CFA Institute

POLICY BRIEF

MARKETS IN FINANCIAL INSTRUMENTS DIRECTIVE II

Implementing the Legislation

MARKETS IN FINANCIAL INSTRUMENTS DIRECTIVE II

Overview

Passed into law in June 2014, the legislative package comprising the revised Markets in Financial Instruments Directive and a new Regulation (herein collectively referred to as "MiFID II") forms the centrepiece of European securities markets legislation. MiFID II sets new rules for the structure of markets and the trading of financial instruments, and prescribes conduct of business standards for the provision of investment products and services.

A central theme of the MiFID II reforms is increased transparency. Whilst MiFID I focused on opening up markets to greater competition, MiFID II seeks to shine greater light on business practices, and bring more trading activities on to transparent organised trading venues. In doing so, MiFID II seeks to directly address some of the shortcomings revealed by the financial crisis, such as opacity in derivatives and other over-the-counter markets.

The legislation also takes account of financial market developments since the original MiFID legislation was developed, such as the rise in algorithmic and high-frequency trading, and prescribes rules designed to limit the effects of such activities on financial markets. Other aspects of the reforms include position limits in commodity markets to curb speculative activity, and strengthened investor protection standards designed to tackle conflicts of interest in the provision of financial advice.

The European Securities and Markets Authority (ESMA), alongside the European Commission, is engaged in the process of developing technical standards to implement the legislation. The development of technical standards and delegated acts — the so-called "level 2" measures — will take place over 2014-15, with ESMA due to finalise its advice to the European Commission on level 2 by the summer of 2015. MiFID II must be implemented by January 2017.

Developing the Level 2 Measures

The level 2 process began in the summer of 2014 with the publication of a consultation paper and a discussion paper by ESMA. Key topics addressed included:

- Investor protection (inducements rules, product governance, best execution, disclosures)
- Pre- and post-trade transparency in equity and non-equity markets
- Microstructure issues (HFT, market-making requirements, order-to-transaction ratios (OTRs), trading venue fees, tick sizes)
- Data publication and access (consolidated tape and trade reporting)

Each of these topics is summarised in turn, followed by CFA Institute policy positions on the level 2 measures.

Investor Protection

The investor protection aspects of MiFID II were addressed in ESMA's consultation paper (ESMA/2014/549) and will be implemented by means of delegated acts. These measures include conduct-of-business requirements, which address the assessment of the suitability and appropriateness of investment products by financial advisers, and strengthen the rules on inducements.

In particular, the provisions prohibit the payment of inducements in respect of independent investment advice, to eliminate the potential conflict of interest arising when an adviser (the agent) is

remunerated by the product manufacturer instead of the client (the principal). This development follows actions already taken in the United Kingdom and the Netherlands, where commissions are prohibited in respect of independent investment advice. The application of the prohibition of inducements will depend on the definition of "independent," and does not preclude inducements to be paid in respect of other types of investment advice (such as where advice is limited to a product range offered by an affiliated entity or limited subset of the market).

The inducements rules also further restrict the scope of "minor non-monetary benefits" provided by one investment firm to another, which brings into question the continued eligibility of investment managers purchasing investment research from banks via commissions (an issue that is also being tackled in the United Kingdom under its review of the dealing commission regime).

Advisers will also be required to meet minimum levels of professional knowledge and competency, for which ESMA will be required to develop non-binding guidelines. These so-called "level 3" measures will follow the completion of ESMA's level 2 work.

The investor protection measures also include enhanced disclosures by trading venues over execution quality to better enable investors to measure best execution. These measures relating to execution quality disclosures were addressed in ESMA's discussion paper (ESMA/2014/548) and will be implemented by means of technical standards.

