

▶ Calculation Methodology for Lease Term Based Measures in the UK and Ireland

Methodology Consultation Proposal

October 2020

This consultation may or may not lead to the implementation of the proposal. Consultation feedback will remain confidential. MSCI may publicly disclose the feedback of a participant if so, requested by any participant. In that case, the relevant feedback would be published at the same time as the final results of the consultation.

Methodology Review of Lease Term Based Measures

- MSCI intends to change the calculation methodology for particular lease term-based measures reported in risk reports in order to improve the relevance and representativeness of these measures.
- Measures Impacted:
 - All variants of Remaining Lease Term (RLT) and Average Lease Length
 - Rent per sqm at unit level >> only at tenancy level
- For e.g., Remaining Lease Term for any aggregate is currently calculated by using 'full rent' as the weight:

$$\text{Remaining Lease Term}_{\text{subset}} = \frac{\text{SUM of (FullRent}_{\text{tenant}} * \text{Remaining Lease Term}_{\text{tenant}})}{\text{SUM of FullRent}_{\text{tenant}}}$$

- Full rent is defined as the maximum of the contracted rent and all step amounts in future
- Current Methodology: All steps are considered regardless of how far they are in the future which will distort the aggregated calculations because those steps could be 20 or even be over 100 year in the future
- Proposed Methodology: Calculate weights based on current rent passing (use MRV for rent frees) rather than full rent for aggregated RLT calculation and implement historically
- MSCI invites feedback from the real estate investment community on this consultation on or before October 23, 2020 and MSCI will announce the results of the consultation on or before November 6, 2020

Current vs Proposed Methodology

- Current Methodology:**

- Considers all future steps regardless of how far they are in the future which will distort the aggregated calculations

Current Methodology	Stepped leases: $\text{Full Rent} = \text{Max}(\text{Rent Passing}, \text{Max}(\text{All steps}))$	Non-stepped leases: $\text{Full Rent} = \text{Rent Passing}, \text{if Rent Passing} < 0$ $\text{Full Rent}^* = \text{Market Rental Value if Rent Passing} = 0$ *Only if Rent-start Date is after valuation date and there is no vacancy
---------------------	---	--

- Proposed methodology**

- Reflects the current market situation >> relevant from a risk reporting perspective because long lease with indexation do not impact the RLT calculations
- Steps data is not considered in full rent calculations
- Steps data is not available across countries >> this option enables global comparability

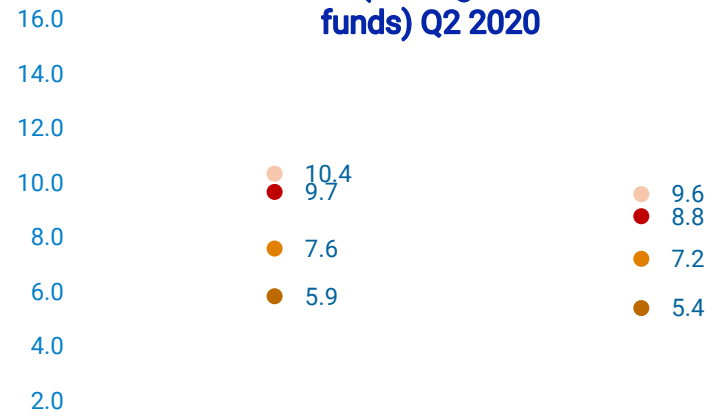
Proposed Methodology	No Demarcation between stepped and non-stepped leases: $\text{Full Rent} = \text{Rent Passing}, \text{if Rent Passing} < 0$ $\text{Full Rent}^* = \text{Market Rental Value if Rent Passing} = 0$ *only if Rent-start date is after valuation date and there is no vacancy
----------------------	---

