

# Trader Vic Index<sup>®</sup> Methodology

## 1. General Description

The Trader Vic Index<sup>®</sup> (the “**Index**”) is an index which follows a rules-based methodology designed to reflect the price trends in a diversified portfolio of notional futures contracts across 24 commodity and financial futures markets (each an “**Index Component**”). These contracts are grouped into Sectors and each Sector is represented on either a Long Position or Short Position (with the exception of the Energy Sector, which is represented on either a Long Position or Flat Position) depending on recent price trends of that Sector.

With the ability to reference both Long Positions and Short Positions, the Index is designed to reflect the economic benefit of price trends within a cross section of the futures markets over the long-term and does not seek to adjust the “long” or “short” positioning of its Sectors (or, with respect to the Energy Sector, the “long” or “flat” position) based on short-term movements in prices. Energy, due to significant demand, limited reserves, and price inelasticity and pricing controls, may be subject to rapid price increases in the event of perceived or actual shortages. As such, there is never a Short Position with respect to the Energy Sector in the Index<sup>1</sup>.

The primary objective of the Index is to measure, in aggregate, the component trends based on price movements of certain liquid commodity and financial futures contracts. As such, the Index reflects the profit (or loss) of those price trends.

The Index is implemented in a rules-based methodology and is not intended to be representative of a particular futures market or group of markets. Importantly, liquidity of the Index and limiting the volatility of the Index were key guides in the determination of the methodology.

Capitalized terms, unless otherwise defined herein, have the meaning given to them in Section 13.

## 2. Index Composition

### 2.1. Recognised Exchanges

To facilitate the calculation, replication and tradability of the Index, all Futures Contracts included in the Index must be publicly traded on one of the Recognised Exchanges. At present, the Recognised Exchanges are listed below in Table 1. The Recognised Exchanges may be altered from time to time by the Index Committee.

Table 1:

Recognised Exchange	Abbreviation	Country
Chicago Board of Trade	CBOT	US
Chicago Mercantile Exchange	CME	US
New York Mercantile Exchange	NYMEX	US
Intercontinental Exchange	ICE	US

### 2.2. Index Components

On the Index Launch Date, the Index was comprised of the Index Components set forth in Table 2(a) below.<sup>2</sup> Index Components are distributed into 18 Sectors. Each Sector rebalances monthly to its Sector Base Weight (or “**sw<sub>i</sub>(0)**”) and will maintain a Long Position or Short Position, with the exception of the Energy Sector, which will maintain a Long or Flat Position (see Sections 3 and 5). Table 2(b) below displays the respective Index Component Contract Factors. The Index Components rebalance annually to their respective Index Component Base Weights (or “**w<sub>i</sub>(0)**”) (see Sections 3 and 6). Table 2(a) below displays the Index Component Base Weights to which Index Components rebalance annually, unless the Energy Sector is in a Flat Position, in which case the respective Index Component Base Weights will be rebalanced in accordance with the formula described in Section 3.6.

<sup>1</sup> The Natural Gas Sector, represented by the Natural Gas Index Component, may be held either long or short by the Index, effective as of May 1, 2012. See [Appendix A](#).

<sup>2</sup> See [Appendix A](#) for notable amendments made to this Index methodology since the Index Launch Date.

Table 2(a):

Sector j	Sector Base Weight sw <sub>j</sub> (0)	Index Component i	Index Component Base Weight w <sub>i</sub> (0)	Index Component Number of Roll Days NR <sub>i</sub>
Energy	17.50%	Light Crude (WTI)	10.50%	1
		RBOB Gas	3.50%	1
		Heating Oil	3.50%	1
Natural Gas	4.60%	Natural Gas	4.60%	2
Grains	11.85%	Soybeans	5.15%	2
		Corn	4.100%	2
		Wheat	2.60%	2
Precious Metals	5.40%	Gold	3.60%	1
		Silver	1.80%	1
High Grade Copper	5.15%	High Grade Copper	5.15%	3
Livestock	2.50%	Live Cattle	1.50%	2
		Lean Hogs	1.00%	3
		Sugar	1.00%	2
		Cotton	0.50%	2
		Cocoa	0.50%	4
		Coffee	1.00%	2
Euro	11.00%	Euro	11.00%	1
Japanese Yen	10.00%	Japanese Yen	10.00%	1
Swiss Franc	10.00%	Swiss Franc	10.00%	3
British Pound	3.00%	British Pound	3.00%	1
Australian Dollar	2.00%	Australian Dollar	2.00%	1
Canadian Dollar	1.00%	Canadian Dollar	1.00%	1
US 30Yr Bond	6.50%	US 30Yr Bond	6.50%	1
US 10Yr Note	6.50%	US 10Yr Note	6.50%	1

The Index Components shall be initially weighted at the weights in the Index based on the Settlement Price of the Relevant Contract for each Index Component i on the Index Launch Date. Index Component weights may change based on Exponential Moving Average calculations, as set forth in Section 3. Annually, after the close on each Annual Re-weighting Date, the Index Component weights will be readjusted, as set forth in Sections 3 and 6.

For each Index Component covered by this Index methodology, the Contract Factor (Factor i) is set forth in Table 2(b) below. The Contract Factor may be amended from time to time by the Index Sponsor with the consent of the Index Committee consistent with the factors or figures that the Recognised Exchange uses.

Table 2(b):

Index Component i	Symbol i	Recognised Exchange	Factor i
Heating Oil	HO	NYMEX	42,000 (US Gallons)
Light Crude (WTI)	CL	NYMEX	1,000 (US Barrels)
Natural Gas	NG	NYMEX	10,000 (MMBtu)
RBOB Gas	XB	NYMEX	42,000 (US Gallons)
Lean Hogs	LH	CME	40,000 (Lbs)
Live Cattle	LC	CME	40,000 (Lbs)
Corn	C	CBOT	5,000 (Bushels)
Soybeans	S	CBOT	5,000 (Bushels)
Wheat	W	CBOT	5,000 (Bushels)
High Grade Copper	HG	NYMEX	25,000 (Lbs)
Gold	GC	NYMEX	100 (Troy oz)
Silver	SI	NYMEX	5,000 (Troy oz)
Cocoa	CC	ICE	10 (Metric tons)
Coffee	KC	ICE	37,500 (Lbs)
Cotton	CT	ICE	50,000 (Lbs)
Sugar	SB	ICE	112,000 (Lbs)
Australian Dollar	AD	CME	100,000 (AUD)
British Pound	BP	CME	62,500 (GBP)
Canadian Dollar	CD	CME	100,000 (CAD)
Euro	EC	CME	125,000 (EUR)

Japanese Yen	JY	CME	12,500,000 (JPY)
Swiss Franc	SF	CME	125,000 (CHF)
US 30Yr Bond	US	CBOT	100,000 (USD)
US 10Yr Note	TY	CBOT	100,000 (USD)

### 3. Index Weighting Method

#### 3.1. Roll Schedule

The Relevant Contracts comprising the Index as they approach expiration will be rolled, as per the schedule (the “**Roll Schedule**”) in Table 3 below at the Rollover Time during the applicable Rollover Period for each Index Component, except as otherwise contemplated by this methodology.

Table 3 below shows the relevant Roll Schedule for each Index Component and displays the applicable Contract Expiration of the Relevant Contract to be transitioned into during the applicable Rollover Period and effective up to the start of the immediately following Rollover Period. During any given Rollover Period, the Relevant Contract will transition from the previous Relevant Contract to the current Relevant Contract in accordance with the “Index Component Number of Roll Days” outlined in Table 2(a). From time to time, the Index Committee may deem it necessary to modify the “Index Component Number of Roll Days” for one or more Index Components or other aspects of the Roll Schedule based on liquidity or market structure factors, provided that such modifications are made in accordance with Sections 7 and 10 below.

Table 3: Roll Schedule

Index Component	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Heating Oil	H	K	K	N	N	U	U	X	X	F	F	H
Light Crude (WTI)	J	J	M	M	Q	Q	V	V	Z	Z	G	G
Natural Gas	J	J	M	M	Q	Q	V	V	Z	Z	G	G
RBOB Gas	H	K	K	N	N	U	U	X	X	F	F	H
Lean Hogs	M	M	M	M	Q	Q	Z	Z	Z	Z	G	G
Live Cattle	M	M	M	M	Q	Q	Z	Z	Z	Z	G	G
Corn	H	N	N	N	N	U	U	Z	Z	Z	H	H
Soybeans	H	K	K	N	N	X	X	X	X	F	F	H
Wheat	H	N	N	N	N	U	U	Z	Z	Z	H	H
High Grade 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	N	N	N	N	U	U	Z	Z	Z	H	H
Cocoa	H	N	N	N	N	U	U	Z	Z	Z	H	H
Coffee	H	N	N	N	N	U	U	Z	Z	Z	H	H
Cotton	H	N	N	N	N	Z	Z	Z	Z	Z	H	H
Sugar	H	K	K	N	N	V	V	V	H	H	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
US 30Yr Bond	H	M	M	M	U	U	U	Z	Z	Z	H	H
US 10Yr Note	H	M	M	M	U	U	U	Z	Z	Z	H	H

The above table uses the following month letter code:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
F	G	H	J	K	M	N	Q	U	V	X	Z

For the avoidance of doubt, and by way of example:

The Contract Expiration applicable to Natural Gas in March (to be transitioned into over the Rollover Period commencing from but excluding the Rollover Date in February and effective to and including the Rollover Date in March) is the June contract. Therefore, in accordance with the “Index Component Number of Roll Days” listed for Natural Gas in Table 2(a), the Natural Gas Index Component will roll from the April contract to the June contract at the Rollover Time over a two-day Rolling Period commencing from but excluding the last Business Day in February.

### 3.2. Sector Returns

In respect of each Index Component, the monthly rate of return and cumulative rate of return for the relevant Position Determination Date are calculated (the “**Monthly Return**” and the “**Cumulative Return**”, respectively). The Cumulative Return of each Index Component assigned to the j-th Sector will determine the cumulative rate of return of such j-th Sector (the “**Sector Cumulative Return**”) for the relevant Position Determination Date. In respect of each j-th Sector, the rate of return during the period from (and including) the Position Determination Date immediately preceding the relevant Position Determination Date to (and including) the relevant Position Determination Date (the “**Sector Monthly Return**”) will be calculated based on the relevant Sector Cumulative Return. In respect of each Sector, the relevant Sector Monthly Returns will be used to calculate the continuous cumulative rate of return (the “**Rolling Sector Cumulative Return**”) for the relevant Position Determination Date. The Index Component weights are rebalanced to their respective Index Component Base Weights over the Rollover Period for each Index Component, in accordance with the “Index Component Number of Roll Days” listed for each Index Component, commencing on the Annual Re-Weighting Date. Therefore, the first monthly return affected by the rebalancing is calculated on the Position Determination Date in January.