Pre- and Post-Trade Transparency

The initial level 2 proposals for pre- and post-trade transparency in equity and non-equity markets, such as bonds and derivatives, are contained in ESMA's discussion paper (ESMA/2014/548). The proposals for equity markets relate to refining the pre-trade transparency waivers, which include exemptions from the general obligation to display prices and sizes for orders that are large in scale, orders executed via negotiated transactions, orders executed on reference price systems, and orders executed via an order management facility (e.g. iceberg orders). The level 2 proposals focus on recalibrating the applicable size thresholds and the application of the waiver regime.

MiFID II also limits dark pool trading according to a "double volume cap" mechanism. Under this mechanism, trading volume in a given stock on any venue operating under a pre-trade transparency waiver (e.g., a dark pool) cannot exceed 4% of total volume on organized trading venues, and total trading under these waivers (across all venues) for a given stock cannot exceed 8%.

The transparency proposals for non-equity markets have far-reaching implications and perhaps reflect the most ambitious aspects of ESMA's work. Transparency provisions in non-equity markets are contingent upon there being a "liquid market" in the financial instrument (or class of financial instruments) concerned and apply above a "size specific to the instrument." The focus of these measures is therefore on specifying quantitative and qualitative aspects of the liquid market definition, the threshold for the "size specific to the instrument", and the resulting transparency provisions that should apply (such as the information to be reported, and any applicable deferred publication arrangements).

CFA Institute supports the general principle of bringing greater transparency to these markets to reduce the informational advantage held by dealer banks over investors, which can keep spreads (and thus costs) excessively high. But because the calibration of these requirements in non-equity markets needs to balance transparency with liquidity-provision considerations, a gradual approach is warranted. To provide sufficient clarity and certainty to market participants, the transparency framework should avoid undue complexity.

Microstructure Issues

MiFID II includes new provisions on automated trading, including algorithmic and high-frequency trading. Firms engaged in these activities will have to notify regulators with details of their trading strategies, conduct testing of algorithms, and establish controls to reduce the propensity for errant algorithms to propagate shocks through the financial system.

Broker-dealers providing HFT firms with direct electronic access to markets will also have to establish controls and pre-trade filters to mitigate risks, while exchanges will also have to put in place various procedures to mitigate system stress.

MiFID II also requires electronic trading firms pursuing automated market-making strategies to provide liquidity on a continuous basis for a specified proportion of time during trading hours. Given that today's markets are critically dependent on the provision of HFT liquidity, care must be taken to avoid excessively onerous measures that could hamper liquidity. At the same time, other investors could stand to benefit from a reduction in "fleeting" liquidity sometimes associated with HFT activity.

ESMA's discussion paper (ESMA/2014/548) proposes technical rulemakings over microstructural issues including organizational requirements for firms and trading venues engaged in algorithmic trading, market-making requirements, order-to-trade ratios, fee structures, and tick sizes.

In the area of organizational requirements, ESMA considers that investment firms should have appropriate pre-trade controls on order submission with regard to all kinds of trading, whether on own account or on behalf of clients (including direct electronic access, or DEA, clients). Investment firms' controls will be partly duplicative of those of the trading venues, which should help to reinforce the protections for fair and orderly trading. The controls of investment firms also need to be more extensive to deal with the risks they are exposed to in executing orders on behalf of clients and dealing on own account.

The level 2 proposals also include that investment firms' order management systems should prevent orders from being sent to trading venues that are outside of pre-determined parameters covering price, volume, and repetition. Further specificity over these criteria is outlined in the discussion paper. For trading venues, ESMA sets out a list of abilities that trading venues must have to ensure the resilience of the market, including mechanisms to manage volatility (i.e. trading halts).

Market-making aspects of the level 2 measures focus on what constitutes a market-making strategy for the purposes of the definition prescribed in Article 17(3) and 17(4) of the directive. ESMA noted that the main parameters currently considered in market-making/liquidity-provision agreements are maximum spread of the quotes (usually on a percentage basis from the best bid and offer), minimum quotation value (i.e. the smallest permissible value on both bid and offer), and presence (for example, providing quotes for 80%-90% of the trading hours).

