FTSE TMX Canada client consultation
Fixed income index inclusion
Minimum issue size thresholds

Introduction
FTSE Russell is committed to protecting and enhancing the strengths of the FTSE TMX Canada Index franchise. Significant progress has been made to review and streamline the existing index methodologies, incorporate the FTSE TMX Canada Index Series in the Governance process, and issue a Statement of Compliance with respect to the IOSCO Principles for Financial Benchmarks.

We recognize that high client engagement, market education and consensus building play an important role in this process. As part of our commitment to ensuring that the FTSE TMX Canada Bond Index Series remain representative and continue to address the needs of the users, we have been reviewing the methodologies with a view to ensuring they continue to represent best practice.

As part of our efforts to develop the best possible index solutions, we would like to review the Minimum Issue Size thresholds that form part of the current index methodology.

Responding to the consultation
The proposals set out in this consultation document are included in order to gather feedback and may or may not result in changes to FTSE Russell Index rules.

Please submit your response to the questions included in this consultation online at https://www.surveymonkey.co.uk/r/5SQ6C9F

The consultation will close on March 31, 2018. All responses will be treated as confidential. FTSE Russell may publish a summary of the consultation results, but no individual responses will be published and no respondents will be named.

If you have any questions about this survey, or if you encounter any technical issues, please contact rpawson@ftserussell.com.
**Background**

A bond’s amount outstanding represents an observable and transparent proxy for liquidity, with larger bonds generally being more widely held than smaller issues. As such, the minimum amount outstanding is a key design element for fixed income indexes. To ensure that an index continues to capture issuance at a level commensurate with the critical mass of investment and issuance of a market, the amount outstanding thresholds for index consideration should be periodically reviewed.

As part of our commitment to ensure that the FTSE TMX Canada Bond Indexes remain representative of the Canadian fixed income market, and continue to address users’ needs, we would like to review the relevance and application of the current thresholds.

The table below summarizes the current issue size rules for the flagship FTSE TMX Canada Bond Index Families.

<table>
<thead>
<tr>
<th>Index family</th>
<th>Current rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universe Bond Index, Maples Bond Index,</td>
<td>• Corporates: minimum issue size of CAD 100m</td>
</tr>
<tr>
<td>Universe &amp; Maple Bond Index</td>
<td>• Government (including provincial and municipal bonds): minimum issue size CAD 50m</td>
</tr>
<tr>
<td></td>
<td>• Amount outstanding values are adjusted to reflect buybacks, amounts held by the Bank of Canada, and stripping and reconstitution of securities</td>
</tr>
<tr>
<td>High Yield Bond Index</td>
<td>• Securities must have a minimum issue size of CAD 100m</td>
</tr>
<tr>
<td>RRB Index</td>
<td>• Securities must have a minimum issue size of CAD 100m</td>
</tr>
<tr>
<td>All Indices</td>
<td>• Amount outstanding includes the original issue amount plus re-openings (adjusted for Stripping and Bank of Canada holdings)</td>
</tr>
<tr>
<td></td>
<td>• Stripping / Reconstitution adjustment is done on a monthly basis (first week of the month)</td>
</tr>
<tr>
<td></td>
<td>• The minimum issue size rule is applied at issuance only (i.e. if a bond falls below the outstanding threshold due to corporate action/reconstitution it will remain in the index)</td>
</tr>
<tr>
<td></td>
<td>• Securities must be held by at least 10 institutional buyers</td>
</tr>
</tbody>
</table>

**Application of Stripping / Reconstitution to the Holdings of Indexes**

The indexes seek to be representative of the market available to investors. As such, the methodology adjusts the bond holdings to remove amounts not available to investors. This includes a reduction for the Bank of Canada (BoC) holdings from Treasury issuance, and accounts for buyback, stripping and reconstitution activity in the market. The BoC holding adjustment is applied at issue / buyback in accordance with the BoC posted report. The stripping / reconstitution adjustment is applied on a monthly basis (once per month, in the first week of the month), in accordance with the activity reported by the Canadian Depository for Securities (CDS). An impact simulation and summary of activity is communicated to all index users prior to implementation.

**Please see the appendix for additional details.**

The feedback received from this consultation will assist FTSE Russell to make any final decisions on the proposed approach. We value your input and participation.
Consultation questions

FTSE TMX Canada Universe Bond Index – bond entry consideration threshold amount

The current Universe Bond Index methodology specifies that bonds must have a minimum issue size of CAD 100m for corporate bonds and CAD 50m for government bonds (including federal, provincial and municipal) in order to be considered (provided that all other eligibility criteria are met).

