

# S&P Dow Jones Indices

A Division of S&P Global

## **S&P GSCI Capped Indices** *Methodology*

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# Introduction

## Overview

This methodology covers the capping rules and calculations for indices in the S&P GSCI family. Any changes to or deviations from this document are made in the sole judgment and discretion of S&P Dow Jones Indices so that the indices continue to achieve their stated objectives.

## Capping Determination & Implementation Dates

For the S&P GSCI and capped indices family (Standard, Forward, Dynamic Roll, and Equal Weight), the quarterly determination date is the fourth business day in January, April, July and October. The implementation will take place during the five-day roll period the following month (5<sup>th</sup> to 9<sup>th</sup> business days). For the S&P GSCI Enhanced Index family, the quarterly determination date is the last business day in March, June, September and December. The implementation will take place during the five-day roll period the following month (1<sup>st</sup> to 5<sup>th</sup> business days).

## Different Varieties of Capped Indices

S&P Dow Jones Indices offers a variety of capped versions of their indices, where the indices are calculated according to various methodologies within the S&P GSCI family. The actual index calculations of the specific indices will not be covered in this document and will instead refer to the corresponding index methodology for reference. Capping variations include:

- Capped Component (headline & sector) with no buffers
- Capped Component (headline & sector) with buffers
- Capped Commodity (headline & sector) with no buffers
- Capped Commodity (headline & sector) with buffers
- Equal Weighted (headline & sector)
- Specialized Capping

*Inverse and leveraged versions of the indices may be available. For more information on the calculation of such indices, please refer to S&P Dow Jones Indices' Index Mathematics Methodology document.*

## Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Commodities Indices Policies & Practices Methodology	<a href="#">Commodities Indices Policies &amp; Practices</a>
S&P Dow Jones Indices' Index Mathematics Methodology	<a href="#">Index Mathematics Methodology</a>

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

## List of Commodity Components

The following table lists the commodities and components:

Sector	Commodity	Component
Energy	WTI Crude Oil	Petroleum
	Brent Crude Oil	
Agriculture	Gas Oil	Wheat
	Heating Oil	
	Unleaded Gasoline	
	Natural Gas	
	Chicago Wheat	
	Kansas Wheat	
	Corn	
Soybeans		
Livestock	Coffee	Cattle
	Sugar	
	Cocoa	
	Cotton	
Livestock	Live Cattle	Cattle
	Feeder Cattle	
	Lean Hogs	
Industrial Metals	Aluminum	
	Copper	
	Lead	
	Nickel	
	Zinc	
Precious Metals	Gold	
	Silver	

# Capped Component with No Buffers

The methodology uses various terms and definitions from *the S&P GSCI Methodology*. Where not specifically noted otherwise in this document, the rules of the S&P GSCI will prevail.

The capping procedure follows two rules, in succession:

**Rule 1: Only one component can reach a maximum weight of 35%.** Any excess weight is distributed proportionately among the remaining components.

*Once Rule 1 is implemented,*

**Rule 2: No remaining component's weight can exceed 20%.** Any excess weight is distributed proportionately among the remaining components.

**Capping Excess Distribution:** Distributed proportionately among the remaining components

## Implementation

Any excess weight from a rule #1 violation is distributed proportionally among the remaining index components.

After rule #1 is implemented, if there are rule #2 violations then the violating components are adjusted and the balance is distributed proportionately among the remaining index components.

In order to properly implement, CPWs are adjusted to arrive at the assigned weights for each commodity. This adjustment process takes place at the beginning of each quarter and every time the main S&P GSCI index is rebalanced, adjusted, and/or new commodities are added to or deleted from the index, in order to remain proportional with the S&P GSCI components.

The adjustment process takes place at the beginning of each quarter.

1. On the S&P GSCI business day before each quarterly first roll date, the latest S&P GSCI commodity CPWs are multiplied by the commodity prices to determine the S&P GSCI commodity weights.
2. The commodities are separated into components and the components are sorted in descending order by their sector weights.
3. If there is any component above 35% (historically the case for petroleum), it is capped at 35% and the excess weight distributed among the remaining index components.
4. If any additional component is above 20%, it is capped at 20% and the excess weight is distributed among the remaining index components. This process is repeated iteratively until all the capping rules are met.
5. The percentage weights of all commodities are converted to CPW-equivalents, based on the prices from the business day one day prior to the first roll date, using the initial S&P GSCI weights implied by those prices and the latest S&P GSCI CPWs. For example, the S&P GSCI CPWs are multiplied by the commodity prices from the last business day before the roll.
6. This capping adjustment process takes place every quarter and utilizes any CPW component changes to the base index, additions, subtractions, substitutions, etc. in order to maintain continuity and proportion with the base S&P GSCI.

## Capping Formulas

At each rebalancing, CPWs are calculated as follows:

$$CPW_{capped, i} = CPW_{GSCI, i} * TargetWeight_j / GSCIWeight_j$$

where:

$CPW_{capped, i}$  = CPW for commodity  $i$  in the S&P GSCI Capped Component as of the upcoming rebalancing

$CPW_{GSCI, i}$  = CPW for commodity  $i$  in the S&P GSCI as of the upcoming rebalancing

$GSCIWeight_j$  = Weight of component  $j$ , of which commodity  $i$  is a part, in the S&P GSCI as of the upcoming rebalancing.

$TargetWeight_j$  = Weight of component  $j$ , of which commodity  $i$  is a part, in the S&P GSCI Capped Component as of the upcoming rebalancing.

At each rebalancing target weights are calculated as follows:

If  $GSCIWeight_j > 35\%$ , then  $TargetWeight_j = 35\%$

For all remaining components:

$$TargetWeight_j = 65\% * GSCIWeight_j / (100\% - GSCIWeight)$$

where:

$GSCIWeight$  = Total weight of the capped components in the S&P GSCI as of the upcoming rebalancing.

For any subsequent commodities:

If  $GSCIWeight_j > 20\%$  then  $TargetWeight_j = 20\%$

For all remaining uncapped components:

$$TargetWeight_j = (100\% - CappedWeight) * GSCIWeight_j / (100\% - GSCIWeight)$$

This process is repeated iteratively until no more than one component has a weight greater than 20% in the index.

