## STANDARD &POOR'S

# S&P GLOBAL TIMBER & FORESTRY INDEX INDEX METHODOLOGY

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### Introduction

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.

### Highlights

The S&P Global Timber & Forestry includes 25 of the largest publicly traded stocks from around the world that represent the timber and forestry investment theme.

These may be forest products companies, timber REITs, paper products companies, paper packaging companies, or agricultural product companies that are engaged in the ownership, management or the upstream supply chain of forests and timberlands.

To ensure investability, minimum market capitalization and liquidity requirements have been set.

The index follows a modified market capitalization weighted scheme that reduces single stock concentration and gives greater weight to companies more purely exposed to the timber & forestry theme.

#### **Index Family**

The S&P Global Timber & Forestry 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 Water 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 Water Index.** 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.

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

## Eligibility Criteria

### **Index Eligibility**

The initial universe from which the S&P Global Timber & Forestry index is drawn is all publicly listed companies in Standard & Poor's CapitalIQ (CIQ) database that have the following terms in their business description: Timber, Forest, Lumber, Wood and/or Plantation.

Exposure Scores are assigned to these companies on the basis of their CIQ primary industry classification (GICS<sup>®1</sup>), CIQ business description and other publicly available information such as annual reports.

• **Exposure Score 1**: These companies have a GICS classification of Specialized REITs or Forest Products and are primarily engaged in the ownership or management of forests, timberlands or plantations.

- **Exposure Score 0.5**: These companies fall into two categories:
  - Have a GICS classification of Paper Products or Paper Packaging and own or manage timberlands or pulp mills as a captive raw material source.
  - Have a GICS classification of Forest Products or Agricultural Products, with timber and forestry being an important but not the principal business.

Companies with an exposure score of 1 or 0.5 become the selection universe for the S&P Global Timber & Forestry Index.

**Market Capitalization.** Stocks must have a total market capitalization above the market cap threshold of US\$ 250 million, as of each rebalancing reference date.

**Liquidity.** Stocks must have a 3-month average daily value traded of at least US\$ 1 million, as of each rebalancing reference date.

**Eligible Securities.** The stock must be traded on a developed market exchange or on an advanced emerging market exchange (with Korea and South Africa being considered advanced emerging markets for purpose of this index).

Stocks passing these criteria form the Investable Universe.

<sup>&</sup>lt;sup>1</sup> The Global Industry Classification Standard (GICS<sup>®</sup>) was developed by and is the exclusive property and trademark of Standard & Poor's and MSCI Barra.

The reference dates for the eligibility screens above are the last trading dates of February and August of each year. The market cap and liquidity thresholds are subject to change according to market conditions.

### Index Construction

### 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 25 companies; the second is the weighting of the index constituents.

The selection of index constituents is done as follows:

- 1. The 25 largest companies with an Exposure Score of 1 from the Investable Universe are chosen.
- 2. In the event of fewer than 25 qualifying stocks with an exposure score of 1, the largest companies from within the Investable Universe with an Exposure Score of 0.5 are added until the count reaches 25.

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

1. Every stock is given an initial Index Capitalization (*IC*) equal to its market capitalization. The Maximum Weight (*MW*) is set to 8%, for stocks with an Exposure Score = 1, and 4% for stocks with an exposure score = 0.5. The weight of a stock is defined as follows:

Weight of Stock<sub>i</sub> = 
$$\frac{ICi}{\sum_{i=1}^{25} (IC)_i}$$

2. The IC for each stock is modified as follows:

If Weight of  $Stock_i > MW$ 

then  $IC_i = IC_{i, previous} - (5\% * IC_{i, previous})$ 

else  $IC_i = IC_{i, previous}$ 

3. If, for every stock *i*, the *Weight of Stock*<sub>*i*</sub> < MW then the process is complete and the weights derived in step 2 are used. If not, steps 1 and 2 are repeated until all stocks meet the maximum weight requirements.

The *MW* parameter is the maximum weight of each stock at the rebalancing. This parameter can be changed depending upon market circumstances. Steps 1 through 3 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:

$$Index Value = Index Market Value/Index Divisor$$
(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.

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

Therefore,

(Divisor)<sub>after rebalancing</sub> = (Index Market Value)<sub>after rebalancing</sub>/(Index Value)<sub>before rebalancing</sub> (3)

## Index Maintenance

### 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**

Corporate Action	Adjustment made to index	Divisor adjustment?
Spin-off	No weight change. The price is adjusted to the Price of the Parent Company minus (the Price of Spin-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 the Parent Company minus (the 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 price is divided by the split factor.	No
Share Issuance or Share Repurchase	None.	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	The stock is dropped from Index	Yes

### **Base Date**

The index base date is November 21, 2003. The base value, for both the price return and total return series, is 1000. Daily returns are available from November 21, 2003.

## Index Data

### **Total Return and Net Return Indices**

Each index will have a total return counterpart, which assumes dividends are reinvested in the index after the close on the ex-date. On any given date *t*:

$$Total Return Multiplier_{t} = \frac{[Index Value_{t} + Index Dividend Points_{t}]}{Index Value_{t-1}}$$
(4)

 $Total Return Index Value_{t-1}) * (Total Return Multiplier_{t})$ (5)

Index Dividend Points<sub>t</sub> =  

$$\sum_{i=1}^{N} (Index \ Shares)_{i,t} * (Ex - dividends)_{i,t} / Divisor_{t}$$
(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

#### **Index Committee**

The S&P Global Thematic Indices are maintained by an Index Committee. 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

#### Announcements

Announcements of additions and deletions are made at 5:15 PM U.S. Eastern Time.

#### **Holiday Schedule**

The S&P Global Timber & Forestry 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.

### **Unscheduled Market Closures**

In situations where an exchange is forced to close early due to unforeseen events, such 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**

### **Index Data**

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

Index	Bloomberg	Reuters
S&P Global Timber & Forestry Index –	SPGTTF	.SPGTTF
Price Return (U.S. dollars)		
S&P Global Timber & Forestry Index –	SPGTTFT	.SPGTTFT
Total Return (U.S. dollars)		
S&P Global Timber & Forestry Index –	SPGTTFE	.SPGTTFE
Price Return (Euros)		
S&P Global Timber & Forestry Index –	SPGTTFTE	.SPGTTFTE
Total Return (Euros)		

For further information, please refer to Standard & Poor's Web site at www.indices.standardandpoors.com

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