

S&P Strategic Futures Index *Methodology*

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Introduction

Overview

The S&P Strategic Futures Index (S&P SFI) reflects the long term price upward and downward trend of futures on physical commodities, interest rates, and currencies while limiting volatility. It offers transparent, rules-based exposure to momentum, both long and short, across a diversified portfolio of 24 highly liquid, global commodity & financial futures contracts, grouped into 14 sectors.

The S&P SFI follows a quantitative methodology to track the prices of the diversified portfolio. The contracts, or components, are represented individually in either a “long” or “short” position, depending on market momentum. With the ability to go long or short individual components, the S&P SFI is designed to capture the economic benefits over long periods of time derived from both rising and declining trends within a cross-section of futures markets. The index is also designed to include tradable securities that are readily accessible to market participants.

All S&P SFI component positions are determined at the component level. There is no short exemption for any component.

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.

Highlights

The key characteristics of the S&P SFI include:

- The S&P SFI is comprised of 24 component futures contracts encompassing eight financial and six commodity sectors:
 - Financials includes eight global financial futures contracts.
 - Commodities include 16 traditional physical commodity futures contracts.
- Long or short positions are determined by measuring the current component price relative to its exponential moving average.
- The weighting scheme is constructed to ensure that the risk contribution from each component is balanced, subject to the weight of each component being positive and having a cumulative weight totaling 100%. The risk contribution from each component is calculated using its covariance, as defined by its volatility and correlation with other components. Volatility is defined as the standard deviation of the daily returns of the relevant component over a one-year period and correlation is computed using daily returns over the same period.
- Component weights are reset monthly.
- Positions are rolled from the first (1st) through fifth (5th) business day of each month.

Index Family

S&P Dow Jones Indices also calculates two sub-indices representing components of the S&P SFI. Excess and total return versions are also calculated and published for each of these two market sectors.

- **S&P Strategic Futures Commodity Index.** The index reflects the physical commodity futures components of the S&P SFI.
- **S&P Strategic Financial Futures Index.** The index reflects the financial futures components of the S&P SFI.

Index Constituents and Weightings

General Eligibility Requirements

In determining the contracts for inclusion in the S&P SFI for a given year, S&P Dow Jones Indices first identifies the contracts that satisfy the general eligibility criteria set forth below. These criteria are intended only to identify contracts with characteristics that will facilitate the calculation of the S&P SFI and are consistent with the general purpose of the S&P SFI as an index consisting of tradable components. This process generally produces a substantial list of contracts eligible for inclusion in the S&P SFI, which is narrowed down through the application of the more specific criteria described below.

Physical Commodities Futures and Financial Futures. To be eligible for inclusion in the S&P SFI, a contract must be for a physical commodity or a financial instrument. Contracts on a short-term interest rate (STIR) or an equity index are ineligible. The contracts need not require physical delivery by their terms in order for a commodity to be considered a physical commodity.

The S&P SFI is intended, in part, to measure the performance of specific physical commodities and financial markets, and to correlate with general price movements in the world economy. The limitation to contracts on physicals and specific financials, and the exclusion of contracts on interest rate and equity indices, serves to limit the eligible universe to those contracts on commodities that are the subject of production or distribution processes in the world economy, and that have a direct effect on price levels and inflation.

Certain Contract Characteristics. In order for a contract to be eligible for inclusion in the S&P SFI, 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 SFI that, at any given point in time, will be involved in the rolls to be effected in the next three roll periods.

The requirements set forth in this section reflect the fact that some of the products, from time to time, traded on or through trading facilities, in particular certain electronic platforms, may not display traditional characteristics of a futures contract, such as particular contract months. While it is not necessary for a contract expiration to be expressed as a calendar month, the S&P SFI and its underlying methodology are premised upon the existence of specified dates or time periods for delivery or settlement. It is assumed that contracts traded on contract markets, exempt electronic trading facilities, derivatives transaction execution facilities, exempt boards of trade and foreign boards of trade (as such terms are defined in the U.S. Commodity Exchange Act and the rules and regulations promulgated there under) will generally satisfy the above requirements, unless S&P Dow Jones Indices determines that such a contract does not satisfy the foregoing criteria. The requirement that the contract be available for trading at least five months prior to its expiration is designed to ensure that a genuine trading market in the contract exists prior to the time established for delivery or settlement, when trading conditions may be affected by the impending expiration of the contract. The final requirement in this section, regarding execution of spread transactions, is designed to allow market participants to affect the rolling of contracts included in the S&P SFI more efficiently.

