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## GUIDEBOOK

### The FINVEX Sustainable Efficient Japan Index (Net Return and Price Return)

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## 1. Introduction

The FINVEX Sustainable Efficient Japan Index (the “**Index**”) is designed to reflect the performance of a dynamic portfolio of Fifty equally weighted equity securities (each, a “**Stock**” and together, the “**Stocks**”) listed on the Tokyo Stock Exchange. The Index is calculated, administered and published by Solactive AG (“Solactive”) assuming the role as administrator (the “Index Administrator”) under the Regulation (EU) 2016/1011 (the “Benchmark Regulation” or “BMR”). The name “Solactive” is trademarked.

The Fifty Stocks are selected from a sustainable investment universe delivered by Refinitiv according to a non-discretionary approach and that are listed on the Tokyo Stock Exchange in Japan (the “**Sustainable Investment Universe**”) (as defined in section 2.2 below) on each Quarterly Selection Date (as defined in section 2.1 below) using a rules-based selection methodology designed by FINVEX acting as Index Sponsor (“**FINVEX**” or the “**Index Sponsor**”)¹. After applying a liquidity filter within the Sustainable Investment Universe, the “**Selection Methodology**” ranks first the individual securities by calculating a quality score for each stock respectively. This quality score is determined by an analysis based on the quality associated to each stock. It leads to the selection of a “**Sustainable Universe Subset**” which is formed of the top 200 stocks ranked equities according to this quality score. The Sustainable Universe Subset is then ranked on the basis of different risk and risk concentration parameters that are derived from the compounded returns of such individual securities.

The Index objective is to reflect the performance of the Fifty Stocks within the Sustainable Investment Universe that meet the liquidity criteria, have a high-quality score and have the lowest risk characteristics based on the selection methodology.

The Index has been developed independently by FINVEX.

The quarterly selection of the Stocks within the Sustainable Investment Universe is undertaken by FINVEX. Solactive will act as administrator for the Index, calculation agent for the Index and organize the daily calculation and dissemination of the Index closing value.

The Index is published on the website of the Index Administrator ([www.solactive.com](http://www.solactive.com)) and is, in addition, available via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all of its affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute or display the Index via its information systems.

Any publication in relation to the Index (e.g. notices, amendments to the Guidebook) will be available at the website of the Index Administrator: <https://www.solactive.com/news/announcements/>.

The Index was launched on 30 December 2003.

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¹ FINVEX is a specialist research, portfolio construction and index design firm. Its registered offices are based Rue des Colonies 11, 1000 - Brussels FINVEX, Belgium.



## 2. Index composition process

### 2.1. Selection and Review Dates

The composition of the Index is reviewed on a quarterly basis on the last Business Day of each March, June, September and December (the “**Quarterly Selection Date**”). In case such date is not a Japan Business Day, the Quarterly Selection Date will be the first following calendar day that is a “Japan Business Day”. The Index Administrator has outsourced the determination of the Stocks that will become constituents of the Index to FINVEX. Such outsourcing has been made in accordance with the requirements of the BMR (Article 10 BMR). The selection of the Stocks that will become constituents of the Index is fully rule-based and FINVEX cannot make any discretionary decision.

On each Quarterly Selection Date, FINVEX will apply the selection methodology and determine the new Stocks that will become constituents of the Index (each, a “**New Index Constituent**”) as of the Rebalancing Date. This is carried out by implementing the shares as determined based on the weights calculated on the Quarterly Selection Date. The Index rebalances five Japan Business Days following each Quarterly Selection Date (each, a “**Rebalancing Date**”).

To ensure that the Index is always accurate and is calculated with the most up-to-date constituent data, the component data (i.e. Weighting Factor of each constituent Stock) of the Index is also reviewed on each Quarterly Selection Date and implemented by the Index Administrator on the Rebalancing Date.

For the purposes of this Guidebook, “**Business Day**” is with respect to the index constituents included in the index at the Rebalancing Date and every index constituent included in the index at the selection day immediately following the Rebalancing Date (for clarification: this provision is intended to capture the Business Days for the securities to be included in the index as new index constituent with close of trading on the Tokyo Stock Exchange on the Rebalancing Dates) a day on which the Tokyo Stock Exchange is open for trading (or a day that would have been such a day if a market disruption had not occurred), including days on which trading may be ceased prior to the scheduled exchange closing time and days on which the exchange is open for a scheduled shortened period. The index administrator is ultimately responsible as to whether a certain day is a Business Day.

