

**JOINT CANADIAN SECURITIES ADMINISTRATORS/INVESTMENT  
INDUSTRY REGULATORY ORGANIZATION OF CANADA  
STAFF NOTICE 23-311  
REGULATORY APPROACH TO DARK LIQUIDITY IN THE CANADIAN  
MARKET**

**I. INTRODUCTION**

The publication of this notice (Joint Notice) follows an extensive consultative process that started in 2009 regarding the use of dark liquidity on Canadian equity marketplaces. The Joint Notice describes the regulatory framework within which dark liquidity may be used in Canada and is being issued in conjunction with IIROC Notice 11-0225 (IIROC Notice) published today. The IIROC Notice seeks comment on proposed amendments to the Universal Market Integrity Rules (UMIR) respecting requirements governing dark liquidity on Canadian equity marketplaces (Proposed UMIR Amendments). The Proposed UMIR Amendments are being filed with the Canadian Securities Administrators (CSA) in accordance with the normal review process.

**II. BACKGROUND**

In late 2009, staff of the CSA and of the Investment Industry Regulatory Organization of Canada (IIROC) (together, we) published Joint CSA/IIROC Consultation Paper 23-404 *Dark Pools, Dark Orders, and Other Developments in Market Structure in Canada* (Consultation Paper).<sup>1</sup> The purpose of the Consultation Paper was to seek comment on a number of issues related to the impact of dark pools and dark orders<sup>2</sup> on various features of the Canadian market, including market liquidity, transparency, price discovery, fairness and integrity.

We received 23 response letters to the Consultation Paper and, on March 23, 2010, the CSA and IIROC hosted a forum (the Forum) to discuss further the issues raised in the Consultation Paper and the responses received. Themes discussed at the Forum included:

- Whether dark pools should be required to provide price improvement and if so, what is meaningful price improvement;
- The use of market pegged orders and whether those orders “free-ride” off the visible market;
- The use of sub-penny pricing;
- Broker preferencing at the marketplace level and dealer internalization of order flow;
- The use of indications of interest by dark pools to attract order flow; and

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<sup>1</sup> Published at (2009) 32 OSCB, beginning at page 7877.

<sup>2</sup> In the Consultation Paper, dark pools were defined as marketplaces that provide no pre-trade transparency, and dark orders as orders with limited or no transparency.

- The fairness of a marketplace offering smart order router services that use marketplace data that is not available to other market participants.

More details regarding the Forum are included in Joint CSA/IIROC Staff Notice 23-308 *Update on Forum to Discuss CSA/IIROC Joint Consultation Paper 23-404 “Dark Pools, Dark Orders and other Developments in Market Structure in Canada” and Next Steps*<sup>3</sup>, published on May 28, 2010. That notice included a discussion of ongoing initiatives, proposed next steps, and a summary of the comments received in response to the Consultation Paper.

On November 19, 2010, after considering the response letters and discussions with market participants on the topics discussed in the Consultation Paper and at the Forum, we published Joint CSA/IIROC Position Paper 23-405 *Dark Liquidity in the Canadian Market*<sup>4</sup> (Position Paper). The Position Paper outlined the preliminary responses of the CSA and IIROC to the following questions:

- Under which circumstances should dark pools or marketplaces that offer dark orders<sup>5</sup> be exempted from the pre-trade transparency requirements in National Instrument 21-101 *Marketplace Operation* (NI 21-101)?
- Should dark orders be required to provide meaningful price improvement over the national best bid or national best offer (NBBO) and under which circumstances?
- Should visible (lit) orders have priority over dark orders at the same price on the same marketplace?
- What is a meaningful level of price improvement?

The Position Paper did not address a number of issues discussed in the Consultation Paper and at the Forum, such as the use of indications of interest (IOIs) by dark pools to attract order flow, the fairness of a marketplace offering smart order routing (SOR) services that use marketplace data that is not available to other marketplace participants, and the practices of broker preferencing and internalization. Issues relating to the use of IOIs and SORs by certain marketplaces are being addressed in proposed amendments to NI 21-101 (Proposed NI 21-101 Amendments),<sup>6</sup> which were published for a 90 day comment period that ended on June 16, 2011. CSA staff are currently in the process of reviewing the comments received. The concept of broker preferencing and the internalization of order flow are also currently under review.

A summary of the recommendations in the Position Paper is set out below.

- **Recommendation 1** - The exemption to the pre-trade transparency requirements in NI 21-101 should only be available to an order that meets or

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<sup>3</sup> Published at (2010) 33 OSCB, beginning at page 4747.

<sup>4</sup> Published at (2010) 33 OSCB, beginning at page 10764.

<sup>5</sup> In the Position Paper, a dark pool referred to a marketplace that offers no pre-trade transparency on any orders, and a dark order referred to an order on any marketplace entered with no pre-trade transparency.

<sup>6</sup> Published at (2011) 34 OSCB (Supp-1).

exceeds a minimum size (the Dark Order Size Threshold); the Dark Order Size Threshold for posting passive dark orders would apply to all marketplaces, transparent or dark pools, regardless of the method of trade matching (including continuous auction, call or negotiation systems), and to all orders whether they are client, non-client or principal.

- **Recommendation 2** – Two dark orders meeting the Dark Order Size Threshold should be able to execute at the NBBO, and meaningful price improvement should be required in all other circumstances.
- **Recommendation 3** – On a marketplace, visible orders should execute before dark orders at the same price, but two dark orders meeting the Dark Order Size Threshold can be executed at that price ahead of visible orders.
- **Recommendation 4** - Meaningful price improvement should be one trading increment as defined in UMIR;<sup>7</sup> however, for securities with a difference between the best bid price and best ask price of one trading increment, one-half increment will be considered to be meaningful price improvement.

We received 20 comments to the Position Paper from buy and sell-side participants, marketplaces, and trade associations, and an independent consultant. We thank all the commenters. A summary of the comment letters received is included with this notice as well as a list of commenters.

### **III. REGULATORY FRAMEWORK FOR DARK LIQUIDITY**

This Joint Notice describes and provides rationale for the steps being taken to implement the recommendations in the Position Paper, which is being effected through the Proposed NI 21-101 Amendments and the Proposed UMIR Amendments. The framework for dark liquidity in the Joint Notice and the Proposed UMIR Amendments are guided by the policy considerations outlined in the Position Paper to encourage the posting of orders on marketplaces' visible order books, while at the same time exposing as much liquidity as possible to the widest variety of market participants, including those using dark liquidity.

