ETF ALL-STARS THEMATIC INDEXES METHODOLOGY

Powered By: ETF Action, Inc. June 2021

CONTENTS

Powered By:

1. ETF ALL-STARS THEMATIC INDEXES

1.1 OBJECTIVE

The ETF All-Stars Thematic Indexes measure the performance of stocks collectively owned by exchange-traded funds ("ETF" or "ETFs") across specific ETF market segments. Company eligibility for each index is determined using ETF Action's custom classification system which includes a wide range of ETF categories based on market development, geography, sector, and strategy. Final index inclusion and weighting is calculated based on each company's ownership-adjusted market value ("OAMV") defined in Index Construction.

Potential advantages of ETF All-Stars Indexes include:

- ETF All-Star Indexes provide access to a diversified basket of global companies most widely owned by ETFs in select market segments.
- ETF All-Star Indexes are built using an objective methodology that follows a transparent and repeatable rules-based process.
- ETF All-Star Indexes dynamically adapt to ever-changing ETF landscape (new launches and closures) and investor sentiment (ETF flows).

1.2 THEMATIC INDEX FAMILY DESCRIPTION

The series currently includes the following indices:

1.2.1 ETF All Stars Thematic Composite

The index measures the performance of companies representing 75% of OAMV for U.S. and Global focused ETFs classified as Thematic 'composite' using ETF Action's custom classification system. The index is OAMV weighted, subject to a single ETF influence cap and a single stock weight cap, as defined in Index Construction.

Note: Excludes Cannabis ETFs

1.2.2 ETF All Stars Sustainability

The index measures the performance of companies representing 75% of OAMV for U.S. and Global focused ETFs classified as Sustainability 'segment' using ETF Action's custom classification system. The index is OAMV weighted, subject to a single stock weight cap, as defined in Index Construction.

1.2.3 ETF All Stars Disruptive Tech

The index measures the performance of companies representing 75% of OAMV for U.S. and Global focused ETFs classified as Disruptive Tech 'segment' using ETF Action's custom classification system. The index is OAMV weighted, subject to a single stock weight cap, as defined in Index Construction.

1.2.4 ETF All Stars Evolving Consumer

The index measures the performance of companies representing 75% of OAMV for U.S. and Global focused ETFs classified as Evolving Consumer 'segment' using ETF Action's custom classification system. The index is OAMV weighted, subject to a single stock weight cap, as defined in Index Construction.

Powered By:

Note: Excludes Cannabis ETFs

1.2.5   ETF All Stars FinTech

The index measures the performance of companies representing 75% of OAMV for U.S. and Global focused ETFs classified as FinTech 'segment' using ETF Action's custom classification system. The index is OAMV weighted, subject to a single stock weight cap, as defined in Index Construction.

1.2.6   ETF All Stars Industrial Revolution

The index measures the performance of companies representing 75% of OAMV for U.S. and Global focused ETFs classified as Industrial Revolution 'segment' using ETF Action's custom classification system. The index is OAMV weighted, subject to a single stock weight cap, as defined in Index Construction.

1.3   CREATION OF MASTER LIST

1.3.1   Initial Universe

To be eligible for inclusion in the Initial Universe, securities are:

- Established by all ETF holdings inside of ETFs that meet the ETF Action classification requirements established in the indexes stated objective. To learn more about how classifications are built refer to ETF Action's Custom Classification Guide.

1.3.2   Consensus Ratings

To establish consensus, an ownership-adjusted market value ("OAMV") is calculated for each eligible index company. The OAMV formula takes total dollar value invested in each company held by qualifying ETFs, subject to a 10% single ETF influence cap, multiplied by prevalence (P) of each company within the qualifying ETFs and then divides that value by the sum of all eligible companies OAMVs.

1.4   SECURITY SELECTION PROCESS

ETF All-Stars are the first ever suite of indexes (mentioned in Section 1.2) designed to harness the transparency of ETFs with the goal of establishing a consensus view on which companies best align with arbitrary definitions for products with similarly stated investment objectives. The consensus is established using a clearly defined three step, rules-based method that captures:

- All companies owned within a specific ETF category,
- Current investor sentiment measured by company ownership data for each category, and
- The prevalence at which companies are found inside different ETFs in each category.

