

**S&P Dow Jones
Indices**

A Division of **S&P Global**

UBS Commodity Quarterly Backwardation Select - 7 *Index Manual*



Sep 2022

Table of Contents

1) Significant Index Administration Events	3
2) Overview	3
3) Index Selection Rules	4
3.1) Index Components	4
4) Index Calculation	4
4.1) Rebalancing Process	4
4.2) Index calculation	4
4.3) Determination of Benchmarks	6
4.4) Index History	7
4.5) Rounding of Calculated Values	7
4.6) Calendar	7
5) Governance and Regulatory Compliance	7
6) Risk Factors	7
7) Construction of this Index Manual	8
8) Disclaimer, licensing and trademark	8
8.1) Disclaimers	8
8.2) Licensing and Trademark	9
9) Further Information	9
A) Schedule of Investment Contracts	10
B) Schedule of Basis Reference Contracts	11
C) Unit Factors	12
D) Glossary	13

1) Significant Index Administration Events

Date	Index Administration Event
July 2016	IHS Markit Index Administration Start Date
Refer to Table 1: Index Overview	Index Commencement Date
Refer to Table 1: Index Overview	Index Base Date

2) Overview

Objective of the Index

The UBS Commodity Quarterly Backwardation Select - 7 Index (the **Index**) aims to replicate the returns of a long position in a basket of commodity futures selected from the Energy, Softs, Precious and Industrial Metals sectors (the **Sectors**).

Index methodology

The Index is calculated as a basket of commodity futures. The allocations for each commodity are determined on the fourth **Index Business Day** of each quarter (the **Weight Determination Date**) during the months of January, April, July, and October, taking effect on the immediately following Index Business Day (the **Rebalance Date**). The Index universe consists of 18 commodity futures (the **Index Components**) from the Sectors listed in [Table 2: Quarterly Schedule of Investment Contracts](#) and [Table 3: Quarterly Schedule of Basis Reference Contracts](#) and as further described in [Section 4.2\) — Index calculation](#). Each quarter, the Index selects commodity futures based on the calculation of each commodity's **Backwardation** and ranking of these metrics. The top seven commodities with the highest Backwardation, subject to Sector constraints as described in [Section 4.2\) — Index calculation](#), are selected for inclusion for the subsequent quarter, applying weightings to each commodity relative to their rank (for the avoidance of doubt, in the event of no or insufficient commodities in Backwardation, the commodities are ranked relative to Backwardation, thus the Sector constraints are not enforced). The commodity futures contracts roll on the Rebalance Date according to the schedule defined in [Table 2: Quarterly Schedule of Investment Contracts](#).

The initial level of the Index (the **Index Base Level**) and corresponding base date (the **Index Base Date**) are as follows:

Table 1: Index Overview

Index Name	Index Base Currency	Bloomberg Ticker	Reuters Code	Index Commencement Date	Index Base Date	Index Base Level	Index Base Rounding (d.p.)
UBS Commodity Quarterly Backwardation Select - 7 Index	USD	MBCIT307	UBSIT307=UBSL	4 December 2014	31 December 2007	100.00	4

3) Index Selection Rules

Please refer to Section 2 – *UBS Commodity Quarterly Backwardation Select - 7* – Overview above

3.1) Index Components

Determination of the value of each Index Component: The Index comprises of the underlying commodities futures contracts as listed in [Table 2: Quarterly Schedule of Investment Contracts](#) and selected in accordance with [Section 4.2\) — Index calculation](#). The value of each Index Component is determined using the published levels from the Exchanges.

4) Index Calculation

4.1) Rebalancing Process

The Index is rebalanced and rolled on each relevant Rebalance Date during the months of January, April, July and October. Please refer to [Section 4.2\) — Index calculation](#) below for details.

For clarity, if an underlying commodity is on holiday during a rebalance, it should be treated using the same methodology as the **BCOM** as further described in the **Bloomberg Commodity Index Methodology** as amended from time to time and as published on the **BCOM Website**. Please refer to Section 4.2 – Index Calculation for further details.