The Proposed NI 21-101 Amendments facilitate the implementation of Recommendation 1 by proposing a pre-trade transparency exemption that would require that a minimum size threshold be met. The Proposed UMIR Amendments would:

1. facilitate the implementation of Recommendation 1 by permitting IIROC to designate a minimum size for orders that are not displayed in a consolidated market display;
2. implement Recommendation 2 by providing that an order entered on a marketplace that trades with a dark order must receive meaningful price improvement, unless the former order exceeds a certain size threshold;

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<sup>7</sup> UMIR Rule 1.1 defines a "trading increment". UMIR Rule 6.1 (1) states: "No order to purchase or sell a security shall be entered to trade on a marketplace at a price that includes a fraction or a part of a cent other than an increment of one-half of one cent in respect of an order with a price of less than \$0.50."

3. implement a variation of Recommendation 3 by providing that an order entered on a marketplace must trade with visible orders on that marketplace before trading with dark orders at the same price on that marketplace;<sup>8</sup>
4. implement Recommendation 4 by revising the definition of *better price* in section 1.1 of UMIR to be at least one trading increment as defined in UMIR or, for securities with a difference between the best bid and best ask price of one trading increment, of at least one-half of one trading increment.

In addition, the Proposed UMIR Amendments would include certain consequential amendments to other UMIR requirements, which are fully described in the IIROC Notice.

**(a) Definition of a dark order**

As set out above, in the Position Paper, we referred to a dark order as an order on any marketplace that is entered with no pre-trade transparency and that is not required to be reported to an information processor or data vendor under the applicable rules. We indicated that a dark order does not include reserve or iceberg orders, as a portion of those orders is always displayed, and thus they contribute to the pre-trade price discovery process. We noted that dark orders can be entered on either a transparent marketplace or in a dark pool.

A few commenters to the Position Paper requested further clarification regarding the types of orders that would be considered dark orders, and specifically whether dark orders would include orders that are immediately filled or cancelled by marketplaces upon receipt (such as market, Immediate or Cancel and Fill or Kill orders). We confirm that immediately executable orders would not be considered dark orders for the purposes of our analysis, even though they do not have pre-trade transparency. Dark orders would also exclude specialty orders that may execute at a price outside the spread, such as orders entered on a matching facility of a marketplace during a separate opening or closing session of a marketplace.

The Proposed UMIR Amendments include a definition of a dark order that reflects these considerations.

**(b) Exemption from the pre-trade transparency requirements in NI 21-101**

Part 7 of NI 21-101 sets out the information transparency requirements for marketplaces trading in exchange-traded securities. One of these requirements is that a marketplace that displays orders of exchange-traded securities must provide information regarding the orders displayed on that marketplace to an information processor.<sup>9</sup> An existing exemption from this requirement is available for orders that are only displayed to a marketplace's

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<sup>8</sup> It should be noted that this is a variation from the recommendation in the Position Paper in that large dark orders would not be able to receive execution priority relative to visible orders at the same price. Further discussion regarding the rationale is included below.

<sup>9</sup> Subsection 7.1(1) of NI 21-101.

employees or those retained by the marketplace to assist in the operation of the marketplace.<sup>10</sup>

In the Position Paper, we recommended that the exemption from the pre-trade transparency requirements only apply to orders that meet the Dark Order Size Threshold. We requested feedback on what this minimum size should be. We also set out our expectation that marketplaces could not aggregate orders to meet the Dark Order Size Threshold and that, once posted, orders should not be changed to a quantity less than this threshold. In addition, where a dark order receives a partial fill which results in the remaining balance being less than the Dark Order Size Threshold, we indicated that the balance of the order could remain dark until fully executed or cancelled.

Approximately a third of the commenters were in favour of limiting the exemption from pre-trade transparency requirements to orders that meet a Dark Order Size Threshold for a number of reasons, including that this approach would help preserve the value and quality of the visible order book. The feedback received with respect to what would constitute an appropriate Dark Order Size Threshold varied, from 50 standard trading units<sup>11</sup> to suggestions that the threshold be based on a percentage of the average daily volume or a multiple of the average order size for a security.

The remainder of the respondents did not support establishing a Dark Order Size Threshold for a variety of reasons, including the small level of activity in dark pools and the lack of evidence of harm to market quality. In addition, some respondents indicated that dark pools allowed them to manage the impact costs of implementing trading strategies involving smaller order sizes.

We acknowledge that, to date, there has been limited activity in dark pools and no evidence that dark liquidity, including dark orders in visible marketplaces, has had a negative impact on the Canadian capital market. However, we are of the view that it is important and timely to establish a regulatory framework that can adapt to the changing market structure and developments, including an increasing number of dark pools and growth in the use of dark liquidity. In our view, this regulatory framework should include a requirement that orders meet a certain threshold in order to be entered without being subject to pre-trade transparency requirements. We continue to believe that transparency is a fundamental building block of a fair and efficient market. This has been our view since our consultation process began, and the framework will give regulators the ability to introduce a Dark Order Size Threshold to encourage transparency and to address risks to the quality of the price discovery process.

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<sup>10</sup> Subsection 7.1(2) of NI 21-101. Rule 6.3 of UMIR also requires that a Participant immediately enter on a marketplace that displays orders in accordance with Part 7 of NI 21-101 a client order to purchase or sell 50 standard trading units or less of a security. This requirement is subject to certain exceptions, including when the client as specifically instructed the Participant to deal otherwise with the particular order (e.g. authorized the entry of the order on a dark pool).

<sup>11</sup> In respect to equity securities, UMIR defines a standard trading unit as being: (i) 1,000 units of a security trading at less than \$0.10 per unit, (ii) 500 units of a security trading at \$0.10 or more per unit and less than \$1.00 per unit, and (iii) 100 units of a security trading at \$1.00 or more per unit.

In order to implement this regulatory framework, the Proposed NI 21-101 Amendments included a requirement that orders meet a minimum size established by a regulation services provider in order to be exempt from the transparency requirements in NI 21-101.<sup>12</sup> No minimum order size was proposed.

In the Proposed UMIR Amendments published today, IIROC is proposing new UMIR Rule 6.5 that would permit IIROC to designate a minimum size for orders that are not displayed in a consolidated market display. The IIROC Notice also includes a description of the process to make a designation or change any designation and indicates that this process would involve consultation with both the public and the CSA. In addition, any size threshold proposed by IIROC would be subject to approval by the CSA. This would ensure that the process is transparent to the public, and that the public and the CSA have an opportunity to provide input.

