

**S&P Dow Jones
Indices**

A Division of **S&P Global**

S&P GSCI *Methodology*

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Introduction

Index Objective and Overview of the S&P GSCI

The S&P GSCI measures commodity market performance through futures and is a production-weighted index that is designed to reflect the relative significance of each of the constituent commodities to the world economy—while preserving the tradability of the index by limiting eligible contracts to those with adequate liquidity. There is no limit on the number of commodities that may be included in the S&P GSCI.

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 are as follows:

Supporting Document	URL
S&P Dow Jones Indices' Commodities Indices Policies & Practices Methodology	Commodities Indices Policies & Practices
S&P Dow Jones Indices' Commodity Index Mathematics Methodology	Commodity Index Mathematics Methodology

This methodology was created by S&P Dow Jones Indices to achieve the 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.

Eligibility Criteria

Futures Contract Type

A Contract must be a physical commodity and may not be a financial instrument (e.g., securities, currencies, interest rates, etc.).

Certain Contract Characteristics

The following criteria must be satisfied:

1. The contract must have a specified expiration or term or provide in some other manner for delivery or settlement at a specified time, or within a specified time period, in the future.
2. The contract must, at any given point in time, be available for trading at least five months prior to its expiration or such other date or time period specified for delivery or settlement.
3. The trading facility on which the contract is traded must allow market participants to execute spread transactions, through a single order entry, between the pairs of contract expirations included in the S&P GSCI that, at any given point in time, will be involved in the rolls to be affected in the next three roll periods.

Denomination and Geographical Requirements

The contract must be denominated in U.S. dollars and traded on or through a trading facility that has its principal place of business or operations in a country that is a member of the Organization for Economic Cooperation and Development (OECD) during the relevant annual calculation period.

For information on the countries eligible for inclusion, please refer to the [Organization for Economic Cooperation and Development \(OECD\)](#).

Availability of Daily Contract Reference Prices

Daily contract reference prices for such contract generally must have been available on a continuous basis for at least two years prior to the proposed date of inclusion. For calculation purposes, the daily contract reference price is the official settlement price provided by the exchange.

Contract Volume and Liquidity Requirements

Volume data with respect to such contract must be available for at least the three months immediately preceding the date on which the determination is made. Volume data used to determine whether a particular contract is eligible to be included in the S&P GSCI are the data for the relevant annual calculation period. The annual calculation period is the September of the previous year to the August of the current year. If the contract has been trading for fewer than 12 months, then the determination is made based on data for the period of time during which the contract has been trading, with such data being annualized. Volume data with respect to a given contract are calculated based on the volumes of all contract expirations of such contract that have been traded within the relevant Annual Calculation Period or Interim Calculation Period.

Total Dollar Value Trading Requirement

The following criteria must be satisfied:

1. A contract that is not included in the S&P GSCI at the time of determination and is based on a commodity that is not represented in the S&P GSCI at such time, must have an annualized TDVT of at least US\$ 15 billion.
2. A contract already in the S&P GSCI at the time of determination, and that is the only designated contract on the relevant S&P GSCI commodity, must have an annualized TDVT of at least US\$ 5 billion over the relevant annual calculation period, and of at least US\$ 10 billion during at least one of the three annual observation periods.
3. A contract that is not in the S&P GSCI at the time of determination—and a contract that is based on a S&P GSCI commodity on which there are one or more designated contracts already in the S&P GSCI at such time—must have an annualized TDVT of at least US\$ 30 billion throughout the relevant annual calculation period.
4. A contract that is already in the S&P GSCI at the time of determination and is based on an S&P GSCI commodity, on which there are one or more designated contracts already in the S&P GSCI at such time, must have an annualized TDVT at least US\$ 10 billion throughout the relevant annual calculation period, and of at least US\$ 20 billion during at least one of the three annual observation periods.

Reference Percentage Dollar Weight Requirement

The following criteria must be satisfied:

1. A contract must have a reference percentage dollar weight of at least 0.10% for continued inclusion.
2. A contract must have a reference percentage dollar weight of at least 1.00% at the time of determination.

The reference percentage dollar weight (RPDW) is calculated based on the proposed composition of the S&P GSCI determined according to the procedures set forth above. Any contract that does not satisfy the applicable RPDW requirement is excluded from such proposed composition, and the contract production weights (CPWs) of the remaining contracts are recalculated according to the procedure set forth in *Contract Production Weights* section of this document until the proposed S&P GSCI contains only contracts that satisfy the applicable RPDW requirements.

Determination of the Number of Contracts

If two or more contracts on the same S&P GSCI commodity satisfy the eligibility criteria set forth above, such contracts are included in the S&P GSCI in the order of their respective Total Quantity Traded (TQT), with the contract having the highest TQT being included first. No further contracts are included if such inclusion results in the Trading Volume Multiple (TVM) for such commodity exceeding the TVM Upper Level. A second contract will be considered a related contract only if the TQT of the second contract over the relevant calculation period is greater than or equal to 25% of the TQT of the first contract over such period.

If under the procedure set forth in the preceding paragraph, additional contracts could be included with respect to several S&P GSCI commodities at the same time, the procedure is first applied to the S&P GSCI commodity that has the lowest TVM at the time of determination. Subject to the other eligibility criteria, the contract with the highest TQT on such Commodity is included. Before any additional contract on any S&P GSCI commodity is included, the TVM's for all S&P GSCI commodities are recalculated. The selection procedure described above is, then, repeated with respect to the contracts on the S&P GSCI commodity that then has the lowest TVM.

Between the first and a related contract, only the contract with the greater TQT over the reference period is included in the S&P GSCI.

Intra-Year Changes in the Composition of the S&P GSCI

The composition of the GSCI is reviewed on a quarterly basis during any given S&P GSCI year. If the TVM of any designated contract is below the TVM threshold for the relevant S&P GSCI year, the composition of the S&P GSCI with respect to the S&P GSCI commodity underlying such contract will be re-determined.

General Eligibility Requirements

The identification of those commodities that satisfy the general eligibility requirements is based on the Futures Industry Association (FIA¹) reports that are published with respect to the relevant annual calculation period and directly from the relevant trading facilities. The determination as to whether a particular trading facility has its principal place of business or operations in an OECD country is based on the most recent data published by the OECD available on the date of determination.

¹ More information about the Futures Industry Association (FIA) can be found on the following website: www.fia.org.

Calculation of the Contract Production Weights

Overview of the Contract Production Weights (CPWs)

The calculation of the CPWs of the designated contracts involves a four-step process:

1. Determination of the World Production Quantity (WPQ) of each S&P GSCI commodity.
2. Determination of the World Production Average (WPA) of each S&P GSCI commodity over the WPQ Period.
3. Calculation of the CPW based on the contract's percentage of the relevant TQT.
4. Certain adjustments to the CPWs.

World Production Quantities & Averages

The World Production Quantity (WPQ) of each commodity is the five-year sum of the total world production (except as otherwise set forth in this section) over the WPQ Period, and an average is calculated over the five-year period to determine the World Production Average (WPA). The WPQ Period is defined as the five-year time frame, for which complete world production data is available on all S&P GSCI Commodities (from sources determined by S&P Dow Jones Indices to be reasonably accurate and reliable). The data is reported on a three-year lag.

Livestock Production Quantities

The annual production quantity for cattle—which is stated in terms of carcass weight—is converted into an equivalent quantity of live cattle by multiplying the production quantity of cattle for a given year by the ratio of the live weight of cattle to the dressed weight of cattle (ALW/ADW) for that year. In addition, cattle and hog production quantities are based on world industrial production data, rather than total world production data.

Regional Production Data

If an S&P GSCI commodity is primarily a regional commodity, based on its production, use, pricing, transportation or other factors, S&P Dow Jones Indices may determine the WPQ of such S&P GSCI commodity based on regional, rather than world, production. At present, Natural Gas is the only S&P GSCI commodity where the WPQ is determined based on regional (North American) production.

Sources of Conversion Factors

The factors used to affect the conversions, which are necessary to convert the units of measurement used in the WPQs into the units of measurement used with respect to the applicable contracts are derived from publicly available sources selected by S&P Dow Jones Indices.

World Production Averages

The WPA of each S&P GSCI Commodity is equal to its WPQ over the WPQ Period, divided by five. The WPA is simply the average annual production amount of the S&P GSCI Commodity based on the WPQ over a five-year period.

Contract Production Weight Calculation

For information on the calculations of Contract Production Weights, please refer to the Production Weighted Indices section of S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

Quarterly Review of Index Composition

On each last business day of the January quarterly cycle, S&P Dow Jones Indices calculates the TVM of each designated contract, based on volume data for the relevant Interim Calculation Period. If the TVM of any designated contract is below the TVM Threshold, S&P Dow Jones Indices adjusts the composition of the S&P GSCI, according to the following principles:

- All eligible contracts, whether previously included in the S&P GSCI or not, on such commodity as of such date are identified, based on the eligibility criteria.
- The CPWs of all contracts are determined, provided that the percentage TQT for each such contract is determined based on volume data for the relevant Interim Calculation Period, for which such data are available for all contracts on the relevant S&P GSCI commodity.
- At the beginning of the new S&P GSCI period following the foregoing adjustments, the S&P GSCI is rebalanced.