1. **Do you support the application of a minimum amount outstanding threshold that is based on the sector within the Universe Index?**
   - [ ] Yes, the current approach to tailor thresholds to government and corporate sectors is appropriate
   - [ ] Yes, with additional specificity within government for Federal, Municipal and Provincial
   - [ ] No, the same threshold should apply to all securities in a given headline index
   - [ ] Other (please state your preference)

   Please enter your comments here:

2. **Do you believe the current Corporate Bond minimum consideration amount of CAD 100m is**
   - [ ] Too low, and should be increased to CAD 150m
   - [ ] Too low, and should be increased to CAD 200m
   - [ ] Too low, and should be increased to CAD 300m
   - [ ] Representative and should remain unchanged
   - [ ] Other (please state your preferred value in the comments box)

   Please enter your comments here:
3. **Do you believe the current Government Bond minimum consideration amount of CAD 50m is**
   - [ ] Too low, and should be increased to CAD 100m for all Government Bonds (Federal, Municipal and Provincial)
   - [ ] Too low, and should be increased to CAD 150m
   - [ ] Should vary for one or more sub-categorizations of Government bonds (please provide additional comments in next three questions question)
   - [ ] Representative and should remain unchanged for all Government Bonds
   - [ ] Other (please state your preferred value in the comments box)

   Please enter your comments here:

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4. **Do you believe the current Federal Bond minimum consideration amount of CAD 50m is**
   - [ ] Too low, and should be increased to CAD 100m
   - [ ] Too low, and should be increased to CAD 150m
   - [ ] Too low, and should be increased to CAD 200m
   - [ ] Too low, and should be increased to CAD 300m
   - [ ] Representative and should remain unchanged
   - [ ] Other (please state your preferred value in the comments box)

   Please enter your comments here:

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5. **Do you believe the current Provincial Bond minimum consideration amount of CAD 50m is**
   - [ ] Too low, and should be increased to CAD 100m
   - [ ] Too low, and should be increased to CAD 150m
   - [ ] Too low, and should be increased to CAD 200m
   - [ ] Too low, and should be increased to CAD 300m
   - [ ] Representative and should remain unchanged
   - [ ] Other (please state your preferred value in the comments box)

   Please enter your comments here:
6. **Do you believe the current Municipal Bond minimum consideration amount of CAD 50m is**

- [ ] Too low, and should be increased to CAD 100m
- [ ] Too low, and should be increased to CAD 150m
- [ ] Too low, and should be increased to CAD 200m
- [ ] Too low, and should be increased to CAD 300m
- [ ] Representative and should remain unchanged
- [ ] Other (please state your preferred value in the comments box)

Please enter your comments here:

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**FTSE TMX Canada Maple Bond Index – bond entry consideration threshold amount**

The current Maple Bond Index methodology specifies that bonds must have a minimum issue size of CAD 100m for corporate bonds and CAD 50m for government bonds in order to be considered (provided that all other eligibility criteria are met).

7. **Should the same amount outstanding threshold be applied to all Maple bonds?**

- [ ] Yes, issuer sector is not as relevant to issuance patterns for Maples
- [ ] No, there is a need to maintain specificity

Please enter your comments here:

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8. **Do you believe the current Corporate Bond minimum consideration amount of CAD 100m is**

- [ ] Too low, and should be increased to CAD 150m
- [ ] Too low, and should be increased to CAD 200m
- [ ] Too low, and should be increased to CAD 300m
- [ ] Representative and should remain unchanged
- [ ] Other (please state your preferred value in the comments box)

Please enter your comments here:
9. Do you believe the current Government Bond minimum consideration amount of CAD 50m is

☐ Too low, and should be increased to CAD 100m
☐ Too low, and should be increased to CAD 150m
☐ Too low, and should be increased to CAD 200m
☐ Too low, and should be increased to CAD 300m
☐ Representative and should remain unchanged
☐ Other (please state your preferred value in the comments box)

Please enter your comments here:

FTSE TMX Canada High Yield Bond Index – bond entry consideration threshold amount

The current High Yield Bond Index methodology specifies that bonds must have a minimum issue size of CAD 100m in order to be considered (provided that all other eligibility criteria are met).

