

**STANDARD  
& POOR'S**

# S&P GLOBAL WATER INDEX

INDEX METHODOLOGY

September 2008

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# Introduction

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The S&P Global Water Index is comprised of 50 of the largest publicly traded companies in water-related businesses that meet specific investability requirements. The index is designed to provide liquid exposure to the leading publicly listed companies in the global water industry, from both developed markets and emerging markets.

## Highlights

The S&P Global Water Index includes 50 of the largest publicly traded stocks from companies involved in some aspect of the water business around the world. To ensure investability, a developed market listing, a minimum market capitalization, and a liquidity requirement have been set.

To create diversified exposure across the global water market, the 50 constituents are distributed equally between two distinct clusters of water related businesses: Water Utilities & Infrastructure and Water Equipment & Materials.

Constituent weights are driven by size, with no single stock having a weight of more than 10% in the index at each rebalancing.

## Index Family

The S&P Global Water Index belongs to the S&P Global Thematic Indices. This series offers liquid exposure to emerging investment themes. Other indices in this series are the S&P Emerging Markets Infrastructure Index, the S&P Global Alternative Energy Index, the S&P Global Clean Energy Index, the S&P Global Eco Index, the S&P Global Infrastructure Index, the S&P Global Nuclear Energy Index, and the S&P Global Timber & Forestry Index.

**S&P Emerging Markets Infrastructure Index.** The S&P Emerging Markets Infrastructure Index is comprised of 30 of the largest publicly listed emerging markets infrastructure companies that meet specific investability requirements. The index is designed to provide liquid exposure to the leading publicly listed emerging market companies in the infrastructure industry.

**S&P Global Alternative Energy Index.** Designed to measure investable opportunities in the complete alternative energy space, the S&P Global Alternative Energy Index is the combination of the S&P Global Clean Energy Index and the S&P Global Nuclear Index, both defined below.

**S&P Global Clean Energy Index.** The S&P Global Clean Energy Index is comprised of 30 of the largest publicly traded companies in clean energy related businesses that meet specific investability requirements. The index is designed to provide liquid exposure to the leading publicly listed companies in the global clean energy business, from both developed markets and emerging markets.

**S&P Global Eco Index.** The S&P Global Eco Index is comprised of 30 of the largest publicly listed companies in ecology-related industries.

**S&P Global Infrastructure Index.** The S&P Global Infrastructure Index is comprised of 75 of the largest publicly listed infrastructure companies that meet specific investability requirements. The index is designed to provide liquid exposure to the leading publicly listed companies in the global infrastructure industry, from both developed markets and emerging markets.

**S&P Global Nuclear Energy Index.** The S&P Global Nuclear Energy Index is comprised of 20 of the largest publicly traded companies in nuclear energy related businesses that meet investability requirements. The index is designed to provide liquid exposure to the leading publicly listed companies in the global nuclear energy business from both developed markets and emerging markets.

**S&P Global Timber & Forestry Index.** The S&P Global Timber & Forestry Index is comprised of 25 of the largest publicly traded companies engaged in the ownership, management or the upstream supply chain of forests and timberlands.

*For more information on any of these indices, please refer to their methodology documents.*

# Eligibility Criteria

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## Index Eligibility

The universe, from which the S&P Global Water Index is drawn, is all publicly listed companies in Standard & Poor's CapitalIQ (CIQ) database with the term “water” in their business description. All of these are, then, reviewed to get further detail on their business and industry, and are classified as follows:

| Set Name   | Description                                    | Exposure Score |
|------------|--|----------------|
| Primary    | Primary business is water                      | 1.0            |
| Secondary  | Multi-Industry with significant water exposure | 0.5            |
| Eliminated | Marginal water exposure                        | 0              |

Companies with an exposure score of 1.0 or 0.5 become the universe for the S&P Global Water Index.

## Eligibility Factors

The universe is, then, narrowed down to an investable set of stocks based on the following criteria:

**Market Capitalization.** Stocks must have a total market capitalization above a Market Capitalization Threshold as of each rebalancing reference date. The Market Capitalization Threshold is currently US\$ 250 million.

**Liquidity.** Stocks must have three-month average daily trading volume above a Liquidity Threshold as of each rebalancing reference date. The Liquidity Threshold is currently 10,000 shares.

**Listing Venues.** The stock must be trading on a developed market exchange. Emerging market stocks are considered only if they have a developed market listing.

Stocks passing these criteria form the Investable Universe.

