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Section 1

Introduction

1.0 Introduction

1.1 FTSE Nareit Preferred Stock Index

1.1.1 The FTSE Nareit® Preferred Stock Index is designed to provide a measure of REIT preferred stock performance.

To qualify as a REIT, a company must comply with certain provisions within the U.S. Internal Revenue Code. As required by the tax code, a REIT must:

- Be an entity that is taxable as a corporation
- Be managed by a board of directors or trustees
- Have shares that are fully transferable
- Have a minimum of 100 shareholders
- Have no more than 50 percent of its shares held by 5 or fewer individuals during the last half of the taxable year
- Invest at least 75 percent of its total assets in qualifying real estate assets, which include interests in real property, interests in mortgages on real property, or shares in other REITs
- Derive at least 75 percent of its gross income from real estate related services, such as rents from real property or interest on mortgages financing real property
- Have no more than 25 percent of its assets consist of stock in taxable REIT subsidiaries
- Pay annually at least 90 percent of its taxable income in the form of shareholder dividends

Preferred stock is an equity security with properties of both an equity and a bond. It is a class of ownership in a corporation that has a higher claim on the assets and earnings than common stock but subordinate to bonds. Preferred stock generally has a dividend that must be paid out before dividends to common stockholders and can be deferred without triggering default of the company.

1.2 Ground Rules

1.2.1 This document sets out the Ground Rules for the construction and maintenance of the FTSE Nareit Preferred Stock Index. Copies of these Ground Rules are available from Nareit and FTSE Russell (see Appendix B).
1.3 **Index Construction Methodology**

1.3.1 The FTSE Nareit Preferred Stock Index consists of all publicly traded, non-convertible, perpetual preferred stocks that meet a minimum size requirement of $50 million of face value, and were issued by companies that are members of the FTSE Nareit All REITs Index with the exception of Mortgage REITs.

1.3.2 Both price and total return indexes are calculated. Dividends are included in the total return indexes based on their ex-dividend dates.

1.4 **IOSCO**

1.4.1 FTSE considers that the FTSE EPRA-Nareit Preferred Stock Index meets the IOSCO Principles for Financial Benchmarks as published in July 2013.

Full details can be accessed at [www.iosco.org](http://www.iosco.org).

Details of FTSE Russell’s Statement of Compliance with respect to the IOSCO Principles can be accessed using the following link:

[IOSCO Statement of Compliance](#).

1.5 FTSE Russell hereby notifies users of the index that it is possible that circumstances, including external events beyond the control of FTSE Russell, may necessitate changes to, or the cessation of, the index and therefore, any financial contracts or other financial instruments that reference the index or investment funds which use the index to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index.

1.6 Index users who choose to follow this index or to buy products that claim to follow this index should assess the merits of the index’s rules-based methodology and take independent investment advice before investing their own or client funds. No liability whether as a result of negligence or otherwise is accepted by FTSE Russell or Nareit (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 or any constituent data in the Index.

1.7 **FTSE Russell**

Section 2

Management Responsibilities

2.0 Management Responsibilities

2.1 FTSE International Limited (FTSE)

2.1.1 FTSE is the benchmark administrator of the index.¹

2.1.2 FTSE is responsible for the daily calculation, production and operation of the Index 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 the periodic index reviews of the Index and apply the changes resulting from the reviews as required by the Ground Rules;
  • publicise changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews;
  • disseminate the index.

2.2 Status of these Ground Rules

2.2.1 These Ground Rules set out the methodology and provide information about the publication of the FTSE Nareit REIT Preferred Stock Index.

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. Any proposals for significant amendments to these Ground Rules will be subject to consultation with FTSE Russell advisory committees and other stakeholders if appropriate. The feedback from these consultations will be considered by the FTSE Russell Product 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).
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 and Complaints

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

Benchmark_Determination_Complaints_Handling_Policy.pdf

3.2 Statement of Principles for FTSE Russell Equity Indexes (the Statement of Principles)

Indexes need to keep abreast of changing markets and the Ground Rules cannot anticipate every eventuality. Where the Ground Rules do not fully cover a specific event or development, FTSE Russell will determine the appropriate treatment by reference to the Statement of Principles which summarises the ethos underlying FTSE Russell’s approach to index construction. The Statement of Principles is reviewed annually and any changes proposed by FTSE Russell are presented to the FTSE Russell Policy Advisory Board for discussion before approval by the FTSE Russell Product Governance Board.

