Methodology: Motif Capital Artificial Intelligence 8 ER Index

Version as of June 7th, 2019

Overview

The following overview of the Motif Capital Artificial Intelligence 8 ER Index is a summary and, as such, is necessarily incomplete. This overview should be read in conjunction with, and is qualified in its entirety by, the more detailed description of the Motif Capital Artificial Intelligence 8 ER Index and its operation that follows in this document.

The Motif Capital Artificial Intelligence 8 ER Index (the "Index") is comprised of shares of U.S. exchange listed common equity securities (including American Depositary Receipts) (each an "Underlying Stock" and together the "Underlying Stocks") and, in certain circumstances, a hypothetical cash investment in a notional money market account denominated in U.S. dollars (the "Money Market Position"), which constitute the underlying assets (each an "Underlying Asset" and together the "Underlying Assets").

The Underlying Assets provide the following exposure:

- The Underlying Stocks provide exposure to companies in the technology sector that may benefit from the development of "Artificial Intelligence". For purposes of the Index, Artificial Intelligence is the ability of a machine to perform cognitive tasks typically associated with human brains, such as perception, reasoning, learning, interacting with the environment and problem solving.
- The Money Market Position provides exposure to a hypothetical investment in a notional money account denominated in U.S. dollars that accrues interest at a rate determined by reference to the "Notional Interest Rate" (which is 3-Month USD LIBOR, determined as specified in the attached Annex).

The Index is calculated on an excess return basis. The value of the Index (the "Index Value") is calculated on each Index Business Day (as defined in the attached Annex) in U.S. dollars by reference to the excess of the Total Return Index Value (as more specifically described under "Calculation of the Index" below) over the sum of the return on the Notional Interest Rate plus 0.75% per annum (accruing daily).

On any given Index Business Day following the Index Inception Date (any such day, a "Total Return Index Rebalancing Day"), the Total Return Index may be partially rebalanced from the Base Index (as more specifically described below) into the Deleverage Position as a result of the volatility control feature. The "Deleverage Position" means the Money Market Position. The

value of the Total Return Index (the "Total Return Index Value") is calculated on each Index Business Day by reference to the weighted performance (after rebalancing) of:

1. The Base Index and
2. The Deleverage Position.

The Base Index seeks to provide systematic targeted exposure to U.S. exchange-listed common equity securities (including American Depositary Receipts) of companies in the technology sector that may benefit from the development of Artificial Intelligence (the "Artificial Intelligence Theme"). The focus of the Index is to identify and weight companies that are developing Artificial Intelligence technology solutions and selling those solutions as products or services, as well as companies that are deploying Artificial Intelligence to solve business problems, such as autonomous vehicles, computer vision, natural language processing, machine translation and virtual agents.

The Underlying Stocks comprising the Base Index and their respective weightings are based on an objective determination of relevance and exposure to the Artificial Intelligence Theme (as described under "Components of the Base Index" and "Calculation of the Underlying Stock Target Weights" below) on the third Friday of each June (the "Base Index Observation Day") and subject to constraints on maximum and minimum weights for each Underlying Stock. The Base Index is rebalanced annually over a five-day period (the "Base Index Rebalancing Period") beginning on the day that is three Index Business Days after the applicable Base Index Observation Day and including the four following Index Business Days. Each Index Business Day in a Base Index Rebalancing Period will be deemed a "Base Index Rebalancing Day". On each Base Index Rebalancing Day, component changes are made after the close of markets and become effective at the opening on the next trading day.

The value of the Base Index (the "Base Index Value") is calculated on each Index Business Day. Motif Capital Management, Inc. (the "Index Sponsor") has retained Solactive AG to serve as Calculation Agent (the "Calculation Agent") for the Index. In the event the Index Sponsor appoints a replacement Calculation Agent a public announcement will be made via press release.

Unless otherwise indicated, any public announcement contemplated by this Methodology shall be made on the website of the Calculation Agent.

Methodology

Overview

At any given time, the Base Index tracks the weighted return of the Underlying Stocks and, in the limited circumstance described under "Short-Term Treasury Bond ETF Position", the iShares Short-Term Treasury Bond ETF (the "Underlying ETF").

The composition of Underlying Stocks and the Underlying ETF, if applicable, and their respective weights are rebalanced annually during the relevant Base Index Rebalancing Period within a set

of pre-determined constraints by applying the Methodology rules. On any Total Return Index Rebalancing Day, the exposure of the Total Return Index to the Base Index may also be ratably rebalanced into the Deleverage Position as a result of the volatility control feature of the Methodology. Rebalancing during Market Disruption Events is described under "Rebalancing: Impact of Disruptions". In addition, the Index Committee intends to review the Methodology at least once a year, and may make changes to the Methodology from time to time (including after any such annual review) if it determines, in its sole discretion, that such changes are necessary or desirable in light of the goals of the Index. Any such changes to the Methodology will be publicly announced at least 60 Index Business Days prior to their effective date.

Base Index Rebalancing

On each Base Index Observation Day, the Index Sponsor, pursuant to the Methodology and subject to the applicable constraints, selects the Underlying Stocks with the objective of providing targeted exposure to the Artificial Intelligence Theme (as described under "Components of the Base Index" and "Calculation of the Underlying Stock Target Weights" below). Once the constituents and their exposure to the Artificial Intelligence Theme have been determined by the Index Sponsor, the Index Calculation Agent will determine the target weight for each Underlying Stock (as described under "Calculation of the Underlying Stock Target Weights" below) and the Underlying ETF Target Weight (as described under "Short-Term Treasury Bond ETF Position"), if applicable. The Base Index will then be reweighted over the Base Index Rebalancing Period from the previous Underlying Stocks and their weights (as described under "Calculation of the Underlying Stock Target Weights" below) and the weight of the Underlying ETF (as described under "Short-Term Treasury Bond ETF Position"), if applicable, to the newly determined Underlying Stocks using the newly determined Underlying Stock Target Weights and Underlying ETF Target Weight, if applicable.

Total Return Index Rebalancing and Volatility Control Feature

The Methodology has a volatility control feature applied on any Total Return Index Rebalancing Day. This has the effect of reducing the exposure of the Total Return Index to the performance of the Base Index (and consequently the Underlying Stocks) by rebalancing a portion of the Base Index into the Deleverage Position if the realized volatility of the Base Index exceeds the Volatility Cap (as defined under "Total Return Index Rebalancing and Volatility Control" below) with respect to any Total Return Index Rebalancing Day.

Notional Interest Rate

The Index is calculated on an excess return basis over the sum of 0.75% per annum (accruing daily) and the return that could be earned on a notional cash deposit at the Notional Interest Rate, compounded daily. The Notional Interest Rate will be reset quarterly, on each January 2, April 2, July 2, and October 2 or, if one of those dates is not an Index Business Day, on the Index Business Day immediately following such date, starting from and including the Index Inception Date. Each such date is referred to herein as a "Notional Interest Rate Reset Date".

Publication of the Index

The Calculation Agent calculates and publishes the value of the Index every 15 seconds on each Index Business Day and publishes it on Bloomberg under the ticker symbol "MCAIE Index".

Publication of Changes to the Index and to the Methodology

Changes to the components of the Index made by the Index Committee will be publicly announced as promptly as is reasonably practicable and normally at least five Index Business Days prior to the effective date of the changes. Except as otherwise provided herein, changes to the Methodology made by the Index Committee will be publicly announced at least 60 Index Business Days prior to their effective date. Adjustments made by the Calculation Agent in response to potential adjustment events will be publicly announced as promptly as is reasonably practicable.

Index Committee

An Index Committee is responsible for overseeing the Index, the Methodology and the implementation thereof, while the Calculation Agent is responsible for the calculation of the Index, including calculating the Underlying Stock Target Weights (as defined under "Underlying Stock Weights, Base Index Rebalancing and Total Return Index Rebalancing" below), Underlying ETF Target Weight, if applicable, and determining and responding to Market Disruption Events (as defined under "Market Disruption Events" below) and potential adjustment events. The Index Committee will initially be comprised of three full-time employees of Motif Capital Management, Inc. or one or more of its affiliates.

The Index Committee may exercise limited discretion with respect to the Index, as contemplated by the Methodology, including in the situations described under "Components of the Base Index". Any such changes or actions will be publicly announced as promptly as is reasonably practicable and normally at least five Index Business Days prior to their effective date. The Calculation Agent may from time to time consult the Index Committee on matters of interpretation with respect to the Methodology.

Because the Index Committee considers information about changes to the Index and related matters to be potentially market moving and material, all Index Committee discussions, including those with the Calculation Agent, are confidential. The Index Committee will determine the successor of any of its members.

Components of the Base Index

The Index Sponsor determines the components of the Base Index (the Underlying Stocks) and their exposure to the Artificial Intelligence Theme (as defined above) on the Index Inception Date and on each Base Index Observation Day by applying the following steps:

1. Calculate the phrase search score for all annual regulatory filings - across all sectors - that have been filed with the Securities and Exchange Commission (the "SEC") by U.S. exchange-listed companies within the past 15 months. "Annual regulatory filings" or "Annual SEC Filings" means Forms 10-K, 40-F and 20-F, excluding exhibits to such filings, any information incorporated by reference in such filings and any amendments to such filings. "U.S. exchange" means the NYSE, NYSE Arca, NYSE American (formerly NYSE MKT), NASDAQ Global Select Market, NASDAQ Select Market, NASDAQ Capital Market or IEX.

    a. A list of phrases (the "Phrase List") relevant to the Artificial Intelligence Theme is obtained from the most recent ACM Computing Classification taxonomy or any successor thereto (as of the date of this methodology, the ACM Computing Classification 2012 taxonomy is used for such purpose and is available at https://dl.acm.org/ccs/ccs_flat.cfm). All distinct phrases mentioned under the "Artificial Intelligence" and "Machine Learning" categories are included, including the titles "Artificial Intelligence" and "Machine Learning". See Annex A for a full list of such phrases. Phrases mentioned more than once are only entered once in the list of relevant phrases; when there is overlap between phrases, but they are not identical, both phrases are included. The Index Committee will update the Phrase List when any new ACM Computing Classification taxonomy is released and such updated phrases will be included in the determination of the Base Index at the times and in the manner set forth below. Any updates resulting from a new ACM Computing Classification taxonomy will be reflected in Annex A. In the event that the ACM Computing Classification taxonomy is no longer published (including by any successor to ACM which may continue publication of the taxonomy) or becomes unavailable, the Index Committee will continue to use the most recent Phrase List created based upon the last available ACM Computing Classification taxonomy.

    b. Phrases that are in common usage in Annual SEC Filings are removed from the Phrase List. This is achieved by removing phrases that occur in more than 15% of Annual SEC Filings filed with the SEC within 15 months before the Base Index Observation Day.

    c. Using the remaining Phrase List, a search is conducted over all Annual SEC Filings filed with the SEC within the most recent 15-month period before the Base Index Observation Day (together, representing the "Search Corpus") in order to identify companies with a positive match for one or more search phrase(s). Specifically, the 15-month period of reference is from and including the day which is 15 months prior to the relevant Base Index Observation Day to but excluding such Base Index Observation Day.