At this time, neither the Proposed NI 21-101 Amendments nor the Proposed UMIR Amendments have included a specific Dark Order Size Threshold. However, in the coming months, we will examine the Canadian market and monitor market developments and regulatory approaches in other jurisdictions to determine the appropriate threshold.<sup>13</sup>

**(c) Price improvement by a dark order**

Currently, orders posted in existing dark pools provide price improvement of at least 10% of the NBBO spread to all orders that execute against them. Dark orders entered on transparent marketplaces also provide price improvement, but have historically been permitted to trade at the NBBO, regardless of their size, as long as all visible and displayed portions of iceberg orders at the same price on that marketplace have been executed first.

In the Position Paper, we recommended that two dark orders should be allowed to trade at the NBBO only if both sides of the trade meet the Dark Order Size Threshold. We also recommended that meaningful price improvement should be provided by dark orders in all other circumstances. We indicated that both orders trading at the NBBO must be marked as “dark” to ensure that only those orders specifically utilizing the recommended minimum size exemption can do so, and not traditional liquidity-removing orders. Our position acknowledged that the execution of dark orders meeting the Dark Order Size Threshold contributes to the price discovery process through immediate post-trade transparency. In addition, it was our view that the size of the transaction may provide sufficient information to participants to stimulate further trading that might not otherwise have occurred in the absence of such a large-sized execution. These factors, in our view, justified allowing the execution of

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<sup>12</sup>See proposed amendments to sections 7.1 and 7.3 of NI 21-101.

<sup>13</sup> Notwithstanding that no Dark Order Size Threshold has been established, dealers that are Participants under UMIR will continue to be subject to the existing “Order Exposure Rule” that requires client orders for 50 standard trading units or less of a security to be immediately entered on a transparent marketplace. The rule is subject to a number of exceptions, including when the client has specifically instructed the Participant to deal otherwise with the particular order or the Participant executes the order upon receipt at a better price. IIROC accepts that a Participant may check a Dark Pool for a better price but any unexecuted portion of the order must then be entered on a marketplace that provides order transparency.

large dark orders without price improvement. We also discussed what would be considered to be meaningful price improvement.

The majority of the commenters supported the position that two dark orders meeting the Dark Order Size Threshold should be able to execute at the NBBO and that meaningful price improvement should be required in all other circumstances. A few, however, were not supportive, with one commenter being of the view that dark orders should be able to execute at the NBBO regardless of size.

We maintain our view that a dark order could execute at the NBBO in certain circumstances. The Proposed UMIR Amendments would require, subject to certain exceptions, that an order entered on a marketplace that trades with an order that has not been displayed in a consolidated market display either receive price improvement, or be for more than 50 standard trading units or have a value of more than \$100,000. We are not requiring that such orders be marked “dark” in order to be able to trade with a passive dark order at the NBBO, as was recommended in the Position Paper. The requirement to mark these orders as “dark” was based on the fact that the Position Paper also recommended that two large dark orders meeting the Dark Order Size Threshold could execute at the NBBO ahead of visible orders at the same price. As will be discussed in the following section, we have revised our position with respect to the priority of order execution at the NBBO, and are of the view that visible orders on the same marketplace at the same price should always have priority. As such, it would be unnecessary to require a marketable order executing at the NBBO to be marked “dark”, as it will be required to first displace any visible orders on that marketplace at the same price.

We acknowledge that requiring price improvement in specific cases may impact certain marketplaces’ business models, as some transparent marketplaces offering dark order types currently allow marketable orders of any size to trade with a dark order at the NBBO. We are of the view, however, that any associated cost is justified for the reasons outlined above. As result, existing marketplaces that allow smaller orders to trade with dark orders at the NBBO would not be grandfathered from this requirement.

**(d) Execution priority of orders entered on the same marketplace at the same price**

In the Position Paper, we expressed our view that visible orders on a marketplace should execute before dark orders at the same price on the same marketplace. We recommended an exception for two dark orders meeting the Dark Order Size Threshold to acknowledge the contribution such orders have to the price and size discovery process.

The majority of commenters were supportive of the above recommendation. A few supported the concept of visible orders executing before dark orders, but did not support an exception for two large dark orders.

We continue to be of the view that visible limit orders should execute before dark orders when they are on the same marketplace and at the same price. Proposed UMIR Rule 6.6, part of the Proposed UMIR Amendments, would introduce a formal requirement that visible orders

receive execution priority relative to dark orders, when they are on the same marketplace and at the same price. This priority may not be circumvented by any dark orders, regardless of their size. This is a variation from our original recommendation in the Position Paper. After reviewing the comments received and the IOSCO Principles on Dark Liquidity<sup>14</sup>, we have reconsidered our position and are of the view that visible limit orders should always have priority over dark orders. This priority encourages visible liquidity in marketplaces and is fundamental to the protection of the price discovery process.

**(e) Meaningful price improvement**

Currently, orders posted in existing dark pools provide price improvement to all orders that execute against them. Additionally, dark orders entered on transparent marketplaces may also trade against other orders at the NBBO, regardless of their size, as long as all visible and displayed portions of iceberg orders at the same price on that marketplace have been executed first. The amount or percentage of price improvement is at the discretion of the marketplace and may be as low as 10% over the NBBO.

In the Position Paper, we discussed that one of the factors to be considered in determining what level of price improvement might be considered “meaningful” is examining whether there is a “tipping point” at which the individual benefit to an order receiving price improvement becomes outweighed by the risks to the overall quality of the market if increased numbers of orders are entered on marketplaces without pre-trade transparency. If small fractions of price improvement can facilitate an execution in front of a visible quote, the incentives to displaying a visible quote may be weakened. Our view, as expressed in the Position Paper, was that meaningful price improvement occurs when the price is improved over the NBBO by a minimum of one trading increment as defined in UMIR, except where the NBBO spread is already one trading increment. In that case, meaningful price improvement would be at least half of the applicable trading increment.

Comments received on the above recommendation were mixed. Many were in favour of the recommendation regarding price improvement. Some agreed that there should be meaningful price improvement, but did not support the CSA and IIROC’s view regarding the amount. A few commenters did not agree with the notion of meaningful price improvement and indicated that any dark order should be allowed to execute at the NBBO.

After considering the comments received, we continue to be of the view that price improvement must be meaningful in order to avoid or minimize harm to the price discovery process through the increasing use of dark liquidity. One of the goals of our recommendation in the Position Paper was to limit the practice of providing increasingly smaller amounts of price improvement to achieve execution in front of visible orders and consequently decreasing the incentive to enter visible orders.