## Capped Component with No Buffers Index Codes

The table below lists headline indices covered by this section. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

Index	Index Code
S&P GSCI Capped Component	SPGSUC
S&P GSCI Capped Component ER	SPGSUCP
S&P GSCI Capped Component TR	SPGSUCTR
S&P GSCI 3 Month Forward Capped Component	SG3MCIC
S&P GSCI 3 Month Forward Capped Component ER	SG3MCICP
S&P GSCI 3 Month Forward Capped Component TR	SG3MCICTR
S&P GSCI 6 Month Forward Capped Component	SG6MCIC
S&P GSCI 6 Month Forward Capped Component ER	SG6MCICP
S&P GSCI 6 Month Forward Capped Component TR	SG6MCICTR
S&P GSCI 12 Month Forward Capped Component	SG12MCIC
S&P GSCI 12 Month Forward Capped Component ER	SG12MCICP
S&P GSCI 12 Month Forward Capped Component TR	SG12MCICTR
S&P GSCI & Livestock 1 Month Forward Capped Component	SG1MALC
S&P GSCI & Livestock 1 Month Forward Capped Component ER	SG1MALCP
S&P GSCI & Livestock 1 Month Forward Capped Component TR	SG1MALCT
S&P GSCI & Livestock 3 Month Forward Capped Component	SG3MALC
S&P GSCI & Livestock 3 Month Forward Capped Component ER	SG3MALCP
S&P GSCI & Livestock 3 Month Forward Capped Component TR	SG3MALCT
S&P GSCI Dynamic Roll Capped Component	SPDYUC
S&P GSCI Dynamic Roll Capped Component ER	SPDYUCP
S&P GSCI Dynamic Roll Capped Component TR	SPDYUCTR
S&P GSCI Energy & Metals Capped Component	SPGCNC
S&P GSCI Energy & Metals Capped Component ER	SPGCNCP
S&P GSCI Energy & Metals Capped Component TR	SPGCNCT
S&P GSCI Energy & Metals 1 Month Forward Capped Component	SG1MNC
S&P GSCI Energy & Metals 1 Month Forward Capped Component ER	SG1MNCP
S&P GSCI Energy & Metals 1 Month Forward Capped Component TR	SG1MNCT
S&P GSCI Energy & Metals 3 Month Forward Capped Component	SG3MNC
S&P GSCI Energy & Metals 3 Month Forward Capped Component ER	SG3MNCP
S&P GSCI Energy & Metals 3 Month Forward Capped Component TR	SG3MNCT
S&P GSCI Energy & Metals 6 Month Forward Capped Component	SG6MNC
S&P GSCI Energy & Metals 6 Month Forward Capped Component ER	SG6MNCP
S&P GSCI Energy & Metals 6 Month Forward Capped Component TR	SG6MNCT
S&P GSCI Energy & Metals 12 Month Forward Capped Component	SG12MNC
S&P GSCI Energy & Metals 12 Month Forward Capped Component ER	SG12MNCP
S&P GSCI Energy & Metals 12 Month Forward Capped Component TR	SG12MNCT
S&P GSCI Enhanced Capped Component	SPGSCIE27C
S&P GSCI Enhanced Capped Component ER	SPGSCIE27CP
S&P GSCI Enhanced Capped Component TR	SPGSCIE27CTR

# Capped Component with Buffers

The capping procedure follows two rules, in succession:

**Rule 1: Only one component can reach a maximum weight of 35%.** If there is any component above 35%, it is capped at 32%, and any excess weight is distributed proportionately among the remaining components. The cap of 32% is used as a buffer.

*Once Rule 1 is implemented,*

**Rule 2: No remaining component's weight can exceed 20%.** If any remaining component is above 20% it is capped at 17%, and any excess weight is distributed proportionately among the remaining components. The cap of 17% is used as a buffer.

**Capping Frequency:** Quarterly.

**Capping excess distribution:** Distributed proportionately among the remaining components.

## Implementation

Any excess weight from a rule #1 violation is distributed proportionally among the remaining index components.

After rule #1 is implemented, if there are rule #2 violations then any component that violates the 20% rule is capped at 17% and the balance distributed proportionately among the remaining uncapped index components.

In order to properly implement, Contract Production Weights (CPWs) are adjusted to arrive at the assigned weights for each commodity. This adjustment process takes place at the beginning of each quarter and every time the S&P GSCI is rebalanced, adjusted, and/or new commodities are added to or deleted from the index, in order to remain proportional with the S&P GSCI.

The adjustment process takes place as follows.

1. On the S&P GSCI Business Day before each quarterly first roll date, the latest S&P GSCI CPWs are multiplied by the commodity prices to determine the S&P GSCI commodity weights. For January, the CPWs will be the new ones that were determined with that year's annual rebalancing.
2. The commodities are separated into components and the components are sorted in descending order by their sector weights.
3. If there is any component above 35%, it is capped at 32% and the excess weight distributed among the remaining index components.
4. If any additional component is above 20%, it is capped at 17% and the excess weight is distributed among the remaining uncapped index components. This process is repeated iteratively until all the capping rules are met.
5. The percentage weights of all commodities are converted to CPW-equivalents, based on prices from the S&P GSCI Business Day one day prior to the first roll date, and with the initial S&P GSCI weights implied by those prices and the latest S&P GSCI CPWs. For January, the CPWs are the new ones that were determined with that year's annual rebalancing. For example, the January

S&P GSCI CPWs are multiplied by the commodity prices from the 4<sup>th</sup> business day in January, the last business day before the roll.

6. This capping adjustment process takes place every quarter and utilizes any CPW component changes to the base index, additions to, subtractions from, commodity substitutions, etc., in order to maintain continuity and be proportional with the base S&P GSCI weights.

### Capping Formulas

At each rebalancing, CPWs are calculated as follows:

$$CPW_{capped,i} = CPW_{GSCI} * TargetWeight_j / GSCIWeight_j$$

where:

*capped i CPW* , = CPW for commodity *i* in the S&P GSCI Capped Component Index, as of the rebalancing reference date

*GSCI i CPW* , = CPW for commodity *i* in the S&P GSCI, as of the rebalancing reference date *j*

*GSCIWeight* = Weight of component *j*, of which commodity *i* is a part, in the S&P GSCI, as of the rebalancing reference date.

*TargetWeight j* = Weight of component *j*, of which commodity *i* is a part, in the S&P GSCI Capped Component Index, as of the upcoming rebalancing.

At each rebalancing target weights are calculated as follows:

If *GSCIWeight<sub>j</sub>* > 35%, then *TargetWeight<sub>j</sub>* = 32%

For all remaining components:

$$TargetWeight_j = \frac{68% * GSCIWeight_j}{(100% - GSCIWeight_c)}$$

where:

*GSCIWeight<sub>c</sub>* = Total S&P GSCI weight of all the capped components, as of the rebalancing reference date.

For any subsequent components:

If *GSCIWeight<sub>j</sub>* > 20%, then *TargetWeight<sub>j</sub>* = 17%

For all remaining uncapped components:

$$TargetWeight_j = \frac{(100% - Total Capped Weights) * GSCIWeight_j}{(100% - GSCIWeight_c)}$$

*Total Capped Weights* = Total weight of the capped Commodities in the S&P GSCI, as of the rebalancing reference date

This process is repeated iteratively until no more than one component has a weight of greater than 20% in the index with a maximum weight of 35% for that component.

