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FTSE Russell Statement of Compliance

Report on the suitability of design and implementation of controls relating to index administration including with respect to the IOSCO Principles for Financial Benchmarks

As at 30 September 2023



Contents

Secti	Section 1: Introduction				
1.1	Company Overview	3			
1.2	Regulatory Overview	3			
1.3	Scope of this Statement	4			
1.4	Changes Since the Last Report	4			
Secti	on 2: Company Overview	6			
2.1	Product Range	6			
2.2	Client Profile	8			
Secti	on 3: Key Index Families	9			
3.1	Key Index Families	9			
3.2	Standard Equity Indices	10			
3.3	Stock Exchange Indices	11			
3.4	Thematic Equity Indices	11			
3.5	Fixed Income Indices	12			
Secti	Section 4: FTSE Management Statement 13				
Secti	on 4: LSEG Management Statement	15			
Secti	on 5: Independent Assurance Statement	17			
Secti	on 6: Description of FTSE Russell's System for Index Administration	21			
Α.	Governance and Internal Oversight	23			
Β.	Quality of the Benchmark	51			
C.	Quality of the Methodology	63			
D.	Accountability	89			
Section 7: Other Information Provided by the Independent Auditor 9					
Secti	Section 8: Management's Responses to Matters 10				
Secti	Section 9: Glossary of Key Terms 104				



Section 1 Introduction

1.1 Company Overview

FTSE Russell is wholly owned by London Stock Exchange Group ("LSEG"). LSEG is a leading global financial markets infrastructure and data provider which plays a vital social and economic role in the world's financial system. With its open approach, trusted expertise and global scale, LSEG enables the sustainable growth and stability of its customers and their communities. LSEG is a leader in data and analytics; capital formation and trade execution; clearing and risk management.

FTSE Russell is a leading global provider of benchmarks, analytics, and data solutions, offering a true picture of global markets across asset classes, styles, and strategies. Our global perspective is underpinned by specialist knowledge gained from developing local market solutions and understanding client needs around the world.

FTSE Russell's expertise and products are used extensively by institutional and retail investors globally. 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 asset allocation, investment strategy analysis and risk management.

1.2 Regulatory Overview

1.2.1 IOSCO Principles for Financial Benchmarks

In July 2013, IOSCO issued its final report on the Principles for Financial Benchmarks (the IOSCO Principles) setting out the standards to which organisations that administer financial Benchmarks (as defined in the IOSCO Principles) should adhere. For each Benchmark, the IOSCO Principles cover the governance arrangements intended to ensure the Benchmark's integrity, the quality of its design and Methodology, and the accountability of the Benchmark Administrator (see the Glossary of Key Terms for definitions of IOSCO and other terms). Benchmark Administrators were requested to disclose publicly the extent of their compliance with the IOSCO Principles.

1.2.2 Benchmarks Regulation

On 1 June 2018 the UK's Financial Conduct Authority (FCA) granted FTSE International Limited authorisation as a benchmark administrator under the European Regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the EU BMR). Following the UK's departure from the EU, the retained EU law in the UK took effect on 31 December 2020 (the UK BMR). FTSE International Limited is listed on the FCA Benchmarks Register and is supervised by the FCA under the UK BMR.

Further information regarding FTSE Russell's approach to regulation can be found at the <u>Regulation</u> <u>page</u>¹ of FTSE Russell's website. Further information about FTSE Russell's compliance with the UK

¹ Regulation | FTSE Russell



BMR and the EU BMR (together the BMR), including a Frequently Asked Questions document for clients and benchmark statements for the relevant benchmark families can be found at the <u>BMR</u> <u>page</u>² of FTSE Russell's website.

1.3 Scope of this Statement

The indices of FTSE International Limited (FTSE), Frank Russell Company (Russell), FTSE Global Debt Capital Markets Limited and FTSE Global Debt Capital Markets Limited (together FTSE Canada), FTSE Fixed Income Europe Limited (FTSE FI Europe), FTSE Fixed Income LLC (FTSE FI), FTSE (Beijing) Consulting Limited (WOFE), Refinitiv Benchmark Services (UK) Limited (RBSL), Refinitiv Limited (RL) and Beyond Ratings S.A.S. (BR) are provided under the FTSE Russell trading name.

The governance and control frameworks for FTSE, Russell, FTSE Canada, FTSE FI Europe and WOFE are centralised under FTSE and FTSE is the legal entity undertaking the role of Administrator within the meaning in Annex A of the IOSCO Principles for those FTSE Russell benchmarks in scope of the IOSCO Principles. The FTSE FI, RBSL, RL and BR indices, are not included within scope of this Statement. In this Statement the trading name FTSE Russell is used unless reference to the administering entity, FTSE, is specifically required.

This Statement contains the September 2023 declaration of FTSE as the Administrator of its compliance with the IOSCO Principles for the key index families set out in Section 3 of this Statement.

In this Statement, the term "index" is used as a generic term covering all calculations undertaken by FTSE Russell that "capture movements in the markets" for underlying securities. The IOSCO-defined term "Benchmark" is reserved for FTSE Russell key index families described in Section 3 of this Statement.

1.4 Changes Since the Last Report

1.4.1 Regulatory Change

Since FTSE Russell's last Statement, the UK BMR has come into force in the UK as described in section 1.2.2 above. FTSE continues to be authorised and supervised by the FCA.

1.4.2 Change in Scope

This Statement includes two additional index series within its scope: the FTSE Global Choice Index Series and the FTSE High Dividend Yield Indices.

Some changes in format have been made, with cross-referencing between the IOSCO Principles and BMR articles being provided for convenience in Section 6.

1.4.3 Change in Assurance Provider

FTSE Russell's previous Statement contained independent assurance from KPMG LLP. In this Statement, independent assurance has been received from PricewaterhouseCoopers LLP.

² UK Benchmark Regulation and European Benchmark Regulation | FTSE Russell



1.4.4 Change in Assurance Reporting

In order to continue to enhance the quality of reporting and transparency of FTSE Russell's controls to ensure compliance with IOSCO principles and the UK BMR, the assurance provided has been changed from a "fairly stated" report to a "controls report". In a fairly stated report the assurance provider opines that that in all material respects, the Directors' descriptions of FTSE Russell activities were fairly presented whereas in a controls report the assurance provider opines that controls were suitably designed to meet the relevant control objectives.

1.4.5 Organisational Change

On 29 January 2021, London Stock Exchange Group plc (LSEG) announced the completion of its acquisition of Refinitiv.



Company Overview

2.1 Product Range

FTSE Russell's index and benchmark solutions cover a broad spectrum of asset classes and investment objectives, including equity, fixed income, infrastructure, digital assets, commodities, sustainable investment, factors and smart beta.

Our flagship equity indices include the FTSE Global Equity Index Series (FTSE GEIS), the Russell US Indexes, and the FTSE UK Index Series. FTSE GEIS provides a robust global equity index framework covering over 19,000 large, mid, small, and micro-cap securities across 49 developed and emerging markets globally, with a wide range of modular indices available to target specific markets and market segments. The Russell US Indexes serve as leading benchmarks for institutional investors, providing the broadest coverage of investable US equities from mega cap to microcap. The series includes the Russell 1000®, Russell 2000®, and Russell 3000® Indexes, as well as the Russell Style indices. The FTSE UK Index Series provides market participants with a complementary set of indices that measure the performance of all capital and industry segments of the UK equity market and includes the FTSE 100 Index and the FTSE All-Share Index.

FTSE Russell's comprehensive and modular fixed income offering includes broad-based indices that measure government, government-sponsored, collateralised, and corporate bonds from both developed and emerging countries. Our extensive fixed income database covers more than 100 countries and includes 18,000+ unique bonds.

Our sustainable investment indices span asset classes and objectives, including a broad range of both climate and ESG solutions. Some of our flagship indices include the FTSE TPI Climate Transition Index Series, the FTSE Environmental Markets Index Series, and the FTSE EU Climate Benchmarks Index Series. ESG indices include the FTSE4Good Index Series, the FTSE Global Choice Index Series, the FTSE Global Impact Bond Index Series, and the FTSE ESG Government Bond Index Series.

An overview of the evolution of FTSE Russell is shown in figure 2.1.



Figure 2.1: Evolution of FTSE Russell

A history of expanding and innovating for the investor

1995	2011	2013	2014	2016	2017	2018	2019	2021	2023
Financial Times and the London Stock Exchange constitute a new jorthy held company; "FT-SE."	The London Stock Exchange acquires Person's 50% stake in FTSE International	FTSE forms joint venture with TMX Group to form FTSE TMX, bringing a popular suite of North American fixed income indexes.	FTSE and Russellindexes combine to create a leading global index provider. FTSE Russell Acquisition of the MTS indexes, creates FTSE MTS, a suite of real- time continential Eur opean government i ndexes.	Acquisition of Mergent Inc., a leading provider of business and financial informa tion, expands FTSE Rusself's data and analytics capabil tites.	LSEG acquires The Yield Book and Cali Fixed Income In dices from Citigroup, transforming our fixed income and multi- asset capabilities.	FTSE Russell acquires 100% ownership of FTSE TMX Global Debt Capital Markets Limited	LSEG acquires Beyond Ratings	London Stock Exchange Group and Refinity combine to become a leading global financial markets infrastructur e and data provider	FTSE Russell and Tradeweb Announce Strategic Partnership
Domestic and Global Equity	Consolidation with leading infrastruct ure expert at the heart of global capital markets	+ NA Fixed Income Indexes	+ US Equity + European Fixed Income Indexes	+ Data Solutions and Analytics	+ Global Fixed Income and Analytics	Further strengthe ning our fixed income offering	+ Fixed Income ESG	Our combined strengths enable us to innovate and create deeper value for our clients + Interest Rate and FX BMs	Expands benchmark pricing and enhanced trading functionality across fixed income products

2.1.1 New Launches and Innovation

Since the last report, FTSE Russell has launched a range of new indices, including the FTSE Digital Assets Indices, the Russell Fixed Income Index Series, the FTSE UK ESG Risk-Adjusted Index Series, and the FTSE Fixed Income EU Climate Benchmarks Index Series.

The FTSE Digital Asset Indices offer institutional quality, liquidity-screened exposure to the digital asset marketplace through flagship market cap or single asset indices. All indices utilise reference price data that is robustly vetted across exchanges, establishing high standards for sound custody and covering a wide range of fundamental and technical criteria.

The Russell Fixed Income Index Series provides investors with a curated set of benchmarks with significantly different risk characteristics relative to other corporate bond indices and supports higher precision investment strategies, symmetrical multi-asset approaches and research functions. This series is designed to track the US corporate bond market by focusing on the debt of the large, publicly traded companies (and the debt of their US-domiciled subsidiaries) that make up the Russell 3000® equity index. The Russell 3000 Fixed Income Index and the corresponding Russell 1000® Fixed Income and Russell 2000® Fixed Income sub-indices comprise the new Russell fixed income series.

The FTSE UK ESG Risk-Adjusted Index Series is based on the FTSE UK Index Series and is designed to reflect the performance of UK stocks whilst improving broad ESG characteristics and maintaining similar risk/return characteristics to the underlying universe. The Index Series is constructed to adjust for carbon risks and ESG performance using the FTSE Russell Target Exposure methodology and target a 50% reduction in fossil fuel reserve exposure, 50% reduction in operational carbon emissions intensity and 5% ESG score improvement on the index level at semi-annual rebalances relative to the underlying FTSE 100 Index, FTSE 250 Index, FTSE 350 Index and FTSE All-Share Index.

FTSE Russell's EU Climate Transition Benchmarks (CTBs) and EU Paris-Aligned Benchmarks (PABs) indices are designed to support investors in achieving the required minimum targets for each respective index, as stipulated by the EU 2019 Regulation on EU Climate Transition Benchmarks. While these indices are governed by FTSE Russell 's controls in scope of this report, the specific



regulatory provisions of ESG indices, PABs and CTBs have not been included in the scope of the report.

The FTSE Fixed Income EU Climate Benchmarks Index Series provides a considered approach to this complex objective and goes beyond the minimum requirements to provide a modular toolkit that balances the required decarbonisation objective while considering additional goals and potential customisations required by index users.

Client Profile 2.2

FTSE Russell is at the heart of global markets. We offer buy and sell-side communities and integrated multi-asset platform of proprietary data, analytics and indices, with products designed for the world's most demanding institutions.

An overview of the usage of FTSE Russell indices is shown below in Figure 2.2.

Figure 2.2: Use of FTSE Russell Indices

\$15.9tn in reported fund AUM for our benchmarks ⁴	94/100 top asset managers use our indices ⁵	9/10 top investment banks use our indices ⁶	∼120 Index-linked Futures and Options listed on 15 global exchanges ⁵
15/15 top global ETF issuers work with us ⁸	~677 ETFs benchmarked to our indices ⁹	~\$1,111bn ETF-linked assets benchmarked ⁹	~\$1,019bn In equity ETF assets benchmarked⁵

Above data is estimated by FTSE Russell.

FPI: Data and Datomater 31, 2022, as reported on April 1, 2022, by eVestment for active institutional funds, Morningstar for active retail instulational funds, insurance products, and ETFs, and passive assets directly collected by FTSE Russell. AUM includes blanded banned banned banned as an estimated by FTSE Russell as of the accuracy of the data.

Set Dow Jones: SAP Dow Jones Indicate Musica and applications and active and passive assets directly collected by FTSE Russell. For funds where the AUM was notreported as of Dacember 31, 2022 the previous period AUM sets used as an estimated by FTSE Russell as of the accuracy of the data.

Set Dow Jones: SAP Dow Jones Indicate Annual Survey of Assets, 12-2022 https://www.apglobal.com/apgli/ein/documents/index/news-and-announcements/apgli-indexed-asset-survey-2022.pdfFor asset dass breakout asset dass shares estimated by FTSE Russell as of 12-2022.

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MosCI: For total benchmarked assets. MISCI.com, data as of 12-2022. For sastel data does not include active and passive assets not reported to a 3rd party source or FTSE Russell. For funds where the AUM was not reported as of December 31, 2021, the previous period AUM assue as an estimated by FTSE Russell as of the accuracy of the data.
Baseed on FTSE Russell di



Key Index Families

3.1 Key Index Families

In order to determine the appropriate level of governance required for each index family, FTSE Russell undertakes a comprehensive annual risk assessment of its index series and uses the output of that assessment to define the requirements of its control framework. The criteria used to conduct the analysis include:

- The role of FTSE Russell and any third parties in the dissemination of the index series;
- The nature of the underlying market;
- The complexity of the calculation algorithm;
- The data sources used as inputs, including the pricing source and any data used in the determination of constituent weights;
- The calculation platform used;
- The commercial significance of the index, including assets known to follow the index and known regulated products that are based on the index; and
- The specific regulatory risk associated with the index series.

As a result of this analysis, and in line with the principle of proportionality highlighted in the IOSCO Final Report, FTSE Russell has established the key index families set out in Tables 3.1 - 3.4 and described below for the application of the IOSCO Principles in full. These key index families constitute Key Benchmarks for the purposes of this Statement.

Table 3.1: Standard Equity Indices

Standard Equity Indices	Website Link
FTSE Global Equity Index Series (FTSE GEIS) (incl. FTSE Global All Cap, Global Small Cap, All-World and Emerging Index Series)	FTSE Global Equity Index Series (GEIS) LSEG
FTSE UK Index Series (incl. FTSE UK Dividend+ Index)	FTSE UK Index Series LSEG
Russell 1000® Index (including Value/Growth/Defensive/Dynamic)	Russell US Indexes LSEG
Russell 2000® Index (including Value/Growth/Defensive/Dynamic)	Russell US Indexes LSEG
Russell 3000® Index (including Value/Growth/Defensive/Dynamic)	Russell US Indexes LSEG
FTSE Italia Index Series	FTSE Italia Index Series LSEG
FTSE China Index Series	FTSE China Indices LSEG
FTSE Global Choice Index Series	FTSE Global Choice Index Series LSEG
FTSE All-World High Dividend Yield Indices	All-World High Dividend Yield Index LSEG



Table 3.2: Stock Exchange Indices

Stock Exchange Indices	Website Link
FTSE Bursa Malaysia Index Series	FTSE Bursa Malaysia Index Series LSEG
FTSE/JSE Africa Index Series	FTSE/JSE Africa Indices LSEG
FTSE/JSE Fixed Income Index Series	FTSE/JSE Africa Indices LSEG
FTSE ST Index Series	FTSE Strait Times (ST) Index Series LSEG

Table 3.3: Thematic Equity Indices

Thematic Equity Indices	Website Link
FTSE EPRA/Nareit Global Real Estate Index Series (incl. FTSE EPRA/Nareit Dividend+ Index Series)	FTSE EPRA Nareit Global Real Estate Index Series LSEG
FTSE Nareit US Real Estate Index Series	FTSE Nareit US Real Estate Indices LSEG
FTSE RAFI™ Index Series	FTSE RAFI™ Index Series LSEG
FTSE4Good Index Series	FTSE4Good Index Series LSEG

Table 3.4: Fixed Income Indices

Thematic Equity Indices	Website Link
FTSE Canada Universe Bond Index Series ³	FTSE Canada Fixed Income Indices LSEG
FTSE Actuaries UK Gilts Index Series	FTSE Actuaries UK Gilts Index Series LSEG
The FTSE Eurozone Bond Index Series ⁴ (excluding the Eurozone Covered Bond Indices)	FTSE Eurozone Bond Index Series LSEG

3.2 Standard Equity Indices

FTSE standard equity indices include the FTSE GEIS, the FTSE UK Index Series, the FTSE Italia Index Series and the FTSE China Index Series (including the FTSE China A50 and FTSE China 50 Indices), and all indices derived from these series through size stratification (to produce large, medium and small capitalisation indices), the application of filters (to remove certain countries, industries or companies), or capping procedures (to limit the weight of certain constituents, for example, to ensure compliance with regulatory diversification requirements).

In Table 3.1, the FTSE All-World High Dividend Yield Index Series is an example of an index series filtered from the FTSE GEIS family. The FTSE UK Dividend+ Index is derived from the FTSE UK Index Series. For these indices, stocks are selected from the relevant universe based on their dividend yields. In the case of the FTSE UK Dividend+ Index, constituents are weighted in proportion to their one-year forecast dividend yield at the index semi-annual reviews.

The Russell US Indexes include the broad Russell 3000E Index, which contains the largest 4,000 U.S. companies. Sub-indices in the Russell 3000E Index are broken out by market capitalisation and

³ Previously FTSE TMX Canada Universe Bond Index Series

⁴ Previously FTSE MTS Indexes (renamed on 31 March 2022)



size and include the large cap Russell 1000® Index, small cap Russell 2000® Index and Value/Growth and stability/style indices.

We have included the FTSE Global Choice Index Series and the FTSE High Dividend Yield Indices in this Statement of Compliance for the first time and provide further information on these indices below.

3.2.1 FTSE Global Choice Index Series

The FTSE Global Choice Index Series is designed to help investors align their portfolios with their individual values by de-selecting companies based on their conduct or products in specific sectors. Exclusion categories include weapons, non-renewable energy, controversies and lack of diversity.

The FTSE Global Choice Index Series is a market cap-weighted series with a rules-based methodology for defining how to exclude companies based on their involvement in specific products and conduct with (potential) negative impacts on society and the environment. The underlying framework includes large, mid, and small securities across developed and emerging markets globally, with modular indices available to target specific country markets. The result is a framework for applying robust and customizable values-based screens to a range of broad market indices.

The Index Series can include negative screens in three product categories and two conduct categories. Individual indices within the series may only apply a subset of the screening categories.