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<sup>14</sup> Available at: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD336.pdf>



We do not believe that price improvement below one trading increment (except when the spread is at one trading increment) is meaningful to ensure that the benefit to investors from receiving price improvement outweighs the cost, whether quantified or unquantified,<sup>15</sup> of lost opportunities to trade because of dark orders offering minimal price improvement “jumping the queue”.

As a result, we are moving forward with defining meaningful price improvement as proposed in the Position Paper. To implement this recommendation and the level of price improvement in the Position Paper, it is proposed that the definition of “better price” in UMIR be revised through the Proposed UMIR Amendments.

Dark orders on all marketplaces would have to provide this level of price improvement, including orders entered on dark pools and orders entered on transparent marketplaces offering dark order types. This requirement would also level the playing field between dark pools and transparent marketplaces, as they each could provide functionality allowing dark orders to trade at the NBBO in certain circumstances, and in all other circumstances provide price improvement of at least one half of the trading increment, which in some cases may be less than one penny.

#### **IV. INTERNATIONAL DEVELOPMENTS**

##### **(a) IOSCO Principles on Dark Liquidity**

On May 20, 2011, the Technical Committee of the International Organization of Securities Commissions (IOSCO) published a final report, Principles on Dark Liquidity, containing principles to assist securities markets authorities in dealing with issues concerning dark liquidity.

We believe that, if implemented, the Proposed NI 21-101 Amendments and the Proposed UMIR Amendments would compliment the existing regulatory structure governing dark liquidity and increase consistency with the principles of the Technical Committee by:

- establishing a regulatory framework that would allow dark liquidity but manage its impact on price discovery, fairness and overall market quality; and
- mandating that transparent orders would have priority over dark orders at the same price within a marketplace, and thus promoting the use of transparent orders.

In this section, we have identified each IOSCO principle and have discussed the Canadian regulatory approach.

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<sup>15</sup> For example, an investor posting a non-marketable limit order may incur the unquantifiable loss of missing an execution if a dark order steps in front of their order and provides a minimal amount of price improvement to the contra-side marketable order that would have executed against the investor’s order. To avoid this potential outcome, the investor could adjust the limit price of its order and pay the full spread, thus incurring a quantifiable loss.

*IOSCO Principle 1: The price and volume of firm orders should generally be transparent to the public. However, regulators may choose not to require pre-trade transparency for certain types of market structures and orders. In these circumstances, they should consider the impact of doing so on price discovery, fragmentation, fairness and overall market quality.*

### ***Canadian regulatory approach***

In our view, the Canadian approach both currently in place and as proposed meets this principle. With respect to existing requirements, NI 21-101 requires that information relating to all orders be provided to and publicly disseminated by an information processor, unless that order is shown only to the employees of a marketplace, or a person or company retained to assist with its operation. As such, while pre-trade transparency is generally required, our existing regulatory framework, and specifically the exemption described above, permits the existence of dark pools and dark orders.

In addition, Rule 6.3 of the UMIR *Exposure of Client Orders* (the Order Exposure Rule) promotes transparency of small-sized orders, by requiring that a Participant immediately enter on a marketplace that displays orders a client order to purchase or sell 50 standard trading units or less unless, among other exceptions, the Participant provides price improvement to that order.

New requirements have been proposed only after extensive consideration of the impact of dark liquidity on price discovery, fairness and market quality. The CSA proposal to introduce a minimum size threshold in order to be exempt from the transparency requirements in NI 21-101, along with the Proposed UMIR Amendments that would permit IIROC to designate a minimum size for such orders, would establish a new framework which seeks to balance the desire of participants to use dark liquidity and the potential negative impact on overall market quality.

*IOSCO Principle 2: Information regarding trades, including those executed in dark pools or as a result of dark orders entered in transparent markets, should be transparent to the public. With respect to the specific information that should be made transparent, regulators should consider both the positive and negative impact of identifying a dark venue and/or the fact that the trade resulted from a dark order.*

### ***Canadian regulatory approach***

NI 21-101 requires that information regarding all trades, including those executed on transparent marketplaces or dark pools, be disseminated to an information processor for inclusion in consolidated information in real time. Trade information is also disseminated by data vendors and includes all pertinent information including the identity of the marketplace, the security's symbol, quantity, price and time.

*IOSCO Principle 3: In those jurisdictions where dark trading is generally permitted, regulators should take steps to support the use of transparent orders rather than dark orders executed on transparent markets or orders submitted into dark pools. Transparent orders should have priority over dark orders at the same price within a trading venue.*

#### ***Canadian regulatory approach***

In Canada, there are already a number of incentives to foster the use of transparent orders, such as the Order Exposure Rule discussed above, as well as the Order Protection Rule (OPR)<sup>16</sup> which requires marketplaces to have policies and procedures that are reasonably designed to prevent trade-throughs. Specifically, OPR ensures that immediately accessible, visible, better-priced limit orders are executed prior to inferior-priced limit orders.

We currently require and the Proposed UMIR Amendments would codify that visible orders must be given priority over dark orders at the same price on the same marketplace. Specifically, an order entered on a marketplace must trade with visible orders on that marketplace before trading with dark orders at the same price on that marketplace.

*IOSCO Principle 4: Regulators should have a reporting regime and/or means of accessing information regarding orders and trade information in venues that offer trading in dark pools or dark orders.*

#### ***Canadian regulatory approach***

IIROC receives, in real-time, order and trade information from all marketplaces, including dark pools. In addition, alternative trading systems are currently required by NI 21-101 to provide to the CSA quarterly reports regarding trade information. In the Proposed NI 21-101 Amendments, the CSA proposed to enhance this reporting to include additional information regarding dark orders and trading activity to give us an overview of the activities of marketplaces.<sup>17</sup>

*IOSCO Principle 5: Dark pools and transparent markets that offer dark orders should provide market participants with sufficient information so that they are able to understand the manner in which their orders are handled and executed.*

#### ***Canadian regulatory approach***

In the Proposed NI 21-101 Amendments, the CSA proposed that all marketplaces, including dark pools and transparent marketplaces that offer dark orders, disclose on their website information regarding their operations, including a description of how orders are

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<sup>16</sup> National Instrument 23-101 *Trading Rules*, Part 6.

<sup>17</sup> Proposed Form 21-101F3 *Quarterly Report of Marketplace Activities*, available at (2011) 34 OSCB (Supp-1), beginning at page 57.

entered, how they interact and execute, the order types they offer, and the marketplaces' access requirements.