For each Index Component i, the Monthly Return is calculated in accordance with the following formula:

$$MR_i(PDD) = \frac{P_i(PDD)}{P_i(PDD-1)} - 1$$

Where:

<b>MR<sub>i</sub>(PDD)</b>	means, in respect of the i-th Index Component, the Monthly Return on the relevant Position Determination Date;
<b>P<sub>i</sub>(PDD)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the relevant Position Determination Date; and
<b>P<sub>i</sub>(PDD-1)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the Position Determination Date immediately preceding the relevant Position Determination Date.

For each Index Component i, the Cumulative Return is calculated in accordance with the following formula:

On each Position Determination Date in January of each year:

$$CR_i(PDD) = MR_i(PDD)$$

Where:

<b>CR<sub>i</sub>(PDD)</b>	means, in respect of the i-th Index Component, the Cumulative Return on the relevant Position Determination Date; and
<b>MR<sub>i</sub>(PDD)</b>	means, in respect of the i-th Index Component, the Monthly Return on the relevant Position Determination Date.

On each subsequent Position Determination Date of each year:

$$CR_i(PDD) = (1 + CR_i(PDD-1)) \times (1 + MR_i(PDD)) - 1$$

Where:

<b>CR<sub>i</sub>(PDD)</b>	means, in respect of the i-th Index Component, the Cumulative Return on the relevant Position Determination Date;
<b>MR<sub>i</sub>(PDD)</b>	means, in respect of the i-th Index Component, the Monthly Return on the relevant Position Determination Date; and
<b>CR<sub>i</sub>(PDD-1)</b>	means, in respect of the i-th Index Component, the Cumulative Return on the Position Determination Date immediately preceding the relevant Position Determination Date.

For each Sector j, the Sector Cumulative Return is calculated in accordance with the following formula:

$$SCR_j(PDD) = \frac{\sum_{i=1}^{n(j)} w_i(0) \times CR_i(PDD)}{\sum_{i=1}^{n(j)} w_i(0)}$$

Where:

<b>SCR<sub>j</sub>(PDD)</b>	means, in respect of the j-th Sector, the Sector Cumulative Return on the relevant Position Determination Date;
<b>w<sub>i</sub>(0)</b>	means, in respect of the Index Components comprising the j-th Sector, the Index Component Base Weight;
<b>CR<sub>i</sub>(PDD)</b>	means, in respect of the Index Components comprising the j-th Sector, the Cumulative Return for the i-th Index Component on the relevant Position

**n(j)** Determination Date;  
means the number of Index Components comprising the j-th Sector; and  
**i** means each i-th Index Component that is assigned to the j-th Sector.

For each Sector j, the Sector Monthly Return is calculated in accordance with the following formula:

On each Position Determination Date in January of each year:

$$SMR_j(PDD) = SCR_j(PDD)$$

Where:

**SMR<sub>j</sub>(PDD)** means, in respect of the j-th Sector, the Sector Monthly Return on the relevant Position Determination Date; and  
**SCR<sub>j</sub>(PDD)** means, in respect of the j-th Sector, the Sector Cumulative Return on the relevant Position Determination Date.

On each subsequent Position Determination Date of each year:

$$SMR_j(PDD) = \frac{1 + SCR_j(PDD)}{1 + SCR_j(PDD-1)} - 1$$

Where:

**SMR<sub>j</sub>(PDD)** means, in respect of the j-th Sector, the Sector Monthly Return on the relevant Position Determination Date;  
**SCR<sub>j</sub>(PDD)** means, in respect of the j-th Sector, the Sector Cumulative Return on the relevant Position Determination Date; and  
**SCR<sub>j</sub>(PDD-1)** means, in respect of the j-th Sector, the Sector Cumulative Return on the Position Determination Date immediately preceding the relevant Position Determination Date.

For each Sector j, the Rolling Sector Cumulative Return, which is compared to the Exponential Moving Average (defined in Section 3.3) to determine the Sector Position for the following month, is calculated in accordance with the following formula:

$$RSCR_j(PDD) = (1 + RSCR_j(PDD-1)) \times (1 + SMR_j(PDD)) - 1$$

Where:

**RSCR<sub>j</sub>(PDD)** means, in respect of the j-th Sector, the Rolling Sector Cumulative Return on the relevant Position Determination Date;  
**RSCR<sub>j</sub>(PDD-1)** means, in respect of the j-th Sector, the Rolling Sector Cumulative Return on the Position Determination Date immediately preceding the relevant Position Determination Date; and  
**SMR<sub>j</sub>(PDD)** means, in respect of the j-th Sector, the Sector Monthly Return on the relevant Position Determination Date.

For the avoidance of doubt, since the Index Inception Date is 31 July 1990, the first Position Determination Date is 28 July 1989. On that date, Rolling Sector Cumulative Return is equal to zero.

### 3.3. Calculation of Exponential Moving Averages

The Index utilizes customized “**Exponential Moving Averages**” or “**EMAs**” to take notional Long Positions and Short Positions (or, in the case of the Energy Sector, Long Positions and Flat Positions) in an attempt to follow and reflect price trends across the respective commodity and financial futures included in the Index as described in this Section 3. An exponential moving average is a measure of average returns that can be used to give greater weight to more recent returns in computing the average. Sectors which are less sensitive to changing trends are given a more equal weighting across their returns, while Sectors which are more sensitive to changing trends are given a weighting which is more skewed towards the more recent returns.

The EMA is customised for each Sector in the Index based on a systematic proprietary process designed to reflect the historical behavioural patterns and price trends of the Index Components. The goal of the process is to determine the EMA for each Sector that best defines the underlying trending nature of the Sector using futures data over a long time-frame. Seasonality and historical volatility for each Index Component is considered and built into the EMA for each Sector included in the Index and this forms the basis for directional Long Positions and Short Positions (or, in the case of the Energy Sector, directional Long Positions and Flat Positions). Given the long-term outlook, the EMA for each Sector is fixed at the inception of the Index and is not revised or “fitted” to any recent market conditions or movements in the short to medium term. Each EMA may only be modified or adjusted by the Index Committee after the Index Launch Date pursuant to Section 7 below.

The calculation of the EMA for each Sector  $j$  is based on two key variables: (i) the number of months over which the EMA for that Sector is calculated ( $M_j$ ) and (ii) the multiplier or coefficient ( $\alpha_j$ ) used to assign weightings to the return values observed over the applicable number of months for the particular Sector. These variables are selected with the goal of allowing each EMA to capture the trending nature of prices in that particular commodity and financial futures market. The variables are selected for each Sector based on characteristics such as seasonality, variance and volatility observed historically for the underlying Sector. The number of months used to calculate the EMA for a Sector depends on the period deemed appropriate to reflect underlying trends in that Sector, and ranges from four to 12 months for the Sectors included in the Index. The multiplier then allows for different weightings to be assigned to each Rolling Sector Cumulative Return value in the EMA calculation. For example, a higher multiplier provides greater weight to more recent return values observed and therefore allows the EMA to be more sensitive to more recent movements in the moving average calculation. The multiplier ranges from one to two for the Sectors included in the Index.

Positions are determined on each Position Determination Date for each Sector  $j$  in accordance with the following formula for calculating the EMA for a particular Sector:

$$EMA_j(PDD) = \frac{\sum_{x=0}^{M_j-1} (\alpha_j)^{M_j-x-1} \times RSCR_j(PDD-x)}{\sum_{x=0}^{M_j-1} (\alpha_j)^x}$$

Where:

<b>EMA<sub>j</sub>(PDD)</b>	means, in respect of the $j$ -th Sector, the Exponential Moving Average on the relevant Position Determination Date;
<b>M<sub>j</sub></b>	means, in respect of the $j$ -th Sector, the number of months;
<b>α<sub>j</sub></b>	means, in respect of the $j$ -th Sector, the multiplier; and
<b>RSCR<sub>j</sub>(PDD-x)</b>	means, in respect of the $j$ -th Sector, the Rolling Sector Cumulative Return on the Position Determination Date (where $x=0, \dots, M(j)-1$ ).

For the avoidance of doubt, and by way of example:

$$\text{If } \alpha_j=1.4 \text{ and } M_j=4, \text{ then } \sum_{x=0}^{M_j-1} (\alpha_j)^x = \sum_{x=0}^3 (1.4)^x = 7.104$$

$$\text{and } EMA_j(PDD) = \frac{1.4^3 \times RSCR_j(PDD) + 1.4^2 \times RSCR_j(PDD-1) + 1.4^1 \times RSCR_j(PDD-2) + 1.4^0 \times RSCR_j(PDD-3)}{7.104}$$

### 3.4. Determination of Sector Position

After the close of each Position Determination Date, the Sector Position for Sector  $j$  (or "**SP<sub>j</sub>(PDD)**") is determined as follows:

"**Short Position**" or "**SP<sub>j</sub>(PDD)= -1**" means, in respect of each Sector  $j$ , but not where Sector  $j$  represents Energy, the direction of the position of each Index Component relating to such Sector is short;

"**Flat Position**" or "**SP<sub>j</sub>(PDD)= 0**" means, where Sector  $j$  represents Energy, no position in any Index Components relating to such Sector; and

"**Long Position**" or "**SP<sub>j</sub>(PDD)= 1**" means, in respect of each Sector  $j$ , the direction of the position of each Index Component relating to such Sector is long.

If  $RSCR_j(PDD) \geq EMA_j(PDD)$ , then  $SP_j(PDD) = 1$ ;

Otherwise,  $SP_j(PDD) = -1$ , unless Sector  $j$  is the Energy Sector, in which case,  $SP_j(PDD) = 0$  (i.e.  $SP_{\text{Energy}}(PDD)=0$ );

For the avoidance of doubt, all the Index Components within a Sector maintain the same direction; therefore for each Index Component  $i$  comprising Sector  $j$ , the Relevant Contract Position (or "**RCP<sub>i</sub>**") is identical to the relevant Sector Position:

$$RCP_i(PDD) = SP_j(PDD)$$

If, for Sector  $j$ , the Rolling Sector Cumulative Return is equal to or greater than its Exponential Moving Average, a Long Position in Sector  $j$  is signalled and Long Position in each Index Component included in Sector  $j$  is tracked.