3.2.2 FTSE High Dividend Yield Indices

The FTSE High Dividend Yield Index is designed to represent the performance of companies with relatively high forecast dividend yields. The dividend yield data used in the review calculation is based on one-year dividends per share forecasts/estimates divided by the underlying share price.

3.3 Stock Exchange Indices

FTSE is the Benchmark Administrator for a number of index series operated in conjunction with local stock exchanges including those listed in Table 3.2. FTSE is responsible for the Methodologies (as defined in the IOSCO Principles), the calculation process and the dissemination of the published Benchmarks. The local stock exchanges for the Key Benchmarks are:

- Bursa Malaysia (FTSE Bursa Malaysia Index Series);
- Johannesburg Stock Exchange (FTSE/JSE Africa Index Series; FTSE/JSE Fixed Income Series); and
- Singapore Stock Exchange and Singapore Press Holdings (FTSE ST Index Series).

3.4 Thematic Equity Indices

FTSE is the Benchmark Administrator for a number of indices that have been developed in association with external parties who provide technical expertise in the definition of some data used in the calculation a range of thematic equity indices.



3.5 Fixed Income Indices

References to the Fixed Income Benchmarks in this Statement include the FTSE Canada Universe Bond Index Series, the FTSE Actuaries UK Gilts Index Series, the FTSE Eurozone Bond Index Series and the FTSE/JSE Fixed Income Index Series.



FTSE Management Statement

Management statement on benchmark administration controls at FTSE International Limited (the "Organisation")

As Management of FTSE International Limited we are responsible for the identification of control objectives relating to the provision of benchmark administration by the Organisation and the design and implementation of the Organisation's controls to provide reasonable assurance that the control objectives are achieved in relation to the UK Benchmark Regulations ("BMR") and the IOSCO Principles for Financial Benchmarks ("IOSCO PFB") (the "Requirements").

In carrying out those responsibilities, we have regard not only to the interests of customers but also to those of the owners of the business and the general effectiveness and efficiency of the relevant operations.

The Service Organisation uses London Stock Exchange Group Plc ("LSEG") (an "included Subservice Organisation") to provide certain central technology support services. The Organisation's description includes a description of LSEG's technology support services used by the Service Organisation, including the relevant control objectives and related controls.

The accompanying description has been prepared for stakeholders who have a sufficient understanding to consider the description.

We confirm that:

- The accompanying description, in Section 6, fairly presents the Service Organisation's benchmark administration as at 30 September 2023. The criteria used in making this statement were that the accompanying description:
 - Presents how the services were designed and implemented, including:
 - the types of benchmarks administered, and as appropriate, the nature of those benchmarks;
 - the procedures, both automated and manual, by which input data is gathered and the benchmarks are calculated and published;
 - the systems which captured the input data, performed the calculations and published the benchmarks;
 - the process used to prepare reports for customers;
 - relevant control objectives and controls designed to achieve those objectives; and
 - other aspects of our control environment, risk assessment process, information systems (including the related business processes) and communication, control activities and monitoring controls that were relevant to processing and reporting the benchmarks.
 - Does not omit or distort information relevant to the scope of the benchmark administration being described, while acknowledging that the description is prepared to meet the common needs of a broad range of stakeholders and may not, therefore, include every aspect of the services that each individual stakeholder may consider important in its own particular environment.



- The controls related to the control objectives were suitably designed as at 30 September 2023. The criteria used in making this statement were that:
 - the risks that threaten the achievement of the control objectives stated in the description were identified;
 - the identified controls would, if operated as described, provide reasonable assurance that those risks did not prevent the stated control objectives from being achieved; and
 - the controls were consistently applied as designed, including that manual controls were applied by individuals who have the appropriate competence and authority, throughout the period.

We acknowledge our responsibility for establishing appropriate internal controls to ensure continued compliance with the Requirements.

DocuSigned by: Fibra Bassett C952A2E256764F59-Ju1-2024

Fiona Bassett, CEO FTSE Russell

For and on behalf of FTSE International Limited

29 July 2024



LSEG Management Statement

Management statement on benchmark administration controls at London Stock Exchange Group Plc ("LSEG" or the "Subservice Organisation")

As Executives of LSEG, service providers to FTSE International Limited ("FTSE Russell"), we are responsible, together with FTSE Russell's management, for the identification of Information Technology General Controls ("ITGCs") relating to the provision of certain technology functions in support of FTSE Russell's provision of benchmark administration services.

The accompanying description including the IT services provided to FTSE and the details of the ITGCs have been prepared for stakeholders of FTSE Russell who have a sufficient understanding to consider the description.

We have evaluated the fairness of the description and the suitability of the design of controls over services provided by LSEG to FTSE, having regard to the International Standard on Assurance Engagements 3000 (Revised) 'Assurance engagements other than audits or reviews of historic financial information' (ISAE 3000 (Revised)), issued by the International Auditing and Assurance Standards Board.

We confirm that:

a) The accompanying description, in Section 6, fairly presents LSEG's IT services provided to FTSE Russell as at 30 September 2023. The criteria used in making this statement were that the accompanying description:

- Presents how the IT services were designed and implemented, including: the types of services provided such as Logical access management controls and change management controls; and
- Does not omit or distort information relevant to the scope of the benchmark administration being described, while acknowledging that the description is prepared to meet the common needs of a broad range of FTSE Russell's stakeholders and may not, therefore, include every aspect of the IT services that each individual FTSE Russell stakeholder may consider important in its own particular environment.

b) Except for the matter referred to in the 'Control exception identified' paragraph below, the controls related to the control objectives stated in the accompanying description were suitably designed and implemented as at 30 September 2023. The criteria used in making this assertion were that:

- The risks that threatened achievement of the control objectives stated in the description were identified; and
- The identified controls would, if operated as described, provide reasonable assurance that those risks did not prevent the stated control objectives from being achieved.



Control exception identified:

During the audit it came to our attention that there were not sufficient controls in place to ensure appropriate segregation of duties between users with access to both develop and promote changes to production. As a result, of these access controls supporting the change management process not being effective, automated controls were not suitably designed and implemented as at 30 September 2023 to achieve the control objective "Controls provide reasonable assurance that FTSE Russell has appropriate internal controls over data selection, collection, and transmission processes to protect the integrity and confidentiality of data".

-Signed by: Michael Shin -937A50868CC447F... 29-Jul-2024

Michael Shin Chief Information Officer, FTSE Russell For and on behalf of London Stock Exchange Group Plc

29 July 2024



Independent Assurance Statement

Independent assurance report to the Management of FTSE International Limited (the "Organisation")

We have been engaged to provide a reasonable assurance report on the Organisation's description of internal controls over its benchmark administration as at 30 September 2023 (the "description"), and on the suitability of the design of controls to achieve the related control objectives stated in the description. The controls and control objectives included in the description are those that management of the Organisation believe are likely to be relevant to their stakeholders in relation to the UK Benchmark Regulations ("BMR") and the IOSCO Principles for Financial Benchmarks ("IOSCO PFB") (the "Requirements").

The Service Organisation uses London Stock Exchange Group Plc ("LSEG"), an "included Subservice Organisation" to provide certain central technology support services. The Organisation's description includes a description of LSEG's technology support services used by the Service Organisation, including the relevant control objectives and related controls of the included Subservice Organisation.

This report is made solely for the use and benefit of the Organisation in connection with Principle 17 of IOSCO PFB's or Article 7 of the BMR. While the controls and related control objectives may be informed by the Organisation's need to satisfy legal or regulatory requirements, our scope of work and our conclusions do not constitute assurance over compliance with those laws and regulations.

Our independence and quality control

In carrying out our work, we complied with the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour that is at least as demanding as applicable provisions of the IESBA Code of Ethics. We also apply International Standard on Quality Control (UK) 1 and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Management's responsibilities

Management is responsible for complying with the Requirements and preparing the description, in Section 6, and the accompanying management statement set out in Section 4, including the completeness, accuracy and method of presentation of the description and management statement; providing the benchmark administration information covered by the description; specifying the criteria and stating them in the description; identifying the risks that threaten the achievement of the controls objectives, and designing, implementing and effectively operating controls to achieve the stated control objectives.

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The control objectives stated in the description, Section 6, are those specified by the Organisation. Management remains solely responsible for determining the suitability of the control objectives to address the needs of intended users.

Our responsibilities

Our responsibility is to express an opinion on the fairness of the presentation of the description and on the suitability of the design of the controls to achieve the related control objectives stated in that description based on our procedures. We conducted our engagement in accordance with International Standards on Assurance Engagements 3000 (Revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" and with regard to the Technical Release – "TECH02/14FSF – Assurance Reports on Benchmarks and indices" issued by the ICAEW. This standard and guidance require that we comply with ethical requirements and plan and perform our procedures to obtain reasonable assurance about whether, in all material respects, the description is fairly stated and the controls were suitably designed to achieve the related control objectives stated in the description. An assurance engagement to report on the description and the suitability of design of controls at an organisation involves:

- performing procedures to obtain evidence about the fairness of the presentation of the description and the suitability of the design of those controls to achieve the related control objectives stated in the description based on the criteria in the Organisation's management's statement in Section 4;
- assessing the risks that the description is not fairly presented and that the controls were not suitably designed to achieve the related control objectives stated in the description; and
- evaluating the overall presentation of the description, suitability of the control objectives stated in the description, and suitability of the criteria specified by the Service Organisation in its management statement in Section 4.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Inherent limitations

The Organisation's description is prepared to meet the common needs of a broad range of stakeholders, with regard to the Requirements, and may not, therefore, include every aspect of the Organisation's benchmark administration business that each individual customer may consider important in its own particular environment. Also, because of their nature, controls at an organisation may not prevent or detect and correct all errors or omissions in administering or publishing benchmarks. Our opinion is based on historical information and the projection to future periods of any evaluation of the fairness of the presentation of the description, or conclusions about the suitability of the design of the controls would be inappropriate.

The validity and reliability of daily benchmark levels and returns is dependent on both (i) those that provide the input data to the benchmark administrator, for which the data provider is solely responsible, and (ii) the procedures performed by the benchmark administrator to check that information. Data providers of information, are not themselves subject to these Requirements and we are unable to comment on input data submitted by those parties.

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Basis for qualified opinion

During the audit it came to our attention that there were not sufficient controls in place to ensure appropriate segregation of duties between users with access to both develop and promote changes to production. As a result, of these access controls supporting the change management process not being effective, automated controls were not suitably designed and implemented as at 30 September 2023 to achieve the control objective "Controls provide reasonable assurance that FTSE Russell has appropriate internal controls over data selection, collection, and transmission processes to protect the integrity and confidentiality of data".

Qualified opinion

In our opinion, in all material respects, except for the matter described in the 'Basis for qualified opinion' paragraph above, based on the criteria described in the Organisation's and the included Subservice Organisation's management statements in Section 4:

- a. the description in the controls report fairly presents the Organisation's internal activities as designed and implemented as at 30 September 2023; and
- b. the controls related to the control objectives stated in the description were suitably designed to provide reasonable assurance that the specified control objectives would be achieved if the described controls operated effectively as at 30 September 2023.

Emphasis of matter

Without further modifying our opinion, we draw attention to the following matter as described in Section 6:

a) During the audit, it came to our attention that there is no minimum notice period given to customers before making material changes to indexes or their methodologies. Please refer to Section 6C; subheading 6.12 (Changes to the Methodology).

Other information

The information included in Sections 1 to 3 is presented by the Organisation to provide additional information and is not part of the Organisation's description of controls. Such information has not been subjected to the procedures applied in the examination of the description of the Organisation, related to benchmark administration, and accordingly, we express no opinion on it.

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Intended users and purpose

This report is intended solely for the use of Management and the Organisation and solely for the purpose of reporting on the controls of the Organisation, in accordance with the terms of the agreement between us dated 24 November 2022.

Our report must not be recited or referred to in whole or in part in any other document nor made available, copied or recited to any other party, in any circumstances, without our express prior written permission.

To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors and the Organisation for our work, for this report or for the opinions we have formed.

Signed by: Price at las Coper LP 5914462C9DC5468...

PricewaterhouseCoopers LLP Chartered Accountants London

29 July 2024

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Description of FTSE Russell's System for Index Administration

Summary description of FTSE Russell's administration of Key Benchmarks including control objectives, key control descriptions, testing performed and compliance with the IOSCO Principles

FTSE Russell applies a wide range of controls and oversight mechanisms to all of its indices, and high standards of governance are applied to all FTSE Russell products.

In line with the principle of proportionality highlighted in the IOSCO Principles, FTSE Russell has established that by virtue of their size, known usage, risk profile and underlying input data sources, the index families set out in Tables 3.1 to 3.4 (referred to as "Key Benchmarks") in Section 3 of this Statement are the most relevant for the application of the IOSCO Principles. The responses in this Section 6 relate to those Key Benchmarks.

In December 2016, the Board of IOSCO issued its Report on additional guidance on the IOSCO Principles for Financial Benchmarks. In line with the recommendations in that Report, the following summarises where FTSE as the Administrator for the FTSE Russell Key Benchmarks considers that it complies in full with the following IOSCO Principles, according to the rationale set out against each individual Principle in this Section 6:

Governance:

- 1. Overall Responsibility of the Administrator
- 2. Oversight of Third Parties
- 3. Conflicts of Interest for Administrators
- 4. Control Framework for Administrators
- 5. Internal Oversight

Quality of the Benchmark:

- 6. Benchmark Design
- 7. Data Sufficiency
- 8. Hierarchy of Data Inputs
- 9. Transparency of Benchmark Determinations
- 10. Periodic Review

Quality of the Methodology:

- 11. Content of the Methodology
- 12. Changes to the Methodology
- 13. Transition
- 14. Submitter Code of Conduct



15. Internal Controls over Data Collection

Accountability:

- 16. Complaints Procedures
- 17. Audits
- 18. Audit Trail
- 19. Cooperation with Regulatory Authorities.

None of the Key Benchmarks are based on Submissions and, accordingly, the following IOSCO Principles or parts of IOSCO Principles do not apply:

Governance:

- 4. Control Framework for Administrators (submission related part)
- 5. Internal Oversight (submission related part)

Quality of the Methodology:

- 11. Content of the Methodology (submission related part)
- 14. Submitter Code of Conduct (entire Principle)

Accountability:

18. Audit Trail (submission related part)

Cross Referencing and BMR Mapping

In this report, each control objective is aligned with the IOSCO Principles for Financial Benchmarks on a one-to-one basis. In instances where a single control facilitates compliance with multiple IOSCO Principles, and therefore multiple control objectives, a bracket notation is employed within the testing table to indicate this cross-referencing.

For instance, control 1.1 contributes to the fulfilment of IOSCO Principles, and therefore control objectives 1, 3, and 10. Hence, it is noted as 1.1 (3.5) (10.1).

At the beginning of Sections 6A, 6B, 6C and 6D, there is a table which maps each IOSCO Principle to the corresponding BMR article(s).

Similarly, in the header of each testing table in Section 6, there is a mapping between the control objective, IOSCO Principle, and BMR article(s).

Within the Control Activity description, hyper-links have been included to aid the users of the report in identifying relevant documents, where they are public. For the purposes of this report, the documents in place as at 30 September 2023 have been reviewed; the hyper-link may link to a more recent version.



A. Governance and Internal Oversight

IOSCO Principle		BMR Article(s)	
1	Overall Responsibility of the Administrator	4, 5, 6, 12, 13	Governance and conflict of interest requirements, Oversight function requirements, Control framework requirements, Methodology, Transparency of methodology
2	Oversight of Third Parties	10	Outsourcing
3	Conflicts of Interest for Administrators	4,5	Governance and Conflict of Interest Requirements, Oversight Function Requirements
4	Control Framework for Administrators	6	Control Framework Requirements
5	Internal Oversight	5	Oversight Function Requirements

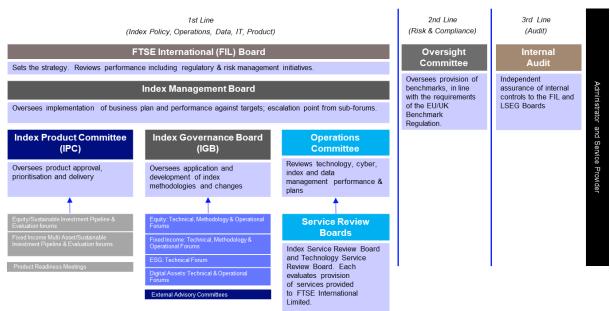
6.1 FTSE Russell Governance and Oversight

To oversee the administration of its index business, FTSE Russell has an established governance framework that consists of the Board of Directors of FTSE, which is supported in its tasks by:

- the LSEG Enterprise Risk Management Framework;
- the internal bodies shown in Figure 6.1
- the following bodies which represent the FTSE Russell Oversight Function:
 - the FTSE Russell Oversight Committee;
 - o the FTSE Russell Index Governance Board (supported by specialist internal forums); and
 - the FTSE Russell Index Management Board.

The organisation structure of FTSE Russell is shown in Figure 6.1.

Figure 6.1: FTSE Russell Governance Framework





6.1.1 FTSE International Limited Board of Directors (FTSE Board)

The FTSE Board is responsible for setting the strategic direction of FTSE and approving its objectives and strategy ensuring the right balance is achieved between long term growth and delivering short term objectives consistent with FTSE's regulatory obligations. The FTSE Board is responsible for the overall management of FTSE and its subsidiaries, holding management to account for its implementation of a framework of prudent and effective controls which enables risks to be assessed and managed.

The FTSE Board is chaired by a member of the LSEG Executive Committee and includes three nonexecutive directors from LSEG in addition to the Chief Executive Officer of FTSE Russell. It receives reports from the Chief Executive Officer and the Head of Compliance addressing potential risks that might impact the ongoing provision of indices.

6.1.2 FTSE Russell Oversight Committee (Oversight Committee; OC)

The Oversight Committee meets every two months and along with the other FTSE Russell internal committees forms the Oversight Function required by the UK BMR to ensure oversight of all aspects of the provision of FTSE's benchmarks. The Terms of Reference for the Oversight Committee can be found here: <u>FTSE Russell Governance Framework (Iseg.com)</u>

6.1.3 FTSE Russell Index Management Board (IMB)

The IMB is responsible for the day-to-day oversight and management of the FTSE Russell index business. Its remit includes approving, monitoring and acting as the point of escalation for matters associated with business planning, product and research initiatives, data operations, risk management and service review. A sub-committee of the IMB, the Operations Committee, supports the work of the IMB. The Operations Committee considers key performance metrics and associated updates on operational, technology, cyber and service-related items. The IMB receives updates on the main topics considered at the Operations Committee and any points requiring escalation. Reporting into the Operations Committee, the Service Review Boards consider the performance of services against agreed metrics including timeliness; reviews the services of third-party suppliers and considers planned service improvements and risk remediations.

6.1.4 FTSE Russell Index Governance Board (IGB)

The FTSE Russell IGB comprises senior representatives from FTSE Russell's governance, index management, data management, product and research functions. It is responsible for maintaining the integrity of FTSE Russell products by ensuring that all FTSE Russell branded and co-branded products and all products for which FTSE is the benchmark administrator are designed and maintained according to appropriate technical standards.