MiFID II also provides for a maximum order-to-transaction ratio (OTR) for firms, and considers a penalty scheme for breaches of the mandatory OTR limit. Currently, there is no common approach from trading venues about charging fees for the number of messages (order entry, modification, and cancellation). ESMA is of the opinion that all trading venues should have in place a sufficiently deterrent penalty structure for those participants systematically exceeding the OTR threshold, and the level 2 measures address how to calculate this threshold. More generally, ESMA's discussion paper considers several parameters for determining the basis of trading venue fee structures, including the chargeable activity (that triggers the fee), pricing policy, and the applicability of discounts, surcharges, and rebates.

Finally, on tick sizes, MiFID II provides for a tick-size regime for financial instruments that shall take account of liquidity factors and bid offer spreads. ESMA's discussion paper puts forward different options for the calibration of the tick-size framework, including a matrix of ticks based on price bands and liquidity levels.

Data Publication and Access

MiFID II introduces comprehensive standards over data reporting, collection, and aggregation, enabling the emergence of commercial consolidated tape providers (CTPs). The level 2 measures contained in ESMA's discussion paper include general authorisation and organisational requirements for data reporting services, technical arrangements promoting an efficient and consistent

dissemination of information, the provision of consolidated data and other services by CTPs, data disaggregation and commercial aspects, and other reporting requirements for service providers.

The absence of a consolidated tape has been keenly felt in Europe given its fragmented equity market structure, with orders and transactions dispersed over multiple trading venues. Consolidated trade data virtually links fragmented markets, improves transparency, lowers search and access costs, and facilitates the accomplishment and measurement of best execution.

CFA Institute Positions

Here is a summary of the main points we express in respect of the level 2 measures.

Investor Protection

1. *Product governance*

- CFA Institute considers that the proposed requirements for distributors should be broad, applying to all financial instruments that may be sold to a nonprofessional client for investment purposes. These requirements should be applied in a manner proportional to the level of complexity of those financial instruments and the sophistication of the target market.
- CFA Institute considers that firms should also consider the link between sale incentives (some of which may not be in the best interest of investors, such as volume-based incentives, frequently conducive to instances of mis-selling) and charges for investors. More broadly, we would encourage ESMA and the European Commission to opt for general requirements over detailed provisions, and warn against the risk of transforming product governance into a "box-ticking" exercise.

2. *Safeguarding of client assets*

- CFA Institute believes that asset segregation and oversight are defining elements of portfolio management and related investment services. We therefore favour the approach suggested by ESMA to increase the attention paid by firms to the safeguarding of client assets.
- CFA Institute considers that the safeguarding of client assets should comprise their full unencumbrance, including as regards any liens with third parties to recover costs that do not relate to those clients. Where the law of a particular jurisdiction requires the firm to enter into such liens, we believe that clients should be informed of the potential consequences of such liens. The risk of any such liens should be well communicated, understood, and expressly accepted by clients, before a client would enter into any service, product, or transaction where such liens may apply.
- CFA Institute favours the prominent disclosure of any relevant risks to clients. We welcome the use of standardised warnings, as far as they draw attention to relevant risks and facilitate comparison. However, we believe that standardised warnings should not substitute detailed disclosure, following a "layered approach" where information is given in subsequent layers (from summary to detail). In addition, we recommend ESMA consider how any proposed warning may interact with other disclosures already prescribed by regulation.

3. *Conflicts of interest*

- CFA Institute welcomes the approach whereby firms should avoid placing over-reliance on the disclosure of conflicts of interests to clients. The focus should be, instead, on adopting the necessary measures to eliminate and otherwise manage such conflicts.
- CFA Institute supports all efforts to preserve the objectivity and independence of investment research and manage the potential conflicts of interest that may affect the integrity of such research. We support all efforts to improve the distinction between research and marketing materials.