### **Capped Component with Buffers Index Codes**

The table below lists headline indices covered by this section. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

<b>Index</b>	<b>Index Code</b>
S&P GSCI Agriculture Capped Component	SPGSAGSC
S&P GSCI Agriculture Capped Component ER	SPGSAGSCP
S&P GSCI Agriculture Capped Component TR	SPGSAGSCTR
S&P GSCI Agriculture Dynamic Roll Capped Component	SPDYPA
S&P GSCI Agriculture Dynamic Roll Capped Component ER	SPDYPAP
S&P GSCI Agriculture Dynamic Roll Capped Component TR	SPDYPAT
S&P GSCI Agriculture Enhanced Capped Component	SPGSCIAEC
S&P GSCI Agriculture Enhanced Capped Component ER	SPGSCIAECP
S&P GSCI Agriculture Enhanced Capped Component TR	SPGSCIAECTR

# Capped Commodity with No Buffers

The capping procedure follows two rules, in succession:

**Rule 1: Only one commodity can reach a maximum weight of 35%.** Any excess weight is distributed proportionately within the sector.

*Once Rule 1 is implemented,*

**Rule 2: No remaining commodity's weight can exceed 20%.** Any excess weight is distributed proportionately within the sector.

**Determination date:** One S&P GSCI Business Day before the first roll date.

## Implementation

Any excess weight from a rule #1 violation is distributed proportionally among the remaining commodities within that specific sector, thus keeping sector weights intact.

After rule #1 is implemented, if there are any rule #2 violations, the commodity that violates the 20% rule is adjusted and the balance is distributed proportionally among the remaining commodities within that specific sector.

In order to properly implement, CPWs are adjusted to arrive at the assigned weights for each commodity. This adjustment process takes place at the beginning of each quarter and every time the main S&P GSCI index is rebalanced, adjusted, and/or new commodities are added to or deleted from the index, in order to remain proportional with the S&P GSCI sectors.

The adjustment process takes place at the beginning of each quarter.

1. On the S&P GSCI Business Day before each quarterly first roll date, the latest S&P GSCI commodity CPWs are multiplied by the commodity prices to determine the S&P GSCI commodity weights.
2. The commodities are separated into sectors and the sectors are sorted in descending order by their sector weights. If there is any commodity above 35% (historically the case for crude oil), it is capped at 35% and the excess weight is distributed proportionally among the remaining commodities **within that sector**, thus keeping the sector weights the same.
3. If any additional commodity is above 20%, it is capped at 20% and the excess weight is distributed among the remaining commodities within that sector, thus keeping the sector weights the same. This process is repeated iteratively. If the final commodity within a sector exceeds 20%, the weight is distributed proportionally among the remaining commodities outside that sector in the index.
4. The percentage weights of all commodities are converted to CPW-equivalents, based on the prices from the business day one day prior to the first roll date, using the initial S&P GSCI weights implied by those prices and the newly updated S&P GSCI CPWs. For example, the January S&P GSCI CPWs are multiplied by the commodity prices from the 4<sup>th</sup> business day in January, the last business day before the roll.

- The capping adjustment process takes place every quarter and utilizes any CPW component changes to the base index (additions, subtractions, substitutions, etc.) in order to maintain continuity and proportion with the base S&P GSCI.

### Capping Formulas

At each rebalancing, CPWs are calculated as follows:

$$CPW_{capped,i} = CPW_{GSCI,i} * TargetWeight_j / GSCIWeight_j$$

where:

$CPW_{capped,i}$  = CPW for commodity  $i$  in the S&P GSCI Capped Commodity as of the upcoming rebalancing

$CPW_{GSCI,i}$  = CPW for commodity  $i$  in the S&P GSCI as of the upcoming rebalancing

$GSCIWeight_j$  = Weight of commodity  $i$  in the S&P GSCI as of the upcoming rebalancing.

$TargetWeight_j$  = Weight of commodity  $i$  in the S&P GSCI Capped Commodity as of the upcoming rebalancing.

At each rebalancing target weights are calculated as follows:

If  $GSCIWeight_j > 35\%$ , then  $TargetWeight_j = 35\%$

For all remaining commodities in that sector:

$$TargetWeight_j = (SectorWeight_i - 35\%) * GSCIWeight_j / (SectorWeight_i - GSCIWeight_c)$$

where:

$SectorWeight_i$  = Weight of the sector in the S&P GSCI as of the upcoming rebalancing.

$GSCIWeight_c$  = Total weight of the capped commodities in sector  $c$  in the S&P GSCI as of the upcoming rebalancing.

For any subsequent commodities:

If  $GSCIWeight_j > 20\%$  then  $TargetWeight_j = 20\%$

For all remaining commodities in that sector:

$$TargetWeight_j = (SectorWeight_i - 20\%) * GSCIWeight_j / (SectorWeight_i - GSCIWeight_c)$$

where:

$SectorWeight_i$  = Weight of the sector in the S&P GSCI as of the upcoming rebalancing.

$GSCIWeight_c$  = Total weight of the capped commodities in sector  $c$  in the S&P GSCI as of the upcoming rebalancing.

This process is repeated iteratively until no more than one commodity has a weight of greater than 20% in the index.

Thus, for any uncapped commodities in a sector which has more than one capped commodity, the weights are calculated as follows:

$$TargetWeight_i = (SectorWeight_i - Capped Weight) * GSCIWeight_i / (SectorWeight_i - GSCIWeight_c)$$

where:

*Capped Weight* = Total weight of all capped commodities for the sector in question.

If the final commodity in a sector has a weight of greater than 20% after the prior iteration, the weight of that commodity is set to 20% with the excess weight redistributed proportionately among all remaining uncapped commodities in the index.

### **Capped Commodity with No Buffers Index Codes**

The table below lists headline indices covered by this document. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

<b>Index</b>	<b>Index Code</b>
S&P GSCI Capped Commodity	SPGSUCE
S&P GSCI Capped Commodity ER	SPGSUCEP
S&P GSCI Capped Commodity TR	SPGSUCTR
S&P GSCI Dynamic Roll Capped Commodity	SPDYP
S&P GSCI Dynamic Roll Capped Commodity ER	SPDYPP
S&P GSCI Dynamic Roll Capped Commodity TR	SPDYPT
S&P GSCI Enhanced Capped Commodity	SPGSCIESC
S&P GSCI Enhanced Capped Commodity ER	SPGSCIESCP
S&P GSCI Enhanced Capped Commodity TR	SPGSCIESCTR

# Capped Commodity with Buffers

The capping procedure follows two rules, in succession:

**Rule 1: Only one commodity can reach a maximum weight of 35%.** If there is any commodity above 35%, it is capped at 32%, and any excess weight is distributed proportionately among the remaining commodities. The cap of 32% is used as a buffer.