The FTSE Russell Index Governance Board meets twice a month and is responsible for:

- Approval of changes to existing products including methodology changes and market consultations;
- Approval of new index policies or revisions to existing ones;
- Approval of Ground Rules, Benchmark Statements and Compliance Statements or updates to existing ones;
- Periodic review of all benchmark methodologies, supporting index policies, terms of reference for sub-committees and external advisory committees and their membership;



- Overseeing any index appeals or complaints relating to benchmark determination and directing any appropriate actions;
- Approving the provision of public statements where an index methodology is not sufficiently detailed or an exception is required;
- Providing guidance on the best ways to ensure indices are administered in accordance with relevant regulatory requirements, index rules and policies;
- The annual country classification process and any associated changes; and
- Approving any change of data source inputs into an index calculation.

Relevant decisions and concerns from the FTSE Russell Index Governance Board meetings are included in its report to the Oversight Committee.

To assist with its work, the FTSE Russell Index Governance Board requests assessments and approvals from specialist internal forums to ensure that changes to an existing methodology or a proposed new index methodology will adequately meet the perceived demand, is suitable for the FTSE Russell brand, and can be calculated and maintained to the high standards of accuracy demanded by FTSE Russell. The following forums contribute to the assessment.

6.1.5 Technical Forums

The Technical Forums consider the technical elements of a new or existing index, with a view to ensuring that the appropriate standards are met and are within the delegated risk appetite. The Technical Forums will ascertain whether the index is capable of meeting its stated objectives, that the proposed constituent weighting mechanisms are soundly grounded, and that the index will continue to measure the underlying economic reality in times of economic stress.

6.1.6 Operational Forums

The Operational Forums assess whether a new or modified index can be maintained. The Operational Forums allow those who will maintain the index on a day-to-day basis and those that will periodically conduct the reviews or reconstitutions of the index to discuss the feasibility of implementing the proposed methodology and, if appropriate, suggest alternative approaches.

6.1.7 Methodology Forums

The Methodology Forums ensure that the Methodology documentation for a new or modified index is written to the standards required by FTSE Russell. Specifically, Methodology documentation should be clear and unambiguous in order to ensure that the implementation of the index matches the expectations of index users and other stakeholders. Where a new index makes use of contributed input data (as defined in the European Benchmark Regulation), the Methodology Forum will ensure that a code of conduct is agreed with the contributor. Once assessed, recommendations for new or amended methodologies are put forward to the Index Governance Board for approval.

6.1.8 External Advisory Committees

The external Advisory Committees provide a valuable forum at which to consult stakeholders on Methodology changes proposed by FTSE Russell. They provide an independent discussion forum and their presence helps to mitigate against any perceived conflicts of interest that might otherwise influence FTSE Russell. External Advisory Committee members are appointed by FTSE Russell in recognition of their personal knowledge. Public minutes are published on the FTSE Russell website



along with the Advisory Committee terms of reference and the meeting dates for forthcoming committee meetings.

6.2 Oversight of Third Parties

The onboarding of third party providers is managed in accordance with the LSEG Third Party Relationship Management policy. Evaluation and oversight of the services provided to FTSE Russell is managed via its Service Review Boards. There are two Service Review Boards – one focusing on index management and the other on technology services. They each meet monthly. Each meeting reviews the services received from third parties against specific metrics to monitor if the services provided are in line with the agreed service levels. An escalation route is defined if metrics are breached. Periodic service review meetings are held with key third parties. For example, service review meetings are held with key third party data for accuracy and timeliness with queries directed to suppliers when information is missing or appears incorrect. A summary of these queries is presented to the FTSE Russell Oversight Committee.

6.3 Conflicts of Interest for Administrators

FTSE Russell has a process in place for the management and disclosure of any conflicts of interest that may arise. The process and associated Conflicts Register is reviewed approved by the FTSE Russell Index Management Board annually.

A summary of the types of potential conflicts of interest FTSE Russell may encounter and how they are mitigated is published on the FTSE Russell website at: <u>Benchmark Administration: Governance</u> and Conflicts of Interest Management (Iseg.com).

6.4 Control Framework for Administrators

FTSE Russell has a control framework in place to support and oversee the administration of its benchmarks and indices. The Control Framework is aligned to the IOSCO Principles for Financial Benchmarks and the LSEG Enterprise Risk Framework. It details a range of preventative, detective and corrective controls that are in operation and the accountable functions responsible for them.

6.5 Internal Oversight

FTSE Russell employs a three lines of defence model of internal oversight. The first line bodies are operated by FTSE Russell executive management. They act within the risk appetite set by the second line Oversight Committee. Internal Audit, is the third line of defence in the Group's risk control structure and has no operational responsibilities over FTSE Russell or the processes it reviews.



IOSCO Principle 1: Overall Responsibility of the Administrator

BMR Articles 4, 5, 6, 12 and 13: Governance and conflict of interest requirements, Oversight function requirements, Control framework requirements, Methodology and Transparency of methodology

Control Objective 1: Controls provide reasonable assurance that FTSE Russell retains primary responsibility for all aspects of the Benchmark determination process, including the development and determination of Benchmarks and establishment of credible and transparent governance, oversight, accountability and contingency procedures.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes: a) Development: The definition of	1.1 (3.5) (10.1)	Ground rules and methodologies for the in-scope indices and benchmarks are reviewed at least annually by the respective Methodology Forum. The FTSE Russell IGB receives confirmation that methodologies are reviewed on an annual basis and ratifies changes to the Ground Rules/methodologies.	For a sampled index series, inspected the Methodology Forum meeting minutes to confirm that the ground rules and methodologies had been reviewed by the respective Methodology Forum within the past 12 months.
the Benchmark and Benchmark Methodology;b) Determination and Dissemination: Accurate and timely compilation and			Further inspected the IGB meeting minutes to confirm that IGB had received confirmation of methodologies being reviewed and ratified changes to the Ground Rules/methodology.
publication and distribution of			Exception noted:
 the Benchmark; c) Operation: Ensuring appropriate transparency over significant decisions affecting the compilation of the Benchmark and any related determination process, including contingency 			For the sampled index series, one out of eight Ground Rules / Methodologies, the <i>Guide to Calculation Method for the Median</i> <i>Liquidity Test,</i> was not reviewed by the IGB within the past 12 months. Please refer to Section 8 for Management's response.



ab ma fai or d) Go	 measures in the event of absence of or insufficient inputs, market stress or disruption, failure of critical infrastructure, or other relevant factors; and d) Governance: Establishing 	1.2	The <u>FTSE Russell Policy for Benchmark Methodology</u> <u>Changes</u> is reviewed annually by the FTSE Russell Index Governance Board.	Inspected the FTSE Russell Policy for Benchmark Methodology Changes and relevant Index Governance Board meeting minutes to confirm that the Policy was reviewed within the past 12 months. No exception noted.
go ac the pre- ide ac de	edible and transparent overnance, oversight and ccountability procedures for e Benchmark determination rocess, including an entifiable oversight function ccountable for the evelopment, issuance and peration of the Benchmark.	1.3	Changes to existing methodologies are managed in line with the FTSE Russell Policy for Benchmark Methodology Changes.	For a recent change to existing methodology, inspected the IGB meeting minutes, consultation pack, index notices and the FTSE Russell Policy for Benchmark Methodology Changes to confirm that it was managed in line with the policy. No exception noted.
υμ		1.4	New methodologies are approved at the relevant FTSE Russell Methodology Forum. This meets monthly and minutes of the meeting are provided to the FTSE Russell Index Governance Board which endorses the recommendations agreed by the relevant Methodology Forum.	For a sampled new methodology, inspected the FTSE Russell Equity Methodology Forum meeting minutes to confirm approval. Further, inspected corresponding FTSE Russell Index Governance Board meeting minutes to confirm that the minutes of the Equity Methodology Forum meeting had been provided, and the recommendations were endorsed. No exception noted.
		1.5 <i>(2.5)</i>	Index and Data Service licensing agreements are signed for all new Index and Data Service providers.	For a sampled new Index and Data Service provider, inspected the data license



1.6	Review of the timeliness and publication of the benchmarks and indices in scope is performed at the monthly Index Service Review Board meetings.	agreement to confirm that it had been signed appropriately. No exception noted. Inspected monthly Index Service Review Board meeting minutes to confirm that a review of the timeliness and publication of the benchmarks and indices in scope had been performed. No exception noted.
1.7	The FTSE Russell IGB meets on a fortnightly basis or as otherwise required and considers such issues that may affect the compilation of the benchmarks. In arriving at its decisions it takes into account relevant index ground rules and associated methodologies including for example, the FTSE Russell Statement of Principles for FTSE Russell Equity Indices; the Statement of Principles for FTSE Fixed Income Indices; the FTSE Russell Index Policy for Trading Halts and Market Closures; and the Index Policy in the Event Clients are Unable to Trade a Market or a Security. The decisions of the IGB are minuted and records are retained.	Inspected a sample of IGB minutes to confirm that IGB met on a fortnightly basis, considered and discussed issues that may affect the compilation of the benchmarks, with the supplement of grounds rules and associated methodologies, and that the decisions and minutes are recorded and retained. No exception noted.
1.8	Terms of reference for the FTSE Board, FTSE Russell Index Governance Board and the FTSE Russell Oversight Committee are reviewed annually to corroborate primary responsibility for all aspects of the Benchmark determination process. Confirmation of the review having been completed is minuted at the	Inspected relevant email correspondence, meeting minutes, and the Terms of Reference for the FTSE Board, FTSE Russell Index Governance Board and the FTSE Russell Oversight Committee to confirm that each had been reviewed



	relevant meetings or through email correspondence and records are retained.	annually to corroborate primary responsibility for all aspects of the Benchmark determination process. No exception noted.
1.9 (6.3) (10.2) (12.3) (18.3)	In the event of significant decisions influencing benchmark compilation, deviations from standard procedures approved by the IGB, results of market consultations approved by IGB, material revisions to benchmark methodology, or when an ancillary index policy such as the FTSE Russell Statement of Principles for FTSE Russell Equity Indices; the Statement of Principles for FTSE Fixed Income Indices; the FTSE Russell Index Policy for Trading Halts and Market Closures; or the Index Policy in the Event Clients are Unable to Trade a Market or a Security is invoked, a technical notice is posted on the FTSE Russell website; records of which are retained for 5 years.	For a sampled event of significant decisions influencing benchmark compilation from 2023, inspected evidence to confirm that a notice was posted on the FTSE Russell website. Further inspected the FTSE Russell website to confirm that a 2018 significant decision influencing benchmark compilation was retained and in line with the 5 year record retention requirements. No exception noted.
1.10	FTSE Russell applies the LSEG Business Continuity Risk Policy, which is reviewed annually to ensure its ongoing relevance, effectiveness, and alignment with changing business environments, emerging risks, and regulatory requirements.	Inspected the LSEG Business Continuity Risk Policy to confirm that it outlined the approach for managing operational resilience and regulatory obligations and that a review had been carried out within the past 12 months. No exception noted.
1.11	In line with the LSEG Business Continuity Risk Policy, FTSE Russell performs business continuity tests annually.	Inspected the Business Continuity Test Description Document and Post-Scenario Test Report to confirm that FTSE Russell



		performed the annual business continuity test. No exception noted.
1.12 <i>(11.5)</i>	In the event of a failure of critical infrastructure impacting the distribution of a benchmark, notice is provided to clients.	For a sampled failure of critical infrastructure impacting the distribution of a benchmark, inspected evidence to confirm that the client notice was provided.



IOSCO Principle 2: Oversight of Third Parties

BMR Article 10: Outsourcing

Control Objective 2: Controls provide reasonable assurance that: FTSE Russell adopts clearly defined written arrangements with third parties involved in the Benchmark determination process, monitors compliance with their respective roles and obligations, and makes their identity and roles available to stakeholders and regulatory authorities.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
Where activities relating to the Benchmark determination process are undertaken by third parties - for example collection of inputs, publication or where a third-party acts as Calculation Agent - the Administrator should maintain appropriate oversight of such third parties. The Administrator (and its oversight function) should consider adopting policies and procedures that: a) Clearly define and substantiate	2.1	Third party service providers are evaluated, selected, contracted, and onboarded in line with the Group Third Party Risk Management (TPRM) policy, which establishes minimum requirements, standards, guidelines and procedures for effectively managing and overseeing the risks associated with engaging third-party service providers, throughout the lifecycle, involved in the benchmark determination process. This policy is reviewed on at least an annual basis.	Inspected Third Party Risk Management Policy (TPRM) policy to confirm that it establishes guidelines and procedures for effectively overseeing and managing the risks associated with third parties involved in the benchmark determination process and that it had been reviewed annually. Further, for a selected new supplier, inspected IGB update pack, the third party data vendor questionnaire and the data due diligence assessment to confirm that they had onboarded in line with the TPRM policy. No exception noted.
through appropriate written arrangements the roles and obligations of third parties who participate in the Benchmark determination process, as well as the standards the	2.2	The FTSE Russell Oversight Committee receives bi- monthly updates on the performance of third-party service providers, intra-group service providers and monitoring of queries with service providers at each of its meetings. Minutes from the Oversight Committee are collated and records kept.	For a sampled two-month period, inspected the Oversight Committee meeting minutes to confirm that it included updates on performance of third-party suppliers, intra- group service providers and monitor queries with data providers.



	Administrator expects these			No exception noted.
 b) Monitor third parties' comply with; b) Monitor third parties' compliance with the standards set out by the Administrator; c) Make Available to Stakeholders and any relevant Regulatory Authority the identity and roles of third parties who participate in the Benchmark determination process; and d) Take reasonable steps, 	2.3	FTSE Russell acknowledges in the FTSE Russell Benchmark Administration Manual that there is a requirement to ensure that contracts with third party service providers contain a clause regarding the identity and roles of third parties in the benchmark determination process. Upon request, the identity and roles of such third parties would be made available to stakeholders and regulatory authorities. The Manual is reviewed and updated as necessary on an annual basis, to ensure it remains up to date with industry best practice, group standards, and regulatory requirements.	Inspected the FTSE Russell Benchmark Administration Manual to confirm that it had been reviewed annually, and the requirement to make available the identity and roles of third parties to stakeholders and Regulatory Authorities is acknowledged therein. Through inquiry of Management, it was confirmed that no contracts were requested by stakeholders and regulatory authorities within the past 12 months. No exception noted.	
rel an thi	 including contingency plans, to avoid undue operational risk related to the participation of third parties in the Benchmark determination process. This Principle does not apply in relation to a third party from whom an Administrator sources data if that third party is a Regulated Market or Exchange. 	2.4	Management Information, including qualitative highlights and quantitative metrics, including any incidents related to third party service providers are reported to the Index Service Review Board and Technology Service Review Board. Each Board provides oversight and challenge to these services and meets on a monthly basis. Minutes from the Service Review Boards are documented, recorded, and retained.	For a sampled month, inspected the Index Service Review Board and Technology Service Review Board meeting minutes to confirm that they considered metrics and any incidents relating to the provision of services provided by third parties. No exception noted.
		2.5 (1.5)	FTSE Russell has established documented minimum requirements and ideal clauses in contractual templates across service categories. For new third- party service providers, including data providers, licensing agreements are signed prior to service being onboarded. Contracts are recorded and managed by	For a sampled new Index and Data Service provider, inspected the data license agreement to confirm that it had been signed appropriately. No exception noted.



	the Market Data team and reviewed in line with defined	
	renewal terms.	



IOSCO Principle 3: Conflicts of Interest for Administrators

BMR Article 4 and 5: Governance and conflict of interest requirements and Oversight function requirements

Control Objective 3: Controls provide reasonable assurance that FTSE Russell documents, implements, enforces and periodically updates policies and procedures for the identification, disclosure, management and avoidance of conflicts of interest, and discloses any material conflicts of interest to their users and regulatory authorities.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
To protect the integrity and independence of Benchmark determinations, Administrators should document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance of conflicts of interest. Administrators should review and update their policies and procedures as appropriate. Administrators should disclose any material conflicts of interest to their	3.1	FTSE Russell applies the LSEG Conflicts of Interest Policy for the identification, disclosure, management, mitigation and avoidance of conflicts of interest. This Policy is supplemented by the FTSE Russell Conflict of Interest Procedure, which details the process that is followed for benchmark determinations and states the requirement to disclose any high-risk conflicts of interest. These are both reviewed annually by the Index Management Board to ensure they are up to date with industry best practice and regulatory requirements.	Inspected the LSEG Conflicts of Interest Policy to confirm that it had been reviewed within the past 12 months and that FTSE Russell is subject to these procedures for the identification, disclosure, management, mitigation and avoidance of conflicts of interest. Inspected the FTSE Russell Conflicts of Interest Procedure to confirm that it had been reviewed within the past 12 months and detailed the process that is followed for benchmark determinations. No exception noted.
users and any relevant Regulatory Authority, if any. The framework should be appropriately tailored to the level of existing or potential conflicts of	3.2	In order to support the identification, disclosure and management of any conflicts of Interest, a FTSE Russell Conflicts of Interest register is maintained and reviewed at least annually by the Index Management Board.	Inspected the Conflicts of Interest Register and relevant Index Management Board meeting minutes to confirm that the register is maintained, supports the identification, disclosure and management of conflicts of



interest identified and the risks that the Benchmark poses and should seek to ensure:			interest, and had been reviewed within the past 12 months. No exception noted.
 a) Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations; b) Personal interests and connections or business connections do not compromise 	3.3	Annually, FTSE Russell employees involved in benchmark determination complete training on the Code of Conduct, which covers ethical behaviour, avoiding conflicts of interest, partnership with customers, fair treatment of employees and business partners, corporate governance best practices and risk management.	For a sampled employee involved in benchmark determination, inspected evidence from the central compliance system to confirm that they completed the Code of Conduct training which covered ethical behaviour, avoiding conflicts of interest, partnership with customers, fair
the Administrator's performance of its functions;			treatment of employees and business partners, corporate governance best practices and risk management.
c) Segregation of reporting lines within the Administrator, where			No exception noted.
 appropriate, to clearly define responsibilities and prevent unnecessary or undisclosed conflicts of interest or the perception of such conflicts; d) Adequate supervision and sign- off by authorised or qualified employees prior to releasing 	3.4	The document Benchmark Administration: Governance and Conflicts of Interest Management details the ways in which conflicts of interest are identified, prevented and managed. This is reviewed annually by the FTSE Russell IMB, and any required changes are applied accordingly. The document is available on the FTSE Russell website.	Inspected the Benchmark Administration: Governance and Conflicts of Interest Management document and relevant Index Management Board meeting minutes to confirm that the document details the ways in which conflicts of interest are identified, prevented and managed, and that it had been reviewed within the past 12 months by
Benchmark determinations;			the IMB. No exception noted.
 e) The confidentiality of data, information and other inputs submitted to, received by or produced by the Administrator, 	3.5 (1.1)	Ground rules and methodologies for the in-scope indices and benchmarks are reviewed at least annually by the respective Methodology Forum. The FTSE Russell IGB receives confirmation that methodologies	For a sampled index series, inspected the Methodology Forum meeting minutes to confirm that the ground rules and methodologies had been reviewed by the



	1			An LSEG Business
	subject to the disclosure obligations of the Administrator;	(10.1)	are reviewed on an annual basis and ratifies changes to the Ground Rules/methodologies.	respective Methodology Forum within the past 12 months.
f)	Effective procedures to control the exchange of information between staff engaged in activities involving a risk of conflicts of interest or between			Further inspected the IGB meeting minutes to confirm that IGB had received confirmation of methodologies being reviewed and ratified changes to the Ground Rules/methodology.
	staff and third parties, where			Exception noted:
g)	that information may reasonably affect any Benchmark determinations; and Adequate remuneration policies			For the sampled index series, one out of eight Ground Rules / Methodologies, the <i>Guide to Calculation Method for the Median</i> <i>Liquidity Test,</i> was not reviewed by the IGB
	that ensure all staff who			within the past 12 months.
	participate in the Benchmark determination are not directly or			Please refer to Section 8 for Management's response.
	indirectly rewarded or incentivised by the levels of the	3.6	The procedures FTSE Russell follows in the event that	Inspected the Exercise of Expert Judgement
	Benchmark.	(5.8)	a situation requires the application of Expert Judgment	in FTSE Russell Indexes Policy and Index
		. ,	is detailed in the Exercise of Expert Judgement in	Governance Board meeting minutes to
	Administrator's conflict of	(8.3)	FTSE Russell Indices, which applies to equity indices,	confirm that the procedures FTSE Russell
	erest framework should seek to igate existing or potential	(9.2)	and the Exercise of Expert Judgement in FTSE Fixed Income Indices, which applies to fixed income indices	follows in the event that a situation requires the application of Expert Judgment are
	flicts created by its ownership	(11.3)	policies.	detailed therein, and that the policy had
str	ucture or control, or due to other		These policies are reviewed and approved annually by	been reviewed and approved annually.
	erests the Administrator's staff or		the FTSE Russell Index Governance Board.	Inspected the Index Governance Board
	der group may have in relation to nchmark determinations. To this			meeting minutes to confirm that the exercise
	d, the framework should:		Any instance of expert judgment is recorded at the	of expert judgment had been recorded
	-,		FTSE Russell Index Governance Board, minutes of which are retained.	appropriately, with minutes retained, for a specific incident.