If, for Sector  $j$ , the Rolling Sector Cumulative Return is below its Exponential Moving Average:

If Sector  $j$  is the Energy Sector, a Flat Position is signalled, a Flat Position in each Index Component included in the Energy Sector is tracked and the Sector Base Weight for Energy is distributed proportionately to the other Sectors (See Section 3.6)

Otherwise, a Short Position in Sector  $j$  is signalled and a Short Position in each Index Component included in Sector  $j$  is tracked.

Futures Contracts for each Index Component in a Sector are replaced over the Rollover Period. The Index method of calculation, as outlined in Section 4, replaces Futures Contracts beginning on the Rollover Date through the Rollover Period, in accordance with the "Index Component Number of Roll Days" listed in Table 2(a), at the Rollover Time with new Relevant Contracts in accordance with Section 3.1.

### 3.5. Sector Monthly Rebalancing

Each Sector weight is rebalanced monthly to its Sector Base Weight, subject to the Sector Position and to the Sector Position of the Energy Sector, as defined above, over the applicable Rollover Period for each Index Component, in accordance with the "Index Component Number of Roll Days" listed for each Index Component. The monthly rebalancing of a Sector's weight occurs at the Rollover Time over the applicable Rollover Period for each of the Sector's Index Components.

The value to which the weight of Sector  $j$  is rebalanced over the current month's Rollover Period is calculated as follows:

If on the most recent Position Determination Date prior to the current month's Rollover Period,  $SP_{\text{Energy}}(\text{PDD})=1$ , in other words, the Energy Sector is in a Long Position:

$$sw_j(RD) = sw_j(0)$$

Otherwise, if  $SP_{\text{Energy}}(\text{PDD})=0$ :

$$sw_j(RD) = \frac{sw_j(0)}{(1 - sw_{\text{Energy}}(0))}$$

Where:

- $sw_j(\text{RD})$**  means in respect of the  $j$ -th Sector, the weight the Sector is to be rebalanced to over the relevant Rollover Period;
- $sw_j(0)$**  means, in respect of the  $j$ -th Sector, the Sector Base Weight; and
- $sw_{\text{Energy}}(0)$**  means, in respect of the Energy Sector, the Sector Base Weight.

If on the Position Determination Date immediately preceding the current month's Rollover Period,  $SP_{\text{Energy}}(\text{PDD})=0$ , i.e. the trend signals a Flat Position in the Energy Sector, then the Sector Base Weight of the Energy Sector is distributed pro-rata to the remaining Sectors over the relevant Rollover Period. If the start of the relevant Rollover Period is an Annual Re-weighting Date and the Energy Sector is due to be transitioned to a Flat Position over such Rollover Period, the Index Component Base Weights will change over the Rollover Period to the values displayed in the following table, by application of the formula above:

Sector $j$	Sector Base Weight $sw_j(0)$	Index Component $i$	Index Component Base Weight $w_i(0)$
Energy	0.0000%	Crude Oil	0.0000%
		RBOB Gas	0.0000%
		Heating Oil	0.0000%
Natural Gas	5.5758%	Natural Gas	5.5758%
Grains	14.3636%	Soybeans	6.2424%
		Corn	4.9697%
		Wheat	3.1515%
Precious Metals	6.5455%	Gold	4.3637%
		Silver	2.1818%
High Grade Copper	6.2424%	High Grade Copper	6.2424%
Livestock	3.0303%	Live Cattle	1.8182%
		Lean Hogs	1.2121%
Sugar	1.2121%	Sugar	1.2121%
Cotton	0.6061%	Cotton	0.6061%
Cocoa	0.6061%	Cocoa	0.6061%
Coffee	1.2121%	Coffee	1.2121%
Euro	13.3333%	Euro	13.3333%
Japanese Yen	12.1212%	Japanese Yen	12.1212%
Swiss Franc	12.1212%	Swiss Franc	12.1212%
British Pound	3.6364%	British Pound	3.6364%
Australian Dollar	2.4242%	Australian Dollar	2.4242%
Canadian Dollar	1.2121%	Canadian Dollar	1.2121%
US 30Yr Bond	7.8788%	US 30Yr Bond	7.8788%
US 10Yr Note	7.8788%	US 10Yr Note	7.8788%



After the close of each Rollover Period, all Sector weights add up to 1, i.e.  $\sum_{j=1}^N sw_j(RD) = 1$

where N means the total number of Sectors in the Index.

### 3.6. Intra-Sector Index Component Weighting

While Sectors are rebalanced to their base weights over each Rollover Period, the relative weights of Index Components within any Sector with more than one Index Component are allowed to fluctuate during the year within such Sector and are only rebalanced to their Index Component Base Weights annually at the Rollover Time over the Rollover Period commencing on the Annual Re-weighting Date.

Index Component weights are determined each month using the valuations on the Rollover Date.

Index Component weights are determined by calculating Sector returns as described in Section 3.2 where the date of observation is

on the Rollover Date. The following formulas shall be applied:  $MR_i(RD) = \frac{P_i(RD)}{P_i(RD-1)} - 1$

Where:

<b>MR<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Monthly Return on the relevant Rollover Date;
<b>P<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the relevant Rollover Date; and
<b>P<sub>i</sub>(RD-1)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the Rollover Date immediately preceding the relevant Rollover Date.

For each Index Component i, the Cumulative Return on the current Rollover Date is calculated as follows:

On each Rollover Date in January of each year, CR<sub>i</sub>(RD) is reset such that CR<sub>i</sub>(RD) = MR<sub>i</sub>(RD).

$$CR_i(RD) = MR_i(RD)$$

Where:

<b>CR<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Cumulative Return on the relevant Rollover Date; and
<b>MR<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Monthly Return on the relevant Rollover Date.

On each subsequent Rollover Date of each year:

$$CR_i(RD) = (1 + CR_i(RD-1)) \times (1 + MR_i(RD)) - 1$$

Where:

<b>CR<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Cumulative Return on the relevant Rollover Date;
<b>MR<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Monthly Return on the relevant Rollover Date; and
<b>CR<sub>i</sub>(RD-1)</b>	means, in respect of the i-th Index Component, the Cumulative Return on the Rollover Date immediately preceding the relevant Rollover Date.

For each Sector j, the Sector Cumulative Return is calculated in accordance with the following formula:

$$SCR_j(RD) = \frac{\sum_{i=1}^{n(j)} w_i(0) \times CR_i(RD)}{\sum_{i=1}^{n(j)} w_i(0)}$$

Where:

<b>SCR<sub>j</sub>(RD)</b>	means, in respect of the j-th Sector, the Sector Cumulative Return on the relevant Rollover Date;
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<b><math>w_i(0)</math></b>	means, in respect of each Index Component comprising the j-th Sector, the Index Component Base Weight;
<b><math>CR_i(RD)</math></b>	means, in respect of the i-th Index Component comprising the j-th Sector, the Cumulative Return on the relevant Rollover Date;
<b><math>n(j)</math></b>	means the number of Index Components comprising the j-th Sector; and
<b><math>i</math></b>	means each i-th Index Component that is assigned to the j-th Sector.

On each Rollover Date, Index Component weights are calculated using the Sector Position and the Sector Position of the Energy Sector as determined on the PDD immediately preceding the current Rollover Date, and the Monthly Return of each Index Component  $i$  within Sector  $j$  as determined on the current Rollover Date.

Over the Rollover Period for each Index Component commencing on the Annual Re-weighting Date, in accordance with the “Index Component Number of Roll Days” listed for each Index Component, each Index Component is rebalanced to its Index Component Base Weight, as described in Section 2.2, unless the Energy Sector Position is flat as determined by the December Position Determination Date, in which case, the Index Component Weight for Index Component  $i$  (or “ **$w_i(RD)$** ”), to be rebalanced to over the Rollover Period for Index Component  $i$  commencing on the Annual Re-weighting Date, is defined as:

$$w_i(RD) = SP_{Energy}(PDD) \times w_i(0) + (1 - SP_{Energy}(PDD)) \times \left( \frac{1}{1 - SW_{Energy}(0)} \right) \times w_i(0)$$

Where:

<b><math>SP_{Energy}(PDD)</math></b>	means, in respect of the Energy Sector, the Sector Position on the Position Determination Date immediately preceding the relevant Rollover Period;
<b><math>w_i(0)</math></b>	means, in respect of the i-th Index Component, the Index Component Base Weight, as determined on each Annual Re-weighting Date as per Section 2.2; and
<b><math>SW_{Energy}(0)</math></b>	means, in respect of the Energy Sector, the Sector Base Weight, as determined by the Index Committee on each Annual Re-weighting Date as per Section 2.2.

The Index Component Weight in respect of the i-th Index Component,  $w_i(RD)$  to be rebalanced to over the Rollover Period commencing on the Annual Re-weighting Date, and effective to and including the next Rollover Date, is calculated in accordance with the following formula:

$$w_i(RD) = SP_{Energy}(PDD) \times w_i(0) \times \frac{(1 + CR_i(RD))}{(1 + SCR_j(RD))} + (1 - SP_{Energy}(PDD)) \times \left( \frac{1}{1 - SW_{Energy}(0)} \right) \times w_i(0) \times \frac{(1 + CR_i(RD))}{(1 + SCR_j(RD))}$$

Where:

<b><math>SP_{Energy}(PDD)</math></b>	means, in respect of the Energy Sector, the Sector Position on the Position Determination Date immediately preceding the relevant Rollover Date;
<b><math>w_i(0)</math></b>	means, in respect of the i-th Index Component, the Index Component Base Weight, as determined on each Annual Re-weighting Date as per Section 2.2;
<b><math>CR_i(RD)</math></b>	means, in respect of the i-th Index Component, the Cumulative Return on the relevant Rollover Date;
<b><math>SCR_j(RD)</math></b>	means, in respect of the j-th Sector, the Sector Cumulative Return on the relevant Rollover Date; and
<b><math>SW_{Energy}(0)</math></b>	means, in respect of the Energy Sector, the Sector Base Weight, on each Annual Re-weighting Date as per Section 2.2.

#### 4. Index Method of Calculation

The value of the Trader Vic Index® Excess Return on the Index Inception Date is 1000.

