Ground Rules

FTSE China Government Bond Index Series
v1.6
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Section 1

Introduction

1.0 Introduction

1.1 This document sets out the Ground Rules for the construction and management of the FTSE China Government Bond Index Series. Copies of the Ground Rules are available from FTSE Russell (see Appendix B) and www.ftserussell.com.

1.2 The FTSE China Government Bond Index Series is designed to represent the performance of the mainland Chinese bond market that is available to domestic investors.

1.3 The following indexes will be calculated as part of the FTSE China Government Bond Index Series:
   - Total Index (All Maturities)
   - 1-3 Years Sub-Index
   - 3-5 Years Sub-Index
   - 5-7 Years Sub-Index
   - 7-10 Years Sub-Index
   - >10 Years Sub-Index

1.4 The FTSE China Government Bond Index Series includes bonds that trade on the Shanghai and Shenzhen Stock Exchanges, and is calculated on public holidays whenever at least one exchange is trading. The Indexes will not be calculated on 1st January.

1.5 The FTSE China Government Bond Index Series is published at the end of each working day, including the calculations for Time to Maturity, Macaulay Duration, Modified Duration, and Convexity.

1.6 FTSE Russell


1.7 FTSE Russell hereby notifies users of the index series 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 series and therefore, any financial contracts or other financial instruments that reference the index series 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.

1.8 Index users who choose to follow this index series or to buy products that claim to follow this index series 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 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 Index or any constituent data.
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 series.

2.1.2 FTSE is responsible for the daily calculation, production and operation of the FTSE China Government Bond 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 the periodic index reviews of the FTSE China Government Bond 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 indexes.

2.1.3 Status of these Ground Rules

2.1.4 These Ground Rules are a guide to the policies and procedures applying at the date of publication to the operation and maintenance of the FTSE China Government Bond Index Series.

2.2 Amendments to these Ground Rules

2.2.1 These Ground Rules shall be subject to regular review by FTSE Russell to ensure that they continue to meet the current and future requirements of investors and other index users. 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.

2.2.2 The purpose of publishing this guide is to provide information about the general basis on which decisions relating to the construction and publication of FTSE China Government Bond Index Series are currently made.
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

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

FTSE_Russell_Benchmark_Determination_Complaints_Handling_Policy.pdf

3.2 Index Policy for Trading Halts and Market Closures

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

FTSE_Russell_Index_Policy_for_Trading_Halts_and_Market_Closures.pdf

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

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

FTSE_Russell_Index_Policy_in_the_Event_Clients_are_Unable_to_Trade_a_Market.pdf

3.4 Recalculation Policy and Guidelines

3.4.1 The FTSE China Government Bond Index Series are recalculated whenever errors or distortions occur that are deemed to be significant. Users of the FTSE China Government Bond 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

3.5 FTSE Russell Policy for Benchmark Methodology Changes

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

FTSE_Russell_Policy_for_Benchmark_Methodology_Changes.pdf
Section 4

Eligibility of Bonds

4.0 Eligibility of Bonds

4.1 All the Straight Chinese Government bonds with one year or more maturity are considered for inclusion in the FTSE China Government Bond Index Series.

4.2 The bonds must be listed on the Shanghai or Shenzhen Stock Exchange.

4.3 The minimum nominal issuance of a bond for FTSE China Government Bond Index Series is CNY 10 billion.
Section 5

Indexes Algorithm and Calculation Method

5.0 Indexes Algorithm and Calculation Method

5.1 Prices

5.1.1 The prices of bonds used for the calculation of the indexes are real-time price quotations from the Shanghai or Shenzhen Stock Exchange obtained via Thomson Reuters.

5.1.2 The prices used for all indexes are the arithmetic mean between bid and ask quotes (Mid prices).

5.1.3 In circumstances such as severe market disruption where pricing is not available FTSE Russell reserves the right to carry over the price from the last business day.

