Education

What makes an institutional quality index?

FTSE Russell

November 2022

Introduction

Indices are ubiquitous. It is this ubiquity that makes them feel known, understood – easy. However, questions continue to proliferate. How you understand indices are impacted by how you use them. In this paper we walk through the basics and try to shed light on the governance and market experience it takes to be an institutional quality index provider.

Index basics

What is an index?

A formal definition of an index is that it's a figure that is publicly available and is regularly determined, either by applying a formula or other calculation, or by making an assessment based on the value of one or more underlying assets/prices (including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or surveys).

"…an index is a calculation that represents a hypothetical portfolio of securities designed to represent an asset class, market or market segment."

In layman's terms, an index is a calculation that represents a hypothetical portfolio of securities designed to represent an asset class, market or market segment.

An index can be thought of as a recipe in a cookery book: it sets out the ingredients necessary to make a dish, together with the instructions to combine them.

As an index provider, FTSE Russell produces hundreds of recipes that investors can replicate. Investors should be able to follow the recipes step-by-step, which are known as the ground rules of an index, in order to produce a specific 'dish'. But the index is not the dish itself! It's just the guide to produce it.

Indices play an important and informative role at every stage of the investment process. Economists use them to understand and analyze economic trends and investors use indices to conduct risk analysis, develop investment policies and create asset allocation strategies.

Most investors use indices to evaluate the performance of their investment portfolios. Indices are also used as a basis for investable products, such as index mutual funds or exchange-traded funds (ETFs) that track or replicate an index as closely as possible. These allow for so-called passive (index-based) investment in a specific market, market segment or asset class.

In the EU, indices fall within the scope of the Benchmark Regulation, which took effect in 2018. The Regulation became law in the UK with effect from the end of the EU Exit Transition Period on 31 December 2020.

For a more detailed overview of the Benchmark Regulation, see our FAQ on the subject.

Exhibit 1: Benchmarks and indices—legal definitions

BENCHMARK

Any index…

… by reference to which the amount payable under a financial instrument or financial contract, or the value of a financial instrument is determined.

or

…an index that is used to measure the performance of an investment fund with the purpose of:

- tracking the return of such index or
- defining the asset allocation of a portfolio or
- computing the performance fees

INDEX

Any figure…

- that is published or made available to the public;
- that is regularly determined, entirely or partially, by the application of a formula or any other method of calculation, or by an assessment; and
- on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates, quotes and committed quotes or other values or surveys.

FINANCIAL INSTRUMENT

Any of the instruments listed in Section C of Annex I of MiFID2:

- For which a request for admission to trading on a trading venue (as defined in MiFID2) has been made or
- Which are traded on a trading venue or via a systematic internaliser (as defined in MiFID2)

FINANCIAL CONTRACT

Any credit agreement covered by the Consumer Credit Directive or the Mortgage Credit Directive

INVESTMENT FUND

Any UCITS or alternative investment fund (AIF)

Who are the main index providers?

FTSE Russell, MSCI, S&P Dow Jones Indices, Morningstar, Bloomberg and STOXX | Qontigo are some of the best-known global index providers. These global index firms offer a variety of indices, covering different asset classes and index methodologies.

These, and several other index firms, are members of the Index Industry Association (IIA). This global body works with market participants, regulators and other representative bodies to promote sound practices in the index industry to strengthen markets and serve the needs of investors.

For further information on the IIA, please see: http://www.indexindustry.org/about-iia/.

How does index inclusion affect constituents?

Passive funds have grown in popularity during the last two decades. According to the consultancy firm ETFGI, global assets in exchange-traded funds (ETFs) (most of which track indices) have risen from $0.4 trillion in 2005 to $10.3 trillion in 2022. These funds are a natural source of demand for the companies included in indices.

"Indices are also widely used in investment performance measurement among actively managed funds."

For any individual company, the extent of this demand is also determined by the way those indices are put together. For example, indices may be weighted by the market capitalization of their constituents or according to some other model.

Indices are also widely used in investment performance measurement among actively managed funds. Furthermore, indices underlie popular hedging instruments such as equity futures, options and swaps, creating demand from derivatives users.

Therefore, admission to an index tracked by an ETF or index fund, or widely used as a performance benchmark means a potential boost in investor interest and company recognition.

