

# **MOTIF MANUFACTURING REVOLUTION INDEX**

## Methodology

**January 4, 2019**

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## Overview

The following overview of the Motif Manufacturing Revolution 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 Manufacturing Revolution Index and its operation that follows in this document.

The Motif Manufacturing Revolution Index (the “Index”) is designed to deliver exposure to companies with common equity securities listed on exchanges in certain developed markets that may benefit from the on-going technology-driven transformation of the manufacturing industry (the “Manufacturing Revolution Theme”). This transformation includes the use of new materials and energy sources to supply the manufacturing process, the application of new methods and processes, and the manufacture of new products. The focus of the Index is to identify and weight companies that are originating new solutions for manufacturing, as well as companies that are deploying new solutions to solve business problems.

The Manufacturing Revolution Theme is separated into multiple sub-themes (each a “Sub-Theme,” and collectively, the “Sub-Themes”). The Sub-Themes are:

- **Robotics Sub-Theme:** the Sub-Theme represents companies that may benefit from the increased sophistication of robotics used in the manufacturing process. For the purposes of the Index, “Robotics” refers to the ability of a machine to perform physical tasks that previously either were not possible or required a human.
- **3D Printing Sub-Theme:** the Sub-Theme represents companies that may benefit from the development of 3D printing and its application in manufacturing. For the purposes of the Index, “3D Printing” refers to the additive process of manufacturing a three-dimensional object from a digital design.
- **Future Mobility Sub-Theme:** the Sub-Theme represents companies that may benefit from the development of new methods of mobility. For the purposes of the Index, “Future Mobility” refers to road vehicles, including automobiles and trucks that apply one or both of electrification and partially or fully autonomous driving capabilities.
- **Drones Sub-Theme:** the Sub-Theme represents companies that may benefit from the development of drones. For the purposes of the Index, “Drones” refers to aerial, land or sea-based unmanned vehicles, either remotely operated or autonomous, used in military, consumer or industrial applications.
- **Clean Energy Sub-Theme:** the Sub-Theme represents companies that may benefit from the development of clean energy sources. For the purposes of the Index, “Clean Energy” refers to energy from renewable resources, such as solar, wind and biofuel, as well as battery technology needed for the storage of intermittent power sources.

The Index is comprised of shares of exchange listed common equity securities (including Depositary Receipts) (each an “Underlying Stock” and together the “Underlying Stocks”). The eligible universe of stocks is comprised of common equity securities, including depositary receipts, of companies located across developed and emerging markets worldwide, listed and traded on major exchanges in the following countries (the “Eligible Trading Venues”): Australia, Canada, France, Germany, Hong Kong, Japan, Netherlands, South Korea, Switzerland, the United Kingdom and the

## Motif Manufacturing Revolution Index

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United States. In addition, company and stock screens (as described in “Components of the Index” below) are applied to set minimum liquidity and investability requirements for stocks in the eligible universe.

The Underlying Stocks comprising the Index and their respective weightings are based on an objective determination of relevance and exposure to the Manufacturing Revolution Theme and its Sub-Themes (as described under “Underlying Stock Weights and Index Rebalancing” and “Calculation of the Underlying Stock Target Weights” below). The Index is rebalanced on the third Friday of each February, May, August and November (the “Index Rebalance Day”), or the following trading day if that day is a U.S. exchange holiday. The Underlying Stock Target Weights are calculated after close of markets five index business days before the Index Rebalance Day (the “Index Observation Day”), subject to constraints on maximum and minimum weights for each Underlying Stock. On the Index Rebalance Day, component changes are made after the close of markets and become effective at the opening on the next trading day.

The Index is calculated on a total return basis in U.S. Dollars (the “Index Currency”). The value of the Index (the “Index Value”) is calculated daily in U.S. dollars, as more specifically described under “Calculation of the Index” below. 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 will be made on the website of the Calculation Agent.

