



THE DIAPASON COMMODITIES INDEX®

BNP Paribas ENHANCED Manual

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The committee governing the DCI® has decided to do the following changes:

- To reflect changes in liquidity figures, the TOCOM Platinum contract will be replaced by the NYMEX Platinum contract.
- The committee has also decided to add a new rule in the Initial Weights calculation process:

The Initial Weight in year n , $IW(n)$, of a component can not exceed 2 times its Initial Weights in year $n-1$, $IW(n-1)$.

This new rule has been defined in order to limit a huge increase of each component:

So if $IW(n) \geq 2 \times IW(n-1)$ then $IW(n) = 2 \times IW(n-1)$ and the “excess weight” will be reallocated proportionally to other components

This new rule has been defined to enhance the DCI® replication.

Those changes will be implemented during the January 2010 roll period.

1. Preface

The DCI® BNP Paribas Enhanced has been set up in order to outperform the Diapason Commodities Index by using a Forward Curve Roll optimization process. This index is a replication of the DCI® to which has been added an enhancement algorithm.

The Diapason Commodities Index (“DCI®” or the “Index”) is designed to provide a broad yet liquid representation of large, mid and small commodity futures inside the Organization for Economic Co-operation and Development. The OECD region covers exchanges in Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea (South), Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Index was created by Diapason Commodities Management (“DCM”) in July 2006.

The index consists of 47 components that cover four major raw material divisions: agriculture products 23.14%, base metals 13.87%, precious metals 9.47%, and energy 53.52%.

2. DCI® Methodology

2.1. DCI® Construction

Diapason Commodities Management, which created the DCI®, used two main principles in designing the Index:

- World Trade Significance (WTS)
- World Contract Liquidity (WCL)

(1) World Trade Significance

A commodity will be considered fit to be included in the index if it represents a significant role (larger than 0.1% of total world trade) in international exports. Precious metals, electricity, and ethanol weightings are excluded from this export screening process. Precious metals, petroleum distillates and ethanol are only included on the basis of corresponding world production shares. The weight of electricity is purely based on its WCL.

(2) World Contract Liquidity

WCL is defined as the most recent average combined market value and open interest. A commodity will be considered fit to be included if its WCL exceeds 25'000'000 USD. Worldwide, eighty-nine contracts are for that reason currently eligible as of December 15th 2009. All DCI® contracts have to pass the WCL threshold. DCM has the right to adjust this threshold on a yearly basis whenever identified as appropriate.

2.2. DCI® Weights

2.2.1 Primary Initial Weights (PIW)

Primary Initial Weights are defined as the sum of 33.33% WTS Weights and 66.67% WCL Weights.

2.2.2 Cap components with PIW exceeding 10 times World Contract Liquidity Weights

We cap the components for which Primary Initial Weight exceeds 10 times the World Contract Liquidity Weight. We reallocate the excess weight proportionally to the other components. The resulting weights are the Initial Weights (IW) of the DCI®.

2.2.3 Cap components with IW(n) exceeding 2 times IW(n-1)

The Initial Weight in year n, $IW(n)$, of a component can not exceed 2 times its Initial Weights in year n-1, $IW(n-1)$:

So if $IW(n) \geq 2 \times IW(n-1)$ then $IW(n) = 2 \times IW(n-1)$ and the “excess weight” will be reallocated proportionally to other components.

The resulting weights are the Initial Weights (IW) of the DCI®.

2.3. Definition

<i>CC</i>	Continuity Constant. The constant used to maintain continuity of the Price Index during the re-balancing periods.
<i>MCW</i>	Monthly Contract Weight. The nominal weights or Scalars multiplied DCP and calculated on the business day preceding the start of the roll period such that on such day, Initial weights are equal to effective index weights.
<i>IW</i>	Initial Weight. The Percentage Index weight fixed for each component represented in the DCI® index methodology and ratified by the DCI® committee.
<i>DCP</i>	Daily Contract Price: is the daily reference price of the contracts used in the calculation of the index. The contracts are chosen according to the matrix defined by the DCI® committee. $DCP1_t$ is the price at time t of the contract which will be sold (during the roll period) at the end of the month including t , $DCP2t$ is the price at time t of the new contract on which we are going to roll at the end of the month including t .
<i>FX</i>	FX is the Foreign currency rate used to convert a Futures contract value expressed in its original currency to the currency in which the index is quoted. The expression of FX is given according to market standard and practices and adjusted by the CRY factor.
<i>CRY Factor</i>	The CRY Factor is the adjusting factor used in the foreign currency conversion.
<i>DCW</i>	The Daily Component Weight is the product of currency adjusted Daily Contract Prices (DCP) with Monthly Contract weights (MCW).
<i>TCW</i>	For an index, the Total Component Weight (TCW) is the sum of Daily Component weights (DCW).
<i>RW</i>	Roll Weight, is for each component, the weight associated to the first and second DCI® nearby for each day of the roll period. During the roll period, the RW can take the values 1.0, 2/3, 1/3 and 0.0.
<i>TCWR</i>	The Total Component Weight Ratio of Total Component Weight in use on the day prior to the first roll day of the re-weighting periods and used in order to maintain continuity of the Total Component Weight during those transition periods.
<i>BDR</i>	The Basket Daily return is the daily composite basket return weighted appropriately by RWs and MCWs to reflect assets held from one DCI® Business Day to the next.

<i>IRR</i>	Interest Rate Return is the return reflecting the fixed income performance of the index in its designated currency from one DCI® Business Day to the next.
<i>ARR</i>	For any DCI® Business Day, the available reference rate is the rate of interest associated with the reference price source to which the Available Reference Rate adjustment is added.
<i>PI</i>	Price Index or the simple measure of composite basket price level notwithstanding any adjustment due to rolls. The Price index is only tradable at maturity and its forward price curve follows forward price curve of its underlying constituents.
<i>ER</i>	Excess Return Index, measures the uncollateralized returns of the DCI® basket on a roll adjusted basis.
<i>TR</i>	Total Return Index, measures the collateralized returns of the DCI® basket.

3. THE DCI® Calculation

Diapason Commodities Management calculates and published three indices:

- The “Price Index” (DCI® PI),
- The “Excess return” (DCI® ER),
- The “Total Return” (DCI® TR).