Many academic studies have highlighted the existence of a positive 'index inclusion effect' on companies' share prices, meaning a share price rise between the date on which their future index inclusion is announced and the date on which the index inclusion becomes effective[1].

However, there is also evidence that this effect has become weaker over time, perhaps because traders and arbitrageurs have become more sophisticated in anticipating future index changes.

What is the relationship between liquidity and index inclusion?

Index inclusion should be positively correlated with equity liquidity.

One long-standing academic hypothesis is that the inclusion of a stock in an index results in an increase of publicly available information. Reduced information asymmetry then leads to increased trading volume[2], resulting in a lower bid-offer spread for that stock.

Another reason for a positive correlation between index inclusion and stock liquidity is the way indices are constructed; equity indices typically specify a minimum liquidity threshold for index inclusion to ensure that index inclusion can be replicated.

Existing constituents of the FTSE Global All Cap Index Series are required to pass at least 8 out of 12 months with a monthly median turnover of at least 0.04%[3] of their shares in issue (after the application of any investability

[1] See "On the Changes to the Index Inclusion Effect with Increasing Passive Investment Management," Cameron Scari, University of Pennsylvania, 2016.

[2] See "Institutional Trading and Security Prices: the case of changes in the composition of the S&P 500 index".J.R Woolridge, Chinmoy Ghosh, 1986.

[3] Subject to adjustment as per 2.1(H) in the *FTSE Global Equity Index Series - Guide to Calculation Method for the Median Liquidity Test* (Ground rules).

weightings[4]) A non-constituent of the FTSE Global All Cap Index Series must pass at least 10 out of 12 months with a monthly median turnover of at least 0.05%[3] of their shares in issue (after the application of any investability weightings[4]) based on their median daily trading volume each month[5], on a pro-rata basis since their listing.

FTSE Russell index methodology

How are index constituents selected for index inclusion?

Index admission is determined by the index ground rules and admission policy, neither of which can be influenced by any individual company. However, companies can have a say more broadly in the way FTSE Russell indices are built and maintained by means of the market consultation process.

"…companies can have a say more broadly in the way FTSE Russell indices are built and maintained by means of the market consultation process."

FTSE Russell regularly consults the market on changes to the methodology of its indices to ensure that they continue to meet investors' requirements and define and lead global standards. Responses to these consultations provide valuable market feedback and may result in changes to the FTSE Russell index methodologies.

FTSE Russell's indices are also overseen by 24 advisory committees, whose members are leading representatives from the asset manager, asset owner, custodian, broker and consultant communities. We also engage regularly with other stakeholders, such as central banks and regulators.

How and when are decisions made to remove constituents from an index?

There is no particular person or entity taking this decision—the admission of a company to (or removal from) a FTSE Russell index is determined by the **ground rules**, which can be found on the FTSE Russell website The Ground Rules and other methodology documents indices reflect how changes to shares, free float and corporate actions will be treated.

The index ground rules and other methodology documents and policies, which underpin FTSE Russell indices, are written with the intent of removing the need for judgement or discretion, in so far as is feasible. It is rare to find unusual or complex circumstances that are not covered in the methodology documents, but if there were, these would be addressed by a policy document on the exercise of expert judgement.

[4] When testing liquidity the investability weight as at the last date in the testing period will be used for the calculation for the whole of that period. Please note: where the investability weight is equal to the Foreign Ownership Limit (FOL), then the FOL at the end of the testing period will be used for the calculation for the whole of that period.

[5] When calculating the median of daily trades per month a minimum of 5 trading days in each month must exist, otherwise the month will be ignored and not used in the count. For clarification purposes, daily totals with zero trades are included. Therefore the month will be tested and included in the count even where a stock has 10 trading days of which 6 are zero trades.

What are the index ground rules?

An index's ground rules are the key reference document for anyone wishing to understand the methodology of the index. They cover the index's objective and its intended use, the management responsibilities of the entities responsible for calculating, producing and operating the index, relevant index policies (such as the calculation method or the management of corporate events and actions), the security inclusion criteria, screens for index inclusion and the index review frequency.

A glossary of the terms used in FTSE Russell's index ground rules is available here.

Who manages the index admission process at IPO time—broker, company or exchange?