*IOSCO Principle 6: Regulators should periodically monitor the development of dark pools and dark orders in their jurisdictions to seek to ensure that such developments do not adversely affect the efficiency of the price formation process, and take appropriate action as needed.*

### ***Canadian regulatory approach***

The CSA and IIROC monitor closely the trading activity on all marketplaces, including dark pools and transparent marketplaces offering dark order types. We review the operations of marketplaces that propose to operate in Canada, including dark pools, before they commence their operations. We also review changes to existing marketplace operations, which may include new order types or changes to order types. Our review allows us to understand the impact of dark pools and dark orders in the Canadian capital market, and to take appropriate action when there is a risk that such developments may have a negative impact on the quality of the Canadian capital market.

#### **(b) Other Relevant Current International Work**

The proposed regulatory framework related to dark liquidity is also consistent with steps being considered or taken by other regulatory authorities. For example, the Australian Securities and Investments Commission (ASIC) released, on April 29, 2011, new market integrity rules for competition in exchange markets.<sup>18</sup> ASIC has introduced requirements with respect to pre-trade transparency, and has specifically introduced a framework which includes a minimum threshold for exemption from the pre-trade transparency requirements, initially set at zero. This will enable ASIC to respond quickly if there is a shift of liquidity from the pre-trade transparent market in the short term at a level that would affect the price formation process. ASIC intends to undertake further consultation in Q3 of this year taking account of the responses it received to its earlier consultation with the aim of adopting revised rules in early 2012.

In Europe, Directive 2004/39/EC, promulgated under the Markets in Financial Instruments Directive (MiFID), is being reviewed by the European Commission and the European Securities and Markets Authority (ESMA). As part of its own review, ESMA published a consultation paper<sup>19</sup> on equity markets which includes, among other things, the examination of existing pre-trade transparency waivers provided under MiFID and policy options regarding crossing systems and processes operated by investment firms. In

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<sup>18</sup> Available at <http://www.asic.gov.au/asic/ASIC.NSF/byHeadline/Market%20integrity%20rules>.

<sup>19</sup> CESR consultation paper ref: CESR/10-394, *CESR Technical Advice to the Commission in the Context of the MiFID Review – Secondary Markets*, April 2010, available at <http://www.esma.europa.eu>.

July 2010, EMSA published a report<sup>20</sup> in which it recommended, among others, that the existing exceptions to pre-trade transparency continue to be allowed under certain circumstances, and that the European Commission undertake or commission further analytical work regarding the existing thresholds.

On February 18, 2011, the Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues presented its summary report, containing 14 recommendations regarding regulatory responses to the market events of May 6, 2010.<sup>21</sup> The Committee's report included the following two recommendations:

11. The Committee recommends that the SEC conduct further analysis regarding the impact of a broker-dealer maintaining privileged execution access as a result of internalizing its customer's orders or through preferencing arrangements. The SEC's review should, at a minimum, consider whether to (i) adopt its rule proposal requiring that internalized or preferred orders only be executed at a price materially superior (*e.g.*, 50 mils for most securities) to the quoted best bid or offer, and/or (ii) require firms internalizing customer order flow or executing preferred order flow to be subject to market maker obligations that require them to execute some material portion of their order flow during volatile market periods.
12. The Committee recommends that the SEC study the costs and benefits of alternative routing requirements. In particular, we recommend that the SEC consider adopting a "trade at" routing regime. The Committee further recommends analysis of the current "top of book" protection protocol and the costs and benefits of its replacement with greater protection to limit orders placed off the current quote or increased disclosure of relative liquidity in each book.

To date, the SEC has not proposed any rules or regulations based on these two recommendations, and we will continue to monitor regulatory developments in the United States on these and other key issues.

## V. CONCLUSION

Market structure in Canada has experienced many new developments, including the increased use of dark liquidity, whether in dark pools or as dark orders on transparent marketplaces. Our regulatory objectives in undertaking a review of dark liquidity were to establish a framework which recognizes the need for dark liquidity, promotes innovation

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<sup>20</sup> CESR Technical Advice to the European Commission in the Context of the MiFID Review and Responses to the European Commission Request for Additional Information, available at [http://www.esma.europa.eu/index.php?page=document\\_details&from\\_title=Documents&id=7003](http://www.esma.europa.eu/index.php?page=document_details&from_title=Documents&id=7003).

<sup>21</sup> Published at: [http://www.cftc.gov/ucm/groups/public/@aboutcftc/documents/file/jacreport\\_021811.pdf](http://www.cftc.gov/ucm/groups/public/@aboutcftc/documents/file/jacreport_021811.pdf)

and accommodates different market models and marketplace features, while at the same time protecting the integrity of the price discovery process.

We believe that the Proposed NI-21-101 Amendments and the Proposed UMIR Amendments will establish this framework. We recognize the benefits of dark liquidity, and the fact that it is still a small component of the existing market structure. However, we continue to be of the view that it is critical to introduce a framework for our market that fosters fairness, efficiency and confidence. In our view, the framework being proposed will achieve this goal by protecting price discovery and market quality. It will:

- encourage the use of visible orders, by ensuring the priority of visible orders over dark orders at the same price on the same marketplace;
- acknowledge the contribution of dark orders to the post-trade price discovery process and their value to certain investors; and
- ensure meaningful price improvement and level the playing field between transparent marketplaces and dark pools.

## VI. QUESTIONS

Questions may be referred to any of:

<p>Kent Bailey Ontario Securities Commission 416-595-8945 <a href="mailto:kbailey@osc.gov.on.ca">kbailey@osc.gov.on.ca</a></p>	<p>Tracey Stern Ontario Securities Commission 416-593-8167 <a href="mailto:tstern@osc.gov.on.ca">tstern@osc.gov.on.ca</a></p>
<p>Ruxandra Smith Ontario Securities Commission 416-593-2317 <a href="mailto:ruxsmith@osc.gov.on.ca">ruxsmith@osc.gov.on.ca</a></p>	<p>Élaine Lanouette Autorité des marchés financiers 514-395-0337 X4356 <a href="mailto:Elaine.Lanouette@lautorite.qc.ca">Elaine.Lanouette@lautorite.qc.ca</a></p>
<p>Serge Boisvert Autorité des marchés financiers 514-395-0337 X4358 <a href="mailto:Serge.Boisvert@lautorite.qc.ca">Serge.Boisvert@lautorite.qc.ca</a></p>	<p>Doug Brown Manitoba Securities Commission 204-945-0605 <a href="mailto:doug.brown@gov.mb.ca">doug.brown@gov.mb.ca</a></p>
<p>Lorenz Berner Alberta Securities Commission 403-355-3889 <a href="mailto:lorenz.berner@asc.ca">lorenz.berner@asc.ca</a></p>	<p>Michael Brady British Columbia Securities Commission 604-899-6561 <a href="mailto:mbrady@bcsc.bc.ca">mbrady@bcsc.bc.ca</a></p>
<p>Jason Alcorn New Brunswick Securities Commission 506-643-7857 <a href="mailto:Jason.alcorn@nb-sc-cvmnb.ca">Jason.alcorn@nb-sc-cvmnb.ca</a></p>	<p>James Twiss IIROC 416-646-7277 <a href="mailto:jtwiss@iiroc.ca">jtwiss@iiroc.ca</a></p>

