

FTSE Custom Digital Asset Indices

In Association with Digital Asset Research
v1.0

The index series is not, and is not intended to be, used by supervised entities in the European Union or United Kingdom and accordingly, the European Benchmark Regulation* and the UK Benchmark Regulation# do not apply to the index series. Consequently, supervised entities within the European Union and the United Kingdom are not permitted to use the index series as a benchmark as set out in article 3(1)(7) of the European Benchmark Regulation.

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**Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds.*

**The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 (which amends the European benchmark regulation in the United Kingdom)*



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Section 1

Introduction

1. Introduction

- 1.1 This document sets out the Ground Rules for the FTSE Custom Digital Asset Indices. The companion documents — Guide to the Vetting of Digital Assets and Digital Asset Exchanges and the Guide to the Calculation of the FTSE DAR Digital Asset Prices — should be read in conjunction with this document. Copies of both of these documents are available at www.lseg.com/en/ftse-russell/.
- 1.1.1 A digital asset is a cryptographically secured digital instrument for which the issuance, transfer and ownership is recorded on a data structure commonly referred to as a Blockchain.
- 1.1.2 The FTSE Custom Digital Asset Indices is designed to provide market participants a mechanism to evaluate digital asset investments and prices.
- 1.2 The FTSE Custom Digital Asset Indices does not take account of ESG factors in its index design.
- 1.3 The base currency of the FTSE Custom Digital Asset Indices is US Dollars (USD).
- 1.4 The FTSE Custom Digital Asset Indices incorporate the following indices:
- FTSE Custom Digital Asset Top 20 Index
 - FTSE Custom Digital Asset Infrastructure Index
 - FTSE Custom Digital Asset Application Index
- 1.5 Indices are calculated at Price Return levels only.
- 1.6 FTSE Russell**
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- 1.7 FTSE Russell does not make any representation or warranty, express or implied, as to the accuracy, completeness or correctness of the FTSE Custom Digital Asset Indices.
- 1.8 No liability whether as a result of negligence or otherwise is accepted by FTSE Russell (or any person concerned with the preparation or publication of these Ground Rules) for any losses, damages, claims and expenses suffered by any person as a result of:
- any reliance on these Ground Rules, and/or
 - any inaccuracies in these Ground Rules, and/or
 - any non-application or misapplication of the policies or procedures described in these Ground Rules, and/or
 - any inaccuracies in the compilation of the index series or any constituent data.

Section 2

Management responsibilities

2. Management responsibilities

2.1 FTSE International Limited (FTSE)¹

2.1.1 FTSE is the Benchmark Administrator of the index series.

2.1.2 FTSE is responsible for the daily calculation, production and operation of the index series and will:

- maintain records of the index weightings of all constituents;
- make changes to the constituents and their weightings in accordance with the Ground Rules;
- carry out periodic index reviews of the index series and apply the changes resulting from the reviews as required by the Ground Rules;
- publish changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews;
- disseminate the indices.

2.2 Digital Asset Research

2.2.1 Digital Asset Research (DAR) assesses the quality of pricing data, qualifies pricing sources, calculates the FTSE DAR Digital Asset Prices and supplies FTSE Russell with price feeds and advises on the eligibility of assets in the FTSE Custom Digital Asset Indices.

2.2.2 DAR is an independent, privately-owned research firm and data provider which partners with FTSE Russell in research into and providing data on digital assets.

2.2.3 DAR is responsible for the ongoing vetting of digital assets and of the broker dealer/exchanges of digital assets. DAR collects and validates the data it obtains as principal to identify ensuring both digital assets and broker dealer/exchanges of digital assets pass a strict set of rules.

2.3 Hashkey

2.3.1 Hashkey is responsible for the submission of the exclusion lists as detailed in section 4.1.

2.4 Amendments to these Ground Rules

2.4.1 These Ground Rules shall be subject to regular review (at least once a year) by FTSE Russell to ensure that they continue to best reflect the aims of the index series. The feedback from these consultations will be considered by the FTSE Russell Index Governance Board before approval is granted.