##### 4.1. Calculation of the value of the Index Excess Return (“TVIER”) on all Business Days excluding the Rollover Period

$$TVIER(t) = TVIER(t - 1) + TVIER(RD) \times \sum_{i=1}^Z (CSR_i)$$

Where:

**CSR<sub>i</sub>** means, in respect of the i-th Index Component, the daily component return, which is calculated as follows

$$CSR_i = RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t) - P_i(t-1)}{P_i(RD)} \right)$$

**t** means the current Business Day;

**t-1** means the previous Business Day;

**RD** means the Rollover Date immediately preceding Business Day t;

**TVIER(t)** means the value of the Trader Vic Index® Excess Return on Business Day t;

**TVIER(t-1)** means the value of the Trader Vic Index® Excess Return on Business Day t-1;

**TVIER(RD)** means the value of the Trader Vic Index® Excess Return on the Rollover Date immediately preceding Business Day t;

**Z** means the total number of Index Components included in the Index on Business Day t;

**RCP<sub>i</sub>(RD)** means, in respect of the i-th Index Component, the Relevant Contract Position on the Rollover Date immediately preceding Business Day t, as determined by Section 3.4.;

**w<sub>i</sub>(RD)** means, in respect of the i-th Index Component, the Index Component Weight on the Rollover Date immediately preceding Business Day t;

**P<sub>i</sub>(t-1)** means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract i on Business Day t-1;

**P<sub>i</sub>(t)** means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract i on Business Day t;

**P<sub>i</sub>(RD)** means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the Rollover Date immediately preceding Business Day t.

#### 4.2. Calculation of the value of the Index Excess Return (“TVIER”) during a Rollover Period[i.e. t>RD]

$$TVIER(t) = TVIER(t - 1) + \sum_{i=1}^Z [TVIER(RD - 1) \times CSR_i(RD - 1) + TVIER(RD) \times CSR_i(RD)]$$

Where:

**CSR<sub>i</sub>(RD-1)** means, in respect of the i-th Index Component, the daily component return based on the Rollover Date (RD-1) immediately preceding the Rollover Date (RD), which is calculated as follows:

$$CSR_i(RD-1) = \left( RCP_i(RD-1) \times w_i(RD-1) - \left( \frac{RCP_i(RD-1) \times w_i(RD-1)}{NR_i} \right) \times DR_i \right) \times \left( \frac{P_i^*(t) - P_i^*(t-1)}{P_i^*(RD-1)} \right)$$

**CSR<sub>i</sub>(RD)** means, in respect of the i-th Index Component, the daily component return based on the Rollover Date (RD) immediately preceding Business Day t, which is calculated as follows:

$$CSR_i(RD) = \frac{RCP_i(RD) \times w_i(RD)}{NR_i} \times DR_i \times \left( \frac{P_i(t) - P_i(t-1)}{P_i(RD)} \right)$$

<b>t</b>	means the current Business Day;
<b>t-1</b>	means the previous Business Day;
<b>RD</b>	means the Rollover Date immediately preceding Business Day t;
<b>RD-1</b>	means the Rollover Date that precedes Rollover Date (RD);
<b>TVIER(t)</b>	means the value of the Trader Vic Index® Excess Return on Business Day t;
<b>TVIER(t-1)</b>	means the value of the Trader Vic Index® Excess Return on Business Day t-1;
<b>TVIER(RD)</b>	means the value of the Trader Vic Index® Excess Return on the Rollover Date immediately preceding Business Day t;
<b>TVIER(RD-1)</b>	means the value of the Trader Vic Index® Excess Return on the Rollover Date (RD-1) that immediately precedes the Rollover Date (RD);
<b>Z</b>	means the total number of Index Components included in the Index on Business Day t;
<b>NR<sub>i</sub></b>	means, in respect of the i-th Index Component, the Total Number of Roll Days for the Index Component as specified in Table 2a by section 2.2;
<b>DR<sub>i</sub></b>	means, in respect of the i-th Index Component, the day of the component's Rollover Period less than or equal to <b>NR<sub>i</sub></b> . If the number of days in the Rollover Period ( <b>RP</b> ) is greater than <b>NR<sub>i</sub></b> , then <b>DR<sub>i</sub></b> is fixed at <b>NR<sub>i</sub></b> for the remaining days of the Rollover Period.

Example 1: If the Rollover Period is four days and the number of Roll Days for Natural Gas is two days, then

On day t=1 of the Rollover Period, **DR<sub>i</sub>**=1 for Natural Gas

On day t=2 of the Rollover Period, **DR<sub>i</sub>**=2 for Natural Gas

On day t=3 of the Rollover Period, **DR<sub>i</sub>**=2 for Natural Gas

On day t=4 of the Rollover Period, **DR<sub>i</sub>**=2 for Natural Gas

Example 2: If the Rollover Period is four days and the number of Roll Days for Sugar is one day, then

On day t=1 of the Rollover Period, **DR<sub>i</sub>**=1 for Sugar

On day t=2 of the Rollover Period, **DR<sub>i</sub>**=1 for Sugar

On day t=3 of the Rollover Period, **DR<sub>i</sub>**=1 for Sugar

On day t=4 of the Rollover Period, **DR<sub>i</sub>**=1 for Sugar

<b>RCP<sub>i</sub>(RD-1)</b>	means, in respect of the i-th Index Component, the Relevant Contract Position on the Rollover Date (RD-1) immediately preceding the Rollover Date (RD), as determined by Section 3.4;
<b>P<sub>i</sub>(RD-1)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the Rollover Date (RD-1) immediately preceding the Rollover Date (RD).
<b>w<sub>i</sub>(RD-1)</b>	means, in respect of the i-th Index Component, the Index Component Weight on the Rollover Date (RD-1) immediately preceding the Rollover Date (RD);
<b>P<sub>i</sub><sup>*</sup>(t-1)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract i (with respect to RD -1) on Business Day preceding Business Day t; if there was not a contract roll on the execution date then <b>P<sub>i</sub><sup>*</sup>(t-1) = P<sub>i</sub>(t-1)</b> ;
<b>P<sub>i</sub><sup>*</sup>(t)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract i (with respect to RD -1) on Business Day t; if there was not a contract roll on the execution date then <b>P<sub>i</sub><sup>*</sup>(t) = P<sub>i</sub>(t)</b> ;
<b>RCP<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Relevant Contract Position on the Rollover Date immediately preceding Business Day t, as determined by Section 3.4.;
<b>w<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Index Component Weight on the Rollover Date immediately preceding Business Day t;
<b>P<sub>i</sub>(t-1)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract i on the Business Day preceding Business Day t;
<b>P<sub>i</sub>(t)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract i on Business Day t;
<b>P<sub>i</sub>(RD)</b>	means, in respect of the i-th Index Component, the Settlement Price of the Relevant Contract on the Rollover Date immediately preceding Business Day t.

For the avoidance of doubt, when the i-th Index Component has a one-day roll (i.e. NR<sub>i</sub> = 1), CSR<sub>i</sub>(RD-1) and CSR<sub>i</sub>(RD) will be computed as shown below, during a four-day Rollover Period:

<i>t</i>	NR <sub>i</sub>	DR <sub>i</sub>	CSR <sub>i</sub> (RD - 1)	CSR <sub>i</sub> (RD)
1	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=1) - P_i(t=RD)}{P_i(RD)} \right)$
2	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=2) - P_i(t=1)}{P_i(RD)} \right)$
3	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=3) - P_i(t=2)}{P_i(RD)} \right)$
4	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=4) - P_i(t=3)}{P_i(RD)} \right)$

For the avoidance of doubt, when the i-th Index Component has a two-day roll (i.e. NR<sub>i</sub> = 2), CSR<sub>i</sub>(RD-1) and CSR<sub>i</sub>(RD) will be computed as shown below, during a four-day Rollover Period:

<i>t</i>	NR <sub>i</sub>	DR <sub>i</sub>	CSR <sub>i</sub> (RD - 1)	CSR <sub>i</sub> (RD)
1	2	1	$RCP_i(RD - 1) \times w_i(RD - 1) \times \frac{1}{2} \times \left( \frac{P_i^*(t=1) - P_i^*(t=RD)}{P_i^*(RD - 1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{2} \times \left( \frac{P_i(t=1) - P_i(t=RD)}{P_i(RD)} \right)$

2	2	2	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=2) - P_i(t=1)}{P_i(RD)} \right)$
3	2	2	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=3) - P_i(t=2)}{P_i(RD)} \right)$
4	2	2	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=4) - P_i(t=3)}{P_i(RD)} \right)$

For the avoidance of doubt, when the i-th Index Component has a four-day roll (i.e.  $NR_i = 4$ ),  $CSR_i(RD-1)$  and  $CSR_i(RD)$  will be computed as shown below, during a four-day Rollover Period:

$t$	$NR_i$	$DR_i$	$CSR_i(RD-1)$	$CSR_i(RD)$
1	4	1	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{3}{4} \times \left( \frac{P_i^*(t=1) - P_i^*(t=RD)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t=1) - P_i(t=RD)}{P_i(RD)} \right)$
2	4	2	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{2}{4} \times \left( \frac{P_i^*(t=2) - P_i^*(t=1)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{2}{4} \times \left( \frac{P_i(t=2) - P_i(t=1)}{P_i(RD)} \right)$
3	4	3	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{1}{4} \times \left( \frac{P_i^*(t=2) - P_i^*(t=1)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{3}{4} \times \left( \frac{P_i(t=3) - P_i(t=2)}{P_i(RD)} \right)$
4	4	4	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=4) - P_i(t=3)}{P_i(RD)} \right)$

#### 4.3. Calculating the TVIER when an Index Component reaches a Limit Price during a Rollover Period

When an Index Component that was scheduled to roll settles at a Limit Price on any Business Day during the Rollover Period, that Index Component's roll is held until a following Business Day where the Index Component does not settle at a Limit Price. Holding an Index Component's roll impacts its Day of Roll ( $DR_i$ ) value in the following manner:

**$DR_i$**  means, in respect of the i-th Index Component, the day of the Index Component's Rollover Period less than or equal to  $NR_i$ . If the number of days in the Rollover Period ( $RP$ ) is greater than  $NR_i$ , then  $DR_i$  is fixed at  $NR_i$  for the remaining days of the Rollover Period. If a limit move takes place for the i-th Index Component on day one of the Rollover Period then  $DR_i=0$ , until the Index Component can be executed. If a limit move takes place on any other day of the Rollover Period, then the  $DR_i$  is set to the previous Business Day's value

Example 1: if a limit move occurs on day  $t=1$  for an Index Component with a two-day roll during a four-day Rollover Period ( $RP$ ), then

on day  $t=1$ ,  $DR_i = 0$   
on day  $t=2$ ,  $DR_i = 1$   
on day  $t=3$ ,  $DR_i = 2$   
on day  $t=4$ ,  $DR_i = 2$