Denomination and Geographical Requirements. To be eligible for inclusion in the S&P SFI, a 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 or interim calculation period. The first requirement facilitates the calculation and consistency of the S&P SFI, since numerous currency conversions and other adjustments would need to be made in order to accommodate contracts denominated in other currencies. The latter assures that the S&P SFI is limited to those commodities for which there are trading facilities in industrialized countries.

Availability of Daily Contract Reference Prices. For a contract to be eligible for inclusion in the S&P SFI, daily contract reference prices generally must be available on a continuous basis for at least two years prior to the proposed date of inclusion. In appropriate circumstances, S&P Dow Jones Indices may determine that a shorter time period is sufficient or that historical daily contract reference prices for a given contract may be derived from daily contract reference prices of a similar or related contract.

At and after the time a particular contract is included in the S&P SFI, the daily contract reference price for such contract must be published between 10:00 AM and 4:00 PM, Eastern Time, on each contract business day by the trading facility on or through which it is traded. The price must generally be available to all members of, or participants in, such facility (and S&P Dow Jones Indices) on the same contract business day, from the trading facility or through a recognized third-party data vendor. Such publication must include, at all times, daily contract reference prices for at least one contract expiration that is five months or more from the date the determination is made, as well as for all contract expirations during such five-month period.

The requirement that a contract have a continuous price history of at least two years is intended to ensure the reliability and availability of the prices necessary to enable S&P Dow Jones Indices to calculate the S&P SFI. In addition, in order to calculate the S&P SFI on an ongoing basis, S&P Dow Jones Indices must be able to obtain daily contract reference prices for certain contract expirations with respect to each designated contract prior to the S&P SFI settlement time on each contract business day. This requirement is intended to ensure that the value of the S&P SFI is reliably calculated on the basis of prices that are both announced and, in general, readily available to the members of, or participants in, the relevant trading facility (and S&P Dow Jones Indices).

Availability of Volume Data. For a contract to be eligible for inclusion in the S&P SFI, volume data with respect to such contract must be available from sources satisfying the criteria specified under *Sources of Information*, for at least the four years immediately preceding the date on which the determination is made.

Other Requirements with respect to the Trading Facility. The trading facility on or through which a contract is traded must: (i) make price quotations generally available to its members or participants (and to S&P Dow Jones Indices) in a manner and with a frequency that is sufficient to provide reasonably reliable indications of the level of the relevant market at any given point in time; (ii) make reliable trading volume information available to S&P Dow Jones Indices with at least the frequency required by S&P Dow Jones Indices to make the monthly determinations described under *Sources of Information*; (iii) accept bids and offers from multiple participants or price providers (i.e., it must not be a single-dealer platform); and (iv) be accessible to a sufficiently broad range of participants. Such access may be provided either by (a) the trading facility making clearing services reasonably available, thereby eliminating counterparty credit considerations, or (b) a network of brokers or dealers willing to intermediate transactions with third parties, thereby enabling such third parties to enter into transactions based on prices posted on such facility.

These requirements are intended to establish certain minimum standards for trading facilities. If trading in certain commodities is shifted to electronic platforms that are largely unregulated, or subject to different levels or types of regulation than traditional exchanges, these standards serve to ensure that the S&P SFI includes only contracts for which sufficient and reliable data and, in particular, price data developed in a competitive process are available. It is assumed that contract markets and foreign boards of trade (as such terms are defined in the U.S. Commodity Exchange Act and the rules and regulations promulgated

there under) will generally satisfy the above requirements, unless S&P Dow Jones Indices determines otherwise.

Contract Trading Hour Requirements. S&P Dow Jones Indices may exclude a contract from the S&P SFI that otherwise satisfies the criteria and conditions for inclusion if, in its reasonable judgment, such contract's overall trading window is insufficient to support the tradability of the S&P SFI taken as a whole.

This requirement is intended to support and enhance the tradability of the index components by ensuring that all designated contracts are available for trading for at least a minimum period of time.

Liquidity Requirement

The S&P SFI is limited to those contracts that are actively traded in order to assure that the prices generated by the markets for such contracts represent reliable, competitive prices. Liquidity is an indication both of the significance of a particular market and the ability to trade with minimal market impact. The contracts that satisfy the general eligibility requirements set forth in *General Eligibility Requirements* must, therefore, also satisfy the liquidity requirements described below before being included in the S&P SFI.

The total reported volume (long and short) in the previous four years is used to determine the liquidity of the futures contracts. If futures with similar underlying characteristics are traded on multiple exchanges, only the most liquid one is selected. If two contracts are closely related, only the most liquid one is selected.

Eight financial futures are selected based on the total reported volume in the previous four years. The most liquid bond futures and the most liquid note futures are selected. The six most liquid currency futures, excluding emerging market currencies, are selected. All equity index futures are excluded.

No more than 16 commodity futures are selected out of the 20 most liquid contracts. Of these, however, no more than three grain and four soft commodity futures are chosen.

Weighting Scheme

The S&P SFI takes into account the contribution of each component to the overall index risk in order to avoid concentration in any one component and to create diversification in terms of individual component risk contributions.

The aim is to determine an allocation such that the risk contribution from each constituent is balanced, subject to the weight of each constituent being positive and their cumulative weights totalling 100%.

The risk contribution from each constituent is calculated using its covariance, as defined by its volatility and correlation with other commodities. Volatility is defined as the standard deviation of the daily returns of the relevant commodity index over a one-year period and correlation is computed using daily returns over the same period.

The S&P SFI does not make inherent assumptions about the expected return of commodities, and the weighting scheme is based purely on the covariance of the different commodities.

Determination of the Risk Contribution from Each Component. The marginal risk contribution (*MRC*) is defined as the change in volatility of the overall index induced by an infinitesimal increase in the weight of a given component.

Mathematically, it can be summarized as follows:

$$MRC_i = \frac{\partial \sigma_{PORT}}{\partial \varpi_i} = \sum_{j=1}^N \varpi_j \cdot \text{COV}(r_i, r_j) = \text{COV}(r_i, r_{PORT})$$

where:

$$\frac{\partial \sigma_{PORT}}{\partial \varpi_i} = \text{Change in the volatility of the index with respect to a small change in the weight of component } i.$$

$$\text{COV}(r_i, r_j) = \text{Covariance between component } i \text{ and } j.$$

$$\text{COV}(r_i, r_{PORT}) = \text{Covariance between component } i \text{ and the entire index.}$$

The risk contribution (RC) from each component is equal to the product of its weight (ϖ) and its respective marginal risk contribution (MRC).

$$RC_i = \varpi_i \times MRC_i$$

Determination of Weights of Individual Components. The individual component weights are determined using a numerical optimization technique, with the aim of minimizing, as much as possible, the variance of the risk contributions from all of the components.

Rebalancing

Monthly Rebalancing of Component Weights. Components are rebalanced to their risk weights at the beginning of each month. The rebalancing reference date is the second to last S&P SFI business day of the month. The rebalancing is implemented over a five-day period from the first (1st) through the fifth (5th) S&P SFI business day of the month.

Monthly rebalancing helps to limit volatility. An extended component trend could overweight the S&P SFI and potentially lead to significantly higher volatility of the strategy.