10. Do you believe the current minimum consideration amount of CAD 100m is

☐ Too low, and should be increased to CAD 150m
☐ Too low, and should be increased to CAD 200m
☐ Too low, and should be increased to CAD 300m
☐ Representative and should remain unchanged
☐ Other (please state your preferred value in the comments box)

Please enter your comments here:
Application of minimum size thresholds

The current bond index methodology stipulates a minimum issue size consideration for the inclusion of securities, but does not stipulate that bonds must maintain a minimum par amount outstanding once they enter the index. As such, bonds remain eligible through any subsequent reduction in the amount outstanding, whether this is due, for example, to incremental stripping or a corporate action (such as partial redemption).

11. Do you believe the index should remove securities that fall below a par amount outstanding threshold, and that the minimum size should be applied throughout the life of a bond?

☐ Yes
☐ No

Please enter your comments here:

12. If the index were to apply a minimum size threshold throughout the life of a bond, should this apply to securities irrespective of the reason for the reduction in the amount outstanding (i.e. incremental stripping and other corporate action)?

☐ Yes, all securities with amount outstanding falling below a minimum threshold should be removed from the index (including removing securities that are stripped)

☐ No, only securities with amount outstanding falling below a minimum threshold as a result of corporate action should be removed from the index (stripped securities remain eligible for the index)

☐ No, all securities should remain eligible through maturity to reduce unnecessary turnover

Please enter your comments here:

13. If the index were to apply a minimum size threshold throughout the life of a bond, should existing constituent securities that have fallen below a minimum exit threshold be removed from the index?

☐ Yes, they should be removed

☐ No, they should be grandfathered and remain constituents

☐ Other (please specify) _____________________

14. Please provide any additional feedback you may have.
# Appendix

## Amount outstanding distribution

As of December 29, 2017, the security distribution by amount outstanding thresholds across benchmark indexes considered in this consultation were as follows.

![Table](//example.com/table.png)

<table>
<thead>
<tr>
<th></th>
<th>Corporate</th>
<th></th>
<th>Government</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>% Corporate</td>
<td>% Universe</td>
<td>Mkt Val (000s)</td>
</tr>
<tr>
<td>Dec 29, 2017</td>
<td>7</td>
<td>0.74</td>
<td>0.49</td>
<td>239,877</td>
</tr>
<tr>
<td>50-100MM</td>
<td>16</td>
<td>1.68</td>
<td>1.11</td>
<td>1,107,211</td>
</tr>
<tr>
<td>100-150MM</td>
<td>96</td>
<td>10.11</td>
<td>6.67</td>
<td>11,113,519</td>
</tr>
<tr>
<td>150-200MM</td>
<td>103</td>
<td>10.84</td>
<td>7.15</td>
<td>16,580,476</td>
</tr>
<tr>
<td>200-300MM</td>
<td>214</td>
<td>22.53</td>
<td>14.86</td>
<td>48,843,721</td>
</tr>
<tr>
<td>300-500MM</td>
<td>242</td>
<td>25.47</td>
<td>16.81</td>
<td>87,869,736</td>
</tr>
<tr>
<td>500MM+</td>
<td>272</td>
<td>28.63</td>
<td>18.89</td>
<td>240,812,083</td>
</tr>
<tr>
<td>Grand Total</td>
<td>950</td>
<td>100</td>
<td>65.97</td>
<td>406,566,623</td>
</tr>
</tbody>
</table>
Figure 2. FTSE TMX Canada Government Bond Index

<table>
<thead>
<tr>
<th>Dec 29, 2017</th>
<th>Count % Corporate % Un. Mkt Val (000s) % Corporate % Un.</th>
<th>County % Provincial % Un. Mkt Val (000s) % Provincial % Un.</th>
<th>Count % Municipal % Un. Mkt Val (000s) % Municipal % Un.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50MM</td>
<td>1 1.04 0.07 46,602 0.01 0.00</td>
<td>11 3.63 0.76 325,711 0.07 0.02</td>
<td>1 1.10 0.07 42,879 0.16 0.00</td>
</tr>
<tr>
<td>50-100MM</td>
<td>3 3.13 0.21 255,564 0.05 0.02</td>
<td>21 6.93 1.46 1,581,189 0.33 0.11</td>
<td>11 12.09 0.76 805,351 2.94 0.05</td>
</tr>
<tr>
<td>100-150MM</td>
<td>2 2.08 0.14 231,949 0.04 0.02</td>
<td>29 9.57 2.01 3,523,368 0.73 0.24</td>
<td>15 16.48 1.04 1,744,345 6.37 0.12</td>
</tr>
<tr>
<td>150-200MM</td>
<td>1 1.04 0.07 195,000 0.04 0.01</td>
<td>18 5.94 1.25 2,993,780 0.62 0.20</td>
<td>4 4.40 0.28 654,000 2.39 0.04</td>
</tr>
<tr>
<td>200-300MM</td>
<td>3 3.13 0.21 690,348 0.12 0.05</td>
<td>28 9.24 1.94 6,322,660 1.32 0.43</td>
<td>11 12.09 0.76 2,542,576 9.29 0.17</td>
</tr>
<tr>
<td>300-500MM</td>
<td>3 3.13 0.21 1,086,493 0.20 0.07</td>
<td>34 11.22 2.36 12,247,879 2.55 0.83</td>
<td>30 32.97 2.08 11,024,000 40.27 0.75</td>
</tr>
<tr>
<td>500MM+</td>
<td>83 86.46 5.76 553,545,820 99.55 37.66</td>
<td>162 53.47 11.25 452,702,830 94.37 30.80</td>
<td>19 20.88 1.32 10,563,789 38.59 0.72</td>
</tr>
<tr>
<td>Grand Total</td>
<td>96 100 100 556,051,775 100 37.83</td>
<td>303 100 100 479,697,417 100 32.64</td>
<td>91 100 100 27,376,939 100 1.86</td>
</tr>
</tbody>
</table>