4.2) Index calculation

The Index is calculated as a basket of commodity futures. The allocation for each commodity is determined by the calculation of a Backwardation metric (see *Normalised Basis Calculation* below). The metric is a measure of the basis between the contracts at the front end of the curve and the point at which a potential investment is to be made (such contracts to be referred to as the **Basis Reference Contract** and the **Investment Contract**, respectively). The top seven commodities when ranked by **Normalised Basis** are then, subject to further Sector allocation constraints, given equal weighting (the **Commodity Target Weight**). This determination is carried out on the fourth Index Business Day of each quarter and the Index rebalances into the new Commodity Target Weights and Investment Contracts applicable to that quarter on the close of the fourth Index Business Day.

The 18 commodities eligible for inclusion and their quarterly Investment Contracts are given in [Table 2: Quarterly Schedule of Investment Contracts](#). The Basis Reference Contracts are given in [Table 3: Quarterly Schedule of Basis Reference Contracts](#) and the Sector constraints are laid out in the *Commodity Target Weight Determination* below.

i. Normalised Basis Calculation

After the close on the fourth Index Business Day of each quarter, $r - 1$, calculate the Normalised Basis, $B_{k,r-1}$, for each commodity k as follows:

$$B_{k,r-1} = \left(\frac{P_{k,r-1}}{P_{k,r-1}^N} - 1 \right) \times \frac{11}{M_{k,r}}$$

Where:

$Pb_{k,r-1}$	is the Exchange Settlement Price of the Basis Reference Contract for commodity k on the Index Business Day prior to r, such contract being the contract expiry given in Table 3: Quarterly Schedule of Basis Reference Contracts for the month of r.
$Pi^N_{k,r-1}$	is the Exchange Settlement Price of the Investment Next Contract for commodity k on the Index Business Day prior to r, such contract being the contract expiry given in Table 2: Quarterly Schedule of Investment Contracts for the calendar quarter following the calendar quarter of r, e.g., if r is in the 2nd quarter (April, May, June), then the Investment Contract would be from the 3rd calendar quarter defined in the schedule.
$M_{k,r}$	is the number of calendar months from and excluding the expiration month of the Basis Reference Contract to and including the expiration month of the Investment Contract for commodity k, such contracts being respectively associated with the month of r. Commodities listed on the LME use the last trading date instead of the expiration date - see Table 3: Quarterly Schedule of Basis Reference Contracts for specific commodities.

ii. Commodity Target Weight Determination

The commodities are ranked by their Normalised Basis, with those with the highest $B_{k,r-1}$ receiving the highest rank. The seven highest-ranked commodities are selected, subject to the following diversification constraints:

- No more than two commodities from each of the Softs and Precious Metal Sectors; and
- No more than four commodities from each of the Energy and Industrial Metal Sectors.

The selected commodities are assigned equitable Commodity Target Weights:

$$W_{k,r-1} = w$$

Where for commodity k with the following ranks:

$$\begin{cases} 1st - 7th; w = 1/7 \\ Others ; w = 0 \end{cases}$$

iii. Commodity Index Multipliers

The determination of the **Commodity Index Multipliers** (CIMs) on day r is given by the following formula:

$$CIM_{k,r} = \frac{W_{k,r-1}}{Pi^N_{k,r} \times f_k} \times 1000$$

Where:

$CIM_{k,r}$	is the Commodity Index Multiplier for commodity k calculated on r.
$Pi^N_{k,r}$	is the Exchange Settlement Price of the Investment Next Contract for commodity k on day r, such contract being the contract expiry given in Table 2: Quarterly Schedule of Investment Contracts for the calendar quarter following the calendar quarter of r, e.g., if r is in the 2nd quarter (April, May, June), then the Investment Contract would be from the 3rd calendar quarter defined in the schedule.
f_k	is the Unit Factor applied to the prices for commodity k as defined in Table 4: Price Unit Factors .

iv. Calculate the Weighted Average Value "WAV"

$$WAV^A_{k,t} = CIM_{k,r} \times (Pi^N_{k,t} \times f_k)$$

On Index Roll Day:

$$WAV^2_{k,t} = W_{k,t-1} \times 1000$$

On any other Index Business Days:

$$WAV^2_{k,t} = WAV^1_{k,t-1}$$

Where:

$WAV^1_{k,t}$ is the **Weighted Average Value** for commodity k on day t using the Investment Next Contract.