*Once Rule 1 is implemented,*

**Rule 2: No remaining commodity weight can exceed 20%.** If any remaining commodity is above 20% it is capped at 17%, and the excess weight is distributed proportionately among the remaining commodities. The cap of 17% is used as a buffer.

**Capping Frequency:** Quarterly.

**Capping excess distribution:** Distributed proportionately among the remaining commodities.

**Commodities:** Aluminum, copper, lead, nickel and zinc.

## Implementation

The excess weight from a rule #1 violation is distributed proportionally among the remaining index commodities.

After rule #1 is implemented, if there are rule #2 violations, then any commodity that violates the 20% rule is capped at 17% and the balance distributed proportionately among the remaining uncapped index commodities.

In order to properly implement, Contract Production Weights (CPWs) are adjusted to arrive at the assigned weights for each commodity. This adjustment process takes place at the beginning of each quarter and every time the S&P GSCI is rebalanced, adjusted, and/or new commodities are added to or deleted from the Index, in order to be initially proportional to and inclusive of the S&P GSCI commodities.

The adjustment process takes place as follows:

1. On the S&P GSCI Business Day before each quarterly first roll date, the latest S&P GSCI commodity CPWs are multiplied by their respective commodity prices to determine the commodity weights. For January, the CPWs will be the new ones that were determined with that year's annual rebalancing.
2. The commodities are sorted in descending order by their respective index weights.
3. If there is any commodity above 35%, it is capped at 32%, and the excess weight is distributed proportionally among the remaining commodities.
4. If any additional commodity is above 20% it is capped at 17%, and the excess weight is distributed among the remaining commodities. This process is repeated iteratively until all the capping rules are met.
5. The percentage weights of all commodities are converted to CPW-equivalents, based on the prices from the S&P GSCI Business Day, one day prior to the first roll date, using the initial S&P GSCI Index weights implied by those prices and the latest S&P GSCI CPWs. For January, the

CPWs are the new ones that were determined with that year's annual rebalancing. For example, the S&P GSCI CPWs are multiplied by the commodity prices from the last business day before the roll.

6. This capping adjustment process takes place every quarter and utilizes any CPW commodity changes to the base index, additions to, subtractions from, commodity substitutions, etc. in order to maintain continuity and be proportional with the base S&P GSCI.

## Capping Formulas

At each rebalancing, CPWs are calculated as follows:

$$CPW_{capped,i} = CPW_{GSCI,i} * TargetWeight_j / GSCIWeight_j$$

where:

$CPW_{capped,i}$  = CPW for commodity  $i$  in the S&P GSCI Capped Commodity Index as of the rebalancing reference date

$CPW_{GSCI,i}$  = CPW for commodity  $i$  in the S&P GSCI as of the rebalancing reference date

$GSCIWeight_j$  = Weight of commodity  $j$ , of which commodity  $i$  is a part, in the S&P GSCI as of the rebalancing reference date.

$TargetWeight_j$  = Weight of commodity  $j$ , of which commodity  $i$  is a part, in the S&P GSCI Capped Commodity as of the rebalancing reference date.

Target weights are calculated at each rebalancing as follows:

If  $GSCIWeight_t > 35\%$ , then  $TargetWeight_t = 32\%$

For all remaining Commodities:

$$TargetWeight_j = \frac{68\% * GSCIWeight_j}{(100\% - GSCIWeight_c)}$$

where:

$GSCIWeight_c$  = Total S&P GSCI weight of all capped Commodities as of the rebalancing reference date.

For any subsequent commodities:

If  $GSCIWeight_t > 20\%$  then  $TargetWeight_t = 17\%$

For all remaining uncapped Commodities:

$$TargetWeight_j = \frac{(100\% - Total Capped Weights) * GSCIWeight_j}{(100\% - GSCIWeight_c)}$$

$Total Capped Weights$  = Total S&P GSCI Capped Commodity Index weight of all capped Commodities as of the rebalancing reference date.

This process is repeated iteratively until no more than one commodity has a weight of greater than 20% in the index with a maximum weight of 35% for that commodity.

## Capped Commodity with Buffers Index Codes

The table below lists headline indices covered by this section. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

Index	Index Code
S&P GSCI All Metals Capped Commodity	SPGSAMC
S&P GSCI All Metals Capped Commodity ER	SPGSAMCP
S&P GSCI All Metals Capped Commodity TR	SPGSAMCTR
S&P GSCI All Metals 3 Month Forward Capped Component	SG3MAMC
S&P GSCI All Metals 3 Month Forward Capped Component ER	SG3MAMCP
S&P GSCI All Metals 3 Month Forward Capped Component TR	SG3MAMCT
S&P GSCI Energy Capped Commodity	SPGCEC
S&P GSCI Energy Capped Commodity ER	SPGCECP
S&P GSCI Energy Capped Commodity TR	SPGCECT
S&P GSCI Energy 1 Month Forward Capped Commodity	SG1MENC
S&P GSCI Energy 1 Month Forward Capped Commodity ER	SG1MENCP
S&P GSCI Energy 1 Month Forward Capped Commodity TR	SG1MENCT
S&P GSCI Energy 3 Month Forward Capped Commodity	SG3MENC
S&P GSCI Energy 3 Month Forward Capped Commodity ER	SG3MENCP
S&P GSCI Energy 3 Month Forward Capped Commodity TR	SG3MENCT
S&P GSCI Energy Dynamic Roll Capped Commodity	SPDYPE
S&P GSCI Energy Dynamic Roll Capped Commodity ER	SPDYPEP
S&P GSCI Energy Dynamic Roll Capped Commodity TR	SPDYPET
S&P GSCI Energy Enhanced Capped Commodity	SGECCEN
S&P GSCI Energy Enhanced Capped Commodity ER	SGECCENP
S&P GSCI Energy Enhanced Capped Commodity TR	SGECCENTR
S&P GSCI Industrial Metals Capped Commodity	SPGCMC
S&P GSCI Industrial Metals Capped Commodity ER	SPGCMCP
S&P GSCI Industrial Metals Capped Commodity TR	SPGCMCT
S&P GSCI Industrial Metals 1 Month Forward Capped Commodity	SG1MINC
S&P GSCI Industrial Metals 1 Month Forward Capped Commodity ER	SG1MINCP
S&P GSCI Industrial Metals 1 Month Forward Capped Commodity TR	SG1MINCT
S&P GSCI Industrial Metals 3 Month Forward Capped Commodity	SG3MINC
S&P GSCI Industrial Metals 3 Month Forward Capped Commodity ER	SG3MINCP
S&P GSCI Industrial Metals 3 Month Forward Capped Commodity TR	SG3MINCT
S&P GSCI Industrial Metals Dynamic Roll Capped Commodity	SPDYPI
S&P GSCI Industrial Metals Dynamic Roll Capped Commodity ER	SPDYPIP
S&P GSCI Industrial Metals Dynamic Roll Capped Commodity TR	SPDYPIIT
S&P GSCI Industrial Metals Enhanced Capped Commodity	SPGSCIIMC
S&P GSCI Industrial Metals Enhanced Capped Commodity ER	SPGSCIIMCP
S&P GSCI Industrial Metals Enhanced Capped Commodity TR	SPGSCIIMCTR