Example 2: if limit moves occur on days  $t=2$  and  $t=3$  for an Index Component with a four-day roll during a six-day Rollover Period ( $RP$ ), then

on day  $t=1$ ,  $DR_i = 1$

on day t=2, DR<sub>i</sub> =1  
 on day t=3, DR<sub>i</sub> =1  
 on day t=4, DR<sub>i</sub> =2  
 on day t=5, DR<sub>i</sub> =3  
 on day t=6, DR<sub>i</sub> =4

Example 3: if limit moves occur on days t=1, and t=3 of an Index Component with a four-day roll, during a six-day Rollover Period (**RP**), then

on day t=1, DR<sub>i</sub> =0  
 on day t=2, DR<sub>i</sub> =1  
 on day t=3, DR<sub>i</sub> =1  
 on day t=4, DR<sub>i</sub> =2  
 on day t=5, DR<sub>i</sub> =3  
 on day t=6, DR<sub>i</sub> =4

For the avoidance of doubt, when the i-th Index Component has a one-day roll (i.e. NR<sub>i</sub> = 1), CSR<sub>i</sub>(RD-1) and CSR<sub>i</sub>(RD) will be computed as shown below, during a four-day Rollover Period and a limit move on day t=1:

<i>t</i>	<i>NR<sub>i</sub></i>	<i>DR<sub>i</sub></i>	<i>CSR<sub>i</sub>(RD - 1)</i>	<i>CSR<sub>i</sub>(RD)</i>
1	1	0	$RCP_i(RD - 1) \times w_i(RD - 1) \times \left( \frac{P_i^*(t = 1) - P_i^*(t = RD)}{P_i^*(RD - 1)} \right)$	0
2	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t = 2) - P_i(t = 1)}{P_i(RD)} \right)$
3	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t = 3) - P_i(t = 2)}{P_i(RD)} \right)$
4	1	1	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t = 4) - P_i(t = 3)}{P_i(RD)} \right)$

For the avoidance of doubt, when the i-th Index Component has a four-day roll (i.e. NR<sub>i</sub> = 4), CSR<sub>i</sub>(RD-1) and CSR<sub>i</sub>(RD) will be computed as shown below, during a five-day Rollover Period and a limit move on day t=3:

<i>t</i>	<i>NR<sub>i</sub></i>	<i>DR<sub>i</sub></i>	<i>CSR<sub>i</sub>(RD - 1)</i>	<i>CSR<sub>i</sub>(RD)</i>
1	4	1	$RCP_i(RD - 1) \times w_i(RD - 1) \times \frac{3}{4} \times \left( \frac{P_i^*(t = 1) - P_i^*(t = RD)}{P_i^*(RD - 1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t = 1) - P_i(t = RD)}{P_i(RD)} \right)$
2	4	2	$RCP_i(RD - 1) \times w_i(RD - 1) \times \frac{2}{4} \times \left( \frac{P_i^*(t = 2) - P_i^*(t = 1)}{P_i^*(RD - 1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{2}{4} \times \left( \frac{P_i(t = 2) - P_i(t = 1)}{P_i(RD)} \right)$
3	4	2	$RCP_i(RD - 1) \times w_i(RD - 1) \times \frac{2}{4} \times \left( \frac{P_i^*(t = 3) - P_i^*(t = 2)}{P_i^*(RD - 1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{2}{4} \times \left( \frac{P_i(t = 3) - P_i(t = 2)}{P_i(RD)} \right)$

4	4	3	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{1}{4} \times \left( \frac{P_i^*(t=4) - P_i^*(t=3)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{3}{4} \times \left( \frac{P_i(t=4) - P_i(t=3)}{P_i(RD)} \right)$
5	4	4	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=5) - P_i(t=4)}{P_i(RD)} \right)$

For the avoidance of doubt, when the i-th Index Component has a four-day roll (i.e.  $NR_i = 4$ ),  $CSR_i(RD-1)$  and  $CSR_i(RD)$  will be computed as shown below, during a six-day Rollover Period and limit moves on days  $t=2$  and  $t=3$ :

$t$	$NR_i$	$DR_i$	$CSR_i(RD-1)$	$CSR_i(RD)$
1	4	1	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{3}{4} \times \left( \frac{P_i^*(t=1) - P_i^*(t=RD)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t=1) - P_i(t=RD)}{P_i(RD)} \right)$
2	4	1	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{3}{4} \times \left( \frac{P_i^*(t=2) - P_i^*(t=1)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t=2) - P_i(t=1)}{P_i(RD)} \right)$
3	4	1	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{3}{4} \times \left( \frac{P_i^*(t=3) - P_i^*(t=2)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t=3) - P_i(t=2)}{P_i(RD)} \right)$
4	4	2	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{2}{4} \times \left( \frac{P_i^*(t=4) - P_i^*(t=3)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{2}{4} \times \left( \frac{P_i(t=4) - P_i(t=3)}{P_i(RD)} \right)$
5	4	3	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{1}{4} \times \left( \frac{P_i^*(t=5) - P_i^*(t=4)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{3}{4} \times \left( \frac{P_i(t=5) - P_i(t=4)}{P_i(RD)} \right)$
6	4	4	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=6) - P_i(t=5)}{P_i(RD)} \right)$

For the avoidance of doubt, when the i-th Index Component has a four-day roll (i.e.  $NR_i = 4$ ),  $CSR_i(RD-1)$  and  $CSR_i(RD)$  will be computed as shown below, during a six-day Rollover Period and limit moves on days  $t=1$  and  $t=3$ :

$t$	$NR_i$	$DR_i$	$CSR_i(RD-1)$	$CSR_i(RD)$
1	4	0	$RCP_i(RD-1) \times w_i(RD-1) \times \left( \frac{P_i^*(t=1) - P_i^*(t=RD)}{P_i^*(RD-1)} \right)$	0
2	4	1	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{3}{4} \times \left( \frac{P_i^*(t=2) - P_i^*(t=1)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t=2) - P_i(t=1)}{P_i(RD)} \right)$
3	4	1	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{3}{4} \times \left( \frac{P_i^*(t=3) - P_i^*(t=2)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{1}{4} \times \left( \frac{P_i(t=3) - P_i(t=2)}{P_i(RD)} \right)$



4	4	2	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{2}{4} \times \left( \frac{P_i^*(t=4) - P_i^*(t=3)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{2}{4} \times \left( \frac{P_i(t=4) - P_i(t=3)}{P_i(RD)} \right)$
5	4	3	$RCP_i(RD-1) \times w_i(RD-1) \times \frac{1}{4} \times \left( \frac{P_i^*(t=5) - P_i^*(t=4)}{P_i^*(RD-1)} \right)$	$RCP_i(RD) \times w_i(RD) \times \frac{3}{4} \times \left( \frac{P_i(t=5) - P_i(t=4)}{P_i(RD)} \right)$
6	4	4	0	$RCP_i(RD) \times w_i(RD) \times \left( \frac{P_i(t=6) - P_i(t=5)}{P_i(RD)} \right)$

#### 4.4. Calculation of the value of the Trader Vic Index® (“TVI®”)

The Index is a total return Index, which means it incorporates the returns of the Index Excess Return and the Interest Rate Component. The value of the Index (“**Index Value**”) will be calculated and published by the Index Calculator on every Business Day t according to the following formula, subject to a Market Disruption Event:

**On the Index Inception Date (t=0), the initial Index Value will be USD 1000.00 (“Initial Index Value”):**

$$TVI(0)=1000$$

**On all other days, the value of the Index is comprised of two components:**

$$TVI(t) = I(t) + R(t),$$

**For any time t (t > RD):**

$$I(t) = TVI(RD) \times \left( 1 + \frac{TVIER(t) - TVIER(RD)}{TVIER(RD)} \right)$$

Where:

**I(t)** means the value of the Index without the impact of the Interest Rate Component on Business Day t; and

**TVI(RD)** means the value of Index on the Rollover Date immediately preceding Business Day t.

On the Rollover Date (t=RD), I(t) is first calculated using the current Relevant Contract before the Relevant Contract is rolled over according to the rules described in Section 3:

**The Interest Rate Component is calculated as follows (t>RD):**

R(t) is re-invested based on the value of the Index Total Return on the most recent Rollover Date, and represents the accrued interest from the previous Rollover Date to (and including) the current Business Day, which may also be a Rollover Date.

$$R(t) = TVI(RD) \times \sum_{d=RD+1}^t \left( r(d') \times \frac{(d-d')}{360} \right)$$

Where:

**RD** means the most recent Rollover Date prior to Business Day t;

**d** means the Business Day t;

**d'** means the Business Day t-1 immediately preceding Business Day t;

**TVI(RD)** means the value of the Index Total Return on Rollover Date immediately preceding Business Day t;

**R(t)** means the value of the Interest Rate Component on Business Day t;

<b>r(d')</b>	means the US 3-Month T-Bill high discount rate at auction as published on Bloomberg page USB3MTA <Index>; and
<b>(d-d')</b>	means the number of calendar days between d and d'.

## 5. Re-balancing of the Index

The weight of each Sector will be rebalanced monthly to the relevant Sector Base Weight over the Rollover Period applicable to each Sector Index Component, subject to the Sector Position of Energy (“**Re-balancing**”), in accordance with Sections 2.2 and 3. The monthly rebalancing of a Sector’s weight is transitioned into at the Rollover Time over the applicable Rollover Period for each of the Sector’s Index Components. For each Sector with more than one Index Component, the relative weighting of each Index Component within such Sector is allowed to fluctuate intra-year and will rebalance to the relevant Index Component Base Weight only at the Rollover Time over the Rollover Period for each Index Component commencing on the Annual Re-weighting Date.

The basis for the Re-balancing shall be the Settlement Prices of the Relevant Contracts of the Index Components on the Rollover Date respectively.

$$(\text{Index Value})_{\text{before rebalance}} = (\text{Index Value})_{\text{after rebalance}}$$

## 6. Annual Re-weighting of the Index

The weight of each Index Component in a Sector with more than one Index Component will be rebalanced to the relevant Index Component Base Weight over the Rollover Period for the relevant Index Component commencing on the Annual Re-weighting Date, subject to the Sector Position of Energy (“**Annual Re-weighting**”). Annual Re-weighting of the Index will be applied in accordance with the “Index Component Number of Roll Days” shown in Table 2(a), beginning at the Rollover Time over the applicable Rollover Period for the Index Component commencing on the Annual Re-Weighting Date.