If any changes are made to the composition of the S&P GSCI (including changes regarding the relative weight of any designated contract) according to the procedure described above, the manner in which such changes are affected are determined by S&P Dow Jones Indices, based on market conditions and other relevant factors, and publicly announced as soon as reasonably possible.

Sources of Information for the Determination of CPWs

S&P Dow Jones Indices decides the sources of information used in determining the CPWs for a given S&P GSCI period. S&P Dow Jones Indices will generally use the same sources of information used to determine the CPWs for or during the immediately preceding S&P GSCI year. If such sources are not reasonably available or do not contain the necessary information, or if S&P Dow Jones Indices determines the information included in any such sources is inaccurate, unreliable, or contains an obvious and indisputable error, S&P Dow Jones Indices will identify alternative sources of information. To the extent practicable, S&P Dow Jones Indices will publicly announce the sources used to determine the CPWs for or during a given S&P GSCI period at the time that the composition of the S&P GSCI and the calculation of the CPWs for such period are announced.

Futures Contract Months

Identification of Designated Contract Expirations

S&P Dow Jones Indices determines the futures contract months for each designated contract during a given S&P GSCI year, provided that each such futures contract month must be a contract actively trading from a designated commodity exchange or approved pricing source.

Once a commodity has been identified as a designated futures contract month, the S&P GSCI is calculated for the given S&P GSCI year. However, if S&P Dow Jones Indices determines during the course of an S&P GSCI year that a futures contract month is no longer a contract actively trading from a designated commodity exchange or approved pricing source, the futures contract may be deleted from the S&P GSCI for the remainder of that S&P GSCI year. Conversely, if a new contract is added to the S&P GSCI on an intra-year basis, S&P Dow Jones Indices will identify the futures contract months for the remainder of the relevant S&P GSCI year.

Failure to Trade Futures Contract Months

If a trading facility deletes a futures contract month, the futures contract month will be deleted from the S&P GSCI for the remainder of that S&P GSCI year. The S&P GSCI will be calculated based on the remaining futures contract months for the rest of the relevant S&P GSCI year.

If two consecutive futures contract months have not been made available for trading on or through the relevant exchange at least six months prior to the date on which the roll period is scheduled to begin, S&P Dow Jones Indices will determine what action should be taken. Such action may include a decision to delete the futures contract months or commodity from the S&P GSCI for the remainder of the S&P GSCI year, or to include such futures contract months or commodity if the futures contract months are made available by a specified date. Any action taken will be publicly announced prior to the effective date of the change in the composition of the S&P GSCI.

Replacement of Contracts

If trading in all futures contract months with respect to a particular commodity is terminated, or the relevant exchange announces that no additional futures contract months will be made available, an eligible replacement may be included in the S&P GSCI. Any such replacement will be in effect on the next monthly roll period.

If a replacement commodity is to be included in the S&P GSCI, S&P Dow Jones Indices will publicly announce the manner in which the transfer from the existing commodity to the replacement commodity will be implemented, and whether the CPWs of the other existing commodities in the S&P GSCI and/or the Normalizing Constant will be recalculated.

For a list of the current eligible futures contract months, please refer to Appendix I of the methodology.

The Normalizing Constant

Purpose of the Normalizing Constant

To assure continuity of the S&P GSCI and to allow comparisons of the value of the S&P GSCI to be made over time, it is necessary to make an adjustment to the calculation of the S&P GSCI each time the CPWs are changed. The factor used to make this adjustment is the Normalizing Constant (NC). The NC is determined each time the composition of the S&P GSCI is changed, pursuant to the procedures set forth in this methodology.

For information on the calculation of the Normalizing Constant, please refer to the Production Weighted Indices section of S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

Calculation of the S&P GSCI and Related Indices

Overview of the Calculation Process

The calculation of the S&P GSCI considers price levels in the first nearby contract expiration on each S&P GSCI commodity and, during the roll periods, price levels of the roll contract expirations as well. Once the roll period has been completed, the roll contract expiration becomes the first nearby contract expiration.

The S&P GSCI ER represents the return of a portfolio of commodity futures contracts, the composition of which reflects the CPWs of all designated contracts and the contract roll weights of all futures contract months. The S&P GSCI ER is, therefore, calculated based on the contract daily return.

The S&P GSCI TR reflects the performance of a total return investment in commodities — contract daily return plus the daily interest on the funds hypothetically committed to the investment.

The S&P GSCI FPI is designed as a measure of the fair value of the S&P GSCI CME futures contracts and, therefore, does not reflect the rolling of the hypothetical positions in the S&P GSCI commodities included in the S&P GSCI. In addition, the S&P GSCI FPI is calculated based on the CPWs and NC scheduled to be implemented on the first S&P GSCI business day of the month in which the first available S&P GSCI CME futures contract expires, which might not be the same as the CPWs and NC in effect on the day of calculation.

For information on the calculation of the spot, ER & TR index levels, please refer to the Production Weighted Indices and Other Derived Indices sections of S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

Contract Roll Weights and Monthly Roll Period

The S&P GSCI Spot Index roll period is from the 5th business day to the 9th business day monthly. The following table shows how the contracts are rolled daily during the Roll Period:

Business Day	Roll Out Contract	Roll In Contract
5 th Business Day	80%	20%
6 th Business Day	60%	40%
7 th Business Day	40%	60%
8 th Business Day	20%	80%
9 th Business Day	0%	100%

During the January Roll Period, and during any other Roll Period in which a re-weighting of the S&P GSCI is implemented, the S&P GSCI rolls into the new CPWs and NC during the regularly scheduled monthly Roll Period.

Adjustment of Roll Period

On any S&P GSCI business day during the designated roll period, (including the January roll period and any other roll period as a result of a CPW change), if a market disruption event were to occur, the roll weights for the subsequent commodity futures contract will need to be held based on the roll weights from the previous business day to reflect a market disruption event. The following table shows an example of

how the contract roll weights of an impacted commodity future contract would be held on a day when a Market Disruption Event occurs:

Business Day	Roll Out Contract	Roll In Contract	Market Disruption Event?
5 th Business Day	80%	20%	—
6 th Business Day	60%	40%	—
7th Business Day	60%	40%	Yes
8 th Business Day	20%	80%	—
9 th Business Day	0%	100%	—

In any such event, the portion of the roll that would otherwise have taken place on such S&P GSCI Business Day will take place on the next Contract Business Day (provided that such Day is also a S&P GSCI Business Day) as long as no Market Disruption Event occurs.

For more information of what constitutes a Market Disruption Event, please refer to the Index Policy section of S&P Dow Jones Indices' Commodities Indices Policies & Practices document.

Calculation of the S&P GSCI Gold (U.S. 10Y Rate) TR

The S&P GSCI Gold (U.S. 10Y Rate) TR uses the U.S. 10Y Rate Treasury Note instead of the Treasury Bill Rate. The auction result for the U.S. 10Y Rate Treasury Note is announced monthly.

$$Index TR_d = Index TR_{d-1} * \left[\left(\frac{SPGSGCP_d}{SPGSGCP_{d-1}} + 1 + Rate_d \right)^{\frac{days}{365.25}} - 1 \right]$$

where:

$Index TR_d$ = S&P GSCI Gold (U.S. 10Y Rate) TR

$SPGSGCP_d$ = S&P GSCI Gold ER

$Rate_d$ = U.S. 10-Year Treasury Rate

$days$ = the number of calendar days between S&P GSCI Business Day d and the preceding S&P GSCI Business Day ($d-1$)

The result of the foregoing calculation is, then, rounded to seven digits of precision.

Calculation of the S&P GSCI (U.S. 10Y TIPS) TR

The S&P GSCI (U.S. 10Y TIPS) TR uses the total return from the S&P U.S. TIPS 10Y Index instead of the Treasury Bill Rate.

For information on the S&P U.S. TIPS 10 Year Index (USD), please refer to S&P Global Sovereign Inflation-Linked Bond Indices Methodology.

$$Index TR_d = Index TR_{d-1} * \left[\left(\frac{S\&P\ GSCI\ ER_d}{S\&P\ GSCI\ ER_{d-1}} \right) + \left(\frac{S\&P\ US\ TIPS\ 10Y_d}{S\&P\ US\ TIPS\ 10Y_{d-1}} \right) - 1 \right]$$

where:

$Index TR_d$ = S&P GSCI (U.S. 10Y TIPS) TR

$S\&P\ GSCI\ ER_d$ = S&P GSCI ER

$S\&P\ US\ TIPS\ 10Y_d$ = S&P U.S. TIPS 10 Year Index (USD)

Calculation of the S&P GSCI (SOFR) TR

The S&P GSCI (SOFR) TR uses the total return from the SOFR instead of the Treasury Bill Rate.

$$Index TR_d = Index TR_{d-1} * \left[\left(\frac{S\&P\ GSCI\ ER_d}{S\&P\ GSCI\ ER_{d-1}} \right) + SOFR_{d-1} * \left(\frac{DAYS}{360} \right) \right]$$

where:

$Index TR_d$	=	S&P GSCI (SOFR) TR
$S\&P\ GSCI\ ER_d$	=	S&P GSCI ER
$SOFR_{d-1}$	=	Secured Overnight Financing Rate

Calculation of the S&P GSCI FPI Index

The S&P GSCI FPI is an index designed to mimic the S&P GSCI, with the following exceptions:

1. The FPI Index does not incorporate the standard 5-day roll monthly period. There is no roll period.
2. The index always has a 100% weight in the current contract, and always uses the current Contract Production Weights (CPW) for the underlying contracts and current Normalizing Constant (NC) based on the S&P GSCI to calculate the index level through the 11th business day of the month. On the 12th business day of the month, the current contracts, CPWs and NCs are changed to reflect the current composition of the S&P GSCI.

