

**STANDARD  
& POOR'S**

# S&P GLOBAL AGRIBUSINESS COMPOSITE INDEX

INDEX METHODOLOGY

November 2008

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# Introduction

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The S&P GSCI Agriculture and Livestock Index is a subset of the S&P/GSCI and is designed to provide liquid exposure to the agriculture and livestock commodities markets. The S&P Global Agribusiness Index is designed to provide liquid exposure to the upstream and downstream supply chain of the agribusiness sector.

To create diversified and comprehensive exposure across the entire agribusiness industry, the S&P Global Agribusiness Composite Index combines these two indices – the S&P GSCI Agriculture and Livestock Index and the S&P Global Agribusiness Index – into one global index.

## **Highlights**

The S&P GSCI Agriculture and Livestock Index is a sub-index of the S&P GSCI. The index is calculated primarily on a world production-weighted basis and is comprised of the physical agriculture and livestock commodities that trade in active, liquid futures markets.

*Additional information and complete details on the S&P GSCI Index methodology are available on Standard & Poor's Web site at [www.spgsci.standardandpoors.com](http://www.spgsci.standardandpoors.com).*

The S&P Global Agribusiness Index includes 24 of the largest publicly-traded agribusiness companies from around the world. To ensure investability, constituents must have a developed market listing and meet minimum market capitalization and liquidity requirements.

The S&P Global Agribusiness Composite Index is equally weighted between the S&P GSCI Agriculture and Livestock Index and the S&P Global Agribusiness Equity Index.

*For detailed information on the methodologies for the S&P GSCI Agriculture and Livestock and the S&P Global Agribusiness Equity Indices please visit Standard & Poor's Web site at [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com).*

# 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.

At each annual rebalancing, the weight distribution of the S&P GSCI Agriculture and Livestock and the S&P Global Agribusiness Indices is set as follows in the S&P Global Agribusiness Composite Index:

Sub Index	Weight
S&P GSCI Agriculture and Livestock Index	50%
S&P Global Agribusiness Index	50%

The S&P Global Agribusiness Index is further divided into two thematic clusters, each with 12 stocks and 50% weight.

Cluster	Count	Weight
Producers, Distributors & Processors	12	50%
Equipment & Material Suppliers	12	50%

*For more details, please refer to the S&P Global Agribusiness Index Methodology.*

## Constituent Weightings

The S&P GSCI Agriculture and Livestock Index is essentially treated as the 25<sup>th</sup> stock in the S&P Global Agribusiness Composite Index. At each rebalancing, the weights of the S&P GSCI Agriculture and Livestock and the S&P Global Agribusiness Equity Indices are each set at 50%. Further, the weights of the constituents for the S&P Global Agribusiness Equity Index are 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 10% for all stocks. The weight of a stock is defined as follows:

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

$$\text{Weight in Cluster} = \frac{IC_i}{\sum_{i=1}^N IC_i}$$

$N =$  Count of stocks in the respective cluster

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

$$\text{Weight of Stock}_i = \frac{IC_i}{\sum_{i=1}^N (IC)_i} * \text{ClusterWeight} * \text{SubIndexWeight}$$

3. The  $IC$  for each stock is modified as follows:

If  $\text{Weight of Stock}_i > MW$

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

else  $IC_i = IC_{i, \text{previous}}$

4. If, for every stock  $i$ , the  $\text{Weight of Stock}_i < MW$  then the process is complete and the weights derived in step 2 are used. If not, steps 1-3 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 most Standard & Poor's equity indices. The index value is simply the index market value divided by the index divisor:

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

$$\text{Index Market Value} = \sum_{i=1}^N (\text{Index Shares})_i * (\text{Price})_i \quad (2)$$

*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.

$$(\text{Index Value})_{\text{before rebalancing}} = (\text{Index Value})_{\text{after rebalancing}} \quad (4)$$

Therefore,

$$(\text{Divisor})_{\text{after rebalancing}} = \frac{(\text{Index Market Value})_{\text{after rebalancing}}}{(\text{Index Value})_{\text{before rebalancing}}} \quad (5)$$

# Index Maintenance

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## Rebalancing

**Frequency.** Index rebalancings occur after the closing on the third Friday of November of each year. The rebalancing reference date is after the close of the last business day of October of each year. The universe is sampled and constituents are selected and weighted at this annual rebalancing.

## Corporate Actions

Corporate Action	Adjustment made to the index	Divisor adjustment?
Spin-off	No weight change. The price is adjusted to the Price of the Parent Company minus (the 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 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 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	The 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 S&P Global Agribusiness Composite index	The stock is dropped from the Index. No intra-year replacements are made.	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

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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  $t$ :

$$\text{Total Return Multiplier}_t = \frac{[\text{Index Value}_t + \text{Index Dividend Points}_t]}{\text{Index Value}_{t-1}} \quad (6)$$

$$\text{Total Return Index Value}_t = (\text{Total Return Index Value}_{t-1}) * (\text{Total Return Multiplier}_t) \quad (7)$$

$$\text{Index Dividend Points}_t = \sum_{i=1}^N (\text{Index Shares})_{i,t} * (\text{Ex-dividends})_{i,t} / \text{Divisor}_t \quad (8)$$

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 8, 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 Agribusiness Composite Index. The Committee meets regularly. At each meeting, the 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**

Index rebalancing announcements are made at 05:15 p.m. ET three-to-ten business days before the effective date on Standard & Poor's Web site at [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com). No separate announcements are made for routine corporate actions whose index implications are discussed in this document.

## **Holiday Schedule**

The S&P Global Agribusiness Composite Index is calculated daily, throughout the calendar year. The only days the index is not calculated are on days when all exchanges where the S&P Global Agribusiness Composite index constituents are listed are officially closed or if WM Reuters' exchange rates are not published.

*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 Agribusiness Composite Index (U.S. Dollars)	SPAGRDP	.SPAGRDP
S&P Global Agribusiness Composite Index (Euros)	SPAGREP	.SPAGREP

*For further information, please refer to Standard & Poor's Web site at [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com).*

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