### 2.2. Creation of a Sustainable Investment Universe

On the Quarterly Selection Date a universe including all the companies listed on a list of Selected Stock Exchanges is created (the “**invited universe**”) <sup>2</sup>

All companies in the “invited universe” are ranked according to Free Float Market Capitalization in descending order.

All companies ranked from 1 to 1000 are added to the “**Eligible Investment Universe**”

All companies in the “Eligible Investment Universe” are ranked according to the last available global ESG score provided by REFINITIV in descending order. All companies ranked from 1 to 600 are added to the “**Sustainable Investment Universe**”. Companies for which REFINITIV doesn’t provide any score are excluded from the “Sustainable Investment Universe”

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<sup>2</sup> Comprises the following exchanges as at the date of this document: Tokyo Stock Exchange, Osaka Stock Exchange.



The Sustainable Investment Universe consist of the stocks that are eligible for inclusion in the Index.

### **2.3. Application of a Liquidity filter**

On each Quarterly Selection Date, first a liquidity filter is applied to the Sustainable Investment Universe.

All the securities whose **liquidity measure** is below a liquidity threshold set to JPY 1 billion equivalent are excluded from the universe. The **liquidity measure** is computed as the lowest 25 percentile of the daily turnover during the 6 months prior to the Quarterly Selection Date. The turnover is defined as  $turnover = \sum_{transactions\ of\ the\ day}(number\ of\ stocks\ traded\ x\ transaction\ price)$ .

In the event that the application of the liquidity filter reduces the Sustainable Investment Universe to below 300 securities, the Index Sponsor will relax the liquidity constraint by reducing the threshold by steps of 10% to ensure that at least 300 securities are part of the remaining universe.

### **2.4. Selection Process**

After the application of the liquidity filter, the stocks selection is done in a two steps optimization process.

- (1) On each Quarterly Selection Date, 200 stocks are selected that have the highest quality score, the **“Sustainable Universe Subset”**.

The quality score per security is the arithmetic average of the z-scores of the Profitability (ROE, Cash ROE, Book Value/Price), Earning Quality (Cash Flow/Earnings), Earning Stability (5 years Earnings Standard Deviation of earnings/Mean Absolute Earnings), Credit Quality (Financial Leverage).

With the constraint that the 200 stocks selected must be such that no more than 25% of the portfolio can lie in a given sector.

There is also a turnover constraint: no more than 20% turnover is allowed from the 200 stocks of the last selection.

In case the optimizer does not find a solution with those constraints, first, the turnover constraint is relaxed, then all constraints are relaxed, so that a solution can be found.

- (2) On each Quarterly Selection Date, secondly, among the sustainable universe subset, 50 stocks are selected that offer the best risk characteristics, with the constraints that there must be no more than 25% of the portfolio in each sector and that the turnover with the previous selection must be less than 10%.

This selection process is based on a risk ranking of the universe, using an aggregate risk score equal to the equally weighted average of the downside risk (i.e. the Semi-Deviation - see definition below), the Modified Cornish Fisher VaR (see definition below) and the Betacovariance (a risk parameter that determines the individual risk contribution of each security to a certain benchmark - see definition below).

After this process, a subset of 50 securities is retained (the **“Subset”**).

If no solution is found, the turnover constraint is first relaxed, and then the sector constraint to guarantee the convergence.



These 50 Stocks become the “**New Index Constituents**”.

#### Definitions:

The Semi-Deviation is a specific form of downside deviation calculation. The compounded daily total returns net of stocks that are less than the MAR (or Minimum Acceptable Returns) are extracted from R, and the differences of those to the MAR are taken. Then, the squares of the differences are summed up and divided by n (as defined below) to get a below-target semi-variance. The Semi-Deviation is calculated as follows:

$$\text{Semi-Deviation} = \sqrt{\frac{\sum_{t=1}^n (R_t - \text{MAR})^2}{n}}$$

“R” is the time series of the compounded daily total returns

“MAR” = mean(R);

“n” is the number of observations of daily returns below MAR included over 365 calendar days (up to and including the observation immediately prior to the Quarterly Selection Date).