The purpose of the S&P GSCI FPI Index is to serve as the underlying index for the S&P GSCI Futures Contracts available for trade at CME Group, which expire on the 11th business day of every month. The index also serves as a benchmark for the fair value of such futures contracts.

CPWs for the S&P GSCI Reduced Energy Index, S&P GSCI Light Energy Index, and S&P GSCI Ultra-Light Energy Index

The S&P GSCI Reduced Energy Index, S&P GSCI Light Energy Index and S&P GSCI Ultra-Light Energy Index are three indices that are comprised of the same commodities as the S&P GSCI but whose Contract Production Weights (CPW) of all commodities in the Energy sector have been divided by two (S&P GSCI Reduced Energy Index), by four (S&P GSCI Light Energy Index), or by eight (S&P GSCI Ultra-Light Energy Index). Because the CPWs of energy-related S&P GSCI Commodities are reduced in these indices, the relative weights of other S&P GSCI commodities are necessarily increased. As a result, although the S&P GSCI Reduced Energy Index, the S&P GSCI Light Energy Index and the S&P GSCI Ultra-Light Energy Index contain all the S&P GSCI commodities that are included in the S&P GSCI, they are not world production weighted in the same manner as the S&P GSCI.

Currency of Calculation and Additional Index Return Series

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. *For a list of available indices, please refer to the [S&P DJI Methodology & Regulatory Status Database](#).*

For information on index calculations, please refer to the Other Derived Indices section of S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at www.spglobal.com/spdji.

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 and Internal Reviews of Methodology, please refer to the Index Governance section of S&P Dow Jones Indices' Commodities Indices Policies & Practices document.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at www.spglobal.com/spdji, major quote vendors, numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the [S&P DJI Methodology & Regulatory Status Database](#) for a complete list of indices covered by this document.

Index Code	Index Name	Launch Date	BBG - Real Time	BBG	RIC	Base Date	Base Value
SPGSCI	S&P GSCI	04/11/1991	SPGSCI	SPGCC	.SPGSCI	12/31/1969	100
SPGSAG	S&P GSCI Agriculture	05/07/2007	SPGSAG	SPGCAG	.SPGSAG	12/31/1969	100
SPGSAL	S&P GSCI Agriculture & Livestock	05/07/2007	SPGSAL	SPGCAL	.SPGSAL	01/02/1970	100
SPGSAC	S&P GSCI All Cattle	05/07/2007	SPGSAC	SPGCAC	.SPGSAC	01/07/2002	100
SPGSCR	S&P GSCI All Crude	05/07/2007	SPGSCR	SPGCCR	.SPGSCR	12/31/1986	100
SPGSAM	S&P GSCI All Metals	11/23/2009	SPGSAM	SPGCAM	.SPGSAM	01/16/1995	100
SPGSWT	S&P GSCI All Wheat	05/07/2007	SPGSWT	SPGCWT	.SPGSWT	12/31/1969	100
SPGSEN	S&P GSCI Energy	05/07/2007	SPGSEN	SPGCEN	.SPGSEN	01/06/1995	100
SPGSEM	S&P GSCI Energy & Metals	05/07/2007	SPGSEM	SPGCEM	.SPGSEM	01/16/1995	100
SPGSFE	S&P GSCI Four Energy Commodities	05/07/2007	--	--	.SPGSFE	12/31/1969	100
SPGSGR	S&P GSCI Grains	05/07/2007	SPGSGR	SPGCGR	.SPGSGR	12/30/1976	100
SPGSIN	S&P GSCI Industrial Metals	05/07/2007	SPGSIN	SPGCIN	.SPGSIN	01/02/1970	100
SPGSLE	S&P GSCI Light Energy	05/07/2007	SPGSLE	SPGCLE	.SPGSLE	12/31/1969	100
SPGSLV	S&P GSCI Livestock	05/07/2007	SPGSLV	SPGCLV	.SPGSLV	01/16/1995	100
SPMCCI	S&P GSCI Multiple Contract	01/19/2012	--	SPMCCI	--	12/31/1969	100
SPGSNE	S&P GSCI Non-Energy	05/07/2007	SPGSNE	SPGCNE	.SPGSNE	01/05/1996	100
SPGSNL	S&P GSCI Non-Livestock	05/07/2007	SPGSNL	SPGCNL	.SPGSNL	12/31/1969	100
SPGSXN	S&P GSCI Non-Natural Gas	05/07/2007	SPGSXN	SPGCXN	.SPGSXN	01/08/1974	100
SPGSXP	S&P GSCI Non-Precious Metals	05/07/2007	SPGSXP	SPGCXP	.SPGSXP	12/31/1982	100
SPGSPT	S&P GSCI Petroleum	05/07/2007	SPGSPT	SPGCPT	.SPGSPT	12/29/1972	100
SPGSPM	S&P GSCI Precious Metals	05/07/2007	SPGSPM	SPGCPM	.SPGSPM	01/02/1970	100
SPGSRE	S&P GSCI Reduced Energy	05/07/2007	SPGSRE	SPGCRE	.SPGSRE	01/16/1995	100
SPGSSF	S&P GSCI Softs	05/07/2007	SPGSSF	SPGCSF	.SPGSSF	01/02/1970	100
SPGSUE	S&P GSCI Ultra-Light Energy	05/07/2007	SPGSUE	SPGCUE	.SPGSUE	01/16/1995	100
SG1MCI	S&P GSCI 1 Month Forward	12/06/2007	--	SG1MCI	.SG1MCI	12/16/2008	100
SG2MCI	S&P GSCI 2 Month Forward	12/06/2007	--	SG2MCI	.SG2MCI	12/16/2010	100
SG3MCI	S&P GSCI 3 Month Forward	12/06/2007	--	SG3MCI	.SG3MCI	12/05/2008	100
SG4MCI	S&P GSCI 4 Month Forward	12/06/2007	--	SG4MCI	.SG4MCI	12/05/2008	100
SG5MCI	S&P GSCI 5 Month Forward	12/06/2007	--	SG5MCI	.SG5MCI	12/05/2008	100
SG6MCI	S&P GSCI 6 Month Forward	01/23/2014	--	SG6MCI	--	12/05/2008	100
SG12MCI	S&P GSCI 12 Month Forward	01/23/2014	--	SG12MCI	--	12/05/2008	100
SPG3YCL	S&P GSCI Crude Oil 3Y Forward (USD)	12/16/2019	--	SPG3YCL	--	12/31/1969	100
SPG5YCL	S&P GSCI Crude Oil 5Y Forward (USD)	12/16/2019	--	SPG5YCL	--	01/02/1970	100
SPG3YIM	S&P GSCI Industrial Metals 3Y Forward (USD)	12/16/2019	--	SPG3YIM	--	01/07/2002	100
SPG5YIM	S&P GSCI Industrial Metals 5Y Forward (USD)	12/16/2019	--	SPG5YIM	--	12/31/1986	100
SPGSCIES	S&P GSCI Enhanced Commodity	12/10/2007	SPGSES	SPGCES	.SPGSES	01/16/1995	100
SPGPRU	S&P GSCI Pre-Roll (USD)	12/07/2020	--	--	--	12/31/1999	100
SPMCCI	S&P GSCI Multiple Contract Index	01/19/2012	--	SPMCCI	.SPMCCI	01/16/1995	100
SPGCLMC	S&P GSCI Crude Oil Multiple Contract 55/30/15 1M/2M/3M (USD)	06/15/2020	SPGCLMC	--	.SPGCLMC	01/16/1995	100
SPGSCLA	S&P GSCI Crude Oil Annual Roll	11/02/2010	--	SPGCCLA	.SPGSCLA	01/16/1995	100