Current vs Proposed – UK Q Property Index RLT

Index Q2 2020



Index (ex long income funds) Q2 2020



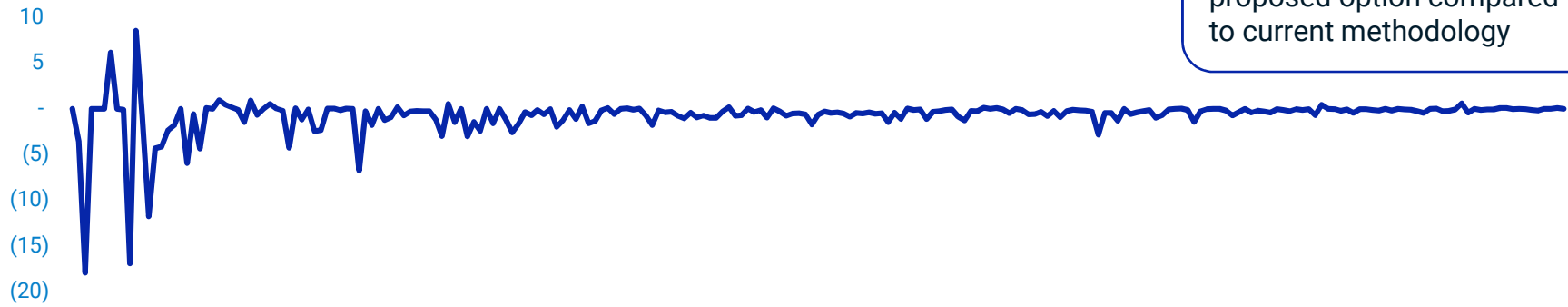
	Current	Proposed		Current	Proposed
Upper Quartile	13.3	12.1	Upper Quartile	10.4	9.6
Weighted Avg	13.7	12.8	Weighted Avg	9.7	8.8
Median	7.9	7.4	Median	7.6	7.2
Lower Quartile	6.0	5.7	Lower Quartile	5.9	5.4

- Above charts show a comparative analysis of Index RLT by quartiles between current and proposed methodologies
- The RLT as per current methodology is marginally inflated across different quartiles and at index level due to the methodology limitations
- From current to proposed methodology, Index RLT will change from 13.7 years to 12.8 years
- Excluding the impact of long income funds – Index RLT will change from 9.7 years to 8.8 years

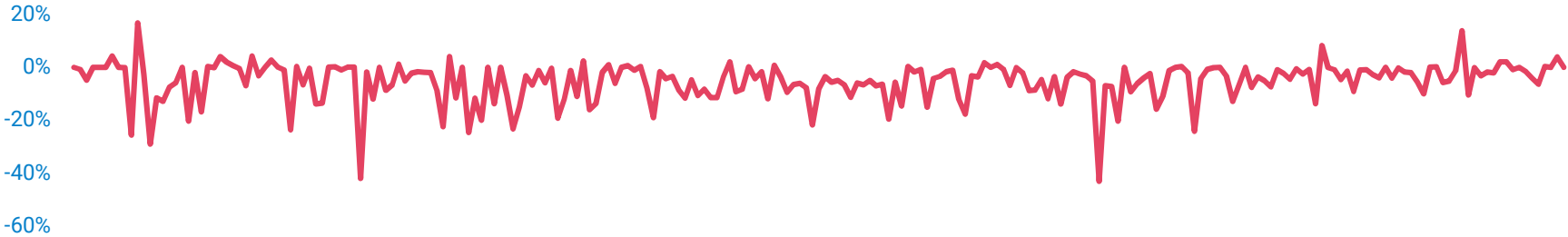
Current vs Proposed – Fund level Metrics

Each point in the charts represent a fund comparing current and proposed results – sorted descending (left to right) based on fund level RLT

Fund level RLT in most cases will compress in proposed option compared to current methodology



RLT change %



Appendix

Alternate Options Considered

Alternate Methodologies

- **Alternate Option 1** – Accounts for future steps within 5 years per data provision
 - Full rent will be overstated – where, step amounts > rent passing
 - Doesn't fully eliminate the methodology limitation of steps in future
 - 5-year criteria eliminates the impact of long leases with steps
 - However, there could be indexation based steps within 5 years