3.1 The DCI® Price Index (DCI® PI)

3.1.1 Price Index calculation during non roll periods

The DCI® Price Index (DCI® PI) tracks the price level of commodities represented in the index. It is not a tradable index and it is used only as a measure of the commodities basket level.

The DCI® Price Index is equal to the Total Component Weight (TCW) divided by the Continuity Constant (CC).

The TCW for any given non-roll date is calculated as the sum of adjusted Daily Contract Prices (DCP), times respective Monthly Contract Weights (MCW). The DCP are adjusted by price scalars reflecting reference currency rates versus the U.S. Dollar such that all DCP adjusted are expressed in U.S. Dollars. For non-roll days we have:

$$DCI® PI_t = \frac{\sum_{c=1,N} DCW_{c,t}}{CC} = \frac{TCW_t}{CC} \quad (1)$$

Where:

$$DCW_{c,t} = DCP_{c,t} \times MCW_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \quad (2)$$

MCW_{c,t} is the Monthly Contract Weight for each Index component,
 DCP_{c,t} is the Daily Contract Price in the local currency,
 FX_{c,t} is the Currency exchange rate between the quotation currency of the Component instrument and the index reference currency. For official settlement price, the DCI® Index use a direct or USD cross fixing price
 CRY Factor is +1 or -1 (see table I.B below)

TABLE I.B . DEFINITION CRY EXCHANGE RATES, CRY FACTORS DEFINITIONS.

CCY	CCY	Quotation	CRY Factor	Rate Source
USD	USD		1	
JPY	JPY	USD-JPY	-1	BB: JPY Curncy HP <GO>
GBP	GBP	GBP-USD	1	BB: GBP Curncy HP <GO>

The exchanges rates fixing used to calculate the official settlement price of the index are published at 10 pm London Time.

3.1.2 The Roll period - Index Rebalancing and continuity

On the DCI®, the roll occurs during the last three DCI® business days of the month. During the roll period, the index is shifted from the first to the second nearby baskets at a rate of 33.33% per day. On the last DCI® Business Day, the roll is completed unless the roll period is extended for a component as a result of a market disruption event such as a limit day or a market disruption event.

During the roll period of each month the Index is rebased towards Initial Weights (IW), as defined by the DCI® committee. The DCI® will roll into new Monthly Contract Weights (MCWs) and Continuity Constants (CCs). On the day before the start of the roll period, the DCI® is calculated based on the old MCWs and CCs of the current DCI® period.

During the roll period the calculation of Total Component Weight takes the following expression:

$$DCI® PI_t = \frac{TCW_t}{CC} \quad (1)$$

Where:

$$TCW_t = \frac{CC_{new}}{CC_{old}} \left[\sum_{c=1,N} MCW_{c,old} \times RW1_{c,t} \times DCP1_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \right] + \sum_{c=1,N} MCW_{c,new} \times RW2_{c,t} \times DCP2_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \quad , \quad (3)$$

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Where RWs can take the following values

$$RW1_{c,t} = \{1, 1/3, 2/3, 0\} \quad RW2_{c,t} = \{1, 1/3, 2/3, 0\} \quad ,$$

Below are the values taken by $RW1_{c,t}$, $RW2_{c,t}$ during the roll period of June 2006:

Theoretical Roll	Day	First Roll	Second Roll	Last Roll				
		Day	Day	Day	Day	Day	Day	Day
	Day	27.juin	28.juin	29.juin	30.juin	01.juil	02.juil	03.juil
Price Index	RW1	1.00	0.67	0.33	0.00	1.00	1.00	1.00
	RW2	0.00	0.33	0.67	1.00	0.00	0.00	0.00
Excess Return	RW1	1.00	1.00	0.67	0.33	0.00	1.00	1.00
	RW2	0.00	0.00	0.33	0.67	1.00	0.00	0.00

With

$$TCWR_t = \frac{\sum_{c=1,N} MCW_{c,new} \times DCP2_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}}}{\sum_{c=1,N} MCW_{c,old} \times DCP2_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}}} \quad , \quad (4)$$

And

$$CC_{new} = TCWR_t \times CC_{old} \quad , \quad (5)$$

If there is a disruption event on or beyond the last 3 business days of the Month, the amount to be rolled will be carried forward until the next DCI® business day.

The calculation of the new MCWs and CC is effected monthly, at close of business on the business day immediately preceding the first roll day (i.e. the fourth to last business day of the month).

On that day, the new MCWs are solved such that the calculated effective weights match the Initial Weights (IW) defined by the DCI® Committee.

We define $MCW_{c=R,new} = x = 10000$, where R ($1 \leq R \leq N$) and 10000 is an arbitrary constant.

We then solve for each component i,

$$\frac{MCW_{i,new} \times DCP_{i,t} \times [FX_{i,t}]^{CRY \text{ Factor}}}{\sum_{c=1,N} MCW_{c,new} \times DCP_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}}} - IW_i = 0 \quad (6)$$

Which have the following analytic solution:

$$\begin{aligned}
 MCW_1 &= \frac{IW_1 \times DCP_R \times [FX_{R,t}]^{CRY \text{ Factor}}}{IW_R \times DCP_1 \times [FX_{1,t}]^{CRY \text{ Factor}}} \times x \\
 MCW_2 &= \frac{IW_2 \times DCP_R \times [FX_{R,t}]^{CRY \text{ Factor}}}{IW_R \times DCP_2 \times [FX_{2,t}]^{CRY \text{ Factor}}} \times x \\
 MCW_3 &= \frac{IW_3 \times DCP_R \times [FX_{R,t}]^{CRY \text{ Factor}}}{IW_R \times DCP_3 \times [FX_{3,t}]^{CRY \text{ Factor}}} \times x \\
 &\vdots \\
 MCW_R &= x
 \end{aligned} \tag{7}$$

Once the new MCWs are determined, the new Continuity Constant is calculated using equation (5) above.

