FTSE Digital Asset Staking Index Series



Contents

Section 1 Introduction	3
Section 3 FTSE Russell Index policies	5
Section 4 Digital asset eligibility	6
Section 5 Periodic review of constituents	7
Section 6 Digital asset actions and network events	8
Section 7 Index calculation method	9
Appendix A Further information	11

FTSE Russell 2 of 12

Introduction

1. Introduction

- 1.1 This document sets out the Ground Rules for the FTSE Digital Asset Staking Index Series. The companion documents <u>Guide to the Vetting of Digital Assets and Digital Asset Exchanges</u> and the <u>Guide to the Calculation of the FTSE DAR Digital Asset Prices</u> should be read in conjunction with this document. Copies of both 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 Digital Asset Staking Index Series is designed to provide market participants a mechanism to evaluate digital asset investments and prices.
- 1.2 The FTSE Digital Asset Staking Index Series does not take account of ESG factors in its index design.
- 1.3 The base currency of the FTSE Digital Asset Staking Index Series is US Dollars (USD).
- 1.4 The FTSE Digital Asset Staking Index Series incorporates the:
 - FTSE Cardano 100% Staking TR Index (1700 CET)
 - FTSE Cardano 100% Staking TR Index (4pm EST)
- 1.5 Indices are calculated at Price and Total Return levels.

1.6 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 FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, FTSE (Beijing) Consulting Limited, Refinitiv Benchmark Services (UK) Limited, Refinitiv Limited and Beyond Ratings.

- 1.7 FTSE Russell does not make any representation or warranty, express or implied, as to the accuracy, completeness or correctness of the FTSE Digital Asset Staking Index Series.
- 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.

FTSE Russell 3 of 12

Management responsibilities

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 Digital Asset Staking 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.
- 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.
- 2.2.4 DAR is responsible for sourcing staking rewards data directly from each respective blockchain.

2.3 Amendments to these Ground Rules

2.3.1 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.

FTSE Russell 4 of 12

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).

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

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

Real_Time_Status_Definitions.pdf

FTSE Russell 5 of 12

Digital asset eligibility

4. Digital asset eligibility

4.1 Eligibility requirements

4.1.1 The eligible constituent digital assets of each FTSE Digital Asset Staking Index are the constituents of the corresponding underlying assets listed in Table 1. All underlying assets have been classified as Benchmark Assets as they have met the eligibility requirements set out in the Guide to the Vetting of Digital Assets and Digital Asset Exchanges.

Table 1: Underlying assets

Index Name	Underlying Asset
FTSE Cardano 100% Staking TR Index (1700 CET)	Cardano
FTSE Cardano 100% Staking TR Index (4pm EST)	Cardano

4.1.2 Eligible constituents in the FTSE Digital Asset Staking Index Series must use a Proof-of-Stake consensus mechanism.

FTSE Russell 6 of 12

Periodic review of constituents

Periodic review of constituents

5.1 FTSE DAR Reference Price

5.1.1 The price of each digital asset in a FTSE Digital Asset Staking Index is the FTSE DAR Reference Price – Benchmark Asset Fixes.

Details of the FTSE DAR Reference Prices are provided in this document: <u>Guide to the Calculation of the FTSE DAR Digital Asset Prices and FTSE DAR Reference Prices.</u>

5.2 Index reviews

- 5.2.1 The FTSE Digital Asset Staking Index Series is reviewed on a quarterly basis in March, June, September, and December using market information defined by circulating supply as at 22:00 UTC of the last day of the month prior to the review month (the data cut-off date).
- 5.2.2 The FTSE Digital Asset Staking Index Series use the price on the Wednesday before the first Friday of the review month. The reviews are implemented on the third Friday of the review month at the times listed in Table 2 below.
- Prior to March 2022, the FTSE Digital Asset Staking Index Series was reviewed on a quarterly basis in January, April, July and October using market information defined by circulating supply as at 22:00 UTC of the last day of the month prior to the review month (the data cut-off date). The FTSE Digital Asset Staking Index Series reviews are implemented as listed in Table 2 below.

