



FTSE Digital Asset Index Series

In Association with Digital Asset Research

v1.1



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Section 1

Introduction

1.0 Introduction

- 1.1 This document sets out the Ground Rules for the FTSE Digital Asset Index Series. 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.ftserussell.com.
- 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 Digital Asset Index Series is designed to provide market participants a mechanism to evaluate digital asset investments and prices.
- 1.2 The FTSE Digital Asset Index Series does not take account of ESG factors in its index design.
- 1.3 The base currency of the FTSE Digital Asset index Series is US Dollars (USD).
- 1.4 **FTSE Russell**
- FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc. and MTSNext Limited), Mergent, Inc., FTSE Fixed Income LLC, The Yield Book Inc and Beyond Ratings S.A.S.
- 1.5 FTSE Russell does make any representation or warranty, express or implied, as to the accuracy, completeness or correctness of the FTSE Digital Asset Index Series.
- 1.6 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 errors or 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 errors or inaccuracies in the compilation of the indicative index series or any constituent data.



Section 2

Management Responsibilities

2.0 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.

2.1.3 FTSE is responsible for monitoring the performance of the FTSE Digital Asset Index Series throughout the day and will determine whether the status of the Index should be Firm, Closed, Indicative or Held.

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 Digital Asset Index Series.

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.

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.

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).

2.3 **Amendments to these Ground Rules**

- 2.3.1 These Ground Rules shall be subject to regular review 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 Product Governance Board before approval is granted.



Section 3

FTSE Russell Index Policies

3.0 FTSE Russell Index Policies

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

3.1 Queries, Complaints and Appeals

A constituent or prospective constituent security (or professional advisor acting on behalf of the security), a national organisation or a group of no fewer than ten users of the Indices from different organisations acting in their professional capacity may appeal against decisions taken by FTSE Russell.

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

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

FTSE Russell's Appeal Process can be accessed using 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 using the following link:

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



Section 4

Digital Asset Eligibility

4.0 Digital Asset Eligibility

4.1 Eligibility Requirements

- 4.1.1 Constituent digital assets in the FTSE Digital Assets Index Series are all selected from an eligible universe of digital assets that meet the eligibility requirements set out in Section 4 of the Guide to the Vetting of Digital Assets and Digital Asset Exchanges.



Section 5

FTSE Digital Asset Indices

5.0 FTSE Digital Asset Indices

5.1 Eligible Digital Assets

5.1.1 Constituents in the FTSE Digital Asset Indices are selected from the Eligible Universe of digital assets determined using the rules set out in the document Guide to the Vetting of Digital Assets and Digital Asset Exchanges.

5.2 FTSE DAR Digital Asset Price

5.2.1 The price of each digital asset in a FTSE Digital Asset Index is the FTSE DAR Digital Asset Price. The FTSE DAR Reference Price Indices are represented by the FTSE DAR Reference Price – Benchmark Asset Fixes. Details of both the FTSE DAR Digital Asset Price and the FTSE DAR Reference Prices are provided in the document – Guide to the Calculation of the FTSE DAR Digital Asset Prices.

5.2.2 The underlying digital assets in each index of the FTSE Digital Asset Indices

FTSE Digital Asset Index	Underlying Digital Assets
FTSE Digital Asset Single Asset Indices	See table 5.2.3

5.2.3 The following single asset indices are available:

Single Asset Index	Underlying Asset
FTSE Bitcoin Index	Bitcoin
FTSE Ethereum Index	Ethereum
FTSE Cardano Index	Cardano

5.3 Review Schedule

5.3.1 The FTSE Digital Asset Indices are reviewed on a quarterly basis in March, June, September and December (the review month) using market information as at the close of the last weekday day of the review month (the data cut-off date). The review will be implemented at the close on the Sunday following the second Friday in the month following the month of the data cut-off date.

5.3.2 Constituents are equally weighted.

Section 6

Network Events

6.0 Network Events

- 6.1.1 Digital assets undergo Network Events, which are conceptually similar to Corporate Actions.
- 6.1.2 A Network Event is an action on digital asset holders with a prescribed ex date. The digital asset price may be subject to an adjustment on the ex date. Network Events include the following:
- (i) Air Drop / Emissions, Token Conversion;
 - (ii) Token Issuance / Token Burns;
 - (iii) Client Updates
 - (iv) Software Soft Forks
 - (v) Hard Forks
 - (vi) Chain Splits.
 - (vii) Application Updates

6.2 Token Issuance / Token Burns

- 6.2.1 A digital asset may issue new tokens continuously without bound, issue new tokens until a predefined number is reached or issue all tokens in a single issue (pre-mined), possibly restricting circulation to only a percentage of the total.
- 6.2.2 Digital asset tokens can be burned (destroyed) reducing the number of tokens in circulation.
- 6.2.3 Changes to the number of tokens in issue for digital assets updated by DAR on a quarterly basis and changes are implemented, where necessary, as part of the periodic review schedule of the FTSE Digital Asset Index Series indices.