Index Code	Index Name	Launch Date	BBG - Real Time	BBG	RIC	Base Date	Base Value
SPGSCO	S&P GSCI Cash Copper Index	04/26/2012	--	SPGSCO	.SPGSCO	04/05/1994	100
SPGSHG	S&P GSCI North American Copper	04/27/2009	SPGSHG	SPGCHG	.SPGSHG	01/16/1995	100
SPGSOJ	S&P GSCI Orange Juice	05/07/2007	--	SPGCOJ	.SPGSOJ	01/15/1999	100
SPGSPL	S&P GSCI Platinum	09/08/2008	SPGSPL	SPGCPL	.SPGSPL	12/30/1983	100
SPGSPA	S&P GSCI Palladium	09/08/2008	SPGSPA	SPGCPA	.SPGSPA	01/16/1995	100
SPGSBO	S&P GSCI Soybean Oil	05/07/2007	SPGSBO	SPGCBO	.SPGSBO	01/07/2005	100
SPGSRR	S&P GSCI Rough Rice (USD)	10/26/2020	SPGSRR	--	.SPGSRR	12/31/1999	1000
SPGSIS	S&P GSCI Tin	05/07/2007	SPGSIS	--	.SPGSIS	01/06/1995	100
SPGSSM	S&P GSCI Soybean Meal	04/05/2012	--	SPGSSM	.SPGSSM	12/07/1994	100
SPGSNF	S&P GSCI Nonfat Dry Milk (USD)	07/15/2019	SPGSNF	--	.SPGSNF	12/31/2013	1000
SPGSCM	S&P GSCI Class III Milk Index (USD)	08/19/2019	SPGSCM	--	.SPGSCM	01/03/2006	100
SPGSSP	S&P GSCI Skim Milk Powder (USD)	10/21/2019	SPGSSP	--	.SPGSSP	03/31/2011	100
SPGSIO	S&P GSCI Iron Ore	11/26/2018	--	--	--	05/31/2013	100
SPGSWS	S&P GSCI White Sugar (USD)	04/21/2021	--	--	--	12/07/1999	100
SPGSCEE	S&P GSCI Carbon Emission Allowances (EUA) (EUR)	03/09/2020	SPGSEE	--	.SPGSEE	11/30/2007	100
SPGSCEU	S&P GSCI Carbon Emission Allowances (UKA) (GBP)	12/19/2022	--	--	--	05/19/2021	100
SPGSR5	S&P GSCI Canola (CAD)	04/22/2021	--	--	--	01/31/2006	100
SPGSCISS	S&P GSCI Settlement	12/07/2014	--	SPGSCISS	--	11/07/2014	534.1023
SPGSGSL	S&P GSCI Grains Select	06/20/2016	--	--	--	01/16/1995	100
SPGSSFWP	S&P GSCI Select Fixed Weight Daily Rebalanced ER	06/10/2019	--	SPGSSFWP	--	09/28/2007	100
SPGSRA	S&P GSCI Rapeseed (EUR)	04/22/2021	--	--	--	01/30/2009	100
SPGSMW	S&P GSCI European Milling Wheat (EUR)	04/22/2021	--	--	--	01/30/2009	100
SPGSCA	S&P GSCI London Cocoa (GBP)	04/22/2021	--	--	--	12/30/1999	100
SPGSUN	S&P GSCI UK Natural Gas (GBP)	04/22/2021	--	--	--	01/30/2004	100
SPGSTC	S&P GSCI Tokyo Corn (JPY)	04/22/2021	--	--	--	12/30/1999	100
SPGSTG	S&P GSCI Tokyo Gold (JPY)	04/22/2021	--	--	--	12/30/1999	100
SPGSTP	S&P GSCI Tokyo Platinum (JPY)	04/22/2021	--	--	--	12/30/1999	100
SPGSTO	S&P GSCI Tokyo Gasoline (JPY)	04/22/2021	--	--	--	01/31/2001	100
SPGSKE	S&P GSCI Kerosene (JPY)	04/22/2021	--	--	--	01/31/2001	100
SPGSRU	S&P GSCI Rubber (JPY)	04/22/2021	--	--	--	12/30/1999	100
SPGSCP	S&P GSCI Crude Palm Oil (MYR)	04/22/2021	--	--	--	03/30/2007	100
SPGSSOFT	S&P GSCI SOFR (USD) TR	05/08/2023	SPGSSOFT	--	.SPGSSOFT	03/29/2018	100

Index Data

Daily index level data is available via on subscription.

For product information, please contact S&P Dow Jones Indices, www.spglobal.com/spdji/en/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spglobal.com/spdji.

Appendix I

Additional S&P GSCI Index Data

S&P Dow Jones Indices has performed the annual calculation to determine the initial CPWs for the S&P GSCI based on trading volume from September of the previous year to August of the current year of the annual review period. The audited results of the calculations are presented in this Appendix. No new commodities will enter at this time and no existing commodities will be removed.

Contracts included in the S&P GSCI

Table 1 (on the next page) identifies the contracts included in the S&P GSCI as well as the Contract Production Weights and designated contract expirations for the current. The Reference Percentage Dollar Weights (RPDW) were calculated based on the Average Contract Reference Prices (ACRP) for the current annual calculation period. The ACRP is the average of the daily contract reference prices on the last business day of the month for the designated roll out contract month. Actual percentage dollar weights on any given S&P GSCI Business Day will vary depending on actual daily contract prices.

Table 1: Contracts Included in the S&P GSCI

Trading Facility	Commodity	Ticker ⁽¹⁾	2022 CPW	2023 CPW	2022 ACRP (\$)	Unit	2022 RPDW ⁽²⁾	2023 RPDW	Designated Contract											
									Expirations at Month Begin ⁽³⁾											
									1	2	3	4	5	6	7	8	9	10	11	12
CBT	Chicago Wheat	W	19458.43	19263.74	8.686666667	bu	3.64%	3.31%	H	H	K	K	N	N	U	U	Z	Z	Z	H
KBT	Kansas Wheat	KW	7915.366	8365.251	9.096041667	bu	1.40%	1.50%	H	H	K	K	N	N	U	U	Z	Z	Z	H
CBT	Corn	C	43170.92	43970.54	6.511458333	bu	6.54%	5.66%	H	H	K	K	N	N	U	U	Z	Z	Z	H
CBT	Soybeans	S	12270.07	12491.57	14.60375	bu	4.64%	3.60%	H	H	K	K	N	N	X	X	X	X	F	F
ICE - US	Coffee	KC	20672.35	21127.24	2.238875	lbs	0.83%	0.93%	H	H	K	K	N	N	U	U	Z	Z	Z	H
ICE - US	Sugar	SB	390154.8	391575.0	0.187483333	lbs	1.81%	1.45%	H	H	K	K	N	N	V	V	V	H	H	H
ICE - US	Cocoa	CC	5.013083	5.170340	2492.333333	MT	0.36%	0.25%	H	H	K	K	N	N	U	U	Z	Z	Z	H
ICE - US	Cotton	CT	54201.50	54332.83	1.179533333	lbs	1.26%	1.27%	H	H	K	K	N	N	Z	Z	Z	Z	Z	H
CME	Lean Hogs	LH	94540.48	96620.79	0.956645833	lbs	2.36%	1.83%	G	J	J	M	M	N	Q	V	V	Z	Z	G
CME	Live Cattle	LC	110644.1	110633.0	1.363395833	lbs	3.76%	2.98%	G	J	J	M	M	Q	Q	V	V	Z	Z	G
CME	Feeder Cattle	FC	29541.00	31753.94	1.672854167	lbs	1.25%	1.05%	H	H	J	K	Q	Q	Q	U	V	X	F	F
NYM / ICE	WTI Crude Oil	CL	12392.85	12079.15	91.4525	bbbl	20.34%	21.83%	G	H	J	K	M	N	Q	U	V	X	Z	F
NYM	Heating Oil	HO	70902.91	75458.02	3.100816667	gal	3.50%	4.62%	G	H	J	K	M	N	Q	U	V	X	Z	F
NYM	RBOB Gasoline	RB	85545.41	82553.26	2.817091667	gal	4.34%	4.60%	G	H	J	K	M	N	Q	U	V	X	Z	F
ICE - UK	Brent Crude Oil	LCO	10024.82	10693.69	94.36333333	bbbl	17.19%	19.94%	H	J	K	M	N	Q	U	V	X	Z	F	G
ICE - UK	Gasoil	LGO	342.1020	319.4099	912.6041667	MT	4.78%	5.76%	G	H	J	K	M	N	Q	U	V	X	Z	F
NYM / ICE	Natural Gas	NG	37653.94	39421.14	6.056416667	MMBtu	3.33%	4.72%	G	H	J	K	M	N	Q	U	V	X	Z	F
LME	Aluminum	MAL	65.89200	67.89000	2835.175	MT	4.18%	3.80%	G	H	J	K	M	N	Q	U	V	X	Z	F
LME	Copper	MCU	23.58000	23.84000	9230.270833	MT	5.80%	4.35%	G	H	J	K	M	N	Q	U	V	X	Z	F
LME	Nickel	MNI	2.016000	2.093800	23762.83333	MT	1.00%	0.98%	G	H	J	K	M	N	Q	U	V	X	Z	F
LME	Lead	MPB	11.02000	11.22000	2211.320833	MT	0.66%	0.49%	G	H	J	K	M	N	Q	U	V	X	Z	F
LME	Zinc	MZN	13.44000	13.52000	3560.584167	MT	1.08%	0.95%	G	H	J	K	M	N	Q	U	V	X	Z	F
CMX	Gold	GC	102.3680	103.7183	1822.708333	oz	5.33%	3.74%	G	J	J	M	M	Q	Q	Z	Z	Z	Z	G
CMX	Silver	SI	887.3607	879.0015	22.27158333	oz	0.64%	0.39%	H	H	K	K	N	N	U	U	Z	Z	Z	H

(1) Tickers are RIC Codes.

(2) Using the ACRP's for the 2022 Annual Calculation Period.

(3) Future Months included in the S&P GSCI at the beginning of each calendar month, starting with January 2023. Table 2 contains Month letter codes.