## Methodology

### Overview

At any given time, the Index tracks the weighted return of the Underlying Stocks (as described under “Calculation of the Index” below), subject to Market Disruption Events (as described under “Market Disruption Events”) and Potential Adjustment Events (as described under “Potential Adjustment Events”).

On the Index Inception Date and on each Index Observation Day, Motif Capital Management, Inc. (the “Index Sponsor”) determines the Underlying Stocks pursuant to the Methodology with the objective of providing targeted exposure to the Manufacturing Revolution Theme (as described under “Components of the Index”).

Once the constituents and their exposure to the Manufacturing Revolution 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), within a set of pre-determined constraints. The Index will then be reweighted on the Index Rebalancing Day from the previous Underlying Stocks and their weights to the newly determined Underlying Stocks using the newly determined Underlying Stock Target Weights (as described under “Index Underlying Stock Shares”).

### Components of the Index

On the Index Inception Date and on each Index Observation Day, the Index Sponsor determines the components of the Index (the Underlying Stocks), and their exposure to the Manufacturing Revolution Theme (their “Thematic Beta”). This is done in accordance with a rules-based methodology that involves four steps, as described below.

#### Step 1

In the first step, a quantitative measurement is made of the exposure of companies in the eligible universe to each Sub-Theme (the “Sub-Theme Thematic Beta”).

To calculate a Sub-Theme Thematic Beta, automated semantic search algorithms are applied to multiple datasets and documents to score the relevance of a Sub-Theme to a company. The datasets and documents used (together, the “Search Corpus”) include one or more of:

1. Regulatory filings filed with the applicable regulators or major stock exchanges in certain developed markets
2. Academic journals
3. Patent filings

Each dataset and document in the Search Corpus is scored for the relevance of the Sub-Theme by applying an automated semantic search algorithm. This algorithm assigns a score to the dataset or document based on topic, document length and number of mentions of the topic, among other factors. Datasets and documents with a non-zero score are then mapped, if possible, to a linked company.

Multiple entries within a type of Search Corpus for each company are then combined to make a single score. This results in up to three quantitative measurements of the relevance of the Sub-Theme to the company: the “Filing Search Beta,” sourced from the regulatory filings; the “Academic Beta,” sourced from academic journals; and the “Patent Beta,” sourced from patent filings. The three quantitative measurements are then combined to give an overall Sub-Theme Thematic Beta.

### **Step 2**

In the second step, a company’s Sub-Theme Thematic Beta for all Sub-Themes are combined to give the company a single Manufacturing Revolution Thematic Beta. The Index Universe consists of all companies with a non-zero Manufacturing Revolution Thematic Beta (the “Index Universe”).

### **Step 3**

In the third step, each company in the Index Universe is mapped, if possible, to one or more common equity securities listed on major stock exchanges in the Eligible Trading Venues. If no relevant security is found, the company is removed from the Index Universe.

### **Step 4**

In the fourth step, liquidity, investability and theme relevance screens are applied to the Index Universe. Stocks with any of the following characteristics are removed from the Index Universe:

1. An average daily trading volume over the most recent 30-day period (“ADTV”) of less than \$1,000,000 in U.S. dollars.
  - ADTV 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. Where applicable, exchange prices not in the Index Currency are converted using Reuters / WM Company spot rates as fixed at 4pm London time. A Stock’s trading volume may be equal to zero on a trading day. While the ADTV period consists of 30 calendar days, only trading days within such period are used for purposes of the ADTV calculation and the actual number of trading days varies from period to period.
2. A company whose total market capitalization is less than \$500,000,000 in U.S. dollars.
  - 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. Where applicable, values not in the Index Currency are converted using Reuters / WM Company spot rates as fixed at 4pm London time. 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.)

3. Less than 50 days of historical returns data over the most recent 90 calendar day period; or
4. A Manufacturing Revolution Thematic Beta below a fixed threshold.