,	 a) Include measures to avoid, mitigate or disclose conflicts of interest that may exist between its Benchmark determination business (including all staff who perform or otherwise participate in Benchmark production responsibilities), and any other business of the Administrator or any of its affiliates; and b) Provide that an Administrator discloses conflicts of interest arising from the ownership structure or the control of the 		Any instance of expert judgment is recorded at the FTSE Russell Index Governance Board, minutes of which are retained.	No exception noted.
b)		3.7	In line with the FTSE Russell Conflict of Interest Procedure, FTSE Russell declarations by employees must be submitted via the LSEG online Central Compliance System. The declaration is then reviewed by the Compliance Team so that measures can be taken to ensure FTSE Russell's integrity is not compromised. On an annual basis all staff are required to certify that they comply with the LSEG Code of Conduct which includes requirements to avoid any conflicts of interest.	For a sampled employee, inspected the annual employee declaration form in the LSEG online Central Compliance System to confirm that they certified their compliance with the LSEG Code of Conduct which includes requirements to avoid any conflicts of interest and that the declaration has been reviewed by the Compliance Team. No exception noted.
	Administrator to its Stakeholders and any relevant Regulatory Authority in a timely manner.	3.8	The FTSE Russell Oversight Committee responsibilities are clearly defined via the respective terms of reference and accountability matrix which are reviewed annually. The Oversight Function is managed separately from any other part of the LSEG.	Inspected each FTSE Russell Oversight Function Terms of Reference and the accountability matrix to confirm that responsibilities are clearly defined, and that reviews have been carried out within the past 12 months. No exception noted.
		3.9	Records of production checklists and workflow processes are retained along with evidence of signoffs prior to publication of Benchmark determinations.	For a sampled day, inspected the production checklist to confirm that it detailed the workflow processes is completed and reviewed prior to the benchmark determination. No exception noted.



	3.10	FTSE Russell staff involved in benchmark determination complete the annual compliance certification in the central compliance system, which covers Code of Conduct, Anti-Bribery and Corruption, Conflicts of Interest, Confidentiality, Privacy and Data Protection, Dealing in LSEG Securities, Disclosure, Financial Crime, Gifts and Entertainment (G&E), Global Betting, Personal Account Dealing for Non- LSEG Securities, and Speak Up policies.	For a sampled employee involved in benchmark determination, inspected evidence from the central compliance system to confirm that they completed the Code of Conduct training which also covered Anti-Bribery and Corruption, Conflicts of Interest, Confidentiality, Privacy and Data Protection, Dealing in LSEG Securities, Disclosure, Financial Crime, Gifts and Entertainment (G&E), Global Betting, Personal Account Dealing for Non-LSEG Securities, and Speak Up policies. No exception noted.
	3.11 <i>(4.8)</i>	All staff involved in benchmark determination are required to complete a BMR training course annually, which includes obligations regarding conflicts of interest and confidentiality. Records of completion are retained.	For a sampled employee involved in benchmark determination, inspected the training record and details to confirm that the annual BMR training had been completed, which included obligations regarding conflicts of interest and confidentiality.
	3.12	At each meeting of the Oversight Committee participants are reminded of their obligations regarding conflicts of interest. In the event that any such conflict is declared or identified it is managed in line with the FTSE Russell Conflict of Interest Procedures.	For a sampled month, inspected the Oversight Committee meeting minutes to confirm that participants were reminded of their obligations regarding conflicts of interest; and no conflicts of interest were declared or identified. Through inquiry, Management confirmed that there were no



		such instances declared or identified within the past 12 months. For a selected potential conflict from the Conflicts of Interest register, inspected evidence that it had been managed in line with the FTSE Russell Conflicts of Interest Procedures. No exception noted.
3.13	Confirmation that all staff who participate in the Benchmark determination are not directly or indirectly rewarded or incentivised by the levels of the Benchmark is provided in the Remuneration Policy which is considered annually by the FTSE Board.	Inspected the Remuneration Policy to confirm that staff who participate in benchmark determination were not directly or indirectly rewarded or incentivised by benchmark levels. Further inspected FTSE Board minutes to confirm that the policy had been considered annually. No exception noted.
3.14	FTSE Russell acknowledges the requirements to disclose material conflicts of interests to users and Regulatory Authorities in its internal FTSE Russell Benchmark Administration Manual. The Manual is reviewed annually at the Index Management Board.	Inspected the FTSE Russell Benchmark Administration Manual and relevant IMB meeting minutes, to confirm that it had been annually reviewed and that FTSE Russell acknowledges the requirements to disclose material conflicts of interests to users and Regulatory Authorities. No exception noted.



IOSCO Principle 4: Control Framework for Administrators

BMR Article 6: Control framework requirements

Control Objective 4: Controls provide reasonable assurance that FTSE Russell documents, implements, periodically updates and makes available a control framework for the process of determining and distributing the Benchmark, which accounts for conflicts of interest, integrity and quality of Benchmark determination, whistleblowing, risk management and staff expertise.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
An Administrator should implement an appropriate control framework for the process of determining and distributing the Benchmark. The control framework should be appropriately tailored to the materiality of the potential or existing conflicts of interest identified the extent of the use of discretion in the Benchmark setting process and to the nature of Benchmark inputs and outputs. The	a appropriate control framework r the process of determining and stributing the Benchmark. The photol framework should be poropriately tailored to the ateriality of the potential or tisting conflicts of interest entified the extent of the use of scretion in the Benchmark setting ocess and to the nature of	FTSE Russell has a control framework in place which includes controls around conflicts of interest, integrity and quality of Benchmark determination, whistleblowing mechanisms, expertise, and risk management policies and procedures. The Control Framework, and a summary of its features, are made available to stakeholders and regulatory authorities upon request. This is reviewed at least annually by the Index Management Board.	Inspected the control framework and the IMB meeting minutes to confirm that FTSE Russell has a control framework in place and that it has been reviewed by the Index Management Board within the past 12 months. Inquired of Management to confirm that stakeholders or regulatory authorities had not requested the control matrix within the past 12 months. No exception noted.
control framework should be documented and available to relevant Regulatory Authorities, if any. A summary of its main features should be Published or Made Available to Stakeholders. This control framework should be reviewed periodically and updated	4.2	Any issues relating to Benchmark inputs are considered at the monthly Operations Committee and supporting service review boards and are reported to the Oversight Committee. Minutes of these meetings are retained.	Inspected meeting minutes for the Operations Committee, Index Service and Technology Service Review Boards, to confirm that issues relating to benchmark inputs had been considered. Further inspected Oversight Committee meetings minutes to confirm that benchmark input issues had been reported where



as appropriate. The should address the			relevant. In all instance, minutes were retained as part of evidence.
 a) Conflicts of inter Principle 3 on co interests; b) Integrity and que 	onflicts of 4.3	Complaints received from stakeholders are handled in accordance with the FTSE Russell Benchmark	No exception noted. Inspected the FTSE Russell Benchmark Determination Complaints-Handling Policy
 Benchmark deter i. Arrangements to quality and integent Benchmarks is a line with principle the quality of the 	ermination: o ensure that the grity of maintained, in les 6 to 15 on e Benchmark	$\frac{1}{2} = \frac{1}{2} + \frac{1}$	to confirm that the policy has stated that complaints or queries are allowed to be submitted electronically via a dedicated email address (info@ftserussell.com) and has outlined the process for handling and escalating complaints. Further inspected the IGB meeting minutes to confirm that a
 and Methodolog ii. Arrangements to integrity of Bend including adequ diligence on inp iii. Arrangements to accountability a mechanisms are line with principle 	o promote the chmark inputs, ate due ut sources; o ensure nd complaints	complaints, with the FTSE Russell Client Service team recording complaints centrally via the online ticketing system. The resolution of complaints is managed by the respective teams and overseen at weekly meetings, and all communication and records related to complaints are logged to the corresponding ticket. If, following the investigation of a complaint, it is determined that the Benchmark in question should be recalculated or restated, a notice is issued to	review has been conducted by the IGB within the past 12 months. Inspected sampled complaints received in 2018 and 2023 respectively, to confirm that each complaint was handled in accordance with the FTSE Russell Benchmark Determination Complaints-Handling Policy and that the records are retained for five years.
iv. Providing robus policies and pro management of operational risk.	risk, including	subscribing clients. These records are retained for five years. FTSE Russell applies the LSEG Enterprise Risk	No exception noted. Inspected the LSEG Enterprise Risk
c) Whistleblowing		Management Framework which includes requirements for regular risk identification and assessment and ongoing risk reporting and monitoring. The LSEG	Management Framework to confirm that it had been reviewed within the past 12 months and included requirements for



Administrators should establish an effective whistleblowing mechanism to facilitate early awareness of any potential misconduct or irregularities		Enterprise Risk Management Framework is reviewed annually.	regular risk identification and assessment and ongoing risk reporting and monitoring. No exception noted.
 that may arise. This mechanism should allow for external reporting of such cases where appropriate. d) Expertise: Ensuring Benchmark determinations are made by personnel who possess the relevant levels of expertise, with a process for periodic review of their competence; and Staff training, including ethics and conflicts of interest training, and continuity and succession planning for personnel 	4.5	FTSE Russell applies the LSEG whistleblowing mechanism which is detailed in the Group's 'Speak Up' Policy. The policy outlines the procedure for concerns to be raised via a confidential 24-hour hotline or via a dedicated online site and details how the concerns will be investigated. This mechanism allows for external reporting of such cases where appropriate. In the event of a concern being raised, an investigation is performed in line with the Speak Up Procedures. This policy and consequently the underlying whistleblowing mechanism is reviewed annually by Group General Counsel. If there are material amendments to the Policy, it will also go to the Board for approval.	Inspected the Group's 'Speak Up' Policy to confirm that the LSEG whistleblowing procedure include details on the confidential 24-hour hotline, dedicated online site and how concerns will be investigated. Inspected email correspondence to confirm that the policy and underlying whistleblowing procedures were reviewed by Group General Counsel within the past 12 months. Inspected Board meeting minutes to confirm that the Policy had been approved by the Board as a result of material changes made. For a sampled whistleblowing event, inspected the case report to confirm that an investigation had been performed in line with the Speak Up Procedures. No exception noted.
	4.6	To ensure that all employees including the Board have the relevant skills, knowledge and experience to conduct their roles, FTSE International Limited follows the Group's hiring process, mandatory training framework and performance management process. All candidates are reviewed and screened followed by interviews and in some cases, online assessments depending on the type of role. All staff are required to	For a sampled hiring position, inspected the workday record to confirm that candidates are reviewed, screened, interviewed and have completed online assessments (where required) and that FTSE International Limited followed the Group's hiring process.



	complete mandatory annual training relevant to their roles including the requirements of the EU and UK BMR and LSEG's Code of Conduct. All staff undergoes an annual performance review, wherein objectives are set at the beginning of the year, quarterly reviews are held to against the objectives and receiving assessments with a year-end rating.	For a sampled employee, inspected the training record and to confirm that the employee has completed the mandatory annual training relevant to their role including the requirements of the EU and UK BMR and the LSEG Group's Code of Conduct.
		For a sampled employee, inspected the workday record to confirm that the employee has undergone an annual performance review, wherein objectives are set at the beginning of the year, quarterly reviews are held to against the objectives and receiving assessments with a year-end rating.
		No exception noted.
4.7	Through the annual succession planning process, Directors and Group Directors are assessed against an established internal criteria for leadership potential and progression to evaluate their development and expertise, to facilitate business continuity.	For a sampled Director/Group Director, inspected the Talent ID procedure and the assessment records to confirm that the employee had been assessed against an established internal criteria for leadership potential and progression.
		No exception noted.
4.8 (3.11)	All staff involved in benchmark determination are required to complete a BMR training course annually, which includes obligations regarding conflicts of interest and confidentiality. Records of completion are retained.	For a sampled employee involved in benchmark determination, inspected the training record and details to confirm that the annual BMR training had been completed, which included obligations



	regarding conflicts of interest and confidentiality.
	No exception noted.



IOSCO Principle 5: Internal Oversight

BMR Article 5: Oversight function requirements

Control Objective 5: Controls provide reasonable assurance that FTSE Russell establishes an independently governed and clearly defined oversight function, which provides challenge on all aspects of the Benchmark determination process including design, integrity, control framework and termination procedures, with detailed procedures made available to regulatory authorities and stakeholders.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
Administrators should establish an oversight function to review and provide challenge on all aspects of the Benchmark determination process. This should include consideration of the features and intended, expected or known usage of the Benchmark and the materiality of existing or potential conflicts of interest identified. The oversight function should be carried out either by a separate committee, or other appropriate governance arrangements. The oversight function and its composition should be appropriate to provide effective scrutiny of the Administrator. Such oversight function could consider groups of	5.1	The governance arrangements which make up the FTSE Russell Oversight Function are documented and summarised in the Governance Framework document on the FTSE Russell website, the document is updated and reviewed by IMB as required to reflect changes.	Inspected the Governance Framework document and the IMB meeting minutes to confirm that the governance arrangements which make up the FTSE Russell Oversight Function are documented and summarised in the Governance Framework document which is available on the FTSE Russell website. Inspected evidence to confirm that the document is updated and reviewed by IMB as required to reflect changes on an annual basis. No exception noted.
function could consider groups of Benchmarks by type or asset class, provided that it otherwise complies with this Principle.	5.2	The Oversight Function comprises internal representatives from first and second line functions, as stated in the FTSE Russell Governance Framework document.	Inspected Terms of Reference for each oversight function, sign-off emails and meeting minutes to confirm that each Terms of Reference included membership details and responsibilities



 An Administrator should develop and maintain robust procedures regarding its oversight function, which should be documented and available to relevant Regulatory Authorities, if any. The main features of the procedures should be Made Available to Stakeholders. These procedures should include: a) The terms of reference of the oversight function; b) Criteria to select members of the 		Selection process, Membership details and responsibilities are noted in the respective terms of reference for the FTSE Index Management Board, FTSE Russell Index Governance Board and FTSE Russell Oversight Committee. Annual reviews for the terms of reference and the FTSE Russell Governance Framework are performed annually and retained for record- keeping.	and that a review for each Terms of Reference has been conducted within the past 12 months. Inspected the FTSE Russell Governance Framework and IMB meeting minutes to confirm that the Oversight Function contains representatives from both first and second line functions and that a review has been conducted within the past 12 months. No exception noted.
 b) Chieffa to select members of the oversight function; c) The summary details of membership of any committee or arrangement charged with the oversight function, along with any declarations of conflicts of interest and processes for election, nomination or removal and replacement of committee members. The responsibilities of the oversight function include: 	5.3	Meetings of the FTSE Russell IGB are held every 2 weeks, or more frequently if required. Minutes from the respective Forums are provided to the IGB which detail the approach for the design of new benchmarks and the periodic review of methodologies. Minutes from the IGB are retained.	Inspected IGB Terms of Reference to confirm that FTSE Russell IGB meetings were held every 2 weeks, or more frequently if required. For a sampled Methodology Forum, inspected the respected forum minutes and the IGB meeting minutes to confirm that the forum had discussed the approach for the design of new
 a) Oversight of the Benchmark design: i. Periodic review of the definition of the Benchmark and its Methodology; ii. Taking measures to remain informed about issues and risks to the 			benchmarks and periodic review of methodologies and that the details of the discussion were provided and reviewed by the IGB; furthermore, the meeting minutes were retained. No exception noted.
Benchmark, as well as commissioning	5.4	The IGB considers issues of risk to the Benchmark that may arise and determines the course of action	Inspected a sample of IGB meeting pack and the Oversight Committee meeting



external reviews of the Benchmark (as appropriate);

- iii. Overseeing any changes to the Benchmark Methodology, including assessing whether the Methodology continues to appropriately measure the underlying Interest, reviewing proposed and implemented changes to the Methodology, and authorising or requesting the Administrator to undertake a consultation with Stakeholders where known or its Subscribers on such changes as per Principle 12; and
- iv. Reviewing and approving procedures for termination of the Benchmark, including guidelines that set out how the Administrator should consult with Stakeholders about such cessation.
- b) Oversight of the integrity of Benchmark determination and control framework:
- Overseeing the management and operation of the Benchmark, including activities related to Benchmark determination undertaken by a third party;
- ii. Considering the results of internal and external audits, and following up on the implementation of remedial actions

		An LSEG Business
	required to address such issues and risks. Summaries of such issues are provided at the Oversight Committee meetings.	minutes to confirm that IGB has considered issues of risk to the Benchmark and determined the course of action required to address such issues and risks, and that summaries of such issues and course of action had been provided at the following Oversight Committee meeting. No exception noted.
5.5 (12.4)	The IGB oversees any changes to the Benchmark Methodology and consultations with Stakeholders in accordance with the application of the <u>FTSE</u> <u>Russell Policy for Benchmark Methodology</u> <u>Changes</u> . This policy is reviewed and approved annually by the FTSE Russell IGB, minutes of which are retained.	Inspected the FTSE Russell Policy for Benchmark Methodology Changes and the IGB meeting minutes to confirm that it has been reviewed by the IGB within the past 12 months. For a sampled change to the Benchmark Methodology and consultation with Stakeholders, inspected the IGB meeting minutes, consultation notice and technical notice to confirm that IGB has overseen the change in accordance with the application of the FTSE Russell Benchmark Methodology Changes Policy. No exception noted.
5.6 (13.1)	Any decommissions are managed in accordance with the <u>FTSE Russell Index Series</u> <u>Decommissioning Statement</u> , which is published on the FTSE Russell website. This Statement is	Inquired of Management to confirm that there were no instances of in-scope decommissioned indices within the past 12 months.



 highlighted in the results of these audits; and iii. Overseeing any exercise of Expert Judgment by the Administrator and ensuring Published Methodologies have been followed. Where conflicts of interests may arise in the Administrator due to its ownership structures or controlling interests, or due to other activities conducted by any entity owning or controlling the Administrator or by the Administrator or any of its affiliates: the Administrator should establish an independent oversight function which includes a balanced representation of a range of Stakeholders where known, Subscribers and Submitters, which is 		reviewed and approved annually by the FTSE Russell Index Governance Board.	Inspected the FTSE Russell Index Series Decommissioning Statement to confirm that outlines the procedures to be followed when decommissioning an index, which are homogenous regardless of index family, and that it was reviewed by the IGB within the past 12 months and published on FTSE Russell Website. For a sampled out of scope decommissioned index, inspected the decommissioning proposal, IPC meeting minutes, Oversight Committee meeting
			minutes and client notice to confirm that it was managed in accordance with the FTSE Russell Index Series Decommissioning Statement. No exception noted.
chosen to counterbalance the relevant conflict of interest.	5.7 (17.3)	Results of internal and external audits are considered at the FTSE Board and updates on the implementation of remedial actions are provided until action closure has been evidenced and confirmed.	Inspected the FTSE Board meeting minutes to confirm that results of audits had been considered and updates on the implementation of remedial actions has been provided to enable tracking to closure. No exception noted.
	5.8 (3.6) (8.3)	The procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment is detailed in the <u>Exercise of Expert</u> <u>Judgement in FTSE Russell Indices</u> , which applies to equity indices, and the <u>Exercise of Expert</u>	Inspected the Exercise of Expert Judgement in FTSE Russell Indexes Policy and Index Governance Board meeting minutes to confirm that the procedures FTSE Russell follows in the



(9.2) (11.3)	Judgement in FTSE Fixed Income Indices, which applies to fixed income indices policies. These policies are reviewed and approved annually by the FTSE Russell Index Governance Board. Any instance of expert judgment is recorded at the FTSE Russell Index Governance Board, minutes of which are retained.	event that a situation requires the application of Expert Judgment are detailed therein, and that the policy had been reviewed and approved annually. Inspected the Index Governance Board meeting minutes to confirm that the exercise of expert judgment had been recorded appropriately, with minutes retained, for a specific incident.
		No exception noted.