3.2 The DCI® Excess Return (DCI® ER)

3.2.1 Calculation during non roll periods

The DCI® ER is an Excess Return Index. It represents the uncollateralized return of the DCI® basket. The index is calculated according to the following formula:

Define BDR (Basket Daily Return) as:

$$BDR_t = \frac{TCWF_t}{TCWI_{t-1}} - 1 \tag{8}$$

With

$$TCWI_{t-1} = \sum_{c=1,N} DCP_{c,t-1} \times [FX_{c,t-1}]^{CRY \text{ Factor}} \times MCW_{c,t-1} \tag{9}$$

$$TCWF_t = \sum_{c=1,N} DCP_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \times MCW_{c,t-1} \tag{10}$$

Where

TCWF is the Total Component Weight Final

TCWI is the Total Component Weight Initial

The expression of the DCI® ER is:

$$DCI® ER_t = DCI® ER_{t-1} \times (1 + BDR_t) \tag{11}$$

The DCI® ER is set equal to 1000 on 31st of July 1998.

3.2.2 Calculation during roll periods

The Basket Daily Return is defined as the percentage change in the TCW of the DCI® from one DCI® Business Day to the next. It reflects the return that would have been realized by holding positions in the first and second DCI® nearby contracts appropriately weighted to reflect the MCWs (IW_s), from the closing of

the exchange on the prior DCI® Business Day to the closing of the exchange on the next DCI® Business Day.

The Roll weights (RW) used to calculate TCWI and TCWF are the one used to calculate the Total Component Weight on the Business Day immediately preceding the calculation date.

During the roll period we have:

$$TCWI_{t-1} = \frac{CC_{new}}{CC_{old}} \left[\sum_{c=1,N} MCW_{c,old} \times RW1_{c,t-1} \times DCP1_{c,t-1} \times [FX_{c,t-1}]^{CRY \text{ Factor}} \right] + \sum_{c=1,N} MCW_{c,new} \times RW2_{c,t-1} \times DCP2_{c,t-1} \times [FX_{c,t-1}]^{CRY \text{ Factor}} \quad , \quad (12)$$

and

$$TCWF_t = \frac{CC_{new}}{CC_{old}} \left[\sum_{c=1,N} MCW_{c,old} \times RW1_{c,t-1} \times DCP1_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \right] + \sum_{c=1,N} MCW_{c,new} \times RW2_{c,t-1} \times DCP2_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \quad , \quad (13)$$

Where RWs can take the following values

$$RW1_{c,t-1} = \{1,2/3,1/3,0\} \quad , \quad RW2_{c,t-1} = \{0,1/3,2/3,1\},$$

Please see the table above for details of the values taken by RWs

And then

$$DCI® ER_t = DCI® ER_{t-1} \times (1 + BDR_t) \quad (14)$$

With

$$BDR_t = \frac{TCWF_t}{TCWI_{t-1}} - 1$$

3.3 The DCI® Total Return (DCI® TR)

3.3.1 Calculation of the Total Return Index

The DCI® TR Index is a Total Return Index. It represents the uncollateralized return of the DCI® basket. The index is calculated according to the following formula:

$$DCI® TR_t = DCI® TR_{t-1} \times (1 + BDR_t + IRR_t) \quad (15)$$

Where

IRR: **Interest Rate Return**, is the compounding factor defined as

$$IRR_t = \left[\frac{1}{1 - \frac{91}{360} \times DRR_{t-1}} \right]^{\frac{days}{91}} - 1, \quad (16)$$

Where “days” is the integer number of calendar days from the previous DCI® business day to the DCI® business day on which the calculation is made.

DRR: **Daily Reference Rate**, is a function of the rate available on the immediately preceding DCI® Business Day (ARR)

$$DRR_t = 0.9 \times ARR_t \quad (17)$$

The DCI® TR is set equal to 1000 on July 31st, 1998.

3.3.2 Available reference rates

The Available Reference Rate ARR used for the calculation of the DCI® Total Return index is defined below:

ARR is the 91-Day U.S. Treasury Bill (3 Months) auction rate, designated as “high Rate” as published by the “treasury security auction Results” report, published by the Bureau of Public Debt and available on Bloomberg USB3MTA Index <GO> or Reuters USAUCTION9.

The rate is generally published once per week on Monday and effective on the DCI® Business Day immediately following.

3.4 DCI® Business Day definition and Disruption event

3.4.1 DCI® Business Day Definition

A DCI® business Day d is a day on which $\sum_{c=1,N} IW_C \times CalOpen_{C,d} \geq 0.8$ where $CalOpen_{C,d}$ is equal

to 1 when the exchange associated to the contract c is open for trading on the specific date d (and is equal to 0 when the exchange associated to the contract c is closed for trading on date d).

3.4.2 Adjustments for Market disruption

A Market Disruption Event will be defined as any day upon which the trading of a contract involved in the index calculation is disrupted or the fair determination of its price is interfered with subject to the following:

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- a. The contract settles at the limit (up or down) price set by the exchange.
- b. The contract trades on exchange which is not open for trading on the specific day.
- c. The exchange upon which the contract trades closes trading in that contract at a time prior to the published closing time, unless the altered closing time was brought to public attention by the closing time on the trading day prior to the day in question.
- d. The settlement closing price published by the exchange does not reflect properly, in the opinion of the DCI® Committee, the fair price of that contract.

If a Market Disruption Event occurs during the roll or rebalancing period for one or more commodities, the specific contracts involved are neither rolled nor rebalanced on that day. For those contracts, the RWs and the MCWs remain identical to the values they had on the DCI® Business Day immediately preceding the Market Disruption day. The roll period and the rebalancing period will be extended for this or these particular components only until the next available business day upon which no market disruption event occurs for that or those contracts.

If, after a period of five business days, no settlement price has been made available by the exchange, the DCI® committee will determine, in good faith, the settlement prices necessary for the rolling of the contracts and for the calculation of the index.

The existence of a Market Disruption shall be determined by the DCI® Committee.

Outside of the roll period the index is calculated using the last trading price available. In particular the calculation of the MCWs will use the last price available regardless of whether a Market Disruption Event has occurred.

Example of values taken by RW1 and RW2 for a specific contract over the June 06 roll period if June 28th is a “market disruption event day”:

Theoretical Roll		First Roll Day	Second Roll Day	Last Roll Day					
Effective Roll		First and Second Roll Day			Last Roll Day				
Index	Day	27.juin	28.juin	29.juin	30.juin	01.juil	02.juil	03.juil	
Price Index	RW1	1.00	1.00	0.33	0.00	1.00	1.00	1.00	
	RW2	0.00	0.00	0.67	1.00	0.00	0.00	0.00	
Excess Return	RW1	1.00	1.00	1.00	0.33	0.00	1.00	1.00	
	RW2	0.00	0.00	0.00	0.67	1.00	0.00	0.00	

3.4.3 FX Market and Interest Rate Market disruption

In the unlikely event of a referenced price source failing to publish a valid fixing rate for a referenced currency exchange rate or a valid Interest rate, the DCI® BNP Paribas ENHANCED committee can decide to replace it by a new source with immediate effect.

