FREQUENTLY ASKED QUESTIONS: 
NASDAQ BX Retail Price Improvement (BX RPI) Program

1. **What is the BX Retail Price Improvement (BX RPI) Program?**
   BX RPI is a mechanism offered by NASDAQ that allows retail investors to interact with non-displayed liquidity priced at least $0.001 better than the National Best Bid or Offer (NBBO).

2. **When will the BX RPI Program be live?**
   BX RPI program will be available beginning December 1, 2014

3. **How can my firm participate in BX RPI?**
   There are two types of market participants in the BX RPI program:
   - Retail Member Organizations (RMOs) will be permitted to submit Retail Orders through BX RPI if they meet the RMO qualifications outlined below.
   - All BX members are eligible to interact with Retail Orders by providing Retail Price Improvement (RPI) orders.

4. **What are the RMO qualifications?**
   To qualify as an RMO and be permitted to submit Retail Orders, an exchange member must meet the following criteria:
   - Conduct a retail business or handle retail orders on behalf of another broker dealer.
   - Complete the appropriate application process.
   - Designate certain order entry ports as 'Retail Ports'.

5. **What is a Retail Order?**
   A Retail Order is an agency or riskless principal order that seeks price improvement and originates from a natural person. It cannot originate from a trading algorithm or any other computerized methodology.
   
   All Retail Orders must be 'Immediate or Cancel' (IOC) orders, be submitted with an explicit whole-penny limit price, and be submitted by an RMO through a Retail Port.

Updated November 12, 2014
6. **What is a Type 1 / Type 2 Retail Order?**

There are two varieties of Retail Orders available to RM0s:

- **Type 1 Retail Order** – executes against price improving liquidity only (including resting midpoint orders, Retail Price Improvement orders and other non-displayed interest priced better than the NBB0). Shares that remain unexecuted after interacting with price improving liquidity are cancelled back to the RMO.

- **Type 2 Retail Order** – Interacts with price improving liquidity as with Type 1, but shares that remain unexecuted after interacting with price improving liquidity can interact with other liquidity on the BX book. Type 2 orders can optionally also take routing instructions and execute at away destinations at the NBB0.

7. **What is a Retail Price Improvement Order?**

Retail Price Improvement Orders (RPI orders) are non-displayed, liquidity-adding orders priced better than the NBB0 by at least $0.001. Any BX member may submit RPI orders. RPI Orders must also meet the following conditions:

- Must be submitted with a limit price
  - RPI orders can be an explicitly priced limit order or primary pegged to the NBB0 with a positive offset
- Submitted for securities priced greater than $1.00
- Submitted with prices/offsets in increments of $0.001.

RPI Orders will only interact with incoming Retail Orders and must be priced at least $0.001 better than the NBB0 to execute.

8. **How will I know when there is price improving liquidity (RPI Orders) resting on the BX book?**

Firms will be made aware of resting price improving liquidity on the BX book via the Retail Liquidity Indicator. The Retail Liquidity Indicator is a priceless, size-less indication that signals RPI interest is available on BX. The indicator will be available on both the consolidated SIP data feeds and BX proprietary data feeds.

9. **How do I use Retail Liquidity Indicators?**

BX data feeds contain messages designed to alert market participants of available RPI interest on the BX book. See the “Retail Price Improvement Indicator” message in the specifications documents for the protocol your firm is using.

*Updated November 12, 2014*
Retail Interest Message

<table>
<thead>
<tr>
<th>Name</th>
<th>Offset</th>
<th>Length</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Type</td>
<td>0</td>
<td>1</td>
<td>&quot;N&quot;</td>
<td>Retail Interest message</td>
</tr>
<tr>
<td>Timestamp – Nanoseconds</td>
<td>1</td>
<td>4</td>
<td>Integer</td>
<td>Nanoseconds portion of the timestamp.</td>
</tr>
<tr>
<td>Stock</td>
<td>5</td>
<td>8</td>
<td>Alpha</td>
<td>Denotes the security symbol for the issue in the BX execution system.</td>
</tr>
</tbody>
</table>
| Interest Flag         | 13     | 1      | Alpha | • “B” = RPI orders available on the buy side  
                        |         |        | • “S” = RPI orders available on the sell side  
                        |         |        | • “A” = RPI orders available on both sides (buy and sell)  
                        |         |        | • “N” = No RPI orders available                  |

Retail Interest Indicators are also disseminated on the SIP feeds.

<table>
<thead>
<tr>
<th>SIP Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Retail Interest on Bid Quote</td>
</tr>
<tr>
<td>B</td>
<td>Retail Interest on Ask Quote</td>
</tr>
<tr>
<td>C</td>
<td>Retail Interest on both Bid and Quotes</td>
</tr>
</tbody>
</table>

10. Do I need to certify certain ports to be eligible to submit Retail Orders?
Retail Ports must be identified by RMOs in order to submit Retail Orders. RMOs who have completed the application paperwork should inform Subscriber Services of their Retail Port designations.

11. Do I need to certify certain ports to be eligible to submit RPI Orders?
No, any firm may submit RPI orders to provide price improvement to RMOs without submitting any paperwork or certifying ports.

12. In what price increments may I submit RPI orders?
RPI orders must be priced at least one tenth of a penny ($0.001) better than the NBBO, and the minimum increment is also one tenth of a penny.

Updated November 12, 2014
13. If my firm is an RM0, can I use my Retail Port to enter other order types?
Yes, Retail Ports for RM0s may be used to enter both Retail Orders and other order types. Please refer to the appropriate specifications for details.

