

# **Index Methodology Guide for the FactSet Rising Stars Index™**

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## Index Introduction and Objective

### 1.1 Index Overview

The FactSet Rising Stars Index is an equity benchmark designed to track the performance of U.S. listed companies with the highest market share growth in the fastest growing Technology sub-industries. The index incorporates additional factors to further capture characteristics such as rising operating margins, expected higher revenue growth, and attractive price multiples.

The FactSet Rising Stars Index is weighted based on a proprietary score incorporating multiple factors related to growth of market share and revenues, operating margins, and price multiples, reconstituted and rebalanced quarterly.

The FactSet Rising Stars Index is calculated and maintained by Solactive AG based on a methodology developed by FactSet and Global Beta Advisors. It is calculated on a price and net total return basis in U.S. dollars (USD). The price and net total returns of the index are calculated continuously from Monday to Friday 9:30 a.m. to 4:50 p.m. EST (Eastern Standard Time) following the NYSE market calendar. Index values are distributed via various data channels and market data vendors, including the price marketing services of Boerse Stuttgart AG. End-of-day price and net total return values of the index may also be obtained from FactSet upon request.

Whenever possible, constituent changes to the index are announced three business days before becoming effective.

### 1.2 Inception Date and Base Value

The Index Inception Date was September 11, 2020 with a base value of 1000.00. The inception date refers to when the first back-tested index value was calculated. The back test is based on a similar methodology used to calculate the index when it was officially launched on December 16, 2020.

### 1.3 Commencement Date

The index commencement date was December 16, 2020. Commencement date refers to when the index was officially launched with continuous and end-of-day calculations.

### 1.4 Reconstitution and Rebalance Schedule

The index is reconstituted quarterly after the close of the 2<sup>nd</sup> Friday of March, June, September and December each year (“Reconstitution Day”). If the Reconstitution Day is a holiday, it will occur on the next business day.

The data used to reconstitute the index is as of the close of 1<sup>st</sup> Friday of March, June, September and December (“Selection Day”). Subsequent adjustment to the index composition may be made to account for corporate actions that occur between the Selection Day and the Reconstitution Day.

## Index Construction

### 2.1 Constituent Selection and Weighting Schema

1. The securities are listed on the NYSE or NASDAQ.
2. The securities are common stocks and ADR.
3. Select the top 3000 securities by market capitalization.
4. Remove securities within the top 3000 that do not have at least a US\$500 million market capitalization and a 6-month average daily trading volume of at least 250,000 shares.
5. Remove securities that are not classified to the FactSet RBICS Technology sector (“RBICS Level 1”).
6. Calculate the securities’ valuation relative to expected growth (“VEG”) factor by multiplying price-to-sales ratio to expected operating margin and to expected market return.
7. Calculate the securities’ expected annualized revenue growth rate by dividing their current 12-month revenue over a 10-year period into VEG.
8. Compared the securities’ most recent year-over-year revenue growth rate to the expected annualized revenue growth rate in Step 7. Securities that have a current year-over-year growth rate in excess of the expected annualized revenue growth rate and ranks in the top 75% are eligible for inclusion.
9. Calculate the securities’ market share in each RBICS Level 6 sub-industries by dividing its most recent annual revenues derived from that sub-industries to the total annual revenues generated by all securities. A prior year market share of the securities are calculated in a similar fashion. Finally, the market share growth rate is calculated, and then securities are ranked and divided into quintiles. Scores are assigned to securities as follows:
  - Top Quintile = 100
  - 2<sup>nd</sup> Quintile = 50
  - 3<sup>rd</sup> Quintile = 25
  - 4<sup>th</sup> Quintile = 10
  - 5<sup>th</sup> Quintile = 1

10. Calculate the securities' revenue growth rate within each RBICS Level 6 sub-industry they participate, then combine into a weighted average sub-industry revenue growth rate. Rank securities and divide into quintiles. Scores are assigned as follows:
  - Top Quintile = 100
  - 2<sup>nd</sup> Quintile = 50
  - 3<sup>rd</sup> Quintile = 25
  - 4<sup>th</sup> Quintile = 10
  - 5<sup>th</sup> Quintile = 1
11. Calculate securities' operating margin annual growth rate. Rank securities and divide into quintiles. Scores are assigned as follows:
  - Top Quintile = 40
  - 2<sup>nd</sup> Quintile = 20
  - 3<sup>rd</sup> Quintile = 10
  - 4<sup>th</sup> Quintile = 5
  - 5<sup>th</sup> Quintile = 1
12. Calculate the total scores by summing up scores for securities from Step 9 to 11, and keep the top 100.
13. Weight the securities by their total scores.