3.4.4 Market emergency

In cases of extraordinary circumstances making the calculation or the replication of the DCI® index impossible or too complex, the DCI® BNP PARIBAS ENHANCED committee can decide to take any appropriate action.

4. The DCI® BNP Paribas ENHANCED (DCI®-B) Calculation

The DCI® BNP Paribas Enhanced uses exactly the same principles and the same calculation methodology as the one defined for the DCI®. The only difference is regarding the contracts on which the index is rolled every month. Indeed, the roll process optimization designed for the DCI® BNP Paribas Enhanced defines potentially 4 distinct (for each commodity eligible to the enhanced strategy) new contracts on which the index will roll.

4.1 Commodities eligible to the roll optimization process

The DCI® BNP Paribas ENHANCED provides the DCI® with a quantitative roll optimization process. The roll optimization process is achieved via an algorithm which is designed to select the optimum contracts on which the index will roll every month.

This way, it minimizes the negative roll return in a contango situation and maximizes the positive roll return in a backwardation situation.

The 17 contracts eligible to the roll process optimization are:

Name	Generic Code	Exchange	Ccy
NYMEX WTI	CL	NYM	USD
NYMEX Natural Gas	NG	NYM	USD
ICE Brent	CO	ICE	USD
NYMEX No. 2 Heating Oil	HO	NYM	USD
ICE Gas Oil	QS	ICE	USD
CBOT Soybeans	S	CBT	USD
CBOT Corn	C	CBT	USD
NYMEX RBOB (gasoline blendstock)	XB	NYM	USD
NYBOT Cotton #2	CT	NYB	USD
NYBOT Coffee C	KC	NYB	USD
COMEX Silver	SI	CMX	USD
CBOT Wheat	W	CBT	USD
NYBOT Sugar #11	SB	NYB	USD
LME Copper Future	LP	LME	USD
LME Aluminium	LA	LME	USD
LME Zinc	LX	LME	USD
LME Nickel	LN	LME	USD

4.2 Roll Optimization algorithm

Every month, the 2nd day and the 1st day prior to the first roll day, for each selected commodity, we determine the optimal contracts on which we are going to roll using the following formula:

$$Optimum^1_{c,t1} = \left\{ j \left| \min_{i=1, \dots, Nb_c} \frac{(DCP^i_{c,t1} - DCP^{i-1}_{c,t1})}{DCP^{i-1}_{c,t1} \times d_{c,i}} = \frac{(DCP^j_{c,t1} - DCP^{j-1}_{c,t1})}{DCP^{j-1}_{c,t1} \times d_{c,j}} \right. \right\} = Opt^1_c$$

$$Optimum^2_{c,t1} = \left\{ j \left| \min_{i=1, \dots, Nb_c, i > Optimum^1_{c,t1}} \frac{(DCP^i_{c,t1} - DCP^{i-1}_{c,t1})}{DCP^{i-1}_{c,t1} \times d_{c,i}} = \frac{(DCP^j_{c,t1} - DCP^{j-1}_{c,t1})}{DCP^{j-1}_{c,t1} \times d_{c,j}} \right. \right\} = Opt^2_c$$

$$Optimum^1_{c,t2} = \left\{ j \left| \min_{i=1, \dots, Nb_c} \frac{(DCP^i_{c,t2} - DCP^{i-1}_{c,t2})}{DCP^{i-1}_{c,t2} \times d_{c,i}} = \frac{(DCP^j_{c,t2} - DCP^{j-1}_{c,t2})}{DCP^{j-1}_{c,t2} \times d_{c,j}} \right. \right\} = Opt^3_c$$

$$Optimum^2_{c,t2} = \left\{ j \left| \min_{i=1, \dots, Nb_c, i < Optimum^1_{c,t2}} \frac{(DCP^i_{c,t2} - DCP^{i-1}_{c,t2})}{DCP^{i-1}_{c,t2} \times d_{c,i}} = \frac{(DCP^j_{c,t2} - DCP^{j-1}_{c,t2})}{DCP^{j-1}_{c,t2} \times d_{c,j}} \right. \right\} = Opt^4_c$$

Where: t_1 is the 2nd day prior to the first roll day

t_2 is the 1st day prior to the first roll day

$d_{c,i}$ is the number of month between the future contract with expiration i and the future contract with expiration $i-1$.

Nb_c is the number of eligible contracts

To avoid any misunderstanding, the equation (3) takes the following form:

$$TCW_t = \frac{CC_{new}}{CC_{old}} \left[\sum_{c \in E} \left(\sum_{i=1}^4 MCW_{c,old}^i \times RW1_{c,t} \times DCP_{Opt^i_{c,t}} \times [FX_{c,t}]^{CRY \text{ Factor}} \right) \right] \\ + \sum_{c \in E} \left(\sum_{i=1}^4 MCW_{c,new}^i \times RW2_{c,t} \times DCP_{Opt^i_{c,t}} \times [FX_{c,t}]^{CRY \text{ Factor}} \right) \\ + \frac{CC_{new}}{CC_{old}} \left[\sum_{c=1, N, c \notin E} MCW_{c,old} \times RW1_{c,t} \times DCP1_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \right] \\ + \sum_{c=1, N, c \notin E} MCW_{c,new} \times RW2_{c,t} \times DCP2_{c,t} \times [FX_{c,t}]^{CRY \text{ Factor}} \quad , \quad (3 \text{ bis})$$

Where E = {Commodities which are eligible to roll optimization}

Potentially, for each commodity eligible to the optimization process, the index can roll every month from 4 different contracts with 4 different maturities to 4 new contracts with 4 new distinct maturities.