None of the above. As mentioned earlier, the index admission policy is set by the index's ground rules. The admission of a newly listed company will be considered automatically at the next index review date (or, in the case of a large IPO, under the relevant index's fast entry rules).

How often are indices reviewed?

This depends on the index. The index review frequency is stated in the ground rules.

The FTSE UK Index Series, for example, is reviewed on a quarterly basis in March, June, September and December. The index reviews are based on data from the close of business on the Tuesday before the first Friday of the review month. Any constituent changes are then implemented after the close of business on the third Friday of the review month (i.e., they are effective from the beginning of trading on the following Monday).

The FTSE Global Equity Index Series (GEIS), FTSE Russell's flagship global equity benchmark[6], is reviewed semi-annually in March and September.

How are indices calculated?

"Some indices within an index series may be calculated in real time, while others are calculated at end of day only."

The calculation methodology for FTSE Russell indices is set out in the relevant index's ground rules and, in certain cases, in a separate document (for example, the FTSE UK Index Series Guide to Calculation Methods).

These methodology documents set out in detail how an index is assembled and calculated. They make it easier for users to replicate the indices in order to support their investment and trading activities, and they assist users in understanding the component factors which influence the performance of the indices.

The documents also explain how index variants are calculated. These variants typically include capital and total return indices, net total return indices, based on

[6] See "Indexing the World", May 2022.

specified withholding tax rates, indices calculated in currencies other than the base currency, currency-hedged indices, capped indices and sector indices.

Some indices within an index series may be calculated in real time, while others are calculated at end of day only. Within the FTSE UK Equity Index Series, the main headline indices (such as the FTSE 100, FTSE 250, FTSE Small Cap and FTSE All-Share) are all calculated in real time, whereas the FTSE All-Share Sectors, FTSE All-Small, FTSE All-Small Sectors and FTSE 350 Industry Sectors have an end of day calculation.

How do consultations work?

FTSE Russell conducts market consultations to invite index users to provide feedback on potential changes to index methodologies. Past consultations have covered topics such as free float, fixed income country classification, nationality and voting rights.

In 2021, we conducted a consultation on the inclusion criteria for the FTSE UK Equity Index Series, covering two key areas: dual class share structures and the associated minimum voting rights requirement; and the minimum free float requirements. The consultation followed a proposal by the UK Financial Conduct Authority to make changes to the UK listing regime.

How are corporate actions and other constituent changes handled?

Financial markets change continuously: markets increase and decrease in relative size, companies are listed, delisted, taken over and restructured, and securities produce cash flows. An important challenge for an index provider is to record the evolution of markets in a consistent and transparent way.

Corporate actions and similar changes have impact on the nature of index constituents. They will affect indices in different ways and require detailed and careful examination by index providers.

A mandatory equity corporate action affects all shareholders: examples of a mandatory action include dividends, stock splits, bonus issues and spin-offs (demergers). Voluntary corporate actions include tender offers, rights issues and buybacks. In digital assets, there are, for example, network actions such as hard forks, airdrops and token burns.

FTSE Russell's treatment of corporate actions and events is set out in detail in our guides for capitalization-weighted and non-capitalization-weighted indices, respectively.

Index Governance

Which regulatory body supervises the index industry (and FTSE Russell indices)?

Index firms are supervised and regulated both directly and indirectly (for example, by means of funds regulation).

Some of the most relevant global, regional and national regulations and guidelines are:

- The EU (and UK) Benchmark Regulation
- The International Organization of Securities Commissions (IOSCO) Benchmark Principles
- The ESMA Guidelines on ETFs and other UCITS issues
- The US ETF listing standards
- The EU Markets in Financial Instruments Regulation (MiFIR)

The UK's Financial Conduct Authority (FCA) has granted FTSE International Limited authorization as a benchmark administrator and FTSE International Limited is listed on the FCA Benchmarks Register. This authorization covers different asset classes and includes the FTSE, Russell, FTSE Canada equity and fixed income index brands that are used as benchmarks in the UK.

FTSE Russell also issues a Statement of Compliance with respect to the recommendations made by the International Organization of Securities Commissions (IOSCO) in the Principles for Financial Benchmarks Final Report (the IOSCO Principles).