5.2 Algorithm

5.2.1 The index algorithm are detailed as follows:

**Clean Price Index:**

\[ PL_t = PI_{t-1} \times \frac{\sum_{i=1}^{n} P_{i,t} \times NI_{i,t}}{\sum_{i=1}^{n} P_{i,t-1} \times NI_{i,t-1}} \]

**Gross Price Index:**

\[ GI_t = GI_{t-1} \times \frac{\sum_{i=1}^{n} (P_{i,t} + A_{i,t}) \times NI_{i,t}}{\sum_{i=1}^{n} (P_{i,t-1} + A_{i,t-1}) \times NI_{i,t-1}} \]

Where:

- \( A_{i,t} \) Accrued interest for bond \( i \) at time \( t \)
- \( NI_{i,t} \) Nominal Issuance of a bond \( i \) at time \( t \)
- \( NI_{i,t-1} \) Nominal Issuance of a bond \( i \) on previous day
- \( PI_{t} \) Clean price index value at time \( t \)
- \( P_{i,t} \) Price of a bond \( i \) at time \( t \)
- \( P_{i,t-1} \) Price of a bond \( i \) on previous day
- \( GI_{t} \) Gross price index value at time \( t \)
Section 6

Periodic Review of Constituents

6.0 Periodic Review of Constituents

6.1 Review dates

6.1.1 The FTSE China Government Bond Index Series are rebalanced at the end of every month after the close of business on the last working day.

6.2 Rules for addition and deletion at the monthly reviews

6.2.1 The rules for inserting and deleting constituents at the monthly reviews are designed to provide stability in the selection of constituents of the FTSE China Government Bond Index Series while ensuring that the Indexes continue to be representative of the market.

6.2.2 Additions or deletions are announced to the market after the close of the last business day of the month, together with the issuance (volume) applicable for the bonds in the portfolio for the coming month.

6.2.3 All changes take effect after the close of business on the last trading day of each month, i.e. before start of trading on the first trading day of the new month.

6.2.4 New issues that are included in the indexes are bought at the fixing price of the last trading day of the old month and integrated into the index.

6.2.5 Analysis of potential index constituent changes and of the issue volume of eligible bonds (rounded to the nearest 1 million CNY) is made 3 European (TARGET) business days before the month end, in accordance with these Ground Rules. The residual duration for the bonds is calculated as those bonds which on the first trading day of the new month have a full year or more to run as per the value date plus 3 days. Announcements are made one business day before the close of the last business day of the month.

6.2.6 Bonds whose maturity falls below one year are removed from the indexes after the close of the last business day of the month in which this occurs.

6.2.7 Bonds to be removed from the index, e.g. because their residual duration for the next month is less than a year, are treated as sold at the fixing price on the last trading day of the old month and reinvested uniformly across the whole Index Portfolio with the returns of their accrued interest.

6.2.8 If a bond ceases to have its price quoted on the Shanghai or Shenzhen Stock Exchange, it will be removed from the indexes after the close of the last business day of the month.
6.2.9 Changes in volume are integrated or removed in the same way by sale or purchase at the fixing price on the last trading day of the old month, provided that the change in volume amounts to a minimum counter value of CNY 1 million over the previous month.

6.3 **Alterations to constituents**

6.3.1 Alterations to nominal amounts outstanding are made at the close of the last business day of the month.
# Appendix A: Index & Market Opening and Closing Hours

<table>
<thead>
<tr>
<th>Index</th>
<th>Open</th>
<th>Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Index (All Maturities)</td>
<td>09:30</td>
<td>15:00</td>
</tr>
<tr>
<td>1-3 Years Sub-Index</td>
<td>09:30</td>
<td>15:00</td>
</tr>
<tr>
<td>3-5 Years Sub-Index</td>
<td>09:30</td>
<td>15:00</td>
</tr>
<tr>
<td>5-7 Years Sub-Index</td>
<td>09:30</td>
<td>15:00</td>
</tr>
<tr>
<td>7-10 Years Sub-Index</td>
<td>09:30</td>
<td>15:00</td>
</tr>
<tr>
<td>&gt;10 Years Sub-Index</td>
<td>09:30</td>
<td>15:00</td>
</tr>
</tbody>
</table>

Stock Market Trading Times:

- **Shanghai**
  - Open: 09:30, 13:00
  - Close: 11:30, 15:00
- **Shenzhen**
  - Open: 09:30, 13:00
  - Close: 11:30, 15:00

All times are Local China Time

The FTSE China Government Bond Index Series is calculated on public holidays whenever at least one exchange is trading. The Indexes will not be calculated on 1st January.
Appendix B: Further Information

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

Further information on the FTSE China Government Bond 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