        A semantic score for each Annual SEC Filing is calculated as follows:

1) Both the Annual SEC Filing and the search phrases are tokenized, filtered and stemmed using the following process:

   1. The Annual SEC Filing and search phrases are tokenized using the Unicode Text Segmentation algorithm. The Unicode Text Segmentation algorithm is currently described at http://unicode.org/reports/tr29/. This process separates the Annual SEC Filing and search phrases into words ("tokens") and removes symbols and punctuation. In connection with this process, any formatting in an Annual SEC Filing (e.g., bulleting, table formatting or line breaks) is removed when the search is performed.
   2. Possessive endings are removed from tokens.
   3. All tokens are converted to lower case.
   4. All English "stop words" are removed, specifically: a, an, and, are, as, at, be, but, by, for, if, in, into, is, it, no, not, of, on, or, such, that, the, their, then, there, these, they, this, to, was, will, with.
   5. All tokens are stemmed, by applying the Porter stemming algorithm (M.F. Porter (1980), "An algorithm for suffix stripping", *Program*, Vol. 14 Issue: 3, pp.130-137). This process removes common morphological and inflexional endings from words in English. For example, the search phrase "artificial intelligence" would become "artifici intellig" in its stemmed form and the search phrase "activity recognition and understanding" would become "activ recognit understand" in its stemmed form.

   Further, when a "stop word" is removed from a search phrase or Annual SEC Filing, the relative positioning of the "stop word" within such phrase or document is maintained for purposes of the search and such search includes matches that have a word in place of the "stop word" that was previously removed. For example, the tokenized and stemmed version of the "planning and scheduling" search phrase is "plan ? schedul" rather than simply "plan schedul", in which the "?" represents any single word between any form of "plan" and "schedul". Thus, any phrase in an Annual SEC Filing that begins with a form of "plan" and ends with a form of "schedul" and (i) has one word between, regardless of what that word is, or (ii) formerly contained a "stop word" between regardless of what that "stop word" was, will be included in the search hit results.

   In addition, as stated above, when the Phrase List is created using the ACM Computing Classification taxonomy and any overlap exists between phrases (but they are not identical), both phrases are included in the list. Therefore, for example, if a company's Annual SEC Filing mentions 'machin learn algorithm' 2 times, such mentions will count as 4 matches – 2 matches for

each of 'machin learn algorithm' and 'machin learn' – because the latter phrase is included in the former.

The Index utilizes the BM25 algorithm to attempt to identify companies that are relevant to the Artificial Intelligence Theme based on whether and the extent to which a company uses one or more of the identified search phrases in its Annual SEC Filing. By incorporating a concept of probability of relevance, the BM25 algorithm attempts to estimate how likely it is that a document is relevant to the Artificial Intelligence Theme based on calculations that take into account the frequency with which a search phrase (or phrases) is used in the document, the document length (relative to the average document length across all documents in the Search Corpus) and the rareness of the search phrase(s) (measured by the frequency with which the search phrase(s) appears across all documents in the Search Corpus).

The BM25 algorithm generally (i) gives more importance to documents which contain a higher number of search matches, (ii) gives more importance to search matches in shorter documents than longer documents (based on the idea that the search phrases are more "concentrated" in a shorter document and therefore more likely to be relevant), (iii) gives less importance to documents that contain phrases that are commonly used across the search corpus (based on the idea that common words are less important to the calculation of relevance) and (iv) gives less importance to the repetition of a single search phrase throughout a document as compared to matches of several different search phrases in a document. Balancing these competing objectives through the BM25 algorithm means that a high number of search hits alone does not necessarily translate into a high BM25 score or a high level of relevance for a document.

In order to determine the BM25 score for an Annual SEC Filing, an Annual Filing Score is calculated for each search phrase within the document, and the Annual SEC Filing's total BM25 score is the aggregate of the Annual Filing Scores for all of the search phrases in such document:

For example, the total BM25 score for the document D_j is the sum of the scores for all of the search phrases, calculated as follows:

$$\text{Score}(D_j) = \sum_{i=1}^{n} \text{TF}\left(q_i, D_j\right) \cdot \text{IDF}(q_i)$$

Where:

- The sum $i = 1 \rightarrow n$ is over all search phrases;
- $\text{TF}(q_i, D_j)$ refers to the Term Frequency calculated with respect to a search phrase q_i occurring in document D_j; and
- $\text{IDF}(q_i)$ refers to the Inverse Document Frequency calculated with respect to search phrase q_i.

a. Term Frequency (TF) quantifies the number of times a search phrase q_i occurs in the Annual SEC Filing D_j, taking into account the length of such document relative to the average length of all documents in the Search Corpus and reflecting parameters set to control the effect that (i) the number of times the search phrase is used in the document and (ii) the length of the document can have on the Term Frequency score:

$$\text{TF}(q_i, D_j) = \frac{(k + 1) \cdot \text{tf}(q_i, D_j)}{k \cdot \left(1 - b + b \cdot L(D_j)\right) + \text{tf}(q_i, D_j)}$$

Where:

- $\text{tf}(q_i, D_j)$ refers to the raw count of tokenized, filtered and stemmed phrase q_i in tokenized, filtered and stemmed document D_j;
- k refers to a constant equal to 1.2, which is a saturation point that controls how much of an effect each search phrase hit within the document has on the $\text{TF}(q_i, D_j)$ score (i.e., the point at which as more search phrase hits occur in such document, each such instance affects the score less);
- b refers to a constant equal to 0.75, which limits the effect of document length on the $\text{TF}(q_i, D_j)$ score by penalizing documents longer in length. If "b" were set to zero, such potential effect would be removed and, assuming identical search phrase hits, a longer document and a shorter document would receive the same score; by setting "b" to be greater than zero, a longer document gets assigned a lower score than a shorter document (assuming the documents have identical search phrase hits); and
- $L(D_j)$ refers to the length of the document, calculated as the ratio of the token count in the document D_j to the mean token count in all documents in the Search Corpus, where the token count is taken after tokenization but before removal of stop words.

b. Inverse Document Frequency (IDF) measures the number of documents within the search corpus that contain a particular search

phrase q_i as compared to the total number of documents in the Search Corpus:

$$\text{IDF}(q_i) = \ln\left(1 + \frac{\text{numDocs} - \text{docFreq}(q_i) + 0.5}{\text{docFreq}(q_i) + 0.5}\right)$$

Where:

- numDocs refers to the total number of documents in the Search Corpus; and
- docFreq(q_i) refers to the count of documents in which the search phrase q_i appears at least once.

The Inverse Document Frequency score takes into account the rareness of a search phrase based on its frequency across all documents in the Search Corpus (a rarer search phrase will lead to a higher IDF score).

The below examples assume a Search Corpus containing 8,000 documents, with an average length of 20,000 words. The hypothetical results in the following calculations have been rounded to the nearest hundredth for ease of analysis.

Example 1: *A company's annual report on Form 10-K is 10,000 words long. The tokenized, filtered and stemmed version of such company's 10-K mentions 'artifici intellig' 3 times and contains no other search phrases. Within the Search Corpus, 100 tokenized, filtered and stemmed documents contain at least one instance of 'artifici intellig'. The total BM25 score for the document D_j is calculated as follows:*

$$\text{BM25 Score}(D_j) = \text{Annual Filing Score}_{\text{artifici intellig}} = \text{TF} \cdot \text{IDF} = 1.76 \times 4.38 = 7.70$$

Example 2: *A company's annual report on Form 10-K is 20,000 words long. The tokenized, filtered and stemmed version of such company's 10-K mentions 'artifici intellig' 3 times and contains no other search phrases. Within the Search Corpus, 100 tokenized, filtered and stemmed documents contain at least one instance of 'artifici intellig'. The total BM25 score for the document D_j is calculated as follows:*

$$\text{BM25 Score}(D_j) = \text{Annual Filing Score}_{\text{artifici intellig}} = \text{TF} \cdot \text{IDF} = 1.57 \times 4.38 = 6.88$$

In Example 2, the document's length increases from 10,000 words in Example 1 to 20,000 words total. Although all other variables remain the

same, the total BM25 score decreases as a result of the document length increasing relative to Example 1.

Example 3: *A company's annual report on Form 10-K is 10,000 words long. The tokenized, filtered and stemmed version of such company's 10-K mentions 'artifici intellig' 2 times and 'machin translat' 1 time. Within the Search Corpus, 100 tokenized, filtered and stemmed documents contain at least one instance of 'artifici intellig' and 10 documents contain at least one instances of 'machin translat'. The total BM25 score for the document D_j is calculated as follows:*

$$
\begin{aligned}
\text{BM25 Score}(D_j) \quad &= \text{Annual Filing Score}_{\text{artifici intellig}} + \text{Annual Filing Score}_{\text{machin translat}} \\
&= [\text{TF} \cdot \text{IDF}] + [\text{TF} \cdot \text{IDF}] \\
&= [1.60 \times 4.38] + [1.26 \times 6.64] \\
&= 7.01 + 8.37 \\
&= 15.38
\end{aligned}
$$

In Example 3, the total number of search phrase hits occurring in the document remains the same relative to Examples 1 and 2, but the number of different search phrases appearing in the document increase relative to Examples 1 and 2 (i.e., two different search phrases appear in the document, as compared to one search phrase in Examples 1 and 2). Although all other variables remain the same, the total BM25 score increases as a result of the number of different search phrases increasing. Moreover, the BM25 score with respect to the 'machin translat' search phrase is higher than the BM25 score with respect to the 'artifici intellig' search phrase, even though 'artifici intellig' appears 2 times in the document and 'machin translat' appears only once. The BM25 calculation gives more weight to "rarer" phrases as the assumption is that the occurrence of such phrases is indicative of higher relevance. Because 'machin translat' is contained in only 10 of the documents in the Search Corpus, the single occurrence in document D_j leads to a higher BM25 score.

In general, the more words in common with the search phrases an Annual SEC Filing has, the higher such document's BM25 score will be. As illustrated above, however, each component of the BM25 score calculation can have a different impact on the overall score assigned to an Annual SEC Filing. Shorter documents contain fewer total tokens, which means that a larger number of search phrase matches in a shorter document increases the probability that such matches are relevant (which leads to a higher BM25 score). In addition, the repetition of a single search phrase is less important than matches of several different search phrases, but more important if the document is relatively long (with respect to the average document length of the Search Corpus). While the repetition of a search phrase in an Annual

SEC Filing (i.e., a higher number of hits) will generally lead to a higher Term Frequency score as illustrated in the calculation of Term Frequency above, the calculation of the Inverse Document Frequency gives less weight to words that are common within the Search Corpus as a whole (i.e., common words are less important to the calculation of "relevance"). The varying inputs and parameters included in the BM25 score calculation prevent a high number of search hits alone necessarily leading to a high BM25 score.