4. *Remuneration*

- CFA Institute welcomes all efforts conducive to the better alignment of remuneration policies with the interests of clients. CFA Institute believes that firms should structure any variable remuneration in a manner that fully upholds client interests. In other words, firms should avoid any incentive that would promote a commercial interest in a manner that would jeopardise a client interest.

5. *Fair, clear, and not misleading information*

- CFA Institute supports all efforts to make disclosure clearer and more meaningful for clients, for instance by means of plain language, practical examples and visual illustrations that prove helpful to clients in understanding the impact of market conditions, costs, market risks, and other risks on performance. We therefore welcome the proposal from ESMA to use multiple performance scenarios to better convey to investors the existence of market risks and their potential impact on performance.

6. *Information to clients*

- CFA Institute agrees with ESMA that clients should be appropriately informed regarding the services proposed by each firm. Namely, firms should inform clients as to whether the firm is proposing an "independent" service of financial advice and whether the firm would perform a "broad" or "restricted" analysis of the market, in accordance with the meaning attributed to the terms specified in the directive.
- CFA Institute supports all efforts to: increase the comprehensiveness and accuracy of cost disclosures to clients; facilitate a higher level of understanding among investors regarding the level and sources of costs; illustrate the impact of costs on performance — including the cumulative impact of costs on performance, in particular for longer-term investment horizons; facilitate comparison of costs across substitutable products and services; and improve the formats of disclosure.

7. *Inducements*

- CFA Institute supports the disclosure of monetary and nonmonetary inducements to clients. Disclosure should help clients understand the weight of inducements on the total costs and fees paid for a product or service. In addition, disclosure should also inform clients of the potentially adverse consequences that some forms of inducements may have on the ability of the firm to pursue the best interest of its clients.
- CFA Institute considers that achieving significant reductions in the recurrence of client detriment (arising from inadequate incentives in inducements and remuneration) requires, primarily, more resources dedicated to supervision and effective supervisory approaches, rather than more detailed regulation.
- With regard to independent investment advice, CFA Institute agrees with the proposal from ESMA that a diversified selection of financial instruments should extend, proportionately, to instruments issued by third parties.
- CFA Institute supports all efforts to raise the quality and availability of investment advice, with a level of sophistication proportional to the needs of each target market. We also support all efforts to promote fair competition and open architectures.

8. *Suitability and Appropriateness*

- CFA Institute welcomes the proposal to strengthen the suitability test and, in particular, to introduce the consideration of elements such as cost and complexity. As a further improvement, we suggest requiring firms, when they recommend an instrument originated by the firm or a tied entity, to explain why this instrument would be more suitable for the client than equivalent or similar instruments originated by third parties, within the selection of instruments available from the firm.

- CFA Institute supports the contents of the suitability report proposed by ESMA. In our view, the proposed contents would be sufficient to document the existence of a personal recommendation and how the recommendation meets the needs of the individual client.

9. *Reporting to clients*

- CFA Institute agrees that Article 43 of the MiFID Implementing Directive should be updated to include the market or estimated value of the financial instruments included in the statement with a clear indication of the fact that the absence of a market price is likely to be indicative of a lack of liquidity. The market value of financial instruments is an essential piece of information for clients; moreover, we have found that several prominent cases of investor detriment in Europe have been linked to the inappropriate reporting of the value of the instruments and their level of liquidity.

10. *Product intervention*

- CFA Institute welcomes the approach of ESMA whereby product intervention powers constitute a tool of last recourse. Instead, the responsibility for sound product origination and distribution practices is placed on firms, by means of product governance processes, which, if properly applied and supervised, should lead to better outcomes for consumers than product approval and licensing requirements.
- As regards additional criteria for product intervention, CFA Institute recommends ESMA consider the merit of including the potential impact of bail-in processes in the context of the resolution of banking institutions. We observe that there have already been instances of widespread investor detriment in relation to hybrid instruments sold by banking institutions to retail investors, which were affected by bail-in conditions in the context of the resolution of those banking institutions.

