IOSCO Consultation Report on Regulatory Issues Raised by Changes in Market Structure

The NASDAQ OMX Group, Inc. delivers trading, exchange technology and public company services across six continents, with more than 3,600 listed companies. NASDAQ OMX offers multiple capital raising solutions to companies around the globe, including its U.S. listings market, NASDAQ OMX Nordic, NASDAQ OMX Baltic, NASDAQ OMX First North, and the U.S. 144A sector. In the U.S. and Europe, NASDAQ OMX owns and operates 24 markets, 3 clearinghouses and 5 central securities depositories supporting equities, options, fixed income, derivatives, commodities, futures and structured products. NASDAQ OMX technology supports the operations of over 70 exchanges, clearing organizations and central securities depositories in more than 50 countries. NASDAQ OMX Nordic and NASDAQ OMX Baltic are not legal entities but describe the common offering from NASDAQ OMX exchanges in Helsinki, Copenhagen, Stockholm, Iceland, Tallinn, Riga, and Vilnius.

Comments from NASDAQ OMX

NASDAQ OMX welcomes the opportunity to comment on IOSCO’s draft recommendations on the topic of Regulatory Issues Raised by Changes in Market Structure. We strongly believe in the importance of ensuring an appropriate regulatory environment in combination with efficient supervision and enforcement of such rules.

Summary:
- We are fundamentally convinced that competition in financial markets brings important benefits, in particular innovation and efficiency, and that such benefits counterbalance the shortcomings of fragmentation.
- Negative aspects of fragmentation need to be addressed however, especially:
  - Surveillance of fragmented markets
  - Market structure needs to support the role of capital markets in financing the economy
  - Market data needs to be of high quality
General

NASDAQ OMX fundamentally believes in competition. Competition drives innovation, efficiency and lower prices for the end users. Regulation and supervision needs to support a competitive landscape where players can operate on a level playing field and where users have an effective choice of service providers across the whole value chain, including trading, clearing, settlement, data, etc.

Specifically for the trading of equities, which is the scope of the current consultation, competition means fragmented markets. Fragmentation is inevitable to allow competition. That said, it is however important to avoid fragmenting markets excessively and unduly by creating new categories of execution venues that do not bring obvious benefits to listed companies and investors. For example, the proposal to create the Organised Trading Facility (OTF) for equity instruments in the context of the review of the EU MiFID directive would fragment markets unduly and excessively, as the business covered by such a new venue type can be carried out in other categories of venues, i.e. Multilateral Trading Facilities (on a multilateral basis) or Systematic Internaliser (on a bilateral basis).

Moreover, we agree with IOSCO that there are a number of consequences and risks associated with market fragmentation that need to be appropriately addressed. The reason these risks need to be addressed is to ensure that exchanges can fulfill their function of providing a meeting place between investment capital and companies needing financing. In the US, capital markets funding make up a larger portion of companies’ total funding than in Europe. In most jurisdictions, bank lending is being squeezed due to effects of the crisis and also new regulations. In this time of economic recovery, it is more important than ever to validate the capital markets’ function as a means of accessing finance for companies, for growth and for job creation. From our experience as a multijurisdictional exchange, operating trading venues in big financial centers as well as smaller local markets, where both blue chips and Small and Medium Sized Enterprises (SMEs) are listed and traded, we clearly see that growth takes place locally. The local ecosystem, including broker services, analysts, liquidity, investors, etc., is what makes the difference.

Fair, orderly, transparent and efficient markets are at the heart of what exchanges deliver. The most important aspects to consider when addressing market fragmentation are surveillance of fragmented markets, securing enough liquidity on transparent venues in order to have a reliable price formation process, and also to have high quality market data.

**Cross-venue surveillance needs to be established.** Fair and orderly markets are central to exchanges’ value proposition. Market surveillance has always been and remains crucial to maintain market integrity and investor confidence. In a fragmented trading environment, there is an increased risk of manipulation and abuse being conducted across venues. This risk should be addressed by ensuring that someone monitors the overall view of the markets.