## 7. Trader Vic Index® Committee

In order to best adapt to changes in commodity and financial futures markets, such as continuous adverse trading conditions for a Futures Contract, a significant change in the outlook for an underlying or critical changes in the global consumption pattern, an index committee (“**Index Committee**”) formulates and enacts all business assessments and decisions regarding the calculation, composition and management of the Index, including but not limited to changes in Index Components, Futures Contracts, the Roll Schedule, the Index Component Number of Roll Days, Sector Base Weights and/or Index Component Base Weights.

As the Index Committee is comprised of individuals with substantial knowledge and expertise in the commodities and financials fields, the Index Committee plays a significant role in the maintenance of the Index. The Index Committee may assemble on any day of the year to deal with significant changes to underlying Index Components. The Index is designed to be a stable index, and the Index Committee may meet and enact changes that seek to keep the Index performance stable.

As of the date of this Index methodology, the Index Committee consists of the following members:

### Member’s name Nominated Representative

Victor Sperandeo (Index chairperson) EAM Partners L.P.

Adam Watts EAM Partners L.P.

A member appointed by The Royal Bank of Scotland plc (1)

A member appointed by The Royal Bank of Scotland plc (2)

Any amendments or alterations to the Index methodology will require at least a special majority (75%) approval vote by the Index Committee members to be accepted. The Index Committee will use commercially reasonable efforts to provide, on a timely basis, Index licensees and the Index Calculator with prior notice of all amendments or alterations to the Index methodology.

New members may be added to the Index Committee if agreed by all of the existing members of the committee at the time such decision is taken. Any current member (other than Victor Sperandeo) may be removed from the Index Committee if agreed by all other existing members of the committee at the time such decision is made.

In order to constitute a quorum, all current Index Committee members (or their appointees) must participate in the Index Committee meeting.

## 8. Publication of the Index

The daily prices of the Index and the Index Excess Return will be published on Bloomberg pages TVICTR <Index> and TVICER <Index>, respectively, and on Reuters pages .TVICTR and .TVICER, respectively.

Upon the occurrence of a Market Disruption Event on any Business Day, the Index Value will be calculated and published as set forth under Section 9 below, which in general provides that the Index Calculator shall not publish the Index Value on such day or any subsequent Business Day on which the Market Disruption Event is continuing.

#### 9. Market Disruption Event Disclaimer

If, in the determination of the Index Calculator, a Market Disruption Event has occurred on any Business Day, the Index Value will be calculated and published by the Index Calculator on the first succeeding Business Day on which the Index Calculator determines that there is no Market Disruption Event, unless the Index Calculator determines that there is a Market Disruption Event occurring on each of the eight Business Days immediately following the original Business Day on which (but for the Market Disruption Event) the Index Value would have been calculated and published by the Index Calculator. In that case, on such ninth Business Day, the Index Calculator shall determine the Settlement Price of the Relevant Contract of the Index Component affected by the Market Disruption Event and the Index Value having regard to the then prevailing market conditions, the last reported trading price of the respective Index Components and such other factors as the Index Calculator determines to be relevant. Any such determination shall be made with the prior consent of the Index Committee.

If, in the determination of the Index Calculator, a Market Disruption Event has occurred for an Index Component on a Business Day during the Rollover Period, the relevant roll for such Index Component on such Business Day, shall be postponed to the first succeeding Business Day on which the Index Calculator determines that there is no Market Disruption Event, unless the Index Calculator determines that there is a Market Disruption Event occurring on each of the subsequent Business Days immediately following the original Business Day on which such Index Component would have rolled (but for the Market Disruption Event) up to the ninth Business Day of the month. In that case (i) the relevant roll of the Index Component shall take place on the ninth Business Day of the month (and each subsequent Business Day if there is more than one Business Day remaining in the applicable Rollover Period for such Index Component) regardless of the Market Disruption Event; and (ii) the Index Calculator shall determine the Settlement Price of the Relevant Contract (or Contracts) of the Index Component affected by the Market Disruption and the Index Value having regard to the then prevailing market conditions, the last reported trading price of the respective Index Components and such other factors as the Index Calculator determines to be relevant. Any such determination shall be made with the prior consent of the Index Committee.

Any determinations or actions by the Index Calculator with the consent of the Index Committee as described above may include, among others but without limitation:

- (i) accepting the price or level of any Index Component of or instrument referenced by the Index published on any alternative price source;
- (ii) if no alternative price source is available, selecting a substantially similar component for the Index or instrument at a value determined by the Index Calculator;
- (iii) removing the affected Index Component from the Index at a value determined by the Index Calculator, thereby resulting in a decrease in the Index Value by a commensurate amount;
- (iv) if no alternative price source or similar instrument or component is available, adjust, amend or otherwise alter the methodology in accordance with sections 10 and 12; and
- (v) if none of the foregoing will achieve the objective of the Index, permanently cease to calculate and/or disseminate levels for the Index.

Further, notwithstanding the foregoing, if, on any Business Day, there is a suspension of or limitation on trading by the Recognised Exchange by reason of movements in price of one or more Futures Contracts of an Index Component exceeding the Limit Price (up in the case of limit-up or down in the case of limit-down) permitted by the Recognised Exchange and such suspension or limitation occurs during the Rollover Period for such Index Component then the closing value of the Index may be adjusted as described in Section 4 above.

#### 10. Adjustment Events

The Index methodology may be adjusted, amended, deleted or otherwise altered by the Index Sponsor at any time, effective on such date as the Index Sponsor shall designate, with the consent of the Index Committee. These adjustments may include, but are not limited to the following:

- (a) *Illegality*: any adjustments required because it has become unlawful in any applicable jurisdiction to (i) sell or purchase any of the Index Components or Futures Contracts or (ii) use any Index Component or Futures Contract in the Index; or
- (b) *Clarification*: any adjustments required for clarification or for minor or technical reasons, including (without limitation) (i) to correct any manifest or proven error or to cure, correct or supplement any ambiguity or defective provision contained in this Index methodology and (ii) clarifying, minor or technical adjustments made to the Index to ensure that the Index complies with the requirements of the Council Directive of 20 December 1985 on the co-ordination of laws, regulations and

administrative provisions relating to undertakings for collective investment in transferable securities (No 85/611/EEC) as amended from time to time and supplemented in similar laws or regulations for financial indices; or

- (c) *Termination*: any Index Component or Futures Contract referenced in the Index is terminated or modified or changed in any other way; or
- (d) *Integrity*: such other adjustments as are necessary to ensure the integrity of the Index;

each an “**Adjustment Event**”. The Index Sponsor will use commercially reasonable efforts to provide, on a timely basis, Index licensees and the Index Calculator with prior notice of all Adjustment Events. The Index Sponsor shall publish notices of any Adjustment Events in accordance with Section 11 (Notice) below.

## 11. Notice

Upon the occurrence of any event to which notice is required as provided for herein, the Index Committee may require the Index Sponsor to publish notice of the occurrence of the relevant event on Bloomberg pages TVICTR <Index> and TVICER <Index> and on Reuters pages .TVICTR and .TVICER, and disseminated over PR Newswire.

The Index Sponsor may publish such additional notices relating to the Index as it determines necessary, but is under no obligation to publish any particular notice. Such notices may be published on Bloomberg pages TVICTR <Index> and TVICER <Index> and on Reuters pages .TVICTR and .TVICER.

## 12. Determination and Calculation

Unless otherwise expressly stated, all calculations shall be made by the Index Calculator and all such calculations and determinations shall be final, conclusive and binding (save in the case of manifest error).

Whilst it is intended that the Index Calculator will employ the Index methodology described herein to make determinations in respect of the Index, no assurance can be given that market, regulatory, judicial or fiscal circumstances or, without limitation, any other circumstances will not arise that would necessitate a modification or change in such methodology. Without limiting the Index Sponsor’s powers with respect to Adjustment Events described in Section 10 above, the Index Committee may make any such modification or change to such methodology that it considers necessary to reflect such circumstances described in the previous sentence in accordance with, and pursuant to, Section 7 above. In such event, the Index Committee will notify the Index Sponsor of any modification or change to the Index methodology made by it, and the Index Sponsor will use commercially reasonable efforts to provide, on a timely basis, Index licensees and the Index Calculator with prior notice of all such modifications. The Index Sponsor shall publish notices of any such modifications in accordance with Section 11 (Notice) above.

## 13. Definitions and Methodology Interpretive Guidelines

“**Annual Re-weighting Date**” means the last Rollover Date of each year, subject to a Market Disruption Event;

“**Business Day**” means a day on which all of the Recognised Exchanges for each Futures Contract are (or, but for the occurrence of a Market Disruption Event, would have been) scheduled to open and are open for trading for at least three hours and a daily Settlement Price for each Futures Contract is published by the Recognised Exchange;

“**Contract Expiration**” means a specific calendar month specified by the Recognised Exchange during or after which a Futures Contract expires or delivery or settlement occurs;

“**Contract Factor**” means the number of quoted units comprising 1 Futures Contract on the Recognised Exchange;

“**Futures Contract**” means any futures contract on an Index Component that is traded on one of the Recognised Exchanges;

“**Index**” means Trader Vic Index® (TVI®);

“**Index Calculator**” means The Royal Bank of Scotland plc (which has delegated its role to RBS Business Services Private Limited) or any successor as may be appointed by the Index Committee from time to time;

“**Index Component**” has the meaning given in Section 1;

“**Index Component Base Weight**” means, for each Index Component, the weight of such Index Component within the Index, as determined by the Index Committee;

“**Index Component Number of Roll Days**” means the number of days over which a given Index Component will roll from the previous month’s position to the current month’s position in accordance with the number of days listed in Table 2(a), as determined by the Index Committee;.

“**Index Inception Date**” means 31 July 1990;

“**Index Launch Date**” means 03 June 2009;

“**Index Sponsor**” means EAM Partners L.P.;

“**Index Value**” means the value of the Index Total Return as described in more detail in Section 4;

“**Interest Rate Component**” means an interest component amount as described in more detail in Section 4;

“**Limit Price**” means on any Business Day, a Settlement Price for the Contract Expiration of the Relevant Contract with respect to a particular Index Component that represents the maximum or minimum price for such Contract Expiration on such Business Day, as determined by the rules or policies or the relevant Recognised Exchange or the Commodity Futures Trading Commission;

“**Market Disruption Event**” means, in respect of any Business Day, any unscheduled and extraordinary condition that would require calculation of the Index on an alternative basis or on an alternative Business Day were such event to occur or exist on such day, all as determined by the Index Calculator in its sole and absolute discretion.