Abbreviations:

bbbl Barrels lbs Pounds bu Bushel MMBtu Million British Thermal Units
gal U.S. Gallons oz Troy Ounces MT Metric Tons

Table 2: Month Letter Codes

Month	Letter Code
January	F
February	G
March	H
April	J
May	K
June	M
July	N
August	Q
September	U
October	V
November	X
December	Z

WPAs and Conversion Factors

The WPAs, relevant units and conversion factors used for the designated contracts becoming effective during the first roll period for the S&P GSCI are shown below.

Table 3: S&P GSCI World Production Averages

S&P GSCI Commodity	WPQ Units	2022 WPA	2023 WPA	Percentage Change
Wheat	1000 MT	744,992,805	751,938,281	0.9%
Corn	1000 MT	1,096,590,952	1,116,902,063	1.9%
Soybeans	1000 MT	333,936,604	339,964,995	1.8%
Coffee	1000 MT	9,376,819	9,583,155	2.2%
Sugar	1000 MT	176,971,200	177,615,400	0.4%
Cocoa	1000 MT	5,013,083	5,170,340	3.1%
Cotton	1000 MT	24,585,384	24,644,954	0.2%
Lean Hogs	1000 MT	42,882,833	43,826,446	2.2%
Cattle	1000 MT	63,586,878	64,585,598	1.6%
Crude Oil	1000 MT	3,866,576,722	3,898,368,579	0.8%
Natural Gas	1000 Petajoules	39,758	41,624	4.7%
Aluminum	1000 MT	65,892,000	67,890,000	3.0%
Copper	1000 MT	23,580,000	23,840,000	1.1%
Nickel	1000 MT	2,016,000	2,093,800	3.9%
Lead	1000 MT	11,020,000	11,220,000	1.8%
Zinc	1000 MT	13,440,000	13,520,000	0.6%
Gold	1 kg	3,184,000	3,226,000	1.3%
Silver	1 MT	27,600	27,340	-0.9%

Abbreviations:

MT: Metric Tons

kg: Kilograms

Contract Units and Conversion Factors for S&P GSCI Contracts

Table 4: Contract Units and Conversion Factors for S&P GSCI Contracts

Trading Facility	Contract	Contract Size	Units	Conversion Factor Between Contract Units and WPQ Units
CBT	Chicago Wheat	5,000	bu	1,000/36.7
KBT	Kansas City Wheat	5,000	bu	1,000/36.7
CBT	Corn	5,000	bu	1,000/39.4
CBT	Soybeans	5,000	bu	1,000/36.7
ICE - US	Coffee	37,500	lbs	2,204.62
ICE - US	Sugar	112,000	lbs	2,204.62
ICE - US	Cocoa	10	MT	1
ICE - US	Cotton	50,000	lbs	2,204.62
CME	Lean Hogs	40,000	lbs	2,204.62
CME	Live Cattle	40,000	lbs	2,204.62
CME	Feeder Cattle	50,000	lbs	2,204.62
NYM / ICE	Crude Oil	1,000	bbl	7.33
NYM	Heating Oil	42,000	gal	315
NYM	RBOB Gasoline	42,000	gal	355
ICE - UK	Brent Crude Oil	1,000	bbl	7.33
ICE - UK	Gasoil	100	MT	1
NYM / ICE	Natural Gas	10,000	MMBtu	947,086.29
LME	Aluminum	25	MT	1
LME	Copper	25	MT	1
LME	Nickel	6	MT	1
LME	Lead	25	MT	1
LME	Zinc	25	MT	1
CMX	Gold	100	oz	32.15075
CMX	Silver	5,000	oz	32,150.75

Sources and Notes:

Contract Size / Units (Domestic Trading Facilities): *Futures Industry Association, Monthly Volume Report.*

Contract Size / Units (Foreign Trading Facilities): *Futures Industry Association, Futures and Options Fact Book.*

BBG

Abbreviations:

bbl: Barrels

gal: U.S. Gallons

lbs: Pounds

MMBtu: Million British Thermal Units

MT: Metric Tons

oz: Ounces

bu: Bushels

Sources for World Production Data

According to the S&P GSCI Methodology, the current WPQ Period for the S&P GSCI is based on a 5-year average of World Production with the data on a 3-year lag. This is the most recent period for which data was available for all S&P GSCI Commodities.

Table 5

Commodity	Primary Source for Production Data	
Wheat	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Wheat", Year 2015 - 2019)
Corn	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Maize", Year 2015 - 2019)
Soybeans	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Soybeans", Year 2015 - 2019)
Coffee	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Coffee, Green", Year 2015 - 2019)
Sugar	USDA	https://apps.fas.usda.gov/PSDOnline/app/index.html#/app/advQuery (Commodity: "Sugar, Centrifugal", Year 2015 - 2019)
Cocoa	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Cocoa Beans", Year 2015 - 2019)
Cotton	USDA	https://apps.fas.usda.gov/PSDOnline/app/index.html#/app/advQuery (Commodity: "Cotton", Year 2015 - 2019)
Lean Hogs	UN Data	http://data.un.org/Data.aspx?q=pork&d=ICS&f=cmlD%3a21110-2
	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Meat, Pig", Year 2015 - 2019)
Cattle	UN Data	http://data.un.org/Data.aspx?q=beef&d=ICS&f=cmlD%3a21110-1
	USDA	https://downloads.usda.library.cornell.edu/usda-esmis/files/j3860694x/z890sn81j/cv43pq78m/Ag_Stats_2020_Complete_Publication.pdf (Table 7-9 and Table 7-65)
	FAOSTAT	http://www.fao.org/faostat/en/#data/QCL (Commodity: "Meat, Cattle", Year 2015 - 2019)
Crude Oil	UN Data	http://data.un.org/Data.aspx?q=crude+petroleum&d=ICS&f=cmlD%3a12010-0 (Year 2015 - 2016)
	IEA	https://www.iea.org/data-and-statistics/data-tables?country=WORLD (Year 2017 - 2019)
Natural Gas	UN Data	http://data.un.org/Data.aspx?q=natural+gas+&d=ICS&f=cmlD%3a12020-1 (Year 2015 - 2016)
	IEA	https://www.iea.org/data-and-statistics/data-tables/?country=WORLD&year=2017&energy=Natural%20gas (Year 2017 - 2019)
Aluminum	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/aluminum/ (Table 13: Aluminum, Primary: World Production By Country)
Copper	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/copper/ (Table 22: Copper, World Refinery Production By Country)
Nickel	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/nickel/ (Table 12: Nickel: World Plant Production By Country)
Lead	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/lead/ (Table 12: Lead: World Refinery Production By Country)
Zinc	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/zinc/ (Table 10: Zinc: World Smelter Production By Country)
Gold	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/gold/ (Table 8: Gold: World Mine Production By Country)
Silver	USGS - MYB 2019	http://minerals.usgs.gov/minerals/pubs/commodity/silver/ (Table 8: Silver: World Mine Production By Country)

Appendix II

Calculation of Additional S&P GSCI Indices

S&P Dow Jones Indices calculates forward month versions of the S&P GSCI indices. S&P GSCI forward indices measure the S&P GSCI Spot, Excess Return, and Total Return indices based on first nearby contract expirations that would be in the index on the specified forward dates.

For example, on December 11, 2015, the Designated Contracts of the S&P GSCI three-month forward include those futures contract months which would be in the S&P GSCI on March 11, 2016 (i.e., the first nearby contract expiration is moved forward three-months).

The forward indices follow the same rules, weights, and calculation methodology as the S&P GSCI, with the exception that the futures contract months are advanced (contract months specified in Table 1) by the number of months identified by the specific forward (1- through 6- and 12-month forward). There are seven forward month versions of the S&P GSCI: one-month forward, two-months forward, three-months forward, four-months forward, five-months forward, six-months forward, and twelve-months forward.

The 12-Month Forward Index uses slightly different futures contract months for two specific commodities. Feeder Cattle (commodity code: FC) and Gas Oil (commodity code: LGO) use the same futures contract months as the main S&P GSCI Index.

The 3-Year and 5-Year Forward indices follow the same rules, weights, and calculation methodology as the S&P GSCI, with the exception that the futures contract months are advanced 3 and 5 years forward (contract months specified in Table 1) for Crude Oil (commodity code: CL) and the Industrial Metals sector (commodity codes: MAL, MCU, MNI, MPB, MZN).

S&P GSCI Single Commodity Indices

The following table includes additional S&P GSCI single commodity indices, along with their contract schedule, that are calculated daily, but are not included in the S&P GSCI Index. The indices are not subject to the annual reconstitution.

Please refer to the calculation section references previously provided in previous sections for the mechanics of the index calculations.

