

INDEX GUIDELINE

Gold Income Maximizer

Version 3.0

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INTRODUCTION

This document (the “**GUIDELINE**”) is to be used as a guideline with regard to the composition, calculation and maintenance of the Gold Income Maximizer Index (the “**INDEX**”). Any amendments to the rules made to the Guideline are approved by the Index Committee specified in Section 5.5. The Index is calculated, and published by Solactive AG (“**SOLACTIVE**”) assuming as the calculation agent.



1. INDEX SPECIFICATIONS

1.1. SCOPE OF THE INDEX

The INDEX is an option index which long a Physical Gold Component, covered by a rolling Gold option portfolio. The strategy is aimed at capturing the time-value premium in the rolled options.

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC
Gold Income Maximizer Index	DE000SLOA7S0	USD	ER	.GLDMAX

ER* means the Index is calculated as Excess Return.

The INDEX is published on the website of the INDEX ADMINISTRATOR (www.solactive.com) and is, in addition, available via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all of its affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute or display the INDEX via its information systems.

1.3. INDEX CHARACTERISTICS

The INDEX has the following characteristics:

Name	Rebalance Frequency	Calculation Frequently	Start Date	Initial Level
Gold Income Maximizer Index	Weekly	Daily	2011-07-26	1000

The initial level of the INDEX on the START DATE is 1000. Historical values from the LIVE DATE will be recorded in accordance with Article 8 of the BMR. Levels of the INDEX published for a period prior to the LIVE DATE have been back-tested.

1.4. PRICES AND CALCULATION FREQUENCY

The level of the INDEX is calculated and distributed once on each TRADING DAY based on 1. Gold Option SETTLEMENT PRICES AND 2. LBMA Gold PM Fixing Price on the respective EXCHANGES on which the INDEX



COMPONENTS are listed. The most recent SETTLEMENT PRICES of all INDEX COMPONENTS are used. Should there be no current SETTLEMENT PRICE available, the most recent SETTLEMENT PRICE on Intercontinental Exchange (“ICE”) for the preceding TRADING DAY is used in the calculation. The INDEX is calculated once a Business Day at 09:30pm, CET. In the event that data cannot be provided to the pricing services of Boerse Stuttgart GmbH, the INDEX cannot be distributed and is only available via the website of the INDEX ADMINISTRATOR.

1.5. LICENSING

Licenses to use the INDEX as the underlying value for financial instruments, investment funds and financial contracts may be issued to stock exchanges, banks, financial services providers and investment houses by SOLACTIVE.



2. INDEX METHODOLOGY

The Index Methodology section contains formula and methodology for determination of the Index Levels. The Methodology is set out as follows:

- Section 2.1 (Roll Mechanism) describes how the roll days are determined
- Section 2.2 (Determine Roll and Buyback options) describes how the front month options are bought back and second front month options are rolled
- Section 2.3 (Daily Index Calculation) describes the calculation of the daily index levels
- Section 2.4 (Hedge Mechanism) describes the rebalancing and calculation of the hedged levels

2.1. ROLL MECHANISM

The ROLL DAY means every Tuesday or the calculation day immediately after Monday. During the Weekly Roll, part of rolled FRONT CONTRACT is bought back and the a portion of SECOND FRONT CONTRACT will be rolled. The Contract Roll and buyback Weights of the Front Contracts are determined by number of weeks in the current FRONT MONTH CONTRACT and SECOND FRONT MONTH CONTRACT month respectively:

2.2. DETERMINE ROLL AND BUYBACK OPTIONS

Consider the Roll day t_{Roll} , the weight of roll and buyback options are determined by the following logic:

t_{Roll+n} n CALENDAR DAYS AFTER t_{Roll}

m THE NEAREST MONTH EXPIRY OF GOLD FUTURES OPTIONS IMMEDIATELY AFTER t_{Roll+7}

$m + 1$ THE SECOND NEAREST MONTH EXPIRY OF GOLD FUTURES OPTIONS IMMEDIATELY AFTER t_{Roll+7}

x NUMBER OF WEEKDAYS BETWEEN EXPIRY m AND EXPIRY $m + 1$, DIVIDED BY 5

if CALCULATION DATE t is initial date:

BUYBACK WEIGHT OF FRONT MONTH OPTION = 1

ROLL WEIGHT OF SECOND FRONT MONTH OPTION = 0

OTHERWISE:



$$\text{BUYBACK WEIGHT OF FRONT MONTH OPTION} = \frac{1}{\text{int}(x)}$$

$$\text{ROLL WEIGHT OF SECOND FRONT MONTH OPTION} = \frac{1}{\text{int}(x)}$$

The FRONT CONTRACT and the SECOND FRONT CONTRACT are selected based on the current/next month as follows:

FRONT CONTRACT:

Contract/Month	1	2	3	4	5	6	7	8	9	10	11	12
GC		G	H	J	K	M	N	Q	U	V	X	Z F+

SECOND FRONT CONTRACT:

Contract/Month	1	2	3	4	5	6	7	8	9	10	11	12
GC		H	J	K	M	N	Q	U	V	X	Z	F+ G+

A “+” defines a contract of the following year.

The following naming convention of the contracts holds:

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

2.3. DAILY INDEX CALCULATION

The level of the INDEX on any given TRADING DAY t is calculated in accordance with the following formula:

$$I_t = D_t \cdot P_t$$

where:



D_t is the index divisor on TRADING DAY t

P_t is the Portfolio value on TRADING DAY t

The index divisor is adjusted on each roll day by distributing the realized profit or loss from buying back the options:

$$D_t = \begin{cases} \frac{1000}{P_t} & , t = t_0 \\ D_{t-1} \cdot \frac{P_t + \text{RealizedPnL}_t}{P_t} & , t \text{ is a Roll day} \\ D_{t-1} & , \text{otherwise} \end{cases}$$

where:

RealizedPnL_t is the realized profit and loss from buying back options on TRADING DAY t

t_0 is the initial index date

P_t is the Portfolio value on TRADING DAY t

$$\text{RealizedPnL}_t = \begin{cases} 0 & , t = t_0 \\ (SP_{\text{Buyback},t} - RP_{\text{Buyback},t}) \cdot W_{\text{Buyback},t-1} & , t \text{ is a Roll day} \\ 0 & , \text{otherwise} \end{cases}$$

$$P_t = \sum_{i \in \text{Rolled Options}} (SP_{i,t} - RP_{i,t}) \cdot W_{i,t} + \text{Gold}_t$$

where:

$RP_{i,t}$ is the Rolled Price of Option i on TRADING DAY t

$SP_{i,t}$ is the Settlement Price of Option i on TRADING DAY t

Gold_t is the LBMA Gold PM Fixing Price on TRADING DAY t



2.4. HEDGE MECHANISM

The base currency of the index is US Dollars. This index also provides EUR and CHF unhedged reference levels, they are calculated in accordance with the following formula:

$$I_{cur,t} = I_{USD,t} \cdot FX_{USD,cur,t}$$

where:

$I_{cur,t}$ is the index level in currency cur on TRADING DAY t

$FX_{USD,cur,t}$ is WMCO Closing Spot Rate at 16:00:00 UK Time with base currency as USD and target currency cur on TRADING DAY t

On top of the unhedged level, CHF hedged level is also calculated.

Hedge Day

The Hedge DAY means the calculation day immediately after the base index roll day. During the WEEKLY HEDGE, new Spot Week crossed currencies forward contract is entered to hedge the index performance drop caused by base currency depreciation.

Hedge Index Divisor

To reflect the profit and loss on the hedging account on the index levels, a hedge index divisor HD is implanted and calculation in accordance with the following formula:

$$HD_t = \begin{cases} 1 & , t = t_0 \\ HD_{t-1} \cdot \frac{I_{USD,t} + I_{USD,w-1} \cdot HI_t}{I_{USD,t}} & , t \text{ is Hedge day} \\ HD_{t-1} & , \text{ otherwise} \end{cases}$$

where:

HI_t is the hedge impact r on TRADING DAY t

$I_{USD,w-1}$ is the base level on the calculation date immediately preceding previous hedge day