2. Map each Annual SEC Filing and score to a single U.S. exchange-traded equity security (each a "Stock"), if possible, as of the Base Index Observation Day.

    a. If there is more than one Annual SEC Filing for a company, remove each except that which is most recent to the Base Index Observation Day. If the most recent Annual SEC Filing for the company in the Search Corpus has a score of zero, the company is removed from the universe of relevant companies for the Artificial Intelligence Theme (or the "Base Index Universe").

    b. If the company does not have any U.S. exchange-listed equity securities as of the Base Index Observation Day, the company is removed from the Base Index Universe.

    c. If the company has only one U.S. exchange-traded equity security, it is selected.

    d. If the company has more than one share class of U.S. exchange-traded equity security, the security with the highest average daily dollar volume ("ADDV") over the 30-day period preceding the Base Index Observation Day is selected.

        • ADDV for a Stock on a given day is equal to the 30-day average of such Stock's daily dollar value from (but excluding) such day to (and including) the day which is the 30th calendar day prior thereto. For each trading day during the 30-calendar day period, the daily dollar value is equal to such Stock's trading volume for such day *multiplied by* such Stock's last available price as of the close of trading for such day. A Stock's trading volume may be equal to zero on a trading day. While the ADDV period consists of 30 calendar days, only trading days within such period are used for purposes of the ADDV calculation and the actual number of trading days varies from period to period.

3. Calculate the exposure to the Artificial Intelligence Theme (the "Thematic Exposure Score"). For each company that continues to be included in the Base Index Universe, the exposure to the Artificial Intelligence Theme is calculated as:

$$\beta_i = \frac{\text{BM25 Score}(D_i)}{\text{Score}_{\text{norm}}}$$

Where:

– β_i is the Thematic Exposure Score for the company issuing Underlying Stock i;

- BM25 Score(D_i) refers to the BM25 Score for such company's Annual SEC Filing; and
- Score$_{norm}$ refers to a constant normalization factor equal to 50.

4. Apply Thomson Reuters Business Classification screen

    For each company included in the Base Index Universe, the primary Thomson Reuters Business Classification ("TRBC") of the company's "Economic Sector" is obtained. For each company in the Base Index Universe, the company is retained in the Base Index Universe only if under the TRBC classification, its Economic Sector is classified as "Technology".

5. Apply stock screens

    As of the Base Index Inception Date or Base Index Observation Day, Stocks with any of the following characteristics are removed from the Base Index Universe:

    a. Stocks having an ADDV, as described above, of less than $1,000,000 over the most recent 30-day period.
    b. Stocks of companies whose market capitalization is less than $500,000,000.
        - Market capitalization for a company on a given day is calculated by multiplying the total number of outstanding shares on such day by the closing price of a share of such stock on such day, summed over all share classes of common shares. In the event that a Market Disruption Event (determined with respect to a stock subject to this market capitalization screen as specified in the "Market Disruption Events" section below) occurs or is continuing on such day with respect to such stock, the market capitalization will be equal to the market capitalization on the immediately prior Index Business Day on which no Market Disruption Event occurs or is continuing with respect to such stock. (For purposes of determining whether a Market Disruption Event occurs or is continuing with respect to a stock in the context of this market capitalization screen, any references in the "Market Disruption Events" section to "Underlying Stock" shall mean any stock subject to this market capitalization stock screen.)
    c. Stocks having a closing price of less than $1 on any day over the most recent 30-day period.
    d. Stocks having less than 60 days of price information (measured by the availability of historical returns data) over the most recent 90 day period.

6. Apply low theme exposure screen and company relevance screen

    a. Stocks of companies with a Thematic Exposure Score less than 0.1 are removed from the Base Index Universe.

b. The Index Sponsor will remove any company from the Base Index Universe if the Index Sponsor reasonably believes that all of the search phrase matches included in such company's Annual SEC Filing are patently unrelated to either (i) developing Artificial Intelligence technology solutions and selling those solutions as products or services or (ii) deploying Artificial Intelligence to solve business problems.

c. If the size of the remaining Base Index Universe is greater than 100 stocks, only the top 100 are kept in order of decreasing Thematic Exposure Scores. In case of a tie in Thematic Exposure Scores, the stocks are ordered in decreasing company market capitalization.

All remaining Stocks are included in the Base Index and become the Underlying Stocks.

Underlying Stock Weights, Base Index Rebalancing and Total Return Index Rebalancing

Overview

Based on each Underlying Stock's exposure to the Artificial Intelligence Theme, the Index Calculation Agent determines the respective target weights of the Underlying Stocks (each an "Underlying Stock Target Weight" and together the "Underlying Stock Target Weights") and the Underlying ETF (the "Underlying ETF Target Weight"), if applicable, on the Base Index Inception Date and on each Base Index Observation Day (in the case of the Underlying Stocks, within the maximum and minimum constraints described in the "Constraints Section" below) by applying the Methodology.

The weights of the Underlying Stocks (each an "Underlying Stock Weight" and together the "Underlying Stock Weights") and, if applicable, the weight of the Underlying ETF (the "Underlying ETF Weight") in the Base Index will then be adjusted gradually over the Base Index Rebalancing Period (in each case, after market close) based on the Underlying Stock Target Weights and the Underlying ETF Target Weight, if applicable, by changing the number of shares of the Underlying Stocks (with regard to any Underlying Stock, its "Underlying Stock Shares") and of the Underlying ETF (the "Underlying ETF Shares"), if applicable, that comprise the Base Index. Since the methodology relies on setting Underlying Stock Shares and Underlying ETF Shares, if applicable, price movements of the Underlying Stocks and the Underlying ETF, if applicable, are expected to result in weights that are greater or less than (but not equal to) the Underlying Stock Target Weights and Underlying ETF Target Weight, if applicable, at the end of the Base Index Rebalancing Period and thereafter.

The Thematically Weighted Portfolio

On the Base Index Inception Day and each Base Index Observation Day, an adjusted cube root market capitalization weighted portfolio (the "Thematically Weighted Portfolio") is constructed, where the weight of each Underlying Stock is set as (i) the cube root of the company's market

capitalization, multiplied by its exposure to the Artificial Intelligence Theme (the "Theme Adjusted Cube-Root Market Capitalization") divided by (ii) the sum of Theme Adjusted Cube-Root Market Capitalization for all Underlying Stocks. The cube root of the company's market capitalization is used to minimize the disparities in the market capitalization of companies in the Base Index Universe. The Theme Adjusted Cube Root Market Capitalization for each Underlying Stock is given by:

$$\text{ThemeAdjCubeRootMarketCap}_{t,i} = \beta_{\text{Theme},t,i} \cdot \sqrt[3]{\text{MarketCap}_{t,i}}$$

Where:

- $\text{Subscript}_{(t)}$ refers to the given Base Index Observation Day

- $\text{MarketCap}_{t,i}$ is the Market Capitalization of the company issuing Underlying Stock i on the Base Index Observation Day t, subject to adjustment in the case of a Market Disruption Event as described under "Effect of a Market Disruption Event".

$$\text{MarketCap}_{t,i} = \sum_{j} \text{OutstandingShares}_{t,i,j} \cdot \text{ClosePrice}_{t,i,j}$$

  Where:

  - $\text{Subscript}_{(j)}$ refers to common share class j of the company issuing Underlying Stock i
  - $\text{OutstandingShares}_{t,i,j}$ refers to the total outstanding shares of common share class j of the company issuing Underlying Stock i on the Base Index Inception Day or given Base Index Observation Day; and
  - $\text{ClosePrice}_{t,i,j}$ refers to the closing price of common share class j of the company issuing Underlying Stock i on the Base Index Inception Day or given Base Index Observation Day.

- $\beta_{\text{Theme},t,i}$ is the quantified exposure of the Underlying Stock i to the Artificial Intelligence Theme as calculated in "Components of the Base Index".

The weight of each Underlying Stock in the Thematically Weighted Portfolio (the "Underlying Stock Initial Weight") is then given by:

$$w_{\text{Theme},t,i} = \frac{\text{ThemeAdjCubeRootMarketCap}_{t,i}}{\sum_{j} \text{ThemeAdjCubeRootMarketCap}_{t,j}}$$

Where:

- $\text{ThemeAdjCubeRootMarketCap}_{t,i}$ is the Theme Adjusted Cube Root Market Capitalization of Underlying Stock i on the Base Index Inception Day or given Base Index Observation Day.

Effect of a Market Disruption Event

In the event that a Market Disruption Event (as defined under "Market Disruption Events" below) occurs or is continuing on a Base Index Observation Day with respect to an Underlying Stock that was included in the Base Index on the Index Business Day prior to such Base Index Observation Day, the Market Capitalization of such Underlying Stock on the immediately prior Index Business Day on which no Market Disruption Event occurs or is continuing with respect to such Underlying Stock will be used to calculate the Theme Adjusted Cube Root Market Capitalization with respect to such Underlying Stock.

In the event that a Market Disruption Event occurs or is continuing on a Base Index Observation Day with respect to a stock that was not included in the Base Index on the Index Business Day prior to such Base Index Observation Day, the Theme Adjusted Cube Root Market Capitalization for such stock will be set to zero, and such stock will not be included in the Base Index.

Calculation of the Underlying Stock Target Weights

The Underlying Stock Target Weight attributed to each Underlying Stock and the Underlying ETF Target Weight attributed to the Underlying ETF, if applicable, will be determined on each Base Index Observation Day and Base Index Inception Day (regardless of whether a Market Disruption Event occurs). The Underlying Stock Target Weight attributed to each Underlying Stock is intended to provide targeted exposure to the Artificial Intelligence Theme, subject to the investment minimum and maximum constraints, and will be equal to such Underlying Stock's Underlying Stock Initial Weight adjusted to comply with the investment minimum and maximum weight constraints described below.

For any Underlying Stock with an Underlying Stock Initial Weight of less than 0.10%, the Underlying Stock Target Weight for such Underlying Stock will be adjusted to 0.10% prior to any additional adjustment to such Underlying Stock's Underlying Stock Target Weight that is made to comply with the Underlying Stock maximum weight constraint of any other Underlying Stock.