Figure 3. FTSE TMX Canada Maple Bond Index

<table>
<thead>
<tr>
<th>Dec 29, 2017</th>
<th>Count % Corporate % Maple Mkt Val (000s) % Corporate % Maple</th>
<th>Count % Gov’t % Maple Mkt Val (000s) % Gov’t % Maple</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50MM</td>
<td>0 0.00 0.00 - -</td>
<td>0 0.00 0.00 - -</td>
</tr>
<tr>
<td>50-100MM</td>
<td>1 2.08 1.43 80,692 0.25 0.18</td>
<td>0 0.00 0.00 - -</td>
</tr>
<tr>
<td>100-150MM</td>
<td>0 0.00 0.00 - -</td>
<td>0 0.00 0.00 - -</td>
</tr>
<tr>
<td>150-200MM</td>
<td>0 0.00 0.00 - -</td>
<td>0 0.00 0.00 - -</td>
</tr>
<tr>
<td>200-300MM</td>
<td>3 6.25 4.29 725,000 2.21 1.65</td>
<td>7 31.82 10.00 1,650,000 14.96 3.76</td>
</tr>
<tr>
<td>300-500MM</td>
<td>11 22.92 15.71 4,250,000 12.94 9.68</td>
<td>6 27.27 8.57 1,800,000 16.32 4.10</td>
</tr>
<tr>
<td>500MM+</td>
<td>33 68.75 47.14 27,800,000 84.61 63.35</td>
<td>9 40.91 12.86 7,577,000 68.71 17.27</td>
</tr>
<tr>
<td>Grand Total</td>
<td>48 100 100 32,855,692 100 74.87</td>
<td>22 100 100 31.43 11,027,000 100 25.13</td>
</tr>
</tbody>
</table>

Figure 4. FTSE TMX Canada High Yield Bond Index

<table>
<thead>
<tr>
<th>Dec 29, 2017</th>
<th>Count % High Yield Mkt Val (000s) % High Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;550 MM</td>
<td>2 4.17 18,028 0.14</td>
</tr>
<tr>
<td>50 - 100 MM</td>
<td>0 0.00 0.00</td>
</tr>
<tr>
<td>100 - 200 MM</td>
<td>8 16.67 1,200,000 9.47</td>
</tr>
<tr>
<td>200 - 300 MM</td>
<td>17 35.42 3,768,300 29.73</td>
</tr>
<tr>
<td>300 - 500 MM</td>
<td>17 35.42 5,590,000 44.10</td>
</tr>
<tr>
<td>500 MM+</td>
<td>4 8.33 2,100,000 16.57</td>
</tr>
<tr>
<td>Grand Total</td>
<td>48 100 100 12,676,328 100</td>
</tr>
</tbody>
</table>
Issue sizes have increased over time. Looking at the composition of the indexes considered in this consultation by amount outstanding thresholds between a ten year period.

**Figure 5. FTSE TMX Canada Universe Bond Index**

- **Universe Index Composition Amount Outstanding (Corporate)**
- **Universe Index Composition Amount Outstanding (Government)**
- **Universe Index Composition (Government - Federal)**
Figure 6. FTSE TMX Canada Maple Bond Index

Maple Index Composition (Corporate)

Amount Outstanding Thresholds
- 2006
- 2017

Figure 7. FTSE TMX Canada High Yield Bond Index

HighYield Index Composition

Amount Outstanding Thresholds
- 2006
- 2017
Transaction data distribution

Amount outstanding is commonly viewed as an observable measure of liquidity. Looking at a distribution of average number of observed trades per bond by amount outstanding thresholds across benchmark indexes considered in this consultation, for the year ended December 29, 2017 was as follows.

