

The logo consists of a light blue circular background with the text "FTSE" on the top line and "Russell" on the bottom line, both in white, bold, sans-serif font.

**FTSE
Russell**

FTSE Canada CFIF Meeting Update

Discussion Topics

1 FTSE Russell Updates

- FTSE Russell acquired minority interest to assume 100% stake ownership of FTSE TMX Global Debt Capital Markets Limited through FTSE International Limited
- FTSE International Limited authorized as a benchmark administrator under the European benchmark regulation (EU BMR)
- Development Update

2 CFIF Feedback Update

2.1 Advisory committee – sell-side input

2.2 Transparency and Communication

2.3 Price Challenge Handling

FTSE Canada Fixed Income

1. FTSE Russell Developments

FTSE Russell assumes 100% stake ownership of FTSE TMX Global Debt Capital Markets Ltd

- In April 2018, FTSE Russell completed the purchase from TMX Group Limited (“TMX”) and MTS S.p.A (“MTS”) of their respective minority shareholdings in FTSE TMX Global Debt Capital Markets Limited (“FTSE TMX”) to acquire 100% ownership of FTSE TMX
- **This acquisition is an important milestone in our commitment and investment in the Canadian benchmarks, data, and analytics offering, and enables us to further the development agenda to deliver value to the user base**
- The business in Canada will continue to be **overseen by a robust governance framework**, taking into account local market conventions, and in line with international regulatory standards
- The business continues to be operated by a highly **experienced local team, with support from global resources**. The team has continued to focus on successful delivery and support of the FTSE Canada products through the acquisition
- The **indexes will be rebranded** from FTSE TMX Canada to **FTSE Canada**. The corporate in Canada has been renamed to FTSE Global Debt Capital Markets Limited.
- Our intent is to make this as seamless as possible for our clients and provide ample notice, detailed information and support to facilitate the rebrand. A dedicated web page is being set up to provide information and updates and a dedicated email to address any client queries

FTSE International authorized as a benchmark administrator under the EU BMR

- In June 2018, UK's Financial Conduct Authority (FCA) granted FTSE International Limited authorisation as a benchmark administrator, under the European benchmark regulation (EU BMR)
- **EU BMR introduces a common framework to ensure the accuracy** and integrity of indexes used as benchmarks in the European Union
- FTSE Russell fully supports objectives of EU BMR and has been involved in its formation
- We believe this regulation **leads global best practice standards in index governance** and are committed to operating in line with EU BMR across indexes and geographies
- The FCA authorisation is comprehensive across asset classes, and covers the FTSE, Russell, FTSE TMX and FTSE MTS equity and fixed income indexes
- FTSE International Limited is listed on [FCA register](#) and [ESMA register](#) for administrators
- **Benchmark statements will be available on FTSE Russell.com** to help users comply with their direct obligations with respect to EU BMR
- We continue to assist our clients as they address the implications of the regulations to benchmark users through dedicated web pages, direct communications and meetings
 - Regulation <http://www.ftse.com/products/indices/regulation>
 - EU BMR <http://www.ftserussell.com/eu-benchmark-regulation>
 - Summary http://www.ftse.com/products/downloads/FTSE_Russell_Governance_Framework.pdf

FTSE Canada Development Update

- Recently Launched (April 2018) – FTSE Canada 0+ Universe Bond Index Series
- Slotted for release in Q3 2018 – Syndicated NHA MBS Index and pricing
- Multi Asset Products
- ESG Indexes
- Analytics

FTSE Canada Fixed Income

2. CFIF Feedback Update

CFIF Feedback Update

- FTSE Russell attended a meeting with the CFIF in October 2017 and received comments on areas for potential improvement on engagement in the Canadian market
- The key takeaways covered the following areas:
 - 1) Advisory committee – sell-side input
 - 2) Transparency / communication style
 - 3) Price challenges
- We have engaged with the market to provide information on our processes, index management and governance framework, as well as to facilitate enhancements in all these areas