The Underlying Stock Target Weight for Underlying Stock i must not exceed the Maximum Weight for Underlying Stock i (as defined below under "Constraints"), expressed as:

$$w_{t,i}^{\text{Target}} \leq w_{\text{max},t,i}$$

Where:

- Subscript$_{(t)}$ refers to the given Base Index Inception Day or Base Index Observation Day;
- $w_{t,i}^{\text{Target}}$ refers to the Underlying Stock Target Weight for Underlying Stock i determined by the Methodology on the given Base Index Inception Day or Base Index Observation Day; and
- $w_{\text{max},t,i}$ refers to the Maximum Weight for Underlying Stock i on the given Base Index Inception Day or Base Index Observation Day.

If any Underlying Stock Initial Weight is greater than the Maximum Weight for such Underlying Stock, the Underlying Stock Target Weight for such Underlying Stock will be set to such

Underlying Stock's Maximum Weight. The difference in weight between the Underlying Stock Initial Weight and the Underlying Stock Target Weight for such Underlying Stock will be proportionally redistributed to the rest of the Underlying Stock Target Weights, subject to the investment maximum weight constraints. This is an iterative process and is performed repeatedly, until no Underlying Stock Target Weight violates the investment maximum weight constraint.

The sum of the Underlying Stock Target Weights should be 1, expressed as:

$$\sum_i w_{t,i}^{\text{Target}} = 1$$

If the sum of the Underlying Stock Target Weights is less than 1.0, the Underlying Stock Target Weight for each Underlying Stock will be calculated as described under "Short-Term Treasury Bond ETF Position" below and the Base Index will include exposure to the Underlying ETF, such that the sum of the Underlying Stock Target Weights and the Underlying ETF Target Weight equals 1.

Constraints

For each Underlying Stock in the Base Index, the constraints set a minimum weight of 0.10%. For each Underlying Stock in the Base Index, the constraints set a maximum weight (the "Maximum Weight") of the lesser of:

i.   5% or
ii.   ADDV (as defined in "Components of the Base Index" above and expressed as a numerical value) $\times 10^{-9}$, expressed as a percentage.

Negative weights (that is, short positions) are not permitted by the Methodology. The sum of the Underlying Stock Target Weights (and, in the limited circumstance described above, the Underlying ETF Target Weight) in the Base Index is always equal to 1.0.

Short-Term Treasury Bond ETF Position

If the sum of the Target Weights for all Underlying Stocks on the Base Index Inception Day or a given Base Index Observation Day is less than 1.0, a condition expressed as:

$$\sum_i w_{t,i}^{\text{Target}} < 1$$

Where:

- $w_{t,i}^{\text{Target}}$ refers to the Target Weight for Underlying Stock i on the given Base Index Inception Day or Base Index Observation Day t,

then the Base Index will also include a position in the Underlying ETF, with the Underlying ETF Target Weight equal to:

$$w_{\text{ETF},t}^{\text{Target}} = 1 - \sum_i w_{t,i}^{\text{Target}}$$

Where:

- $w_{\text{ETF},t}^{\text{Target}}$ refers to the Underlying ETF Target Weight on the given Base Index Inception Day or Base Index Observation Day t; and
- $w_{t,i}^{\text{Target}}$ refers to the Target Weight for Underlying Stock i on the given Base Index Inception Day or Base Index Observation Day t.

The Short-Term Treasury Bond ETF Position is intended to express the notional returns accruing to a hypothetical investor from an investment in the Underlying ETF, which is comprised of publicly-issued U.S. Treasury securities that have a remaining maturity of greater than one month and less than or equal to one year. As of the date hereof, the Underlying ETF trades on NASDAQ under the ticker symbol "SHV".

If for any reason the Underlying ETF ceases to exist, is delisted, terminated, wound up, liquidated or files for bankruptcy, is combined with another exchange traded fund that has a different investment objective, or changes its currency of denomination, then the Index Committee, in its sole discretion, can choose to replace the Underlying ETF with a successor exchange traded fund that in the determination of the Index Committee most closely replicates the Underlying ETF. Any such changes or actions taken with respect to the Underlying ETF by the Index Committee are publicly announced as promptly as is reasonably practicable and normally at least five Index Business Days prior to the effective date of the change or actions, and will be reflected in an updated version of this document.

Base Index Underlying Stock and Underlying ETF Weightings

On each Index Business Day t, the Underlying Stock Weight i or the Underlying ETF Weight, if applicable, is calculated as:

$$w_{i,t} = \frac{S_{i,t} \times CP_{i,t}}{\sum_j \left(S_{j,t} \times CP_{j,t} \right)}$$

Where:

- $\text{Subscript}_{(t)}$ refers to the given Base Index Business Day t;
- $\text{Subscript}_{(i)}$ refers to the Underlying Stock i or the Underlying ETF, if applicable;
- $\text{Subscript}_{(j)}$ refers to the universe of all Underlying Stocks and the Underlying ETF, if applicable, including Underlying Stock i or the Underlying ETF, if applicable;
- $w_{i,t}$ is the Underlying Stock Weight i of Underlying Stock i or the Underlying ETF Weight, if applicable, as of the date t;
- $S_{i,t}$ is the Underlying Stock Shares i or the Underlying ETF Shares, if applicable, on Index Business Day t;

- $S_{j,t}$ is the Underlying Stock Shares j or the Underlying ETF Shares, if applicable, on Index Business Day t;
- $CP_{i,t}$ is the closing price of the Underlying Stock i or the closing price of the Underlying ETF, if applicable, on date t; and
- $CP_{j,t}$ is the closing price of the Underlying Stock j or the closing price of the Underlying ETF, if applicable, on date t.

On the Base Index Inception Day, the Underlying Stock Shares i and Underlying ETF Shares, if applicable, are calculated as:

$$S_{i,BII} = \frac{100 \times w_{i,BII}^{\text{Target}}}{CP_{i,BII}}$$

Where:

- Subscript$_{(i)}$ refers to the Underlying Stock i or the Underlying ETF, if applicable;
- Subscript$_{(BII)}$ refers to the Base Index Inception Day;
- $S_{i,BII}$ is the Underlying Stock Shares i or the Underlying ETF Shares, if applicable, on date II;
- $w_{i,BII}^{\text{Target}}$ refers to the Underlying Stock Target Weight i or the Underlying ETF Target Weight, if applicable, on the Base Index Inception Day; and
- $CP_{i,BII}$ is the closing price of Underlying Stock i or the closing price of the Underlying ETF, if applicable, on the Base Index Inception Day.

On each Index Business Day that is not the Base Index Inception Day but that is a Base Index Rebalancing Day BRt, the Underlying Stock Shares i and the Underlying ETF Shares, if applicable, are calculated according to the following formula:

$$S_{i,BRt} = w_{i,BRt}^{Obj} \times \frac{\sum_j S_{j,BRt-1} \times CP_{j,BRt-1}}{CP_{i,BRt-1}}$$

with:

$$w_{i,BRt}^{Obj} = w_{i,PBR} + \left[\left(w_{i,BOt}^{\text{Target}} - w_{i,PBR}\right) \times \frac{p_{BRt}}{P}\right]$$

Where:

- Subscript$_{(BRt)}$ refers to the relevant Base Index Rebalancing Day;
- Subscript$_{(PBR)}$ refers to the Index Business Day immediately preceding the first Base Index Rebalancing Day of the relevant Base Index Rebalancing Period;
- Subscript$_{(BRt-1)}$ refers to the Index Business Day immediately prior to Base Index Rebalancing Day BRt;
- Subscript$_{(i)}$ refers to the Underlying Stock i or the Underlying ETF, if applicable;

- Subscript$_{(j)}$ refers to the universe of all Underlying Stocks and the Underlying ETF, if applicable, including Underlying Stock i or the Underlying ETF, if applicable;
- Subscript$_{(BOt)}$ refers to the Base Index Inception Day or Base Index Observation Day immediately prior to Base Index Rebalancing Day BRt;
- $S_{i,BRt}$ refers to the Underlying Stock Shares i or the Underlying ETF Shares, if applicable, as of the date BRt;
- $w_{i,BRt}^{Obj}$ refers to the weight for each Underlying Stock i or Underlying ETF, if applicable, on Base Index Rebalancing Day BRt;
- $w_{i,BOt}^{\text{Target}}$ refers to the Underlying Stock Target Weight i or Underlying ETF Target Weight, if applicable, that was determined on the Base Index Observation Day immediately preceding Base Index Rebalancing Day BRt;
- $w_{i,PBR}$ is the Underlying Stock Weight i or the Underlying ETF Weight, if applicable, on the date PBR;
- P is the total number of Base Index Rebalancing Days in the relevant Base Index Rebalancing Period;
- p_{BRt} is the number of Base Index Rebalancing Days elapsed as of (and including) day BRt in the relevant Base Index Rebalancing Period;
- $S_{j,BRt-1}$ refers to the Underlying Stock Shares j or Underlying ETF Shares, if applicable, as of the date $BRt - 1$;
- $CP_{i,BRt-1}$ refers to the closing price of Underlying Stock i or the closing price of the Underlying ETF, if applicable, as of the date $BRt - 1$; and
- $CP_{j,BRt-1}$ refers to the closing price of Underlying Stock j or the closing price of the Underlying ETF, if applicable, as of the date $BRt - 1$.

On each Index Business Day t that is not also the Base Index Inception Day but that is a Base Index Rebalancing Day, in the event that there is a Potential Adjustment Event affecting the Underlying Stock i or the Underlying ETF, if applicable, adjustments to the number of Underlying Stock Shares i or Underlying ETF Shares, if applicable, computed as described above, will be made. For details on these adjustments, please refer to "Potential Adjustment Events".

On each Index Business Day t that is not also the Base Index Inception Day or a Base Index Rebalancing Day, the number of Underlying Stock Shares i and Underlying ETF Shares, if applicable, will remain unchanged from the last Base Index Rebalancing Day, subject to any Potential Adjustment Events affecting the Underlying Stock i or the Underlying ETF, if applicable. In the case of any Potential Adjustment Events affecting the Underlying Stock i or the Underlying ETF, if applicable, adjustments to the Underlying Stock Shares i or Underlying ETF Shares, if applicable, will be made. For details on these adjustments, please refer to "Potential Adjustment Events".

Total Return Index Rebalancing and Volatility Control

The Methodology has a volatility control feature applied on any Total Return Index Rebalancing Day. This has the effect of reducing the exposure of the Total Return Index to the performance

of the Base Index (and consequently the Underlying Stocks and, if applicable, the Underlying ETF) by rebalancing a portion of the Base Index into the Deleverage Position if the realized volatility of the Base Index exceeds the Volatility Cap of 8% (the "Volatility Cap") calculated during the applicable Volatility Cap Period (as described below) for any Total Return Index Rebalancing Day. This rebalancing is done by ratably reallocating all or a portion of the Index's exposure to the Underlying Stocks and, if applicable, the Underlying ETF into the Deleverage Position in an amount sufficient to reduce the realized volatility of the Base Index to 8% (if the realized volatility of the Base Index is less than 8%, the full Index exposure would be to the Underlying Stocks and, if applicable, the Underlying ETF). This calculation is performed on each Total Return Index Rebalancing Day in order to determine what percentage of the Index's exposure should be to the Deleverage Position, if any, for that particular Total Return Index Rebalancing Day. The number of shares of the Underlying Stocks and, if applicable, the Underlying ETF as determined on the most recent Base Index Rebalancing Day is not impacted by this rebalancing. Instead, the volatility control process only determines the amount of exposure the Index has to the Underlying Stocks and, if applicable, the Underlying ETF on a given day.