$WAV^2_{k,t}$ On Index Roll Day, the selected commodity k is proportionately reset to 1000.
On any other Index Business Day, the Weighted Average Value for commodity k on day t is based on $WAV^1_{k,t-1}$.

$P^N_{k,t}$ is the Exchange Settlement Price of the Investment Next Contract, as defined in [Table 2: Quarterly Schedule of Investment Contracts](#) for the following calendar quarter after the calendar quarter of t (effective until the Rebalance Date), on day t.

v. Calculate the Index Level

On Index Business Day t:

$$Index_t = Index_{t-1} \times \frac{WAV^1_t}{WAV^2_t}$$

Where:

$Index_{t-1}$ is the Index Level of the previous Index Business Day.

$WAV^1_t = \sum_{k=1}^z WAV^1_{k,t}$ is the sum of all individual commodity WAV^1 on day t.

$WAV^2_t = \sum_{k=1}^z WAV^2_{k,t}$ the sum of all individual commodity WAV^2 on day t.

$$z = 18$$

4.3) Determination of Benchmarks

Please refer to 4.1 – Rebalancing Process and 4.2 – Index Calculation above.

4.4) Index History

As limited historical performance data exist with respect to the Indices, any notional investment in the Indices may involve greater risk than a notional investment in indices or strategies with a proven track record. Each Index will be first calculated on or around the **Index Commencement Date**. All such retrospective closing levels are simulated based on quantitative screening only. They must be considered hypothetical and illustrative only.

The actual performance of the Indices may be materially different from the results presented in any simulated history relating to such Indices. Past performance should not be considered indicative of future performance.

4.5) Rounding of Calculated Values

The Index Level published by the Index Administrator shall be rounded to four decimal places. As of April 27, 2018, the Index Level will be rounded to eight decimal places and the CIM rounded to sixteen decimal places. The rounding convention applied is “half away from zero”.

4.6) Calendar

The Index Level will be calculated on each Index Business Day, defined as any day which is a Business Day in both London and New York. Subsequent target publication time will be 7 a.m. London time after the relevant Index Business Day. On any day where the Index Level is not calculated (for example, on a Disrupted Day), no Index Level will be published in respect of such day, subject to the provisions set out in [Section 5\) — Governance and Regulatory Compliance](#).

5) Governance and Regulatory Compliance

IHS Markit Benchmark Administration Limited (IMBA UK) is the Index Administrator of the Indices. Information on IMBA UK's governance and compliance approach can be found [here](#). This document covers:

- Governance arrangements, including external committees
- Input data integrity
- Conflicts of interest management
- Market disruption and Force Majeure
- Methodology changes and cessations
- Complaints
- Errors and restatements
- Reporting of infringements and misconduct
- Methodology reviews
- Business continuity

Further information about IMBA UK can be found on the [Index Administrator's website](#)

6) Risk Factors

IHS Markit operates as Index Administrator and is independent of the **Index Owner**. IHS Markit does not act as an investment adviser nor provides advice of any nature and therefore does not assume any

fiduciary obligation to any **Index Product Investors** buying, selling, entering into or holding products linked to the Index.

For any further information about risk factors, refer to the **Index Owner** website: www.ubs.com/index-risk-factors.

7) Construction of this Index Manual

The **Index Manual** is published by the Index Administrator. In the event of any inconsistency between the English language version of this Index Manual and that translated into any other language, this English version shall prevail.