In addition, if the size of the remaining Index Universe is greater than 120 stocks, the final Index Universe is reduced to 120 stocks by selecting as a function of Manufacturing Revolution Thematic Beta, market variables and the weight of the stock from the previous rebalancing, if any. All remaining Stocks are included in the Index and become the Underlying Stocks.

## Underlying Stock Weights and Index Rebalancing

### Overview

Based on each Underlying Stock’s exposure to the Manufacturing Revolution 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”) on the Index Inception Date and on each Index Observation Day, within the maximum and minimum constraints described in the “Target Weight Constraints” Section below, by applying the Methodology. On each Index Observation Day that is not the Index Inception Date, the Underlying Stock Target Weights are also adjusted to remove transactions with stocks continuing in the index but involving weight changes below 0.25% of the total portfolio (the “Minimum Transaction Size”).

The weights of the Underlying Stocks (each an “Underlying Stock Weight” and together the “Underlying Stock Weights”) in the Index will then be adjusted on the Index Rebalancing Day, after market close, based on the Underlying Stock Target Weights. This is achieved by changing the number of shares of the Underlying Stocks (with regard to any Underlying Stock, its “Underlying Stock Shares”) that comprise the Index.

### The Thematically Weighted Portfolio

On the Index Inception Day and each 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 Manufacturing Revolution 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 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:

- Subscript<sub>(t)</sub> refers to the given Index Observation Day
- MarketCap<sub>t,i</sub> is the Market Capitalization in the Index Currency of the company issuing Underlying Stock *i* on the 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:

- Subscript<sub>(j)</sub> refers to common share class *j* of the company issuing Underlying Stock *i*
- OutstandingShares<sub>t,i,j</sub> refers to the total outstanding shares of common share class *j* of the company issuing Underlying Stock *i* on the Index Inception Day or given Index Observation Day; and
- ClosePrice<sub>t,i,j</sub> refers to the closing price of common share class *j* of the company issuing Underlying Stock *i* on the Index Inception Day or given Index Observation Day, converted to the Index Currency Using Reuters / WM Company spot rates as fixed at 4pm London time where applicable.
- $\beta_{\text{Theme},t,i}$  is the quantified exposure of the Underlying Stock *i* to the Manufacturing Revolution Theme as calculated in “Components of the 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:

- ThemeAdjCubeRootMarketCap<sub>t,i</sub> is the Theme Adjusted Cube Root Market Capitalization of Underlying Stock *i* on the Index Inception Day or given 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 an Index Observation Day with respect to an Underlying Stock, the Market Capitalization of such Underlying Stock on the immediately prior 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.

### Calculation of the Underlying Stock Target Weights

The Underlying Stock Target Weight attributed to each Underlying Stock will be determined on each Index Observation Day and 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 Manufacturing Revolution Theme, subject to the investment minimum and maximum constraints and to clipping of certain transactions below a minimum size.

**Target Weight Constraints** For each Underlying Stock in the Index, the constraints set a minimum weight of 0.10%. For each Underlying Stock in the Index, the constraints set a maximum weight (the “Maximum Weight”) of the lesser of:

- i. 5% or
- ii. ADTV (as defined in “Components of the 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 in the Index is always equal to 1.0.

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:

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

Where:

- Subscript $_{(t)}$  refers to the given Index Inception Day or 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 Index Inception Day or Index Observation Day; and
- $w_{\max,t,i}$  refers to the Maximum Weight for Underlying Stock  $i$  on the given Index Inception Day or 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:

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

**Applying the Minimum Transaction Size** Following the application of minimum and maximum weight constraints above, the Underlying Stock Target Weights are adjusted to remove transactions below the Minimum Transaction Size that do not involve an Underlying Stock entering or exiting the Index.

On the Index Inception Date, no adjustments are made.