## 2.2 Index Return Formulas

The price and net total returns levels of the index are calculated using the following formulas.

$$I_{(t)} = \frac{\sum_{i=1}^n S_{i(t)} \times P_{i(t)} \times FX_{i(t)}}{D_{(t)}}$$

where:

$I_{(t)}$  = Index value on Index Valuation Day (t)

$D_{(t)}$  = Divisor on Index Valuation Day (t)

$n$  = Number of stocks in the index

$P_{i(t)}$  = Closing price of stock (i) on Index Valuation Day (t)

$S_{i(t)}$  = Number of allocated shares of stock (i) on Index Valuation Day (t)

$FX_{i(t)}$  = WM Reuters FX rate published at 4:00 p.m. London time on Index Valuation Day (t) required to convert closing price of stock (i) in index currency, USD.

and on Inception Date, where (t) = 0, the initial divisor is calculated as follows:

$$D_{(0)} = \frac{\sum_{i=1}^n S_{i(0)} \times P_{i(0)} \times FX_{i(0)}}{I_{(0)}}$$

where:

$I_{(0)}$  = Price Returns Index value on Index Inception Date

$D_{(0)}$  = Divisor on Index Inception Date

$n$  = Number of stocks in the index on Index Inception Date

$P_{i(0)}$  = Price of stock (i) on Index Inception Date

$S_{i(0)}$  = Number of allocated shares of stock (i) on Index Inception Date

$FX_{i(t)}$  = WM Reuters FX rate published at 4:00 p.m. London time on Index Inception Date required to convert closing price of stock (i) in index currency, USD.

Allocated shares (“S”) are the number of shares required for each constituent such that all constituents are equal-weighted. Allocated shares (“S”) would be adjusted accordingly to account for Corporate Actions.

Net total return is calculated to account for the effect of tax withholding on dividends by adjusting dividend taken out due to tax payment.

### 2.3 Index Divisor Adjustments

From time to time, the index divisor is adjusted to account for corporate actions that could distort index value and continuity using the following formula:

$$D_{(t+1)} = D_{(t)} \times \frac{\sum_{i=1}^n AS_{i(t+1)} \times AP_{i(t+1)} \times FX_{i(t)}}{\sum_{i=1}^n S_{i(t)} \times P_{i(t)} \times FX_{i(t)}}$$

where:

$D_{(t+1)}$  = Divisor for Index Valuation Day (t+1) after CA and rebal adjustment

$D_{(t)}$  = Divisor for Index Valuation Day (t)

$AP_{i(t+1)}$  = Adjusted price of stock (i) calculated for open on Index Valuation Day (t+1) after CA adjustment

$P_{i(t)}$  = Closing price of stock (i) on Index Valuation Day (t)

$S_{i(t)}$  = Number of allocated shares of stock (i) on Index Valuation Day (t)

$AS_{i(t+1)}$  = Adjusted number of allocated shares of stock (i) for open on Index Valuation Day (t+1) after CA adjustment.

Divisor adjustments are generally implemented on the date the corporate action becomes effective, such that for example, the ex-dividend date rather than the payment date is used to time the divisor adjustment.

Find below a detailed calculation for AP, AS, and S in case of corporate actions and rebalancing.

**$AP_{i(t)}$**  = Adjusted price of stock (i) is determined for the open on Index Valuation Day (t) shall mean:

- If index constituent opens ex-date in respect of the corporate action, then  $AP_{i(t)}$  is determined as per Corporate Action Adjustment Section.
- Otherwise

$$AP_{i(t)} = P_{i(t-1)}$$

**$S_{i(t)}$**  = Number of allocated shares of stock (i) on Index Valuation date (t) is determined as

$$S_{i(t)} = AS_{i(t)}$$

**$AS_{i(t)}$**  = Adjusted number of allocated shares of stock (i) for open on Index Valuation Day (t) after CA adjustment is determined as:

- If such day opens immediately following the Rebalancing Day (t-1) and if:
  - index constituent opens ex-date in respect to corporate action, then  $AS_{i(t)}$  is determined as per Corporate Action Adjustment Section with  $S_{i(t-1)}$  replace with:

$$S_{i(t-1)} = \frac{I_{(t-1)} \times Weight_{i(t-1)}}{P_{i(t-1)} \times FX_{i(t-1)}}$$

- index constituent does not opens ex-date in respect to corporate action, then  $AS_{i(t)}$  is determined as:

$$AS_{i(t)} = \frac{I_{(t-1)} \times Weight_{i(t-1)}}{P_{i(t-1)} \times FX_{i(t-1)}}$$

- On any other day:

- index constituent opens ex-date in respect to corporate action, then  $AS_{i(t)}$  is determined as per Corporate Action Adjustment Section
- Otherwise:

$$AS_{i(t)} = S_{i(t-1)}$$

where  $Weight_{i(t-1)}$  is determined as per Section 2.1.