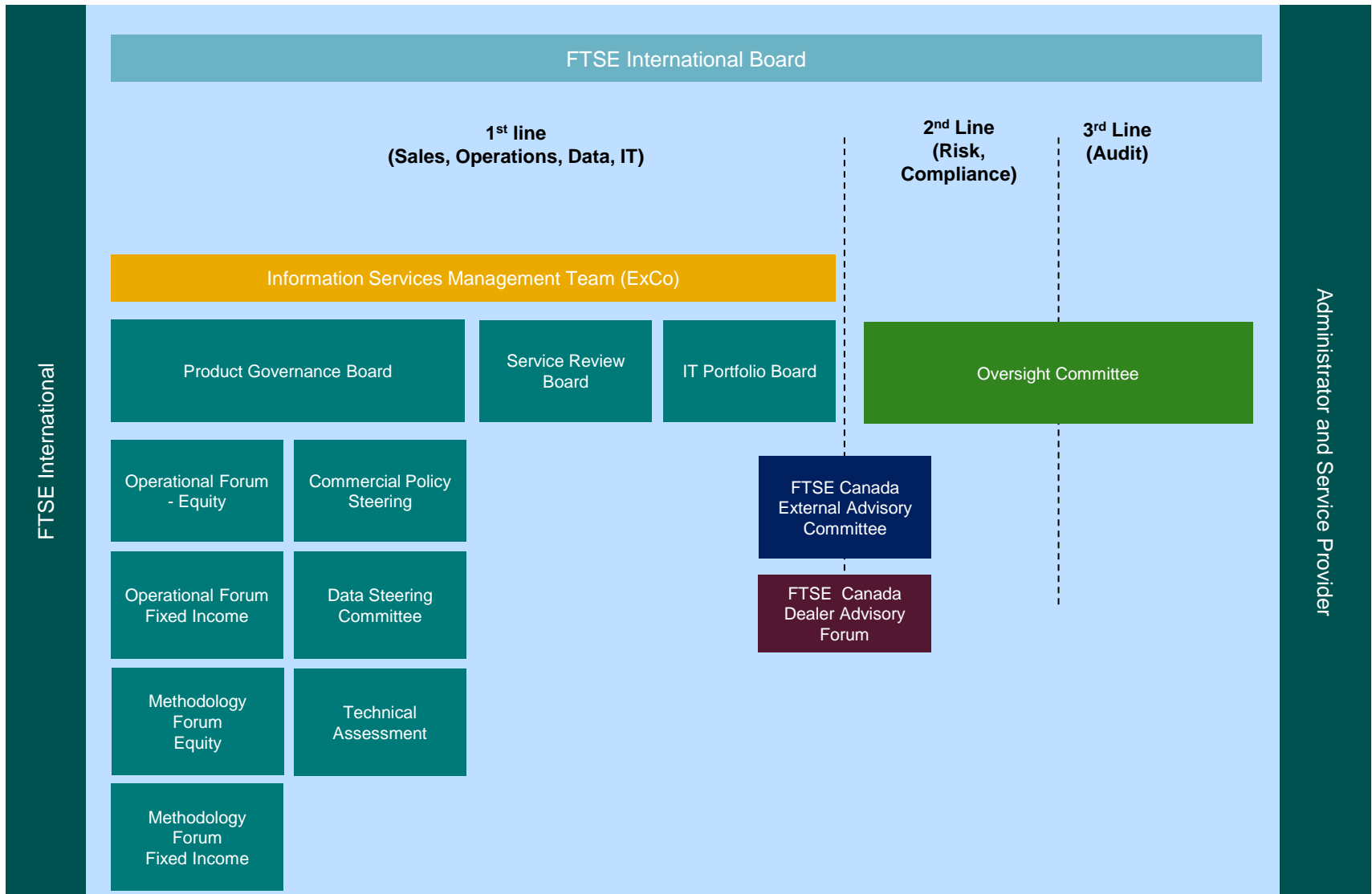
FTSE Canada Fixed Income

2.1 Advisory Committee – Sell Side Input

FTSE TMX Canada Dealer Forum

- FTSE Russell has implemented a local market focused addition to our overall governance structure - the **Canada Dealer Advisory Forum**
- The Forum is intended to facilitate a formal framework for feedback with our dealer partners and focuses on the following:
 1. **Information sharing** about index developments
 2. **Engagement around new issue types** introduced to the Canadian capital markets and expected index treatment to promote transparency
 3. **Enhancements to the price blender methodology**, including price challenge process
- The Forum includes all contributing dealers and meets three times year in parallel to the buy side focused Advisory Committee
- The inaugural meeting of the Forum convened in March 2018, and the first formal meeting took place on June 5, 2018
- Next meeting dates are:
 - 2018 - September 24 / 2019 - January 22, May 14 , and September 23