Figure 8. FTSE TMX Canada Universe Bond Index

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**Average Number of Trades Per Amount O/S (Corporate)**

- **500 MM+**
- **300 - 500 MM**
- **200 - 300 MM**
- **150 - 200 MM**
- **100 - 150 MM**
- **50 - 100 MM**
- **<50 MM**

**Average Number of Trades in 2017**

- Corporate

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**Average Number of Trades Per Amount O/S (Government - Federal)**

- **500 MM+**
- **50 - 100 MM**
- **300 - 500 MM**
- **200 - 300 MM**
- **150 - 200 MM**
- **100 - 150 MM**
- **<50 MM**

**Average Number of Trades in 2017**

- Federal

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**Average Number of Trades Per Amount O/S (Government)**

- **500 MM+**
- **300 - 500 MM**
- **200 - 300 MM**
- **150 - 200 MM**
- **100 - 150 MM**
- **50 - 100 MM**
- **<50 MM**

**Average Number of Trades in 2017**

- Government - Municipal
- Government - Provincial
Figure 9. FTSE TMX Canada Maple Bond Index

Average Number of Trades per Amount O/S Thresholds (Government & Corporate)

<table>
<thead>
<tr>
<th>Amount Outstanding Thresholds</th>
<th>Government</th>
<th>Corporate</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 MM+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300 - 500 MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 - 300 MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 - 200 MM</td>
<td></td>
<td></td>
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<tr>
<td>100 - 150 MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 - 100 MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;50 MM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average Number of Trades in 2017

- Government
- Corporate

Figure 10. FTSE TMX Canada High Yield Bond Index

Average Number of Trades per Amount O/S Thresholds

<table>
<thead>
<tr>
<th>Current Amount Outstanding intervals</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 MM+</td>
<td></td>
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<td></td>
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<tr>
<td>300 - 500 MM</td>
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<td></td>
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<tr>
<td>200 - 300 MM</td>
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<tr>
<td>150 - 200 MM</td>
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<tr>
<td>&lt;50 MM</td>
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</tr>
</tbody>
</table>

Average number of Trades in 2017
Global context: Issue Size rules for global benchmarks

Within multi-currency global benchmarks, minimum amount outstanding thresholds are set for each local market based on benchmark issuance sizes and set to accommodate country allocations in global portfolios, rather than based on the appropriate size to facilitate local buying for domestic funds. As such, the threshold for the Canadian dollar component of a global benchmark is much higher for widely used global benchmarks than in the FTSE TMX Canada benchmarks.

Some examples of differences are:

- The FTSE World Government Bond Index (WGBI), comprised of federal government bonds only, sets the minimum at CAD 2.5bn for Canadian issues.
- The size threshold in global benchmarks is generally set using the current amount outstanding, rather than the amount outstanding at issuance.

Global benchmarks do not have a standard approach for handling government purchases and STRIPS – the FTSE WGBI Index adjusts security weights for government holdings only, while other index providers do not adjust for government holdings at all in flagship government benchmarks.

Responding to the consultation

The proposals set out in this consultation document are included in order to gather feedback and may or may not result in changes to FTSE Russell Index rules.

Please submit your response to the questions included in this consultation online at https://www.surveymonkey.co.uk/r/5SQ6C9F

The consultation will close on March 31, 2018. All responses will be treated as confidential. FTSE Russell may publish a summary of the consultation results, but no individual responses will be published and no respondents will be named.

If you have any questions about this survey, or if you encounter any technical issues, please contact rpawson@ftserussell.com.
About FTSE Russell

FTSE Russell is a leading global index provider creating and managing a wide range of indexes, data and analytic solutions to meet client needs across asset classes, style and strategies. Covering 98% of the investable market, FTSE Russell indexes offer a true picture of global markets, combined with the specialist knowledge gained from developing local benchmarks around the world.

FTSE Russell index expertise and products are used extensively by institutional and retail investors globally. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indexes also provide clients with tools for asset allocation, investment strategy analysis and risk management.

A core set of universal principles guides FTSE Russell index design and management: a transparent rules-based methodology is informed by independent committees of leading market participants. FTSE Russell is focused on index innovation and customer partnership applying the highest industry standards and embracing the IOSCO Principles. FTSE Russell is wholly owned by London Stock Exchange Group.

For more information, visit ftserussell.com.

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