Without limitation, each of the following may be a Market Disruption Event if so determined by the Index Calculator in its sole and absolute discretion:

- General Moratorium. General moratorium in respect of banking activities in the country in which the Recognised Exchange on which one of the Futures Contracts is traded or is located; or
- Price Source Disruption. It becomes impossible to obtain the Settlement Price of a Futures Contract on a Business Day; or
- Recognised Exchange Disruption. It becomes impossible to obtain a price for or trade in the Relevant Contract on the relevant Recognised Exchange; or
- Illiquidity. It is impossible to obtain a firm quote for the Settlement Price of a Futures Contract such that the Index Calculator is unable to perform the determinations and calculations required of it under the Index methodology to discharge its obligations with respect to the Index; or
- Inconvertibility/non-transferability. The occurrence of any event which (A) generally makes it impossible to convert the currencies in the Settlement Currency through customary legal channels for conducting such conversion in the principal financial centre of the Settlement Currency or (B) generally makes it impossible to deliver the Settlement Currency from accounts in the country of the principal financial centre of the Settlement Currency to accounts outside such jurisdiction or the Settlement Currency between accounts in such jurisdiction or to a party that is a non-resident of such jurisdiction; or
- Imposition of Tax and/or Levy. The imposition of any tax and/or levy with punitive character on the Futures Contracts which is imposed in the country of the principal financial centre of the Settlement Currency; or
- Change in Law. A change in law in the country of the principal financial centre of the Settlement Currency, which may affect the ownership in and/or the transferability of the Settlement Currency; or
- Unavailability of Settlement Currency. The unavailability of the Settlement Currency in the country of the principal financial centre of the Settlement Currency.

“**Multiplier**” means the proprietary coefficient used to calculate the customised Exponential Moving Average in respect of each Sector;

“**Position Determination Date**” or “**PDD**” means the penultimate Business Day of the month;

“**Recognised Exchange**” means in respect of each Index Component, such exchange or trading facility that at least publishes daily Settlement Prices, trading volumes, and open interest data on all traded Futures Contracts and Contract Expirations, as determined by the Index Committee;

“**Relevant Contract**” means for each Index Component on a particular Business Day the Futures Contract with the appropriate month of Contract Expiration of each year as defined in Section 3. During each Rollover Period, if a roll is due in accordance with the Roll Schedule, the Relevant Contract is changed to the next following Futures Contract of the appropriate month of Contract Expiration of each year as determined by the Roll Schedule;

“**Rollover Date**” (or “**RD**”) means the last Business Day of each month, subject to a Market Disruption Event, on which the Index may start to roll its positions into the newly selected Relevant Contracts determined on the Position Determination Date;

“**Rollover Period**” (or “**RP**”) means for each Index Component the maximum number of Business Days necessary to roll the Relevant Contract determined on the Position Determination Date starting on the Rollover Date (**RD**);

**“Rollover Time”** means for each Futures Contract the close of trading during each Business Day of the Rollover Period on the relevant Recognised Exchange for that Futures Contract;

**“Roll Schedule”** means the customised schedule of expirations for each Index Component as set forth in Section 3.1; *provided* that if a Recognised Exchange modifies the Contract Expiration for any Index Component, the Index Committee may select an alternative Contract Expiration as the Relevant Contract for purposes of the Roll Schedule on any affected Rollover Date based on customised roll patterns for each Index Component, historical liquidity and seasonal observations.

**“Sector”** means one of the following single Index Components or groups of Index Components, as determined by the Index Committee in its sole discretion:

Energy  
 Natural Gas  
 Livestock  
 Grains  
 High Grade Copper  
 Precious Metals  
 Sugar  
 Cotton  
 Cocoa  
 Coffee  
 Australian Dollar  
 British Pound  
 Canadian Dollar  
 Euro  
 Japanese Yen  
 Swiss Franc  
 US 30Yr Bond  
 US 10Yr Note

**“Sector Base Weight” (or “ $sw_j(0)$ ”)** means, for each Sector, its weighting in the Index as determined in accordance with Sections 2.2 and 3.5, as may be modified pursuant to the terms of this Index methodology;

**“Sector Position” (or “ $sp_j(t)$ ”)** means in respect of each Sector, which includes its respective Index Components, a Long Position or a Short Position or (with respect to the Energy Sector only) no investment;

**“Settlement Currency”** means (i) US Dollar for physically-settled Futures Contracts and (ii) the underlying Index Component currency for cash-settled Futures Contracts; and

**“Settlement Price(s)”** means, in respect of any Futures Contracts, the daily settlement price(s) on the Recognised Exchange at its respective closing times.

#### Interpretive Guidelines

The following interpretive guidelines shall apply with respect to this Index methodology and any calculation or determination to be made hereunder:

(A) In relation to any Business Day, “**t**” means the relevant Business Day and, in respect of that Business Day, references to “**t**” plus or minus a specified number (i.e. “**t+1**”, “**t+2**”, or “**t-1**”) shall be to the Business Day falling that specified number of Business Days after or before, as the case may be, the Business Day to which “**t**” relates;

(B) In relation to a Position Determination Date, “**PDD**” means the relevant Position Determination Date, and in respect of that Position Determination Date, references to “**PDD**” plus or minus a specified number (i.e. “**PDD+1**” or “**PDD-1**”) shall be to the Position Determination Date falling that specified number of Position Determination Dates after or before, as the case may be, the Position Determination Date to which “**PDD**” relates;

(C) In relation to a Rollover Date, “**RD**” means the relevant Rollover Date, and in respect of that Rollover Date, references to “**RD**” plus or minus a specified number (i.e. “**RD+1**” or “**RD-1**”) shall be to the Rollover Date falling that specified number of Rollover Dates after or before, as the case may be, the Rollover Date to which “**RD**” relates; and

(D) In relation to any calculation, determination, amendment, modification or other action to be taken by the Index Sponsor, Index Committee or Index Calculator under or in connection with the Index methodology, the Index Sponsor, Index Committee or Index Calculator, as the case may be, is required to act in good faith and in a commercially reasonable manner.

#### 14. Notable Amendments Made to Methodology for the Index

Appendix A contains a list of notable amendments made to the methodology for the Index since the Index Launch Date.

#### 15. Disclaimer



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This communication does not purport to provide complete details on the Trader Vic Index<sup>®</sup> (TVI<sup>®</sup>) (the “Index”) of EAM, is for information purposes only, and should not be construed as investment, legal or tax advice. Neither this communication nor any information contained herein constitutes an offer to sell (nor the solicitation of an offer to buy) any security. Any such offer may only be made by a prospectus or similar disclosure document prepared by the issuer of each such security, which contains important disclosures and risk factors. Investors in a product based on the Index, shall solely rely upon such disclosure document in making an investment decision.

EAM Partners L.P. itself does not provide portfolio management services. The only services that EAM Partners L.P. renders are the licensing of various methodologies to third parties in the financial and institutional community globally and serving as the general partner of various advisory subsidiaries that, in turn, provide portfolio management services. In particular, EAM Partners L.P. itself does not direct client accounts or provide commodity trading advice based on or tailored to the commodity interests or cash markets or other circumstances of a particular client.

**Certain Risk Factors.** Investors cannot invest directly in the Index. The Index is structured based on, among other things, the general expectation that the prices for the futures included therein will exhibit tendencies to trend over the long-term. The market features and correlations which the Index has been designed to capture may not be reflected in market price movements over certain periods – particularly over short periods. An investment in a product seeking to replicate the Index is speculative, involves a substantial degree of risk, and should not constitute an investor’s entire portfolio. Moreover, performance may be volatile and investors could lose all or substantially all of their investment. Some or all alternative investment programs may not be suitable for certain investors. No assurances can be made that the Index will achieve its objectives or that losses will be avoided. The Index is designed to seek the economic benefit of price trends within a cross section of futures markets over the long-term and does not seek to gain from short-term movements in prices. Among the risks associated with the Index are the following: In contrast to traditional “all long” indexes, the Index does not always maintain Long Positions and may not profit from the cyclical nature of the futures included therein. The Index is not a proxy for “all long” indexes. The Index is vulnerable to “whipsaw” markets in which market movements may cause the bulk of its components to be positioned in a certain direction (e.g. long, short or no exposure, as the case may be) and then a sudden reversal of prior price trends occurs, causing losses. The complexity of the different factors which contribute to the results of the Index. The Index could decline in a wide range of different market scenarios, including ones in which other similar products (both all long and long/short), rise substantially. The Index is based on futures, not cash market prices; those prices may differ materially in general as well as for specific components. Replication of the Index involves execution costs and position slippage which can be substantial, and may be affected by, among other things, disruption caused by futures market closures and/or trading price or volume limitations imposed by one or more futures markets. The Index is subject to the risks of, among other things, “trading ranges” (in which there is a lack of sustained, directional price movements in many markets) and “whipsaw” markets (described above). In general, such market conditions are more likely to occur during economic environments of low-growth or static GDP despite very low interest rates, accompanied by low inflation (e.g. economic environments similar to that experienced by Japan since 1989). The “trading ranges” and “whipsaw” experienced by many U.S. markets since 2009 (with notable exceptions), along with abrupt changes prompted by government intervention and highly correlated markets, have been adverse to many trend-following indexes and methodologies. The length of time for which such market conditions have persisted is unique in the United States in the last 50 years. There can be no assurances that such current market conditions will change. No representation is being made that the Index will or is likely to achieve performance consistent with or similar to that set forth in this communication. Similarly, no representation is being made that any product seeking to replicate the Index will generate profits or losses similar to the historical performance of the Index. There are numerous factors related to the markets in general and to the implementation of any product seeking to replicate the Index which cannot be, and have not been, accounted for in the preparation of the information on the Index set forth in this communication, all of which can adversely affect actual performance results.

**Not a Sponsor of Third-Party Products.** EAM does not sponsor, endorse, sell, or promote any investment fund or other vehicle that is offered by third parties and that seeks to provide an investment return based on the returns of the Index (a “Third-Party Product”). A decision to invest in any such Third-Party Product should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any Third-Party Product only after carefully considering the risks associated with investing in such Third-Party Product, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the Third-Party Product.