8) Disclaimer, licensing and trademark

8.1) Disclaimers

No legal relationship (whether in contract, tort, or otherwise) exists between any Index Product Investors and the Index Administrator or the Index Owner and neither the Index Administrator nor the Index Owner owes any duties (whether in contract, tort, or otherwise) to any Index Product Investor. No claims, actions or legal proceedings may therefore be brought against the Index Administrator or the Index Owner in any manner whatsoever by an Index Product Investor or any other person. Neither the Index Administrator nor the Index Owner makes any representation, warranty or guarantee whatsoever, express or implied, either as to the results to be obtained as to the use of the Index or the figures or levels at which the Index stands at any particular day or otherwise. In addition, neither the Index Administrator nor the Index Owner gives any assurance regarding any modification or change in any Methodology used in calculating the Index and is under no obligation to continue the calculation, publication and dissemination of the Index. Neither the Index Administrator nor the Index Owner warrants or represents or guarantees to any person the accuracy or completeness of the Index and its computation or any information related thereto and makes no warranty or representation or guarantee of any kind whatsoever relating to the Index is given or may be implied. The process and basis of computation and compilation of the Index and the related formulae, constituent Benchmarks and factors may at any time be changed or altered by the Index Administrator. No responsibility or liability is accepted by either the Index Administrator or the Index Owner (whether for negligence or otherwise) in respect of the use of and/or reference to the Index by us or any other person in connection with securities, or for any inaccuracies, omissions, mistakes or errors in the computation of the Index (and neither the Index Administrator nor the Index Owner shall be obliged to advise any person or any Index Product Investor of any error therein) or for any economic or other loss which may be directly or indirectly sustained by any Index Product Investor or any other persons dealing with securities as a result. Any Index Product Investor or other person dealing with securities does so, therefore, in full knowledge of this disclaimer and can place no reliance whatsoever on the Index Administrator or the Index Owner. This document contains data derived as a result of back-testing of data and is provided by the Index Administrator or the Index Owner in good faith using its standard Methodology for information of this kind. The Methodology relies on proprietary models, empirical data, assumptions and such other information that the Index Administrator or the Index Owner believes to be accurate and reasonable. Neither the Index Administrator nor the Index Owner makes, however, any representation, warranty or guarantee as to the accuracy, completeness or appropriateness of such Methodology and neither the Index Administrator nor the Index Owner accepts any liability for the use of such information. Specifically, there is no assurance that other banks or brokers would derive the same results for the back-test period. Nothing in the disclaimers in this section shall exclude or limit liability to the extent such exclusion or limitation is not permitted by law or regulations to which the Index Administrator or the Index Owner is subject.

8.2) Licensing and Trademark

The mark and name of the Index is proprietary to UBS AG, London Branch, a division of UBS AG (or any successor thereto). The UBS Commodity Quarterly Backwardation Select - 7 is the trademark of UBS AG, London Branch, a division of UBS AG (or any successor thereto) and has been licensed for use by UBS AG, London Branch, a division of UBS AG (or any successor thereto) in connection with the calculation of the Index Level.

9) Further Information

For any general index enquiries, contact the Markit Index Administration support group at support@ihsmarkit.com.

Ownership: The Index Owner is UBS AG, London Branch, a division of UBS AG (or any successor thereto).

A) Schedule of Investment Contracts

Table 2: Quarterly Schedule of Investment Contracts

Sector	Commodity	Bloomberg Code	Reuters Code	Jan	Apr	Jul	Oct
Softs	Cocoa 1 (Nymex)	CC	CC	H0	N0	U0	Z0
	Cotton	CT	CT	H0	N0	Z0	H1
	Arabica Coffee	KC	KC	H0	N0	U0	Z0
Energy	Light Crude Oil	CL	CL	U0	Z0	H1	M1
	Brent Crude Oil	CO	LCO	U0	Z0	H1	M1
	NY Harbor Heating Oil	HO	HO	U0	Z0	H1	M1
	Natural Gas	NG	NG	X0	G1	K1	Q1
	Gasoil	QS	LGO	U0	Z0	H1	M1
	NY RBOB Gasoline	XB	RB	Z0	Z0	J1	M1
Industrials	High grade Aluminum	LA	MAL	U0	Z0	H1	M1
	Lead	LL	CMPB	H0	M0	U0	Z0
	Nickel	LN	MNI	U0	Z0	H1	M1
	Copper	LP	MCU	U0	Z0	H1	M1
	Tin	LT	CMSN	H0	M0	U0	Z0
	Zinc	LX	MZN	M0	U0	Z0	H1
Precious	Gold	GC	GC	G0	M0	Q0	Z0
	Platinum	PL	PL	J0	N0	V0	F1
	Silver	SI	SI	H0	N0	U0	Z0