1.5   FINAL COMPOSITION

From the Selection List:

- On initial value date and each subsequent rebalancing date, each index captures seventy-five percent of OAMV of eligible companies.

1.6   WEIGHTING

Powered By:

The index is weighted as follows:

- Constituents are weighted based on each company's ownership-adjusted market value ("OAMV").
- Qualifying ETFs are subject to a 10% ownership (AUM) influence cap.
- A maximum single company cap of 5.00% is applied.

1.7 RECONSTITUTION AND REBALANCING RULES

- The index follows a monthly reconstitution and rebalancing schedule. The new portfolio becomes effective at the close of first Friday of each calendar month. This day is called the 'Effective Day'.
- In the event U.S. markets are closed on that date, indexes will be rebalanced at the close of the next open market session.

1.8 CORPORATE ACTIONS

The following corporate actions (such as stock splits, special dividends, spin-offs and rights offerings) are applied to indices on the ex-date or earlier as decided by the Index Calculator.

1.8.1 Cash Dividend

Regular distribution in form of cash dividend within the scope of dividend policy of the company. The following adjustment is implemented:

$$aPrice_{i,t+1} = Price_t - Dividend_{i,t+1}$$

With:

$aPrice_{i,t+1}$ = Adjusted opening price of index component i on business day t+1
$Price_t$ = Price of index component i on business day t
$Dividend_{i,t+1}$ = Dividend announced by the company of index component i on business day t+1

Adjustment: Divisor will decrease.

1.8.2 Special Cash Dividend

Extraordinary distribution in the form of cash dividend which is outside the scope of dividend policy of the company. The following adjustment is implemented:

$$aPrice_{i,t+1} = Price_t - Special\ Dividend_{i,t+1}$$

With:

$aPrice_{i,t+1}$ = Adjusted opening price of index component i on business day t+1
$Price_t$ = Price of index component i on business day t
$Special\ Dividend_{i,t+1}$ = Special Dividend announced by the company of index component i on business day t+1

Adjustment: Divisor will decrease.

1.8.3 Stock Dividend

Stock Dividend is distribution of additional shares instead of cash payout. Here, the number of shares will increase by the percentage increase in stock dividend and price will decrease by

Powered By:

the same percentage. The following adjustment is implemented:

$$S_{i,t+1} = S_{i,t} * (1 + \% \text{ Stock dividend})$$

$$aPrice_{i,t+1} = \frac{Price_{i,t}}{(1 + \% \; Stock \; dividend)}$$

With:

$S_{i,t+1}$ = Number of shares of index component i on business day t+1
$S_{i,t}$ = Number of shares of index component i on business day t
$\% \; Stock \; dividend$ = Percentage of stock dividend announced by the company

Adjustment: Divisor will remain unchanged.

1.8.4   Split and Reverse Split:

A stock split is a decision by the company's board of directors to increase the number of shares outstanding by issuing more shares to current shareholders. The following adjustment is implemented:

$$aS_{i,t+1} = S_{i,t} * R_{i,t+1}$$

$$aPrice_{i,t+1} = aPrice_{i,t} * \frac{1}{R_{i,t+1}}$$

With:

$aS_{i,t+1}$ = Adjusted number of index shares of index component i on business day t+1
$S_{i,t}$ = Number of index shares of index component i on business day t
$R_{i,t+1}$ = Shares held after the split for every share held before the split
$aPrice_{i,t+1}$ = Adjusted opening price of index component i on business day t+1
$Price_{i,t}$ = Price of index component i on business day t

Adjustment: Divisor will remain unchanged.