Order Entry

14. How do I mark orders for the program?
Orders submitted via OUCH should be marked as follows:

<table>
<thead>
<tr>
<th>Order Type</th>
<th>Display</th>
<th>Cross Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Order Type 1</td>
<td>O</td>
<td>R</td>
</tr>
<tr>
<td>Retail Order Type 2</td>
<td>T</td>
<td>R</td>
</tr>
<tr>
<td>RPI Order</td>
<td>Q</td>
<td>R</td>
</tr>
</tbody>
</table>

Orders submitted via FIX / RASH should be marked as follows:

<table>
<thead>
<tr>
<th>Order Type</th>
<th>Display (FIX 9140)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Order Type 1</td>
<td>O</td>
</tr>
<tr>
<td>Retail Order Type 2</td>
<td>T</td>
</tr>
<tr>
<td>RPI Order</td>
<td>Q</td>
</tr>
</tbody>
</table>

Please note: when submitting orders to the RASH system, Cross Type “R” should not be used (orders so marked will be rejected.)

15. If I’m submitting an order to the RPI program, do I need to set customer type to “R”?
No. Customer Type is a field used to designate orders as “retail” under a separate program (Refer to Question #16 - Designated Retail Orders).

16. What’s a Designated Retail Order?
A designated retail order is an order designation available to firms attesting to retail status for non-marketable limit orders. These orders are not related to the RPI program. For more information on Designated Retail Orders, please contact Transaction Services U.S. Market Sales.

17. Are RPI Orders and Retail Orders available during extended hours?
Yes, Retail Orders and RPI orders may both be submitted during extended hours trading (4 a.m. – 9:30 a.m. and 4:00 p.m. – 8:00 p.m.).

Updated November 12, 2014
18. Are these orders eligible for routing?
RPI Orders are not eligible for routing because they only provide liquidity to RMOs via the BX book. Retail Orders Type 1 are not eligible for routing because they only interact with RPI orders on the BX book. Only Retail Orders Type 2 may have routing instructions.

19. What routing strategies can be used with Retail Orders Type 2?
Any valid routing strategy available on BX may be used with these orders.

20. Are odd- or mixed-lot orders permitted?
RPI orders and Retail Orders may be entered with any quantity, including odd- or mixed-lot quantities.

21. Can RPI or Retail Orders be submitted for securities below $1.00?
No, RPI Orders submitted for securities under $1.00 will be rejected.

22. What are the liquidity codes associated with a Retail Order removing against an RPI order?
- Retail Order receives “r”
- RPI Order receives “j”

23. What are the liquidity codes associated with a Retail Order removing midpoint or other non-displayed liquidity that provides price improvement?
- Retail Order receives “t”
- Midpoint Order receives a “k”
- All other non-displayed orders receive a “J”

24. What are the liquidity codes associated with a Retail Order (Type 2 only) removing displayed or non-displayed liquidity that does not provide price improvement?
- Retail Order receives “R”
- Non-displayed order receives a “J”

25. What are the liquidity codes associated with a displayed order providing liquidity against Retail Order (Type 2 only)?
- Retail Order receives “R”
- Displayed Order receives “A”

Updated November 12, 2014
26. Will shares that added liquidity with RPI orders count towards add volume tiers?
   While RPI orders will receive separate rates in keeping with the terms of the program, shares
   added using RPI orders will count towards standard pricing tiers.

27. Does my firm need to be a Registered Market Maker (RMM) to participate?
   No, firms do not need to be a Registered Market Maker to be eligible as RM0s, nor do they
   need RMM status to submit RPI orders.

28. What display types can be used with RPI orders?
   RPI Orders must be submitted with a display type “Q”.

29. Can an RPI order be pegged?
   An RPI order may be submitted with a primary peg instruction if and only if it has an
   aggressive [positive] offset of at least $0.001. Market and midpoint pegs are not currently
   supported.

30. Can an RPI order be pegged to the midpoint?
   Not at this time, see above.

31. Can an RPI order with peg instructions be submitted during extended hours?
   No, since primary pegs are not accepted during extended hours, RPI orders with pegged
   instructions will be rejected during extended hours.

32. What times-in-force are allowed for RPI orders?
   RPI Orders may take any time-in-force other than Immediate or Cancel, since these orders
   must provide liquidity.

33. Can RPI orders have reserve instructions?
   No, since RPI orders are non-displayed they cannot have a reserve component.

34. Which securities are eligible to trade under the RPI program?
   All NMS securities are eligible to trade under the RPI program.

35. Can RPI or Retail Orders be accepted during halts?
   No, RPI and Retail orders will both be rejected during trading halts. Orders received prior to
   the halt will remain on the book.
36. What happens if an RPI is submitted through the NBBO?
That order will be re-priced to the opposite side of the market. For example, if the market is 10 x 11, and RPI order to buy at 12 would be re-priced to 11.

37. May I submit a pegged RPI order to provide liquidity without a limit price?
No, RPI orders must always be submitted with a limit price, regardless of pegging instructions.

38. If I submit a pegged RPI order with a limit price at the whole penny, could my order execute at the NBBO? For example, if I submit an order to buy 100 ZVZZT with a primary peg and an offset of $0.001 and a limit price of $20.00 and the bid is currently also at $20.00, could my order execute?
No, RPI orders must provide at least $0.001 in price improvement and will not execute under this condition.

39. Is the RPI Program available on all NASDAQ OMX exchanges?
No, the RPI Program is available on BX effective December 1, 2014. The RPI Program on NASDAQ Stock Market® (NASDAQ®) will cease at the close of business on December 31, 2014. The RPI program is not available on PSX.