On Index Observation Dates that are not the Index Inception Date, the Underlying Stock Target Weights are compared to the existing Underlying Stock Weights. For all stocks with non-zero weight in both the existing Underlying Stock Weights and in the Underlying Stock Target Weights, if the change in weight is less than the Minimum Transaction Size, the Underlying Stock Target Weights are fixed to the Underlying Stock Weights, so that the change in weight is zero. After this is done for all stocks, the remaining weight is reallocated to the unfixed stocks, proportional to their existing weight. This procedure is repeated until there are no changes in weights less than the Minimum Transaction Size, for stocks in both the Underlying Stock Weights and the Underlying Stock Target Weights.

### Index Underlying Stock Shares

On the Index Inception Day, the Underlying Stock Shares  $i$  are calculated as:

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

Where:

- Subscript<sub>( $i$ )</sub> refers to the Underlying Stock  $i$ ;
- Subscript<sub>( $II$ )</sub> refers to the Index Inception Day;
- $S_{i,II}$  is the Underlying Stock Shares  $i$  on date  $II$ ;
- $w_{i,II}^{\text{Target}}$  refers to the Underlying Stock Target Weight  $i$  on the Index Inception Day; and
- $CP_{i,II}$  is the closing price of Underlying Stock  $i$  on the Index Inception Day, converted to the Index Currency Using Reuters / WM Company spot rates as fixed at 4pm London time where applicable.

On each Index Business Day that is an Index Rebalancing Day  $Rt$  but is not the Index Inception Day, the Underlying Stock Shares  $i$  are calculated according to the following formula:

$$S_{i,Rt} = w_{i,Ot}^{\text{Target}} \times \frac{\sum_j S_{j,Ot} \times CP_{j,Ot}}{CP_{i,Ot}}$$

Where:

- Subscript<sub>( $Rt$ )</sub> refers to the relevant Index Rebalancing Day;
- Subscript<sub>( $i$ )</sub> refers to the Underlying Stock  $i$ ;
- Subscript<sub>( $Ot$ )</sub> refers to the Index Inception Day or Index Observation Day immediately prior to Index Rebalancing Day  $Rt$ ;
- Subscript<sub>( $j$ )</sub> refers to the Underlying Stock  $j$ ;

- $S_{i,Rt}$  refers to the Underlying Stock Shares  $i$  as of the date  $Rt$ ;
- $w_{i,Ot}^{\text{Target}}$  refers to the Underlying Stock Target Weight  $i$  that was determined on the Index Observation Day immediately preceding Index Rebalancing Day  $Rt$ ;
- $S_{j,Rt-1}$  refers to the Underlying Stock Shares  $j$  as of the date  $Ot$ ;
- $CP_{i,Rt-1}$  refers to the closing price of Underlying Stock  $i$  as of the date  $Ot$ , converted to the Index Currency Using Reuters / WM Company spot rates as fixed at 4pm London time where applicable; and

If there is a Potential Adjustment Event affecting the Underlying Stock  $i$  between the Index Observation Date and the Index Rebalancing Date, adjustments to the number of Underlying Stock Shares  $i$  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 Index Inception Day or a Index Rebalancing Day, the number of Underlying Stock Shares  $i$  will remain unchanged from the last Index Rebalancing Day, subject to any Potential Adjustment Events affecting the Underlying Stock  $i$ . In the case of Potential Adjustment Events affecting the Underlying Stock  $i$  adjustments to the Underlying Stock Shares  $i$  will be made. For details on these adjustments, please refer to “Potential Adjustment Events”.

### **Rebalancing: Impact of Disruptions**

As described under “Calculation of the Underlying Stock Target Weights,” the Underlying Stock Target Weight attributed to each Underlying Stock will be determined on each 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 on an Index Rebalancing Day, the closing price of the Underlying Stock on the immediately prior day on which no Market Disruption Event occurs or is continuing with respect to such Underlying Stock will be used to calculate the Underlying Stock Shares for such Underlying Stock.