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## Appendix A

### Notable Amendments Made to this Index Methodology Since the Index Launch Date:

- Effective as of May 1, 2012, the Index Calculator has been changed from The Royal Bank of Scotland N.V. to RBS Business Services Private Limited.
- Effective as of May 1, 2012, EAM Partners L.P. has been specified as Index Sponsor.
- Effective as of May 1, 2012, it was clarified that any current member (other than Victor Sperandeo) may be removed from the Index Committee if agreed by all other existing members of the committee at the time such decision is made.
- Effective as of May 1, 2012, Section 11, Notice, has been revised to reflect that notice of the occurrence of a relevant event will also be issued in a press release which shall be disseminated over PR Newswire.
- Effective as of May 1, 2012, the “Industrial Metals” Sector was re-named “High Grade Copper”. No changes were otherwise made to this Sector.
- Effective as of May 1, 2012, the Index methodology has been amended to change the construction of the Energy Sector and the creation of a Natural Gas Sector. The base weight of the Energy Sector will be reduced to reflect the extraction of the Index Component. The Natural Gas Sector, represented by the Natural Gas Index Component, may be held either long or short by the respective Indexes.
  - Effective as of May 1, 2012, when the Energy Sector is in a Flat Position for a given month, the weighting allocated to the other Sectors for such month will be lower than the weighting that would have been allocated to the other Sectors prior to May 1, 2012, as (i) the weighting of the Energy Sector has been reduced due to the extraction of the Natural Gas Index Component and (ii) a portion of the Energy Sector’s weighting will be allocated *pro-rata* to the Natural Gas Sector.
- Effective as of July 9, 2012, the Index methodology has been amended by:
  - The addition of Table 2(b), which specifies, among other things, the Index Component contracts and their respective recognized exchanges.
  - The addition of formulae detailing calculation of TVIER when an Index Component reaches a Limit Price on a Rollover Date. For such purpose, when an Index Component that was scheduled to roll settles at a Limit Price on a Rollover Date that Index Component’s roll is held until a following day where the Index Component does not settle at a Limit Price.
  - A “Limit Price” is no longer included in the definition of a “Market Disruption Event.”
  - The consequences of a Limit Price are now set forth in Section 4.2.
  - The roles of the Index Sponsor, Index Calculator and Index Committee in the event of Market Disruption Events have been clarified.
- Effective as of the market close of each Index Component on January 31, 2014, the Index methodology has been amended as follows:
  - The addition of a multi-day roll process in order to allow certain Index Components representing certain commodities (rather than financial futures) markets to roll from the previous month’s position to the current month’s position over more than one Business Day. Index Components with an aggregate Base Weight of 72.9% will continue to roll over one day. The number of Roll Days for each Index Component is shown in Table 2(a).
  - The reduction in Base Weights of four commodity Index Components considered to be least liquid (Live Cattle, Lean Hogs, Cotton and Cocoa) by an aggregate of 1.50% and the reallocation of such 1.50% to the Base Weights of other Index Components representing commodities (rather than financial futures) markets. To determine the current weightings of the other commodity Index Components, the 1.50% weighting was proportionately reallocated to such Index Components and then each such Index Component’s weighting was rounded up or down to the nearest hundredth of a percent with any balance being allocated to Light Crude (WTI)(as it is currently the most liquid Index Component). The Base Weights for each Sector and Index Component are summarized in Section 3.5.

The table below reflects the old and new Base Weights of each Index Component (assuming Energy is Long).

Sector j	Index Component i	Old Base Weights		New Base Weights		Difference
		Index Component Base Weight $w_i(0)$	Sector Base Weight $sw_j(0)$	Index Component Base Weight $w_i(0)$	Sector Base Weight $sw_j(0)$	
Energy			16.750000%		17.500000%	0.750000%
	Light Crude (WTI)	9.950000%		10.500000%		
	Heating Oil	3.400000%		3.500000%		
	RBOB Gas	3.400000%		3.500000%		
Natural Gas			4.500000%		4.600000%	0.100000%
	Natural Gas	4.500000%		4.600000%		
Grains			11.500000%		11.850000%	0.350000%
	Soybeans	5.000000%		5.150000%		
	Corn	4.000000%		4.100000%		
	Wheat	2.500000%		2.600000%		
Precious Metals			5.250000%		5.400000%	0.150000%
	Gold	3.500000%		3.600000%		
	Silver	1.750000%		1.800000%		
High Grade Copper			5.000000%		5.150000%	0.150000%
	High Grade Copper	5.000000%		5.150000%		
Livestock			3.000000%		2.500000%	-0.500000%
	Live Cattle	1.800000%		1.500000%		
	Lean Hogs	1.200000%		1.000000%		
Sugar			1.000000%		1.000000%	0.000000%
	Sugar	1.000000%		1.000000%		
Cotton			1.000000%		0.500000%	-0.500000%
	Cotton	1.000000%		0.500000%		
Cocoa			1.000000%		0.500000%	-0.500000%
	Cocoa	1.000000%		0.500000%		
Coffee			1.000000%		1.000000%	0.000000%
	Coffee	1.000000%		1.000000%		
Euro			11.000000%		11.000000%	0.000000%
	Euro	11.000000%		11.000000%		
Japanese Yen			10.000000%		10.000000%	0.000000%
	Japanese Yen	10.000000%		10.000000%		
Swiss Franc			10.000000%		10.000000%	0.000000%
	Swiss Franc	10.000000%		10.000000%		
British Pound			3.000000%		3.000000%	0.000000%
	British Pound	3.000000%		3.000000%		
Australian Dollar			2.000000%		2.000000%	0.000000%
	Australian Dollar	2.000000%		2.000000%		
Canadian Dollar			1.000000%		1.000000%	0.000000%
	Canadian Dollar	1.000000%		1.000000%		
US 30 Yr Bond			6.500000%		6.500000%	0.000000%
	US 30 Yr. Bond	6.500000%		6.500000%		
US 10 Yr Note			6.500000%		6.500000%	0.000000%
	US 10 Yr Note	6.500000%		6.500000%		
<b>Total</b>		<b>100.000000%</b>	<b>100.000000%</b>	<b>100.000000%</b>	<b>100.000000%</b>	

The table below reflects the old and new Base Weights of each Index Component (assuming Energy is Flat).

Sector j	Index Component i	Old Base Weights		New Base Weights		Difference
		Index Component Base Weight $w_i(0)$	Sector Base Weight $sw_j(0)$	Index Component Base Weight $w_i(0)$	Sector Base Weight $sw_j(0)$	
Energy			0.000000%		0.000000%	0.000000%
	Light Crude (WTI)	0.000000%		0.000000%		
	Heating Oil	0.000000%		0.000000%		
	RBOB Gas	0.000000%		0.000000%		
Natural Gas			5.405405%		5.575758%	0.170352%
	Natural Gas	5.405405%		5.575758%		
Grains			13.813814%		14.363636%	0.549823%
	Soybeans	6.006006%		6.242424%		
	Corn	4.804805%		4.969697%		
	Wheat	3.003003%		3.151515%		
Precious Metals			6.306306%		6.545455%	0.239148%
	Gold	4.204204%		4.363636%		
	Silver	2.102102%		2.181818%		
High Grade Copper			6.006006%		6.242424%	0.236418%
	High Grade Copper	6.006006%		6.242424%		
Livestock			3.603604%		3.030303%	-0.573301%
	Live Cattle	2.162162%		1.818182%		
	Lean Hogs	1.441441%		1.212121%		
Sugar			1.201201%		1.212121%	0.010920%
	Sugar	1.201201%		1.212121%		
Cotton			1.201201%		0.606061%	-0.595141%
	Cotton	1.201201%		0.606061%		
Cocoa			1.201201%		0.606061%	-0.595141%
	Cocoa	1.201201%		0.606061%		
Coffee			1.201201%		1.212121%	0.010920%
	Coffee	1.201201%		1.212121%		
Euro			13.213213%		13.333333%	0.120120%
	Euro	13.213213%		13.333333%		
Japanese Yen			12.012012%		12.121212%	0.109200%
	Japanese Yen	12.012012%		12.121212%		
Swiss Franc			12.012012%		12.121212%	0.109200%
	Swiss Franc	12.012012%		12.121212%		
British Pound			3.603604%		3.636364%	0.032760%
	British Pound	3.603604%		3.636364%		
Australian Dollar			2.402402%		2.424242%	0.021840%
	Australian Dollar	2.402402%		2.424242%		
Canadian Dollar			1.201201%		1.212121%	0.010920%
	Canadian Dollar	1.201201%		1.212121%		
US 30 Yr Bond			7.807808%		7.878788%	0.070980%
	US 30 Yr. Bond	7.807808%		7.878788%		
US 10 Yr Note			7.807808%		7.878788%	0.070980%
	US 10 Yr Note	7.807808%		7.878788%		
<b>Total</b>		100.000000%	100.000000%	100.000000%	100.000000%	

- Revised Roll Schedule for the Gold, High Grade Copper and Soybeans Index Components. The table below reflects the old and new Roll Schedule schedules for these Index Components.

Old Roll Schedule for Gold, High Grade Copper and Soybeans												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Gold	M	M	M	M	V	V	V	V	Z	Z	G	G
High Grade Copper	H	N	N	N	N	U	U	Z	Z	Z	H	H
Soybeans	H	N	N	N	N	X	X	X	X	H	H	H
New Roll Schedule for Gold, High Grade Copper and Soybeans												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Gold	J	J	M	M	Q	Q	Z	Z	Z	Z	G	G
High Grade Copper	H	K	K	N	N	U	U	Z	Z	Z	H	H
Soybeans	H	K	K	N	N	X	X	X	X	F	F	H
The above tables use the following month letter code:												
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
F	G	H	J	K	M	N	Q	U	V	X	Z	

As the primary objective of the Index is to measure, in aggregate, the component trends based on price movements of certain liquid commodity and financial futures contracts and as liquidity was a key guide in determination of the methodology, the Index Sponsor proposed and the Index Committee approved the above amendments to the Index methodology as being necessary to ensure the integrity of the Index.

- Effective as of December 5, 2014, the Index Calculator has been changed from RBS Business Services Private Limited to The Royal Bank of Scotland plc (which has delegated its role to RBS Business Services Private Limited).
- Effective as of the market close of each Index Component on June 30, 2015, the Rollover Period for the Swiss Franc Index Component has been changed from one (1) Business Day to three (3) Business Days, in order to allow this Index Component to roll from the previous month's position to the current month's position over more than one Business Day. The current number of Roll Days for each Index Component is shown in Table 2(a).

*Changes to the Index methodology may have a material impact on the results of the Index, whether positive or negative.*

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