11. *Best execution*

- CFA Institute agrees with the principle that all execution venues — which for shares include Regulated Markets, Multilateral Trading Facilities, and Systematic Internalisers — should provide data on execution quality. Data from all applicable venues would provide investors with a complete picture of execution quality across venues, thus facilitating the assessment and monitoring of best execution and the quality of services provided.
- CFA Institute supports the notion that the obligation to publish execution quality metrics should only apply to financial instruments that exceed a minimum threshold of activity. For shares, we suggest that the threshold be based upon either the definition of a "liquid market" in the MiFID level 1 text, or the liquidity levels prescribed under the proposed tick-size framework.
- Given the variety of market structures among non-equity markets and the differing levels of pre- and post-trade transparency in those markets, it would seem impractical at this stage (i.e. before a formal transparency framework has been put into operation) to apply the execution quality reporting obligation to financial instruments other than shares.
- CFA Institute agrees that trading venues should publish the data relating to the quality of execution with regard to a uniform reference period, with a minimum of specific reporting details and in a compatible format of data based on a homogeneous calculation method. The data to be provided should be precisely defined and published in standardised and comparable format.
- CFA Institute agrees that additional data relevant to the assessment of firms' order routing practices includes disclosures of third-party payments, including payment for order flow arrangements or other inducements, and close links such as where a broker is affiliated with an OTC market-maker (e.g. two vertically integrated subsidiaries belonging to the same group). This information is valuable when analysing the factors influencing order routing behaviour. At a minimum, narrative disclosures detailing the nature and extent of these arrangements could be provided in firms' execution quality reporting. Best practice could be

for firms to list the top five execution venues (i.e. firms or trading venues) according to aggregate payments made in respect of payment for order flow and other third-party arrangements.

Pre- and Post-trade Transparency

1. *Equity markets: large-in-scale (LIS) pre-trade transparency waiver framework*

- Trading in shares in Europe is characterised by a high level of turnover among a relatively small number of very large stocks. As ESMA's analysis shows, the proportion of stocks (by number) with average daily turnover (ADT) less than €100,000 has increased from 46.15% in 2008 to 60.82% in 2013; yet the turnover of such stocks amounts only to 0.24% of total turnover in 2013, up from 0.15% in 2008. At the same time, less than 2% of all stocks have ADT greater than €100,000,000, yet these stocks account for more than half of total turnover.
- Given the large number and increasing proportion of stocks with ADT less than €100,000, CFA Institute agrees that there is merit in creating a new ADT class for the LIS waiver framework of €0 to €100,000, followed by an ADT class of €100,000 to €500,000 (replacing the current class of 0 to €500,000). The LIS thresholds for these ADT classes proposed by ESMA seem reasonable (€30,000 and €60,000 respectively).
- CFA Institute agrees that it would be useful to split the current ADT class of €1m to €25m into two further classes, namely €1m to €5m and €5m to €25m. As ESMA notes, there is currently a high concentration of shares at the lower end of the €1m to €25m ADT class. Splitting this class in the way suggested would reduce the dispersion of stocks and increase the homogeneity of stocks within the respective buckets. The LIS thresholds proposed by ESMA appear reasonable (€200,000 for the €1m to €5m ADT class and €300,000 for the €5m to €25m class).
- CFA Institute agrees that it would be useful to split the current ADT class of >€50m into two classes, namely €50m to €100m, and >€100m. As ESMA notes, there is currently a wide dispersion of shares within the >€50m ADT class, with a large jump in the number of stocks around the €100m ADT level. Therefore, splitting the current ADT class of >€50m in the way suggested would reduce the dispersion of stocks and increase the homogeneity of stocks within the respective buckets. The LIS thresholds proposed by ESMA appear reasonable (€500,000 for the €50m to €100m ADT class and €650,000 for the >€100m class).
- However, we caveat our support for the recalibrated ADT framework by noting that it is unknown what proportion of trading would fall under the LIS waiver as a result of the recalibration. This is a significant and perhaps the most important criterion on which to assess the efficacy of the new LIS framework, and further analysis should be undertaken accordingly, including back-testing where possible.
- Whilst we recognize the legitimate concerns of market participants that the thresholds should be reflective of current trading sizes and should not needlessly expose large orders, we also believe that the overall quality and integrity of the market must take precedence over the concerns of individual market participants.