The Modified Cornish Fisher VaR takes the higher moments of non-normal distributions (skewness, kurtosis) into account through the use of a Cornish Fisher expansion, and collapses to standard (traditional) mean-VaR if the return stream follows a standard distribution. The Modified VaR is calculated as follows

$$\text{ModVaR} = -\text{mean}(R) - \sqrt{\text{Sigma}} * z_{\text{Quantile}_f}$$

$$z_{\text{Quantile}_f} = z_q + [(z_q^2 - 1)S]/6 + [(z_q^3 - 3z_q)K]/24 - [(2z_q^3 - 5z_q)S^2]/36;$$

“z<sub>q</sub>” is the Quantile of the standard normal distribution;

“Quantile” is the 95% quantile of the negative returns;

“R” is the time series of the compounded daily total returns net of stocks for 365 calendar days (up to and including the observation immediately prior to the Quarterly Selection Date);

“S” is the skewness of R;

“K” is the excess kurtosis of R.

“Sigma” is the annualised volatility over 365 calendar days (up to and including the observation immediately prior to the Quarterly Selection Date).

The Betacovariance assesses the potential diversification of an asset relative to a portfolio (or a benchmark). The higher moment beta estimates how much portfolio risk will be impacted by adding an asset in terms of symmetric risk (i.e. volatility). It shows that adding an asset to a portfolio will reduce the portfolio's variance to be reduced if the second-order beta of the asset with respect to the portfolio is less than one.

The Betacovariance is calculated as follows:

$$\text{BetaCoV}(R_a, R_b) = \text{CoV}(R_a, R_b) / \text{var}(R_b)$$

“Ra” is the time series of the compounded daily total return net over the last 365 calendar days prior to the Selection Date; “Rb” is the time series of the daily compounded returns of the Investment Universe, over the same period.

## **2.5. Weighting Factors**



To ensure that all Stocks in the Index are appropriately weighted and these changes are subsequently reflected in the resulting component weights, the Weighting Factors for each Stock in the Index are reset at the close of business of each Rebalancing Date.

The Weighting Factors are set so that each New Index Constituent is equally weighted.

## **2.6. The Index Committee**

The Index committee (the “**Committee**”) will be composed of staff from Solactive and its subsidiaries.

The Committee is responsible for decisions regarding any amendments to the rules of the Index. Any such amendment, which may result in an amendment of the Guidebook, must be submitted to the Committee for prior approval and will be made in compliance with the Methodology Policy, which is available on the Solactive website: <https://www.solactive.com/documents/methodology-policy/>. In addition, the Committee will review the methodology of the Index without any discretion to change such methodology. Changes to the index methodology can only be undertaken if required by regulations, regulators or in case of force majeure.

The Committee may in exceptional circumstances and other situations of force majeure revise the Index methodology and will publish any such changes and revisions.

Exceptional circumstances include (but are not restricted to):

- Continuous adverse trading conditions (e.g. collapse in trading volume of a single Stock or a whole exchange or the whole equity market);
- Trading restrictions imposed by exchanges or regulators (other than those addressed in the Solactive Disruption Policy<sub>2</sub> as specified in Section 3.4);
- Restricted access or suspension of information on the Sustainable Investment Universe and its constituents.

## **2.7. Role of parties**

The Index Sponsor will submit to the Index Administrator the New Index Constituents, the Target Weight per New Index Constituent and the Reserve List no later than one Japan Business Day following each Quarterly Selection Date.

One Business Day prior to each Rebalancing Date, the Index Administrator will determine the Weighting Factors for each New Index Constituent.

The Index Administrator is responsible for fixing and updating the calendar of the Rebalancing Dates, the maintenance of the Index, calculating the Index value, and its dissemination on each end of day (EST) Monday through Friday (except if all exchanges of the underlying constituents are closed).

FINVEX will ensure that the composition of the Index complies with the publicly available ESMA's guidelines on the eligibility of financial indices for UCITS.