B. Quality of the Benchmark

105	CO Principle	BMR Article(s)	
6	Benchmark Design	11, 12	Input data, Methodology
7	Data Sufficiency	11	Input data
8	Hierarchy of Data Inputs	11	Input data
9	Transparency of Benchmark Determinations	13	Transparency of methodology
10	Periodic Review	12, 13	Methodology, Transparency of methodology

6.6 Benchmark Design

When designing a new index or considering changes to an existing index, proposals are put to the relevant Technical and Operational forums for consideration. The forums will consider how the proposed index will be managed on an ongoing basis and how that can be reflected in the Ground Rules and associated internal procedures and workflows. Ground Rules detailing the methodology will be submitted to the relevant Methodology forum and published when approval has been provided.

6.7 Data Sufficiency

Data used by FTSE Russell to construct Benchmarks is based on credible prices, rates, indices or values derived from active markets; including real-time and end-of-day input and FX data, obtained from readily available data sources. Prices are anchored to transactions and are sourced from exchanges and third-party venues via third party data providers.

6.8 Hierarchy of Data Inputs

The ground rules and methodologies for the in-scope indices and benchmarks specify the data inputs used. Data inputs include pricing and non-pricing data.

6.9 Transparency of Benchmark Determinations

Ground rules, methodologies and associated documents for all FTSE Russell indices and benchmarks are published on its website. The ground rules for each index series detail the index objectives, eligibility criteria, frequency of review, data inputs and supporting policies. These documents are created by subject matter experts and reviewed and approved via the FTSE Russell governance framework.

6.10 Periodic Review

Ground rules and methodologies for the in-scope indices and benchmarks are reviewed at least annually by the respective Methodology Forum. The process detailed in the <u>FTSE Russell Policy for</u> <u>Benchmark Methodology Changes</u> is followed where changes are recommended.

The Methodologies are designed to minimise the use of expert judgement, but in the event that a situation does require it be applied, the approach is as detailed in the <u>Exercise of Expert Judgement in</u> <u>FTSE Russell Indices</u> policy. Any use of expert judgement is considered by the Index Governance Board.



IOSCO Principle 6: Benchmark Design

BMR Articles 11 and 12: Input data and Methodology

Control Objective 6: Controls provide reasonable assurance that FTSE Russell designs Benchmarks which accurately reflect the economic realities of the interest that the Benchmark seeks to measure, and eliminate factors that might result in Benchmark distortion.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure, and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark. Benchmark design should take into account the following generic non-exclusive features, and other factors should	6.1	The Ground Rules for all key benchmarks specify the eligibility criteria, index objectives, and potential policies for addressing distortion. These rules are reviewed annually at the relevant Methodology forum and ratified by the FTSE Russell Index Governance Board. The aim is to ensure accuracy, reliability, and alignment with benchmark design and eliminate factors that could result in price, rate, index, or value.	For a sample of in-scope index, inspected the Ground Rules document to confirm that it specified the eligibility criteria, index objectives, and potential policies for addressing distortion. Furthermore, inspected the corresponding Methodology Forum meeting minutes and IGB meeting minutes to confirm that it had been reviewed annually at Methodology Forum and ratified by the IGB. No exception noted.
 be considered, as appropriate to the particular Interest: a) Adequacy of the sample used to represent the Interest; b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing); 	6.2	The Ground Rules for all key benchmarks state the period of index review/reconstitution. A schedule of such dates is published on FTSERussell.com annually.	For a selected index, inspected the Ground Rules document to confirm the period of index review/ reconstitution is stated, and that it had been annually published on the website. No exception noted.
	6.3	In the event of significant decisions influencing benchmark compilation, deviations from standard	For a sampled event of significant decisions influencing benchmark compilation from



c) Relative size of the underlying	(1.9)	procedures approved by the IGB, results of market	2023, inspected evidence to confirm that a
market in relation to the volume	(10.2)	consultations approved by IGB, material revisions to	notice was posted on the FTSE Russell
of trading in the market that		benchmark methodology, or when an ancillary index	website.
references the Benchmark;	(12.3)	policy such as the FTSE Russell Statement of	Further inspected the FTSE Russell website
d) The distribution of trading	(18.3)	Principles for FTSE Russell Equity Indices; the	to confirm that a 2018 significant decision
among Market Participants		Statement of Principles for FTSE Fixed Income	influencing benchmark compilation was
(market concentration);		Indices; the Statement of Principles for FTSE Russell	retained and in line with the 5 year record
(market boliocritication),		Equity Indices the FTSE Russell Index Policy for	
e) Market dynamics (e.g., to		Trading Halts and Market Closures; or the Index Policy	retention requirements.
ensure that the Benchmark		in the Event Clients are Unable to Trade a Market or a	No exception noted.
reflects changes to the assets		Security is invoked, a technical notice is posted on the	
underpinning a Benchmark).		FTSE Russell website; records of which are retained	
		for 5 years.	



IOSCO Principle 7: Data Sufficiency

BMR Article 11: Input data

Control Objective 7: Controls provide reasonable assurance that data used by FTSE Russell to construct Benchmarks is based on credible prices, rates, indices or values derived from active markets.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
 The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should: a) Be based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand in order to provide confidence that the price discovery system is reliable; and b) Be anchored by observable transactions entered into at arm's length between buyers and sellers in the market for the Interest the Benchmark measures in order for it to function as a credible indicator of prices, rates, indices or values. 	7.1 (8.1)	Data used for constructing benchmarks is sourced from credible prices, rates, indices, and values derived from active markets. This includes real- time and end-of-day input, as well as FX data obtained from readily available data sources such as exchanges and third-party venues via third- party data providers. The data used is specified in the ground rules and Calculation Methods documents, which are reviewed annually by the relevant Methodology Forum.	For a sampled index series, inspected the Ground Rules, Calculation Methodology document and relevant Methodology Forum meeting minutes to confirm that data used for constructing benchmarks is specified therein, and that a review had been conducted by the respective Methodology Forum within the past 12 months. No exception noted.
	7.2 (15.5)	Automated price tolerance alerting and monitoring is in place. Index and stock price tolerance parameters are assigned when stocks are added to the index platform. An annual review of price tolerance levels is conducted by the Index Change team to verify the correct parameters have been set.	Observed the automated price tolerance and alerting in FREDD and DMC to confirm that the alerting and monitoring is in place and that index and stock price tolerance parameters are assigned when stocks are added to the index platform. Inspected evidence to confirm that an annual review of price tolerance levels had been conducted by the Index



This Principle requires that a Benchmark be based upon (i.e., anchored in) an active market having observable Bona Fide, Arms- Length Transactions. This does not mean that every individual Benchmark determination must be constructed solely of transaction data. Provided that an active market exists, conditions in the market on any given day might require the Administrator to rely on different forms of data tied to observable market data as an adjunct or supplement to transactions. Depending upon the Administrator's Methodology, this could result in an individual Benchmark determination being based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions. This is further clarified in Principle 8.			Change team to verify that the correct parameters had been set. No exception noted.
	7.3	Provision of pricing, other data inputs and any issues associated with reliability is considered at the monthly Index Service Review Board and reported at each Oversight Committee.	For a sampled month, inspected the Index Service Review Board meeting minutes to confirm that the provision of pricing, other data inputs and any issues associated with reliability had been considered and reported to the Oversight Committee. Further inspected the Oversight Committee meeting minutes to confirm it was reported. No exception noted.
Provided that subparagraphs (a) and (b) above are met, Principle 7 does not preclude Benchmark Administrators from using executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of Bona Fide, Arms-Length transactions. This Principle also recognizes that various indices may be designed to measure or reflect the performance of a rule-based investment strategy, the volatility or behaviour of an index or market or other			



aspects of an active market. Principle 7		
does not preclude the use of		
nontransactional data for such indices that		
are not designed to represent transactions		
and where the nature of the index is such		
that non-transactional data is used to reflect		
what the index is designed to measure. For		
example, certain volatility indices, which are		
designed to measure the expected volatility		
of an index of securities transactions, rely		
on non-transactional data, but the data is		
derived from and thus "anchored" in an		
actual functioning securities or options		
market.		



IOSCO Principle 8: Hierarchy of Data Inputs

BMR Article 11: Input data

Control Objective 8: Controls provide reasonable assurance that FTSE Russell publishes clear guidelines regarding the hierarchy of data inputs and the exercise of Expert Judgment used for the determination of Benchmarks.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
 An Administrator should establish and Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks. In general, the hierarchy of data inputs should include: a) Where a Benchmark is dependent upon Submissions, the Submitters' own concluded arms-length transactions in the underlying interest or related markets; 	8.1 (7.1)	Data used for constructing benchmarks is sourced from credible prices, rates, indices, and values derived from active markets. This includes real- time and end-of-day input, as well as FX data obtained from readily available data sources such as exchanges and third-party venues via third- party data providers. The data used is specified in the ground rules and Calculation Methods documents, which are reviewed annually by the relevant Methodology Forum.	For a sampled index series, inspected the Ground Rules, Calculation Methodology document and relevant Methodology Forum meeting minutes to confirm that data used for constructing benchmarks is specified therein, and that a review had been conducted by the respective Methodology Forum within the past 12 months. No exception noted.
 b) Reported or observed concluded Arm's- length Transactions in the underlying interest; c) Reported or observed concluded Arm's- 	8.2	On a daily basis, the Index Management team complete a checklist, which includes checks against secondary sources that feed data into index calculations, Checklists are signed and retained in SharePoint.	For a sampled day, inspected SharePoint and the daily checklist to confirm that checks against secondary sources that feed data into index calculations had been performed, and that the checklist
d) Firm (executable) bids and offers; and			had been signed and retained.
e) Other market information or Expert Judgments.	8.3 <i>(3.6)</i>	The procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment is detailed in the Exercise of Expert	Inspected the Exercise of Expert Judgement in FTSE Russell Indexes Policy and Index Governance Board



Provided that the Data Sufficiency Principle is met (i.e., an active market exists), this Principle is not intended to restrict an Administrator's flexibility to use inputs consistent with the Administrator's approach to ensuring the quality, integrity, continuity and reliability of its Benchmark determinations, as set out in the Administrator's Methodology. The Administrator should retain flexibility to use the inputs it believes are appropriate under its Methodology to ensure the quality and integrity of its Benchmark. For example, certain Administrators may decide to rely upon Expert Judgment in an active albeit low liquidity market, when transactions may not be consistently available each day. IOSCO also recognizes that there might be circumstances (e.g., a low liquidity market) when a confirmed bid or offer might carry more meaning than an outlier transaction. Under these circumstances, non- transactional data such as bids and offers and extrapolations from prior transactions might predominate in a given Benchmark determination.	(5.8) (9.2) (11.3)	Judgement in FTSE Russell Indices, which applies to equity indices, and the Exercise of Expert Judgement in FTSE Fixed Income Indices, which applies to fixed income indices policies. These policies are reviewed and approved annually by the FTSE Russell Index Governance Board. Any instance of expert judgment is recorded at the FTSE Russell Index Governance Board, minutes of which are retained.	meeting minutes to confirm that the procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment are detailed therein, and that the policy had been reviewed and approved within the past 12 months. Inspected the Index Governance Board meeting minutes to confirm that the exercise of expert judgment had been recorded appropriately, with minutes retained, for a specific incident. No exception noted.
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IOSCO Principle 9: Transparency of Benchmark Determinations

BMR Article 13: Transparency of methodology

Control Objective 9: Controls provide reasonable assurance that FTSE Russell's methodology, including details on market size, liquidity, pricing methodologies, and the extent of expert judgment applied, is thoroughly documented and accessible, ensuring transparency and accountability in benchmark determinations.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
 The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline: a) A concise explanation, sufficient to facilitate a Stakeholder's or Market Authority's ability to understand how the determination was developed, including, at a minimum, the size and liquidity of the market being assessed (meaning the number and volume of transactions submitted), the range and average 	9.1	The FTSE Russell Methodology Forums review all new methodology documents and associated policies, and changes to existing ones to ensure documentation is published which provides transparent details on market size, liquidity, pricing methodologies, and the extent of expert judgment applied. Methodology Forum meetings are held monthly, and outcomes are minuted. Copies of the minutes are provided to the FTSE Russell Index Governance Board for approval.	For a sampled month and asset class, inspected the Methodology Forum meeting minutes to confirm that they reviewed all new methodology documents and associated policies, and changes to existing ones. Further inspected the IGB meeting minutes to confirm that a copy of the Methodology Forum minutes was provided and approved by the IGB. No exception noted.
volume and range and average of price, and indicative percentages of each type of market data that have been considered in a Benchmark determination; terms referring to the pricing Methodology should be included (i.e., transaction-based, spread-based or interpolated/extrapolated);	9.2 (3.6) (5.8) (8.3) (11.3)	The procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment is detailed in the <u>Exercise of Expert</u> <u>Judgement in FTSE Russell Indices</u> , which applies to equity indices, and the <u>Exercise of Expert</u> <u>Judgement in FTSE Fixed Income Indices</u> , which applies to fixed income indices policies.	Inspected the Exercise of Expert Judgement in FTSE Russell Indexes Policy and Index Governance Board meeting minutes to confirm that the procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment are



 b) A concise explanation of the extent to which and the basis upon which Expert Judgment if any, was used in establishing a Benchmark determination. 	These policies are reviewed and approved annually by the FTSE Russell Index Governance Board. Any instance of expert judgment is recorded at the FTSE Russell Index Governance Board, minutes of which are retained.	detailed therein, and that the policy had been reviewed and approved annually. Inspected the Index Governance Board meeting minutes to confirm that the exercise of expert judgment had been recorded appropriately, with minutes retained, for a specific incident. No exception noted.
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IOSCO Principle 10: Periodic Review

BMR Articles 12 and 13: Methodology and Transparency of methodology

Control Objective 10: Controls provide reasonable assurance that FTSE Russell periodically reviews underlying interest conditions to determine if any structural changes necessitate amendments to Benchmark design, and publishes a summary of these reviews, including the rationale for any material revisions made to the Benchmark.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
The Administrator should periodically review the conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has undergone structural changes that might	10.1 (1.1) (3.5)	Ground rules and methodologies for the in-scope indices and benchmarks are reviewed at least annually by the respective Methodology Forum. The FTSE Russell IGB receives confirmation that methodologies are reviewed on an annual basis and ratifies changes to the Ground Rules/methodologies.	For a sampled index series, inspected the Methodology Forum meeting minutes to confirm that the ground rules and methodologies had been reviewed by the respective methodology forum within the past 12 months.
require changes to the design of the Methodology. The Administrator also should periodically review whether the Interest has diminished or is non-functioning such that it can no longer function as the basis for a			Further inspected the IGB meeting minutes to confirm that IGB has received confirmation of methodologies being reviewed and ratified changes to the Ground Rules/methodologies.
credible Benchmark.			Exception noted:
The Administrator should Publish or Make Available a summary of such reviews where material revisions have been made to a Benchmark, including the rationale for the revisions.			For the sampled index series, one out of eight Ground Rules / Methodologies, the <i>Guide to Calculation Method for the Median</i> <i>Liquidity Test,</i> was not reviewed by the IGB within the past 12 months. Please refer to Section 8 for Management's
			response.



(1.9)benchmark compilation, deviations from standard procedures approved by the IGB, results of market consultations approved by IGB, material revisions to benchmark methodology, or when an ancillary index policy such as the FTSE Russell Statement of Principles for FTSE Russell Equity Indices; the Statement of Principles for FTSE Russell Index Policy for Trading Halts and Market Closures; or the Index Policy in the Event Clients are Unable to Trade a Market or a	For a sampled event of significant decisions influencing benchmark compilation from 2023, inspected evidence to confirm that a notice was posted on the FTSE Russell website. Further inspected the FTSE Russell website to confirm that a 2018 significant decision influencing benchmark compilation was retained and in line with the 5 year record retention requirements. No exception noted.
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C. Quality of the Methodology

105	CO Principle	BMR Article(s)	
11	Content of the Methodology	12, 13	Methodology, Transparency of methodology
12	Changes to the Methodology	13	Transparency of methodology
13	Transition	28	Changes to and cessation of a benchmark
14	Submitter Code of Conduct	15, 16	Code of conduct, Governance and control requirements for supervised contributors
15	Internal Controls over Data Collection	11	Input data

6.11 FTSE Russell Methodology Documentation

In order for the performance of financial indices to be replicable in user portfolios, index users require the calculation of indices to be conducted according to transparent and objective rules and procedures. The documents that set out these rules and procedures for an index or index series are collectively referred to in this Statement as the index Methodology.

The Methodology documents specify how index constituents are chosen, and the frequency with which the list of constituents is updated. This update process is designed to ensure that the index continues to remain representative of the market it is intended to represent, and is variously known as an index "review" (for FTSE indices and Fixed Income Benchmarks) or an index "reconstitution" (for Russell indices). The Methodology documents also set out how the index is to be maintained between reviews/reconstitutions in the face of corporate events and corporate actions.

This section summarises the index Methodology documents and the oversight and procedures that govern amendments and enhancements to the Methodologies.

6.11.1 Index Methodologies

FTSE Russell indices have transparent, publicly available Methodology documents. For FTSE indices and the Fixed Income Benchmarks, several documents combine to form the index Methodology: these include the index Ground Rules, Guides to Calculation, Corporate Actions and Event Guides, and various documents summarising index policies that pertain to certain situations or events. For the Russell US Indexes, the various aspects of maintaining the indices and conducting the reconstitution are contained in the Russell US Indexes Construction and Methodology document.

6.11.2 FTSE and Fixed Income Benchmarks Ground Rules

The FTSE and Fixed Income Ground Rules describe the underlying universe from which constituents are drawn, the eligibility criteria for constituents, and the frequency at which the composition of the index is reviewed. The Ground Rules link to wider policies that are applicable to several index series including guides that describe the treatment of corporate actions and corporate events, and guides that summarise the index calculation formulae. These are described in the following sections.