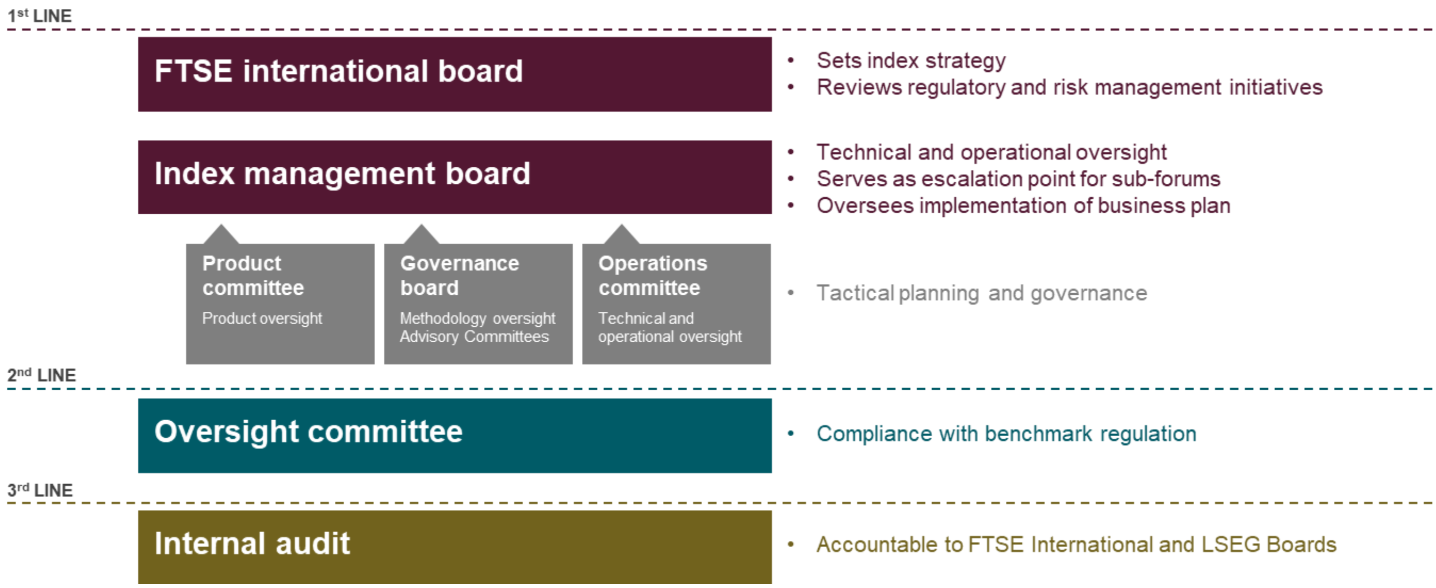
How does an index provider manage potential conflicts of interest?

As a benchmark administrator, FTSE Russell has processes in place to identify, assess and manage potential conflicts of interest.

Any conflicts of interest are recorded in a Conflicts of Interest Register and reviewed periodically in line with our governance framework (see the chart below). Conflicts of interest may arise in areas including organizational ownership, index design, clients, partners or suppliers, individual employees and directors.

These processes are subject to review by the FTSE Russell Index Management Board on an annual basis, or more frequently if the possibility of a conflict arises. If a conflict is identified, management and compliance assess the nature of the conflict and determine what controls may be put in place to manage the conflict adequately, and any disclosure that may be required. In the event that satisfactory controls cannot be established, the activity will be declined or discontinued.

Exhibit 2: FTSE Russell governance framework



For more information, please see FTSE_Russell_Governance_Framework.pdf (ftserussell.com).

How does FTSE Russell interact with market participants?