B) Schedule of Basis Reference Contracts

Table 3: Quarterly Schedule of Basis Reference Contracts

Sector	Commodity	Bloomberg Code	Reuters Code	Jan	Apr	Jul	Oct
Softs	Cocoa 1 (Nymex)	CC	CC	H0	K0	N0	Z0
	Cotton	CT	CT	H0	K0	N0	V0
	Arabica Coffee	KC	KC	H0	K0	N0	Z0
Energy	Light Crude Oil	CL	CL	G0	K0	Q0	X0
	Brent Crude Oil	CO	LCO	H0	M0	U0	Z0
	NY Harbor Heating Oil	HO	HO	G0	K0	Q0	X0
	Natural Gas	NG	NG	G0	K0	Q0	X0
	Gasoil	QS	LGO	F0	J0	N0	V0
	NY RBOB Gasoline	XB	RB	G0	K0	Q0	X0
Industrials	High grade Aluminum	LA ¹	MAL	F0	J0	N0	V0
	Lead	LL ¹	CMPB	F0	J0	N0	V0
	Nickel	LN ¹	MNI	F0	J0	N0	V0
	Copper	LP ¹	MCU	F0	J0	N0	V0
	Tin	LT ¹	CMSN	F0	J0	N0	V0
	Zinc	LX ¹	MZN	F0	J0	N0	V0
Precious	Gold	GC	GC	G0	J0	Q0	V0
	Platinum	PL	PL	F0	J0	N0	V0
	Silver	SI	SI	F0	K0	N0	Z0

¹ Contracts traded on the LME uses the Last Trading Date instead of the Expiration Date for the Normalised Basis Calculation.

C) Unit Factors

Table 4: Price Unit Factors

Commodity	Reuters Code	Unit Factor
Cocoa 1 (Nymex)	CC	1
Cotton	CT	.01
Arabica Coffee	KC	1
Light Crude Oil	CL	1
Brent Crude Oil	LCO	1
NY Harbor Heating Oil	HO	1
Natural Gas	NG	1
Gasoil	LGO	1
NY RBOB Gasoline	RB	1
High grade Aluminum	MAL	1
Lead	CMPB	1
Nickel	MNI	1
Copper	MCU	1
Tin	CMSN	1
Zinc	MZN	1
Gold	GC	1
Platinum	PL	1
Silver	SI	1

D) Glossary

Term	Definition
Backwardation	means that for a specific commodity, the commodity futures contracts with a shorter term to expiry have a price that is higher than the commodity futures contracts with a longer time to expiry, determined in accordance with Section 4.2) — Index calculation .
Basis Reference Contract	means the contract having the expiry given in Table 3: Quarterly Schedule of Basis Reference Contracts based on the rebalance month.
BCOM	means the Bloomberg Commodity Index which is fully described in the Bloomberg Commodity Index Methodology. The Index was created in 1998 and acquired by UBS in May 2009. In 2014 UBS entered into a Commodity Index License Agreement with Bloomberg. Bloomberg, on behalf of UBS, calculates BCOM (which is calculated on an excess return basis), a total return index based on BCOM (the “BCOMTR”) and each of the related indices and Subindices described in this Methodology.
BCOM Website	means http://www.bloombergindexes.com/bloomberg-commodity-index-family .
Benchmark	has the meaning specified in the IOSCO Principles.
Bloomberg Commodity Index Methodology	means the Bloomberg Commodity Index Methodology manual as published on the BCOM. This Index Manual should be read in conjunction with the BCOM Index Methodology manual.
Bloomberg Page	means the page MBCIT307 Index on Bloomberg.
Calculation Start Date	is the date the index level was first published – outlined in Section 1 – <i>Significant Index Administration Events for the UBS Commodity Quarterly Backwardation Select - 7 Index</i> .
Commodity Index Multipliers	means the derived weights determined on the rebalance date for each commodity selected as part of the constituent basket for the period between the current rebalance date and next rebalance date.
Disrupted Day	please refer to Section 7 - <i>Index Market Disruption Events, Force Majeure Events and Potential Adjustment Events</i> .
Exchange Settlement Price	means the settlement price published by Bloomberg for each commodity referred to in Table 2: Quarterly Schedule of Investment Contracts using the Bloomberg Code defined therein.
Exchanges	means, in respect of each Index Component (or any component thereof), the exchanges, facilities or platforms on or through which trading of such Index Component (or the relevant component thereof) principally occurs, as determined by the Index Administrator.
Force Majeure Event	please refer to Section 7 - <i>Index Market Disruption Events, Force Majeure Events and Potential Adjustment Events</i> .
IHS Markit Website	means the following website: www.markit.com/Product/UBSIndices .
Index	refers to the <i>UBS Commodity Quarterly Backwardation Select - 7 Index</i> .
Index Administrator	means IHS Markit.
Index Base Date	is the date of the initial level of the index (Index Base Level) – outlined in Table 1: Index Overview of Section 2 – <i>UBS Commodity Quarterly Backwardation Select - 7 Index – Overview</i> .