The reference dates for the eligibility screens above are the last trading dates of February and August of each year. The Market Capitalization Threshold and Liquidity Threshold are subject to change on an annual basis according to market conditions.

# Index Construction

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## Approaches

The methodology employs a modified market capitalization-weighting scheme, using the divisor methodology used in most Standard & Poor's equity indices.

There are two steps in the creation of the index. The first is the selection of the 50 companies; the second is the weighting of the index constituents. The selection of index constituents is done as follows:

1. All stocks in the Investable Universe are classified as being in one of the two clusters: Water Equipment Instruments & Materials or Water Utilities & Infrastructure defined as follows:

| <b>Water Equipment &amp; Materials</b>        | <b>Water Utilities &amp; Infrastructure</b> |
|---|---|
| Water Treatment Chemicals                     | Water Supply                                |
| Water Treatment Appliances                    | Water Utilities                             |
| Pumps & Pumping Equipment                     | Waste Water Treatment                       |
| Plumbing Equipment                            | Water Purification                          |
| Plumbing Pipes                                | Water Well Drilling                         |
| Fluid Power Pumps & Motors                    | Water Testing                               |
| Totalizing Fluid Meters<br>& Counting Devices | Water, Sewer<br>& Pipeline Construction     |

2. The 25 largest companies with Exposure Scores of 1 from each of the two clusters are, then, selected.

In the event of fewer than 25 qualifying stocks in either of the two clusters with an exposure score of 1, the largest companies from within the respective cluster with an Exposure Score of 0.5 are added until the count reaches 25.

## Constituent Weightings

At each rebalancing, the weight for each index constituent is set in the following manner:

1. Every stock is given an initial Adjustment Factor ( $AF$ ) of 1. A Maximum Weight ( $MW$ ) in the index is set to 10% for stocks with an Exposure Score of 1.0 and 5% for stocks with an Exposure Score of 0.5. The weight of a stock in the index is defined as follows:

$$W_i = \text{Cluster Weight} * \text{Weight in Cluster}$$

where,

| Cluster                          | Count | Weight |
|----------------------------------|-------|--------|
| Water Equipment & Materials      | 25    | 50%    |
| Water Utilities & Infrastructure | 25    | 50%    |

$$\text{Weight in Cluster} = \frac{AF_i * \text{Market Cap}_i}{\sum_{i=1}^N (\text{Market Cap})_i * (AF)_i}$$

$N =$  Count of stocks in the respective cluster

2. The weight for each stock in the index is calculated as follows:

$$W_i = \frac{AF_i * \text{Market Cap}_i}{\sum_{i=1}^N (\text{Market Cap})_i * (AF)_i} * \text{Cluster Weight}$$

3. The adjustment factor for each stock is modified as follows:

If  $W_i \geq MW$

then  $AF_i = AF_{i, \text{previous}} - (10\% * AF_{i, \text{previous}})$

else  $AF_i = AF_{i, \text{previous}}$

4. If, for every stock  $W_i < MW$ , then the process is complete and the weights derived in Step 2 are used. If not, Steps 2, and 3 are repeated until all stocks meet the minimum weight requirement. (Note: No further adjustments are made for stocks where the AF has been reduced to 0.1)

The  $MW$  parameter is the maximum weight of each stock at the rebalancing. This parameter can be changed depending upon market circumstances at rebalancing. Steps 1 through 4 modify the market cap-weighting scheme in a looped manner until the  $MW$  constraints are satisfied for all index constituents.

## Index Calculations

The index is calculated by means of the divisor methodology used in all Standard & Poor's equity indices. The index value is simply the index market value divided by the index divisor:

$$\text{Index Value} = \frac{\text{Index Market Value}}{\text{Index Divisor}} \quad (1)$$

*For more information on the Index calculation methodology, please refer to the Modified Market Capitalization Weighted Indices section of Standard & Poor's Index Mathematics Methodology.*

In order to maintain basket series continuity, it is also necessary to adjust the divisor at the rebalancing.

$$(\text{Index Value})_{\text{before rebalancing}} = (\text{Index Value})_{\text{after rebalancing}} \quad (2)$$

Therefore,

$$(\text{Divisor})_{\text{after rebalancing}} = \frac{(\text{Index Market Value})_{\text{after rebalancing}}}{(\text{Index Value})_{\text{before rebalancing}}} \quad (3)$$

# Index Maintenance

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## Rebalancing

**Frequency.** Index rebalancings occur after the closing of the last trading dates of March and September of each year. The rebalancing reference dates will be the last trading dates of the previous February and August, respectively. No companies are added to the Index between rebalancings.