# Equal Weighted Indices

## **S&P GSCI Equal Weight Select**

The S&P GSCI Equal Weight Select is designed to benefit from the framework of the S&P GSCI, a benchmark index for investing in commodities. The index sorts the S&P GSCI commodity space into six commodity groups and selectively includes only the largest and most liquid commodities in each commodity group. At the beginning of each quarter, the individual commodities are equally weighted in the Index.

## **Highlights**

The S&P GSCI Equal Weight Select Index is comprised of 14 commodities, categorized into six commodity groups, where:

- No single group accounts for more than 30 % of the total.
- Rules-based annual reconstitution.
- Turnover minimized through an annual rebalancing.
- Fewer commodities than the S&P GSCI which results in fewer monthly rolls.

## **Index Eligibility**

Only those commodities that are included in the S&P GSCI are eligible for the S&P GSCI Equal Weight Select Index. As such, the S&P GSCI Equal Weight Select Index Methodology maintains many of the rules of S&P GSCI Methodology.

## **Eligibility Factors**

During the S&P GSCI index roll in the first month of each quarter, the S&P GSCI Equal Weight Select Index allocates the same weight to all its constituents. To promote diversification and reduce concentration risk, six commodity groups are identified:

- Agriculture – Grains and Oilseeds
- Agriculture – Softs
- Energy
- Industrial Metals
- Livestock
- Precious Metals

## **Distribution of Commodities into Commodity Groups**

As of the current S&P GSCI rebalancing the groups are as follows:

- Four commodities in the Agriculture - Grains and Oilseeds group (Chicago Wheat, Corn, Kansas Wheat and Soybeans),
- Four commodities in the Agriculture - Softs group (Cocoa, Coffee, Cotton and Sugar),

- Six commodities in the Energy group (Brent Crude, Gasoil, Heating Oil, Natural Gas, RBOB Unleaded Gasoline and WTI Crude),
- Five commodities in the Industrial Metals group (Aluminum, Copper, Lead, Nickel and Zinc),
- Three commodities in the Livestock group (Feeder Cattle, Lean Hogs and Live Cattle), and
- Two in the Precious Metals group (Gold and Silver).

### **Allocation Scheme**

For the index to be representative of the size and trading in the commodities markets, three (3) commodities are selected from the Agriculture - Grains and Oilseeds group, one (1) from the Agriculture - Softs group, four (4) from the Energy group, four (4) from the Industrial Metals group, one (1) from the Livestock group, and one (1) from the Precious Metals group, for a total of fourteen (14) commodities.

### **Rule of Selection**

Within each commodity group, the average daily dollar weights for the 12-months ending in August of each year are computed for each of the commodities. Commodities within the group are, then, ranked in descending order based on these weights. The number of commodities chosen for the index is based on the Allocation Scheme designated for each commodity group.

### **Timing of Changes**

The Index is reconstituted annually, at the end of December. The Index weights are rebalanced quarterly, during the S&P GSCI roll period in the first month of the quarter.

- **Additions** – No commodities are added to the Index until the following annual reconstitution period.
- **Deletions** – In the event that a commodity is removed from the Index, the weight of the deleted commodity is distributed to the remaining members of the Index proportionately. The entire index will be rebalanced at the next available quarterly rebalancing.

**Rebalancing Frequency:** Quarterly.

### **S&P GSCI Equal Weight Capped Component**

The S&P GSCI Equal Weight Capped Component Index is a version of the S&P GSCI, where 100% of the index weight is equally distributed among the total number of constituents in the S&P GSCI – currently 24 commodities. Once the weights have been equally distributed, the capped component methodology is then applied to the index.

**Capping Frequency:** Quarterly.

*For information on the capping methodology, please refer to the Capped Component with No Buffer Rules section of this methodology.*

### S&P GSCI Precious Metals, Palladium & Platinum Equal Weight

The S&P GSCI Precious Metals, Palladium & Platinum Equal Weight index membership takes into account the Precious Metals sector of the S&P GSCI (Gold & Silver), along with Platinum & Palladium, which are not currently members of the S&P GSCI. Only these 4 commodities are eligible for index inclusion. The index weights are reset to equal weights during the designated rebalancing periods.

**Rebalancing Frequency:** Quarterly.

*For further details on index composition and contract calendar, please refer to the S&P GSCI methodology.*

### S&P GSCI Industrial Metals & Iron Ore Equal Weight

The S&P GSCI Industrial Metals & Iron Ore Equal Weight index membership consists of the Industrial Metals sector of the S&P GSCI (Aluminum, LME Copper, Lead, Nickel & Zinc) and Iron Ore, which is not currently a member of the S&P GSCI. The index weights are reset to equal weights during the designated rebalancing periods.

**Rebalancing Frequency:** Quarterly. The GSCI Industrial Metals components follow the parent methodology for the contract calendar. See the table below for the Iron Ore contract calendar.

*For further details on index composition and contract calendar, please refer to the S&P GSCI methodology.*

#### Contract Calendar (Iron Ore):

Trading Facility	Commodity	Ticker <sup>(1)</sup>	Designated Contract Expirations at Month Begin											
			1	2	3	4	5	6	7	8	9	10	11	12
SGX	SGX TSI Iron Ore CFR China (62% Fe Fines) Index Futures	SZZF	G	H	J	K	M	N	Q	U	V	X	Z	F

(1) Tickers are Reuters RIC Codes.

## S&P GSCI 3 Month Forward Capped Sector Equal Weight Composite

The S&P GSCI 3 Month Forward Capped Sector Equal Weight Composite reflects the total return available through an unleveraged investment in the specific commodities of the S&P GSCI 3 Month Forward, employing the S&P GSCI Capped methodology. The index contains the specific commodities of and is calculated on a basis similar to the S&P GSCI 3 Month Forward, but modified to apply the S&P GSCI Capped Commodity and Component capping rules. Furthermore, the universe of the commodities of the S&P GSCI 3 Month Forward is grouped into three distinct sectors, with equal weights assigned to each sector. The three sectors are the Agriculture and Livestock, Energy, and All Metals.