$FX_{USD,cur}$ is WMCO Closing Spot Rate at 16:00:00 UK Time with base currency as USD and target currency cur on TRADING DAY t



Hedge Impact

The Hedge Impact, expressed in percent, is calculated as follow:

$$HI_t = \frac{Hedged_{cur,w-1}}{Hedged_{cur,w}} \cdot \left(\frac{FX_{USD,cur,w.1}}{AdjFR_{USD,cur,w}} - \frac{FX_{USD,cur,w.1}}{IFR_{USD,cur,t}} \right)$$

$$AdjFR_{USD,cur,w} = FX_{USD,cur,w} + (FR_{USD,cur,w} - FX_{USD,cur,w}) \cdot \frac{DAYS_{w,w+1}}{7}$$

where:

$Hedged_{cur,w}$ is the hedged level in currency cur on previous hedge day

$AdjFR_{USD,cur,w}$ is WMCO SW Forward Rate adjusted by actual hedge length

$FR_{USD,cur,w}$ is WMCO Closing Spot Week Forward Rate at 16:00:00 UK Time with base currency as USD and target currency cur on previous hedge day

$IFR_{USD,cur,t}$ is Interpolated Forward Rate with base currency as USD and target currency cur on TRADING DAY t

The interpolated forward rates are calculated in accordance with the following formula:

$$IFR_{USD,cur,t} = FX_{USD,cur,t} + (FR_{USD,cur,t} - FX_{USD,cur,t}) \cdot \frac{DAYS_{t,w+1}}{DAYS_{w,w+1}}$$

where:

$DAYS_{t,w+1}$ is the calendar days between DAY t and next hedge day
(if t is a hedge day then $w + 1 = t$)

$DAYS_{w,w+1}$ is the calendar days between previous hedge day and next hedge day
(if t is a hedge day then $w + 1 = t$)

Hedge Level

The hedged level of the INDEX on any given TRADING DAY t is calculated in accordance with the following formula:

$$Hedged_{cur,t} = \frac{I_{USD,t}}{I_{USD,w}} + HI_t$$



3. PUBLICATION AND DISRUPTIONS

3.1. ACCURACY

The level of the INDEX will be rounded to 2 decimal places.

3.2. RECALCULATION

SOLACTIVE makes the greatest possible efforts to accurately calculate and maintain its indices. However, errors in the determination process may occur from time to time for variety reasons (internal or external) and therefore, cannot be completely ruled out. SOLACTIVE endeavors to correct all errors that have been identified within a reasonable period of time. The understanding of “a reasonable period of time” as well as the general measures to be taken are generally depending on the underlying and is specified in the Solactive Correction Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/correction-policy/>.

3.3. MARKET DISRUPTION

In periods of market stress SOLACTIVE calculates its indices following predefined and exhaustive arrangements as described in the Solactive Disruption Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/disruption-policy/>. Such market stress can arise due to a variety of reasons, but generally results in inaccurate or delayed prices for one or more INDEX COMPONENTS. The determination of the INDEX may be limited or impaired at times of illiquid or fragmented markets and market stress.



4. MISCELLANEOUS

4.1. DISCRETION

Any discretion which may need to be exercised in relation to the determination of the INDEX (for example the determination of the Index Universe (if applicable), the selection of the INDEX COMPONENTS (if applicable) or any other relevant decisions in relation to the INDEX) shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement.

4.2. METHODOLOGY REVIEW

The methodology of the INDEX is subject to regular review, at least annually. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the INDEX, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be made in accordance with the Solactive Methodology Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.

Such change in the methodology will be announced on the SOLACTIVE website under the Section “[Announcement](https://www.solactive.com/news/announcements/)”, which is available at <https://www.solactive.com/news/announcements/>. The date of the last amendment of this INDEX is contained in this GUIDELINE.