These two pictures of the forward curves aim to limit the effects of unrepresentative curve shifts by using two different snapshots of the curve and by dividing equally the position according to those 2 snapshots. Once the optimum contracts are selected, position will be split according to the following allocation:

- 1/3 of the position will be allocated to the optimal contract defined by $Optimum^1_{c,t1}$
- 1/6 of the position will be allocated to the optimal contract defined by $Optimum^2_{c,t1}$
- 1/3 of the position will be allocated to the optimal contract defined by $Optimum^1_{c,t2}$
- 1/6 of the position will be allocated to the optimal contract defined by $Optimum^2_{c,t2}$

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4.2 Eligible contract maturities

For each component and each month, a set of contracts with different maturities has been designed according to the contract liquidity and the open interest. Each month, the Optimum contracts will be selected in the corresponding sets of contracts according to the roll optimization algorithm.

Below, the sets of contracts designed for each month and for each eligible component:

The number of eligible commodities and of eligible contracts linked to a commodity can be reviewed and adjusted on a yearly basis.

Name	Jan 1	Feb 2	Mar 3	Apr 4	May 5	Jun 6
NYMEX WTI	HJKMNQVXZF	JKMNQVXZFG	KMNQVXZFGH	MNQVXZFGHJ	NQVXZFGHJK	QUVXZFGHJKM
NYMEX Natural Gas	HJKMNQVXZF	JKMNQVXZFG	KMNQVXZFGH	MNQVXZFGHJ	NQVXZFGHJK	QUVXZFGHJKM
ICE Brent	HJKMNQVXZF	JKMNQVXZFG	KMNQVXZFGH	MNQVXZFGHJ	NQVXZFGHJK	QUVXZFGHJKM
NYMEX No. 2 Heating Oil	HJKMNQ	JKMNQU	KMNQUV	MNQVX	NQVXZ	QUVXZF
ICE Gas Oil	HJKMNQ	JKMNQU	KMNQUV	MNQVX	NQVXZ	QUVXZF
CBOT Soybeans	HKNX	KNXF	KNXF	NXFH	NXFH	QUXF
CBOT Corn	HKNUZH	KNUZH	KNUZH	NUZH	NUZH	UZHKN
NYMEX RBOB (gasoline blendstock)	HJKMNQ	JKMNQU	KMNQUV	MNQVX	NQVXZ	QUVXZF
NYBOT Cotton #2	HKNZ	KNZ	KNZH	NZH	NZH	ZHK
NYBOT Coffee C	HKNUZ	KNUZH	KNUZH	NUZH	NUZH	UZHKN
COMEX Silver	HKNUZ	KNUZH	KNUZH	NUZH	NUZH	UZHKN
CBOT Wheat	HKNUZ	KNUZH	KNUZH	NUZH	NUZH	UZHKN
NYBOT Sugar #11	HKNVH	KNVH	KNVH	NVH	NVH	VHKN
LME Copper Future	GHJKMNQVXZ	HJKMNQVXZF	JKMNQVXZFG	KMNQVXZFGH	MNQVXZFGHJ	NQVXZFGHJK
LME Aluminium Future	GHJKMNQVXZ	HJKMNQVXZF	JKMNQVXZFG	KMNQVXZFGH	MNQVXZFGHJ	NQVXZFGHJK
LME Zinc Future	GHJKMN	HJKMNQ	JKMNQU	KMNQUV	MNQVX	NQVXZ
LME Nickel Future	GHJKMN	HJKMNQ	JKMNQU	KMNQUV	MNQVX	NQVXZ

Name	Jul 7	Aug 8	Sep 9	Oct 10	Nov 11	Dec 12
NYMEX WTI	UVXZFGHJKMN	VXZFGHJKMNQ	XZFGHJKMNQU	ZFGHJKMNQV	FGHJKMNQVX	GHJKMNQVXZ
NYMEX Natural Gas	UVXZFGHJKMN	VXZFGHJKMNQ	XZFGHJKMNQU	ZFGHJKMNQV	FGHJKMNQVX	GHJKMNQVXZ
ICE Brent	UVXZFGHJKMN	VXZFGHJKMNQ	XZFGHJKMNQU	ZFGHJKMNQV	FGHJKMNQVX	GHJKMNQVXZ
NYMEX No. 2 Heating Oil	UVXZFG	VXZFGH	XZFGHJ	ZFGHJK	FGHJKM	GHJKMN
ICE Gas Oil	UVXZFG	VXZFGH	XZFGHJ	ZFGHJK	FGHJKM	GHJKMN
CBOT Soybeans	UXFH	XFHK	XFHK	FHKN	FHKN	HKNX
CBOT Corn	UZHKN	ZHKNU	ZHKNU	ZHKNUZ	HKNUZ	HKNUZ
NYMEX RBOB (gasoline blendstock)	UVXZFG	VXZFGH	XZFGHJ	ZFGHJK	FGHJKM	GHJKMN
NYBOT Cotton #2	ZHKN	ZHKN	ZHKN	ZHKNZ	HKNZ	HKNZ
NYBOT Coffee C	UZHKN	ZHKNU	ZHKNU	ZHKNU	HKNUZ	HKNUZ
COMEX Silver	UZHKN	ZHKNU	ZHKNU	ZHKNU	HKNUZ	HKNUZ
CBOT Wheat	UZHKN	ZHKNU	ZHKNU	ZHKNUZ	HKNUZ	HKNUZ
NYBOT Sugar #11	VHKN	VHKNV	HKNV	HKNV	HKNV	HKNV
LME Copper Future	QUVXZFGHJKM	UVXZFGHJKMN	VXZFGHJKMNQ	XZFGHJKMNQU	ZFGHJKMNQV	FGHJKMNQVX
LME Aluminium Future	QUVXZFGHJKM	UVXZFGHJKMN	VXZFGHJKMNQ	XZFGHJKMNQU	ZFGHJKMNQV	FGHJKMNQVX
LME Zinc Future	QUVXZF	UVXZFG	VXZFGH	XZFGHJ	ZFGHJK	FGHJKM
LME Nickel Future	QUVXZF	UVXZFG	VXZFGH	XZFGHJ	ZFGHJK	FGHJKM