FTSE Russell Governance Framework



FTSE Canada Fixed Income

2.2 Transparency and Communication

Transparency – Availability of Information

- Transparency, along with robust governance and integrity, are at the core of our business and is evident in our approach to index management and oversight
- Index Ground Rules, Policies for handling methodology changes and decommissions, as well as Statement of Principles for Fixed Income are public
- Rules are reviewed on a regular basis (at least annually) to ensure that they continue to meet the current and future requirements of investors through engagement with the FTSE Canada Fixed Income Advisory Committee
- External oversight to confirm adherence to various internal controls and regulatory principles is provided through external audit (KPMG is engaged) and available to users for review:
 - IOSCO Principles – Statement of Compliance
 - ISAE 3000 - Operational Controls Type I and Type II
 - European Benchmark Regulation (includes FTSE Canada Fixed Income)

Transparency – Communication of Changes

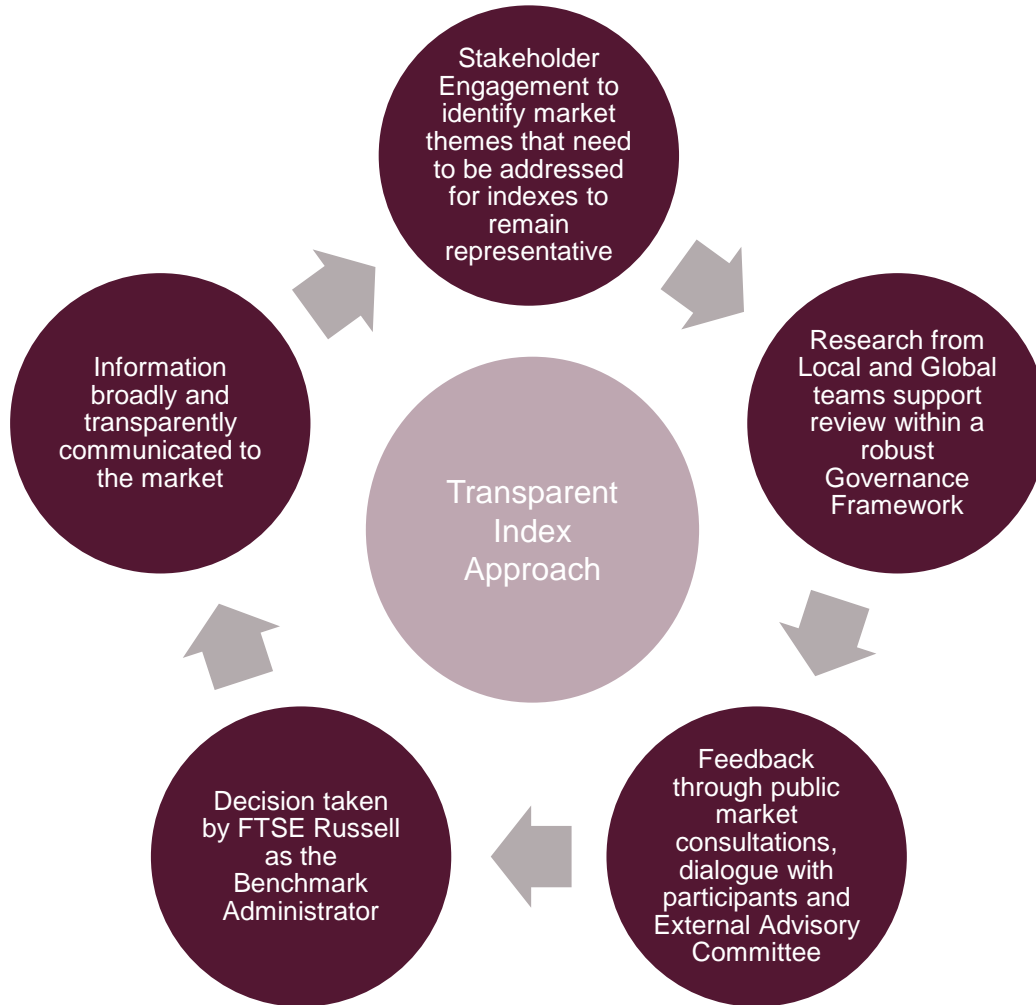
- Any proposals for amendments to an index methodology follow a robust protocol (http://www.ftse.com/products/downloads/FTSE_Russell_Policy_for_Benchmark_Methodology_Changes.pdf) and are subject to consultation with external advisory committee or broad market

Consultation with External Advisory Committees	Broad Stakeholder Consultation
<p>Consult on changes to the ground rules that dictate how we manage the index, for example:</p> <ul style="list-style-type: none">corporate action treatment,free float definitions,investability weight adjustments for stocks nearing their foreign ownership limits).	<p>Changes to rules that might significantly affect index composition including:</p> <ul style="list-style-type: none">eligibility criteria,construction rules,reconstitution frequency.