Table 6

Trading Facility	Commodity	Ticker ⁽¹⁾	Current CPW	Unit	Designated Contract Expirations at Month Begin ⁽²⁾											
					1	2	3	4	5	6	7	8	9	10	11	12
CMX	Copper	HG	1	lbs	H	H	K	K	N	N	U	U	Z	Z	Z	H
IPE	Orange Juice	OJ	5643.639	lbs	H	H	K	K	N	N	U	U	X	X	F	F
NYM	Platinum	PL	4.636138	oz	J	J	J	N	N	N	V	V	V	F	F	F
NYM	Palladium	PA	1	oz	H	H	M	M	M	U	U	U	Z	Z	Z	H
CBOT	Soybean Oil	BO	1	lbs	H	H	K	K	N	N	Z	Z	Z	Z	Z	F
CME	Rough Rice	RR	1	CWT	H	H	K	K	N	N	U	U	X	X	F	F
LME	Tin	MSN	0.2226	MT	G	H	J	K	M	N	Q	U	V	X	Z	F
CBOT	Soybean Meal	SM	1	Tons	H	H	K	K	N	N	Z	Z	Z	Z	Z	F
CME	Nonfat Dry Milk	NF	1	lbs	G	H	J	K	M	N	Q	U	V	X	Z	F
CME	Class III Milk	DCS	1	lbs	G	H	J	K	M	N	Q	U	V	X	Z	F
NZX	Skim Milk Powder	NSMP	1	MT	G	H	J	K	M	N	Q	U	V	X	Z	F
SGX	SGX TSI Iron Ore CFR China (62% Fe Fines) Index Futures	SZZF	1	MT	G	H	J	K	M	N	Q	U	V	X	Z	F
ICE	White Sugar	LSU	1	MT	H	K	K	Q	Q	Q	V	V	H	H	H	H
CME	CBL Global Emissions Offset Futures	GEO	1	MT	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z ₁
CME	CBL Nature-Based Global Emissions Offset Futures	NGO	1	MT	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z ₁
Baltic	Capesize Time Charter - Current month	BATMM	1	MT	G	H	J	K	M	N	Q	U	V	X	Z	F
Baltic	Capesize Time Charter - Current quarter	BATMQ	1	MT	M	M	M	U	U	U	Z	Z	Z	H	H	H
Baltic	Panamax Time Charter - Current month	BPTCM	1	MT	G	H	J	K	M	N	Q	U	V	X	Z	F
Baltic	Panamax Time Charter - Current quarter	BPTCQ	1	MT	M	M	M	U	U	U	Z	Z	Z	H	H	H
CME	Cobalt	OCB	1	MT	G	H	J	K	M	N	Q	U	V	X	Z	F
CME	Lithium	LTH	1	MT	G	H	J	K	M	N	Q	U	V	X	Z	F

(1) Tickers are RIC Codes.

(2) Future months included in the S&P GSCI at the beginning of each calendar month, starting with January 2023.

(3) On November 29, 2021, Skim Milk Powder futures began trading on the SGX exchange.

Abbreviations:

lbs: Pounds

oz: Troy Ounces

MT: Metric Tons

CWT: Hundredweights

S&P GSCI Settlement Index Family

The daily calculation of any S&P GSCI Settlement Index on business day (t) will use the settlement prices from business day (t) for all commodity contracts that did not experience a market disruption on business day (t). For each contract that experiences a market disruption on business day (t), the disrupted settlement price from business day (t) will be replaced by the settlement price on the first subsequent business day when that commodity contract does not experience a market disruption. Each commodity contract is evaluated independently. On any given business day (t), if no commodity contract within an S&P GSCI Index experiences a market disruption, the S&P GSCI Settlement Index equals the corresponding standard S&P GSCI Index.

S&P GSCI Grains Select

The S&P GSCI Grains Select is designed to reflect the performance of the largest commodity for each component included in the S&P GSCI Grains. It includes Corn, Soybeans and Chicago Wheat, but excludes Kansas Wheat.

The weights of Corn, Soybeans, and Chicago Wheat in the Select Index follow their respective weights in the underlying S&P GSCI Grains Index. The weight of Kansas Wheat is distributed proportionally to the other components of the Select Index. As a result, Wheat is underweighted in the Select Index relative to the underlying index.

S&P GSCI Fixed Weight Daily Rebalanced Index (Custom)

The S&P GSCI Fixed Weight Daily Rebalanced Index (Custom) is a weighted return index designed to reflect the performance of select commodities included in the S&P GSCI. The commodities that comprise the index are as follows: Aluminum, Brent Crude Oil, Copper, Corn, WTI Crude Oil, Gold, Natural Gas, Silver, Soybeans, and Chicago Wheat.

The weights of the commodities are fixed and reset on a daily basis to the weights detailed in the table below. The index uses the S&P GSCI Excess Return versions of the commodities that comprise the membership.

Table 7 shows the composition of the index and the fixed weights:

Table 7

Index	Index Code	Index Weights
S&P GSCI Aluminum ER	SPGSIAP	5%
S&P GSCI Brent Crude ER	SPGSBRP	18%
S&P GSCI Copper ER	SPGSICP	15%
S&P GSCI Corn ER	SPGSCNP	9%
S&P GSCI Crude Oil ER	SPGSCLP	12%
S&P GSCI Gold ER	SPGSGCP	18%
S&P GSCI Natural Gas ER	SPGSNGP	10%
S&P GSCI Silver ER	SPGSSIP	2%
S&P GSCI Soybeans ER	SPGSSOP	9%
S&P GSCI Wheat ER	SPGSWHP	2%

*For further details on weighted return index calculations, please refer to the **Weighted Return Indices** section of *S&P Dow Jones Indices' Commodity Index Mathematics Methodology*.*

S&P GSCI Single Commodities Non-USD Contracts Indices

The S&P GSCI Single Commodities Non-USD contracts indices are designed to reflect the performance of Single Commodities Futures traded in non-USD currencies. The indices are calculated in local currency daily.

Market Disruption Events, limit events and exchange holidays which could potentially impact roll weights during the designated roll period may not have been considered during the index development process and prior to the official launch date of the below indices. The index history prior to the launch dates is considered proforma index history. After the launch dates of the indices, going forward as outlined in the S&P Commodities Policies & Practices Methodology, these events will be considered in the calculation of the indices.

Contracts for Single Commodities Non-USD Futures

Table 8

Commodity	Commodity Code	Index Risk Free Rate	1 2 3 4 5 6 7 8 9 10 11 12											
			1	2	3	4	5	6	7	8	9	10	11	12
European Union Allowance Futures	CFI2	German Bubill Rate	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
Canola	RS	Canadian Dollar 3 Month Interest Rate Fixing	H	H	K	K	N	N	X	X	X	X	F1	F1
Rapeseed	COM	German Bubill Rate	G	K	K	K	Q	Q	Q	X	X	X	G1	G1
European Milling Wheat	BL2	German Bubill Rate	H	H	K	K	Z	Z	Z	Z	Z	Z	Z	H1
London Cocoa	LCC	UK 3 Month Benchmark Rate	H	H	K	K	N	N	U	U	Z	Z	Z	H1
UK Natural Gas (Winter)	NGLNM	UK 3 Month Benchmark Rate	V	V	V	V	V	V	V	X	Z	F1	G1	H1
UK Natural Gas (Summer)	NGLNM	UK 3 Month Benchmark Rate	J	K	M	N	Q	U	J1	J1	J1	J1	J1	J1
Tokyo Corn	JCR	Japan 3 Month Benchmark Rate	X	F1	F1	H1	H1	K1	K1	N1	N1	U1	U1	X1
Tokyo Gold	JAU	Japan 3 Month Benchmark Rate	V	Z	Z	G1	G1	J1	J1	M1	M1	Q1	Q1	V1
Tokyo Platinum	JPL	Japan 3 Month Benchmark Rate	V	Z	Z	G1	G1	J1	J1	M1	M1	Q1	Q1	V1
Tokyo Gasoline	JGL	Japan 3 Month Benchmark Rate	M	N	Q	U	V	X	Z	F1	G1	H1	J1	K1
Kerosene	JKE	Japan 3 Month Benchmark Rate	M	N	Q	U	V	X	Z	F1	G1	H1	J1	K1
Rubber	JRU	Japan 3 Month Benchmark Rate	K	M	N	Q	U	V	X	Z	F1	G1	H1	J1
Crude Palm Oil	FCPO	Malaysia 3 Month Benchmark Rate	H	J	K	M	N	Q	U	V	X	Z	F1	G1
French Power (Quarterly)	F7BQ	German Bubill Rate	J	J	J	N	N	N	V	V	V	F	F	F
French Power (Yearly)	F7BY	German Bubill Rate	F	F	F	F	F	F	F	F	F	F	F	F
German Power (Quarterly)	DEBQ	German Bubill Rate	J	J	J	N	N	N	V	V	V	F	F	F
German Power (Yearly)	DEBY	German Bubill Rate	F	F	F	F	F	F	F	F	F	F	F	F
Italian Power (Quarterly)	FDBQ	German Bubill Rate	J	J	J	N	N	N	V	V	V	F	F	F
Italian Power (Yearly)	FDBY	German Bubill Rate	F	F	F	F	F	F	F	F	F	F	F	F
Spanish Power (Quarterly)	FEBQ	German Bubill Rate	J	J	J	N	N	N	V	V	V	F	F	F
Spanish Power (Yearly)	FEBY	German Bubill Rate	F	F	F	F	F	F	F	F	F	F	F	F

Calculation of Index Total Return (Example using S&P GSCI Carbon Emission Allowances)

For a funded investment, the total return between dates t-1 and t includes risk free return for the initial cash outlay:

$$IndexTotal\ Return_t = (CDR_t + RiskFreeRate_t) * (1 + RiskFreeRate_t)^{Delta}$$

where:

$Delta$ = number of non-business days since the preceding business day

The index is denominated in Euros (€), the risk-free rate used in equation above is the German Bubill rate.

$$RiskFreeRate_t = GBR_t$$

where:

GBR_t = the daily compounding German Bubill Rate, as determined by the following formula:

$$GBR_t = \left[\frac{1}{1 - \frac{91}{360} * SGBR_{t-1}} \right]^{\frac{1}{91}} - 1$$

where:

$SGBR_{t-1}$ = the simple discount rate for the generic 3-month German Bubill rate effective on the preceding business day, with the day-count conversion of ACT/360.