2. *Equity markets: post-trade transparency*

- CFA Institute supports the list of identifiers and trade flags proposed by ESMA. These identifiers will facilitate the capture of different types of dark trades under the pre-trade transparency waiver framework, and will enable the identification of technical trades and non-addressable liquidity within the OTC sphere. The accuracy and utility of OTC trade data should therefore improve.
- We support the use of a flag for trades published with a time delay so investors can determine if the trade price is stale. However, there should be greater alignment between the LIS framework and the deferred publication framework for large trades, to reduce operational complexity and improve coherence.

- We support ESMA's proposal to create eight ADT classes for deferred publication that equate to the same eight ADT classes under the LIS pre-trade transparency waiver framework. This would bring more consistency and coherence to the transparency framework for large trades. However, the actual thresholds for "large" trades within these ADT classes differ on the post-trade side compared to the pre-trade side, resulting in a somewhat arbitrary and complicated trade reporting framework. In general, minimising the exemptions from immediate trade reporting is necessary to uphold the reliability of consolidated post-trade data.

3. *Equity markets: OTC trading and trading-venue obligation*

- CFA Institute broadly agrees with the list of trades that do not contribute to the price discovery process. Non-addressable liquidity trades (as exemplified by ESMA) and benchmark trades (such as VWAP, TWAP, etc.) are technical in nature and do not reflect underlying trading reality; it is thus appropriate for such trades to fall within the scope of OTC (i.e. exempt from the trading venue obligation).
- In the case of benchmark trades, only the open market trades executed by the broker reflect underlying liquidity that contributes to the price discovery process. It is therefore appropriate to classify the OTC leg of the transaction (where the broker transacts with the client at the agreed benchmark price) as not contributing to the price discovery process. Such OTC trades should also be flagged accordingly.

4. *Non-equity markets: "liquid market" definition*

- With regard to the "liquid market" concept for non-equity financial instruments, we broadly concur with ESMA that the Classes of Financial Instruments Approach (COFIA) to setting liquidity thresholds is preferable. As ESMA notes, the Instrument-By-Instrument Approach (IBIA) could be excessively granular and would be difficult to apply for newly issued financial instruments.
- For consistency and overall comprehensibility of the framework, we suggest using COFIA for all non-equities, rather than using COFIA for some asset classes and IBIA for others. This may engender confusion among market participants and stakeholders.

5. *Non-equity markets: post-trade transparency*

- CFA Institute agrees with the proposed post-trade transparency information for non-equities including trading date and time, financial instrument identifier, price, venue identifier, price notation, quantity notation, and quantity.
- CFA Institute supports the list of identifiers and trade flags proposed by ESMA. These identifiers will enable the identification of technical trades and non-addressable liquidity within the OTC sphere. We support the use of a flag for trades published with a time delay so investors can determine if the trade price is stale.
- CFA Institute agrees that five minutes is a reasonable time limit for reporting of non-equity transactions. It would be impractical at this stage to opt for the same time period as for equity markets, given that the transparency framework for non-equities is entirely new. Moreover, 'non-equities' are heterogeneous in terms of the type of instruments traded, liquidity characteristics, and market structures. For all of these reasons, it is reasonable and proportionate to allow a longer time limit for 'real-time' trade reporting than for equities. Over time, we envisage that this time limit could be shortened as market practices, liquidity characteristics and trading modalities evolve.
- In general terms, the post-trade information to be reported, and the timeliness with which that information is reported, should take account of the size of the trade relative to the size of the issue, and the level of recent trading in that issue.
- For bonds, volume is a key determinant of deferred reporting, and volume masking during the deferral period for transactions above a given threshold (e.g. above the "size specific to the

instrument") is therefore appropriate, with a flag indicating that the transaction is above the relevant threshold.

