

Index Methodology Guide for the FactSet Pet Care Index™

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Index Introduction and Objective

1.1 Index Overview

The FactSet Pet Care Index is an equity benchmark designed to track the performance of companies that stand to benefit from interest in or resources spent on pet ownership. The index seeks to capture core players throughout the pet ownership value chain, including pharmaceuticals, diagnostics, food and supplies manufacturers, retailers, and other pet care services providers.

The FactSet Pet Care Index is a tier, modified market capitalization weighted index, reconstituted annually and rebalanced monthly.

The FactSet Pet Care Index is calculated and maintained by Solactive AG based on a methodology developed by FactSet. It is calculated on a price, gross, and net total return basis in U.S. dollars (USD). The price, gross, and net total returns of the index are calculated continuously and on an end-of-day basis, from Monday to Friday 9:30 a.m. to 4:30 p.m. EST (Eastern Standard Time) following the U.S. 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, gross, 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 May 16, 2014 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 October 26, 2018.

1.3 Commencement Date

The index commencement date was October 26, 2018. 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 annually after the close of the 3rd Friday of May each year (“Reconstitution Day”). Index constituent weights are rebalanced monthly after the close of the 3rd Friday of each month (“Rebalance Day”). Initial public offerings (IPOs) will also be considered for index inclusion on Rebalance Day. If the Reconstitution Day or Rebalance Day is a holiday, it will occur on the next business day.

The data used to reconstitute and rebalance the index is as of the close of 2nd Friday each month (“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 or Rebalance Day.

Index Construction

2.1 Constituent Selection and Weighting Schema

1. The securities are listed on one of the following **48** exchanges:

- Athens Exchange
- Australia Stock Exchange
- BM&F Bovespa
- Bolsa de Valores de Lima
- Bombay Stock Exchange
- Borsa Istanbul
- Borsa Italiana
- Budapest Stock Exchange
- Bursa Malaysia
- Colombia Stock Exchange
- Cyprus Stock Exchange
- Deutsche Borse Xetra
- Euronext Amsterdam
- Euronext Brussels
- Euronext Dublin
- Euronext Lisbon
- Euronext Paris
- Hong Kong Exchange
- Indonesia Stock Exchange
- JASDAQ
- Johannesburg Stock Exchange
- Korea Stock Exchange
- London Stock Exchange
- Madrid Stock Exchange
- Mexican Stock Exchange
- NASDAQ
- NASDAQ Dubai
- New York Stock Exchange
- New Zealand Stock Exchange
- NYSE American
- OMX Nordic Copenhagen
- OMX Nordic Helsinki
- OMX Nordic Stockholm
- Oslo Stock Exchange
- Philippine Stock Exchange
- Prague Stock Exchange
- Qatar Stock Exchange
- Santiago Stock Exchange
- Singapore Exchange
- SIX Swiss Exchange
- Stock Exchange of Thailand
- Taipei Exchange
- Taiwan Stock Exchange
- Tel Aviv Stock Exchange
- Tokyo Stock Exchange
- Toronto Stock Exchange
- Vienna Stock Exchange
- Warsaw Stock Exchange

2. The securities are common stocks, ADR, GDR.
3. The securities have a minimum float-adjusted market capitalization of U.S. \$200 million or greater, and three-month Average Daily Trading Value (ADTV) of U.S. \$1 million or greater.
Existing constituent may remain in the index if it has a minimum float-adjusted market capitalization of U.S. \$150 million or greater, and three-month Average Daily Trading Value (ADTV) of U.S. \$0.5 million or greater.
4. Securities that are Master Limited Partnership (MLP), royalty trust, or Business Development Company (BDC) are excluded.
5. The securities have aggregated principal revenue of 50% or greater, and/or generate USD \$1 Billion of revenue, from one or more of the 8 following pet care-related Revere Business Industry Classification System (RBICS) Level 6 sub-industries:
 - **Internet Pet and Pet Supply Retail**
 - **Pet and Pet Supply Stores**
 - **Pet Food Manufacturing**
 - **Pet Supplies Manufacturing**
 - **Veterinary Diagnostics**
 - **Veterinary Pharmaceuticals**
 - **Veterinary Product Distributors**
 - **Veterinary Services**

In addition, the securities' regulatory filings indicate that they have a focus on pet products and services.

6. The securities are then categorized into 2 tier groups based on their % revenue or size of revenue generated from the pet care industry. Companies receiving 50% or more of their revenue from the pet care industry comprise Tier 1, and companies receiving less than 50% of their revenue but generating \$1 billion or more revenue from the pet care industry comprise Tier 2.
7. If a company has multiple share classes, only include the most liquid issue based on the highest three-month ADTV on Selection Day.
8. The index allocates 82.5% of the portfolio weight to Tier 1 companies, and 17.5% of the portfolio weight to Tier 2 companies. Companies are weighted in each Tier using a modified market capitalization approach. Within each Tier group, securities are weighted by their float adjusted market capitalization, with individual security capped at 10% for Tier 1 and 4.5% for Tier 2. Excess weight of any capped security is redistributed proportionately among remaining securities within Tier 1 and Tier 2.

Next, the cumulative weight of all securities with an individual weight of 5% or greater shall not in aggregate exceed 47.5%, otherwise they will be capped at either 4.5% or higher, until the

aggregate weights of all 5% or greater securities no longer exceed 47.5%. Excess weight of any capped security is redistributed proportionally among remaining securities.

The index must have a minimum 21 securities, of which at least 13 securities belong to Tier 1. If Steps 1 to 8 result in less than 21 securities, or less than 13 securities in Tier 1, then newly eligible constituents will be considered for inclusion on monthly rebalance periods. The minimum revenue requirement derived from one or more of the 8 pet care-related RBICS Level 6 sub-industries will also be reduced from USD \$1 Billion to \$500 Million, the minimum float-adjusted market capitalization requirement from U.S. \$200 Million to \$100 Million, and the minimum three-month Average Daily Trading Value (ADTV) from U.S. \$1 million to \$0.5 million.

In addition to the above selection schema, FactSet may at its discretion include companies whose principal business is identified as pet care-related but for which an appropriate RBICS Level 6 sub-industry has not yet been created or in the process of being created.

2.2 Index Return Formulas

The price gross, 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. **For U.S. listed securities, tax withholding is set to zero.**

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.

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

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, gross, and net total return values for the FactSet Pet Care Index are calculated by Solactive AG. The price, gross, and net total return values are calculated on a continuous and end-of-day 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	October 29, 2018	First release.