*For further details on total return index calculations, please refer to the **Other Derived Indices** section of S&P Dow Jones Indices' Commodity Index Mathematics Methodology.*

S&P GSCI Pre-Roll (USD) Index Family

The S&P GSCI Pre-Roll (USD) family of indices are designed to reflect the performance of the S&P GSCI, with a roll period starting on first (1st) business day and ending on the fifth (5th) business day of each calendar month.

S&P GSCI Enhanced Commodity Index Family

The index measures the total return performance of the S&P GSCI but uses a different roll schedule. In addition, the index applies certain dynamic, timing, and seasonal rolling rules specific commodity components of the S&P GSCI. Although the index includes the same futures contracts as the S&P GSCI, the contract months will vary, and the returns and values will differ from the S&P GSCI. The five-day roll begins on the first business day of the month, and the closing futures prices on the third to last business day of the prior month are used to determine the dynamic roll check.

Most of the S&P GSCI futures contracts in the S&P GSCI Enhanced Index follow the normal schedule with the following exceptions:

- For WTI crude oil, during the roll in the contract determination months of January through June, if the contango between the first and second contract month is more than 0.50%, the contracts will roll to the current year's December contracts. During the roll in the contract determination months of July through December, if the contango between the first and second contract month is more than 0.50%, the contracts will roll to the next year's December contracts.
- For Brent crude oil, during the roll in the contract determination months of January through June, if the contango between the second and third contract month is more than 0.50%, the contracts will roll to the current year's December contracts. During the roll in the contract determination

months of July through December, if the contango between the second and third contract month is more than 0.50%, the contracts will roll to the next year's December contracts.

- Heating oil is rolled only to the December contract annually (during the November roll period).
- Natural gas is rolled only to the January contract annually (during the December roll period).
- Chicago Wheat is rolled only to the December contract annually (during the November roll period).
- Corn is rolled only to the July contract annually (during the May roll period).
- Lean Hogs are rolled only to the April and August contracts semi-annually (April during the July roll, and August during the March roll).
- Live Cattle is rolled only to the April and October contracts semi-annually (April during the September roll and October during the March roll).

The contango percentage is determined as follows:

$$C = \frac{Price_{m+1}}{Price_m} - 1$$

where:

C = Contango percentage.

$Price_{m+1}$ = Settlement price for WTI Crude Oil (2nd contract month) or Brent Crude Oil (3rd contract month).

$Price_m$ = Settlement price for WTI Crude Oil (1st contract month) or Brent Crude Oil (2nd contract month).

Table 9 identifies the contracts included in the S&P GSCI Enhanced Index that have specifically different Designated Contract Expirations than the S&P GSCI:

Table 9

		Designated Contract Expirations at Month Begin ⁽¹⁾													
Trading Facility	Commodity (Contract)	Ticker	1	2	3	4	5	6	7	8	9	10	11	12	
CBOT	Wheat (Chicago)	W	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z+1	
CBOT	Corn	C	N	N	N	N	N	N+1	N+1	N+1	N+1	N+1	N+1	N+1	
CME	Lean Hogs	LH	J	J	J	Q	Q	Q	Q	J	J	J	J	J	
CME	Cattle (Live)	LC	J	J	J	V	V	V	V	V	V	J	J	J	
NYM	Oil (#2 Heating)	HO	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z+1	
ICE	Natural Gas	NG	F+1	F+1	F+1	F+1	F+1	F+1	F+1	F+1	F+1	F+1	F+1	F+1	

(1) Future Months included in the Enhanced Strategy Index at the beginning of each calendar month.

S&P GSCI Multiple Contract Index Family

The S&P GSCI Multiple Contract Index is a version of the S&P GSCI that holds multiple contract months for each of the S&P GSCI commodities. Contract Production Weights (CPW's) are the same as the standard S&P GSCI Index, but CPW's are allocated by a fixed percentage along the futures curve including contracts beyond the front month with 55% weight in the contract months included in the base S&P GSCI Index contract, 30% in the 1-Month S&P GSCI Forward Index contract, and 15% in the 2-Month S&P GSCI Forward Index contract. The 55/30/15 percentage weights split between the assigned commodity contract months are reset daily.

The S&P GSCI Crude Oil Multiple Contract 55/30/15 1M/2M/3M (USD) Index is a version of the S&P GSCI Multiple Contract Index that holds multiple contract months for WTI Crude Oil traded on the NYMEX

Exchange. The basic framework involves a 55% weight for WTI Crude Oil futures contract months included in the 1-Month S&P GSCI Forward Index, 30% in the 2-Month S&P GSCI Forward Index and 15% in the 3-Month S&P GSCI Forward Index.

Table 10 below identifies the Contracts included in the S&P GSCI Multiple Contract Index and the S&P GSCI Crude Oil Multiple Contract 55/30/15 1M/2M/3M (USD) Index and their respective designated contract roll schedules:

Table 10: S&P GSCI Multiple Contract Index Contract Calendar

Trading Facility	Commodity Contract	Ticker Clones	Designated Contract Expirations at Month Begin											
			1	2	3	4	5	6	7	8	9	10	11	12
CBT	Chicago Wheat	W-A	H	H	K	K	N	N	U	U	Z	Z	Z	H
		W-B	H	K	K	N	N	U	U	Z	Z	Z	H	H
		W-C	K	K	N	N	U	U	Z	Z	Z	H	H	H
KBT	Kansas Wheat	KW-A	H	H	K	K	N	N	U	U	Z	Z	Z	H
		KW-B	H	K	K	N	N	U	U	Z	Z	Z	H	H
		KW-C	K	K	N	N	U	U	Z	Z	Z	H	H	H
CBT	Corn	C-A	H	H	K	K	N	N	U	U	Z	Z	Z	H
		C-B	H	K	K	N	N	U	U	Z	Z	Z	H	H
		C-C	K	K	N	N	U	U	Z	Z	Z	H	H	H
CBT	Soybeans	S-A	H	H	K	K	N	N	X	X	X	X	F	F
		S-B	H	K	K	N	N	X	X	X	X	F	F	H
		S-C	K	K	N	N	X	X	X	X	F	F	H	H
ICE – US	Coffee	KC-A	H	H	K	K	N	N	U	U	Z	Z	Z	H
		KC-B	H	K	K	N	N	U	U	Z	Z	Z	H	H
		KC-C	K	K	N	N	U	U	Z	Z	Z	H	H	H
ICE – US	Sugar	SB-A	H	H	K	K	N	N	V	V	V	H	H	H
		SB-B	H	K	K	N	N	V	V	V	H	H	H	H
		SB-C	K	K	N	N	V	V	V	H	H	H	H	H
ICE – US	Cocoa	CC-A	H	H	K	K	N	N	U	U	Z	Z	Z	H
		CC-B	H	K	K	N	N	U	U	Z	Z	Z	H	H
		CC-C	K	K	N	N	U	U	Z	Z	Z	H	H	H
ICE – US	Cotton	CT-A	H	H	K	K	N	N	Z	Z	Z	Z	Z	H
		CT-B	H	K	K	N	N	Z	Z	Z	Z	Z	H	H
		CT-C	K	K	N	N	Z	Z	Z	Z	Z	H	H	H
CME	Lean Hogs	LH-A	G	J	J	M	M	Q	Q	V	V	Z	Z	G
		LH-B	J	J	M	M	N	Q	V	V	Z	Z	G	G
		LH-C	J	M	M	N	Q	V	V	Z	Z	G	G	J
CME	Live Cattle	LC-A	G	J	J	M	M	Q	Q	V	V	Z	Z	G
		LC-B	J	J	M	M	Q	Q	V	V	Z	Z	G	G
		LC-C	J	M	M	Q	Q	V	V	Z	Z	G	G	J
CME	Feeder Cattle	FC-A	H	H	J	K	Q	Q	Q	U	V	X	F	F
		FC-B	H	J	K	Q	Q	Q	U	V	X	F	F	H
		FC-C	J	K	Q	Q	Q	U	V	X	F	F	H	H
NYM	Crude Oil	CL-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		CL-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		CL-C	J	K	M	N	Q	U	V	X	Z	F	G	H
NYM	Heating Oil	HO-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		HO-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		HO-C	J	K	M	N	Q	U	V	X	Z	F	G	H
NYM	Gasoline	RB-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		RB-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		RB-C	J	K	M	N	Q	U	V	X	Z	F	G	H
ICE – UK	Brent Crude Oil	LCO-A	H	J	K	M	N	Q	U	V	X	Z	F	G
		LCO-B	J	K	M	N	Q	U	V	X	Z	F	G	H
		LCO-C	K	M	N	Q	U	V	X	Z	F	G	H	J
ICE – UK	Gasoil	LGO-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		LGO-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		LGO-C	J	K	M	N	Q	U	V	X	Z	F	G	H
NYM / ICE	Natural Gas	NG-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		NG-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		NG-C	J	K	M	N	Q	U	V	X	Z	F	G	H
LME	Aluminum	MAL-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		MAL-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		MAL-C	J	K	M	N	Q	U	V	X	Z	F	G	H