Alternate Option 1	Stepped leases: Full Rent = Max(Rent Passing, Max(All steps within 5 years))	¹ Non-stepped leases: Full Rent = Rent Passing, if Rent Passing <> 0 Full Rent* = Market Rental Value if Rent Passing = 0 *Only if Rent-start Date is after valuation date
--------------------	---	--

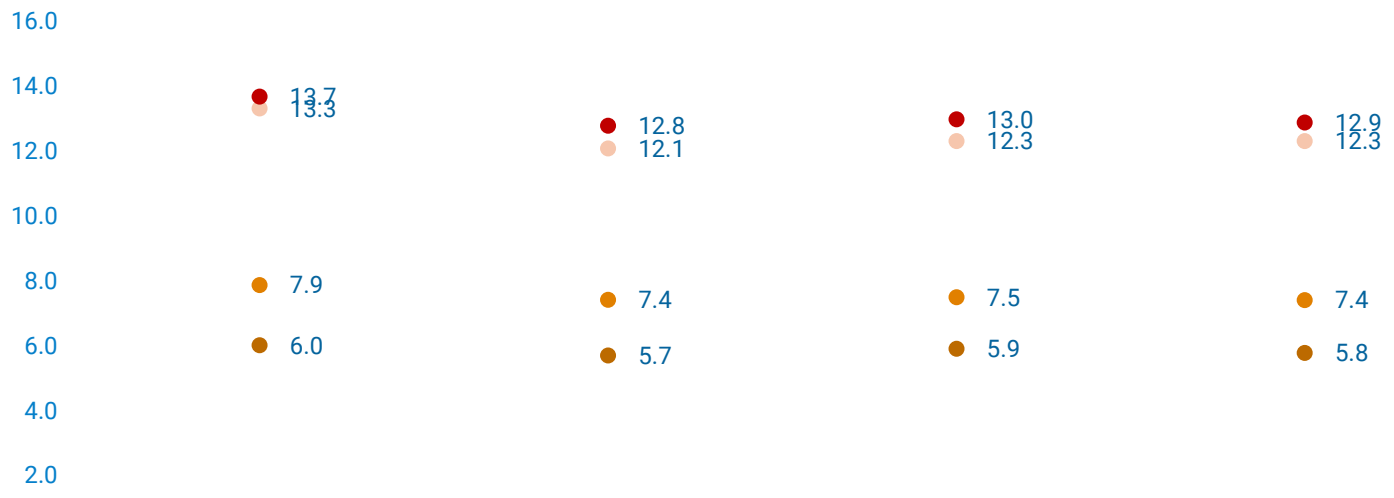
- **Alternate Option 2** – is a middle ground between proposed methodology and alternate option 1
 - This option considers first step (within 5 years) for weighting RLT for rent free units
 - Where rent passing is available – this option is aligned with proposed methodology

Alternate Option 2	Stepped leases: If Rent Passing <> 0 then full rent = Rent Passing If Rent Passing = 0 then full rent = First Step (within 5 years)	¹ Non-Stepped leases: Full Rent = Rent Passing, if Rent Passing <> 0 Full Rent* = Market Rental Value if Rent Passing = 0 *only if Rent-start date is after valuation date
--------------------	---	--

- Both alternate options may over state full rent compared to proposed methodology
- Also both alternate options are not possible to replicate in other countries