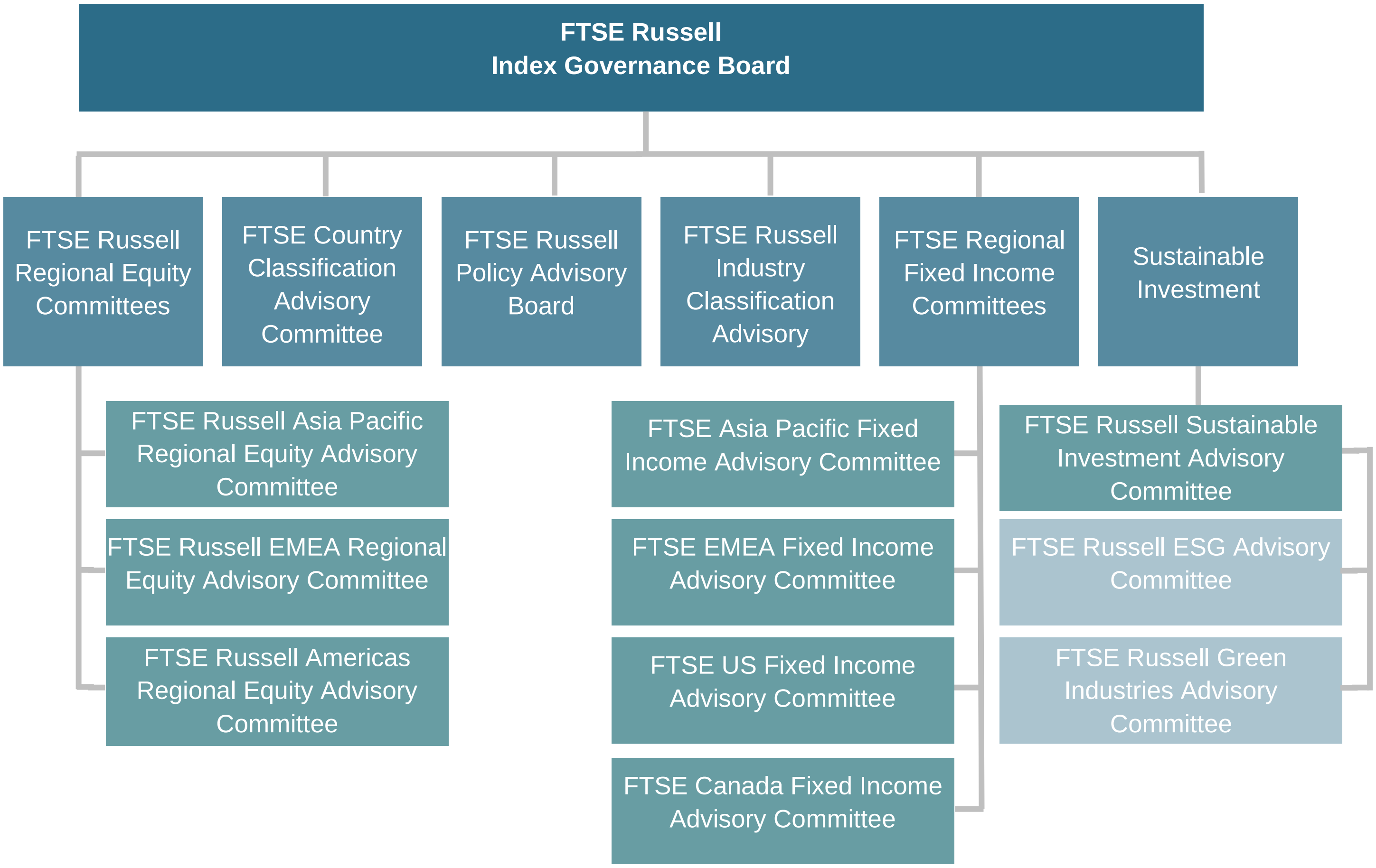
The primary means of interaction between FTSE Russell and asset managers is through our external advisory committees.

These committees are made up of leading investment market professionals from around the world.

Members are drawn from organizations that make use of FTSE Russell indices, both on the buy-side and sell-side. The firms typically include asset owners, asset managers and investment consultants, as well as representatives from the broking, custodian, securities lending, digital asset and other communities.

Committee members offer a depth of knowledge, unique viewpoints and share the objective of seeking to preserve the integrity of the indices and a transparent index review process.

Exhibit 3: FTSE Russell advisory committee structure



Note: Committees consist of leading market professionals from around the globe, including pension plan trustees, investment managers, consultants and other sector participants. Independent oversight of our index capability is central to our approach to doing business.

About FTSE Russell

FTSE Russell is a leading global provider of benchmarks, analytics and data solutions with multi-asset capabilities, offering a precise view of the markets relevant to any investment process. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indices to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indices also provide clients with tools for performance benchmarking, asset allocation, investment strategy analysis and risk management.

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