Trading Facility	Commodity Contract	Ticker Clones	Designated Contract Expirations at Month Begin											
			1	2	3	4	5	6	7	8	9	10	11	12
LME	Copper	MCU-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		MCU-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		MCU-C	J	K	M	N	Q	U	V	X	Z	F	G	H
LME	Lead	MPB-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		MPB-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		MPB-C	J	K	M	N	Q	U	V	X	Z	F	G	H
LME	Nickel	MNI-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		MNO-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		MNI-C	J	K	M	N	Q	U	V	X	Z	F	G	H
LME	Zinc	MZN-A	G	H	J	K	M	N	Q	U	V	X	Z	F
		MZN-B	H	J	K	M	N	Q	U	V	X	Z	F	G
		MZN-C	J	K	M	N	Q	U	V	X	Z	F	G	H
CMX	Gold	GC-A	G	J	J	M	M	Q	Q	Z	Z	Z	Z	G
		GC-B	J	J	M	M	Q	Q	Z	Z	Z	Z	G	G
		GC-C	J	M	M	Q	Q	Z	Z	Z	Z	G	G	J
CMX	Silver	SI-A	H	H	K	K	N	N	U	U	Z	Z	Z	H
		SI-B	H	K	K	N	N	U	U	Z	Z	Z	H	H
		SI-C	K	K	N	N	U	U	Z	Z	Z	H	H	H

Table 11 identifies the Contracts included in the S&P GSCI Multiple Contract Total Return Index and their respective designated contract roll schedules:

Table 11: S&P GSCI Crude Oil Multiple Contract 55/30/15 1M/2M/3M (USD) Index Contract Calendar

Trading Facility	Commodity Contract	Ticker Clones	Designated Contract Expirations at Month Begin											
			1	2	3	4	5	6	7	8	9	10	11	12
NYM	Crude Oil	CL-A	H	J	K	M	N	Q	U	V	X	Z	F	G
		CL-B	J	K	M	N	Q	U	V	X	Z	F	G	H
		CL-C	K	M	N	Q	U	V	X	Z	F	G	H	J

S&P GSCI Crude Oil Annual Roll Index

The S&P GSCI Crude Oil Annual Roll Index measures the return from an unleveraged investment in the same rolling WTI Crude Oil future contract included in the S&P GSCI Crude Oil Index.

The index is calculated on a basis like the S&P GSCI but tracks the performance of the December futures contract, which is rolled annually during the October roll period, from the 1st business day to the 5th business day.

Trading Facility	Commodity (Contract)	Ticker	Designated Contract Expirations at Month Begin ⁽¹⁾												
			1	2	3	4	5	6	7	8	9	10	11	12	
NYM	Crude Oil	CL	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z+1	Z+1	Z+1

S&P GSCI Cash Copper Index

The S&P GSCI Cash Copper Index seeks to measure the performance of investment in physical copper (net of storage costs) and is based on the London Metals Exchange (LME) Official Settlement Price (Cash Offer) for Copper. The cost of storage is computed annually based on the average rent levied by the warehouses approved by the LME. The annual average cost is applied to the daily calculation of the index.

The index is calculated daily on all days when the LME is open for business by valuing the holding of physical copper, after considering the daily rent associated with storing the metal in a warehouse approved by the LME. To ensure the wide applicability of the index, country-specific costs, such as physical premia, insurance, and freight (including free-on-truck rates), are expressly excluded.

The Average Storage Cost represents the average daily charge of LME-approved warehouses for the storage of Copper in US\$. Its computation is based on information published on the LME Web site: www.lme.com.

- **On day t , the Average Storage Cost (ASC_t) is determined as follows:**

$$ASC_t = \frac{\sum_{n=1}^N WR_t}{100N}$$

where:

ASC_t = Average Storage Cost on day t , in US\$ per metric tonne per day

WR_t = Warehousing rent for each storage facility, in US¢ per metric tonne per day

N = Total number of LME-approved warehouses for which storage cost information is published

The Average Storage Cost is a fixed rate, expressed in US\$ per metric tonne per day and generally applies for an entire calendar year, which runs from April 1st through March 31st each year.

It should be noted that where the rent of a particular LME-approved warehouse is not published, it is not included in the cost calculation; and where the same rent is applicable for multiple storage facilities but is not reported separately by the LME, it is only used once in the average calculation. The Average Storage Cost is incurred daily whether it is an LME business day.

- **On any trading day (t), the cash copper return is calculated as follows:**

$$R_t = \frac{\text{Copper Holding}_t}{\text{Copper Holding}_{t-1}} - 1$$

where:

R_t = The cash copper return on trading day t

Copper Holding_t = The value of the physical copper holding (net of storage costs) on trading day t , in US\$ per metric ton ($LME\ Copper_t - Storage\ Costs$)

$\text{Copper Holding}_{t-1}$ = The value of the physical copper holding (net of storage costs) on the previous trading day, in US\$ per metric ton

$LME\ Copper_t$ = The LME Official Settlement Price (Cash Offer) for copper on trading day t , in US\$ per metric ton

On LME trading days, storage costs are defined as the Average Storage Cost (ASC_t) on that trading day. On non-LME trading days, storage costs are defined as the cumulative amount of the Average Storage Cost (ASC_t) over the entire non-trading period and are applied on the first trading day following that period.

- **On any trading day (t), the index level is calculated as follows:**

$$Index_t = Index_{t-1} * (1 + R_t)$$

where:

$Index_t$ = The index level on trading day t

$Index_{t-1}$ = The index level on the previous trading day

S&P GSCI Agriculture Brazil Export (USD)

The index is a futures index reflecting the relative importance of agricultural commodities to the Brazilian economy. The component futures contracts eligible for inclusion are as follows: Corn, Cocoa, Cotton #2, Coffee, Soybeans, Sugar #11, Chicago Wheat, and Soybean Meal. The contracts are weighted based on average total Brazilian Free on Board (FOB) export value during the preceding two years, as published by Secex.

For more information on Secex, please refer to their [website](#).

Underlying Futures Indices. The S&P GSCI Soybean Meal Index and the S&P GSCI Agriculture excluding Kansas Wheat Index are the two underlying futures indices. For information on the underlying indices, please refer to the S&P GSCI Methodology at www.spglobal.com/spdji.

Index Eligibility. The contracts of the underlying futures are eligible to be included into the index.

Eligibility Criteria. The individual commodity on each Underlying Future Index must represent a minimum of 1% of total Brazilian FOB export value over the last two years to be eligible for inclusion.

Constituent Weightings. At each rebalancing, the Reference Percentage Dollar Weight (RPDW), based on Brazilian agricultural exports, is utilized: as opposed to global production, which is the manner the headline S&P GSCI is weighted. Specifically, the weights for the selected agricultural commodities are the average FOB value exported in USD throughout the last two years, as published on Secex.

Index Maintenance. The Roll Schedule and Roll Calendar follow the Underlying Futures Contracts.

Rebalancing. The index rebalances annually: during the April S&P GSCI roll period and is based on the official Secex annual export FOB data available in March.

Currency of Calculation. The index calculates in Brazilian Reals and U.S. Dollars.

Exchange Rate. The BRL currency indices use the daily 4:00 PM London time WMR foreign exchange rate.

Appendix III

Methodology Changes

Methodology changes since January 1, 2015, are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Relaunch: S&P GSCI Nickel 2X Inverse Indices	05/13/2022	The index values for the S&P GSCI Nickel 2X Inverse ER (Index Code: SPGIK2IP) and S&P GSCI Nickel 2X Inverse TR (Index Code: SPGIK2IT) closed at zero on March 7, 2022.	The S&P GSCI Nickel 2X Inverse ER (Index Code: SPGIK2IP) and S&P GSCI Nickel 2X Inverse TR (Index Code: SPGIK2IT) indices relaunched on May 16, 2022, with new base dates of March 8, 2022, and base values of 100,000.
Creation of Commodity Index Mathematics Methodology	07/08/2022	Generic formulas are included in the S&P GSCI Methodology.	Generic formulas are omitted from the S&P GSCI Methodology and are instead published in one central location: the new Commodity Index Mathematics Methodology.

Appendix IV

ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY²	
1.	Name of the benchmark administrator. S&P Dow Jones Indices LLC.
2.	Underlying asset class of the ESG benchmark.³ N/A
3.	Name of the S&P Dow Jones Indices benchmark or family of benchmarks. S&P DJI Futures Indices Benchmark Statement
4.	Do any of the indices maintained by this methodology take into account ESG factors? No
Appendix latest update: January 2021	
Appendix first publication: January 2021	

² The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK [The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019].

³ The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

S&P Dow Jones Indices' Contact Information

Contact Information

For questions regarding an index, please contact: index_services@spglobal.com.

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates (“S&P DJI”) defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index’s Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company’s public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed “Date of introduction”) is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index’s public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index’s launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using “Backward Data Assumption” (or pulling back) of ESG data for the calculation of back-tested historical performance. “Backward Data Assumption” is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as “product involvement”) were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on “Backward Data Assumption” please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific

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