¹ The term administrator is used in this document in the same sense as it is defined in [Regulation \(EU\) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds](#) (the European Benchmark Regulation) and [The Benchmarks \(Amendment and Transitional Provision\) \(EU Exit\) Regulations 2019](#) (the UK Benchmark Regulation).

Section 3

FTSE Russell Index policies

3. FTSE Russell Index policies

These Ground Rules should be read in conjunction with the following policy documents which can be accessed through the links below:

3.1 Queries and complaints

FTSE Russell's complaints procedure can be accessed through the following link:

[Benchmark Determination Complaints Handling Policy.pdf](#)

FTSE Russell's appeal process can be accessed through the following link:

[Appeals Against Decisions.pdf](#)

3.2 Policy for benchmark methodology changes

Details of FTSE Russell's policy for making benchmark methodology changes can be accessed through the following link:

[Policy for Benchmark Methodology Changes.pdf](#)

3.3 Real Time Status Definitions

For indices which are calculated in real time, please refer to the following guide for details of real time status definitions:

[Real Time Status Definitions.pdf](#)

3.4 Digital Actions and Network Events Guide

3.4.1 Full details of changes to constituent digital assets at the quarter review due to events can be accessed in the digital action and network events guide through the following link:

[Digital Actions and Network Events Guide.pdf](#)

3.5 Digital Asset Index Recalculation Guide

Where an inaccuracy is identified, FTSE Russell will follow the steps set out in the FTSE Russell Index recalculation guidelines – Digital Assets Indices below when determining whether an index or index series should be recalculated and/or associated data products reissued as a result of an inaccuracy.

[Digital Asset Index Recalculation Guide](#)

3.6 Digital Asset Pricing Recalculation Guide

Where an inaccuracy is identified, FTSE Russell will follow the steps set out in the FTSE Russell Recalculation Guidelines – Digital Assets Prices below when determining whether a digital asset price should be recalculated and/or associated data products reissued as a result of an inaccuracy.

3.7 Guide to Calculation of digital asset prices and reference prices

[guide-to-calculation-of-ftse-dar-digital-asset-prices-and-reference-prices-fixes.pdf \(lseg.com\)](#)

3.8 Guide to the vetting of digital asset and digital asset exchanges

[guide-to-the-vetting-of-digital-asset-and-digital-asset-exchanges.pdf \(Iseg.com\)](#)

Section 4

Digital asset eligibility

4. Digital asset eligibility

4.1 Eligibility requirements

4.1.1 Constituents for the FTSE Custom Digital Asset Indices are eligible for inclusion if they are current constituents of the FTSE Digital Asset Total Cap Index. For further details please refer to the Ground Rules for the FTSE Global Digital Asset Index Series using the following link:

[FTSE Global Digital Asset Index Series Ground Rules.pdf \(ftserussell.com\)](https://www.ftserussell.com/FTSE-Global-Digital-Asset-Index-Series-Ground-Rules.pdf)

4.1.2 Constituents for the FTSE Custom Digital Asset Top 20 Index that are members of the applicable exclusion list from Hashkey are not eligible for the membership of the index. Hashkey compiles the exclusion list by excluding an asset if it cannot be traded on any eligible cryptocurrency exchange allowed in Hong Kong.

4.1.3 Constituent in the FTSE Digital Asset Total Cap Index in the following sectors are eligible for the FTSE Custom Digital Asset Infrastructure Index. Sector: Smart Contract Platforms (702020), Protocol Interoperability (702030), Notarization and Supply Chain Management (702040), Distributed Computation & Storage (702050).

Constituents that are members of the applicable exclusion list from Hashkey are not eligible for the membership of the FTSE Custom Digital Asset Infrastructure Index. Hashkey compiles the exclusion list by considering the following criteria:

- A digital asset's classification via eligible subsectors above lacks the primary context of use associated with the given digital asset theme.
- A digital asset may be excluded if it does not align with the overall objective of the given digital asset theme.
- A digital asset may be excluded as a best fit in another custom digital asset index to ensure mutual exclusivity within the custom Indices.
- A digital asset may be excluded due to operation constraints (trading and custody) in the eligible cryptocurrency exchange allowed in Hong Kong.