To operate the volatility control, the annualized historical realized volatility of the Base Index (the "Annualized Base Index Realized Volatility") is calculated over the relevant Volatility Cap Period with respect to each Total Return Index Rebalancing Day. As long as with respect to any given Total Return Index Rebalancing Day such Annualized Base Index Realized Volatility is equal to or less than the Volatility Cap, the weight of the Base Index in the Total Return Index will be set to 100% on that Total Return Index Rebalancing Day. However, if with respect to any given Total Return Index Rebalancing Day such Annualized Base Index Realized Volatility exceeds the Volatility Cap, the exposure of the Total Return Index to the Base Index will be partially rebalanced into the Deleverage Position for that Total Return Index Rebalancing Day, effected through a reduction of the Base Index weight to the percentage that is equal to the Volatility Cap divided by such Annualized Base Index Realized Volatility. As a result, the respective Underlying Stock Weights and the Underlying ETF Weight, if applicable, within the Index will be ratably reduced.

With respect to any given Total Return Index Rebalancing Day, the "Volatility Cap Period" is the period from (and including) the day which is 21 Index Business Days before the given Total Return Index Rebalancing Day to (but excluding) the day that is 1 Index Business Day prior to the given Total Return Index Rebalancing Day.

Calculation of the Annualized Base Index Realized Volatility

The Annualized Base Index Realized Volatility over the relevant Volatility Cap Period with respect to a given Total Return Index Rebalancing Day t is calculated as according to the following formula:

$$\text{BaseIndexRealizedVolatility}_{TRRt} = \sqrt{\frac{252}{N_{TRRt}} \times \sum_{s} \left[ln\left(\frac{B_s}{B_{s-1}}\right)\right]^2}$$

Where:

- Subscript$_{(TRRt)}$ refers to the given Total Return Index Rebalancing Day;
- BaseIndexRealizedVolatility$_{TRRt}$ is the Annualized Base Index Realized Volatility during the Volatility Cap Period with respect to the given Total Return Index Rebalancing Day;
- Subscript$_{(s)}$ refers to each Index Business Day within the relevant Volatility Cap Period;
- Subscript$_{(s-1)}$ refers to the Index Business Day immediately preceding each Index Business Day s;
- N_{TRRt} is the actual number of Index Business Days within the relevant Volatility Cap Period;
- B_s is the Base Index Value on the date s; and
- B_{s-1} is the Base Index Value on the date $s-1$.

Rebalancing: Impact of Disruptions

Base Index Rebalancing

As described under "Calculation of the Underlying Stock Target Weights," the Underlying Stock Target Weight attributed to each Underlying Stock and the Underlying ETF Target Weight attributable to the Underlying ETF, if applicable, will be determined on each Base Index Observation Day regardless of whether a Market Disruption Event (as defined under "Market Disruption Events" below) occurs.

If a Market Disruption Event affects an Underlying Stock or the Underlying ETF, if applicable, on a Base Index Rebalancing Day, the Calculation Agent shall then rebalance the Base Index for that Base Index Rebalancing Day and for every subsequent Base Index Rebalancing Day within the applicable Base Index Rebalancing Period as if (i) for each Underlying Stock or the Underlying ETF, if applicable, that had not been affected by such Market Disruption Event, the Base Index Rebalancing Day occurred on such day and (ii) for each Underlying Stock or the Underlying ETF, if applicable, that had been affected by such Market Disruption Event, the Base Index Rebalancing Day did not occur on such day (i.e., each Underlying Stock or the Underlying ETF, if applicable, that was affected by such Market Disruption Event is not further rebalanced during such Base Index Rebalancing Period).

Therefore, if an Underlying Stock or the Underlying ETF, if applicable, is affected by a Market Disruption Event on a Base Index Rebalancing Day, such Underlying Stock or the Underlying ETF, if applicable, will not be further rebalanced over the remaining Base Index Rebalancing Days in the applicable Base Index Rebalancing Period by effectively holding the Underlying Stock Shares i or Underlying ETF Shares constant over the remaining days of the Base Index Rebalancing Period. This is given as:

$$S_{m,BRt}^{MDE} = S_{m,BRt-1}$$

Where:

- Subscript$_{(BRt)}$ refers to the given Base Index Rebalancing Day;

- Subscript$_{(BRt-1)}$ refers to the Index Business Day immediately preceding Base Index Rebalancing Day BRt;
- Subscript$_{(m)}$ refers to the Underlying Stock m or the Underlying ETF, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt);
- $S_{m,BRt}^{MDE}$ is the Underlying Stock Shares m or Underlying ETF Shares, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt) after the close of calendar date BRt; and
- $S_{m,BRt-1}$ is the Underlying Stock Shares m or the Underlying ETF Shares, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt) after the close of calendar date $BRt-1$.

The weight of such Underlying Stock or Underlying ETF, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period will then on each subsequent Base Index Rebalancing Day, be calculated as:

$$w_{m,BRt}^{MDE} = \frac{S_{m,BRt-1} \times LTP_{m,BRt-1}}{\sum_j S_{j,BRt-1} \times CP_{j,BRt-1}}$$

Where:

- Subscript$_{(BRt)}$ refers to the given Base Index Rebalancing Day;
- Subscript$_{(BRt-1)}$ refers to the Index Business Day immediately prior to Base Index Rebalancing Day BRt;
- Subscript$_{(j)}$ refers to the Underlying Stock j or the Underlying ETF, if applicable;
- Subscript$_{(m)}$ refers to the Underlying Stock m or the Underlying ETF, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt);
- $S_{m,BRt-1}$ is the Underlying Stock Shares m or the Underlying ETF Shares, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt) after the close of calendar date $BRt-1$;
- $LTP_{m,BRt-1}$ is the last available traded price of Underlying Stock m or the Underlying ETF, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt) after the close of calendar date $BRt-1$;
- $S_{j,BRt-1}$ refers to the Underlying Stock Shares j or the Underlying ETF Shares, if applicable as of the date $BRt-1$; and
- $CP_{j,BRt-1}$ refers to the closing price, or the last available traded price if the closing price is not available, of Underlying Stock j or the Underlying ETF, if applicable, as of the date $BRt-1$.

If not all Underlying Stocks are affected by a Market Disruption Event, then the weight for each Underlying Stock and the Underlying ETF, if applicable, not affected by a Market Disruption

Event will then be proportionally adjusted on each subsequent Base Index Rebalancing Day, and the weight will be calculated as:

$$w_{i,BRt}^{MDE} = \frac{w_{i,BRt}^{Obj}}{1 - \sum_m w_{m,BRt}^{Obj}} \times \left(1 - \sum_m w_{m,BRt}^{MDE}\right)$$

Where:

- Subscript$_{(BRt)}$ refers to the given Base Index Rebalancing Day;
- Subscript$_{(i)}$ refers to the Underlying Stock i or the Underlying ETF, if applicable, not affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt;
- Subscript$_{(m)}$ refers to the Underlying Stock m or the Underlying ETF, if applicable, affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt);
- $w_{i,BRt}^{MDE}$ refers to the weight for each Underlying Stock i or Underlying ETF, if applicable, on Base Index Rebalancing Day BRt in the presence of a Market Disruption Event impacting a certain group of Underlying Stocks referred to by Subscript$_{(m)}$;
- $w_{i,BRt}^{Obj}$ refers to the weight for each Underlying Stock i or Underlying ETF, if applicable, on Base Index Rebalancing Day BRt calculated as though no Market Disruption Event occurred or was continuing on any Base Index Rebalancing Day in the applicable Base Index Rebalancing Period;
- $w_{m,BRt}^{Obj}$ refers to the weight for each Underlying Stock m or Underlying ETF, if applicable, on Base Index Rebalancing Day BRt calculated as though no Market Disruption Event occurred or was continuing on any Base Index Rebalancing Day in the applicable Base Index Rebalancing Period; and
- $w_{m,BRt}^{MDE}$ refers to the weight for each Underlying Stock m or Underlying ETF, if applicable, affected by a Market Disruption Event during the relevant Base Index Rebalancing Period, on Base Index Rebalancing Day BRt.

The Underlying Stock Shares i or the Underlying ETF Shares each Underlying Stock i or Underlying ETF, if applicable, not affected by a Market Disruption Event will then, on each subsequent Base Index Rebalancing Day, be calculated as:

$$S_{i,BRt}^{MDE} = w_{i,BRt}^{MDE} \times \frac{\sum_j S_{j,BRt-1} \times CP_{j,BRt-1}}{CP_{i,BRt-1}}$$

Where:

- Subscript$_{(BRt)}$ refers to the given Base Index Rebalancing Day;
- Subscript$_{(BRt-1)}$ refers to the Index Business Day immediately preceding Base Index Rebalancing Day BRt;
- Subscript$_{(j)}$ refers to the Underlying Stock j or the Underlying ETF, if applicable;

- Subscript$_{(i)}$ refers to the Underlying Stock i or the Underlying ETF, if applicable, not affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt);
- $S_{j,BRt}$ refers to the Underlying Stock Shares j or the Underlying ETF Shares, if applicable, as of the date $BRt - 1$;
- $CP_{j,BRt-1}$ refers to the closing price, or the last available traded price if the closing price is not available, of Underlying Stock j or the Underlying ETF, if applicable, as of the date $BRt - 1$;
- $CP_{i,BRt-1}$ refers to the closing price of Underlying Stock i or the closing price of the Underlying ETF, if applicable, as of the date $BRt - 1$;
- $w_{i,BRt}^{MDE}$ refers to the weight for each Underlying Stock i or Underlying ETF, if applicable, on Base Index Rebalancing Day BRt in the presence of Market Disruption Events impacting a certain group of Underlying Stocks (the group of Underlying Stocks other than those referred to by Subscript$_{(i)}$; and
- $S_{i,BRt}^{MDE}$ is the Underlying Stock Shares i or Underlying ETF Shares, if applicable, not affected by a Market Disruption Event during the applicable Base Index Rebalancing Period (on or prior to Base Index Rebalancing Day BRt) after the close of calendar date BRt.