Sources of Information

The following are the sources of the information used to determine the eligibility of contracts for inclusion in the S&P SFI pursuant to the requirements set forth in *General Eligibility Requirements*. If any of the sources identified below is unavailable, with respect to the determination of the S&P SFI for a particular S&P SFI year, S&P Dow Jones Indices identifies appropriate alternative sources. The composition of the S&P SFI for such year is based on such alternative sources. In addition, if S&P Dow Jones Indices believes that one or more of the sources identified below contains a manifest error, it may use an alternative source to obtain the necessary information. Any alternative source used by S&P Dow Jones Indices is publicly disclosed at the time the index composition for the next S&P SFI year is announced.

General Eligibility Requirements. The identification of those commodities that satisfy the general eligibility requirements set forth in *General Eligibility Requirements* is based on (1) the Futures Industry Association (FIA) reports that are published at the time of the relevant annual or interim calculation period, and (2) the most recent version of the *Futures and Options Fact Book*, published by the Futures Industry Institute. 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.

Contract Volume and Liquidity Requirements. In order to determine whether a particular contract satisfies the volume and liquidity requirements described above, S&P Dow Jones Indices may use any available sources that it believes to be reasonably reliable including, but not limited to, data contained in the FIA reports. In the event of manifest error, S&P Dow Jones Indices may supplement, and make corrections to, any such data.

Index Construction

Overview of the Index Construction

The S&P SFI is designed to capture both upward and downward price trends while moderating overall volatility. Components of the strategy are chosen based on fundamental characteristics and the liquidity needed for an investable model.

Position Determination

- **Long positions** are tracked when a component's current price input is greater than or equal to the exponential average of the past seven price inputs.
- **Short positions** are tracked when a component's current price input is less than the exponential average of the past seven price inputs.

The position is determined on the second to last S&P SFI business day of the month (defined as the position determination date, or PDD) when the monthly percentage change of a component's price is compared to past monthly price changes, and the position is exponentially weighted to give greater weight to the most recent return and less weight to the return seven months prior. See *Appendix I* for details regarding the exponential average. The weighted sum of the percentage changes of all the component prices equals the daily movement of the index.

The trade activity period (TAP) is the five S&P SFI business day period when the positions are executed from the first (1st) through the fifth (5th) S&P SFI business days of the month.

The roll rules and procedures followed are those as specified in the *S&P GSCI Methodology*, sections VI.2 (b), VI.2 (c) and VI.2 (d).

Commodity Components Roll Strategy

All long S&P SFI commodity component positions are rolled based on the standard Enhanced roll strategy, and all short S&P SFI commodity component positions are rolled based on the S&P GSCI roll strategy.

Index Maintenance

Contract Rolls

The S&P SFI is a strategy index designed to capture futures contract price trends, since futures contracts expire, the components must roll into the “next” contract to maintain continuity in the calculation of the index.

Currently, each contract has three to four roll periods each year and its own contract calendar based on historical liquidity. Below are the rules for rolling futures contracts in the index.

- The non-currency component contracts are rolled from the current contract to the next contract beginning with the TAP for the month that is two months prior to the current contract maturity.
- The currency contracts are rolled from the current contract to the next maturing futures contract four times per year as of the first TAP for the month prior to the contract’s final maturity month.

Most of the S&P GSCI[®] futures contracts in the S&P SFI follow the normal schedule with the following exceptions:

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

Chart 4 - Active contract schedule used for price inputs of the index

Contract Name	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Soybeans	H	K	K	N	N	X	X	X	X	F	F	H
Coffee	H	K	K	N	N	U	U	Z	Z	Z	H	H
Sugar	H	K	K	N	N	V	V	V	H	H	H	H
Cocoa	H	K	K	N	N	U	U	Z	Z	Z	H	H
Cotton	H	K	K	N	N	Z	Z	Z	Z	Z	H	H
RBOB Gasoline	H	J	K	M	N	Q	U	V	X	Z	F	G
Copper	H	K	K	N	N	U	U	Z	Z	Z	H	H
Gold	J	J	M	M	Q	Q	Z	Z	Z	Z	G	G
Silver	H	K	K	N	N	U	U	Z	Z	Z	H	H
Australian Dollar	H	H	M	M	M	U	U	U	Z	Z	Z	H
British Pound	H	H	M	M	M	U	U	U	Z	Z	Z	H
Canadian Dollar	H	H	M	M	M	U	U	U	Z	Z	Z	H
Euro	H	H	M	M	M	U	U	U	Z	Z	Z	H
Japanese Yen	H	H	M	M	M	U	U	U	Z	Z	Z	H
Swiss Franc	H	H	M	M	M	U	U	U	Z	Z	Z	H
U.S. Treasury Bond	H	M	M	M	U	U	U	Z	Z	Z	H	H
U.S. Treasury Note	H	M	M	M	U	U	U	Z	Z	Z	H	H

