

STANDARD  
& POOR'S

# S&P GLOBAL NATURAL RESOURCES INDEX

INDEX METHODOLOGY

September 2008

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# Introduction

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The S&P Global Natural Resources Index is comprised of 60 of the largest publicly traded companies in natural resources and commodities businesses that meet specific investability requirements. The index is designed to provide broad, diversified exposure across a spectrum of commodities.

The index combines the S&P Global Natural Resources –Agriculture Index, the S&P Global Natural Resources –Energy Index and the S&P Global Natural Resources – Metals and Mining Index.

## **Highlights**

The S&P Global Natural Resources Index is designed to track companies whose businesses are tied to commodities followed by the S&P GSCI and its sub-indices.

The S&P Global Natural Resources – Agriculture Index includes 20 of the largest publicly-traded companies involved in agriculture and livestock businesses around the world.

The S&P Global Natural Resources – Energy Index includes 20 of the largest publicly-traded energy companies involved in oil, gas and coal exploration, extraction and production around the world.

The S&P Global Natural Resources – Metals and Mining Index includes 20 of the largest publicly-traded mining companies involved in industrial and precious metals exploration, extraction and production around the world.

To ensure investability, constituents must have a developed market listing and meet minimum market capitalization and liquidity requirements.

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

The rebalancing reference date is after the close of the last business day of September of each year. The market capitalization and liquidity criteria are subject to change on an annual basis according to market conditions.

# Eligibility Criteria

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## **Index Eligibility**

### ***S&P Global Natural Resources – Agriculture***

The universe from which the S&P Global Natural Resources – Agriculture index is drawn is all publicly listed companies in Standard & Poor’s CapitalIQ (CIQ) database with a Global Industry Classification Standard (GICS®) classification of Agricultural Products, Fertilizers & Agricultural Chemicals or Packaged Foods & Meats. All of these are, then, reviewed to get further detail on their business and industry, and are scored as follows:

<b>Set Name</b>	<b>Description</b>	<b>Exposure Score</b>
Primary	Primary business is agriculture/livestock	1
Secondary	Multi-industry with significant agriculture/livestock exposure	0.5
Eliminated	Marginal agriculture/livestock exposure	0

Companies with an exposure score of 1.0 or 0.5 become the universe for the S&P Global Natural Resources – Agriculture Index.

### ***S&P Global Natural Resources – Energy***

The universe from which the S&P Global Natural Resources - Energy index is drawn is all publicly listed companies in Standard & Poor’s CapitalIQ (CIQ) database with a Global Industry Classification Standard (GICS®) classification of Coal & Consumable Fuels, Integrated Oil & Gas, Oil & Gas Drilling, Oil & Gas Exploration & Production or Oil & Gas Refining & Marketing. All of these are, then, reviewed to get further detail on their business and industry, and are scored as follows:

<b>Set Name</b>	<b>Description</b>	<b>Exposure Score</b>
Primary	Primary business is energy	1
Secondary	Multi-industry with significant energy exposure	0.5
Eliminated	Marginal energy exposure	0

Companies with an exposure score of 1.0 or 0.5 become the universe for the S&P Global Natural Resources – Energy Index.

### ***S&P Global Natural Resources – Metals and Mining***

The universe from which the S&P Global Natural Resources – Metals and Mining index is drawn is all publicly listed companies in Standard & Poor’s CapitalIQ (CIQ) database with a Global Industry Classification Standard (GICS®) classification of Diversified Metals & Mining, Gold, Steel, Aluminum or Precious Metals & Minerals. All of these are, then, reviewed to get further detail on their business and industry, and are scored as follows:

<b>Set Name</b>	<b>Description</b>	<b>Exposure Score</b>
Primary	Primary business is metals and mining	1
Secondary	Multi-industry with significant metals and mining exposure	0.5
Eliminated	Marginal metals and mining exposure	0

Companies with an exposure score of 1.0 or 0.5 become the universe for the S&P Global Natural Resources – Metals and Mining Index.

#### **Eligibility Factors**

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

**Market Capitalization.** Stocks must have a total market capitalization above US\$ 1 billion at each annual rebalancing.

**Liquidity.** Stocks must have six-month average daily trading value above US\$ 10 million as of each annual rebalancing.

**Listing Venues.** The stock must be trading on a developed market exchange.

Stocks passing these criteria form the Selection Universe for each of the indices listed above.

The rebalancing reference date is after the close of the last business day of September of each year. History prior to the September 2008 rebalancing was constructed with the last business day of October of each year as the reference date. The market capitalization and liquidity criteria, for any or all of the indices, are subject to change on an annual basis according to market conditions.

#### **Timing of Changes**

**Additions.** Additions are made to the indices only at the time of the annual rebalancing. To be eligible for addition to an index, a company must meet the investability criteria listed above.