4.3. CHANGES IN CALCULATION METHOD

The application by the INDEX ADMINISTRATOR of the method described in this document is final and binding. The INDEX ADMINISTRATOR shall apply the method described above for the composition and calculation of the INDEX. However, it cannot be excluded that the market environment, supervisory, legal and financial or tax reasons may require changes to be made to this method. The INDEX ADMINISTRATOR may also make changes to the terms and conditions of the INDEX and the method applied to calculate the INDEX that it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The INDEX ADMINISTRATOR is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the INDEX ADMINISTRATOR will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

4.4. TERMINATION

SOLACTIVE makes the greatest possible efforts to ensure the resilience and continued integrity of its indices over time. Where necessary, SOLACTIVE follows a clearly defined and transparent procedure to adapt Index methodologies to changing underlying markets (see Section 5.2 “Methodology Review”) in order to maintain continued reliability and comparability of the indices. Nevertheless,



if no other options are available the orderly cessation of the INDEX may be indicated. This is usually the case when the underlying market or economic reality, which an index is set to measure or to reflect, changes substantially and in a way not foreseeable at the time of inception of the index, the index rules, and particularly the selection criteria, can no longer be applied coherently or the index is no longer used as the underlying value for financial instruments, investment funds and financial contracts.

SOLACTIVE has established and maintains clear guidelines on how to identify situations in which the cessation of an index is unavoidable, how stakeholders are to be informed and consulted and the procedures to be followed for a termination or the transition to an alternative index. Details are specified in the Solactive Termination Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/termination-policy/>.

4.5. OVERSIGHT

An oversight committee composed of staff from SOLACTIVE and its subsidiaries (the “**OVERSIGHT COMMITTEE**”) is responsible for decisions regarding any amendments to the rules of the INDEX. Any such amendment, which may result in an amendment of the GUIDELINE, must be submitted to the OVERSIGHT COMMITTEE for prior approval and will be made in compliance with the Methodology Policy, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.



5. DEFINITIONS

“FRONT CONTRACT” means the contract given in the ROLL SCHEDULE under Section 2.2.

“BENCHMARK REGULATION” shall have the meaning as defined in Section “Introduction”.

“BMR” shall have the meaning as defined in Section “Introduction”.

“CALCULATION DAY” is a day on which the New York Mercantile Exchange (NYMEX, MIC: XNYM) is open for general business.

“CLOSE OF BUSINESS” is the calculation time of the closing level of the INDEX as outlined in Section 1.4.

“CONTRACT ROLL WEIGHT” means the target weight described in the Section 2.1.

“EXCHANGE” means New York Mercantile Exchange (NYMEX).

“GUIDELINE” shall have the meaning as defined in Section “Introduction”.

“INDEX” shall have the meaning as defined in Section “Introduction”.

“INDEX ADMINISTRATOR” shall have the meaning as defined in Section “Introduction”.

“INDEX COMPONENT” is each contract currently reflected in the INDEX.

“INDEX CURRENCY” is the currency specified in the column “Currency” in the table in Section 1.2.

“LIVE DATE” is 4th December 2020.

“SECOND FRONT CONTRACT” means the contract given in the ROLL SCHEDULE under Section 2.2.

“OVERSIGHT COMMITTEE” shall have the meaning as defined in Section 5.5.

“ROLL DAY” means TRADING DAYS with rolling and buyback activities as specified in Section 2.1.

“HEDGE DAY” means TRADING DAYS with new forward contract entered as specified in Section 2.4.

“ROLL SCHEDULE” means the schedule for FRONT CONTRACT and SECOND FRONT CONTRACT Selection as defined in Section 2.2.

“SETTLEMENT PRICE” in respect of an INDEX COMPONENT and a TRADING DAY is the average price, at which an ACTIVE CONTRACT trades, calculated at the close of each TRADING DAY by the EXCHANGE.

“SOLACTIVE” shall have the meaning as defined in Section “Introduction”.

“START DATE” is 26th July 2011.

“TRADING DAY” is in respect of the INDEX and an INDEX COMPONENT a day on which the relevant EXCHANGE is open for trading (or a day that would have been such a day if a market disruption had not occurred), excluding days on which trading may be ceased prior to the normal EXCHANGE closing time. The INDEX ADMINISTRATOR is ultimately responsible as to whether a certain day is a TRADING DAY with regard to the INDEX or an INDEX COMPONENT or in any other connection relating to this document.

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