Chart 5 – Month Letter Codes

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

The risk of aberrational liquidity or pricing around the maturity date of a commodity futures contract is greater than in the case of cash-settled futures contracts because (among other factors) a number of market participants take delivery of the underlying commodities. Spot markets in commodities occasionally have delivery problems related to, for example, weather conditions disrupting transportation of cattle to a delivery point. Such a delay could cause the spot market to skyrocket, while latter-dated futures contracts are little changed. The strategy avoids delivery issues by owning contracts that are outside of nearby delivery.

Chart 6 – Commodities, Contract Codes, and Exchanges

Reuters Code	Bloomberg Code	Currency & Commodities Contracts	Exchange
AD	AD	Australian Dollar	Chicago Mercantile Exchange
BP	BP	British Pound	Chicago Mercantile Exchange
C	C	Corn	Chicago Board Of Trade
CC	CC	Cocoa	Intercontinental Exchange - US
CD	CD	Canadian Dollar	Chicago Mercantile Exchange
CL	CL	WTI Crude Oil	NYMEX
CT	CT	Cotton #2	Intercontinental Exchange - US
GC	GC	Gold	NYMEX
HG	HG	Copper	NYMEX
HO	HO	Heating Oil	NYMEX
JY	JY	Japanese Yen	Chicago Mercantile Exchange
KC	KC	Coffee 'C'	Intercontinental Exchange - US
LC	LC	Live Cattle	Chicago Mercantile Exchange
LH	LH	Lean Hogs	Chicago Mercantile Exchange
NG	NG	Natural Gas	NYMEX
RB	XB	RBOB Gasoline	NYMEX
S	S	Soybeans	Chicago Board Of Trade
SB	SB	Sugar #11	Intercontinental Exchange - US
SF	SF	Swiss Franc	Chicago Mercantile Exchange
SI	SI	Silver	NYMEX
TY	TY	US 10 Year Note	Chicago Board Of Trade
URO	EU	Euro	Chicago Mercantile Exchange
US	US	US Long Bond	Chicago Board Of Trade
W	W	Chicago Wheat	Chicago Board Of Trade

Index Calculation

Daily Calculation

Spot Calculation. On a given business day, d , the spot price ($SPOT$) of the index containing i number of Components/Commodities (c) is calculated as follows:

$$SPOT_d = \frac{\left(\sum_{c=1}^i TDW1 + SC1 \right)}{NC_{old}} + \frac{\left(\sum_{c=1}^i TDW2 + SC2 \right)}{NC_{new}}$$

where:

$\sum_{c=1}^i TDW1$ = The sum of the total dollar weight (TDW) of each component's (c 's) current contract.

$\sum_{c=1}^i TDW2$ = The sum of the TDW of each component (c 's) next contract.

$SC1$ = The short component effective during the prior month, expressed in the same terms as contract production weights ($CPWs$).

$SC2$ = The short component effective in the current month, expressed in the same terms as $CPWs$.

NC_{old} = Normalizing constant effective during the prior month.

NC_{new} = Normalizing constant effective during the current month.

The short component (SC) is allocated to the amount of weight remaining in the index after the weight of each component has been defined based on the long and short positions and their respective percentage weights. Adding the weight of the short component to the sum of the component weights results in the weight of the index totaling to 100%.