## 2.4 Corporate Action Adjustments

### Special Cash Dividend:

$$AP_{i,t} = P_{i,t-1} - D_{i,t} \times FX_{d,t-1}$$

Where

**t** = Index Valuation Date (t) is ex-date for corporate action.

**$D_{i,t}$**  = Dividend amount corresponding to stock (i) with ex-date (t).

$FX_{d,t-1}$  = WM Reuters FX rate published at 4:00 p.m. London time fixing on Index Valuation Day (t) required to convert dividend amount in underlying stock currency, USD.

### Spin-off Adjustment

On effective date, the spun-off security will be added to Index with a Price of 0 and the price of the parent company will remain unchanged.

$$AP_{i,t,s} = P_{i,t-1} - P_{f,t-1} \times \text{Share Ratio}_{f,t} \times FX_{j,t-1}$$

Where

$P_{f,t-1}$  = Closing price of Spin-off stock on Index Valuation Date (t-1).

$FX_{j,t-1}$  = WM Reuters FX rate published at 4:00 p.m. London time on Index Valuation Day (t) required to convert price of spun-off company to constituent stock currency, USD.

### Rights Issue Adjustment

$$AP_{j,t} = \frac{P_{j,t-1} + C_{j,t} \times \text{Share Ratio}_{j,t}}{1 + \text{Share Ratio}_{j,t}}$$

$$AS_{j,t} = S_{j,t-1} \times (1 + \text{Share Ratio}_{j,t})$$

Where

$C_{j,t}$  = Official tender price.

### Stock Splits Adjustment

$$AP_{j,t} = \frac{P_{j,t-1}}{\text{Share Ratio}_{j,t}}$$

$$AS_{j,t} = S_{j,t-1} \times \text{Share Ratio}_{j,t}$$

### Stock distribution

$$AP_{j,t} = P_{j,t-1} \times \frac{1}{1 + \text{Share Ratio}_{j,t}}$$

$$AS_{j,t} = S_{j,t-1} \times (1 + \text{Share Ratio}_{j,t})$$



## Index Maintenance

Constituent changes may occur between review periods due to corporate events that disqualify their eligibility for index inclusion. Adjustments to corporate events are described below:

### 3.1 Corporate Actions – Delisting

A constituent is removed immediately after being delisted from its primary markets.

### 3.2 Corporate Actions – Merger or Acquisition

If a merger or acquisition results in one constituent acquiring another, the acquiring company remains a constituent, and the acquired company is removed. If a non-constituent acquires a constituent, the acquired constituent is removed. If a constituent acquires a non-constituent, the acquiring constituent remains a constituent.

### 3.3 Corporate Actions – Spin-off

If a constituent spins or splits off a portion of its business, both the spun-off companies and the parent companies (with the highest market value relative to the spun-off companies) will be kept in the index, and be considered for removal from the index at the next Reconstitution or Rebalance Day should they fail to meet the eligibility criteria in Section 2.1. However, FactSet may at its discretion, remove the parent and/or the spun-off company immediately post spin-off, if it could determine the parent and/or the spun-off company fail eligibility criteria in Section 2.1.

### 3.4 Corporate Actions – Bankruptcy

If a constituent is delisted after bankruptcy, it will be removed immediately with a price of 0 from the index.

## Index Calculation and Data Correction

### 4.1 Index Calculation

Price and net total return values for the FactSet Rising Stars Index are calculated by Solactive AG. The price and net total return values are calculated on a continuous basis by using the trading price for each component in the index from relevant exchanges and markets. Index values are rounded to 2 decimal places and divisors are rounded to 6 decimal places.

If trading in a stock is suspended prior to the market opening, the stock's adjusted closing price from the previous day will be used in the index calculation until trading commences. If trading in a stock is suspended while the relevant market is open, the official closing price published by relevant exchange for that stock will be used for all subsequent index calculations until trading resumes.

In case of exceptional market conditions disrupting normal closing auction, or causing official closing prices not being available, Solactive and FactSet reserve the right to utilize other prices in the calculation of the official closing level.

## 4.2 Data Correction

Incorrect index constituent data, corporate action data, or index divisors will be corrected upon detection. If such errors are discovered within five days of occurrence, they will be corrected retroactively on the day of discovery. If discovered after five days, corrective actions will be decided based on the errors' significance and feasibility of a correction.

## 4.3 Decision Making in Undocumented Events

A FactSet Index Committee consisting of select employees of FactSet Research Systems Inc. is responsible for amending rules as documented in the Index Methodology Guide due to undocumented or extraordinary events.

# Additional Information

## 5.1 Contact Information

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## 5.2 Version History

Version	Release Date	Notes
Version 1.0	December 18, 2020	First release.