6.11.3 Russell US Equity Indexes Construction and Methodology Document

The Russell US Equity Indexes for IOSCO Compliant Indices Construction and Methodology

<u>document</u> provides a comprehensive overview of the processes that underlie the constitution and maintenance of the Russell 1000, 2000 and 3000 Indexes as well as their style (value/growth) and stability variants. The document includes:

- the process underlying the annual reconstitution of the indices;
- the eligibility criteria for index constituents;
- the procedures for determining style and size characteristics of constituents; and
- the procedures for the treatment of corporate actions.

6.11.4 Related Methodology Documents

a) FTSE Russell Index Policies

To the extent possible, the Ground Rules and the Russell US Equity Indexes Construction and Methodology document are written to incorporate standard FTSE Russell policies that provide general guidance on how FTSE Russell will respond to index calculation issues and external events. The standard policies include:

- the <u>Statement of Principles for FTSE Russell Equity Indices</u> and <u>Statement of Principles for FTSE</u> <u>Fixed Income Indices</u>, which set out FTSE Russell's underlying philosophy on index management and the principles to be applied whenever the Ground Rules are silent, open to interpretation, or where strict application of the Ground Rules might reasonably be thought to potentially cause market disruption;
- the <u>Recalculation Policy and Guidelines Equity Indices</u> and <u>Fixed Income Recalculation Policy</u> and <u>Guidelines</u>, which set out the circumstances under which FTSE Russell would normally recalculate an index and/or reissue the products associated with the index;
- the <u>FTSE Russell Index Series Decommissioning Statement</u> which outlines the conditions under which FTSE Russell would terminate the calculation of an index and the procedures to be followed in that event;
- the <u>FTSE Russell Index Policy for Trading Halts and Market Closures</u>, which provides guidance on how FTSE Russell would treat index changes in the event of trading halts or market closures;
- the FTSE Russell <u>Index Policy in the Event Clients are Unable to Trade a Market or a Security</u>, which provides guidance on how FTSE Russell would look to respond to various external events including market conditions that prevent normal trading by FTSE Russell clients;
- The <u>Exercise of Expert Judgement in FTSE Russell Indices</u> document, which sets out the procedures followed by FTSE Russell in the event of unusual or complex circumstances that are not covered in the methodology documents, and
- the <u>FTSE Russell Policy for Benchmark Methodology Changes</u>, which outlines the procedure which is followed when FTSE considers making changes to an index methodology for one of its index families.
- the <u>FTSE Russell Benchmark Determination Complaints-Handling Policy</u> sets out how index users and other market participants should contact FTSE Russell to relay their concerns regarding index calculation, index composition or index suitability, FTSE Russell service or any other issue.



b) Corporate Action Guides

The Ground Rules and the Russell US Equity Indices Construction and Methodology document are supplemented by guides that provide detail on the management of the indices. The guides include:

- the <u>Corporate Actions and Events Guide for Market Capitalisation Weighted Indices</u>, which sets out how a market capitalisation weighted index will respond to the various types of corporate events, and
- the <u>Corporate Actions and Events Guide for Non-Market Capitalisation Weighted Indices</u>, which sets out how an alternatively weighted index, including the FTSE RAFI Index Series, will respond to the various types of corporate events.

c) Calculation Guides

The Ground Rules and the Russell US Equity Indices Construction and Methodology document are supplemented by guides that provide detail on the management of the indices. The guides include:

- Guides to Calculation documents for certain equity index series which set out the formulae used to calculate the equity indices;
- Guide to Calculation Methods for the FTSE Fixed Income Indices which describes how certain fixed income indices are calculated, and
- other guides that describe FTSE Russell's industry, nationality and country classification processes.

6.12 Changes to the Methodology

All changes to the Methodologies underlying FTSE Russell indices must be considered in line with the <u>FTSE Russell Policy for Benchmark Methodology Changes</u> and be approved by the FTSE Russell Index Governance Board.

Proposals for enhancements to index Methodologies can emanate from within FTSE Russell, for example, from one of the internal forums or FTSE Russell's Research team, or from outside FTSE Russell, for example, as a result of a client query or as a suggestion from a member of an external Advisory Committee.

Following FTSE Russell Index Governance Board approval, Technical Notices are published to the market announcing any changes to index Methodologies, and updated Methodology documents are posted on the FTSE Russell website.

6.13 Transition

Index cessations are managed in accordance with the FTSE Russell Index Series Decommissioning Statement. This Statement is reviewed annually by the FTSE Russell Index Governance Board and details the factors which may necessitate a cessation and details the steps that are followed.

Proposals for index decommissions are considered by the Index Policy Committee. Once approved internal procedures are followed to ensure that sufficient notification is given to clients and products are decommissioned within defined timescales.



6.14 Submitter Code of Conduct

None of the benchmarks listed in tables 3.1 - 3.4 are based on submissions, and consequently IOSCO Principle 14 and BMR Articles 15 and 16 are not in the scope of this report.

6.15 Internal Controls over Data Collection

In selecting third party data FTSE Russell follows the LSEG Third Party Risk Management framework. This details how to manage, mitigate and monitor risk posed by third parties and the due diligence that is required to be undertaken when selecting data. Tracking of the data onboarding process is recorded and monitored via the Index Pipeline Management Application (IPMA).

Data is collected and managed in line with the internal Pricing and Non-Pricing Data Inputs policy. This policy is reviewed annually at the FTSE Russell Index Governance Board. Data quality controls are applied to ensure that data is fit for purpose and to detect potential outliers or omissions on a timely basis.

Regular reviews of data provision and the quality of service received is undertaken and reports of any issues are provided to the Index Management Board and the Oversight Committee.



IOSCO Principle 11: Content of the Methodology

BMR Articles 12 and 13: Methodology and Transparency of methodology

Control Objective 11: Controls provide reasonable assurance that FTSE Russell has a transparent and well-documented methodology for making Benchmark determinations, which includes detailed definitions of key terms, criteria and procedures used to develop the Benchmark, guidelines for the exercise of expert judgment, consistency practices, procedures for dealing with errors and revisions, and information on internal and external reviews, consultation with stakeholders, and potential limitations of the Benchmark.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations. The Administrator should provide the rationale for adopting a particular Methodology. The Published Methodology should provide sufficient detail to allow Stakeholders to understand how the Benchmark is derived and to assess its representativeness, its relevance to particular Stakeholders, and its appropriateness as a reference for financial instruments. At a minimum, the Methodology should contain:	11.1	Key terms are defined in the <u>Glossary of Terms used</u> in FTSE Russell Equity Methodology Documents, Glossary of Terms used in FTSE Fixed Income <u>Methodology Documents</u> , and <u>FTSE Russell</u> <u>Sustainable Investment Methodology Glossary</u> published on FTSE Russell's website. These are reviewed annually, and updates are published by the Index Policy team.	Inspected the FTSE Russell Glossaries of Terms document that has been published on FTSE Russell's website to confirm that key terms have been defined and that this has been reviewed annually by the IGB. No exception noted.
	11.2	FTSE Russell Methodology documents contain detailed rules for the construction, management and calculation of an index series. All methodology documents are reviewed annually, to assess whether the underlying market has undergone any structural changes since the last review, to ensure that the indices accurately reflect the market and remain objective and whether these factors warrant any methodology changes.	For a sampled in-scope index series, inspected the methodology documents, corresponding Methodology Forum meeting minutes and IGB meeting minutes to confirm that they contained detailed rules for the construction, management and calculation of an index series and that a review by the Methodology Forum and the IGB had been taken place within the past 12 months. No exception noted.



 a) Definitions of key terms; b) All criteria and procedures used to develop the Benchmark, including input selection, the mix of inputs used to derive the Benchmark, the guidelines that control the exercise of Expert Judgment by the Administrator, priority given to certain data types, minimum data needed to determine a Benchmark, and any models or extrapolation 	11.3 (3.6) (5.8) (8.3) (9.2)	The procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment is detailed in the Exercise of Expert Judgement in <u>FTSE Russell Indices</u> , which applies to equity indices, and the Exercise of Expert Judgement in FTSE Fixed <u>Income Indices</u> , which applies to fixed income indices policies. These policies are reviewed and approved annually by the FTSE Russell Index Governance Board. Any instance of expert judgment is recorded at the FTSE Russell Index Governance Board, minutes of	Inspected the Exercise of Expert Judgement in FTSE Russell Indexes Policy and Index Governance Board meeting minutes to confirm that the procedures FTSE Russell follows in the event that a situation requires the application of Expert Judgment are detailed therein, and that the policy had been reviewed and approved annually. Inspected the Index Governance Board meeting minutes to confirm that the exercise of expert judgment had been recorded
methods; c) Procedures and practices designed to promote consistency in the exercise of		which are retained.	appropriately, with minutes retained, for a specific incident. No exception noted.
 Expert Judgment between Benchmark determinations; d) The procedures which govern Benchmark determination in periods of market stress or disruption, or periods where data sources may be absent (e.g., theoretical estimation models); e) The procedures for dealing with error reports, including when a 	11.4	In the event of periods of market stress or disruption or where data sources may be absent FTSE Russell determines its approach based on relevant index ground rules and associated methodologies including the <u>FTSE Russell Statement of Principles for FTSE</u> <u>Russell Equity Indices</u> ; the <u>Statement of Principles for</u> <u>FTSE Fixed Income Indices</u> ; the <u>FTSE Russell Index</u> <u>Policy for Trading Halts and Market Closures</u> ; and the <u>Index Policy in the Event Clients are Unable to Trade a</u> <u>Market or a Security</u> .	For a sampled event of periods of market stress or disruption, or where data sources may be absent, inspected the IGB meeting minutes, technical notice and and the Ground rule and associated methodologies, to confirm that FTSE Russell has determined its approach based on relevant index ground rules and associated methodologies. No exception noted.
revision of a Benchmark would be applicable;f) Information regarding the frequency for internal reviews	11.5 (1.12)	In the event of a failure of critical infrastructure impacting the distribution of a benchmark, notice is provided to clients.	For a sampled failure of critical infrastructure impacting the distribution of a benchmark, inspected evidence to confirm that the client notice was provided.



and approvals of the			No exception noted.
 Methodology. Where applicable, the Published Methodologies should also include information regarding the procedures and frequency for external review of the Methodology; g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and h) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs. 	11.6 <i>(16.3)</i>	In the event that an inaccuracy in a Benchmark determination is identified, the steps set out in the <u>Recalculation Policy and Guidelines – Equity Indices</u> and <u>Fixed Income Recalculation Policy and Guidelines</u> will be followed. These documents are reviewed annually by the FTSE Russell IGB, records of the review are retained, and are published on the FTSE Russell website.	Inquired of Management to confirm that there were no instances of events where an inaccuracy in a Benchmark determination was identified for testing. For a sample of asset class, inspected the corresponding FTSE Russell Recalculation Policy and Guidelines document and the IGB meeting minutes, to confirm that a review by the IGB has taken place within the past 12 months and that the document is published on the FTSE Russell website. No exception noted.
	11.7 (12.1)	The circumstances and procedures under which FTSE Russell will consult with Stakeholders are detailed in the FTSE Russell Policy for Benchmark Methodology Changes. This policy is reviewed annually by the FTSE Russell Index Governance Board, minutes confirming the review and any changes are retained. In the event that a consultation with Stakeholders is required, it is performed in line with the Policy.	Inspected the FTSE Russell Policy for Benchmark Methodology Changes and the IGB meeting minutes, to confirm that it has detailed circumstances and procedures under which FTSE Russell will consult with Stakeholders and a review by the IGB has taken place annually. For a sampled event that a consultation with Stakeholders is required, Inspected the IGB meeting minutes, consultation pack and the technical notice, to confirm that it is performed in line with the Policy. No exception noted.



11.8	Ground Rule documents are prepared for each index series, these are reviewed annually at the respective Methodology Forum. These documents detail supporting policies that are applicable to potential limitations of a Benchmark. These policies include the <u>FTSE Russell Statement of</u> <u>Principles for FTSE Russell Equity Indices</u> ; the <u>Statement of Principles for FTSE Fixed Income</u> <u>Indices</u> ; the <u>FTSE Russell Index Policy for Trading</u> <u>Halts and Market Closures</u> ; and the <u>Index Policy in the <u>Event Clients are Unable to Trade a Market or a</u> <u>Security</u>.</u>	For a sample of index series, inspected the corresponding Ground Rule documents and methodology forum meeting minutes to confirm that it were prepared and reviewed annually at the respective Methodology Forum, and that it detailed supporting policies (Statement of Principles, The Index Policy for Trading Halts and Market Closures and Index Policy in the Event Clients are Unable to Trade a Market or a Security) that were applicable to potential limitations of a Benchmark.
	Each of these policies are reviewed by the respective Methodology Forum annually, minutes of the approvals are retained and approved by the FTSE Russell Index Governance Board.	Inspected the Statement of Principles and the corresponding methodology forum meeting minutes and IGB meeting minutes to confirm that it had detailed procedures that were applicable to potential limitations of a Benchmark and reviews by the methodology forum and IGB had taken place within the past 12 months.
		Inspected the Index Policy for Trading Halts and Market Closures and the corresponding methodology forum meeting minutes and IGB meeting minutes to confirm that it had detailed procedures that were applicable to potential limitations of a Benchmark and reviews by the methodology forum and IGB had taken place within the past 12 months.
		Inspected the Index Policy in the Event Clients are Unable to Trade a Market or a



	Security and	he corresponding
	methodology	forum meeting minutes and
	IGB meeting	minutes to confirm that it had
	detailed proce	edures that were applicable to
	potential limita	ations of a Benchmark and
	reviews by the	e methodology forum and IGB
	had taken pla	ace within the past 12 months.
	No exception	noted.



IOSCO Principle 12: Changes to the Methodology

BMR Article 13: Transparency of methodology

Control Objective 12: Controls provide reasonable assurance that FTSE Russell publishes the rationale and procedures for proposed material changes to Benchmark Methodologies, notifies and consults with subscribers and other relevant stakeholders, and provides advance notice and clear timeframes for comments and responses, ensuring transparency, accountability and the continued integrity of Benchmark determinations.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
An Administrator should Publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes. These procedures should clearly define what constitutes a material change, and the method and timing for consulting or notifying Subscribers (and other Stakeholders where appropriate, taking into account the breadth and depth of the Benchmark's use) of changes. Those procedures should be consistent with the overriding	12.1 <i>(11.7)</i>	The circumstances and procedures under which FTSE Russell will consult with Stakeholders are detailed in the FTSE Russell Policy for Benchmark Methodology Changes. This policy is reviewed annually by the FTSE Russell Index Governance Board, minutes confirming the review and any changes are retained. In the event that a consultation with Stakeholders is required, it is performed in line with the Policy.	Inspected the FTSE Russell Policy for Benchmark Methodology Changes and the IGB meeting minutes, to confirm that it has detailed circumstances and procedures under which FTSE Russell will consult with Stakeholders and a review by the IGB has taken place annually. Inspected for a sampled event that a consultation with Stakeholders is required, we inspected the IGB meeting minutes, consultation pack and the technical notice, to confirm that it is performed in line with the Policy. No exception noted.
objective that an Administrator must ensure the continued integrity of its Benchmark determinations. When changes are proposed, the Administrator should specify exactly	12.2	The FTSE Russell considers the requirements for, and objectives of, a consultation and if approved the Consultation is published on FTSE Russell.com. When a consultation is published the timeframe for responses is specified. The FTSE Russell Index Policy	Inspected the minutes of a sampled IGB meeting to confirm that management had taken into account the requirements and objectives of the consultation before finalising and publishing the details.



what these changes entail and when they are intended to apply.The Administrator should specify how changes to the Methodology will be scrutinised, by the oversight function.		team manages the publication of the notice detailing the consultation.	For a selected approved consultation, inspected the IGB meeting minutes and the notice published on FTSE Russell website to confirm that the details and the timeframe for responses was specified. No exception noted.
 The Administrator should develop Stakeholder consultation procedures in relation to changes to the Methodology that are deemed material by the oversight function, and that are appropriate and proportionate to the breadth and depth of the Benchmark's use and the nature of the Stakeholders. Procedures should: a) Provide advance notice and a clear timeframe that gives Stakeholders sufficient opportunity to analyse and comment on the impact of such 	12.3 (1.9) (6.3) (10.2) (18.3)	In the event of significant decisions influencing benchmark compilation, deviations from standard procedures approved by the IGB, results of market consultations approved by IGB, material revisions to benchmark methodology, or when an ancillary index policy such as the <u>FTSE Russell Statement of</u> <u>Principles for FTSE Russell Equity Indices</u> ; the <u>Statement of Principles for FTSE Fixed Income</u> <u>Indices</u> ; the <u>FTSE Russell Statement of Principles for</u> <u>FTSE Russell Equity Indices</u> ; the <u>FTSE Russell Index</u> <u>Policy for Trading Halts and Market Closures</u> ; or the <u>Index Policy in the Event Clients are Unable to Trade a</u> <u>Market or a Security</u> is invoked, a technical notice is posted on the FTSE Russell website; records of which are retained for 5 years.	For a sampled event of significant decisions influencing benchmark compilation from 2023, inspected evidence to confirm that a notice was posted on the FTSE Russell website. Further inspected the FTSE Russell website to confirm that a 2018 significant decision influencing benchmark compilation was retained and in line with the 5-year record retention requirements. No exception noted.
proposed material changes, having regard to the Administrator's assessment of the overall circumstances; and Provide for Stakeholders' summary comments, and the Administrator's summary response to those comments, to be made accessible to all Stakeholders after any given	12.4 (5.5)	The IGB oversees any changes to the Benchmark Methodology and consultations with Stakeholders in accordance with the application of the <u>FTSE Russell</u> <u>Policy for Benchmark Methodology Changes</u> . This policy is reviewed and approved annually by the FTSE Russell IGB, minutes of which are retained.	Inspected the FTSE Russell Policy for Benchmark Methodology Changes and the IGB meeting minutes to confirm that it has been reviewed by the IGB within the past 12 months. For a sampled change to the Benchmark Methodology and consultation with Stakeholders, inspected the IGB meeting



consultation period, except where		minutes, consultation notice and technical
the commenter has requested		notice to confirm that IGB has overseen the
confidentiality.		change in accordance with the application of
		the FTSE Russell Benchmark Methodology
		Changes Policy.
		No exception noted.