The Statement of Principles can be accessed using the following link:


3.3 Index Policy for Trading Halts and Market Closures

3.3.1 Guidance for the treatment of index changes in the event of trading halts or market closures can be found using the following link:

Index_Policy_for_Trading_Halts_and_Market_Closures.pdf

3.4 Index Policy in the Event Clients are Unable to Trade a Market

3.4.1 Details of FTSE Russell’s treatment can be accessed using the following link:

Index_Policy_in_the_Event_Clients_are_Unable_to_Trade_a_Market.pdf
3.5 **Recalculation Policy and Guidelines**

3.5.1 The FTSE Nareit Preferred Stock Index is recalculated whenever errors or distortions occur that are deemed to be significant. Users of the Index Series are notified through appropriate media.

For further information refer to the FTSE Russell Recalculation Policy and Guidelines document which is available from the FTSE Russell website using the link below or by contacting info@ftserussell.com.

[Recalculation_Policy_and_Guidelines_Equity_Indexes.pdf](mailto:Recalculation_Policy_and_Guidelines_Equity_Indexes.pdf)

3.6 **Policy for Benchmark Methodology Changes**

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

[Policy_for_Benchmark_Methodology_Changes.pdf](mailto:Policy_for_Benchmark_Methodology_Changes.pdf)
Section 4
Algorithm and Calculation Methodology

4.0 Algorithm and Calculation Methodology

4.1 Shares in Issue

4.1.1 A corporate action applied to an index constituent that involves a change in the number of shares in issue will be applied at the next monthly review. No intra-review changes to the number of shares are applied to the index except in the circumstances described in Section 5.0.

4.2 Algorithm

4.2.1 The FTSE Nareit Preferred Stock Index is calculated using the following formula:

$$CI_t = \frac{\sum_{i=1}^{N} p_{i,t} \times s_{i,t0} \times c_{i,t0}}{d_t}$$

where,

- N is the number of preferred stocks in the Index.
- t0 is the rebalancing day prior to t, CI_t is the value of the capital index at time t.
- p_{i,t} is the close price of stock i in the Index at time t.
- s_{i,t} is the number of shares outstanding for stock i at time t.
- c_{i,t} is the capping factor to be applied to a security in the index at time t.
- d_t is the divisor on t, a figure that represents the total issued share capital of the Index at the base date. The divisor is adjusted on monthly review days to permit changes in the issued share capital of individual securities to be made without distorting the Index.

In addition, a total return index is also calculated as follows:

$$TRI_t = TRI_{t-1} \times \frac{CI_t}{CI_{t-1} \times XD_{adj,t}}$$

where,

- TRI_t is the value of the total return at time t.
- XD_{adj,t} is the dividend adjustment of the index on t, which is calculated as:

$$XD_{adj,t} = \frac{\sum_{i=1}^{N} dvd_{i,t} \times s_{i,t0} \times c_{i,t0}}{d_t}$$
where,

- \(d_{vd, t}\) is the dividend per share for stock \(i\) on ex-dividend day \(t\).
- \(s_{i, t}\) is the number of shares outstanding for stock \(i\) at time \(t\).
- \(c_{i, t}\) is the capping factor to be applied to a security in the index at time \(t\).
- \(d_t\) is the index divisor on \(t\).

4.2.2 Adjustments to the divisor are applied whenever capital changes occur, such that the performance of the FTSE Nareit Preferred Stock Index reflects the experience of investors.