**Price-formation requires sufficient transparent liquidity.** Another risk with fragmentation of markets is that too much trading moves away from transparent trading venues. If too much trading takes place in the dark, there is not enough transparent liquidity to contribute to a reliable price formation process. For capital markets to fulfill the function of accessing finance there needs to be
enough transparent liquidity. If not, the whole ecosystem around the exchange is compromised, which is to the detriment of economic growth and job creation.

**Market data quality must be improved.** Fragmentation of markets also increases the demand for comparable data. Comparable data means good quality data which is also sufficiently standardized. There is room for supervisors to enforce the quality of the data reports being produced by various market participants.

Please find below comments to the consultation questions, including more elaboration for instance on the points mentioned in the general introduction above.

**Monitoring the impact of fragmentation on market integrity and efficiency**

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<th>Recommendation 1</th>
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<tr>
<td>1.1 Regulators should regularly monitor the impact of fragmentation on market integrity and efficiency across different trading spaces and seek to ensure that the applicable regulatory requirements are still appropriate to protect investors and ensure market integrity and efficiency, including with regard to price formation, bearing in mind the different functions that each trading space performs.</td>
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<td>1.2 Regulators should regularly evaluate the regulatory requirements imposed on different trading spaces and seek to ensure that they are consistent (but not necessarily identical) across spaces that offer similar services for similar instruments.</td>
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**Questions:**

1. *Does the evolving market fragmentation challenge the relevance, effectiveness or implementation of current regulatory requirements?* If so, which ones and how are they impacted?

2. *Are you aware of material differences in regulatory requirements between different trading spaces that from your point of view are not justified and create regulatory risks and unfair competition?* For example, are there regulatory requirements that apply to one type of trading space in your jurisdiction and currently do not apply to others but, in your view, should apply to others that offer similar services? Please describe.

3. *Do you think that the price formation process has been deteriorated or has been improved as the result of market fragmentation?* If so, please explain how.

**NASDAQ OMX:**

*Market integrity – cross-venue surveillance*

Ensuring fair and orderly markets is central in exchanges’ value proposition. Market surveillance has always been and remains crucial to maintain market integrity and investor confidence. In a fragmented trading environment, there is an increased risk of manipulation and abuse being conducted across multiple venues; this risk relates not just to multiple jurisdictions but also to OTC trading. This risk should be addressed by ensuring that someone takes the overall view of the markets.

Efficient market surveillance includes both real-time monitoring of order books and post execution monitoring and investigation of transactions. The monitoring of order books has several purposes. One purpose is to detect abusive and manipulative behavior which can then be further investigated.
by the trading venue’s surveillance function and by relevant authorities. It also has the purpose of
detecting disorderly market conditions of various types. If this is detected early, the surveillance
function has the chance of taking action as soon as possible, by for instance initiating trading halts,
proper information dissemination or suspension of certain trading participants.

There may be several alternatives to ensure that an overall picture is obtained depending on
conditions in different regions and markets. As is noted in the consultation paper, for the US
markets, FINRA has central role and we also note interesting developments taking place in Australia
and Canada. In Australia the supervisory authority takes an overall view, while in Canada there is a
self-regulatory model. The situation in Europe however still leaves a gap in relation to establishing
one common overall view on the markets. Irrespective of the exact solution chosen to enhance
cross-market surveillance, what is always central is that real-time monitoring of order books across
markets is carried out close to where information dissemination originates, which is normally the
location of the venue of primary listing of an issuer’s shares.

**Price formation**

We are deeply concerned about the detrimental effects market fragmentation may have on the
neutral and transparent price formation process. A reliable price formation process requires that a
sufficient portion of trading takes place on competitive, neutral and transparent venues, where
orders of sellers and buyers interact, such as exchanges. There needs to be sufficient liquidity on
these venues. Recently, OTC and other dark trading continue to grow and have reached levels which
threaten a sound price formation process. In the US, the OTC share of trading has risen in the last
five years from 15% to 35%. In Europe, OTC trading may be as high as 38%. Further, both in the US
and European markets, a significant share of trading takes place in dark pools which may be allowed
by the market structure regulation (i.e. with waived pre-trade transparency), but if left
unconstrained will inevitably lead to reduced competition, wider spreads and more volatility.