## Corporate Actions

| <b>Corporate Action</b>  | <b>Adjustment made to index</b>   | <b>Divisor adjustment?</b> |
|--|---|----------------------------|
| Spin-off   | No weight change. The price is adjusted to the Price of the Parent Company minus (Price of the Spun-off company/Share Exchange Ratio). Index Shares change so that the company's weight remains the same as its weight before the spin-off. | No                         |
| Rights Offering  | The price is adjusted to the Price of Parent Company minus (Price of the Rights Offering/Rights Ratio). Index Shares change so that the company's weight remains the same as its weight before the rights offering.                         | No                         |
| Stock Split  | Index Shares are multiplied by and the price is divided by the split factor.  | No                         |
| Share Issuance or Share Repurchase   | None. Actual shares outstanding of the company play no role in the daily index calculation.   | No                         |
| Special Dividends  | Price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the dividend ex-date.   | Yes                        |
| Delisting, acquisition or any other corporate action resulting in the deletion of the stock from the Index | Stock is dropped from the Index. No intra-year replacements are made.   | Yes                        |

**Base Date**

The index base date is November 16<sup>th</sup>, 2001. The base value, for both the price return and total return series, is 1000. Daily returns are available from November 16<sup>th</sup>, 2001.

# Index Data

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## Total Return and Net Return Indices

The index has a total return counterpart, which assumes dividends are reinvested in the index after the close on the ex-date. On any given date  $t$ :

$$\text{Total Return Multiplier}_t = \frac{[\text{Index Value}_t + \text{Index Dividend Points}_t]}{\text{Index Value}_{t-1}} \quad (4)$$

$$\text{Total Return Index Value}_t = (\text{Total Return Index Value}_{t-1}) * (\text{Total Return Multiplier}_t) \quad (5)$$

$$\text{Index Dividend Points}_t = \sum_{i=1}^N (\text{Index Shares})_{i,t} * (\text{Ex-dividends})_{i,t} / \text{Divisor}_t \quad (6)$$

There is also a net return index series, which adds dividends after adjustments for withholding taxes based on a Luxembourg domicile. Effectively, the net return index adds index dividend points, as in Equation 6, except that the Ex-dividends term is multiplied by (100% - withholding tax rate).

# Index Governance

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## **Index Committee**

An Index Committee maintains the S&P Global Thematic index series. The Index Committee meets regularly. At each meeting, the Index Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the indices to the market, companies that are being considered as candidates for addition to an index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

Standard & Poor's considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

# Index Policy

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## **Announcements**

Announcements of additions and deletions are made at 05:15 PM U.S. Eastern Time via the Web site at [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com). Rebalancing announcements are made 4 to 7 business days prior to the rebalancing date.

## **Holiday Schedule**

The S&P Global Water Index is calculated daily on all business days of the year, with no exceptions.

*A complete holiday schedule for the year is available on Standard & Poor's Web site at [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com).*

## **Unscheduled Market Closures**

In situations where an exchange is forced to close early due to unforeseen events, such as computer or electric power failures, weather conditions or other events, Standard & Poor's will calculate the closing price of the indices based on (1) the closing prices published by the exchange, or (2) if no closing price is available, the last regular trade reported for each stock before the exchange closed. In all cases, the prices will be from the primary exchange for each stock in the index. If an exchange fails to open due to unforeseen circumstances, the index will use the prior day's closing prices. If all exchanges fail to open, Standard & Poor's may determine not to publish the index for that day.

# Index Dissemination

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Complete data for index replication (including share counts, tickers and data on index levels and returns) are available through Standard & Poor's index data group for subscription via FTP.

## **Tickers**

|   | <b>Bloomberg</b> | <b>Reuters</b> |
|---|------------------|----------------|
| S&P Global Water Index –<br>Price Return (U.S. dollars) | SPGTAQUA         | .SPGTAQUA      |
| S&P Global Water Index –<br>Total Return (U.S. dollars) | SPGTAQTR         | .SPGTAQTR      |
| S&P Global Water Index –<br>Price Return (Euros)        | SPGTAQUE         | .SPGTAQUE      |
| S&P Global Water Index –<br>Total Return (Euros)        | SPGTATRE         | .SPGTATRE      |

# S&P Contact Information

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