6.3 Investability Weightings

- 6.3.1 The investability weighting is a number between 0 and 1, where 1 represents 100% (of the tokens in issue). The investability weighting is an adjustment made to the tokens in issue to account for:
- a. All pre-mined tokens (tokens that are allocated prior to the public release) which remain in the control of developers, principals, foundations, or business entities affiliated with the creation of the digital asset.
 - b. Block grants of the digital asset that are formulaically given to the principals, foundations, or business entities affiliated with the creation of the digital asset.

- c. Return issuance to the investible circulation if since the last periodic review an event (preceded by a public announcement) that tokens have been sold into the public market.

6.3.2 The investible tokens in issue represents the total issued number of tokens of a digital asset adjusted by the investability weighting.

6.3.3 Changes to circulation for constituent securities are implemented as part of the quarterly periodic review schedule of the FTSE Digital Asset Index Series indices.

6.4 **Client Updates, Forks, Chain Splits and Application Updates**

6.4.1 Digital asset networks consist of users that run versions of a digital asset protocol software. Different programming language versions of the same protocol are called Clients, which can be individually updated. Forks occur when all Clients in the underlying network adopt new policies. Chainsplits occur where there are two or more competing versions of the same blockchain that can result in a new asset.

- A. Client update – When one implementation of a digital asset protocol is individually updated. Some digital assets only have one client or reference implementation.
- B. Soft fork - A Soft Fork is a simultaneous update of all Clients of a digital asset protocol. Typically, these are coordinated to occur at a specific block height (block number). These software updates do not affect the consensus rules of the protocol meaning blocks that were valid prior to the Soft Fork continue to be valid after the update. Hard forks - Like a Soft Fork, a Hard Fork is a simultaneous update of all Clients of a digital asset protocol. Hard Forks differ from Soft Forks in that they affect the consensus rules of the protocol. This means that blocks and client versions that were valid prior to the Hard Fork are no longer valid for inclusion in a blockchain unless a Client is updated.
- C. Chain Split - A Chain Split occurs when there are two or more competing versions of an original blockchain that result in a Hard Fork, the creation of a new digital asset. This typically occurs at a specific block and is created intentionally to change key features or rules of an original blockchain. Because an entirely new digital asset is created, new ways to store, transmit, and trade the digital asset need to be created.
- D. Application Update - Digital Assets can be used in Decentralized Applications, which can be implemented as smart contracts, or as supporting software, such as layer 2 solutions. Applications implemented via smart contracts reside in platforms like Ethereum. As such, they do not have their own consensus rules and rely on key functionality from the platform itself. These programs are often updated to improve functionality and patch bugs.

6.4.2 In the event of a Chain Split results in a new asset, holders of an existing digital asset have ownership of both the original digital asset and the new, hard-forked digital asset. Eligibility of Chain Splits will be considered for inclusion in the eligible universe (Section 4) by FTSE Russell using information provided by DAR.

6.5 **Airdrops**

6.5.1 An airdrop is the distribution of a new or existing digital asset token to holders of an existing digital asset on a one-off or occasional basis, often in return for a service rendered.

6.5.2 Airdrops are not included in indices which comprise the FTSE Digital Asset Index Series.

6.6 **Emissions**

6.6.1 Emissions are an award to digital asset token holders in the form of a digital asset grant. These rewards are typically provided in a form which facilitates transactions on the network.

6.6.2 Emissions are not considered in indices which comprise the FTSE Digital Asset Index Series.

6.7 **Token Conversion**

6.7.1 A digital asset may undergo a hard fork whereby the new protocol and token replaces the old. Holders of the old token convert their old token holdings into the new token on the new blockchain and the old tokens are destroyed (burned).

6.7.2 The new token is considered a continuation of the old token and remains in the FTSE Digital Asset Index Series.



Section 7

Index Calculation Method

7.0 Index Calculation Method

7.1 Prices

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

7.2 Calculation Frequency

7.2.1 The FTSE DAR Digital Asset Price is calculated every 15 seconds and is used for the calculation of the FTSE Digital Asset Index Series and associated products.

7.3 Index Calculation

7.3.1 The FTSE Digital Asset Index Series calculation formula is described below:

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

where,

- $i=1,2,\dots,N$
- N is the number of digital assets in the index.
- p_i is the FTSE Digital Asset Price.
- t is the number of tokens in issue used by FTSE Russell for the digital asset, as defined in these Ground Rules.
- f_i is the Weight Adjustment Factor applied to a digital asset to allow amendments to its weight.
- d is the divisor, a figure that represents the total capital of the index at the base date. The divisor can be adjusted to allow changes to digital assets to be made without distorting the index in the FTSE Digital Asset Index Series.

Index Opening and Closing Hours

7.4.1 The FTSE Digital Asset Index Series is calculated continuously on every calendar day (including weekends) on a real time basis, with a notional market close, as shown below. The notional open and closing times are in EST

- FTSE Digital Asset Index Series opens at 17:00:00 EST
- FTSE Digital Asset Index Series closes at 16:59:45 EST



Appendix A: Further Information

Further information on the FTSE Digital Asset Index Series is available from FTSE Russell.

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

Website: www.ftserussell.com

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