As markets become more opaque and prices are less frequently determined through visible order
interaction, investors become discouraged from participating in the transparent markets, thus
further deteriorating the capital and price formation processes.

Certain trading needs to take place with less transparency. This is justified because large orders need
to be able to minimize unnecessary market impact. This is not only legitimate but necessary and
must be recognized. However, analysis suggests that average order sizes in most dark trading venues
are actually no larger than on exchanges. To mitigate this development, one possible solution would
be to mandate that only large orders can be traded in the dark, whereas normal or smaller size
orders should be traded in neutral venues that encourage transparency and quote competition.

In various jurisdictions measures are being taken to mitigate the negative effects of fragmentation.
Canadian and Australian regulators have seen fit to restrict the growth of dark trading on the basis of
both its negative impact on the market and the principle that transparent competition should be
encouraged. We urge IOSCO and its members to consider similar measures in other jurisdictions as
well.
Monitoring the impact of fragmentation on trade information

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| In an environment where trading is fragmented across multiple trading spaces, regulators should seek
to ensure that proper arrangements are in place in order to facilitate the consolidation and
dissemination of information as close to real time as it is technically possible and reasonable. |

Questions:
1. What options are available to manage the issues associated with data fragmentation in a
   competitive environment?
2. What conditions, if any, should govern access by investors to consolidated market data?
3. Are there other challenges (technical, regulatory, prohibitively high costs) with regard to creating
   and/or accessing consolidated market data? What if anything, should be done to address these
   challenges?
4. What views do you have on the relative merits of a single consolidated tape mandated by the
   regulation versus multiple competing tape providers? Please elaborate.

NASDAQ OMX:

We agree that availability of relevant data is central, whether markets are fragmented or not. When
markets are fragmented, the differences in the data reported from various sources become more
evident, which for example can impact best execution. The appropriate way to address such
problems is to prioritise the improvement of data quality, importantly by developing better
harmonized and standardized data. There is also an important role for supervisors to enforce such
rules. Better quality data will facilitate the comparability and consolidation of data by data service
providers.

Whether consolidated data should be provided by one central provider (like the consolidated tape in
the US) or by data service providers in a competitive environment, may depend on the conditions in
each market. NASDAQ OMX fundamentally believes in competition. Competition among data
consolidators will foster efficiency and innovation, including adaptation of data services to the needs
of various types of market participants. While we do not argue for changing the model of the
consolidated tape in the US, we are convinced that the ongoing review of MiFID in Europe should
result in the maintenance of the competitive environment for the European markets. European
exchanges make post-trade data available separately from pre-trade data at a reasonable cost. They
also make available the public display of 15-minute delayed data free of exchanges fees for all end-
users. Exchanges have also supported standardization of trading flags by providing and maintaining
cross-referencing to industry defined standards. The broader data industry has developed the
Market Model Typology (MMT), which will support the well-functioning of a competitive model for
the provision of consolidated data services.

Monitoring the impact of fragmentation on order handling rules and best execution

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| Where markets are fragmented, regulators should consider the potential impact of fragmentation on
  the ability of intermediaries to comply with applicable order handling rules including, where relevant,
  best execution obligations, and take the necessary steps. |
Questions
1. Should existing order handling rules, such as best execution, be re-examined in the context of fragmented markets? If so, in what way?

2. Do you think that rules relating to the disclosure of order handling practices by investment firms are appropriate to facilitate compliance with and evaluation of ‘best execution’?

3. Are there any other appropriate ‘order handling’ tools that should be considered in the context of fragmented markets?