Table 2: Review timing

Index Name	Implementation Time	
FTSE Cardano 100% Staking TR Index (1700 CET)	17:00 CET	
FTSE Cardano 100% Staking TR Index (4pm EST)	4pm EST	

FTSE Russell 7 of 12

Digital asset actions and network events

6. Digital asset actions and network events

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

Digital Actions and Network Events Guide

FTSE Russell 8 of 12

Index calculation method

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 Guide to the Calculation of FTSE DAR Digital Asset Prices document 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 Staking Index Series. For the indices which observe daylight-saving time, the exchange rates are mapped accordingly. The FTSE Digital Asset Staking Index Series (1700 CET) will use WMR rate at 1600 UTC when the daylight-saving time is being observed and 1700 UTC otherwise. The FTSE Digital Asset Staking Index Series (4pm EST) will use WMR rate at 2000 UTC when the daylight-saving time is being observed and 2100 UTC otherwise. On Sundays the latest traded WMR rate is carried over.

7.2 Calculation frequency

7.2.1 The FTSE DAR Reference Price is calculated hourly and the 17:00 CET fix is used for the calculation of the FTSE Digital Asset Staking Index Series (1700 CET) and the 4:00pm Eastern Time fix is used for the calculation of the FTSE Digital Asset Staking Index Series (4pm EST) including respective associated products.

7.3 DAR staking rewards

DAR identifies the pool operators and delegators that received a reward for each epoch by directly accessing full node data. Rewards are aggregated daily and are captured between 00:00 UTC inclusive and 00:00 UTC exclusive. Rewards that straddle the data cut off are applied in the next full daily aggregated quantity.

7.3.1 Cardano reward amounts that were earned in an epoch do not settle until 5 days after the conclusion of the epoch.

7.4 FTSE staking overview

The FTSE Digital Asset Staking Index Series incorporates staking rewards from each asset's Proof-of-Stake consensus mechanism on a daily basis assuming rewards are not restaked. Participants in a Proof-of-Stake blockchain network lock up a certain amount of their digital asset holdings as collateral to become eligible to validate transactions and create new blocks. As a reward they may earn additional cryptocurrency or tokens. In addition to processing transactions, the process also contributes to network security.

FTSE implements the DAR staking rewards data on a settlement basis on T+1.

Index values are calculated Sunday through Friday. If a staking reward is implemented on a Saturday, when index values are not published, the reward will be included in the Sunday calculation.

Staking rewards vary by blockchain and the protocols may vary reward models from time to time. Assumptions utilized in staking rewards are listed in Table 3 below.

FTSE Russell 9 of 12

Table 3: Staking rewards

Index	Epoch Period	Settlement Period	Reward Types
FTSE Cardano 100% Staking TR Index	5 days	Every five days with a T+5 settlement	Member, Leader

7.5 Staking calculations

7.5.1 The FTSE Digital Asset Staking Index Series includes price and total return index levels. Total returns incorporate the price impact as well as staking rewards.

$$SY = \frac{(m+l)*(y/n)}{s}$$

where,

SY is the annualised Staking Yield m is the member reward per observation period I is the leader reward per observation period s is the staked quantity per observation period y is fixed as 365 days in the year n is the epoch period listed in Table 3

7.6 Index calculation

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

$$STR_{t} = \frac{(p_{t} * c_{t})}{(p_{t-1} * c_{t})} + \frac{(m_{t-n-1} + l_{t-n-1})}{s_{t-n-1}}$$

where.

STR is the daily staking total return

p is the price

s is the circulating supply

m is the member rewards

I is the leader rewards

s is the staked quantity

i is the calculation date

n is the epoch period listed in Table 3

$$STRI_t = STRI_{t-1} \times (1 + STR_t)$$

where,

 $STRI_t$ = Staking Total Return Index on calculation day t

7.7 Index opening and closing hours

- 7.7.1 The FTSE Digital Asset Staking Index Series (1700 CET) is calculated Sunday to Friday at 17:00 CET.
- 7.7.2 The FTSE Digital Asset Staking Index Series (4pm EST) is calculated Sunday to Friday at 4:00pm Eastern Time.

FTSE Russell 10 of 12

Appendix A

Further information

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

Glossary - Digital Assets.pdf (ftserussell.com)

Further information on the FTSE Digital Asset Staking 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.lseg.com/en/ftse-russell/

FTSE Russell 11 of 12

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