Appendix A: DCI® Contracts Initial Weights

Name	Bloomberg Code	Exchange	Ccy	Weight IW
NYMEX WTI	CL	NYM	USD	15.6880%
ICE Brent	CO	ICE	USD	9.7450%
NYMEX Natural Gas	NG	NYM	USD	7.5580%
COMEX Gold	GC	CMX	USD	7.3510%
ICE Gas Oil	QS	ICE	USD	5.8360%
LME Copper	LP	LME	USD	5.4980%
NYMEX No. 2 Heating Oil	HO	NYM	USD	5.2310%
LME Aluminium	LA	LME	USD	4.7780%
NYMEX RBOB (gasoline blendstock)	XB	NYM	USD	4.4910%
CBOT Soybeans	S	CBT	USD	3.4220%
CBOT Corn	C	CBT	USD	3.3540%
NYBOT Sugar #11	SB	NYB	USD	2.0660%
CBOT Wheat	W	CBT	USD	1.8500%
TOCOM Gasoline	JV	TCM	JPY	1.5580%
COMEX Silver	SI	CMX	USD	1.4200%
CME Live Cattle	LC	CME	USD	1.3770%
LME Zinc	LX	LME	USD	1.2790%
CBOT Soybean Meal	SM	CBT	USD	1.2360%
LME Nickel	LN	LME	USD	1.2080%
NYBOT Coffee "C"	KC	NYB	USD	1.1710%
CJCE Kerosene	JX	TCM	JPY	1.0310%
NYBOT Cotton #2	CT	NYB	USD	1.0250%
CBOT Soybean Oil	BO	CBT	USD	1.0190%
KCBT Wheat	KW	KCB	USD	0.9740%
EURONEXT Cocoa	QC	LIF	GBP	0.8690%
CME Lean Hogs	LH	CME	USD	0.7880%
TOCOM Crude Oil	CP	TCM	JPY	0.6280%
NYMEX Platinum	PL	NYM	USD	0.5570%
CME Feeder Cattle	FC	CME	USD	0.5440%
ICE Rotterdam Coal Monthly	XA	ICE	USD	0.5360%
EEE Phelix Baseload Monthly	GI	EEE	EUR	0.5210%
CBOT Rough Rice	RR	CBT	USD	0.4940%
LME Lead	LL	LME	USD	0.4840%
TOCOM Rubber	JN	TCM	JPY	0.4680%
NYBOT Cocoa	CC	NYB	USD	0.4440%
ICE Natural Gas	FN	ICE	GBP	0.4180%
EURONEXT Robusta Coffee	DF	LIF	USD	0.4040%
CME Random Lumber	LB	CME	USD	0.3590%
NYBOT Orange Juice Frozen Concentrate	JO	NYB	USD	0.3290%
LME Aluminium Alloy	LY	LME	USD	0.3210%
EURONEXT White Sugar	QW	LIF	USD	0.3110%
TGE NGM Soybeans	KS	TGE	JPY	0.3000%
LME Tin	LT	LME	USD	0.3000%
CBOT Ethanol	DL	CBT	USD	0.2810%
EURONEXT Rapeseed	IJ	LIF	EUR	0.2040%
NYMEX Palladium	PA	NYM	USD	0.1460%
TGE Corn	JC	TGE	JPY	0.1280%

Appendix B: DCI® Agriculture Initial Weights

Name	Bloomberg Code	Exchange	Ccy	Weight IW	Scalar
CBOT Soybeans	S	CBT	USD	14.7908%	100.00
CBOT Corn	C	CBT	USD	14.4969%	100.00
NYBOT Sugar #11	SB	NYB	USD	8.9298%	100.00
CBOT Wheat	W	CBT	USD	7.9962%	100.00
CME Live Cattle	LC	CME	USD	5.9518%	100.00
CBOT Soybean Meal	SM	CBT	USD	5.3423%	1.00
NYBOT Coffee "C"	KC	NYB	USD	5.0614%	100.00
NYBOT Cotton #2	CT	NYB	USD	4.4303%	100.00
CBOT Soybean Oil	BO	CBT	USD	4.4044%	100.00
KCBT Wheat	KW	KCB	USD	4.2099%	100.00
EURONEXT Cocoa	QC	LIF	GBP	3.7561%	1.00
CME Lean Hogs	LH	CME	USD	3.4059%	100.00
CME Feeder Cattle	FC	CME	USD	2.3513%	100.00
CBOT Rough Rice	RR	CBT	USD	2.1352%	1.00
TOCOM Rubber	JN	TCM	JPY	2.0228%	1.00
NYBOT Cocoa	CC	NYB	USD	1.9191%	1.00
EURONEXT Robusta Coffee	DF	LIF	USD	1.7462%	1.00
CME Random Lumber	LB	CME	USD	1.5517%	1'000.00
NYBOT Orange Juice Frozen Concentrate	JO	NYB	USD	1.4220%	100.00
EURONEXT White Sugar	QW	LIF	USD	1.3442%	1.00
TGE NGM Soybeans	KS	TGE	JPY	1.2967%	1'000.00
EURONEXT Rapeseed	IJ	LIF	EUR	0.8817%	1.00
TGE Corn	JC	TGE	JPY	0.5533%	1'000.00

Appendix C: DCI ® Metals Initial Weights

Name	Bloomberg Code	Exchange	Ccy	Weight IW	Scalar
COMEX Gold	GC	CMX	USD	31.4926%	1.00
LME Copper	LP	LME	USD	23.5541%	1.00
LME Aluminium	LA	LME	USD	20.4695%	1.00
COMEX Silver	SI	CMX	USD	6.0835%	1.00
LME Zinc	LX	LME	USD	5.4794%	1.00
LME Nickel	LN	LME	USD	5.1752%	1.00
NYMEX Platinum	PL	NYM	USD	2.3863%	1.00
LME Lead	LL	LME	USD	2.0735%	1.00
LME Aluminium Alloy	LY	LME	USD	1.3752%	1.00
LME Tin	LT	LME	USD	1.2852%	1.00
NYMEX Palladium	PA	NYM	USD	0.6255%	1.00

Appendix D: DCI ® Energy Initial Weights

Name	Bloomberg Code	Exchange	Ccy	Weight IW	Scalar
NYMEX WTI	CL	NYM	USD	29.3113%	1.00
ICE Brent	CO	ICE	USD	18.2075%	1.00
NYMEX Natural Gas	NG	NYM	USD	14.1213%	1.00
ICE Gas Oil	QS	ICE	USD	10.9039%	1.00
NYMEX No. 2 Heating Oil	HO	NYM	USD	9.7736%	100.00
NYMEX RBOB (gasoline blendstock)	XB	NYM	USD	8.3909%	100.00
TOCOM Gasoline	JV	TCM	JPY	2.9110%	1.00
CJCE Kerosene	JX	TCM	JPY	1.9263%	1.00
TOCOM Crude Oil	CP	TCM	JPY	1.1733%	1.00
ICE Rotterdam Coal Monthly	XA	ICE	USD	1.0015%	100.00
EEE Phelix Baseload Monthly	GI	EEE	EUR	0.9734%	1.00
ICE Natural Gas	FN	ICE	GBP	0.7810%	100.00
CBOT Ethanol	DL	CBT	USD	0.5250%	1.00