### **Calculation of the Index**

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

$$\text{Index}_t = \sum_i (S_{i,t} \times CP_{i,t})$$

Where:

- Subscript<sub>( $t$ )</sub> refers to the given Index Business Day  $t$ ;
- Subscript<sub>( $i$ )</sub> refers to the Underlying Stock  $i$ ;
- Index <sub>$t$</sub>  means the Index Value as of the date  $t$ ;
- $S_{i,t}$  is the Underlying Stock Shares  $i$  on Index Business Day  $t$ ; and

- $CP_{i,t}$  is the closing price of Underlying Stock  $i$  on Index Business Day  $t$ , converted to the Index Currency Using Reuters / WM Company spot rates as fixed at 4pm London time where applicable.

## Market Disruption Events

A “Market Disruption Event” with respect to an Underlying Stock 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 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. Upon the occurrence or existence of an Index Dislocation; or
- v. 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 or futures or options on the Underlying Stock shares.

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 on the relevant Exchange or futures or options on the Underlying Stock shares on the relevant Related Exchange.

“**Exchange**” means the primary exchange on which shares of an Underlying Stock are listed.

“**Related Exchange**” means, in respect of an Underlying Stock, the primary exchange (or exchanges) or quotation system (or quotation systems) on which futures or options contracts relating to such Underlying Stock 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 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 (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.

In the event of a Force Majeure Event in which all Underlying Stocks 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 is affected by a “Potential Adjustment Event”, the Calculation Agent may make adjustments to the number of shares of such Underlying Stock reflected in the Index and/or the weighting of the Underlying Stock if it determines that the event could have a diluting or concentrative effect on the theoretical value of the Underlying Stock shares 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 the Underlying Stock 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 proportionally across the index at the open on the ex-date.
Special / Extraordinary Dividends	Yes	The Dividend is reinvested proportionally across the index at the open on the ex-date.
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.

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Potential Adjustment Event	Adjustment	Adjustment Description
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 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, if the new shares trade in an Eligible Trading Venue 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 new shares do not trade in an Eligible Trading Venue, the proceeds received from the sale of the new securities are reinvested proportionally across the index. If the effective date of the spinoff is an 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.

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Potential Adjustment		
Event	Adjustment	Adjustment Description
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 Index during the two Index Business Day notice period prior to the effective date.

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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 and would not otherwise be accounted for in the Index. Any such adjustments are publicly announced in advance wherever practicable.

## **Index Management**

### **Publication of the Index**

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

### **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 and Index Rebalancing” above), and determining and responding to Market Disruption Events (as defined under “Market Disruption Events” above) 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 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. These changes include, but are not limited to:

- The sub-themes that constitute the Manufacturing Revolution Theme.
- The list of Eligible Trading Venues.
- The datasets and documents that constitute the Search Corpus.

Any such changes to the Methodology will be publicly announced at least 60 Index Business Days prior to their effective date. The history of changes to this document are listed in “History of Changes to the Methodology”.

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 Index”. 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.

### **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.

## **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.

## **History of Changes to the Methodology**

- Initial Version - January 4, 2019

## **Revision to Index Values in the Event of Error**

If there is a missed potential adjustment event (as described under “Potential Adjustment Events” above) (a “Missed Potential Adjustment Event”), a deviation from the Index methodology as described in this document (a “Missed Index Methodology Event”), or other error in index calculation 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.

## **Licensing Information**

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.

## **Contact Information**

### **Motif Capital Management**

Simon Wicks - (888) 523-2408 - [simon@motifcapital.com](mailto:simon@motifcapital.com)

### **Calculation Agent Website**

<http://www.solactive.com>

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## Annex

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Item	Value
Index Inception Date	08/16/2013
Launch Date	[launch-date]
Index Bloomberg Ticker	Index
Index Business Day	Means a day on which the New York Stock Exchange is open for its regular trading session.

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