- FTSE Russell Product Governance Board makes the final decision and any resulting impacts are clearly communicated to the market via published Index Notices (<https://www.ftse.com/products/index-notice/>) and client announcements

Market Consultation Approach

FTSE Russell regularly consults the market for input on changes to the index methodologies and provides feedback in broad, clear and transparent fashion



Examples of Past and Present Consultations

- Index Evolution Pathway
- NVCC Inclusion
- NVCC Implementation
- **Minimum Issue Size Criteria (current)**

The various FTSE Russell consultations can be viewed on our public website

<https://www.ftse.com/products/indices/market-consultations>

Dedicated Website Portal – FTSE Canada

- In an effort to provide users of FTSE Canada Fixed Income products an easy way to access all information relating to the indexes and stay informed of any developments, market consultation, and announcements, we are collating all relevant links in a dedicated FTSE Canada web page (to launch Q3 2018)
- Prototype samples of what is expected to be included are in screen prints below

FTSE Canada Fixed Income

Governance

Robust governance, transparency and regulatory landscape and stakeholder concern for our clients. FTSE Canada

The FTSE Canada Fixed Income business oversees an overarching Governance Framework, including the FTSE Canada Fixed Income Advisory Committees ensure that the index clients' needs. Related Links: [Latest C](#)

Market Consultations

With the guidance and direction of FTSE Canada, we consult the market on changes to the requirements and define and lead global governance process and helps ensure markets they are designed to track. For more information, please see our [Market Consultations](#) page.

Regulation

FTSE Russell is committed to leading the way in transparent, robust and rules-driven regulatory standards, capturing the best

IOSCO Principles

FTSE Russell has issued a Statement of Compliance with the Organization of Securities Commissions (IOSCO) Principles). Independent assurance of the assertions received from KPMG LLP. FTSE Russell fully embeds address conflicts of interest in the benchmark-setting process to promote transparency and openness. FTSE Canada Statement each year since 2015. View the current [Statement](#).

Internal Controls Assurance Report (ISAR)

The Internal Controls Assurance Report is intended as part of their operational due diligence, seek assurance on the FTSE Canada Universe Bond Index Series. Key areas of focus include the suitability and operating effectiveness of the controls recognized international standard, developed and endorsed by IAASB) as the umbrella framework for assurance.

Two assurance reports were obtained for the FTSE Canada Universe Bond Index Series. FTSE Canada's key procedure controls at FTSE Canada are designed to ensure the operational effectiveness of controls reports may be obtained for internal review from our [Internal Controls Assurance Report](#).

European Benchmark Regulation

The FTSE Russell governance framework is designed that applies from 1 January 2018. FTSE International has been granted authorisation as an EU based administrator for the FTSE TMX and MTS indexes known to be indices acquired from Citigroup Indices LLC in Australia renamed FTSE Fixed Income LLC, according to the same time as the administration of those indexes is available [here](#).

FTSE Russell operates a comprehensive fixed income business in Canada which supports the market ecosystem through provision of benchmark indexes, end of day bond pricing services, as well as robust risk and performance analytics.

FTSE Canada Fixed Income Indexes

The FTSE Canada Fixed Income Index Family covers a multitude of asset categories and debt types in the Canadian markets with 600+ indexes across 20+ index series, including the flagship FTSE Canada [Universe Bond Index Series](#).

With over 40 years of published history, FTSE Canada Fixed Income Index Series are available through multiple analytics platforms. The indexes are administered in accordance with a Transparent Rules Based [Methodology](#), featuring modular construction, inclusion considerations, classification and rating schemes tailored to the local market convention and best representing the investor opportunity set in Canada. Custom Index Solutions are available on demand.