### 3. Calculation Methodology and Ongoing Maintenance

#### 3.1. Calculation Model

The Index is calculated as a net total return and adjusted return index following the Solactive Equity Index Methodology, which is available on the Solactive website: <https://www.solactive.com/documents/equity-index-methodology/>. Two versions of the Index are available as follows:

- FINVEX Sustainable Efficient Japan Net Return Index in JPY (Bloomberg® code: FSJAPYR)
- FINVEX Sustainable Efficient Japan Price Index in JPY (Bloomberg® code: FSJAPY)

The FINVEX Sustainable Efficient Japan Net Return Index is a total return net index: the value of the proceeds of dividends paid in respect of each constituent Stock, after deduction of any applicable withholding tax, is reinvested into the Index according to the divisor formula and following the Solactive Equity Index Methodology.

The FINVEX Sustainable Efficient Japan Price Index is an adjusted return price index: it replicates synthetically the value of an index which does not reinvest the proceeds of the dividends. It is based on the value of the FINVEX Sustainable Efficient Japan Net Return Index less a fixed dividend yield of 2.5% per annum following the Solactive Equity Index Methodology.

The Index value will be rounded to two decimal places. Prices of Index Constituents and foreign exchange rates will be rounded to six decimal places.

#### 3.2. Corporate actions and adjustments

In addition to the periodic reviews, the Index is also continually reviewed for corporate events which may affect the Stocks comprising the Index. Such events have a material impact on the price, weighting or overall integrity of Index Constituents. Therefore, they need to be accounted for in the calculation of the Index. Corporate actions will be implemented from the cum-day to the ex-day of the corporate action, so that the adjustment to the Index coincides with the occurrence of the price effect of the respective corporate action. The Index Administrator considers the following, but not conclusive, list of corporate actions as relevant for Index maintenance:

- Cash Distributions (e.g. payment of a dividend)
- Stock distributions (e.g. payment of a dividend in form of additional shares)
- Stock distributions of another company (e.g. payment of a dividend in form of additional shares of another company (e.g. of a subsidiary))
- Share splits (company's present shares are divided and therefore multiplied by a given factor)
- Reverse splits (company's present shares are effectively merged)
- Capital increases (such as issuing additional shares)
- Share repurchases (a company offer its shareholders the option to sell their shares to a fixed price)
- Spin-offs (the company splits its business activities into two or more entities and distributes new equity shares in the created entities to the shareholders of the former entity)



- Mergers & Acquisitions (transaction in which the ownership of a company (or other business organizations) are transferred or consolidated with other entities, e.g. fusion of two or more separate companies into one entity)
- Delistings (company's shares are no longer publicly traded at a stock exchange)
- Nationalization of a company (effective control of a legal entity is taken over by a state)
- Insolvency

As a result of such events, an adjustment of the Index may be necessary between two regular periodic reviews and may have to be done in relation to an Index Constituent and/or may also affect the number of Index Constituents and/or the weighting of certain Index Constituents.

Adjustments to the Index to account for corporate actions will be made in compliance with the Equity Index Methodology, which is which is incorporated by reference and available on the Solactive website: <https://www.solactive.com/documents/equity-index-methodology/>. This document contains for each corporate action a brief definition and specifies the relevant adjustment to the Index variables.

While Solactive aims at creating and maintaining its methodology for treatment of corporate actions as generic and transparent as possible and in line with regulatory requirements, it retains the right in accordance with the Equity Index Methodology to deviate from these standard procedures in case of any unusual or complex corporate action or if such a deviation is made to preserve the comparability and representativeness of the Index over time.

Solactive will announce the Index adjustment giving a notice period of at least two Japan Business Days (with respect to the affected Index Constituent) on the Solactive website under the Section "Announcements", which is available at <https://www.solactive.com/news/announcements/>. The Index adjustments will be implemented on the effective day specified in the respective notice.

### **3.3. Recalculation**

Solactive makes the greatest possible efforts to accurately calculate and maintain the Index. However, errors in the determination process may occur from time to time for variety reasons (internal or external) and therefore, cannot be completely ruled out. Solactive endeavours to correct all errors that have been identified within a reasonable period of time. The understanding of "a reasonable period of time" as well as the general measures to be taken are generally depending on the underlying and is specified in the Solactive Correction Policy, which is incorporated by reference and available on the Solactive website: <https://www.solactive.com/documents/correction-policy/>.

### **3.4. Market Disruption**

In periods of market stress Solactive calculates the Index following predefined and exhaustive arrangements as described in the Solactive Disruption Policy, which is incorporated by reference and available on the Solactive website: <https://www.solactive.com/documents/disruption-policy/>. Such market stress can arise due to a variety of reasons, but generally results in inaccurate or delayed prices for one or more Index Constituents. The determination of the Index may be limited or impaired at times of illiquid or fragmented markets and market stress.