IOSCO Principle 13: Transition

BMR Article 28: Changes to and cessation of a benchmark

Control Objective 13: Controls provide reasonable assurance that FTSE Russell operates in accordance with policies and procedures that address the need for possible cessation of a Benchmark, due to changes which make the Benchmark no longer representative of its intended function.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark, due to market structure change, product definition change, or any other condition which makes the Benchmark no longer representative of its intended Interest. These policies and procedures should be proportionate to the estimated breadth and depth of contracts and financial instruments that reference a Benchmark and the economic and financial stability impact that might result from the cessation of the Benchmark. The Administrator should take into account the views of Stakeholders and any relevant Regulatory and National Authorities in determining what policies and procedures are appropriate for a particular Benchmark. These written policies and procedures should be Published or Made Available to all Stakeholders.	13.1 <i>(5.6)</i>	Any decommissions are managed in accordance with the <u>FTSE Russell</u> <u>Index Series Decommissioning</u> <u>Statement</u> , which is published on the FTSE Russell website. This Statement is reviewed and approved annually by the FTSE Russell Index Governance Board.	Inquired of Management to confirm that there were no instances of in-scope decommissioned indices within the past 12 months. Inspected the FTSE Russell Index Series Decommissioning Statement to confirm that outlines the procedures to be followed when decommissioning an index, which are homogenous regardless of index family, and that it was reviewed by the IGB within the past 12 months and published on FTSE Russell Website. For a sampled of out-of-scope decommissioning proposal, IPC meeting minutes, Oversight Committee meeting minutes and client notice to confirm that it was managed in accordance with the FTSE Russell



Administrators should encourage Subscribers and other Stakeholders who have financial instruments that reference a Benchmark to take steps to make sure that:			Index Series Decommissioning Statement. No exception noted.
 a) Contracts or other financial instruments that reference a Benchmark, have robust fall-back provisions in the event of material changes to, or cessation of, the referenced Benchmark; and b) Stakeholders are aware of the possibility that various factors, including external factors beyond the control of the Administrator, might necessitate material changes to a Benchmark. Administrators' written policies and procedures to address the possibility of Benchmark cessation could include the following factors, if determined to be reasonable and appropriate by the Administrator: a) Criteria to guide the selection of a credible, alternative Benchmark such as, but not limited to, criteria that seek to match to the extent practicable the existing Benchmark's characteristics (e.g., credit quality, maturities and liquidity of the alternative 	13.2	All cessation proposals follow the internal procedures, which provide guidance to staff when they are preparing the assessment for a cessation request, what to do if a request is approved and notification of any cessation. These procedures are reviewed annually and considered at the Index Product Committee.	Inquired of Management to confirm that there were no index cessation events within the past 12 months. Inspected the FTSE Russell Index Decommissioning Procedure to confirm that the procedure provided guidance to staff on preparing assessments for cessation requests, actions to take following an approval, and the notification process for any cessation. Furthermore, inspected the IPC meeting minutes to confirm that the procedure had been reviewed by the IPC within the past 12 months. No exception noted.
 market), differentials between Benchmarks, the extent to which an alternative Benchmark meets the asset/liability needs of Stakeholders, whether the revised Benchmark is investable, the availability of transparent transaction data, the impact on Stakeholders and impact of existing legislation; b) The practicality of maintaining parallel Benchmarks (e.g., where feasible, maintain the existing Benchmark for a defined period of time to permit existing contracts and financial instruments to 	13.3	In the event that a suitable alternative cannot be identified and the existing index cannot be maintained, then a client notification is issued providing the notice period as set out in the <u>FTSE</u> <u>Russell Index Series Decommissioning</u> <u>Statement</u> and stating if a suitable alternative benchmark is available.	Inquired of Management to confirm that there had been no instances within the past 12 months of terminated indexes where a suitable alternative could not be identified, and the existing index could not be maintained. No exception noted.



mature and publish a new Benchmark) in order to accommodate an orderly transition to a new Benchmark;

- c) The procedures that the Administrator would follow in the event that a suitable alternative cannot be identified;
- d) In the case of a Benchmark or a tenor of a Benchmark that will be discontinued completely, the policy defining the period of time in which the Benchmark will continue to be produced in order to permit existing contracts to migrate to an alternative Benchmark if necessary; and
- e) The process by which the Administrator will engage Stakeholders and relevant Market and National Authorities, as appropriate, in the process for selecting and moving towards an alternative Benchmark, including the timeframe for any such action commensurate with the tenors of the financial instruments referencing the Benchmarks and the adequacy of notice that will be provided to Stakeholders.

An LSEG Business



IOSCO Principle 14: Submitter Code of Conduct

BMR Articles 15 and 16: Code of conduct and Governance and control requirements for supervised contributors

There are no Key Benchmarks based on Submissions and accordingly this Principle does not apply.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
Where a Benchmark is based on Submissions, the following additional Principle also applies:	N/A	There are no Key Benchmarks based on Submissions.	N/A
The Administrator should develop guidelines for Submitters ("Submitter Code of Conduct"), which should be available to any relevant Regulatory Authorities, if any and Published or Made Available to Stakeholders.			
The Administrator should only use inputs or Submissions from entities which adhere to the Submitter Code of Conduct and the Administrator should appropriately monitor and record adherence from Submitters. The Administrator should require Submitters to confirm adherence to the Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred.			



fui the of Th	e Administrator's oversight action should be responsible for e continuing review and oversight the Submitter Code of Conduct. e Submitter Code of Conduct ould address:	
	The selection of inputs;	
b)	Who may submit data and	
c)	information to the Administrator; Quality control procedures to	
5)	verify the identity of a Submitter	
	and any employee(s) of a	
	Submitter who report(s) data or	
	information and the	
	authorization of such person(s)	
	to report market data on behalf	
	of a Submitter;	
d)	Criteria applied to employees of	
	a Submitter who are permitted	
	to submit data or information to	
	an Administrator on behalf of a	
	Submitter;	
e)	Policies to discourage the interim withdrawal of Submitters	
	from surveys or Panels;	
f)	Policies to encourage	
''	Submitters to submit all relevant	
	data; and	
g)	The Submitters' internal	
9/	systems and controls, which	
	should include:	



		-		
ſ	i.	Procedures for submitting		
		inputs, including		
		Methodologies to determine		
		the type of eligible inputs, in		
		line with the Administrator's		
		Methodologies;		
	ii.	Procedures to detect and		
		evaluate suspicious inputs or		
		transactions, including		
		intergroup transactions, and to		
		ensure the Bona Fide nature		
		of such inputs, where		
		appropriate;		
	iii.	Policies guiding and detailing		
		the use of Expert Judgment,		
		including documentation		
		requirements;		
	iv.	Record keeping policies;		
	٧.	Pre-Submission validation of		
		inputs, and procedures for		
		multiple reviews by senior staff		
		to check inputs;		
	vi.	Training, including training		
		with respect to any relevant		
		regulation (covering		
		Benchmark regulation or any		
		market abuse regime);		
	vii.	Suspicious Submission		
		reporting;		
	viii.	Roles and responsibilities of		
		key personnel and		
		accountability lines;		



ix.	Internal sign off procedures by
	management for submitting
	inputs;

- x. Whistle blowing policies (in line with Principle 4); and
- xi. Conflicts of interest procedures and policies, including prohibitions on the Submission of data from Front Office Functions unless the Administrator is satisfied that there are adequate internal oversight and verification procedures for Front Office Function Submissions of data to an Administrator (including safeguards and supervision to address possible conflicts of interests as per paragraphs (v) and (ix) above), the physical separation of employees and reporting lines where appropriate, the consideration of how to identify, disclose, manage, mitigate and avoid existing or potential incentives to manipulate or otherwise influence data inputs (whether or not in order to influence the Benchmark levels), including, without limitation, through appropriate remuneration



policies and by effectively addressing conflicts of interest			
which may exist between the			
Submitter's Submission			
activities (including all staff			
who perform or otherwise			
participate in Benchmark			
Submission responsibilities),			
and any other business of the			
Submitter or of any of its			
affiliates or any of their			
respective clients or			
customers.			



IOSCO Principle 15: Internal Controls over Data Collection

BMR Article 11: Input data

Control Objective 15: Controls provide reasonable assurance that FTSE Russell has appropriate internal controls over data selection, collection, and transmission processes to protect the integrity and confidentiality of data.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
When an Administrator collects data from any external source the Administrator should ensure that there are appropriate internal controls over its data collection and transmission processes. These controls should address the process for selecting the source, collecting the data and protecting the integrity and confidentiality of the data. Where Administrators receive data	external source theIrator should ensure thataappropriate internalsover its data collection andrsion processes. Theseisshould address the processcing the source, collectingaand protecting the integrityisdentiality of the data.I	The Index Pipeline Management Application (IPMA) Data Onboarding module now captures requirements and tracks the onboarding request through initial submission, an initial triage approval to confirm the request is reasonable and complete. Data Assessment is also required by Data Management Ops teams and once completed requests can proceed to go for approval at the evaluation forum. The evaluation forum is attended by Product Management, Research, Index Delivery, Data Management, Index Management & Review, Technology, and Index Change.	For a sampled new data request, inspected the data requirement form to confirm that data assessment had been performed by the Data Management Ops team. Further inspected the IPMA record to confirm that the request had been captured and tracked within the IPMA, and that it had been approved by the evaluation forum. No exception noted.
from employees of the Front Office Function, the Administrator should seek corroborating data from other sources.	15.2	Data is collected and managed in line with the internal Pricing and Non-Pricing Data Inputs policy. This policy is reviewed annually at the FTSE Russell Index Governance Board, minutes of the meeting are retained.	Inspected the internal Pricing and Non- Pricing data inputs policy and relevant Index Governance Board meeting minutes to confirm that the policy outlined the way in which data is collected and managed and that it had been reviewed within the past 12 months. No exception noted.



	15.3	The Enterprise Support Services (ESS) team monitors the incoming data feeds, and any issues are escalated by the Service Management team to service providers accordingly.	For a sampled day, inspected the validation results of incoming feeds in Geneos. For a sampled failure from the log of incoming data, inspected the service ticket to confirm that the issue was resolved. No exception noted.
	15.4	The Service Level Agreements (SLAs) between FTSE Russell and Business Services Limited (BSL), outlines the underlying work order that sets out the data monitoring responsibilities between FTSE Russell and LSEG Business Services Limited, and includes technical and application support, backup and security, and access control policies. The FTSE Russell and BSL SLAs are reviewed annually.	Inspected the Service Level Agreements (SLAs) between FTSE Russell and Business Services Limited (BSL) to confirm that each outlines the underlying work order that sets out the data monitoring responsibilities between FTSE Russell and LSEG Business Services Limited, and includes technical and application support, backup and security, and access control policies.
			Further inspected evidence to confirm that the FTSE Russell and BSL SLAs had been reviewed in the past 12 months.
			Exception noted:
		The FTSE Russell and BSL SLAs were not reviewed by all required owners at least annually.	
		Please refer to Section 8 for Management's response.	
	15.5	Automated price tolerance alerting and monitoring is in place. Index and stock price tolerance parameters	Observed the automated price tolerance and alerting in FREDD and DMC to confirm



(7.2)	are assigned when stocks are added to the index platform. An annual review of price tolerance levels is conducted by the Index Change team to verify the correct parameters have been set.	that the alerting and monitoring is in place and that index and stock price tolerance parameters are assigned when stocks are added to the index platform. Inspected evidence to confirm that an annual review of price tolerance levels had been conducted by the Index Change team to verify that the correct parameters had been set. No exception noted.
15.6	Events related to data outages, errors or system malfunctions are identified, reported, and escalated in accordance with incident management processes. Event trends are also reported to the Service Review Boards and reviewed by the FTSE Russell Operations committee.	For a sampled incident, inspected the JIRA ticket to confirm that the incident was reported and resolved in accordance with incident management process. For a sampled Technology Service Review Board meeting, inspected the report pack to confirm that event trends were reported. For a sampled FTSE Russell Operations committee, inspected the report pack to confirm that event trends were reviewed. No exception noted.
15.7	FTSE Russell has multiple data centres with diversely routed systems and connectivity to provide a resilient network and business continuity. These continuity arrangements are documented within FTSE Russell's Business Continuity Plans which are reviewed and tested annually.	Inspected the Business Continuity Risk Policy, and Business Continuity and Disaster Recovery Test Reports to confirm that Business Continuity Plans had been reviewed and tested annually.



		No exception noted.
15.8	FTSE Russell adheres to the Information Security Policy which applies to all London Stock Exchange Group entities. This policy establishes the overall corporate requirements and governance for managing the risk to information assets against unauthorised access or modification, malicious or accidental disclosure and/or destruction, and maintain their confidentiality, integrity, and availability. This policy is reviewed annually.	Inspected the Information Security Policy to confirm that it establishes the overall corporate requirements and governance for managing the risk to information assets against unauthorised access or modification, malicious or accidental disclosure and/or destruction, and maintain their confidentiality, integrity, and availability. Further inspected relevant LSEG Risk Committee meeting minutes to confirm that the policy had been reviewed annually. No exception noted.
15.9	Pre-production and production environments exist for all in-scope applications to ensure segregation of environments.	Inspected pre-production and production environments for in-scope applications to confirm the existence of segregation between the two environments. No exception noted.
15.10	Database user access rights are recertified on a minimum of half-yearly basis by line managers. Revocation of access identified to be removed from the user access recertification process is requested to be removed within 5 working days.	Exception noted: As at 30 September the database user access rights recertification was not suitably designed to identify and recertify all users with privileged access to the in scope databases as only a partial recertification was performed.



		Please refer to Section 8 for Management's response.
15.11	Access to in-scope applications is safeguarded by username-password authentication and Multi-Factor Authentication (MFA), both for general access and through Virtual Desktop Infrastructure (VDI).	Inspected password parameters and Multi- Factor Authentication configurations to confirm that username-password authentication and Multi-Factor Authentication is in place. No exception noted.
15.12	Administrator access by support team members to cloud infrastructure, and access to deploy changes, is recertified in accordance with the frequency specified in the Identity and Access Management Standard.	Exception noted: As at 30 September 2023, the user access rights recertifications were not suitably designed to identify and recertify all users with administrator access or access to deploy changes, as only a partial recertification was performed. In addition to this, PwC identified a group of users with permanent privileged access with the ability to both develop code and migrate it into production; management have confirmed that this was appropriate for all but one of these users. There are also insufficient monitoring or detective controls which means there is a risk the formal change management process can be bypassed without detection. Please refer to Section 8 for Management's response.



	15.13	Changes are reviewed, tested, and approved in accordance with defined IT production Change Management processes.	Inspected a sample to change to confirm this was reviewed, tested, and approved in accordance with IT production Change Management processes. No exception noted.
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D. Accountability

IOS	CO Principle	BMR Article(s)	
16	Complaints Procedures	9	Complaints-handling mechanism
17	Audits	7	Accountability framework requirements
18	Audit Trail	8	Record-keeping requirements
19	Cooperation with Regulatory Authorities	14	Reporting of infringements

6.16 Complaints Procedures

The <u>FTSE Russell Benchmark Determination Complaints-Handling Policy</u> sets out how index users and other market participants should contact FTSE Russell to relay concerns regarding index calculation, index composition or index suitability, FTSE Russell service or any other issue. The procedure outlines the escalation process FTSE Russell will follow to ensure that the complaint is either addressed or, in the case of a calculation or composition issue, if FTSE Russell disagrees with the complainant, the reasons why FTSE Russell believes the index calculation or composition is correct. The FTSE Russell Index Governance Board acts as the ultimate point of escalation.

Internal procedures are in place to ensure any complaints received are managed in accordance with the Policy. Training is provided to staff on the Policy and how to adhere to its requirements.

6.17 Audits

The LSEG Internal Audit team is responsible for providing objective and independent assurance on the adequacy and effectiveness of the system of internal controls, the governance model and the risk management framework in place to manage risks within the Group's risk appetite and achieve its business objectives. Internal Audit has no operational responsibilities over the entities/processes that it reviews.

Internal Audit is accountable for developing a risk-based programme of work to determine the coverage, frequency and scope of its audit activities. Audit findings are presented to the FTSE Board and Index Management Board and are tracked through to closure.

Internal Audit select audit findings to validate the progress against agreed target dates and the completion of agreed management action plans developed to address audit findings to ensure that the actions in place have been closed, that the risk has been mitigated and that the actions or controls are sustainable.

6.18 Audit Trail

FTSE Russell retains all records related to the regulated benchmark administration activities for a period of at least five years. These records are stored securely in a medium that allows them to be retrieved when required.

6.19 Cooperation with Regulatory Authorities

FTSE Russell acknowledges the requirement to make relevant documents and audit trails readily available to regulatory authorities in carrying out their regulatory or supervisory duties, and to hand them over promptly upon request. FTSE Russell cooperates with regulatory authorities in carrying out their regulatory or supervisory duties. FTSE Russell Compliance team members co-ordinate such interaction.



IOSCO Principle 16: Complaints Procedures

BMR Article 9: Complaints-handling mechanism

Control Objective 16: Controls provide reasonable assurance that FTSE Russell establishes and publishes a complaints policy that enables stakeholders to submit complaints regarding benchmark determinations, methodology applications, and other decisions related to benchmark determinations, which includes procedures for the timely investigation and escalation of complaints to the governance body, retaining records for at least five years, resolving disputes, and promptly publishing consequent changes.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
 The Administrator should establish and Publish or Make Available a written complaints procedures policy, by which Stakeholders may submit complaints including concerning whether a specific Benchmark determination is representative of the underlying Interest it seeks to measure, applications of the Methodology in relation to a specific Benchmark determination(s) and other Administrator decisions in relation to a Benchmark determination. The complaints procedures policy should: a) Permit complaints to be submitted through a user- friendly complaints process such as an electronic Submission process; b) Contain procedures for receiving and investigating a complaint made about the Administrator's Benchmark determination process on a timely and fair basis by personnel who are independent of any personnel who may be or may have been involved in the subject of the complaint, advising the 	16.1 (4.3) (18.4)	Complaints received from stakeholders are handled in accordance with the FTSE Russell Benchmark Determination Complaints- Handling Policy, which is publicly available. This policy, which is reviewed and approved annually by the FTSE Russell Index Governance Board, allows complaints or queries to be submitted electronically via a dedicated email address (info@ftserussell.com). The policy also outlines the process for escalating complaints, with the FTSE Russell Client Service team recording complaints centrally via the online ticketing system. The resolution of complaints is managed by the respective teams and overseen at weekly meetings, and all communication and records related to complaints are logged to the corresponding ticket.	Inspected the FTSE Russell Benchmark Determination Complaints-Handling Policy to confirm that the policy has stated that complaints or queries are allowed to be submitted electronically via a dedicated email address (info@ftserussell.com) and has outlined the process for handling and escalating complaints. Further inspected the IGB meeting minutes to confirm that a review has been conducted by the IGB within the past 12 months. Inspected sampled complaints received in 2018 and 2023 respectively, to confirm that each complaint was handled in accordance with the FTSE Russell



complainant and other relevant parties of the outcome of its investigation within a reasonable period and retaining all records concerning complaints;

- c) Contain a process for escalating complaints, as appropriate, to the Administrator's governance body and
- d) Require all documents relating to a complaint, including those submitted by the complainant as well as the Administrator's own record, to be retained for a minimum of five years, subject to applicable national legal or regulatory requirements.

Disputes about a Benchmarking determination, which are not formal complaints, should be resolved by the Administrator by reference to its standard appropriate procedures. If a complaint results in a change in a Benchmark determination, that should be Published or Made Available to Subscribers and Published or Made Available to Stakeholders as soon as possible as set out in the Methodology.