For example, on a Base Index Observation Day, a hypothetical Base Index with no minimum or maximum weight constraints and no Underlying ETF requirement consists of only four Underlying Stocks (Stock A, Stock B, Stock C and Stock D), all four of which were included in the Base Index on the Index Business Day prior to the Base Index Observation Day, at weights of 40%, 20%, 30% and 10%, respectively. For illustration purposes, the closing price for each stock is assumed to be the same at $10 per share at the end of each day. With the assumption of the constant closing price of $10, the Underlying Stock Shares on the Index Business Day prior to the Base Index Observation Day can be assumed to be 4, 2, 3, and 1 for Stock A, Stock B, Stock C, and Stock D, respectively. On the Base Index Observation Day, the Underlying Stock Target Weight of each Underlying Stock is determined to be equal to 20%, 50%, 10% and 20%, respectively.

If a Market Disruption Event affects Stock A on the second Base Index Rebalancing Day in the applicable Base Index Rebalancing Period, the second Base Index Rebalancing Day and all subsequent Base Index Rebalancing Days in the Base Index Rebalancing Period will be deemed to have not occurred with respect to Stock A. The Underlying Stock Shares for Stock A will be held constant at 3.6 which was the Underlying Stock Shares for Stock A at the end of the first Base Index Rebalancing Day (the last Index Business Day without a Market Disruption Event), as Stock A was rebalanced by 1/5 of the decrease on the first Base Index Rebalancing Day in the Base Index Rebalancing Period. Similarly, the Underlying Stock Shares for Stocks B, C, and D will be 2.6, 2.6 and 1.2, respectively at the end of the first Base Index Rebalancing Day.

The weight for Stock A, given the Market Disruption Event, will now be 36% for the second Base Index Rebalancing Day (compared to a weight of 32% for such day in the absence of the Market Disruption Event). The weight for Stock B, Stock C and Stock D will be calculated such that each retains a weight within the remaining weight of the Base Index not allocated to Stock A's weight

that is proportional to its Underlying Stock Target Weight relative to the other Underlying Stock Target Weights. The weight in the Base Index not allocated to Stock A's weight is equal to 64%. The weight in the Base Index that was to be allocated to Stock A's weight in the absence of the Market Disruption Event was 68% for such day. Therefore, the weight for Stock B on the second Base Index Rebalancing Day will be equal to 30.12% (the product of 32%/68% times 64%), versus the weight of 32% in the absence of the Market Disruption Event for Stock B on the second Base Index Rebalancing Day) and the weight for Stock C and Stock D will be equal to 20.71% and 13.18%, respectively (versus the weights of 22% and 14%, respectively, on the second Base Index Rebalancing Day in the absence of the Market Disruption Event). Therefore, the Underlying Stock Shares for Stock A, Stock B, Stock C, and Stock D will be 3.6, 3.012, 2.071, and 1.318, respectively, for the second Base Index Rebalancing Day.

In contrast, if a Market Disruption Event does not affect Stock A during the Base Index Rebalancing Period but a Market Disruption Event affects Stock B on the third Base Index Rebalancing Day in the applicable Base Index Rebalancing Period, the third Base Index Rebalancing Day and all subsequent Base Index Rebalancing Days in the Base Index Rebalancing Period will be deemed to have not occurred with respect to Stock B. The Underlying Stock Shares for Stock B will be held at 3.2 shares for the remaining Base Index Rebalancing Days (as Stock B was rebalanced by a total of 2/5 of the increase over the first and second Base Index Rebalancing Days in the Base Index Rebalancing Period to a weight of 32%). Therefore, on the fifth and final day of the Base Index Rebalance Period, the weights for Stock A, Stock C and Stock D will be calculated such that each retains a weight within the remaining weight of the Base Index not allocated to Stock B's weight that is proportional to its Underlying Stock Target Weight relative to the other Underlying Stock Target Weights. The weight in the Base Index not allocated to Stock B's weight is equal to 68%. Therefore, the weight for Stock A on the final day of the rebalance will be equal to 27.2% (versus the Underlying Stock Target Weight of 20%), the weight for Stock C will be equal to 13.6% (versus the Underlying Stock Target Weight of 10%) and the weight for Stock D will be equal to 27.2% (versus the Underlying Stock Target Weight of 20%). Correspondingly, the Underlying Stock Shares for Stock A, Stock B, Stock C, and Stock D will be 2.72, 3.2, 1.36, and 2.72, respectively, at the end of the Base Index Rebalancing Period (in the absence of the Market Disruption Event, the Underlying Stock Shares would have been 2, 5, 1, and 2, respectively).

Total Return Index Rebalancing

If a Total Return Index Rebalancing Day must be effected on an Index Business Day on which a Market Disruption Event affects an Underlying Stock or the Underlying ETF, if applicable, the Calculation Agent shall then rebalance the Index as if (i) for each Underlying Stock or the Underlying ETF, if applicable, that had not been affected by a Market Disruption Event, the Total Return Index Rebalancing Day occurred on such day and (ii) for each Underlying Stock or the Underlying ETF, if applicable, that had been affected by such Market Disruption Event, the Total Return Index Rebalancing Day did not occur on such day, provided that for the purposes of calculating the Annualized Base Index Realized Volatility the alternative calculations set forth in the next paragraph apply (i.e., other than for purposes of calculating the Annualized Base Index Realized Volatility in the manner set forth in the next paragraph, each Underlying Stock or

the Underlying ETF, if applicable, that was affected by such Market Disruption Event is disregarded for purposes of Total Return Index Rebalancing).

Solely for purposes of calculating the Annualized Base Index Realized Volatility which includes an Index Business Day on which a Market Disruption Event affects an Underlying Stock or the Underlying ETF, if applicable (except if such Market Disruption Event affects all the Underlying Stocks and the Underlying ETF, if applicable), the Base Index Value will include any Underlying Stock or the Underlying ETF, if applicable, that has been affected by a Market Disruption Event and will be calculated (i) in the event of a Trading Disruption related to movements in price that exceed limits established by the relevant exchange, by assuming the closing price of the Underlying Stock or the closing price of the Underlying ETF, if applicable, is equal to such price limit on such Index Business Day or (ii) in the event of a Market Disruption Event which is not a Trading Disruption related to movements in price that exceed limits established by the relevant exchange, by multiplying the last traded price of the Underlying Stock or the Underlying ETF, if applicable, on the immediately preceding relevant Index Business Day by the percentage change (whether positive or negative) of the Underlying Stock or the Underlying ETF, if applicable, having the largest absolute total return (expressed in percentage; adjusted for dividends, splits, and spin-offs) from the immediately preceding relevant Index Business Day to the relevant Index Business Day; provided, that if a Market Disruption Event has occurred and is continuing with respect to more than one Underlying Stock on an Index Business Day, then the Calculation Agent shall consult with the Index Committee to determine the values to be used for such disrupted Underlying Stock for purposes of calculating the Annualized Base Index Realized Volatility, such determination to be made by the Index Committee in its sole discretion based on its review of such market and other information as it believes relevant to such determination.

Calculation of the Index

The Index Value on the Index Inception Date is equal to 100. On any given Index Business Day t following the Index Inception Date, the Index Value is calculated according to the following formula:

$$\text{Index}_t = \text{Index}_{IRt} \times \left[\frac{TRV_t}{TRV_{IRt}} - \text{InterestRate}_{IRt} \times \text{DCF}_{IRt,t} \right] \times e^{(-\text{DeductionRate} \times \text{DCF}_{IRt,t})}$$

Where:

- Subscript$_{(t)}$ refers to the given Index Business Day t;
- Subscript$_{(IRt)}$ refers to the Notional Interest Rate Reset Date immediately preceding (but not including) Index Business Day t;
- Index$_t$ means the Index Value as of the date t;
- Index$_{IRt}$ means the Index Value as of the date IRt;
- TRV_t means the Total Return Index Value as of the date t;
- TRV_{IRt} means the Total Return Index Value as of the date IRt;

- InterestRate$_{IRt}$ means the Notional Interest Rate as of date IRt;
- DeductionRate means 0.75% per annum;
- $DCF_{IRt,t}$ is the day count fraction for the period from (but excluding) the date IRt to (and including) the given Index Business Day t, determined by using the Day Count Convention (as specified in the Annex); and
- e means the exponential function.

Calculation of the Total Return Index Value

The Total Return Index Value on the Total Return Index Inception Date is set at 100.

On any given Index Business Day t following the Total Return Index Inception Date, the Total Return Index Value is calculated according to the following formula:

$$TRV_t = TRV_{TRRt} \times \left[\frac{B_t}{B_{TRRt}} \times w_{TRRt}^B + \frac{DP_t}{DP_{TRRt}} \times (1 - w_{TRRt}^B)\right]$$

Where:

- Subscript$_{(t)}$ refers to the given Index Business Day t;

- Subscript$_{(TRRt)}$ refers to the Total Return Index Rebalancing Day immediately preceding (but not including) Index Business Day t;

- TRV_t means the Total Return Index Value as of the date t;

- TRV_{TRRt} means the Total Return Index Value as of the date $TRRt$;

- B_t means the Base Index Value as of the date t;

- B_{TRRt} means the Base Index Value as of the date $TRRt$;

- DP_t means the Deleverage Position Value as of the date t;

- DP_{TRRt} means the Deleverage Position Value as of the date $TRRt$; and

- w_{TRRt}^B means the Base Index Weight as of date $TRRt$ and calculated according to the following formula:

$$w_{TRRt}^B = \min\left(100\%, \frac{\text{VolatilityCap}}{\text{BaseIndexRealizedVolatility}_{TRRt}}\right)$$

Where:

- VolatilityCap means the Volatility Cap (as defined under "Total Return Index Rebalancing and Volatility Control" above); and
- $\text{BaseIndexRealizedVolatility}_{TRRt}$ means the Annualized Base Index Realized Volatility as of date $TRRt$.

Calculation of the Base Index Value

The Base Index Value on the Base Index Inception Date is set to 100. On any Index Business Day t following the Base Index Inception Date, the Base Index Value is calculated according to the following formula:

$$B_t = \sum_i \left(S_{i,t} \times CP_{i,t} \right)$$

Where:

- $\text{Subscript}_{(t)}$ refers to the given Index Business Day t;

- $\text{Subscript}_{(i)}$ refers to the Underlying Stock i or the Underlying ETF, if applicable;

- B_t means the Base Index Value as of the date t;

- $S_{i,t}$ is the Underlying Stock Shares i or the Underlying ETF Shares, if applicable, on Index Business Day t; and

- $CP_{i,t}$ is the closing price of Underlying Stock i or the closing price of the Underlying ETF, if applicable, on Index Business Day t.

Calculation of the Deleverage Position Value

On any Index Business Day t following the Total Return Index Inception Date, the Deleverage Position Value is equal to the Money Market Position Value (defined below) on that Index Business Day t.