## **4. Miscellaneous**

### **4.1. Discretion**

Any discretion which may need to be exercised in relation to the determination of the Index shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement.

### **4.2. Methodology Review**

The methodology of the Index is subject to regular review, at least annually. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the Index, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be made in accordance with the Solactive Methodology Policy, which is incorporated by reference and available on the Solactive website: <https://www.solactive.com/documents/methodology-policy/>.

Such change in the methodology will be announced on the Solactive website under the Section “Announcement”, which is available at <https://www.solactive.com/news/announcements/>. The date of the last amendment of this Index is contained in this Guidebook.

### **4.3. Changes in Calculation Method**

The application by the Index Administrator of the method described in this document is final and binding. The Index Administrator shall apply the method described above for the composition and calculation of the Index. However, it cannot be excluded that the market environment, supervisory, legal and financial or tax reasons may require changes to be made to this method. The Index Administrator may also make changes to the terms and conditions of the Index and the method applied to calculate the Index that it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The Index Administrator is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the Index Administrator will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

### **4.4. Termination**

Solactive makes the greatest possible efforts to ensure the resilience and continued integrity of the Index over time. Where necessary, Solactive follows a clearly defined and transparent procedure to adapt the Index methodology to changing underlying markets (see Section 4.2 “Methodology Review”) in order to maintain continued reliability and comparability of the Index. Nevertheless, if no other options are available the orderly cessation of the Index may be indicated. This is usually the case when the underlying market or economic reality, which an index is set to measure or to reflect, changes substantially and in a way not foreseeable at the time of inception of the Index, the index rules, and particularly the selection criteria, can no longer be applied coherently or the Index is no longer used as the underlying value for financial instruments, investment funds and financial contracts.

Solactive has established and maintains clear guidelines on how to identify situations in which the cessation of an index is unavoidable, how stakeholders are to be informed and consulted and the procedures to be followed for a termination or the transition to an alternative index. Details are specified in the Solactive Termination Policy,



which is incorporated by reference and available on the Solactive website:  
<https://www.solactive.com/documents/termination-policy/>.



## 5. Disclaimer

The Index Sponsor and the Index Administrator make no express or implied representation or warranty concerning : (i) the accuracy or completeness of this Index Guidebook, (ii) whether or not the Index may achieve any particular level or meet or correlate with any particular objective or (iii) the fitness for any purpose of the Index or this Index Guidebook.

The Index Sponsor and the Index Administrator accept no liability resulting from the willful negligence, fraud, or default of any person in connection with (i) this Index Guidebook and (ii) its publication and dissemination of the Index.

While the Index Administrator and the Index Sponsor will make reasonable efforts to ensure the accuracy of the composition, calculation and adjustment of the Index in accordance with this Index Guidebook, the Index Administrator and the Index Sponsor shall have no liability in the back-dated calculation prior to the launch date or in relation to any index calculation for any error, omission, suspension or interruption in calculating the Index. The Index Administrator does not make any warranties, express or implied, to the Index Sponsor, any of its customers, or anyone else regarding the Index, including, without limitation, any warranties with respect to the timeliness, sequence, accuracy, completeness, correctness, merchantability, quality or fitness for a particular purpose or any warranties as to the results to be in connection with the use of the Index.

Neither the Index Administrator nor the Index Sponsor are under obligation to continue the calculation, publication or dissemination of the Index and cannot be held liable for any suspension or interruption in the calculation, dissemination and publication of the Index.

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This Index Guidebook contains no provisions relating to any product referencing the Index. Should any product referencing the Index be issued, created, sold or otherwise distributed, provisions relating to a possible liability with respect to such product will be dealt with in a separate document.

The FINVEX Sustainable Efficient Japan Net Return Index and the FINVEX Sustainable Efficient Japan Price Index are proprietary indices of FINVEX. Any use of these indices or their name must be with the consent of FINVEX.

Past performance does not guarantee future results and potential investors should not rely on any past performance of the Index as a guarantee of future performance of the Index. FINVEX shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and shall be under no obligation to advise any person of any error therein.

The Index has been developed independently by FINVEX.