4.2.3 The annual dividend yield of the index is calculated by dividing the annual income by the market capitalization of the index. The annual income of a constituent is derived from its coupon rate and is set to zero if the dividends are suspended.

\[
DY_t = \frac{\sum_{i=1}^{N} B_{i}^{\text{defer}} \times c_{i,t} \times p_{i,t} \times \text{par}_{i} \times s_{i,t0} \times c_{i,t0}}{\sum_{i=1}^{N} p_{i,t} \times s_{i,t0} \times c_{i,t0}}
\]

where,

- \(B_{i}^{\text{defer}}\) is a binary variable for stock \(i\), which has a value of 0 for stocks with deferred dividends and 1 otherwise.
- \(c_{i,t}\) is the capping factor for stock \(i\).
- \(p_{i,t}\) is the latest trade price of the component stock \(i\) in the Index.
- \(\text{par}_{i}\) is the par value of stock \(i\).
- \(s_{i,t}\) the number of shares outstanding for the stock \(i\).
Section 5

Qualification Criteria and Periodic Review of Constituents

5.0 Qualification Criteria and Periodic Review of Constituents

5.1 Review Date

5.1.1 The FTSE Nareit Preferred Stock Index is reviewed on a monthly basis on the next business day following the second Friday of the month. Index changes take effect on the next business day following the third Friday of the month.

5.2 Responsibilities and Reporting

5.2.1 FTSE Russell will be responsible for conducting the monthly review of constituents of the FTSE Nareit Preferred Stock Index.

5.3 Review Process

5.3.1 The monthly review is designed to provide stability in the constituents of the FTSE Nareit Preferred Stock Index while ensuring that the indexes continue to be representative of the market.

5.3.2 All companies that satisfy Rule 1.3.1 are eligible constituents of the FTSE Nareit Preferred Stock Index.

5.3.3 Only issues of preferred shares with a face value of at least 50 million USD will be included in the FTSE Nareit Preferred Stock Index. Face value is defined as the product of shares in issue and the par amount of the stock.

5.4 FTSE Nareit Preferred Stock Index Screening

- Preferred stocks issued by members of the FTSE Nareit All REITs Index are eligible.
- Preferred stocks issued by Mortgage REITs are ineligible.
- Preferred stocks that are convertible into common stock are ineligible.
- Preferred stocks with a stated maturity date (non-perpetual) are ineligible.
- Issues which are not publicly traded on a US Exchange are ineligible.

5.5 Multiple Lines

5.5.1 Where a company issues multiple lines of preferred stock, all eligible lines are included in the FTSE Nareit Preferred Stock Index and priced separately. However, a capping rule, as described in Rule 5.6, is applied.
5.6 **Capping Rules**

5.6.1 The constituents used to calculate capping factors will be indicative constituents at the monthly review, which incorporates additions/deletions and shares in issue updates. Prices from the close of business on the second Friday of the month will be used. The capping factors will be effective on the next business day after the third Friday of the month.

5.6.2 The objective of capping the FTSE Nareit Preferred Stock Index is to achieve no greater than 10% aggregate weights in a single company’s preferred stocks. If the aggregate weight of a company is greater than the maximum weight, its weight will be capped at the maximum weight and the preferred stocks issued by the company are capped on pro rata basis. The weight difference will be distributed pro-rata amongst the uncapped stocks in the index.
Section 6

Changes to Constituent Companies

6.0 Changes to Constituent Companies

6.1 Corporate Actions

<table>
<thead>
<tr>
<th>Corporate Actions</th>
<th>Adjustments</th>
<th>Adjustment Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Call</td>
<td>Where an issue of preferred stock is fully called between review dates, it is maintained in the index at the call price until the next review date.</td>
<td>✓</td>
</tr>
<tr>
<td>Partial Call</td>
<td>Where an issue of preferred stock is partially called between review dates, the called portion is retained in the index at the call price until the next monthly review, at which point it is removed. The remaining or un-called shares will be priced using the daily traded price and will remain in the index at a reduced weighting until the next monthly review. The un-called portion will remain a member of the index after the next review if it continues to remain eligible in all other respects.</td>
<td>✓</td>
</tr>
<tr>
<td>Partial Repurchase</td>
<td>Where a company buys back a portion of the outstanding shares of an issue between review dates, the re-purchased shares will remain in the index at market price until the next review date.</td>
<td>✓</td>
</tr>
<tr>
<td>Full Repurchase</td>
<td>If an issue is fully repurchased by the issuer, it will remain in the index at the transaction price until the next review date.</td>
<td>✓</td>
</tr>
<tr>
<td>Special Dividend</td>
<td>Special dividends may occur when a cumulative preferred issue suspends its dividend for a period of time and subsequently resumes the payment of dividends. In this case a special dividend, equal to the sum of the omitted dividend payments will be paid and included in the index calculation by reducing the previous day’s closing price by the amount of the special dividend. The index divisor will be adjusted accordingly.</td>
<td>✓</td>
</tr>
</tbody>
</table>

