Benchmark Statement

**FT Wilshire Minimum Variance Index Series**

Date of Publication: 27 March 2023

ISIN: not available

**Introduction**

This Benchmark Statement is intended to meet the requirements of EU Benchmark Regulation (EU2016/1011) and the supplementary regulatory technical standards, and of the retained EU law in the UK (The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019).

The Statement is provided by Wilshire Indexes as the registered administrator of the FT Wilshire Minimum Variance Index Series and should be read in conjunction with the index methodology and index policy documents published at Wilshire.com.

The statement will be updated whenever:

- The information contained in the statement ceases to be correct or sufficiently precise,
- There is a change in the type of the benchmark,
- There is a material change to the methodology used for determining the benchmark,
- There is a change to the requirements for the contents of a benchmark statement.

In addition, the statement will be reviewed at least every two years.

**Description of the Benchmark**

The FT Wilshire Minimum Variance Index Series is designed to achieve reduced index volatility relative to the corresponding underlying FT Wilshire market capitalization index. This is achieved via a minimum variance optimization approach which involves an estimated stock covariance matrix and a given set of constraints. The covariance matrix is estimated by principal component analysis of daily stock returns. The constraints include a requirement that all constituent weights are positive and sum to one. There are additional constraints on the maximum and minimum weights of a constituent, the country and sector weights of the Minimum Variance Index Series relative to the market capitalization weights, the diversification score of the index, and the exposures of the index to certain factors including size, low volatility, value, quality and momentum. The turnover of the index is limited to a maximum of 20% at each index reconstitution.

Total return and price only (capital appreciation) versions of the indexes are made available, along with variants calculated in, or hedged into, different currencies.

As at the date of publication, there are no significant benchmarks in the FT Wilshire Minimum Variance Index Series.

The total market capitalisation of the securities included in the FT Wilshire US Large Cap Index which forms the underlying universe for the FT Wilshire Minimum Variance Index Series is $35,364,403,953,548.80 and the investable (free float adjusted) market capitalisation is $33,660,639,200,598.10 as at the close of business on March 23 2023.

---

1 Wilshire Indexes is the trading name of Wilshire OpCo UK Ltd
Input Data

Descriptions of the price input data and non-price data used to calculate the index weights of constituents are provided in the link to Input Data document. No contributions are used in the determination of the indexes in this series.

Use of Expert Judgement in Determining Input Data

There is relatively little need for discretion in determining the values of input data to be used in the calculation of the indexes in the FT Wilshire Minimum Variance Index Series, but occasionally expert judgement may be required, for example when determining which of a company’s shareholders should be considered restricted when calculating its free float.

Errors in Input Data

If, subsequent to the calculation of an index in the FT Wilshire Minimum Variance Index Series, an error is found in the value of an item of input data, the error will be corrected in accordance with the Error Correction Policy for Equity Indexes. This policy will also apply to instances where an item of input data has been queried by a user or other external stakeholder as per the Queries and Complaints Policy and the query has been upheld following investigation by the Wilshire Indexes Executive Committee.

Regulated Data Assessment

Because certain price input data, including the FX rates used to convert security prices and dividends into different currencies, is not sourced from venues as defined in Article (3)(1)(24)(a) of EU Benchmark Regulation (EU2016/1011), Wilshire Indexes does not consider that the FT Wilshire Minimum Variance Index Series constitute a regulated data benchmark.

Determination of the Benchmark

The procedures and timetable for selecting and rebalancing constituents of indexes in the FT Wilshire Minimum Variance Index are set out in the FT Wilshire Minimum Variance Index Series methodology document and Equity Index Calculation and Corporate Action Guide. The methodology documentation is intended to be transparent and objective and is reviewed on at least an annual basis or whenever a change to the methodology has been approved, for example following a consultation on a proposed enhancement as per the Benchmark Approval, Change and Cessation Policy.

The documentation is written to avoid the use of discretion when determining a benchmark in so far as is practical, but on occasion it may be necessary to use expert judgement, for example in determining the most appropriate method, and timing, for the implementation of a complex corporate event. Further details are provided in the Policy for the Exercise of Expert Judgement.

Determination in times of stress

On rare occasions, the accurate determination of a benchmark may be impeded because prices for individual securities, or securities that trade on a certain market, may not be available. For an individual security, this can arise if the security is suspended from trading by a venue or a regulator. For a market, prices may not be available as a result of a physical event, for example weather or cyber related, or because market conditions are sufficiently volatile that limit breaches cause a market to shut for a period of time. The procedures that Wilshire will follow in such circumstances are set out in the Equity Index Calculation and Corporate Action Guide.

Potential Limitations

US equity markets are generally liquid and robust, however, as noted in the previous section, exchanges may on occasions be forced to close as a result of external events or for technical
reasons. In these situations, a number of securities may be suspended from trading. These securities will be held in the index at their last closing price. That price may not be representative of the price that could be achieved if the market were to re-open and, consequently, if the affected securities represent a significant portion of the benchmark in question, the calculated value of the benchmark may not be an accurate representation of the underlying economic reality.

The procedures that Wilshire Indexes will follow in the event of a suspended security or market closure are set out in the Equity Index Calculation and Corporate Action Guide.

Changes to a Benchmark

Enhancements to the methodology of a benchmark can be proposed in the light of experience by internal and external stakeholders. In addition, a change to a methodology may occasionally be required in response to unusual market or economic events.

The procedures to be followed in these circumstances are set out in the Benchmark Approval, Change and Cessation Policy. The protocol will vary according to whether the proposed change is considered material or non-material. Material changes, for example a change to the types of eligible securities or a change to an index reconstitution schedule, will be put to a consultation of stakeholders which will be accompanied by suitable analysis to support the proposal. Non-material changes, for example a change to the way a particular type of corporate action is implemented, will be announced with notice through the publication of a Wilshire Indexes Index Notice and will allow for any adverse feedback to be assimilated ahead of implementation.

Cessation of a Benchmark

Users of Wilshire Indexes benchmarks should be aware that it may on occasion be necessary for Wilshire Indexes to terminate a benchmark. Termination may be required if a required data item is no longer available, or the market is judged to have become too illiquid to support the calculation of a representative benchmark, or because there is a perceived lack of use of a benchmark.

The procedures that Wilshire Indexes will follow in the event that a benchmark termination is proposed are set out in the Benchmark Approval, Change and Cessation Policy.

Climate and ESG Disclosures

The indexes within the FT Wilshire Minimum Variance Index Series family do not take account of ESG factors in their design and they do not pursue ESG objectives. Nor do the indexes in the series make use of any temperature scenario or seek to align with any carbon emission reduction target or attain the objectives of the Paris Agreement.

As of the date of publication of this statement, Wilshire Indexes administers one Paris-aligned benchmark: the FT Wilshire US Large Cap Climate Change 1.5°C Target Index.