1.8.5   Spin-off

Spin-off is the creation of an independent company through the sale or distribution of new shares of an existing business/ division of an existing business/ division of a parent company. There are various potential treatments for a Spin-off, which are decided by the Index Calculator on a case by case basis. The adjustment for the different options of Spin-off is as follows:

a) Spun-Off Company added to the Index, no company removed: The following adjustment is implemented:

$$S_{e,t} = S_{p,t} * Sf$$

With:

$S_{e,t}$ = Shares of spun-off entity e added to the index on business day t
$S_{p,t}$ = Shares of parent entity p added to the index on business day t
Sf = Spin-off factor announced by the parent company

Adjustment: Divisor will remain unchanged.

b) Spun-Off Company is not added, only the parent company remains in the Index: Spin-

off will be adjusted for by changing the divisor to account for the change in market value (reflecting market value of the Spun-Off entity). The following adjustment is implemented:

$$S_{e,t} = S_{p,t} * Sf$$

$$Proceeds_{e,t} = S_{e,t} * Price_{e,t}$$

$$New\ Price_{e,t} = \frac{Proceeds_{e,t}}{S_{p,t}}$$

$$New\ Price_{p,t+1} = Price_{p,t+1} - Price_{e,t}$$

With:

$S_{e,t}$ = Shares of spun-off entity e added to the index on business day t
$S_{p,t}$ = Shares of parent entity p added to the index on business day t
Sf = Spin-off factor announced by the parent company
$Proceeds_{e,t}$ = Proceeds of spun-off entity e on business day t
$Price_{e,t}$ = Price of the spun-off entity given by data provider on business day t
$New\ Price_{e,t}$ = Price calculated of the spun-off entity e on business day t
$New\ Price_{p,t+1}$ = New price for parent company p calculated on business day t+1
$Price_{p,t+1}$ = Actual price of parent company p on business day t+1

Adjustment: Divisor will decrease.

c) The Spun Off Company is not added, only the parent company remains in the Index and there will be a stock adjustment: The following adjustment is implemented:

$$S_{e,t} = S_{p,t} * Sf$$

$$Proceeds_{e,t} = S_{e,t} * Price_{e,t}$$

$$New\ Price_{e,t} = \frac{Proceeds_{e,t}}{S_{p,t}}$$

$$New\ Price_{p,t+1} = Price_{p,t+1} - Price_{e,t}$$

$$af_{e,t+1} = \frac{Price_{p,t+1}}{New\ Price_{p,t+1}}$$

$$S_{p,t+1} = af_{e,t+1} * S_{p,t}$$

With:

$S_{e,t}$ = Shares of spun-off entity e added to the index on business day t
$S_{p,t}$ = Shares of parent entity p added to the index on business day t
Sf = Spin-off factor announced by the parent company
$Proceeds_{e,t}$ = Proceeds of spun off entity e on business day t
$Price_{e,t}$ = Price of the spun-off entity assigned by the Index Calculator on business day t
$New\ Price_{e,t}$ = Price calculated of the spun-off entity e on business day t
$New\ Price_{p,t+1}$ = New price for parent company p calculated on business day t+1
$Price_{p,t+1}$ = Actual price of parent company p on business day t+1
$af_{e,t+1}$ = Adjustment factor of spun-off entity e on business day t+1
$S_{p,t+1}$ = New number of shares of parent company p on business day t+1

Adjustment: Divisor will remain unchanged

Powered By:

1.8.6 Addition/Deletion of a Company

In case a constituent is added, removed or replaced with another constituent in the Index the following adjustment is implemented:

$$S_{n,t+1} = \frac{W_{o,t}}{Price_{n,t+1}} +$$

With:
$S_{n,t+1}$ = Number of shares of new company n on business day t+1
$W_{o,t}$ = Weight of old company o on business day t
$Price_{n,t+1}$ = Price of new company on business day t+1