The capping procedure follows two rules, in succession:

**Rule 1: Only one commodity can reach a maximum weight of 35% within its sector.** If there is any commodity above 35%, it is capped at 32%, and any excess weight is distributed proportionally among the remaining commodities in that sector. The cap of 32% is used as a buffer. (Note: there is no buffer required for the Agriculture and Livestock sector.)

*Once Rule 1 is implemented,*

**Rule 2: No remaining commodity's weight can exceed 20%.** If any remaining commodity within the same sector is above 20% it is capped at 17%, and the excess weight is distributed proportionally among the remaining commodities in that sector. The cap of 17% is used as a buffer. (Note: there is no buffer required for the Agriculture and Livestock sector.)

**Capping Frequency:** Quarterly.

**Capping excess distribution:** Distributed proportionally among the remaining Commodities within the same sector.

### Commodities:

- **Agriculture and Livestock sector:** Chicago Wheat, Kansas City Wheat, Corn, Soybeans, Coffee, Sugar, Cocoa, Cotton, Lean Hogs, Live Cattle, and Feeder Cattle. Within the Agriculture and Livestock sector, the two Wheat commodities (Chicago Wheat and Kansas City Wheat) and the two Cattle commodities (Live Cattle and Feeder Cattle) are grouped together as components, on a par with the other commodities within the sector for the purpose of applying their capping procedure (explained in *Appendix II*).
- **Energy sector:** WTI Crude, Brent Crude, Heating Oil, Gasoil, Gasoline and Natural Gas.
- **All Metals sector:** Aluminum, Copper, Lead, Nickel, Zinc, Gold and Silver.

### Implementation

The excess weight from a rule #1 violation is distributed proportionally among the remaining sector commodities.

After rule #1 is implemented, if there are rule #2 violations, then the violating commodities are adjusted and the balance is distributed proportionally among the remaining sector commodities.

In order to properly implement, Contract Production Weights (CPWs) are adjusted to arrive at the assigned weights for each commodity. This adjustment process takes place at the beginning of each quarter and every time the S&P GSCI 3-Month Forward Index is rebalanced, adjusted, and/or new commodities are added to or deleted from the Index.

The adjustment processes for the Energy and All Metals sectors take place as follows:

1. On the S&P GSCI Business Day before each quarterly first roll date, the latest S&P GSCI 3-Month Forward Index commodity CPWs are multiplied by their respective 3-month forward commodity prices to determine the commodity weights. For January, the CPWs will be the new ones that were determined with that year's annual rebalancing.
2. Within each sector, the commodities are sorted in descending order by their respective index weights.
3. If there is any commodity above 35%, it is capped at 32%, and the excess weight is distributed proportionally among the remaining commodities within that sector.
4. If any additional commodity is above 20% it is capped at 17%, and the excess weight is distributed among the remaining commodities within that sector. This process is repeated iteratively until all the capping rules are met.
5. The percentage weights of all commodities are converted to CPW-equivalents, based on the prices from the S&P GSCI Business Day, one day prior to the first roll date, using the initial S&P GSCI 3-Month Forward Index weights implied by those prices and the latest S&P GSCI CPWs. For January, the CPWs are the new ones that were determined with that year's annual rebalancing. For example, the S&P GSCI CPWs are multiplied by the 3-Month Forward commodity prices from the last business day before the roll.
6. The capping adjustment process takes place every quarter and utilizes any CPW commodity changes to the base index, additions to, subtractions from, commodity substitutions, etc. in order to maintain continuity with the base S&P GSCI Index.

### Capping Formulas

At each rebalancing, CPWs are calculated as follows:

$$CPW_{capped,i} = CPW_{GSCI,i} * TargetWeight_j / GSCIWeight_j$$

where:

$CPW_{capped,i}$  = CPW for commodity  $i$  in the S&P GSCI 3-Month Forward Capped Sector Equal Weight Composite Index as of the rebalancing reference date

$CPW_{GSCI,i}$  = CPW for commodity  $i$  in the S&P GSCI 3-Month Forward Index as of the rebalancing reference date

$GSCIWeight_j$  = Weight of Commodity  $j$ , of which commodity  $i$  is a part, in the S&P GSCI 3-Month Forward Index as of rebalancing reference date.

$TargetWeight_j$  = Weight of Commodity  $j$ , of which commodity  $i$  is a part, in the S&P GSCI 3-Month Forward Capped Sector Equal Weight Composite Index as of the rebalancing reference date.

For the Energy and All Metals Sectors, target weights are calculated at each rebalancing as follows:

If  $GSCIWeight_j > 35\%$ , then  $TargetWeight_j = 32\%$

For all remaining Commodities:

$$TargetWeight_j = \frac{68\% * GSCIWeight_j}{(100\% - GSCIWeight_c)}$$

where:

$GSCIWeight_c$  = Total S&P GSCI 3-Month Forward Commodity Index weight of all capped Commodities as of the rebalancing reference date.

For any subsequent commodities:

If  $GSCIWeight_j > 20\%$  then  $TargetWeight_j = 17\%$

For all remaining uncapped Commodities:

$$TargetWeight_j = \frac{(100\% - Total\ Capped\ Weights) * GSCIWeight_j}{(100\% - GSCIWeight_c)}$$

$Total\ Capped\ Weights$  = Total S&P GSCI 3-Month Forward Capped Sector Equal Weight Composite Index weight of all capped Commodities as of the rebalancing reference date.

This process is repeated iteratively until no more than one Commodity has a weight of greater than 20% in the sector.

### Sector Equal Weight Explanation & Procedures

At the end of the capping procedure, all the individual Target Weights within a given sector are re-scaled to obtain a total of 33.33% for each given sector.

**Step 1** – For the energy and all metals sectors, determine the largest commodity weight from the "sector specific weight" column. If that weight is greater than 35%, then set it to 32%; otherwise leave it as is.

**Step 2** – For the energy and all metals sectors, determine the difference between the largest commodity weight from the "sector specific weight" column and 32% (or the same value if it is under 35%). Redistribute that weight proportionally to the other commodities within its sector. In this example, the 17.8% is redistributed to all energy commodities other than crude oil, but nothing is redistributed in metals because copper is under 35%.

**Step 3** – For the energy and all metals sectors, add the redistributed extra weight of each commodity to the "sector specific weight" of each commodity to get new weights for all but the largest "sector specific weight" from each sector.

**Step 4** – For the energy and all metals sectors, determine the largest commodity weight from the new weights in step 3. If that weight is greater than 20%, then set it to 17%; otherwise leave it as is.

**Step 5** – For the energy and all metals sectors, determine the difference between the largest commodities weight from step 3 and 17% (or the same value if it is under 20%). Redistribute that weight proportionally to the other commodities within its sector. In this example the 12.5% is redistributed to all energy commodities other than Brent crude and crude oil. In metals, 7.2% is redistributed from gold to all metals commodities other than gold and copper.