Appendix E: Roll Matrix of the DCI®

Contract	Contract	Jan. 1	Feb. 2	Mar. 3	Apr 4	May 5	Jun 6	Jul 7	Aug 8	Sep 9	Oct 10	Nov 11	Dec 12
CL	NYMEX WTI	H	J	K	M	N	Q	U	V	X	Z	F	G
CO	ICE Brent	H	J	K	M	N	Q	U	V	X	Z	F	G
NG	NYMEX Natural Gas	H	J	K	M	N	Q	U	V	X	Z	F	G
GC	COMEX Gold	J	J	M	M	Q	Q	Z	Z	Z	Z	G	G
QS	ICE Gas Oil	H	J	K	M	N	Q	U	V	X	Z	F	G
LP	LME Copper	H	J	K	M	N	Q	U	V	X	Z	F	G
HO	NYMEX No. 2 Heating Oil	H	J	K	M	N	Q	U	V	X	Z	F	G
LA	LME Aluminium	H	J	K	M	N	Q	U	V	X	Z	F	G
XB	NYMEX RBOB (gasoline blendstock)	H	J	K	M	N	Q	U	V	X	Z	F	G
S	CBOT Soybeans	H	K	K	N	N	X	X	X	X	F	F	H
C	CBOT Corn	H	K	K	N	N	U	U	Z	Z	Z	H	H
SB	NYBOT Sugar #11	H	K	K	N	N	V	V	V	H	H	H	H
W	CBOT Wheat	H	K	K	N	N	U	U	Z	Z	Z	H	H
JV	TOCOM Gasoline	M	N	Q	U	V	X	Z	F	G	H	J	K
SI	COMEX Silver	H	K	K	N	N	U	U	Z	Z	Z	H	H
LC	CME Live Cattle	J	J	M	M	Q	Q	V	V	Z	Z	G	G
LX	LME Zinc	H	J	K	M	N	Q	U	V	X	Z	F	G
SM	CBOT Soybean Meal	H	K	K	N	N	Z	Z	Z	Z	Z	F	H
LN	LME Nickel	H	J	K	M	N	Q	U	V	X	Z	F	G
KC	NYBOT Coffee "C"	H	K	K	N	N	U	U	Z	Z	Z	H	H
JX	CJCE Kerosene	M	N	Q	U	V	X	Z	F	G	H	J	K
CT	NYBOT Cotton #2	H	K	K	N	N	Z	Z	Z	Z	Z	H	H
BO	CBOT Soybean Oil	H	K	K	N	N	Z	Z	Z	Z	Z	F	H
KW	KCBT Wheat	H	K	K	N	N	U	U	Z	Z	Z	H	H
QC	EURONEXT Cocoa	H	K	K	N	N	U	U	Z	Z	Z	H	H
LH	CME Lean Hogs	J	J	M	M	Q	Q	V	V	Z	Z	G	G
CP	TOCOM Crude Oil	K	M	N	Q	U	V	X	Z	F	G	H	J
PL	NYMEX Platinum	J	J	N	N	N	V	V	V	F	F	F	J
FC	CME Feeder Cattle	H	H	J	K	Q	Q	Q	U	V	X	F	F
XA	ICE Rotterdam Coal Monthly	H	M	M	M	U	U	U	Z	Z	Z	H	H
GI	EEE Phelix Baseload Monthly	H	J	K	M	N	Q	U	V	X	Z	F	G
RR	CBOT Rough Rice	H	K	K	N	N	U	U	X	X	F	F	H
LL	LME Lead	H	J	K	M	N	Q	U	V	X	Z	F	G
JN	TOCOM Rubber	K	M	N	Q	U	V	X	Z	F	G	H	J
CC	NYBOT Cocoa	H	K	K	N	N	U	U	Z	Z	Z	H	H
FN	ICE Natural Gas	H	J	K	M	N	Q	U	V	X	Z	F	G
DF	EURONEXT Robusta Coffee	H	K	K	N	N	U	U	X	X	F	F	H
LB	CME Random Lumber	H	K	K	N	N	U	U	X	X	F	F	H
JO	NYBOT Orange Juice Frozen Concentrate	H	K	K	N	N	U	U	X	X	F	F	H
LY	LME Aluminium Alloy	H	J	K	M	N	Q	U	V	X	Z	F	G
QW	EURONEXT White Sugar	H	K	K	Q	Q	V	V	V	Z	Z	H	H
KS	TGE NGM Soybeans	V	Z	Z	G	G	J	J	M	M	Q	Q	V
LT	LME Tin	H	J	K	M	N	Q	U	V	X	Z	F	G
DL	CBOT Ethanol	H	J	K	M	N	Q	U	V	X	Z	F	G
IJ	EURONEXT Rapeseed	K	K	K	Q	Q	Q	X	X	X	G	G	G
PA	NYMEX Palladium	H	M	M	M	U	U	U	Z	Z	Z	H	H
JC	TGE Corn	F	F	H	H	K	K	N	N	U	U	X	X