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**SUMMARY OF PUBLIC COMMENTS ON JOINT CANADIAN SECURITIES  
ADMINISTRATORS/INVESTMENT INDUSTRY REGULATORY  
ORGANIZATION OF CANADA JOINT POSITION PAPER 23-405 – DARK  
LIQUIDITY IN THE CANADIAN MARKET**

**1. General Comments**

Many commenters were in support of the recommendations in the Position Paper and thought that the proposals strike an appropriate balance between the objectives of promoting price discovery and the facilitation of large sized trades with minimal market impact. A few commenters recommended that regulators consider investigating the reason for which small orders are sent for execution away from visible marketplaces and suggested that these marketplaces' fee models may be a reason. Some commenters suggested that the appropriateness of the maker-taker model (where a marketplace's fee model gives passive orders a trading fee rebate upon execution which is paid by the active trades) also be reviewed. Others suggested that regulators also scrutinize internalization, broker preferencing and the use of indications of interest. They suggested that any regulatory proposals regarding dark liquidity be considered as part of the overall regulatory framework that includes these issues.

***Response***

*As we indicated in the Joint Notice, CSA staff are currently reviewing other issues noted by the commenters, such as the concept of broker preferencing and the internalization of order flow. In addition, the Proposed NI 21-101 Amendments include further guidance on the use of indications of interest (IOIs), including when an IOI would be considered a firm order, and included a requirement that a marketplace disclose when they disseminate IOIs, including the information included in these IOIs and the types of recipients of this information.*

*We acknowledge the concerns raised regarding marketplace fee models, and particularly the “maker-taker” model. We note that, as part of our ongoing policy work, we have been examining marketplace fee models to assess what, if any, regulatory response is needed.*

Most commenters thought that dark pools are valuable tools that provide dealers additional options as to where to trade and, in turn, increase the options available to investors for executing their strategies. In addition, some thought that dark pools are a valuable tool to manage escalating costs. A number of commenters noted that some of the assumptions about the purpose of dark liquidity that were made in the Position Paper may

no longer be valid in light of market developments. For example, they suggested that the initial rationale for the introduction of dark pools and dark order types, which was to facilitate the execution of large orders and to enable more participants to interact with previously unavailable liquidity, is of little relevance in light of the changes that have occurred in the Canadian capital market in recent years.

Many commenters indicated that the level of activity on dark pools in Canada has been low and there has been no evidence of harm to the price discovery process. As a result, a few commenters believed that there is no strong need for any significant regulatory changes to the current Canadian framework for dark liquidity at this time.

### ***Response***

*We agree that the use of dark pools is broader than their initial purpose. The regulatory framework we have proposed acknowledges the contribution of dark orders to the post-trade price discovery process, while at the same time promoting price discovery and market quality.*

*We acknowledge that, to date, there has been limited activity in dark pools and no evidence that dark liquidity has harmed the integrity of our market, including the quality of the price discovery process. However, we believe that it is appropriate and timely to establish a framework within which dark liquidity can be utilized to the benefit of marketplace participants and grow without negatively impacting market quality.*

Some commenters acknowledged that regulators are addressing similar market structure issues globally, but stressed the importance of focusing on the unique characteristics of local markets, including our regulatory framework: for example, it was noted that Canada has fair access rules and post-trade transparency requirements that require identification of the marketplace. One commenter suggested that this framework, subject to certain enhancements such as mandatory disclosure of the operations of dark pools including allocation methodology, and additional reporting requirements for dealers and marketplaces regarding dark order usage, would provide significant protection to investors.

### ***Response***

*We believe that the proposed regulatory framework for dark liquidity compliments the existing regulatory structure in Canada, which includes fair access requirements and post-trade transparency. We share the view expressed by some of the commenters that additional transparency of the operations of Dark Pools, including how orders are allocated, would be beneficial. To this extent, in the Proposed NI 21-101 Amendments, the CSA proposed additional transparency of marketplace operations, including how orders are entered, interact and execute*



*on a marketplace.<sup>22</sup> The CSA also proposed enhancements to Form 21-101F3, a quarterly report currently filed by ATSS, which would be filed by all marketplaces, and will allow the regulators to gather data in a regular and timely manner regarding dark liquidity so we can monitor its use over time.*

Finally, some commenters cautioned about the unintended consequences of imposing restrictions on the use of dark liquidity, which may be: an increase in the internalization of dealers' order flow, or regulatory arbitrage for inter-listed securities. Additionally, order flow in inter-listed securities could be directed south of the border, and could possibly be sold or routed to U.S. dark and crossing markets.

*We have addressed these comments individually below.*

## **2. Recommendation 1 – Dark order size threshold**

Approximately one-third of the comments received were in support of establishing a Dark Order Size Threshold. Opinions were mixed however, on the appropriate size for the threshold. A few suggested that the size threshold should be based on the characteristics of the individual security, and some suggested a measure such as the average daily volume for the security. Other commenters believed that the threshold should be much closer to the smaller average trade sizes in today's market (for example, one commenter noted that, given that the average trade sizes are trending between 200-400 shares, a more appropriate minimum size threshold could be 500, which is greater than the average order size on displayed marketplaces). In contrast, other commenters thought that 50 standard trading units, the size we used as an example in the Position Paper, was too low and that the threshold should be higher. One thought a more appropriate minimum size should be 10,000 shares with a minimum value of \$100,000, and another suggested that the threshold should not be less than the greater of: (i) 50 standard trading units; or (ii) \$100,000.