RLT Comparison with Alternate Options

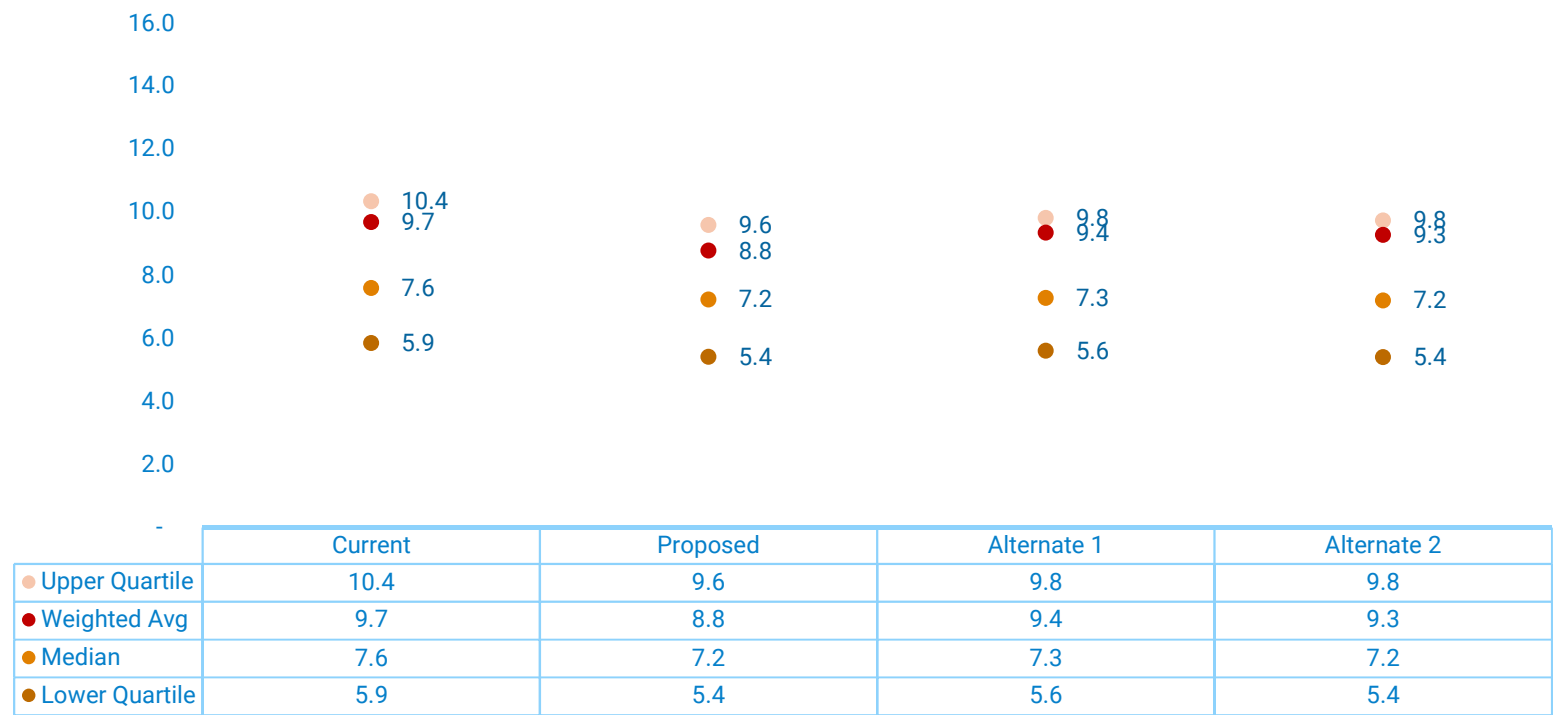
- RLT in years for the UK Quarterly Property Index



	Current	Proposed	Alternate 1	Alternate 2
● Upper Quartile	13.3	12.1	12.3	12.3
● Weighted Avg	13.7	12.8	13.0	12.9
● Median	7.9	7.4	7.5	7.4
● Lower Quartile	6.0	5.7	5.9	5.8

RLT Comparison with Alternate Options

- RLT in years for the UK Quarterly Property Index (excluding long income funds)



Proposed vs Alternate Options

Change in Fund level RLT (in years)



► About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit www.msci.com.

Notice & disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

Privacy notice: For information about how MSCI ESG Research LLC collects and uses personal data concerning officers and directors, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.