The short component is calculated as follows:

$$SC = \left(1 - \sum \text{ComponentWeights} \right) * 1000$$

Total Dollar Weight Calculation. On any day, d , the total dollar weight (TDW) for commodity c is the product of its contract production weight, contract roll weight and daily contract price for the current and next contracts, respectively.

$$TDW_{c_d} = CPW_{c_d} * CRW_{c_d} * DCRP_{c_d}$$

where:

TDW_{c_d} = Total dollar weight for commodity c on day d .

CPW_{c_d} = Contract production weight for commodity c set on the first business day of the month.

CRW_{c_d} = Contract roll weights for commodity c on day d .

$DCRP_{c_d}$ = Daily contract price for commodity c on day d .

Contract Production Weights (CPWs). These are determined on the last business day of the month. The CPW value is calculated as follows:

$$CPW = \frac{\text{ComponentWeight}}{DCRP_d * 1000}$$

Contract Roll Weights Logic. On a given non-roll day, $CRW1 = 1$ and $CRW2 = 0$

During the roll period the CRW value is computed as follows:

For the S&P SFI, the number of roll days is five (5).

$$CRW = \frac{100\%}{\text{number of roll days}} = 20\%$$

Since the number of roll days is five, 20% of its components roll in and out daily, keeping the aggregate component weights at 100%.

Days	CRW1	CRW2
1	0.8	0.2
2	0.6	0.4
3	0.4	0.6
4	0.2	0.8
5	0	1

The S&P SFI holds the roll for two (2) days after its completion, so the *CRW1* value during the roll hold days is 0 and the *CRW2* value is 1.

Normalizing Constant

$$NC_{new} = NC_{old} * \frac{\sum (CPW_{new} * DCRP1_d + CPW_{new} * DCRP2_d) + SC1}{\sum (CPW_{old} * DCRP1_d + CPW_{old} * DCRP2_d) + SC2}$$

where:

- CPW_{new} = This month's contract production weight.
- CPW_{old} = Last month's contract production weight.
- $SC1$ = The short component effective during the last month.
- $SC2$ = The short component effective in the current month.
- $DCRP1_d$ = Current contract price on day d .
- $DCRP2_d$ = Next contract price on day d .
- NC_{old} = Normalizing constant effective as of the last month.

Excess Return Calculation. On any business day, the S&P SFI Excess Return (ER) index level is equal to the product of the S&P SFI ER index level on the immediately preceding S&P SFI business day multiplied by one plus the contract daily return as of that day. The index is calculated to a seven (7) digit precision.

$$ER_d = ER_{d-1} * [1 + CDR_d]$$

where:

- ER_d = Excess return value for business day d .
- ER_{d-1} = Excess return value as of the immediate preceding business day.
- CDR_d = Contract daily return of the index.

Contract Daily Return Calculation. The contract daily return (*CDR*) on any business day, *d*, is equal to the ratio obtained by dividing the total dollar weight obtained by the total dollar weight invested on the immediately preceding business day, minus one.

$$CDR_d = \frac{TDWO_d}{TDWI_d} - 1$$

where:

TDWO_d = The total dollar weight obtained for business day *d*.

TDWI_d = The total dollar weight invested as of the immediate preceding business day.

Total Dollar Weight Obtained. On any given day, *d*, the total dollar weight obtained (*TDWO*) is the amount obtained from an investment on the immediately preceding day. The *TDWO* for a given day is calculated using the component weights and contract roll weights in effect on the immediately preceding day, *d-1*, and the daily contract reference prices used to calculate the S&P SFI Index on day *d*.

$$TDWO_d = \frac{NC_{new}}{NC_{old}} * \left[\left(\sum_{c=1}^i (CPW_{new_d} * CRW1_{d-1} * DCRP1_d) + SC1 * CRW1_{d-1} \right) + \left(\sum_{c=1}^i (CPW_{new_d} * CRW2_{d-1} * DCRP2_d) + SC2 * CRW2_{d-1} \right) \right]$$

where:

CPW_{new_d} = Contract production weight of the component on day *d*.

CRW1_{d-1} = The roll-out percentage of the contract roll weight on day *d-1*.