Despite the differing opinions on the size, many of those who supported having a Dark Order Size Threshold did so on the basis that it is important to incent the placement of orders on the visible marketplaces as they are an important component of the price discovery process. One commenter expressed concern that the Canadian market model would move towards the U.S. model, which they believed has led to the erosion of the value of the U.S. visible market. Another commenter noted that regulators should evaluate whether the benefits of any new systems proposed by marketplace participants are worth the potential cost in the reduction of transparency.

### ***Response***

*While we have not introduced a Dark Order Size Threshold at this time, we will monitor market developments, including international regulatory developments, to determine an appropriate threshold. We acknowledge and will consider the*

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<sup>22</sup> See section 10.1 of the proposed amendments to NI 21-101.

*suggestions above in any threshold we will propose. As we noted in the Joint Notice, the process to establish any Dark Order Size Threshold will be subject to approval by the CSA and will involve consultation with the public.*

The majority of commenters did not support a Dark Order Size Threshold for a variety of reasons which are summarized below.

#### Risk of information leakage

It was noted that, when the size restriction would apply only to passive order flow, and not to active orders that are directed to a marketplace, small pinging orders may be sent to a marketplace to detect the presence of a dark order. With knowledge of the Dark Order Size Threshold applicable to a passive dark order, market participants would gain immediate information regarding the size of the dark order. This could result in an increased use of minimum fill constraints on resting dark orders, which would result in a lower retail order fill rate. It may also result in large orders remaining on trading desks of dealers and portfolio managers rather than entered on a marketplace, and would reduce available liquidity.

#### **Response**

*We acknowledge the concerns raised with the potential for information leakage due to the imposition of a minimum size only for passive (posted) orders. While we understand that marketplaces generally have tools to limit gaming and marketplace participants may have strategies to reduce the risk of being gamed, we will consider how to mitigate this risk at the time a Dark Order Size Threshold is proposed. For example, we will consider whether small, “child” orders of parent orders that exceed the size threshold could be posted without pre-trade transparency even if these child orders are below the minimum size.*

#### Risk of liquidity migration

A number of commenters expressed concern that any regulation of dark liquidity that is more restrictive than in the U.S. could result in a loss of order flow for Canadian marketplaces on inter-listed securities. On a related note, commenters also discussed the U.S dark liquidity model which has allowed retail orders to be traded at lower costs for the dealers. One commenter expressed a concern that dealers might form private internalization systems as an alternative method of dealing with a more restrictive framework.

#### **Response**

*We acknowledge the concerns raised; however, we note that dealers’ best execution obligation to their clients should govern any decisions on where and how to execute their trades. Both subsection 1.1.1 of the Companion Policy to National Instrument 23-101 Trading Rules and Policy 5.1 of UMIR indicate that*

*one of the factors that a market participant, including a dealer, would be expected to take into account in seeking the most advantageous execution terms for a client would include speed of execution and the overall cost of the transaction. Dealers would have to justify any decisions on how they directed order flow in the context of best execution requirements. The factors to be considered do not include transaction costs to the dealer that are not passed on to a client.*

#### No evidence of harm

A common theme amongst commenters not supporting a Dark Order Size Threshold was that there is no evidence of harm to the visible market or the price discovery process due to the use of dark orders. Additionally, given the limited use of dark orders in Canada, many commenters believed that regulatory changes are not needed at this time.

#### **Response**

*We acknowledge that the level of activity in dark pools has been limited and we plan to continue to gather data regarding the volume of dark liquidity on all marketplaces. However, we are of the view that this is an appropriate time to establish the regulatory framework, through the Proposed UMIR Amendments and Proposed NI 21-101 Amendments.*

#### New rationale for use of dark orders

Commenters noted that the initial rationale for using dark orders has changed, and that this rationale may have little importance. Commenters indicated that optimal execution strategies on some securities might be to break a larger order into smaller pieces and trade some portion in the visible market, and some in the dark market. Others noted that mandating a Dark Order Size Threshold may not have the desired effect of having more small orders placed on the visible market, and in fact a greater number of orders may be held back entirely in the upstairs market.

#### **Response**

*We recognize that marketplace participants are using dark orders for differing purposes, some of which go beyond the initial rationale. It is clear that the evolution of our market has resulted in new trading strategies many of which utilize small dark orders, to obtain best execution. However, we maintain our belief that a continued increase in use of small dark orders which could otherwise be directed to visible marketplaces, has the potential to compromise the quality of our visible market. Although we do not believe our market is at a level where the use of dark versus visible strategies has become unbalanced to the detriment of market quality, as stated above, we propose to establish a framework which would allow us to react accordingly as the evolution of trading continues.*

#### Best execution

Some commenters believed that it is the job of the trader to manage an order and to ensure best execution of orders on behalf of clients. Best execution may demand that smaller orders are placed as dark orders. These commenters did not support regulation that would reduce the options available to traders to achieve best execution. One commenter believed that under UMIR 6.3(e), a dealer is permitted to determine whether the entering of an order would be in the best interest of a client, and therefore noted that provisions already exist which support the idea that traders should be able to protect their clients interests, even if those order sizes do not meet the threshold.

### ***Response***

*We recognize that the best execution of an individual client order may involve different strategies depending on a number of factors. However, this must be balanced with a view to the public interest and the need for a regulatory environment that ensures fairness and the protection of market quality for all investors. We believe that the framework proposed will give us the flexibility required to ensure a proper balance.*

### **3. Recommendation 2 – Price improvement by dark orders**

The majority of commenters were supportive of the recommendation in the Position Paper that two dark orders meeting the Dark Order Size Threshold should be able to execute at the NBBO, while meaningful price improvement should be required in all other circumstances. One commenter noted that this recommendation is no different than what can be accomplished in the upstairs market by a single dealer putting together a block. Another commenter supported a provision whereby participants could “look back” to an already agreed price, in the cases where a quote moves before an execution can occur. Additionally, one response indicated that all reference-priced dark orders, regardless of their size, should be allowed to execute at the NBBO.

Some responses received did not support this recommendation. One commenter believed that any visible order should execute before a dark order on the same marketplace, as this was more consistent with other recommendations set out in the Position Paper. Another commenter was supportive of the concept of dark orders trading at the NBBO if meeting a minimum size, and did not believe that price improvement should be required in other cases.

