-time data feeds and related market data. While every effort is taken to ensure the accuracy of the information used for the index calculation, an index error may occur due to incorrect or missing data, including trading prices, exchange rates, shares outstanding and corporate actions, due to operational errors or other reasons.

- i) Intraday Corrections. Reasonable efforts are employed to prevent erroneous data from affecting the indexes. Corrections will be made for bad prices and incorrect or missing corporate actions as soon as possible after detection.
- ii) Since the indexes are calculated on a real-time basis, an incorrect index value tick will not be fixed retroactively. Incorrect daily high/low index values will be corrected as soon as practicable.
- iii) Index-Related Data and Divisor Corrections. Incorrect pricing and corporate action data for individual issues in the database will be corrected upon detection. In addition, an incorrect divisor of an index, if discovered within five days of its occurrence, will always be fixed on the day it is discovered to pre-vent an error from being carried forward.
- iv) If a divisor error is discovered more than five days after occurrence, the adjustment will depend upon how significant the error is, how far back the error occurred and the feasibility of performing the adjustment.

## **XVI. APPENDIX REVIEW SCHEDULE**

### Shares Updates

Frequency: Quarterly

Effective date: Close of trading on the 3<sup>rd</sup> Friday of the last month of each calendar quarter

Advance notice: At least two business days

### Quarterly Review

Frequency: Semi-annual

Effective date: Close of trading on the 3<sup>rd</sup> Fridays of June and December

Advance notice: At least two business days

### News Notification

Frequency: As needed

Effective date: As announced

Advance notice: At least two business days whenever possible

\* Includes events such as de-listings, mergers, bankruptcies and other extraordinary events.

\* Based on available news.

**XVII. APPENDIX A: List of Approved Exchanges**

EXCHANGE	COUNTRY
ASE	AUSTRALIA
ASX	AUSTRALIA
Australian	AUSTRALIA
Vienna	AUSTRIA
EN Brussels	BELGIUM
Euron. Brussels	BELGIUM
Sao Paulo	BRAZIL
Toronto	CANADA
Sant. Comerc	CHILE
Sant. Elec	CHILE
SANTIAGO	CHILE
Hong Kong	CHINA
Shanghai	CHINA
Shenzen	CHINA
Shenzhen	CHINA
Singapore	CHINA
Prague	CZECH REPUBLIC
Prague-SPAD	CZECH REPUBLIC
Copenhagen	DENMARK
Reykjavik	DENMARK
Cairo	EGYPT
Egypt (EGX)	EGYPT, ARAB REP.
Tallin	ESTONIA
Tallinn	ESTONIA
Helsinki	FINLAND
EN Paris	FRANCE
Euronext Paris	FRANCE
Berlin	GERMANY
Dusseldorf	GERMANY
Frankfurt	GERMANY
Munich	GERMANY
Athens	GREECE
Hong Kong	Hong Kong
NASDAQ CM	HONG KONG
Budapest	HUNGARY
Indonesia	INDONESIA
Indonesia SE	INDONESIA
Dublin	IRELAND
Tel Aviv	ISRAEL
Brsaltaliana	ITALY
Milan	ITALY
Fukuoka	JAPAN
Jasdaq	JAPAN
Nagoya	JAPAN
Osaka	JAPAN

EXCHANGE	COUNTRY
Tokyo	JAPAN
KO	Korea, Rep.
Luxembourg	LUXEMBOURG
Bursa Malays	MALAYSIA
Bursa Malaysia	MALAYSIA
Kuala Lumpur	MALAYSIA
Malaysia ACE Mkt	MALAYSIA
Mexico	MEXICO
Mexico City	MEXICO
EN Amsterdam	NETHERLANDS
Euron. Amsterdam	NETHERLANDS
New Zealand	NEW ZEALAND
NZX	NEW ZEALAND
Oslo	NORWAY
Philippine SE	PHILIPPINES
Philippines	PHILIPPINES
Warsaw	POLAND
Warsaw Continuou	POLAND
EN Lisbon	PORTUGAL
Euronext Lisbon	PORTUGAL
Catalist	SINGAPORE
Johannesburg	SOUTH AFRICA
Lagos	SOUTH AFRICA
Korea	SOUTH KOREA
Korea SE	SOUTH KOREA
KOSDAQ	SOUTH KOREA
Continuous	SPAIN
Madrid	SPAIN
Madrid-SIBE	SPAIN
Nordic GM	SWEDEN
Stockholm	SWEDEN
SIX Swiss	SWITZERLAND
SIX Swiss Ex	SWITZERLAND
Taiwan	TAIWAN
Istanbul	TURKEY
London	UNITED KINGDOM
LONDON INTL	UNITED KINGDOM
London Plus Mkt	UNITED KINGDOM
Nasdaq	UNITED STATES
NASDAQ GM	UNITED STATES
NASDAQ GS	UNITED STATES
New York	UNITED STATES
NYSE Amex	UNITED STATES
NYSE ARCA	UNITED STATES