**Step 6** – For the energy and all metals sectors, add the redistributed extra weight of each commodity to the weights in step 3 for all but the two that have been "redistributed" from each sector.

**Step 7** – For the energy and all metals sectors, find the largest commodity weight from the new weights in step 6. If that weight is greater than 20%, then set it to 17%; otherwise leave it as is.

**Step 8** – For the energy and all metals sectors, add the redistributed extra weight of each commodity to the weights in step 6 for all but the three that have been "redistributed" from each sector.

**Step 9** – Since there are no more commodity weights greater than 20%, these are the weights for each sector to total 100% for each sector.

**Effective Weight** - Since there are three sectors, all weights are divided by three to get a total index weight of 100% with 33.3% coming from each.

**Agriculture and Livestock** – There is no buffer used when capping the agriculture and livestock sector. On the capping determination date, the highest component is capped only if the weight is above 35% and is capped back to 35% (not 32%). The other components are capped only if they exceed 20% and are capped back to 20% (not 17%).

### Equal Weighted Index Codes

The table below lists headline indices covered by this section. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

Index	Index Code
S&P GSCI Equal Weight Select	SPGSCIEW
S&P GSCI Equal Weight Select ER	SPGSCIEWP
S&P GSCI Equal Weight Select TR	SPGSCIEWTR
S&P GSCI Dynamic Roll Equal Weight Select	SPDYEW
S&P GSCI Dynamic Roll Equal Weight Select ER	SPDYEW P
S&P GSCI Dynamic Roll Equal Weight Select TR	SPDYEWTR
S&P GSCI Equal Weight Capped Component	SGEWUC
S&P GSCI Equal Weight Capped Component ER	SGEWUCP
S&P GSCI Equal Weight Capped Component TR	SGEWUCT
S&P GSCI Energy & Metals Equal Weight Capped Component	SGEMEW C
S&P GSCI Energy & Metals Equal Weight Capped Component ER	SGEMEWCP
S&P GSCI Energy & Metals Equal Weight Capped Component TR	SGEMEWCT
S&P GSCI 3 Month Forward Capped Sector Equal Weight Composite	SG3MCE
S&P GSCI 3 Month Forward Capped Sector Equal Weight Composite ER	SG3MCEP
S&P GSCI 3 Month Forward Capped Sector Equal Weight Composite TR	SG3MCET
S&P GSCI Precious Metals, Platinum & Palladium Equal Weight	SGPMPPE
S&P GSCI Precious Metals, Platinum & Palladium Equal Weight ER	SGPMPPEP
S&P GSCI Precious Metals, Platinum & Palladium Equal Weight TR	SGPMPPET
S&P GSCI Industrial Metals & Iron Ore Equal Weight	SGIMIOE
S&P GSCI Industrial Metals & Iron Ore Equal Weight ER	SGIMIOEP
S&P GSCI Industrial Metals & Iron Ore Equal Weight TR	SGIMIOET

# Specialized Capping Indices

## S&P GSCI Agriculture & Livestock Enhanced Capped 40/75

The S&P GSCI Agriculture & Livestock Enhanced Capped 40/75 reflects the total return available through an unleveraged investment in the specific commodities of the S&P GSCI Agriculture & Livestock Enhanced employing the S&P GSCI Capped 40/75 methodology. The Index contains the specific commodities of the S&P GSCI Agriculture & Livestock Enhanced and is calculated on a basis similar to the S&P GSCI Agriculture & Livestock Enhanced but modified to apply the following 40/75 capping rules employing a 5% buffer.

### Objective

Quarterly on the first business date of January, April, July and October, 1) the highest weight constituent is capped at 35%, 2) the top 5 constituents are capped at 70% AND 3) none of the succeeding positions (n+1-th position) can be larger than its preceding position (n-th position) after capping. Capping calculation is based on the closing price as of the last business day of the previous quarter.

### Capping Methodology

- **Step 1** – Cap each constituent at 35%. If the weight of a constituent is larger than 35%, it is capped at 35% and the excess weight is reallocated among the remaining constituents on a pro-rata basis. Repeat the step if any additional constituent is larger than 35%, until all constituents are less than 35%.
- **Step 2** – Cap Top 5 constituents if their total weight is greater than 70%. If the total weight of the top 5 constituents is over 70%, cap the top 5 constituents at 70% on a pro-rata basis and re-allocate their excess weighting to the remaining constituents on a pro-rata basis.
- **Step 3** – Cap any succeeding position if larger than preceding position. After re-allocation, if the 6<sup>th</sup> position becomes larger than the 5<sup>th</sup> position, cap the 6<sup>th</sup> position at the weighting of the 5<sup>th</sup> position and re-allocate the excess weight to the remaining constituents (succeeding the 6<sup>th</sup> position) on a pro-rata basis.
- **Step 4** – Repeat: Cap any succeeding position if larger than preceding position. Repeat the step 3 process for the remaining constituents if any position is larger than its preceding position after re-allocation until none of the succeeding positions is larger than a preceding position.
- **Step 5** – A Special Case: No Solution. If there is no solution after the iteration in step 4 (i.e. there is still a succeeding position which has a larger weighting than a preceding position), perform the following steps:
  - **Step 5.1** – Redo from Step 2, but ONLY apply capping to top 4 constituents in a way such that total weighting of top 5 constituents is capped at 70%.
  - **Step 5.2** – If any succeeding position is larger than a preceding position after step 5.1, repeat Step 3 and start from the 4th position (i.e. cap 5th position at 4th position if larger than the 4th position, and repeat this process for the remaining constituents if any succeeding position is larger than the preceding position).
  - **Step 5.3** – If there is still no solution after the iteration in step 5.2, redo from step 5.1 but ONLY apply capping to top 3 constituents (one fewer constituent) in a way such that total

weighting of top 5 constituents is capped at 70%, and proceed to step 5.2 starting from the 3th position (one further preceding position).

- **Step 5.4** – Repeat Step 5.3 until no succeeding position is greater than a preceding position.

**Capping Frequency:** Quarterly.

**Capping excess distribution:** Distributed proportionately among the remaining constituents.

**Constituents:** Refer to tables 1 and 3.

### Implementation

In order to properly implement, Contract Production Weights (CPWs) are adjusted to arrive at the assigned weights for each commodity. This adjustment process takes place at the beginning of each quarter and every time the S&P GSCI Agriculture & Livestock Enhanced is rebalanced, adjusted, and/or new constituents are added to or deleted from the index, in order to be initially proportional to and inclusive of the S&P GSCI Agriculture & Livestock Enhanced constituents.

The adjustment process takes place as follows.