4.1.4 Constituents in the FTSE Digital Asset Total Cap Index in the following sectors are eligible for the FTSE Custom Digital Asset Application Index. Sector: Application Tokens (702010), Staking Instruments and Decentralized Autonomous Organizations (703010).

Constituents that are members of the applicable exclusion list from Hashkey are not eligible for the membership of the FTSE Custom Digital Asset Application Index. Hashkey compiles the exclusion list by considering the following criteria:

- A digital asset's classification via eligible subsectors above lacks the primary context of use associated with the given digital asset theme.
- A digital asset may be excluded if it does not align with the overall objective of the given digital asset theme.

- A digital asset may be excluded as a best fit in another custom digital asset index to ensure mutual exclusivity within the custom Indices.
- A digital asset may be excluded due to operation constraints (trading and custody) in the eligible cryptocurrency exchange allowed in Hong Kong.

4.1.5 Historical eligible constituent digital assets for the FTSE Custom Digital Asset Index Series were based on the eligible constituents as of the review prior to each sector index launch.

Section 5

Periodic review of constituents

5. Periodic Review of Constituents

5.1 FTSE DAR Reference Price

- 5.1.1 The price of each digital asset in a FTSE Custom Digital Asset Indices are the FTSE DAR Reference Price – Benchmark Asset Fixes.

Details of the FTSE DAR Reference Prices are provided in the document – Guide to the Calculation of the FTSE DAR Digital Asset Prices and FTSE DAR Reference Prices.

5.2 Index reviews

- 5.2.1 FTSE Custom Digital Asset Indices are reviewed on a quarterly basis in March, June, September, and December (the review month) using market information defined by circulating supply as at 10:00 UTC of the last day of the month prior to the review month (the data cut-off date).

5.3 Review process for the FTSE Custom Digital Asset Top 20 Index

FTSE Custom Digital Asset Top 20 Index will consist of largest 20 digital assets which qualify for inclusion in the index.

- 5.3.1 Reviewing Digital Assets for the FTSE Custom Digital Asset Top 20 Index:

A digital asset will be inserted at the periodic review if it rises above the position stated below:

FTSE Custom Digital Asset Top 20 Index – Risen to 18th or **above** of the eligible universe

A digital asset will be deleted at the periodic review if it falls below the position stated below:

FTSE Custom Digital Asset Top 20 Index – Fallen to 22nd or **below** of the eligible universe

A constant number of constituents will be maintained for the FTSE Custom Digital Asset Top 20 Index. Where a greater number of constituents qualify to be inserted in an index than those qualifying to be deleted, the lowest ranking constituents presently included in the index will be deleted to ensure that an equal number of constituents are inserted and deleted at the periodic review. Likewise, where a greater number of constituents qualify to be deleted than those qualifying to be inserted, the highest ranking constituents which are presently not included in the index will be inserted to match the number of constituents being deleted at the periodic review.

If there are less than 20 eligible digital assets in the FTSE Custom Digital Asset Top 20 Index eligible universe, then the indices will include only the eligible constituents.

- 5.3.2 Capping is applied to the constituents of the FTSE Custom Digital Asset Top 20 Index so that any single asset does not exceed 40%. The calculation of the constituent capping factors will be based on prices at close at 10:00 UTC on the Wednesday following the first Friday of the month and weights as designated to take effect after close of business on the third Friday of each month (i.e. effective from the open the following Sunday). The capping will be applied on a monthly basis.

5.4 Review Process for the FTSE Custom Digital Asset Infrastructure Index

The FTSE Custom Digital Asset Infrastructure Index will consist of assets primarily comprised of crypto infrastructure chains such as Layer 1 networks, along with protocols that offer storage, scaling, and data services for these infrastructures. Constituents will be reviewed quarterly based on eligibility criteria outlined in 4.1.3.