- Ideally, the post-trade deferred publication regime should be phased-in, with the aspiration of shortening the intra-day delays over time (as the new regime becomes established). Under the US TRACE system for bonds, trades are mostly reported in real time or 15-minute-delayed time. We recommend ESMA review the calibration periodically (as is suggested throughout the discussion paper) with a view to simplifying deferred trade reporting and shortening delays in subsequent iterations.
- With regard to the LIS framework for non-equities, CFA Institute supports using the same large-in-scale thresholds for orders as for transactions. Using the same threshold for both pre-trade and post-trade transparency purposes maximises operational simplicity and consistency for both market participants and supervisory authorities. Therefore, we support a simpler calibration with greater alignment generally of the LIS thresholds for pre-trade and post-trade transparency.

6. *Non-equity markets: trading obligation for derivatives*

- CFA Institute agrees that there should be consistent categories of derivatives contracts throughout MiFIR and EMIR (European Market Infrastructure Regulation). Consistent categories of derivatives contracts among these two pieces of legislation will ensure coherence between trading and post-trading obligations.

Microstructure Issues

1. *Organisational requirements for algorithmic trading*

- CFA Institute broadly agrees with the parameters proposed by ESMA to define "severe markets stress" (situations where the ability of a trading venue to process and match orders and make prices available is compromised) and "disorderly trading conditions" (instances where the maintenance of fair, orderly and transparent execution of trades is compromised).
- CFA Institute broadly supports the list of pre-trade risk controls for investment firms. The list is extensive, detailed and comprehensive, and is representative of best practice.
- We broadly agree with the list of principles for trading venues to constrain trading and manage excessive volatility.
- However, we also note that although trading halts are an important safeguard for trading venues to incorporate, they can also be disruptive to trading activity and can slow down the price discovery process. For example, mechanisms to inhibit extreme price movements can impede price discovery at times of breaking fundamental news; as limits are hit, the natural price adjustment process can be constrained. Therefore, trading halts and circuit-breaker systems should only be seen as a mechanism of last resort to stabilise markets.
- Trading halts and circuit-breaker mechanisms should be implemented in a harmonised fashion across trading venues to provide investors with similar expectations and safeguards on whichever venue they trade.
- CFA Institute agrees that trading venues should publicise the operating mode of trading halts. Such disclosure provides needed transparency to investors over the trading environment and the safeguards present. Trading venues should also establish guidelines for breaking trades and disclose such policies to investors.

2. *Market-making requirements*

- In our view, it would be difficult to obtain a sustainable commitment from high-frequency market-makers to stand ready to buy and sell a particular stock on a regular and continuous basis and in any circumstances. Notwithstanding the definitional issues, placing affirmative obligations may deter firms (particularly non-HFT firms) from making markets, thereby potentially further reducing the diversity of liquidity supply.

3. *Order-to-transaction ratio (OTR)*

- CFA Institute broadly agrees with ESMA's analysis that "orders" under the OTR regime should comprise all messages related to an order (submission, price, and volume modifications and deletion). The order-to-transaction ratio provides valuable supplementary information on the nature and extent of liquidity on a given trading venue. We support calculating the OTR on the basis of the number of orders divided by the number of transactions.
- When setting the OTR threshold, the level established should be sufficiently high so as not to deter statistical arbitrage activity and HFT envelope liquidity (floating orders used by HFT firms that surround the best bid and offer quotations). Statistical arbitrage and envelope liquidity represent real liquidity to the markets that help to keep prices in line. We also recognize, however, that excessive quote traffic can be disruptive to other market participants, and thus a balance should be struck between these two objectives (reducing quote pollution whilst not inhibiting statistical arbitrage) when ultimately setting the threshold.
- ESMA proposes to set the OTR threshold for a given venue at a certain multiplier x of the average observed OTR of its market members. CFA Institute has concerns that the average OTR of a venue will be inappropriate, absent exemptions for market-makers or calibration for different types of market participants. Market-makers (notwithstanding the definitional challenges) should either be exempted from the OTR requirement, or the threshold would need to be set higher for these firms (i.e. setting different thresholds for different classes of market participants) so as to not deter liquidity-providing activities.