NASDAQ OMX:

Considering the importance of order handling rules, such as best execution and Order Protection Rules, we note that there seems to be relatively few cases of enforcement of such rules. While there may indeed be a case for supervisors to prioritise and step up the control of order handling rules, this may indicate that compliance with best execution rules is in reality difficult to supervise (especially where data quality is poor). One way to address this is to ensure that legislation requires that smaller orders are executed on transparent venues. This would ensure that market participants compete to provide the best possible prices for retail and similar investors.

Another point to note is that today’s technology is capable of supporting intermediaries in order handling. Requiring and ensuring that intermediaries utilize the tools that exist would be an important role for IOSCO members. We for instance welcome the Guidelines on Systems and controls in an automated trading environment developed by the European Securities and Markets Authority (ESMA), and also the inclusion of similar rules in the revised MiFID Directive, in the EU, and we emphasize the importance of active supervision of the compliance of such rules.

Monitoring the impact of fragmentation on access to liquidity

Recommendation 4
Regulators should regularly monitor the impact of fragmentation on liquidity across trading spaces. Regulators should seek to ensure that applicable regulatory requirements provide for fair and reasonable access to significant sources of market liquidity on the exchange and non-exchange trading market systems.

Questions
1. Do you have views on regulatory mechanisms and specific arrangements that might be needed to help ensure that investors have an appropriate, fair and reasonable access to liquidity in both exchange and non-exchange trading market systems? If yes, please elaborate.

2. Are there any other issues resulting from the market fragmentation that should be addressed with respect to access to liquidity on exchange and non-exchange trading market systems?

NASDAQ OMX:

We strongly agree on the importance of fair access to liquidity. Market structure rules need to ensure that investment flow is directed to where it best supports the growth of the economy. We are convinced that growth for smaller companies is driven locally. There needs to be an ecosystem in the local market and investment capital needs to flow to the local market. If market structure rules incentivize market participants to trade in alternative venues which may be less transparent and/or
where all market participants do not have fair and equal access to the best prices, liquidity will drain on the transparent and local venues where price formation takes place and where access is fair and equal.

Lack of liquidity is already a problem in many of the smaller countries in Europe where even the biggest listed companies would still qualify as SMEs. And these are the markets where the potential for growth is often considered to be the highest. The economic recovery should be supported by reversing this trend toward diminished markets. We believe legislation is needed to ensure that there is enough liquidity on transparent and open venues, in order to ensure a reliable price formation process. This is key to ensure that capital markets play their role in financing the economy by providing an efficient and well-functioning place for companies and investors to meet and prosper.

**Monitoring the impact of fragmentation on market efficiency and resilience**

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<tr>
<td>1. Are there any regulatory requirements that should be examined in addition to the recommendations already made in the above mentioned IOSCO reports in light of the evolution of market structure and trading strategies in the very specific context of market fragmentation? If so, please describe.</td>
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<td>2. Are there any other issues associated with the fragmentation of markets that have not been mentioned in the current report?</td>
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<td>3. Are there any changes to regulatory structure that you would recommend to regulators in your jurisdiction to address issues raised by market fragmentation? If yes, please elaborate.</td>
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**NASDAQ OMX:**

Although it is not the primary scope of this consultation report, we anyway underline the importance of also ensuring transparent and liquid markets for derivatives. G20 committed to moving OTC derivatives to central clearing and to electronic trading, where appropriate. For the G20 commitment on clearing to be realized, liquid markets with efficient price formation for derivatives is also needed. For clearing houses to be able to carry out proper risk management and to be able to at all take on the clearing of a certain product, a price of the product is needed. What is mentioned under the different sections above on for instance surveillance, price formation and availability of data is important for derivatives markets too. Market structure regulation needs to support transparent and liquid trading with high market integrity also for derivatives products.

Further, as markets are fragmented, and as G20 commitments will to a certain extent mandate the use of clearing houses, it is important that user choice and competition is ensured across the whole value chain. The regulatory and supervisory environment should provide for sufficient rights of access between trading venues and clearing houses, and vice versa, so that the users can in effect benefit from competition.

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