CRW2_{d-1} = The roll-in percentage of the contract roll weight on day *d-1*.

DCRP1_d = Current contract price on day *d*.

DCRP2_d = Next contract price on day *d*.

SC1 = Short component effective last month.

SC2 = Short component effective in the current month.

NC_{old} = Normalizing constant effective as of the last month.

NC_{new} = Normalizing constant effective during this month.

Total Dollar Weight Invested. On any given day, d , the total dollar weight invested ($TDWI$) is equal to the total dollar weight of the immediate preceding business day, $d-1$, and can be calculated as follows:

$$TDWI_d = \frac{NC_{new}}{NC_{old}} * \left[\left(\sum_{c=1}^i (CPW_{new_d} * CRW1_{d-1} * DCRP1_{d-1}) + SC1 * CRW1_{d-1} \right) + \left(\sum_{c=1}^i (CPW_{new_d} * CRW2_{d-1} * DCRP2_{d-1}) + SC2 * CRW2_{d-1} \right) \right]$$

where:

CPW_{new_d} = Contract production weight of the component on day d .

$CRW1_{d-1}$ = The roll-out percentage of the contract roll weight on day $d-1$.

$CRW2_{d-1}$ = The roll-in percentage of the contract roll weight on day $d-1$.

$DCRP1_d$ = Current contract price on day $d-1$.

$DCRP2_d$ = Next contract price on day $d-1$.

$SC1$ = Short component effective last month.

$SC2$ = Short component effective in the current month.

NC_{old} = Normalizing constant effective as of the last month.

NC_{new} = Normalizing constant effective during this month.

Total Return Calculation. On any given calendar day, d , the Treasury bill return (TBR) is equal to an amount determined in accordance with the following formula:

$$TBR_d = \left[\frac{1}{1 - \frac{91}{360} * TBAR_{d-1}} \right]^{1/91} - 1$$

where:

$TBAR_{d-1}$ = The three-month Treasury bill rate available on the immediately preceding business day, $d-1$.

On any business day, the value of the S&P SFI Total Return (TR) index level is equal to the product of (i) the value of the S&P SFI TR on the immediately preceding business day, (ii) one plus the sum of the contract daily return and the Treasury bill return on the day on which the calculation is made, and (iii) one plus the Treasury bill return for each non-S&P SFI business day since the immediately preceding S&P SFI business day. The result of the foregoing calculation is, then, rounded to seven (7) digits of precision.

$$SPDTITR_d = SPDTITR_{d-1} * (1 + CDR_d + TBR_d) * (1 + TBR_d)^{days}$$

where:

$SPDTITR_{d-1}$ = The previous day's S&P SFI TR index value.

CDR_d = The contract daily return on day d .

TBR_d = Treasury bill return on day d .

$Days$ = Number of non-business days since the last immediate preceding business day.

Index Data

Spot, Excess Return and Total Return Indices

In order to reflect the performance of a total return investment in commodities, the S&P SFI is available in three return types: Spot, Excess Return (ER) and Total Return (TR).

- The Spot Index (S&P SFI) is based on the price levels of the contracts included in the S&P SFI.
- The Excess Return Index (S&P SFI ER) incorporates the returns of the S&P SFI as well as the discount or premium obtained by “rolling” hypothetical positions in such contracts forward as they approach delivery.
- The Total Return Index (S&P SFI TR) incorporates the returns of the S&P SFI ER and interest earned on hypothetical fully collateralized contract positions on the commodities included in the S&P SFI.

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 SFI, and is responsible for all analytical methods and calculation of the indices. 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 the methodology 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.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Commodities Indices Policies & Practices document located on our Web site, www.spdji.com.

Index Policy

Holiday Schedule

The S&P SFI is calculated daily based on the CME Group holiday schedule. The index is calculated when the majority of the S&P SFI contracts are open for official trading and official settlement prices are provided, excluding holidays and weekends.

For information on Calculations and Pricing Disruptions, Market Disruption Events and Holidays During Roll Period, Expert Judgment, Data Hierarchy, Unexpected Exchange Closures and Error Corrections, please refer to S&P Dow Jones Indices' Commodities Indices Policies & Practices document located on our Web site, www.spdji.com.