Term	Definition
Index Base Level	is the initial level of the index – outlined in Table 1: Index Overview of Section 2 - <i>UBS Commodity Quarterly Backwardation Select - 7 Index - Overview</i> .
Index Business Day	means any day which is a NYMEX and LME Business Day.
Index Committee	please refer to Section 5.1 – Index Committees.
Index Component, and together Index Components	means each Underlying Future that comprises the Index, as amended, replaced or substituted from time to time.
Index Currency	means the currency in which the Index is denominated and shall be "USD".
Index Level	means the level of the Index determined in accordance with Section 4 – Index Calculation at the Valuation Time on each Index Business Day t.
Index Manual	means this document, as amended, replaced or substituted, from time to time.
Index Market Disruption Event	please refer to Section 7 - <i>Index Market Disruption Events, Force Majeure Events and Potential Adjustment Events</i> .
Index Owner	means UBS AG, London Branch, a division of UBS AG (or any successor thereto).
Index Product Investors	means the persons or entities who own contracts or financial instruments that reference a Benchmark in the Index.
Index Products	means products linked to the Index.
Investment Contract	see Investment Next Contract.
Investment Next Contract	means the contract having the expiry period longer than the Basis Reference Contract and given in Table 2: Quarterly Schedule of Investment Contracts based on the calendar quarter following the calendar quarter of the rebalance date.
IOSCO Principles	means the IOSCO Principles for Financial Benchmarks, dated July 2013.
LME	means, any day when London Metal Exchange is open for trading.
Methodology	has the meaning specified in the IOSCO Principles.
New York Business Day	means, in respect of each commodity future, any day on which the relevant New York exchanges are open.
Normalised Basis	means the commodities' backwardation calculation using the Basis Reference Contract and the Investment Contract's Exchange Settlement prices, the results of which are used to rank and select the commodities for inclusion into the Index basket constituents for next Quarter. See Section 4.2) — Index calculation for more details.
NYMEX	means, any day when New York Mercantile Exchange is open for trading.
Potential Adjustment Event	please refer to Section 7 - <i>Index Market Disruption Events, Force Majeure Events and Potential Adjustment Events</i> .
Rebalancing Date	means the close of the fourth Index Business Day of every quarter.
Reuters Page	means the page MBCIT307 on Reuters.
Sectors	means the sectors defined in Table 2: Quarterly Schedule of Investment Contracts and Table 3: Quarterly Schedule of Basis Reference Contracts that makes up the universe of possible commodities for this index.
Stakeholders	means Index Product Investors, relevant public sector entities and any other entity or person with a reasonable interest in the Index.

Term	Definition
Underlying Commodity Contract	means each contract documenting a future, option, forward, swap or other derivative transaction for each Index Component referenced by the Index, as determined by the Index Administrator.
Unit Factor	means the conversion rate to normalise all the relevant commodities' prices for this index and is specified by Table 4: Price Unit Factors .
Valuation Time	means the time when all data points used in the calculation of the Index become available.
Weight Determination Date	means the fourth Index Business Day of every quarter.
Weighted Average Value	means the Next Contract's daily price weighted by the Commodity Index Multiplier and used as part of the daily Index Level calculation. See Section 4.2) — Index calculation for more details.