Appendix F: Liquidity Weights and Fundamental Weights

Future Contracts	2010 World Trade Significance Weights	2010 World Contract Liquidity Weights
NYMEX WTI	6.3597%	19.3804%
ICE Brent	8.6147%	9.7059%
NYMEX Natural Gas	5.1407%	8.2985%
COMEX Gold	6.7343%	7.2047%
ICE Gas Oil	6.5533%	5.1172%
LME Copper	1.3270%	7.2440%
NYMEX No. 2 Heating Oil	6.5533%	4.2451%
LME Aluminium	0.8430%	6.4493%
NYMEX RBOB (gasoline blendstock)	5.6980%	3.6098%
CBOT Soybeans	1.0451%	4.3989%
CBOT Corn	1.8458%	3.8992%
NYBOT Sugar #11	1.6451%	2.1486%
CBOT Wheat	1.7221%	1.7995%
TOCOM Gasoline	5.6980%	0.1548%
COMEX Silver	0.9710%	1.5572%
CME Live Cattle	1.1238%	1.4183%
LME Zinc	0.2600%	1.7089%
CBOT Soybean Meal	1.4721%	1.0417%
LME Nickel	0.4032%	1.5356%
NYBOT Coffee "C"	1.3440%	1.0106%
CJCE Kerosene	3.7520%	0.1024%
NYBOT Cotton #2	1.3684%	0.7888%
CBOT Soybean Oil	0.7192%	1.1056%
KCBT Wheat	1.7221%	0.5393%
EURONEXT Cocoa	0.9148%	0.7921%
CME Lean Hogs	0.8457%	0.7104%
TOCOM Crude Oil	3.9274%	0.0624%
NYMEX Platinum	1.1634%	0.2181%
CME Feeder Cattle	1.1238%	0.2204%
ICE Rotterdam Coal Monthly	2.9232%	0.2420%
EEE Phelix Baseload Monthly	0.7418%	0.3792%
CBOT Rough Rice	1.3148%	0.0531%
LME Lead	0.0793%	0.6572%
TOCOM Rubber	1.1773%	0.0837%
NYBOT Cocoa	0.1889%	0.5438%
ICE Natural Gas	0.7505%	0.2248%
EURONEXT Robusta Coffee	0.8209%	0.1705%
CME Random Lumber	6.4800%	0.0357%
NYBOT Orange Juice Frozen Concentrate	0.8147%	0.0665%
LME Aluminium Alloy	0.8430%	0.0406%
EURONEXT White Sugar	0.4281%	0.2336%
TGE NGM Soybeans	1.0451%	0.0298%
LME Tin	0.0793%	0.3911%
CBOT Ethanol	0.7491%	0.0288%
EURONEXT Rapeseed	0.2866%	0.1502%
NYMEX Palladium	0.2651%	0.0777%
TGE Corn	0.1208%	0.1241%

Appendix G: A 118 contracts universe

Future Contracts inside OECD	Bloomberg Code	Future Contracts inside OECD	Bloomberg Code
NYMEX WTI	CL	Fukuoka Soybean Meal	AM
NYMEX Natural Gas	NG	TGE Soybeans	JS
ICE Brent	CO	LME NASAAC	LK
LME Copper	LP	TOCOM Crude Oil	CP
ICE WTI	EN	EURONEXT Milling Wheat	CA
LME Aluminium	LA	EURONEXT Rapeseed	IJ
LME Copper Future	LP	NYMEX Coal	QZ
LME Copper Future	LP	Kansai Imported Soybeans	SF
COMEX Gold	GC	NYMEX Palladium	PA
LME Aluminium Future	LA	LME Tin Future	LT
CBOT Corn	C	ICE ECX Carbon Fin. Instrument futures	MO
ICE Gas Oil	QS	TGE Raw Sugar	JR
NYMEX No. 2 Heating Oil	HO	LME Aluminium Alloy	LY
CBOT Soybeans	S	CJCE Gasoline	HQ
NYMEX Gasoline Future	XB	CBOT Rough Rice	RR
LME Zinc	LX	TGE Arabica Coffee	JZ
CBOT Wheat	W	NYMEX Brent	CD
LME Nickel	LN	CJCE Kerosene	KZ
CME live Cattle	LC	EURONEXT Feed Wheat	QK
COMEX Silver	SI	NYBOT Sugar # 14	SE
LME Zinc Future	LX	CME Random Lumber	LB
NYBOT Sugar #11	SB	TOCOM Silver	JI
COMEX Copper	HG	CBOT Oats	O
LME Nickel Future	LN	ASX Milling Wheat	MV
NYBOT Coffee C	KC	EURONEXT Corn	EP
TOCOM Gold	JG	TOCOM Palladium	JM
CBOT Soybean oil	BO	CME Pork Bellies Frozen	PB
NYBOT cotton #2	CT	CBOT Ethanol	DL
CBOT Soybean Meal	SM	TOCOM Aluminium	JH
CME Lean Hogs	LH	WCE Barley	WA
KCBT Wheat	KW	SFE Greasy Wool	OL
LME Lead	LL	ASX Feed Barley	FY
CBOT Gold	ZP	TGE Robusta Coffee	FZ
EURONEXT Cocoa	QC	Fukuoka Yellow Corn	AQ
TGE Corn	JC	COMEX Aluminium	AL
NYBOT Cocoa	CC	OSAMEX Aluminium	WI
TOCOM Platinum	JA	CME Butter	UR
NYMEX Un. Regular Gasoline	HU	NYBOT Pulp	PF
TOCOM Gasoline	JV	OSAMEX Natural Rubber	ZN
NYMEX ClearPort PJM Electricity Futures	DM	Winnipeg Feed Wheat	WW
LME Lead Future	LL	ASX Sorghum	SX
ICE Natural Gas	FN	SFE Fine Wool	OS
MGE Red Wheat Future	MW	SFE Fine Wool	OS
CME feeder Cattle	FC	CCO Eggs	EA
NORDPOOL BASE MONTHLY Electricity	NELIM	OSAMEX Nickel	NL
LME Tin	LT	NYMEX Uranium	UXA
EEE PHELIX BASE	GI	NYMEX Propane	PN
TOCOM Kerosene	JX	CJCE Ferrous Scrap	AN
EURONEXT White Sugar	QW	Kansai Raw Sugar	SJ
EURONEXT Robusta Coffee	DF	Kansai Frozen Shrimp	FS
LME NASAAC	LMNADS03	TGE Soybean Meal	SG
CME MILK	DA	SFE Broad Wool	OQ
TGE NGM Soybeans	KS	WTB Brewing Barley	BE
TOCOM Rubber	JN	CBOT South American Soybeans	OC
NYMEX Platinum	PL	CJCE Gas Oil	KU
CBOT Silver	ZI	Fukuoka Broiler Chicken	AH
WCE Canola	RS	NY HDD Future	NF
NYBOT Orange Juice Frozen Concentrate	JO	CME Butter Cash	V6
Fukuoka NGM Soybeans	NC	ICE Rotterdam Coal	XA