The FTSE Custom Digital Asset Infrastructure Index is equal weighted and the calculation of the constituent equal weighting factors will be based on prices at close at 10:00 UTC on the Wednesday following the first Friday of the month and weights as designated to take effect after close of business on the third Friday of each month (i.e. effective from the open the following Sunday). The equal weighting will be implemented on a monthly basis.

5.5 Review Process for the FTSE Custom Digital Asset Application Index

The FTSE Custom Digital Asset Application Index will consist of assets that encompasses DeFi, Games, Metaverse, and other DApps that are directly accessible to web3 users and allow them to interact with the applications directly. Constituents will be reviewed quarterly based on eligibility criteria outlined in 4.1.4.

The FTSE Custom Digital Asset Application Index is equal weighted and the calculation of the constituent equal weighting factors will be based on prices at close at 10:00 UTC on the Wednesday following the first Friday of the month and weights as designated to take effect after close of business on the third Friday of each month (i.e. effective from the open the following Sunday). The equal weighting will be implemented on a monthly basis.

Section 6

Changes to the constituent digital assets

6. Changes to constituent digital assets

6.1 Intra-review additions

The FTSE Custom Digital Asset Indices will not accept intra-review additions.

6.2 Intra-review deletions

A constituent will be removed from the FTSE Custom Digital Asset Indices if it is removed from the FTSE Digital Asset Total Cap Index. The deletion will be concurrent with the deletion from the index and its weight will be distributed pro-rata amongst the remaining constituents of the FTSE Custom Digital Asset Indices.

Should an intra-quarter rebalance takes place, a minimum of two days' advanced notification with details on the review will be provided.

Section 7

Index calculation method

7. Index calculation method

7.1 Prices

7.1.1 FTSE calculates the FTSE DAR Reference Price for each digital asset using the method outlined in the document Guide to the Calculation of FTSE DAR Digital Asset Prices and FTSE DAR Reference Prices.

7.1.2 Exchange rates used are WM/Refinitiv Spot Rates hourly service (further information on the WM/Refinitiv Spot Rates service is available from Refinitiv), coinciding with the hourly production of FTSE Digital Asset Custom Indices. For the indices which observe daylight-saving time, the exchange rates are mapped accordingly.

7.2 Calculation Frequency

7.2.1 The FTSE DAR Reference Price is calculated hourly and the 18:00 HKT / 10:00 UTC fix is used for the calculation of the FTSE Digital Asset Custom Indices and associated products.

7.3 Index Calculation for the FTSE Custom Digital Asset Indices

The FTSE Digital Asset Custom Indices calculation formula is described below:

$$\sum_{i=1}^N \frac{(p_i(t) \times e_i(t) \times s_i(t) \times f_i(t))}{d}$$

where,

- $i = 1, 2, \dots, N$ – digital assets
- N is the number of digital assets in the index.
- t is the calculation time
- $p_i(t)$ is the FTSE DAR Reference Price of the digital asset i at calculation time t
- $e_i(t)$ is the exchange rate required to convert the digital asset i price into the index's base currency at calculation time t
- $s_i(t)$ is the circulations supply used by FTSE Russell for the digital asset, as defined in these Ground Rules at calculation time t .
- $f_i(t)$ is the Weighting Factor to be applied to a digital asset to correctly weight that digital asset in the index. This factor maps the market capitalisation of each digital asset to a notional market capitalisation for inclusion in the index. $f_i(t)$ is equal to 1 in the FTSE Digital Asset Top 20 Custom Index.
- d is the divisor, a figure that represents the total capital of the index at the base date base hour. The divisor can be adjusted to allow changes to digital assets to be made without distorting the index in the FTSE Digital Asset Custom Indices.

7.4 Index opening and closing hours

7.4.1 The FTSE Custom Digital Asset Indices is calculated Sunday to Friday at 18:00 HKT / 10:00 UTC.

Appendix A

Further information

A glossary of terms used in FTSE Russell's Ground Rule documents can be found using the following link:

[Glossary - Digital Assets.pdf \(ftserussell.com\)](#)

For contact details please visit the FTSE Russell website or contact FTSE Russell client services at info@ftserussell.com.

Website: www.lseg.com/en/ftse-russell/

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