			An LSEG Business
) ble as		If, following the investigation of a complaint, it is determined that the Benchmark in question should be recalculated or restated, a notice is issued to subscribing clients. These records are retained for five years.	Benchmark Determination Complaints-Handling Policy and that the records are retained for five years. No exception noted.
ce body; ht, ht as well ined for le which y the priate a a	16.2	Metrics relating to any complaints are considered as a standing item at the monthly Index Service Review Board (ISRB) and presented by a representative of the Client Service team. Minutes of the Index Service Review board are retained.	For a sampled month, inspected the ISRB meeting minutes to confirm that complaints metrics were considered as a standing item and presented by a representative of the Client Services team. Further confirmed that minutes of the ISRB are retained. No exception noted.
hed or r Made s set	16.3 <i>(11.6)</i>	In the event that an inaccuracy in a Benchmark determination is identified, the steps set out in the <u>Recalculation Policy and</u> <u>Guidelines – Equity Indices</u> and <u>Fixed</u> <u>Income Recalculation Policy and Guidelines</u> will be followed. These documents are reviewed annually by the FTSE Russell IGB, records of the review are retained, and are published on the FTSE Russell website.	Inquired of Management to confirm that there were no instances of events where an inaccuracy in a Benchmark determination was identified for testing. For a sample of asset class, inspected the corresponding FTSE Russell Recalculation Policy and Guidelines document and the IGB meeting minutes, to confirm that a review by the IGB has taken place within the past 12 months and that



	FTSE Russell website.
	the document is published on the



IOSCO Principle 17: Audits

BMR Article 7: Accountability framework requirements

Control Objective 17: Controls provide reasonable assurance that FTSE Russell appoints an independent internal or external auditor to periodically review and report on the Administrator's adherence to its stated criteria and the requirements of the Principles.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
The Administrator should appoint an independent internal or external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated criteria and with the Principles. The frequency of audits should be proportionate to the size and complexity of the Administrator's operations. Where appropriate to the level of existing or potential conflicts of interest identified by the Administrator (except for Benchmarks that are otherwise regulated or supervised by a National Authority	17.1	The 3 lines of defence model established across LSEG applies to FTSE Russell. An independent internal audit team periodically conducts reviews of FTSE Russell. The results of the audits are considered by the FTSE Board and LSEG Audit Committee.	Inspected the FTSE Russell Governance Framework to confirm that the 3 lines of defence model established across LSEG applies to FTSE Russell. Inspected the FTSE Board Meeting Internal Audit Update Report to confirm that an internal audit had been performed, and that the results had been considered by FTSE Board and LSEG Audit Committee. No exception noted.
other than a relevant Regulatory Authority), an Administrator should appoint an independent external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated	17.2	Annually, FTSE undergoes an external audit to review and report on adherence with the stated criteria and IOSCO Principles for Financial Benchmarks.	Inspected the Statement of Work to confirm that it had been signed by PwC and FTSE, and that FTSE had undergone an external audit to review and report on adherence with the stated criteria and IOSCO



Methodology. The frequency of audits should be proportionate to the size and complexity of the Administrator's Benchmark operations and the breadth and depth of Benchmark use by Stakeholders.			Principles for Financial Benchmarks. No exception noted.
	17.3 (5.7)	Results of internal and external audits are considered at the FTSE Board and updates on the implementation of remedial actions are provided until action closure has been evidenced and confirmed.	Inspected the FTSE Board meeting minutes to confirm that results of audits had been considered and updates on the implementation of remedial actions has been provided to enable tracking to closure. No exception noted.
	17.4	Annually, FTSE Russell engages with an external auditor to recalculate representative equity and fixed income indices, using FTSE data sources and publicly available methodologies, on a selection of days throughout the year, to confirm adherence to methodology and the accuracy of the index levels being shared to clients.	For a selected representative equity index, reperformed the calculations independently for 31 March and 31 May 2023, in accordance with the publicly available methodology, using true FTSE input data, and compared this to the official index level (price and total) calculated by the system.
			For a selected representative fixed income index, reperformed the calculations independently for 31 March and 31 May 2023, in accordance with the publicly available methodology, using true FTSE input data, and compared this to the official Total Return



	No exception noted.
	and distributed to clients.
	Index calculated by the system



IOSCO Principle 18: Audit Trail

BMR Article 8: Record-keeping requirements

Control Objective 18: Controls provide reasonable assurance that FTSE Russell retains written records for five years, in compliance with national, legal or regulatory requirements.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
Written records should be retained by the Administrator for five years, subject to applicable national legal or regulatory requirements on:	18.1	All market data and any other data and information sources relied upon for Benchmark determination are recorded for a minimum of 5 years.	For a sampled data report relied upon for Benchmark determination, inspected the records from 2018 to confirm that this data was held for a minimum of 5 years. No exception noted.
 All market data, Submissions and any other data and information sources relied upon for Benchmark determination; 	18.2	Any instances of the application of expert judgement are recorded at the FTSE Russell Index Governance Board, records of which are retained for 5 years.	For a sample of application of expert judgement from 2018, inspected the PGB meeting minutes to confirm that it had been recorded at the PGB and that the record had been retained for 5 years.
b) The exercise of Expert			No exception noted.
 Judgment made by the Administrator in reaching a Benchmark determination; C) Other changes in or deviations from standard 	18.3 (1.9) (6.3) (10.2)	In the event of significant decisions influencing benchmark compilation, deviations from standard procedures approved by the IGB, results of market consultations approved by IGB, material revisions to benchmark methodology, or when an ancillary index policy such as the <u>FTSE Russell Statement of</u> <u>Principles for FTSE Russell Equity Indices</u> ; the <u>Statement of</u>	For a sampled event of significant decisions influencing benchmark compilation from 2023, inspected evidence to confirm that a notice was posted on the FTSE Russell website.
procedures and Methodologies, including those made during	(12.3)	Principles for FTSE Fixed Income Indices; the FTSE Russell Index Policy for Trading Halts and Market Closures; or the Index Policy in the Event Clients are Unable to Trade a	Further inspected the FTSE Russell website to confirm that a 2018 significant decision influencing benchmark compilation was



periods of market stress or disruption;d) The identity of each		Market or a Security is invoked, a technical notice is posted on the FTSE Russell website; records of which are retained for 5 years.	retained and in line with the 5 year record retention requirements. No exception noted.
 person involved in producing a Benchmark determination; and e) Any queries and responses relating to data inputs. If these records are held by a Regulated Market or Exchange the Administrator may rely on these records for compliance with this Principle, subject to appropriate written record sharing agreements. 	18.4 (4.3) (16.1)	Complaints received from stakeholders are handled in accordance with the FTSE Russell Benchmark Determination Complaints-Handling Policy, which is publicly available. This policy, which is reviewed and approved annually by the FTSE Russell Index Governance Board, allows complaints or queries to be submitted electronically via a dedicated email address (info@ftserussell.com). The policy also outlines the process for escalating complaints, with the FTSE Russell Client Service team recording complaints centrally via the online ticketing system. The resolution of complaints is managed by the respective teams and overseen at weekly meetings, and all communication and records related to complaints are logged to the corresponding ticket. If, following the investigation of a complaint, it is determined that the Benchmark in question should be recalculated or restated, a notice is issued to subscribing clients. These records are retained for five years.	Inspected the FTSE Russell Benchmark Determination Complaints-Handling Policy to confirm that the policy has stated that complaints or queries are allowed to be submitted electronically via a dedicated email address (info@ftserussell.com) and has outlined the process for handling and escalating complaints. Further inspected the IGB meeting minutes to confirm that a review has been conducted by the IGB within the past 12 months. Inspected sampled complaints received in 2018 and 2023 respectively, to confirm that each complaint was handled in accordance with the FTSE Russell Benchmark Determination Complaints-Handling Policy and that the records are retained for five years. No exception noted.



IOSCO Principle 19: Cooperation with Regulatory Authorities

BMR Article 14: Reporting of infringements

Control Objective 19: Controls provide reasonable assurance that FTSE Russell makes relevant documents and audit trails readily available to the relevant regulatory authorities upon request, to facilitate the investigation of any misconduct or determine the reliability of a Benchmark determination.

IOSCO Principle	Control Reference	Control Activity	Testing Performed by PwC UK and Results of Testing
Relevant documents, Audit Trails and other documents subject to these Principles shall be made readily available by the relevant parties to the relevant Regulatory Authorities in carrying out their regulatory or supervisory duties and handed over promptly upon request.	19.1	FTSE Russell acknowledges the requirement to make relevant documents and audit trails readily available to regulatory authorities in carrying out their regulatory or supervisory duties, and to hand them over promptly upon request, in its internal FTSE Russell Benchmark Administration Manual. The manual is reviewed annually at the Index Management Board.	Inspected the FTSE Russell Benchmark Administration Manual and the Index Management Board meeting minutes to confirm that it acknowledged the requirement to make relevant documents and audit trails readily available to regulatory authorities in carrying out their regulatory or supervisory duties and to hand them over promptly upon request, and that the Manual has been reviewed within the past 12 months. No exception noted.
	19.2	Upon request, FTSE Russell provides regulatory authorities with any requested documents and audit trails, to help them access the necessary information to investigate any misconduct, determine the reliability of a Benchmark determination, or any other matter, as required.	For a sampled regulatory authority request, inspected the Index Management Board meeting minutes to confirm that FTSE Russell has provided regulatory authority with requested documents and audit trails upon request. No exception noted.



Section 7

Other Information Provided by the Independent Auditor

We have been engaged to provide a reasonable assurance opinion on the suitability of the design of controls to achieve the related control objectives stated as at 30 September 2023. These controls and control objectives have been designed and implemented by FTSE Russell in order to carry out index administration services in a controlled and robust manner and also to address the requirements of the IOSCO Principles for Financial Benchmarks and UK Benchmark Regulation.

The control environment was considered in determining the nature, timing and extent of the testing of the operation of the controls relevant to achievement of the control objectives. Our tests of the operating effectiveness of controls included such tests as were considered necessary in the circumstances to evaluate whether those controls and the extent of compliance with them, are sufficient to provide reasonable, but not absolute, assurance that the specified control objectives were achieved and controls were put into operation as at 30 September 2023. We have not performed testing of the operating effectiveness of controls.

Inquired of appropriate personnel. Inquiries seeking relevant information or
representation from personnel were conducted to obtain, among other factors:
 Knowledge and additional information regarding the control, policy or procedure; and Corroborating evidence of the control, policy or procedure.
As inquiries were performed for substantially all controls, the test was not listed individually for every control shown in the matrices in Section 6.
Observed the application or existence of specific controls as represented.
Inspected documents and records indicating performance of the control. This may include:
 Examination of source documentation and authorisations to verify propriety; Examination of documents or records for evidence of performance, such as existence of initials or signatures; and Examination of documentation, such as operations manuals, flow charts, job descriptions and user profiles.
Reperformed the control or processing to determine the accuracy of its operation, including obtaining evidence of the arithmetical accuracy and correct processing of transactions by recomputing the application computation.

Tests performed over the design effectiveness of the control activities were performed on a judgmental basis and are described below:

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Section 8

Management's Responses to Matters

The nature of matters are categorised as follows:

- "Qualification" A matter which led to an adjustment to the audit opinion, as described in Section V;
- "Exception" Control is not designed or implemented effectively as at 30 September 2023; and
- "Emphasis of matter" A matter which may be of interest to the reader and to which their attention is drawn.

Management's Responses to Qualification

Ref. Qualification

Management's Response

n/a During the audit it came to our attention that there were not sufficient IT general controls in place to ensure appropriate segregation of duties between users with access to both develop and promote changes to production. As a result of these access controls supporting the change management process not being effective, automated controls were not suitably designed and implemented as at 30 September 2023 to achieve the control objective "Controls provide reasonable assurance that FTSE Russell has appropriate internal controls over data selection, collection, and transmission processes to protect the integrity and confidentiality of data". FTSE Russell has access controls in place to prevent inappropriate access to its systems which could pose risks to the integrity of its data. During the audit testing, one instance was identified, where a senior manager had access enabling them to both make changes to and promote code into production. Since the date of this report, this access has been revoked, and it was confirmed and evidenced that this individual did not apply any changes to production.

Since the date of the report, an improved monitoring process has been introduced to ensure segregation of duties and access to systems. The reports from this process are reviewed by the Head of Architecture and the Head of IT Operations on a monthly basis. In addition, FTSE Russell will conduct a further review of its systems access controls to identify any further enhancements which may be needed as part of the continuous improvement process.



Management's Responses to Exceptions

Control Reference	Control Activity	Exception	Management's Response
1.1, 3.5, 10.1	Ground Rules and Methodologies for the in- scope indices and benchmarks are reviewed at least annually by the respective Methodology Forum. The FTSE Russell IGB receives confirmation that methodologies are reviewed on an annual basis and ratifies changes to the Ground Rules/methodologies.	For the sampled index series, one out of eight Ground Rules / Methodologies, the <i>Guide to Calculation Method for the</i> <i>Median Liquidity Test,</i> was not reviewed by the IGB within the past 12 months.	The Guide to Calculation Method for the Median Liquidity Test for the sampled index series was reviewed in February 2024 and has been scheduled for review on an annual basis.
15.4	The Service Level Agreements (SLAs) between FTSE Russell and Business Services Limited (BSL), outlines the underlying work order that sets out the data monitoring responsibilities between FTSE Russell and LSEG Business Services Limited, and includes technical and application support, backup and security, and access control policies. The FTSE Russell and BSL SLAs are reviewed annually.	The FTSE Russell and BSL SLAs were not reviewed by all required owners at least annually.	A record of one of the technical signatories was omitted during the completion of the SLA review process. An additional process was put in place subsequent to the reporting period to ensure that all records of formal review are retained.
15.10	Database user access rights are recertified on a minimum of half-yearly basis by line managers. Revocation of access identified to be removed from the user access recertification process is requested to be removed within 5 working days.	As at 30 September, the database user access rights recertification was not suitably designed to identify and recertify all users with privileged access to the in scope databases as only a partial recertification was performed.	LSEG have self-identified and acknowledged that partial user access recertifications were performed during the audit period. Subsequent to the date of the report, additional recertification controls for PRIME, FREDD, WILMA/DMC and DDS/CDD have

been introduced. These are in



addition to other pre-existing controls in place such as multifactor authentication and leavers process to ensure terminated users are removed from the network in a timely manner.

15.12 Administrator access by support team members to cloud infrastructure, and access to deploy changes, is recertified in accordance with the frequency specified in the Identity and Access Management Standard.

As at 30 September 2023, the user access rights recertifications were not suitably designed to identify and recertify all users with administrator access or access to deploy changes, as only a partial recertification was performed. In addition to this, PwC identified a group of users with permanent privileged access with the ability to both develop code and migrate it into production; management have confirmed that this was appropriate for all but one of these users. There are also insufficient monitoring or detective controls which means there is a risk the formal change management process can be bypassed without detection.

Following migration of services to cloud infrastructure a number of individuals within a centrally formed **Development Operations (DevOps)** group separate from the application development team were provided access to administration and deployment for a warranty period. Subsequent to the date of this report this access has been revoked. Throughout this period LSEG operated other relevant controls, such as multi-factor authentication and leavers process to ensure terminated users are removed from the network in a timely manner.



Management's Responses to Emphases of Matters

Ref.	Emphasis of Matter	Management's Response
a)	During the audit, it came to our attention that there is no minimum notice period given to customers before making material changes to indexes or their methodologies.	Subsequent to the date of the report, the <u>FTSE Russell Policy for Benchmark</u> <u>Methodology Changes</u> policy was updated to reflect that at least one month's notice is given ahead of any material change to a standard index series.



Section 9

Glossary of Key Terms

Key Term	Definition
Benchmark Administrator	The legal entity responsible for the Benchmark Methodologies, calculation process and dissemination.
BMR	Benchmarks Regulation (BMR) refers to the EU and UK regulation that governs the integrity of benchmarks used in financial instruments and financial contracts or to measure the performance of investment funds within the EU and UK.
Client Notice	Russell index notice to inform index users of certain index changes.
EPRA	European Public Real Estate Association.
Executive Committee of the LSEG Board	The executive management team of London Stock Exchange Group plc.
External Advisory Committees	The committees identified as external advisory committees in Figure 4.1 in Section 4.1 of this Statement.
Fixed Income Benchmarks	The FTSE Canada Universe Bond Index Series, the FTSE Actuaries UK Gilts Index Series, the FTSE Eurozone Bond Index Series and the FTSE/JSE Fixed Income Index Series.
FTSE	FTSE International Limited.
FTSE Benchmarks	The Key Benchmarks, excluding the Fixed Income Benchmarks and the Russell Benchmarks.
FTSE Board	The Board of Directors of FTSE International Limited.
FTSE GEIS	The FTSE Global Equity Index Series.
FTSE RAFI	FTSE Research Affiliates Fundamental Index Series.
FTSE Russell	The trading name of the group of companies being FTSE, Russell, FTSE Canada and its subsidiaries.
FTSE Russell Index Governance Board	The internal governance board of FTSE Russell, drawn from FTSE Russell's senior operations, technical and research staff, which is responsible for maintaining the integrity of FTSE Russell products by ensuring that all FTSE Russell branded and co-branded products meet appropriate technical standards.



FTSE Canada	FTSE Global Debt Capital Markets Limited and its subsidiary undertaking FTSE Global Debt Capital Markets Inc.
Ground Rules	The index ground rules document that describes the underlying universe from which constituents are drawn, the eligibility criteria for constituents, the frequency at which the composition of the index is reviewed and the index calculation methodology.
Index Reviews	Periodic (for example quarterly or semi-annually) analysis of eligible companies for index inclusion based on criteria specified in the FTSE or FTSE Methodology document.
Index Reconstitution	Annual analysis of eligible companies for index inclusion based on criteria specified in the Russell Methodology document.
IOSCO Principles	The Board of the International Organization of Securities Commissions (IOSCO) Final Report on the Principles for Financial Benchmarks published in July 2013.
IMB	The Index Management Board, responsible for overseeing and managing the FTSE Russell index business.
IPMA	Index Pipeline Management Application – in-house workflow tool used for management of the product pipeline and ensuring the appropriate governance process is followed for all new requests.
Key Benchmarks or the FTSE Russell Benchmarks	The Benchmarks listed in Tables 3.1 - 3.4.
LSEG	London Stock Exchange Group plc and its subsidiary undertakings.
LSEG Internal Audit	The internal group audit function of LSEG.
LSEG Risk	The internal group risk function of LSEG.
Methodology	The documents that set out the rules and procedures for an index or index series. For the FTSE Benchmarks and Fixed Income Benchmarks these include the index Ground Rules, Corporate Actions and Events Guides, and Guides to Calculation Methods. For the Russell Benchmarks these include the Russell US Equity Indexes Construction and Methodology document.
Methodology Forums	The Methodology Forums, the groups responsible for ensuring that Methodology documents for new indices, and changes to Methodology documents for existing indices, are written clearly and unambiguously.



Nareit	National Association of Real Estate Investment Trusts.
Operational Forums	The Operational Forums provide confirmation to the Index Governance Board that new benchmarks or changes to existing ones can be created and maintained in accordance with the Methodology.
Oversight Committee	The FTSE Russell Oversight Committee is responsible for the oversight of all aspects relating to the provision of benchmarks administered by FTSE International Limited.
Policy Documents	Documents giving further information of how FTSE Russell would seek to treat unusual events and calculation issues.
Russell	Frank Russell Company.
Russell Benchmarks	The Russell 1000 [®] US Equity Index (including Value/Growth style indices and stability, the Russell 2000 [®] US Equity Index (including Value/Growth style indices and stability) and the Russell 3000 [®] US Equity Index (including Value/Growth style indices and stability).
Service Review Boards	The Index Service Review Board and the Technology Service Review Board each consider the respective service provision and any related incidents.
Technical Forums	The Technical Forums assess the methodology and design feasibility of products and changes to existing ones.
Technical Notice	Index notice to inform index users of certain index changes.



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Market participants look to us for our expertise in developing and managing global index solutions across asset classes. Asset owners, asset managers, ETF providers and investment banks choose FTSE Russell solutions to benchmark their investment performance and create investment funds, ETFs, structured products, and index-based derivatives. Our clients use our solutions for asset allocation, investment strategy analysis and risk management, and value us for our robust governance process and operational integrity.

For over 35 years we have been at the forefront of driving change for the investor, always innovating to shape the next generation of benchmarks and investment solutions that open up new opportunities for the global investment community.

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