Contact Information

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

Index Dissemination

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

Tickers

Index Name	Bloomberg	Reuters
S&P Strategic Futures Index	SPSFI	.SPSFI
S&P Strategic Futures Index ER	SPSFIP	.SPSFIP
S&P Strategic Futures Index TR	SPSFIT	.SPSFIT
S&P Strategic Commodity Futures Index	SPSCFI	.SPSCFI
S&P Strategic Commodity Futures Index ER	SPSCFIP	.SPSCFIP
S&P Strategic Commodity Futures Index TR	SPSCFIT	.SPSCFIT
S&P Strategic Financial Futures Index	SPSFFI	.SPSFFI
S&P Strategic Financial Futures Index ER	SPSFFIP	.SPSFFIP
S&P Strategic Financial Futures Index TR	SPSFFIT	.SPSFFIT

FTP

Additional daily index data is available via FTP by subscription.

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

Web site

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

Appendix I

Component Futures Contracts

The following are the futures contracts, exchanges and ticker symbols of the markets currently included in the S&P SFI. The Inclusion column indicates the first month for which the returns of the market in question could reasonably be included in the index simulations. Typically a contract is not eligible for inclusion until approximately one year after the contract begins to trade. The delay is due, in part, to the need for the contract to establish sufficient liquidity.

Futures Contract	Exchange	Symbol	Inclusion
Australian Dollar	CME	AD	February 1988
British Pound	CME	BP	January 1985
Canadian Dollar	CME	CD	January 1985
Euro (<i>replaced the German Mark</i>)	CME	EU	January 2000
German Mark	CME	DM	January 1985
Japanese Yen	CME	JY	January 1985
Swiss Franc	CME	SF	January 1985
US 10 Year Treasury Note	CBOT	TY	January 1985
US Treasury Bond	CBOT	US	January 1985

CME: Chicago Mercantile Exchange

CBOT: Chicago Board of Trade

Exponential Average Multiplier Schedule

To create an exponential average for comparison, price inputs (percentage change from current and previous six position determination dates, *PDDs*) are weighted using a multiplier per the schedule below, which is based on 1.6^0 , 1.6^1 , 1.6^2 , etc.

Number of Months	Multiplier	Weight
7	1	2.32%
6	1.6	3.71%
5	2.56	5.94%
4	4.096	9.51%
3	6.5536	15.22%
2	10.48576	24.34%
1	16.777216	38.95%
Total	43.072576	100.00%

The weight given to each month is based on its multiplier versus the accumulation of the multipliers. For example, the price seven months prior is 2.32% ($1/43.072576$), and so on. Therefore, 78.5% of the index's moving average is weighted to the price movements of the last three months, making current price movements more important than those of the more distant past.

Appendix II

Glossary

Term	Description
Active Contract	A liquid, actively traded contract with respect to a designated contract, as defined or identified by the relevant trading facility or, if no such definition or identification is provided by the trading facility, as defined by standard custom and practice in the industry.
CDR	The contract daily return.
Contract Expiration	A date or term specified by the trading facility on or through which a contract is traded as the date or term on, during or after which such contract will expire, or delivery or settlement will occur. The contract expiration may, but is not required to, be a particular contract month.
CPW	The contract production weight.
CRW	The contract roll weight.
DCRP	The daily contract reference price.
ER Index	The excess return index, which is the accretion of the contract daily return indexed to a normalized value.
NC	The normalizing constant.
Roll Period	With respect to any designated contract, the period of five business days beginning on the first (1 st) business day of each calendar month and ending on the fifth (5 th) business day of such month.
Spot Index	An index that reflects the price levels of the designated contracts and the CPW of each such contract.
TBR	The Treasury bill rate.
TDW	The total dollar weight.
TDWI	The total dollar weight invested.
TDWO	The total dollar weight obtained.
TR Index	The total return index, which incorporates the returns of the ER Index and the Treasury bill return.

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