Important Dates for 2018/2019

Canada Bond Market Holidays*	Advisory Committee Meetings	Dealer Advisory Forum Meetings
• January 23 rd 2018	• January st 2018	• January st 2018
• May 15 th 2018	• May 15 th 2018	• May 15 th 2018
• September 24 th 2018	• September 24 th 2018	• September 24 th 2018

* Index is not published on Canada Bond Market Holidays

FTSE Canada Bond Pricing Service FastQuote

FTSE Russell provides official market close prices (4pm) for in and out of benchmark bonds in Canada through the FastQuote end of day pricing service. The [Multi Dealer Pricing Methodology](#) is used to gather contributions from primary dealer brokers, anchored in traded prices to create a market composite blended price. Supported by a robust price challenge policy, the goal is to provide transparency to an opaque OTC bond market. Prices are used to calculate the FTSE Canada Fixed Income Indexes and available to market participants (Investors, Market Makers, Mutual Funds,



Resources

FTSE Canada Universe Bond Index Series
Multi Dealer Pricing Methodology
Index Methodologies
Index Announcements
Market Consultations

Regulatory Compliance

IOSCO Principles
FTSE Russell Governance Framework
External Advisory Committees
European Benchmark Regulation
IASB 3000 – Type I Assurance Report
IASB 3000 – Type II Assurance Report

Market Engagement

- We have engaged across several market segments to provide information on our products, governance and decision making process
 - Series of client centric seminars and meetings
 - Engagement with and presentations to CBIA, IIAC, and CFIF
 - Broadened external advisory committee membership
 - Implementation of FTSE Canada Dealer Advisory Forum

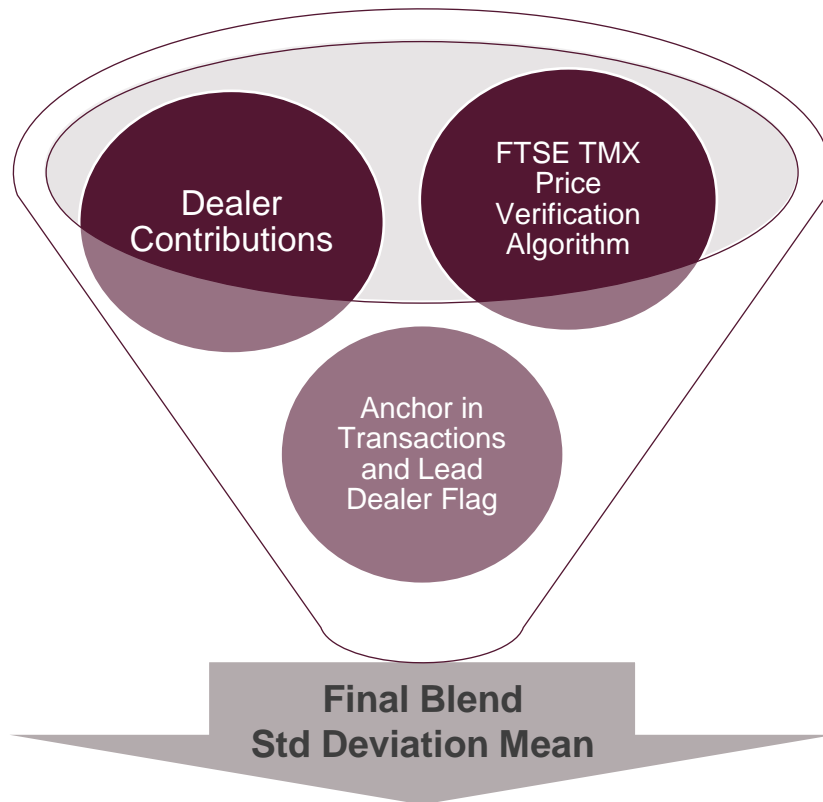
FTSE Canada Fixed Income

2.3 Price Challenge Process

Multi Dealer Pricing Methodology

FTSE TMX Canada Multi Dealer Pricing Methodology Guide publicly available to all users
<http://www.ftse.com/products/FTSETMX/Home/MultiDealerPricing>

Standard Deviation Mean Logic



Levels broadly available in FQ files and analytics
Mid-side quotes are used in the index

Price Verification Approaches

- **Scrub mechanisms aim to remove stale or off-market prices** which could possibly distort the final price.
- The scrub mechanisms:
 - utilize the database, by reviewing historical volatilities of daily yields;
 - review the lead dealer pricing;
 - review trade data (CDS, for trades with min size of \$500k) to identify contributions most in line with recent trades;
 - compare Dealer to Dealer valuations for each instrument

Anchoring

Price Challenge Policy

- **Established policy** allows users to challenge security prices to validate levels
- **All challenges are anonymized and verified with contributors**