1. On the S&P GSCI Business Day before each quarterly first roll date, the latest S&P GSCI Agriculture & Livestock Enhanced commodity CPWs are multiplied by the commodity prices to determine the S&P GSCI Agriculture & Livestock Enhanced commodity weights. For January, the CPWs will be the new ones that were determined with that year's annual rebalancing.
2. The commodities are sorted in descending order by weights.
3. If there is any commodity above 35%, it is capped at 35% and the excess weight distributed among the remaining commodities. The process is iterative.
4. If the total weight of the top 5 commodities is above 70%, it is capped at 70% and the excess weight is distributed among the remaining uncapped commodities. Any commodity that meets the capping mentioned in step 3 will not be subject to further capping.
5. If the weight of any uncapped commodity is greater than the capped weight of the smallest commodity in the Top 5, it is capped at the capped weight of the smallest commodity in the Top 5 and the excess weight is distributed among the remaining uncapped commodities. This process is repeated iteratively until all the capping rules are met.
6. The percentage weights of all commodities are converted to CPW-equivalents, all based on prices from the S&P GSCI Business Day one day prior to the first roll date, using the initial S&P GSCI Agriculture & Livestock Enhanced weights implied by those prices and the **latest** S&P GSCI Agriculture & Livestock Enhanced CPWs. For January, the CPWs are the new ones that were determined with that year's annual rebalancing. For example, the January S&P GSCI Agriculture & Livestock Enhanced CPWs are multiplied by the commodity prices from the last business day in December, the last business day before the roll.
7. This capping adjustment process takes place every quarter and utilizes any CPW commodity changes to the base index, additions to, subtractions from, commodity substitutions, etc. in order to maintain continuity and be proportional with the S&P GSCI Agriculture & Livestock Enhanced.

### Capping Formulas

At each rebalancing, CPWs are calculated as follows:

$$CPW_{capped,i} = CPW_{GSCI,i} * TargetWeight_j / GSCIWeight_j$$

where:

$CPW_{capped,i}$  = CPW for commodity  $i$  in the S&P GSCI Enhanced Agriculture & Livestock Capped 40/75 as of the rebalancing reference date

$CPW_{GSCI,i}$  = CPW for commodity  $i$  in the S&P GSCI Agriculture & Livestock Enhanced as of the rebalancing reference date

$GSCIWeight_j$  = Weight of commodity  $j$ , of which commodity  $i$  is a part, in the S&P GSCI Agriculture & Livestock Enhanced as of the rebalancing reference date.

$TargetWeight_j$  = Weight of commodity  $j$ , of which commodity  $i$  is a part, in the S&P GSCI Enhanced Agriculture & Livestock Capped 40/75 as of the rebalancing reference date.

At each rebalancing target weights are calculated as follows:

If  $SPGSCIWeight_j > 35\%$ , then  $TargetWeight_j = 35\%$   
For the Top 5 commodities:

$$TargetWeight_j = \frac{70\% * SPGSCIWeight_j}{Total\ Top\ 5\ Weights}$$

For all remaining commodities:

$$TargetWeight_j = \frac{30\% * SPGSCIWeight_j}{(1 - SPGSCIWeight_c)}$$

where:

$SPGSCIWeight_c$  = Total S&P GSCI Agriculture & Livestock Enhanced weight of all capped commodities as of the rebalancing reference date.

For the commodities not in Top 5:

If  $TargetWeight_j > TargetWeight_s$  then  $TargetWeight_j = TargetWeight_s$

where:

$TargetWeight_s$  = Weight of the smallest commodity in Top 5 Commodities

For all remaining commodities:

$$TargetWeight_j = \frac{(100\% - Total\ Capped\ Weights) * SPGSCIWeight_j}{(100\% - SPGSCIWeight_c)}$$

where:

$Total\ Capped\ Weights$  = Total S&P GSCI Agriculture & Livestock Capped Commodity weight of all capped Commodities as of the rebalancing reference date.

This process is repeated iteratively until no commodity with weight greater than the smallest commodity in Top 5.

### Specialized Capping Index Codes

The table below lists headline indices covered by this section. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact [index\\_services@spglobal.com](mailto:index_services@spglobal.com) for a complete list of indices covered by this document.

Index	Index Code
S&P GSCI Agriculture & Livestock Enhanced Capped 40/75	SGECCAL
S&P GSCI Agriculture & Livestock Enhanced Capped 40/75 ER	SGECCALP
S&P GSCI Agriculture & Livestock Enhanced Capped 40/75 TR	SGECCALT

### Currency, Currency Hedged, and Risk Control Indices

Additional currency, currency hedged, and risk control versions of the indices may be available. For a list of available currency, currency hedged, and risk control indices, please contact Client Services at [index\\_services@spglobal.com](mailto:index_services@spglobal.com).

*For more information on currency, currency hedged, and risk control indices, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.*

# Index Governance

## Index Committee

S&P Dow Jones Indices has established an Index Committee to oversee the daily management and operations of the S&P GSCI, and is responsible for all analytical methods and calculation in the indices. The Committee is comprised of full-time professional members of S&P Dow Jones Indices staff. At each meeting, the Committee reviews any issues that may affect index constituents, statistics comparing the composition of the indices to the market, commodities 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 commodities, or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

All references to methodology-related decisions made by S&P Dow Jones Indices in this document represent decisions made by the Index Committee.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

*For information on:*

- *Quality Assurance*
- *Internal Reviews of Methodology*
- *Calculations and Pricing Disruptions*
- *Error Correction*
- *Expert Judgment*
- *Data Hierarchy*
- *Unexpected Exchange Closures*

*Please refer to S&P Dow Jones Indices' Commodities Indices Policies & Practices document.*

## Commodity Index Advisory Panel

S&P Dow Jones Indices has established a Commodity Index Advisory Panel to assist it in connection with the operation of the S&P GSCI. The Panel meets on an annual basis and at other times at the request of the Index Committee. The principal purpose of the Panel is to advise the Index Committee with respect to, among other things, the calculation of the S&P GSCI, the effectiveness of the S&P GSCI as a measure of commodity futures market performance and the need for changes in the composition or methodology of the S&P GSCI. The Panel acts solely in an advisory and consultative capacity; the Index Committee makes all decisions with respect to the composition, calculation and operation of the S&P GSCI. Certain members of the Panel may be affiliated with clients of S&P Dow Jones Indices. Also, certain members of the Panel may be affiliated with entities which, from time to time, may have investments linked to the S&P GSCI, either through transactions in the Contracts included in the S&P GSCI, futures contracts on the S&P GSCI or derivative products linked to the S&P GSCI.

# Index Policy

## **Announcements**

Announcements of the daily index values are made after the futures market close each day.

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## **Contact Information**

For questions regarding an index, please contact: [index\\_services@spglobal.com](mailto:index_services@spglobal.com).

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