**Deletions.** Deletions can occur due to acquisitions, mergers and spin-offs or due to bankruptcies or suspension.

# 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 each index. The first is the selection of the 20 companies; the second is the weighting of the index constituents.

## Constituent Selection

The selection of index constituents for each index is done as follows:

### *S&P Global Natural Resources – Agriculture*

1. All stocks in the Selection Universe are classified as being in one of the two clusters based on their GICS classification: Agriculture and Livestock defined as follows:

<b>Agriculture</b>	<b>Livestock</b>
Agricultural Products	Packaged Foods & Meats
Fertilizers & Agricultural Chemicals	

2. The 10 largest companies with an exposure score of 1 from each of the two clusters will, then, form the index.
3. In the event of fewer than 10 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 10.

### ***S&P Global Natural Resources – Energy***

1. All stocks in the Selection Universe are classified as being in one of the two clusters based on their GICS classification: Oil and Gas, and Coal defined as follows:

<b>Oil and Gas</b>	<b>Coal</b>
Integrated Oil & Gas	Coal & Consumable Fuels
Oil & Gas Drilling	
Oil & Gas Exploration & Production	
Oil & Gas Refining & Marketing	

2. The 15 largest companies with an exposure score of 1 from the Oil and Gas cluster and the 5 largest companies with an exposure score of 1 from the Coal cluster will, then, form the index.
3. In the event of fewer than required qualifying stocks with an exposure score of 1, the largest companies from the cluster with an exposure score of 0.5 are added until the count needed is reached.

### ***S&P Global Natural Resources – Metals and Mining***

1. All stocks in the Selection Universe are classified as being in one of the two clusters based on their GICS classification: Industrial Metals and Precious Metals defined as follows:

<b>Industrial Metals</b>	<b>Precious Metals</b>
Diversified Metals & Mining	Gold
Steel	Precious Metals & Minerals
Aluminum	

2. The 10 largest companies with an exposure score of 1 from each of the two clusters will, then, form the index.
3. In the event of fewer than 10 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 10.

## Constituent Weightings

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 times the exposure score. The Maximum Weight ( $MW$ ) is set to 10% for all stocks. The weight of a stock is defined as follows:

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

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

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

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

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

3. 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 and 2 are repeated until all stocks meet the maximum weight requirements.

The  $MW$  parameter is the maximum weight of each stock in each index 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:

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

*Please refer to the S&P Index Mathematics document for more details on the mathematics of modified market capitalization weighted indices.*

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

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

Therefore,

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

# Index Maintenance

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## Rebalancing

**Frequency.** Index rebalancings occur after the closing on the third Friday of October of each year. The rebalancing reference date is after the close of the last business day of September 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 Natural Resources Index	The stock is dropped from the Index. No intra-year replacements are made.	Yes

## Base Date

The indices base dates are November 15, 2002. The base values, for both the price return and total return series, is 1000. Daily returns are available from November 15, 2002.

# Index Data

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## Total Return and Net Return Indices

Each 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 are also net return index series, which add dividends after adjustments for withholding taxes based on a Luxembourg domicile. Effectively, a 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 Natural Resources 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 Natural Resources 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 Natural Resources 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

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>
Price Returns (U.S. dollar):		
S&P Global Natural Resources Index	SPGNRUP	.SPGNRUP
S&P Global Natural Resources – Energy	SPGNEUP	.SPGNEUP
S&P Global Natural Resources – Agriculture	SPGNAUP	.SPGNAUP
S&P Global Natural Resources – Metals & Mining	SPGNMUP	.SPGNMUP
Net Total Returns (U.S. dollar):		
S&P Global Natural Resources Index	SPGNRUT	.SPGNRUT
S&P Global Natural Resources – Energy	SPGNEUT	.SPGNEUT
S&P Global Natural Resources – Agriculture	SPGNAUT	.SPGNAUT
S&P Global Natural Resources – Metals & Mining	SPGNMUT	.SPGNMUT
Price Returns (Euros):		
S&P Global Natural Resources Index	SPGNREP	.SPGNREP
S&P Global Natural Resources – Energy	SPGNEEP	.SPGNEEP
S&P Global Natural Resources – Agriculture	SPGNAEP	.SPGNAEP
S&P Global Natural Resources – Metals & Mining	SPGNMEP	.SPGNMEP
Net Total Returns (Euros):		
S&P Global Natural Resources Index	SPGNRET	.SPGNRET
S&P Global Natural Resources – Energy	SPGNEET	.SPGNEET
S&P Global Natural Resources – Agriculture	SPGNAET	.SPGNAET
S&P Global Natural Resources – Metals & Mining	SPGNMET	.SPGNMET

*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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# Disclaimer

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