Calculation of the Money Market Position

Overview

The Money Market Position is intended to express the notional returns accruing to a hypothetical investor from an investment in a notional money account denominated in U.S. dollars that accrues interest at a rate determined by reference to the Notional Interest Rate (3-Month USD LIBOR, determined as specified in the Annex). The Money Market Position will have a positive notional return if the Notional Interest Rate is positive.

The value of the Money Market Position (the "Money Market Position Value") is equal to 100 on the Money Market Position's Asset Inception Date. On any calendar date t following the Index Inception Date, the Money Market Position Value will be calculated according to the following formula:

$$MM_t = MM_{IRt} \times \left(1 + R_{IRt} \times DCF_{IRt,t}\right)$$

Where:

- Subscript$_{(t)}$ refers to the given calendar date;
- Subscript$_{(IRt)}$ refers to the Notional Interest Rate Reset Date immediately preceding calendar date t;
- MM_t means the Money Market Position Value as of the date t;
- MM_{IRt} means the Money Market Position Value as of the date IRt;
- R_{IRt} means the Notional Interest Rate as of the date IRt; and
- $DCF_{IRt,t}$ is the day count fraction for the period from (but excluding) the date IRt to (and including) the date t, determined by using the Day Count Convention.

Historical Data

The "Launch Date" for the Index, which is the date the Calculation Agent began calculating the Index, is specified in the Annex. Therefore, information provided for the period from the Index Inception Date until the Launch Date, is hypothetical and is provided as an illustration of how the Index would have performed during the period had the Calculation Agent begun calculating the Index on the Index Inception Date using the Methodology. This data does not reflect actual performance, nor was a contemporaneous investment model run of the Index. Historical information for the period from and after the Launch Date is based on the actual performance of the Index.

Historical levels of the Index are calculated with reference to the Underlying Stock Values of the Underlying Stocks determined based on the latest available data published by the relevant exchanges.

Market Disruption Events

A "Market Disruption Event" with respect to an Underlying Stock or the Underlying ETF will have occurred in any of the following situations (as determined by the Calculation Agent in its sole discretion):

i. The official closing price, level or other measure of any Underlying Stock or the Underlying ETF, if applicable, is unavailable on any relevant day on which such measure is scheduled to be published;

ii.   A relevant Exchange is not open for trading during its regular trading session, or closes prior to its scheduled closing time, on any relevant day or there is an Exchange Disruption;

iii.   Upon the occurrence or existence of a Trading Disruption for more than two hours of trading, or at any time during the one-hour period that ends at the scheduled closing time of the relevant Exchange, and which the Calculation Agent determines is material;

iv.   With respect to the Underlying ETF, the net asset value per share is not calculated or is not announced by the Underlying ETF or the sponsor of the Underlying ETF, and such event has a material impact on the Index;

v.   With respect to the Underlying ETF, the Underlying ETF or the sponsor of the Underlying ETF suspends creations or redemptions of shares, and such event has a material impact on the Index;

vi.   Upon the occurrence or existence of an Index Dislocation; or

vii.   Upon the occurrence or existence of a Force Majeure Event.

A "**Trading Disruption**" means any suspension of or limitation imposed on trading by the relevant Exchange or Related Exchange, and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or otherwise, relating to the Underlying Stock shares, the Underlying ETF shares, the index underlying the Underlying ETF or futures or options on the Underlying Stock shares, Underlying ETF shares or the index underlying the Underlying ETF.

An "**Exchange Disruption**" means any event that disrupts or impairs (as determined by the Calculation Agent in its sole discretion) the ability of market participants in general to effect transactions in, or obtain market values for, the shares of the Underlying Stock or Underlying ETF on the relevant Exchange or futures or options on the Underlying Stock shares, Underlying ETF shares or the index underlying the Underlying ETF, in each case on the relevant Related Exchange.

"**Exchange**" means the primary exchange on which shares of an Underlying Stock or the Underlying ETF are listed.

"**Related Exchange**" means, in respect of an Underlying Stock, the Underlying ETF or the index underlying the Underlying ETF, as the case may be, the primary exchange (or exchanges) or quotation system (or quotation systems) on which futures or options contracts relating to such Underlying Stock, the Underlying ETF or the index underlying the Underlying ETF, as the case may be, are traded, if any.

An "**Index Dislocation**" means the Calculation Agent determines that a market participant, as a result of a market-wide condition relating to the Index or any Underlying Stock or the Underlying ETF would (i) be unable, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of all or a material portion of any hedge position relating to the Index, an Underlying Stock or the Underlying ETF, or (ii) incur a materially increased cost in doing so, including due to any capital requirements or other law or regulation.

A "**Force Majeure Event**" means the Calculation Agent determines that there has been the occurrence of a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labor disruption or any similar intervening circumstance that is beyond the reasonable control of the Index Sponsor, Calculation Agent or any of their respective affiliates that Calculation Agent determines is likely to have a material effect on an Index component, or on its ability to perform its role in respect of the Index.

On any Index Business Day on which a Market Disruption Event occurs or is continuing with respect to any non-zero weighted Underlying Stock or Underlying ETF, if applicable, included in the Index, the Calculation Agent shall postpone calculation of the Index Value to the next Index Business Day on which no Market Disruption Event occurs or is continuing with respect to any non-zero weighted Underlying Stock or Underlying ETF, if applicable, included in the Index and an indicative level for the Index will be published. Such level will be identified as a "disrupted indicative level".

The Calculation Agent shall resume calculating the Index Value on the first Index Business Day on which no Market Disruption Event is occurring or continuing with respect to any Underlying Stock or the Underlying ETF, if applicable, by using (i) for the Underlying Stock Shares of each Underlying Stock or the Underlying ETF Shares of the Underlying ETF, if applicable, that had not been affected by such Market Disruption Event, the Underlying Stock Shares and Underlying ETF Shares, if applicable, that would have been used as if the Base Index Rebalancing Day(s), if applicable, occurred on each Index Business Day on which such Market Disruption Event occurred or was continuing and the Total Return Index Rebalancing Day and subsequent Total Return Index Rebalancing Day(s) (as applicable) occurred on each Index Business Day on which such Market Disruption Event occurred or was continuing and (ii) for the Underlying Stock Shares of each Underlying Stock or the Underlying ETF Shares of the Underlying ETF, if applicable, that had been affected by such Market Disruption Event, the Underlying Stock Shares and Underlying ETF Shares, if applicable, on the Index Business Day immediately preceding the first day of such Market Disruption Event.

On the sixth Index Business Day following the occurrence of a Market Disruption Event with respect to any Underlying Stocks or the Underlying ETF, if applicable, included in the Index, if such Market Disruption Event is continuing and such Underlying Stocks or the Underlying ETF, if applicable, have not been removed from the Index, the Index Committee may determine in its sole discretion to instruct the Calculation Agent to calculate the Index, using a price for such Underlying Stocks or the Underlying ETF, if applicable, as determined by the Index Committee in its sole discretion. In the event the Index Committee determines on such sixth Business Day, in its sole discretion, that no such instructions should be given to the Calculation Agent, the Index Committee may revisit such determination on any Index Business Day thereafter on which the Market Disruption Event is continuing.

Notwithstanding the foregoing, in the event of a Force Majeure Event in which all Underlying Stocks and the Underlying ETF, if applicable, are affected, the calculation and publication of the Index will be postponed until, in the determination of the Calculation Agent, such Force Majeure Event has been resolved.

Potential Adjustment Events

In the event that an Underlying Stock or the Underlying ETF, if applicable, is affected by a "potential adjustment event", the Calculation Agent may make adjustments to the number of shares of such Underlying Stock or the Underlying ETF, if applicable, reflected in the Index and/or the weighting of the Underlying Stock or the Underlying ETF, if applicable, if it determines that the event could have a diluting or concentrative effect on the theoretical value of the Underlying Stock shares or the Underlying ETF shares, if applicable, and would not otherwise be accounted for in the Index. Table 1 below describes the potential adjustment events for which the Calculation Agent may make adjustments. The effective date for all adjustments will be as of the ex-date for the potential adjustment event with the exception of Ad-hoc Situations as described below.

Ad-hoc Situations are defined as circumstances, when either the Calculation Agent receives information about the effectiveness of a transaction after the last trading day of an Underlying Stock or Underlying ETF, if applicable, or the Underlying Stock or Underlying ETF, if applicable, has been suspended from trading with immediate effect and will not resume to trade until its delisting and / or has been delisted from the relevant Exchange with immediate effect. In case of Ad-hoc Situations, the adjustment will be applied with a notice period of two Index Business Days, i.e. the effective date for the adjustment will be the third Index Business Day following the announcement.

Table 1: Potential Adjustment Events

Potential Adjustment Event	Adjustment	Adjustment Description
Cash Dividends	Yes	The Dividend is reinvested in the Underlying Stock or Underlying ETF
Special / Extraordinary Dividends	Yes	The Dividend is reinvested in the Underlying Stock or Underlying ETF
Stock Dividend	Yes	Where shareholders receive "B" new shares for every "A" share held, the number of shares is adjusted by multiplying the original number of shares by the quotient of (a) the sum of A and B divided by (b) A.
Stock Split	Yes	Where shareholders receive "B" new shares for every "A" share held, the number of shares is adjusted by multiplying the original number of shares by the quotient of B divided by A.
Stock Cash Acquisition	Yes	Where company X is acquired, proceeds equal to the original number of shares of company X multiplied by the latest available price determined by the Calculation Agent are reinvested proportionally across the index. If an Ad-hoc

		Situation applies, then a notional position in company X, where the valuation of the notional position is exactly equal to the proceeds, will be maintained in the Base Index during the two Index Business Day notice period prior to the effective date.
Stock Merger	Yes	If company Y, the acquirer, is currently in the index, and irrespective of whether or not an Ad-hoc Situation applies to the adjustment event, then where shareholders receive "B" new shares of company Y for every "A" share of company X held, the shares of company X are replaced by shares of company Y where the number of shares of company Y is obtained by multiplying the original number of shares of company X by the quotient of B divided by A. If the acquirer is not a current index constituent, then the share of the acquired company will be removed from the index and the proceeds will be reinvested proportionally across the index. If an Ad-hoc Situation applies and the acquirer company Z is not a current index constituent, and where shareholders receive "C" shares of company Z for every "A" share of company X held, then for the two Index Business Day notice period, the shares of company X will be replaced by shares of company Z obtained by multiplying the original number of shares of company X by the quotient of C divided by A. The shares of company Z will be removed from the index on the effective date and proceeds will be reinvested proportionally across the index.
Stock Spinoff	Yes	Where shareholders receive "B" new shares of spun-off company Y for every "A" share of parent company X held, a position in company Y is initiated where the number of shares of company Y is obtained by multiplying the original number of shares of company X by the quotient of B divided by A. If the effective date of the spinoff is a Base Index Rebalancing Day, the effective proceeds of the spinoff obtained by multiplying the original number of shares of company X by the quotient of B divided by A and that further multiplied by the latest available price of company Y determined by the Calculation Agent are reinvested in company X.
Stock Delisting	Yes	The proceeds received from the sale of the delisted securities are reinvested proportionally across the index. If an Ad-hoc Situation applies, then a notional cash position equal to the proceeds will be maintained in the Base Index

during the two Index Business Day notice period prior to the effective date.