4. *Colocation*

- In our view, the following (non-exhaustive) factors should be taken into account when considering what constitutes 'transparent', 'fair,' and 'non-discriminatory' provision of colocation services: disclosures regarding the nature of the service and the pricing schedule should be made available to any prospective clients/users/expressions of interest; the same services should be offered to any firm wishing to pay for those services at the price specified; venues should provide equal proximity to the matching engine within a given service level.

5. *Fee structures*

- CFA Institute agrees with ESMA that fee structures should be sufficiently granular to allow market participants to pay for only those services they need. We also agree that a given service should be offered to all market participants at the same price, terms and conditions.
- Trading venues should make publicly available sufficiently detailed information on their fee structures (e.g. disclosing such details on their website).
- With regard to fee penalties for breaches of the OTR, CFA Institute advocates for a uniform fee methodology applied across all exchanges. If penalties are more severe on one exchange than another exchange, it could lead to more order pollution on the exchanges with less severe penalties. We support harmonisation of standards with regard to OTR penalties to provide consistent rules and trading expectations for investors on whichever venue they trade.

6. *Tick-size framework*

- Average daily number of trades is an acceptable proxy for determining the liquidity bands within the tick-size table.
- In general, we agree that the tick-size framework should seek to find a "viscosity" balance. Specifically, too many pricing increments can result in queue-jumping effects (such that priority yields to infinitesimal price improvements, thereby undermining the incentive to display orders). On the other hand, too few pricing increments can artificially constrain liquidity from amassing at equilibrium price levels, thereby slowing down price discovery and increasing queue times.

- We appreciate that ESMA has attempted to undertake a sophisticated approach to calibrate the tick-size framework to optimise "viscosity" considerations. However, the proposal is very complicated. We therefore suggest simplifying the proposal where possible to facilitate comprehension among market participants.
- Any tick-size framework needs to be re-evaluated regularly — and recalibrated where necessary — to ensure it remains appropriate.

Data Publication and Access

Consolidated tape providers (CTPs)

- We do not think it is necessary to mandate the provision of consolidated tapes on a "share-by-share basis" (or an instrument-by-instrument basis); mandatory consolidated data for classes of financial instruments should suffice. Such an approach strikes an appropriate balance between user needs and commercial considerations. For example, an overly granular prescription could be costly to implement or non-viable from a commercial perspective; such considerations, if prohibitive, could deter CTPs from emerging, leading to under-supply of consolidated data solutions (i.e. the status quo).
- On the other hand, consolidated data needs to be useful to investors, so a degree of disaggregation is necessary. Therefore, an approach that balances user needs with commercial viability is most suitable, and vendors should be allowed (and encouraged) to develop solutions that cater to user needs over and above what may be prescribed by regulation.
- CFA Institute agrees that transparency information should be made available without the need to purchase value-added products. We fully support unbundling data; users should be allowed to purchase only what they need and data solutions should be reasonably priced.
- The practice of tying the purchase or distribution of pre-trade data with post-trade data (or vice-versa) is potentially discriminatory and limits consumer choice. Therefore, we support the proposal to oblige venues to disaggregate pre-trade consolidated data from post-trade consolidated data by asset class.
- Such unbundling provides greater flexibility for investors, not all of whom require both pre-trade and post-trade consolidated data. Separating these offerings would also provide greater product transparency, which should encourage costs to fall.