### ***Response***

*We are of the view that an order should be able to execute with a dark order at the NBBO only as long as it is of a minimum size. This is consistent with the objective in the Position Paper to encourage posting of visible limit orders, but also acknowledges the contribution that large order executions make to the price and size discovery process through post-trade transparency. The Proposed UMIR*

*Amendments would implement this by introducing the requirement that any order that trades with a dark order, as defined in the Proposed UMIR Amendments, would have to receive price improvement unless the order entered on the marketplace is for more than 50 standard trading units or has a value of more than \$100,000.*

**4. Recommendation 3 – Execution priority of orders entered on the same marketplace at the same price**

The majority of commenters were supportive of the recommendation in the Position Paper that visible orders on a marketplace should execute before dark orders at the same price on the same marketplace, with an exception made for two dark orders meeting the Dark Order Size Threshold. Some commenters believed that this should encourage the posting of limit orders on the visible market, and enhance the price discovery process. A few commenters supported the concept of visible orders executing before dark orders, but did not support an exception for two large dark orders.

Some commenters disagreed with this recommendation. Reasons given included:

- the fact that execution priorities should be determined by the individual marketplaces provided that these priorities are clearly disclosed;
- the ability to trade two large dark orders at the NBBO should be sufficient to meet the objectives of recognizing the value of large executions to both price and size discovery, but allowing two large dark orders to execute in front of visible orders would essentially be regulation determining allocation methodologies; and
- enforcing “lit before dark” would shift dark orders away from visible marketplaces to either certain dark pools, or to visible trading venues with less liquidity; this commenter also believed that a “trade-at” rule like that proposed by the SEC was the only correct approach if visible before dark executions were required.

A number of commenters also noted that the CSA and IROC should examine situations where a marketplace operates multiple order books, to ensure that this is not done as a means to avoid regulatory requirements.

***Response***

*We continue to be of the view that visible limit orders should execute before dark orders when they are on the same marketplace and at the same price. We note that the allocation rules or practices of existing marketplaces already ensure that this priority is respected; however, we are of the view that priority of visible limit orders is a key component of the regulatory framework we are proposing for dark liquidity and, for this reason, it should be codified. The Proposed UMIR Amendments would require that an order entered on a marketplace must trade with visible orders on that marketplace before trading with dark orders at the same price on that marketplace.*

*We agree with the commenters who suggested that visible orders should always receive execution priority when entered at the same price and on the same marketplace as dark orders, regardless of the size of these dark orders. We note that this is also consistent with one of the IOSCO principles for dark liquidity which states that transparent orders should have priority over dark orders at the same price within a trading venue. After further consideration of the issue, and in light of both the comments received and the IOSCO principle, we are varying our initial recommendation in the Position Paper and do not propose that large-sized dark orders be allowed to receive execution priority relative to visible orders. It is our view that there should be adequate incentives to enter visible order limits in order to protect the quality of our visible order books, and giving such orders execution priority in all circumstances would help meet this objective.*

*We recognize the concerns with respect to marketplaces operating multiple order books and the need to monitor the use of these marketplaces to ensure that they are not using their facilities to circumvent this priority. We note that currently, where marketplaces operate multiple books, these are operated as separated marketplaces, and priority of visible orders over dark orders is respected in each. If this changes in the future and marketplaces begin integrating different order books, we will consider providing guidance regarding the allocation priority across multiple order books operated by the marketplace.*

## **5. Recommendation 4 - Meaningful price improvement**

Comments received on the recommendation in the Position Paper about what should be considered a meaningful level of price improvement were split. Those commenters who did not support the recommendation expressed the following reasons:

- some believed that meaningful price improvement should take into account underlying costs and rebates set by marketplaces;
- one commenter suggested that a percentage benchmark against the trading price be established in respect of what is considered meaningful;
- others believed that meaningful price improvement should be looked at alongside the maker-taker fee model of marketplaces in order to take a holistic view of the trade; and
- one commenter did not believe in the concept of meaningful price improvement at all, and felt that dark orders should be able to execute at the NBBO regardless of size.

One commenter who favoured the recommendation believed that “meaningful” also includes a consideration as to whether price improvement offers an appropriate incentive to ensure the health of the pricing mechanism, and that as the level of price improvement shrinks, the balance begins to shift towards harming the price discovery process. However, the same commenter also did not support the position that meaningful price improvement would be at the mid-point when the spread was already at the minimum

increment. This commenter believed that the minimum meaningful increment should not be dependent on the spread.

### ***Response***

*We are of the view that price improvement must be meaningful in order to manage the risk of harm to the price discovery process. One of the goals of our recommendation in the Position Paper was to limit the practice of providing increasingly smaller amounts of price improvement to achieve execution in front of visible orders and consequently decrease the incentive to enter visible orders.*

*We continue to be of the view that meaningful price improvement should be at least one trading increment (as defined in UMIR) over the NBBO except where the NBBO spread is already one trading increment, in which case the price improvement would be at least at the mid-point of the applicable trading increment. One of our regulatory objectives is to maintain confidence in our market. We are of the view that requiring a higher level of price improvement by dark orders resting inside of a visible quote would increase investor confidence in the quality of our market, as visible limit orders would not lose execution to orders priced better by only small fractions of a penny. We believe that this will encourage market participants to post visible limit orders and protect the quality of the visible order book.*

*We acknowledge that the maker-taker fee model of a marketplace has an impact on the costs paid by dealers to trade on a marketplace. Some commenters also noted that rebates received by liquidity providers on a marketplace are generally not passed on to the dealers' clients. However, we believe that a marketplace's fee model and the corresponding impact on the costs of the executing dealer are separate considerations from determining an appropriate level of price improvement received by the client. In most cases, the end client neither pays the active trading fee, nor receives the passive rebate, and thus we do not agree with the view expressed by some commenters that meaningful price improvement should be reviewed along with the maker-taker fee model as part of the same consideration. We note, however, that marketplaces' trading fee models are being examined in order to understand what, if any, regulatory action is needed.*

## LIST OF COMMENTERS

1. AMR Associates Inc.
2. Alpha ATS
3. BMO Nesbitt Burns Inc.
4. Buy-Side Investment Management Association
5. CIBC World Markets Inc.
6. CNSX Markets Inc.
7. Chi-X Canada ATS Limited
8. Canadian Security Traders Association
9. Connor, Clark & Lunn Investment Management Ltd.
10. Goldman Sachs Canada Inc.
11. ITG Canada
12. Investment Industry Association of Canada
13. Liquidnet Canada Inc.
14. Portfolio Management Association of Canada
15. RBC Dominion Securities
16. Scotia Capital Inc.
17. TD Asset Management Inc.
18. TD Bank Financial Group
19. TMX Group
20. TriAct Canada Marketplace