For potential adjustment events not listed in the table above, the Calculation Agent may make adjustments if it determines that the event could have a diluting or concentrative effect on the theoretical value of the Underlying Stock shares or the Underlying ETF shares, if applicable, and would not otherwise be accounted for in the Index. Any such adjustments are publicly announced in advance wherever practicable.

Revision to Index Values in the Event of Data Error

If the Calculation Agent determines that the price made available for an Underlying Stock or the Underlying ETF, if applicable, with a non-zero weighting in the Index (or the published level of the Notional Interest Rate) reflects a manifest error, the calculation of the Index shall be delayed until such time as a corrected price or level is made available. In the event a corrected price or level is not made available on a timely basis or in the event that the price made available for an Underlying Stock or the Underlying ETF, if applicable (or the published level of a Notional Interest Rate), is subsequently corrected and such correction is published, then the Calculation Agent may, if practicable and if the Calculation Agent determines, acting in good faith, that such error is material, adjust or correct the relevant calculation or determination, including the price of the Underlying Stock or the Underlying ETF, if applicable, as of any Index Business Day to take into account such adjustment or correction.

On any Index Business Day during which the price for an Underlying Stock or the Underlying ETF, if applicable, reflects such an error (and such error has not been corrected), the Underlying Stock Target Weights, the Underlying ETF Target Weight, if applicable, and the Base Index Weight will be calculated using the price made available by the relevant Exchange (notwithstanding any manifest error). If the Calculation Agent determines that any such error is material (as described above) and if the relevant Exchange subsequently corrects such price it has made available, the Index Value may be calculated using such corrected price, but the quantities of the Underlying Stocks and the Underlying ETF, if applicable, implied by the Underlying Stock Target Weights and the Underlying ETF Target Weight, if applicable, and the Base Index Weight (each prior to the error being corrected) will not be adjusted.

Revision to Index Values in the Event of Non - Data Error

If there is a missed potential adjustment event (as described under "Potential Adjustment Events" above) (a "Missed Potential Adjustment Event") or a deviation from the Index methodology as described in this document (a "Missed Index Methodology Event"), and a correction can be made within 2 days or fewer after such Missed Potential Adjustment Event or Missed Index Methodology Event, the Calculation Agent will recalculate the Index Value for the Index Business Day on which such error occurred and each following Index Business Day on which the Index Value was affected by such Missed Potential Adjustment Event or Missed Index

Methodology Event, using the corrected potential adjustment event adjustment or index methodology. If such a correction occurs more than 2 days after such Missed Corporate Event or Missed Index Methodology Event, the Index will not be recalculated.

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Motif Capital Management, Inc. is the sole licensing agent for the Index. Questions about licensing the Index can be directed to the individuals listed under "Contact Information" below.

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Annex

Item	Value
Index Inception Date	06/01/2016
Total Return Index Inception Date	06/01/2016
Base Index Inception Date	06/21/2013
Launch Date	10/30/2018
Index Bloomberg Ticker	MCAIE Index
Index Business Day	Means a day on which the New York Stock Exchange is open for its regular trading session

Notional Interest Rate

3-Month USD LIBOR will be the offered rate for three-month deposits in U.S. dollars, as that rate appears on Reuters screen 3750 page as of 11:00 a.m., London time, as observed two London business days prior to the relevant Notional Interest Rate Reset Date. Each such date is referred to herein as a "USD LIBOR interest determination date". "Reuters screen" means the display on the Reuters service, or any successor or replacement service, on the page specified above, or any successor or replacement page on that service. A "London business day" is a day

on which commercial banks and foreign currency markets settle payments and are open for general business in London.

If the Index Committee determines that 3-Month USD LIBOR has been discontinued, then the Index Committee shall replace 3-Month USD LIBOR with a substitute or successor rate that it has determined in its sole discretion is most comparable to 3-Month USD LIBOR, provided that if the Index Committee determines there is an industry accepted successor rate, then the Index Committee shall use such successor rate. If the Index Committee has determined a substitute or successor rate in accordance with the foregoing, the Index Committee in its sole discretion may determine an alternative to London business day, USD LIBOR interest determination date and Notional Interest Rate Reset Date to be used and any other relevant methodology for calculating such substitute or successor rate, including any adjustment factor needed to make such substitute or successor rate comparable to 3-Month USD LIBOR, in a manner that is consistent with industry-accepted practices for such substitute or successor rate.

Unless the Index Committee replaces 3- Month USD LIBOR with a substitute or successor rate as so provided, the following will apply:

If the rate described above does not so appear on Reuters screen 3750 page, then 3-Month USD LIBOR will be determined on the basis of the rates at which three-month deposits in U.S. dollars are offered by four major banks in the London interbank market selected by the Calculation Agent at approximately 12:00 P.M., London time, on the relevant USD LIBOR interest determination date, to prime banks in the London interbank market, beginning on the relevant Notional Interest Rate Reset Date, and in a representative amount. The Calculation Agent will request the principal London office of each of these major banks to provide a quotation of its rate. If at least two quotations are provided, 3- Month USD LIBOR for the relevant Notional Interest Rate Reset Date will be the arithmetic mean of the quotations. If fewer than two of the requested quotations described above are provided, 3- month USD LIBOR for the relevant Notional Interest Rate Reset Date will be the arithmetic mean of the rates quoted by major banks in New York City, selected by the Calculation Agent, at approximately 11:00 A.M., New York City time, on the relevant Notional Interest Rate Reset Date, for loans in U.S. dollars to leading European banks for a period of three months, beginning on the relevant Notional Interest Rate Reset Date, and in a representative amount. If no quotation is provided as described in the preceding paragraph, then the Calculation Agent, after consulting such sources as it deems comparable to any of the foregoing quotations or display page, or any such source as it deems reasonable from which to estimate 3-month USD LIBOR or any of the foregoing lending rates, shall determine 3-month USD LIBOR for that Notional Interest Rate Reset Date in its sole discretion.

Day Count Convention

Actual/360, meaning the number of days in the relevant period divided by 360.

Annex A – List of Search Phrases from ACM Computing Classification 2012 Taxonomy

Phrases mentioned more than once are only entered once in the list of relevant phrases; when there is overlap between phrases, but they are not identical, both phrases are included. The below list of search phrases reflects the removal of duplicative phrases but does not comprise the final Phrase List because it does not reflect the removal of phrases that occur in more than 15% of all Annual SEC Filings filed with the SEC within 15 months before the relevant Base Index Observation Day.

- Artificial intelligence
- Natural language processing
- Information extraction
- Machine translation
- Discourse, dialogue and pragmatics
- Natural language generation
- Speech recognition
- Lexical semantics
- Phonology / morphology
- language resources
- Knowledge representation and reasoning
- Description logics
- Semantic networks
- Nonmonotonic, default reasoning and belief revision
- Probabilistic reasoning
- Vagueness and fuzzy logic
- Causal reasoning and diagnostics
- Temporal reasoning
- Cognitive robotics
- Ontology engineering
- logic programming and answer set programming
- Spatial and physical reasoning
- reasoning about belief and Knowledge
- Planning and scheduling
- Planning for deterministic actions

- Supervised learning
- Ranking
- learning to rank
- Supervised learning by classification
- Supervised learning by regression
- Structured outputs
- Cost-sensitive learning
- Unsupervised learning
- Cluster analysis
- anomaly detection
- Mixture modeling
- Topic modeling
- Source separation
- Motif discovery
- Dimensionality reduction and manifold learning
- Reinforcement learning
- Sequential decision making
- Inverse Reinforcement learning
- Apprenticeship learning
- Multi-agent Reinforcement learning
- Adversarial learning
- Multi-task learning
- Transfer learning
- Lifelong Machine learning
- learning under covariate shift

- Planning under uncertainty
- Multi-agent Planning
- Planning with abstraction and generalization
- Robotic Planning
- Evolutionary robotics
- Search methodologies
- Heuristic function construction
- Discrete space Search
- Continuous space Search
- Randomized Search
- Game tree Search
- abstraction and micro-operators
- Search with partial observations
- Control methods
- Computational Control theory
- Motion path Planning
- Philosophical/theoretical foundations of Artificial intelligence
- Cognitive science

- theory of mind
- Distributed Artificial intelligence
- Multi-agent systems
- Intelligent agents
- Mobile agents
- Cooperation and coordination
- Computer vision
- Computer vision tasks
- Biometrics
- Scene understanding
- Activity recognition and understanding
- Video summarization
- Visual content-based indexing and retrieval
- Visual inspection
- vision for robotics

- learning settings
- Batch learning
- Online learning settings
- learning from demonstrations
- learning from critiques
- learning from implicit feedback
- Active learning settings
- Semi-Supervised learning settings
- Machine learning approaches
- classification and regression trees
- Kernel methods
- Support vector machines
- Gaussian processes
- Neural networks
- Logical and relational learning
- Inductive logic learning
- Statistical relational learning

- learning in Probabilistic graphical models
- Maximum likelihood modeling
- Maximum entropy modeling
- Maximum a posteriori modeling
- Mixture models
- Latent variable models
- Bayesian network models
- learning linear models
- Perceptron algorithm
- Factorization methods
- Non-negative matrix Factorization
- Factor analysis
- Principal component analysis
- Canonical correlation analysis
- Latent Dirichlet allocation
- Rule learning

- Scene anomaly detection
- Image and Video acquisition
- Camera calibration

- Epipolar geometry
- Computational photography
- Hyperspectral imaging
- Motion capture
- 3D imaging
- Active vision
- Computer vision representations
- Image representations
- Shape representations

- Appearance and texture representations
- Hierarchical representations

- Computer vision problems
- Interest point and salient region detections
- Image segmentation
- Video segmentation
- Shape inference

- Object detection
- Object recognition
- Object identification
- Tracking
- Reconstruction
- Matching
- Machine learning
- learning paradigms

- Instance-based learning
- Markov decision processes
- Partially-observable Markov decision processes
- Stochastic games
- learning Latent representations
- Deep belief networks
- Bio-inspired approaches
- Artificial life
- Evolvable hardware
- Genetic algorithms
- Genetic programming
- Generative and developmental approaches
- Machine learning algorithms
- Dynamic programming for Markov decision processes
- Value iteration
- Q-learning
- Policy iteration
- Temporal difference learning
- Approximate Dynamic programming methods
- Ensemble methods
- Boosting
- Bagging
- Spectral methods
- Feature selection
- Regularization
- Cross-validation