Enhancing the Price Challenge Process

- FTSE Russell discussed approaches and potential enhancements to the price challenge process at the recent FTSE Canada External Advisory Committee and FTSE Canada Dealer Forum meetings with a view of implementing updates
- Suggestions and recommendations shared at these meetings are being taken into account in redesigning the engagement process
- Several streams have been undertaken, with buy in from participants, to facilitate this:
 - Track receipt of challenges and resulting actions to provide metrics to the committees
 - Enhanced reporting provided to contributing dealers to assist in review and feedback on price challenges
 - Continued engagement through the advisory committees to review metrics on price challenges issued and resolutions undertaken
- Commitment from all stakeholders to enhance the experience
- Actions taken with a view to introducing enhancement to the price blender

Thank you

Important information

© 2018 London Stock Exchange Group plc and its applicable group undertakings (the “LSE Group”). The LSE Group includes (1) FTSE International Limited (“FTSE”), (2) Frank Russell Company (“Russell”), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, “FTSE GDCM”), (4) MTSNext Limited (“MTSNext”), (5) Mergent, Inc. (“Mergent”), (6) FTSE Fixed Income LLC (“FTSE FI”) and (7) The Yield Book Inc (“YB”). All rights reserved.

FTSE Russell® is a trading name of FTSE, Russell, FTSE GDCM, MTS Next Limited, Mergent, FTSE FI and YB. “FTSE®”, “Russell®”, “FTSE Russell®”, “MTS®”, “FTSE4Good®”, “ICB®”, “Mergent®”, “WorldBIG®”, “USBIG®”, “EuroBIG®”, “AusBIG®”, “The Yield Book®”, and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, MTSNext, FTSE GDCM, Mergent, FTSE FI or YB. “TMX®” is a registered trademark of TSX Inc. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

All information is provided for information purposes only. All information and data contained in this publication is obtained by the LSE Group, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, however, such information and data is provided “as is” without warranty of any kind. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the accuracy, timeliness, completeness, merchantability of any information or of results to be obtained from the use of the FTSE Russell Indexes or the fitness or suitability of the FTSE Russell Indexes for any particular purpose to which they might be put. Any representation of historical data accessible through FTSE Russell Indexes is provided for information purposes only and is not a reliable indicator of future performance.

No responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for (a) any loss or damage in whole or in part caused by, resulting from, or relating to any error (negligent or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering any such information or data or from use of this document or links to this document or (b) any direct, indirect, special, consequential or incidental damages whatsoever, even if any member of the LSE Group is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing contained in this document or accessible through FTSE Russell Indexes, including statistical data and industry reports, should be taken as constituting financial or investment advice or a financial promotion.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group index data and the use of their data to create financial products require a licence from FTSE, Russell, FTSE GDCM, MTSNext, Mergent, FTSE FI, YB and/or their respective licensors.

About FTSE Russell

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

FTSE Russell's expertise and products are used extensively by institutional and retail investors globally. Approximately \$15 trillion is currently benchmarked to FTSE Russell indexes. For over 30 years, leading asset owners, asset managers, ETF providers, and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indexes also provide clients with tools for asset allocation, investment strategy analysis and risk management.

With the recent addition of The Yield Book business, FTSE Russell extends its expertise in analytics to a highly respected analytics platform that serves approximately 350 institutions globally including investment management firms, banks, central banks, insurance companies, pension funds, broker-dealers, hedge funds and investment management firms. The Yield Book offers analytical insights into a broad array of fixed income instruments with specific focus on mortgage, government, corporate and derivative securities.

FTSE Russell is also major provider of data solutions, from top down economic and demographic information, to detailed equity, debt and sustainability fundamental data analysis, to corporations, financial institutions, business academics and reference libraries. Through its acquisition of Mergent, a provider of business and financial information on public and private companies globally for more than 100 years, FTSE Russell provides solutions including advanced data collection, cloud-based applications, desktop analytics and print products.

FTSE Russell is a unit of London Stock Exchange Group's (LSEG) information Services Division. FTSE Russell is a wholly owned subsidiary of LSEG.

To learn more, visit ftserussell.com; email info@ftserussell.com; or call your regional Client Service Team office:

EMEA

+44 (0) 20 7866 1810

North America

+1 877 503 6437

Toronto +1 416 572 7979

Asia-Pacific

Hong Kong +852 2164 3333

Tokyo +81 3 3581 2764

Sydney +61 (0) 2 8823 3521

The logo consists of a light purple circle centered on a dark purple background. Inside the circle, the words "FTSE" and "Russell" are stacked vertically in a white, bold, sans-serif font.

**FTSE
Russell**

[ftserussell.com](https://www.ftserussell.com)