6.2 Intra-Review Additions

6.2.1 There is no fast entry to the FTSE Nareit Preferred Stock Index. New issuance and additions will be included in the index at the next review date if the issue is eligible in all respects.
6.3 **Intra-Review Deletions**

6.3.1 Where the issuer of a preferred stock is deleted from the underlying FTSE Nareit All REITs Index, the preferred stock is removed at the last traded price from the FTSE Nareit Preferred Stock Index. The deletion will be concurrent with its deletion from the underlying FTSE Nareit All REITs Index and its weight will be distributed pro-rata amongst the remaining constituents in the index, i.e., the index divisor will be adjusted. (There will be no divisor change if the last price is zero)

6.3.2 Where an issue of preferred stock is delisted from its primary exchange, its removal from the FTSE Nareit Preferred Stock Index will be concurrent with the delisting. The removal will be effected at the last traded price and the index divisor adjusted accordingly.

6.4 **Mergers and Take-Overs**

<table>
<thead>
<tr>
<th>Is Acquirer a member of FTSE Nareit ALL REITs Index?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is Preferred Stock Being Retired?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>The preferred stock remains in the index at the transaction price until the next review</td>
<td>The preferred stock is removed at the last traded price, concurrent with its removal from the FTSE Nareit All REITs index. Its weight will be distributed pro-rata amongst the remaining constituents in the index.</td>
</tr>
<tr>
<td>No</td>
<td>The preferred stock remains in the index at the daily traded price</td>
<td>The preferred stock is removed at the last traded price, concurrent with its removal from the FTSE Nareit All REITs index. Its weight will be distributed pro-rata amongst the remaining constituents in the index.</td>
</tr>
</tbody>
</table>

6.5 **Suspension of Dealing**

6.5.1 Suspension of Dealing rules can be found within the Corporate Actions and Events Guide for Non Market Cap Weighted Indexes.

6.5.2 A company whose suspension is lifted after it has been removed from an index will be assessed for index eligibility at the next monthly review of the FTSE Nareit Preferred Stock Index.
Section 7

Announcing Changes

7.0 Announcing changes

7.1 Changes to Constituents

7.1.1 Index changes arising from the monthly review will be published two business days after the review date, which is the next business day after the second Friday of the month.
Appendix A: FTSE Nareit US Real Estate Index Series Classification System

The FTSE Nareit US Real Estate Index Series Classification System consists of three levels - investment sectors, property sectors and property subsectors. The investment sectors include:

- **All Equity Real Estate Investment Trusts (All Equity REITs)**
  
  Equity REITs include all tax-qualified REITs (see Rule 1.1.1) with more than 50 percent of total assets in qualifying real estate assets other than mortgages secured by real property.

- **Equity Real Estate Investment Trusts (Equity REITs)**
  
  This investment sector includes all Equity REITs not designated as Timber REITs or Infrastructure REITs. Timber REITs invest in timber assets, including timberland and timber-related products and activities. Infrastructure REITs invest in infrastructure assets, including transportation assets (roads, bridges, tunnels, airports, etc.), energy and utilities assets (power generation, fuels, pipelines, etc.), water and waste management assets and communication assets (line-based networks, air-based networks, etc.). Infrastructure REITs do not include data center REITs.

- **Mortgage Real Estate Investment Trusts (Mortgage REITs)**
  
  Mortgage REITs include all tax-qualified REITs with more than 50 percent of total assets invested in mortgage loans or mortgage-backed securities secured by interests in real property.
Appendix B: Further Information

A Glossary of Terms used in FTSE Russell’s Ground Rule documents can be found using the following link: 
Glossary.pdf

Further information on the FTSE Nareit Preferred Stock Index 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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