Adjustment: Divisor will remain unchanged

1.8.7 Acquisition

A corporate action in which a company buys most, if not all, of the target company's ownership stakes in order to assume control of the target firm. There could be three different cases:

a) **Target Company is a part of the index, acquiring company is not**: Target Company will be removed from the index and proceeds will be reinvested into the index.
Adjustment: Divisor will decrease

b) **Acquiring Company is a part of the index, target company is not**: There will be no adjustment
Adjustment: Divisor will remain unchanged

c) **Target and Acquiring companies are a part of the index**

   o **All cash takeover**: Target Company will be removed from the index and proceeds will be reinvested into the index.
   Adjustment: Divisor will decrease

   o **Partial stock takeover**: Target Company will be removed from the index. Shares of acquiring company will be increased according to stock term and cash proceeds will be reinvested into the index.
   Adjustment: Divisor will decrease

   o **All stock takeover**: Target Company will be removed from the index and the shares of acquiring company will be increased according to stock term.
   Adjustment: Divisor will remain unchanged

1.8.8 Riqhts Offerinq

A Rights Issue gives existing shareholders the right to purchase a proportional number of new shares at a discount to the market price on a stated future date. The rights issued to a shareholder have a value, thus compensating current shareholders for the future dilution of their existing shares' value. One of the following two adjustments is implemented:

$$NS_{i,t+1} = S_{i,t} * (R)$$

$$Mcap_{i,t+1} = (S_{i,t} * P_{i,t}) + (S_{i,t} * R * Offer\ Price)$$

$$Price_{i,1+t} = \frac{Mca_{i,t+1}}{S_{i,t+1}}$$

With:

$NS_{i,t+1}$ = N New shares to be added in index component i on business day t+1
$S_{i,t}$ = Shares of index component i on business day t
$Mcap_{i,t+1}$ = Market capitalization of index component i on business day t+1
$P_{i,t}$ = price of index component i on business day t
R = Ratio of additional shares offered by the company on a discount
$Offer\ Price$ = Discounted price of the security with respect to market price
$Price_{i,1+t}$ = New price of index component i after adjusting for additional shares on business day t + 1
$S_{i,t+1}$ = Total number of shares of index component i on business day t+1

A Rights Issue impacts the number of shares as well as price thereby impacting the index divisor reflecting an increase in market cap.

Adjustment: Divisor will increase

If the subscription price is greater than or equal to the stock closing price, the index would not participate in the rights issue. If the index doesn't participate in the rights issue, there will be no adjustment to the index shares or divisor.

1.8.9   Delistinq

Delisting refers to the practice of removing the stock of a company from a stock exchange so that investors can no longer trade shares of the stock on that exchange. The security would be removed from the index, and the invested amount in the delisted security will be reinvested into the index.
Adjustment: Divisor will decrease

1.8.10   Merger

Merger is the combination of two or more companies, generally by offering the stockholders of one company securities in the acquiring company in exchange for the surrender of their stock. The target company is removed from the index.
The Index Calculator will decide if the surviving company should be added to the Index. If added, the divisor will be adjusted to reflect the increase in the number of shares.

Adjustment: Divisor will increase

2.DISCLAIMER

This methodology document and all information contained herein including, without limitation, all text, data, graphs, charts, visuals and theory (collectively, the "information"), were created by and is the sole property of ETF Action, Inc. Redistribution, reproduction and/or photocopying of this document in whole or part is prohibited without written permission from ETF Action. All information in this document provided by ETF Action is impersonal and not tailored to the needs of any person, entity or group. None of the information constitutes an attempt at an offer to sell (or an attempt of an offer to buy), or a promotion or recommendation of, any security, product, investment vehicle or any trading strategy, and ETF Action does not endorse, approve or otherwise express any opinion regarding any issuer, security, financial product, instrument, or trading strategy. None of the information, ETF Action indices, models, other products or services contained herein is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and should not be relied on as such. A decision to invest in any investment fund or other vehicle should not be made based solely on information or statements contained in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks, fees and expenses associated with investing, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. Historical data, analysis and performance of ETF Action indices should not be taken as an indication or guarantee of any future performance. ETF Action does not guarantee the accuracy and/or completeness of any ETF Action index, any data included herein, or any data from which it is based, and ETF Action shall have no liability for any errors, omissions, or interruptions therein. All information in these materials in provided "as is" and the content may change without notice.

For more information on the indexes, please email team@etfaction.com.
Learn more at www.etfaction.com.

Powered By: