



Submission to ASIC Consultation on Equity Market Structure Regulatory Framework

21 January 2011

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1. Executive Summary

ASIC is to be commended for the way in which it has developed a package of proposals which generally meet the difficult challenge of being broadly consistent with the stated regulatory objective of 'protecting price formation'.

ASX strongly endorses ASIC's identification of the core regulatory objectives underpinning its proposals – and, accordingly, the benchmark against which its proposals should be assessed – as:

- Protecting the price formation process (i.e. preserving the pre-conditions for relevant products to be bought and sold at the lowest practical transaction cost consistent with allowing market forces to operate); and
- Applying equivalent treatment to 'like' activity.

To the extent that ASX recommends refinement of ASIC's proposals, it is generally because we consider that some of the proposals in CP145 do not fully achieve these sound objectives.

Aligning the regulatory mechanisms with the regulatory objective is particularly challenging in the area of market microstructure because it potentially involves regulatory intervention prioritising the interests of some market users and intermediaries over the interests of other market users and intermediaries.

Submissions to ASIC will inevitably represent a wide range of views and vested interests. The success of ASIC's consultation process is heavily dependent on its ability to transcend this diversity of opinion and recommend sound policy proposals which appropriately promote the public good and which do not result in unintended consequences, the impact of which may be difficult to assess or foreshadow. Considerations of the public good will involve assessing the impact of proposals on trade execution, and further along the value chain, assessing the impact on systemic risk associated with clearing and settlement functions.

Protecting price formation involves preserving the ability of market forces to produce lower intermediation costs through maximising competition for orders. There is an associated challenge: to establish how much intervention is necessary to prioritise the interests of those wanting to access venues where more relevant pricing information is available over the interests of investors who, acting rationally, would be better served in particular circumstances by accessing markets where there is less information and less competition for orders.

Importance of Protecting the Price Formation Process

ASX believes that the overall package of measures proposed by ASIC strikes a reasonable balance between:

- Ensuring a robust market structure that will continue to deliver strong economic outcomes;
- While not unduly constraining the economic incentives that drive innovation in capital markets, and
- Which will ensure Australia's position as an important regional capital market is maintained.

As noted in ASIC's overview of developments in equity market structures (REP215), capital markets play a critical role in facilitating capital formation and creating an environment where capital can flow to its most productive uses. Markets act as a bridge to bring together companies seeking to raise capital and savers seeking to deploy their savings. Primary capital raising and secondary market trading through public markets facilitate capital formation and promote investment flows between investors in an efficient and equitable manner.

A central limit order book (CLOB) which is open to many buyers and sellers and which observes high degrees of transparency on pre- and post-trade data has historically been, and continues to be, accepted as the most efficient price formation process as it maximises the interaction of orders from a diverse set of users.

Markets conducted with full pre-trade price transparency also play a significant role in supporting central counterparty clearing houses in their systemic risk management function. Price transparency is essential to permit clearing houses to accurately value and subsequently mark-to-market the substantial counterparty risk exposures that they incur and risk-manage on a day-to-day basis. In the case of Australian equities this covers gross transactions of over \$5 billion a day. Erosion of the quality of price formation would degrade the quality of this function and result in increased systemic risk.

Proposals Supported by ASX

ASIC proposals which we consider to be consistent with the stated objectives and deserving of support include proposals relating to:

- Pre-trade transparency thresholds;
- Best execution;
- Market operator pre-trade controls and trade cancellation policies.

Pre-Trade Transparency

ASIC's approach to pre-trade transparency thresholds is consistent with the core regulatory objective of protecting the price formation process. Venues with pre-trade transparency as to price and volume are referred to as 'lit' markets, whereas venues that do not have pre-trade transparency are referred to as 'dark'¹.

Traditionally, limited exceptions from having to provide pre-trade transparency have been allowed based on avoiding market impact costs associated with transacting large orders in pre-trade transparent markets (block trade exceptions).

Any exceptions need to be framed in a way that ensures that the exceptional activity does not become so significant that it no longer corresponds with the public policy rationale for having allowed the exceptional activity to occur or that those activities do not become so prevalent as to be the rule rather than the exception.

ASX strongly supports ASIC's proposal to limit leakage of trades to dark pools through imposing exceptions to pre-trade transparency requirements according to monetary thresholds (block trade and small trade thresholds) which would be set by reference to the amount of liquidity in a stock. Conceptual consistency would dictate the setting of a large number of liquidity bands, while practical application would dictate a small number of liquidity bands.

ASX's analysis indicates that the objectives stated above would be achieved for the 12 most highly liquid securities if trades above \$2.5m were permitted to occur in dark pools, irrespective of whether price improvement was achieved. Similarly, for the next 20 most liquid stocks, permitting trades above \$1m to occur in dark pools and for the remainder of stocks permitting trades above \$500,000 to occur in dark pools would be consistent with these objectives. Having only these three thresholds would be simple and practical to apply.

In order to avoid incurring an unacceptable risk of the significant price improvement exception undermining the core objective of protecting price formation, ASX proposes that the exception for the most liquid securities must be in excess of \$50,000. For less liquid securities, there may be scope to

¹ Dark and lit markets currently have other differentiating characteristics too (eg. transparency of operating rules and availability of access).

allow trades valued as low as \$20,000 or above to occur in a dark pool (notwithstanding that there would be no adverse market impact had the trade been executed instead in a pre-trade transparent venue) where there is significant price improvement, without significantly undermining the core objective of lowering spreads for users of pre-trade transparent venues.

Best Execution

ASX agrees with ASIC's analysis that best execution obligations are needed to promote market efficiency and investor protection. ASIC's proposed model seems to be an appropriate balance between the need to ensure clients receive best execution and the need to avoid creating an environment for 'gaming' of order entry based on order protection rules.

ASX supports ASIC's proposal that participants (i.e. brokers) should be responsible for achieving best execution. An AFSL holder already has a fiduciary obligation towards its clients. It also has a 'know your client' obligation. It is therefore in a much stronger position to achieve the best outcome for its clients than a market operator (as set out in the alternative proposal).

Market Operator Pre-Trade Controls and Trade Cancellation Policies

ASX agrees with ASIC that new controls are needed in the Australian market to manage the risk of extreme price movements. The fragmentation of order entry associated with the commencement of new 'lit' markets could exacerbate the risks of abnormal price movements and the impacts of those movements.

ASX has previously announced its intention to implement market operator pre-trade price-based controls to prevent orders that are priced aggressively and away from the market from being entered into the CLOB. It is currently anticipated that these filters will be introduced late in the first half of 2011, assuming there is sufficient regulatory certainty for ASX to proceed with this initiative.

ASX would welcome the opportunity to consider more detailed proposals in relation to circuit breakers and up/down price controls. We understand that ASIC intends to release a separate consultation paper on these topics.

ASIC has proposed that market operators cooperate to achieve a uniform approach to trade cancellation. There are clear public policy benefits, in the form of protecting the clearing house, in ensuring that trades that will be accepted by the clearing house through its Trade Acceptance Service are subject to identical cancellation parameters. ASX supports the objective of alignment between trade cancellation arrangements, irrespective of the trading venue. ASX submits that the most effective way to achieve alignment is for ASIC to set the parameters for trade cancellation in much the same way as ASIC is proposing in its draft Market Integrity Rules to set the parameters for volatility controls.

Proposals Where ASX Recommends Refinements

In some areas ASX considers that additional steps will need to be taken to achieve ASIC's stated regulatory objectives.

These include:

- Ensuring that all operators of dark pools are licensed as market operators;
- Prohibiting maker-taker pricing;
- Proposed framework for market operator cooperation.

ASX also strongly recommends that ASIC re-visit its assumptions and proposals in relation to the consolidated tape. ASX provides more detailed regulatory analysis in this submission to assist ASIC in this regard.

Licensing of Dark Pool Operators

ASX submits that ASIC should review its current policy about when to recommend exemption of operators of dark pools from being licensed as market operators. The market licensing provisions should be applied to all operators of venues that undertake 'like' activity (i.e. operate a multilateral facility). This is what the law currently requires.

Prohibition on Maker-Taker Pricing

ASX strongly agrees with ASIC's statement in Report 215 that maker-taker fees can create pricing inefficiencies and distortions. These issues arise because the maker-taker model provides incentives irrespective of the size of the order (and resulting trade), and because the financial incentive is targeted at one side of a trade only.

Unless ASIC takes action to prohibit maker-taker pricing, competitive pressures can be expected to result in this becoming the pricing model adopted by all market operators. The result will be the subsidisation of professional traders at the expense of retail and long-term investors, and a decline in market quality and integrity.

We acknowledge the presence of maker taker pricing in other markets. However, ASIC should not be persuaded that its existence elsewhere provides a satisfactory reason for permitting it in Australia. It is our observation of the price distortions that have occurred in markets where market taker pricing exists that has caused ASX, and should cause ASIC, to come to the view that it should be banned in Australia.

Market Operators: Other Obligations

The nine areas for cooperation listed by ASIC in section L of CP145 are each substantive issues in their own right. However, there is insufficient analysis of the regulatory policy issues or ASIC's proposed approach to enable sufficient consideration of these issues.

ASX recommends that ASIC undertake further analysis of the regulatory objectives to be achieved and the most appropriate means of achieving those objectives. This could form part of a dedicated consultation paper on the proposed protocol and cooperation.

ASX notes the critical importance of harmonising the remaining Market Integrity Rules not addressed within CP145 (i.e. those dealing with participant conduct and the participant-client relationship) as soon as possible in order to minimise the scope for regulatory arbitrage by participants.

In addition to the issues raised by ASIC in this section of CP145, ASX would like to see consideration given to modifying the cumbersome approval/disallowance process for operating rules that presently exists under section 793E of the Corporations Act.

Consolidated Tape

ASX does not support the proposed mandatory consolidated tape comprising both pre-trade information (including depth data) and post-trade information. The proposal takes experience from overseas markets and applies it in Australia without regard to the Australian context and without considering more appropriate responses – e.g. imposing appropriate regulatory and reporting standards for OTC trades.

ASIC has not presented any evidence of market failure in Australia that would warrant regulatory intervention in the form of a mandatory consolidated tape.

ASIC's proposal would potentially stifle innovation in market information products by market operators and information vendors, and would likely result in unintended consequences.

CP145 asserts that market information is a public good. ASX strongly rejects that this is an appropriate base from which to start consideration of these matters. There is considerable effort and investment in producing and distributing market information, and no public policy reason to prevent entities which apply their resources in this way from being appropriately rewarded for doing so.

ASX fully supports ASIC's ability to conduct whole-of-market surveillance and acknowledges its need for access to pre-and post-trade information across all markets. However, this is a separate consideration and should not be confused with public information usage. A regulatory information feed for ASIC purposes can be achieved with market operators providing data as requested by ASIC, either to ASIC directly or to an entity acting on behalf of ASIC for the purposes of regulatory consolidation.

A summary of ASX positions on the selected subjects raised by ASIC in CP145 is set out in the Appendix to this submission.

2. Regulatory Setting

Overview of ASX Position

ASX supports the core elements of ASIC's proposed regulatory approach, namely an objective of protecting the price formation process and generally applying equivalent treatment to 'like' activity.

There are, however, some notable departures from applying equivalent treatment to 'like' activities which would need to be addressed if the objective of protecting the price formation process is to be fully realised.

- ASX would support efforts by ASIC to obtain regulatory amendments to expand the potential class of persons and products captured by the Market Integrity Rules. This may be necessary to ensure that substitute products are captured to prevent regulatory arbitrage and consequential undermining of the regulatory objective sought to be achieved by ASIC's Rules.
- ASX would support a Government review of the current policy of exempting certain market participants or operators of dark pools from being licensed as market operators. The same provisions should be applied to all operators of venues that undertake 'like' activity.

ASX supports the immediate harmonisation of ASIC Market Integrity Rules and retail investor compensation scheme arrangements across market operators.

Discussion

In commenting on ASIC's proposed package of Market Integrity Rules, ASX has considered whether each aspect of the package is appropriately tailored to achieve the overall objective of protecting the price formation process and applying equivalent treatment to 'like' activity.

ASX has also taken into account general principles of good regulation, as set out in the Government's Office of Best Practice Regulation Handbook.

ASX supports the core elements of ASIC's proposed regulatory approach, being to:

- protect the price formation process; and
- apply equivalent treatment to 'like' activity.²

² Para 97, CP145

Protect the Price Formation Process

ASX's understanding of the purpose of the existing differential licensing structure (those involved in matching buyers and sellers being subject to additional obligations compared to those involved on one side of any particular transaction) is to protect the price formation process. It does this by ensuring that those with additional obligations ('market operators'), because of the infrastructure they provide, submit to regulatory oversight directed at whether their product offerings are consistent with public policy objectives and, in particular, the objective of protecting the price formation process.

Effective and transparent prices are important to more than just capital formation and resource allocation.

Markets conducted with full pre-trade price transparency also play a significant role in supporting central counterparty clearing houses in their systemic risk management function.

Price transparency is essential to permit clearing houses to accurately value and subsequently mark-to-market the substantial counterparty risk exposures that they incur and risk manage on a day-to-day basis. In the case of Australian equities this covers gross transactions of over \$5 billion a day. Erosion of the quality of price formation would degrade the quality of this function and result in increased systemic risk.

Trades originating on a lit market are supplied to the clearing house with inherently 'at market' prices reflecting reliable information on price and volume to enable an assessment of supply and demand, including the liquidity of particular securities. Conversely, trades executed in other venues could be traded at 'away from market' prices. Such trades are novated with, on one side, a potentially large unrealised loss that manifests itself into increased counterparty risk to the clearing house.

The important economic function the centralised clearing can provide in managing systemic risk has been recognised by global regulators in their push to encourage (or mandate that) more OTC trading, for example OTC credit derivatives, should be conducted on electronic platforms and/or be centrally cleared. The lack of transparent price formation in many of the OTC markets, and even reliable post-trade information (for even standardised OTC products) makes it problematic for a centralised clearing house to effectively manage the risks associated with clearing these products.

A 'financial market' is defined in Corporations Act section 767A(1). ASX supports the current definition. The concept of a 'facility' through which offers to buy or sell financial products are 'regularly' made, is one which has a sufficient degree of specificity to be practical, without being either too prescriptive or unreasonably broad. References to a 'market' in this submission are to a financial market as defined in the Corporations Act. The definition is both carefully considered and conceptually sound. It forms the basis for delineating between financial services, which are provided on a bi-lateral basis, and a financial market which has multilateral characteristics i.e. the facility is a meeting point for bids and offers from multiple participants culminating in a price formation process.

ASX also reiterates its support for the two-pronged licensing framework:

- AFSL – governs the provision of financial services, being services that are conducted bi-laterally between a client and a service provider. Its primary function is to protect retail investors. Its primary tool is the obligation on licensees to provide their services in a fair, honest and efficient (FHE) manner.
- Market Operator Licence – governs the operation of a financial market, being a multilateral facility. Its primary tool is the obligation on licensees to conduct markets that are fair, orderly and transparent (FOT). It complements, rather than being a substitute for, the regulation of market participants that occurs via the AFSL regime.

Apply Equivalent Treatment to 'Like' Activity

ASX supports the harmonisation of rules across like markets, like products, and like activities. Indeed, we submit that a starting assumption should be that there is harmonisation of ASIC's Market Integrity Rules across market operators. We prefer this approach to the approach proposed in CP145, being that harmonisation is something to be achieved at a future date. Differences in Market Integrity Rules between markets should only exist where these can be justified – for example based on structural differences between markets which may make certain rules obsolete. Such differences should be characterised as exceptions to the otherwise identical or harmonised Rules.

A benefit of applying equivalent treatment to 'like' activity is that a regulator can adopt appropriate measures to prevent the movement of otherwise regulated activity to an unregulated sphere of activity (regulatory arbitrage). We address the risk of regulatory arbitrage in further detail below, particularly in relation to:

- pre-trade transparency thresholds and substitute products; and
- compensation funds.

Application of the Market Licence Provisions

The linkage between the activity undertaken by market operators and the function vested in the regulator is undermined to the extent that those involved in matching buyers and sellers are excused from the obligations for which the market operator classification was devised (by being excused from licensing and/or by being excused from fulfilling the pre-conditions to achievement of the economic benefits achievable from transparent price formation). ASIC's proposals in CP145 for the most part reflect a recognition of this interconnection, but they also reflect a perpetuation of the growing number of instances whereby those involved in matching buyers and sellers are not appropriately licensed as market operators.

The original exemption from the market operator licensing requirements was established at a time when off-market trading was constituted as an 'upstairs' market – i.e. a market where transactions for larger trades were conducted manually, usually over the phone. More recently technology improvements have seen this shift to dark liquidity be made more economic for smaller trades, given these can now be automated – even though the underlying rationale for dark trading (ie the market impact for large trades) does not apply. These dark pools can be operated by licensed market operator, by independent unlicensed platforms or may take the form of broker operated internalisation crossing engines. Advances in technology mean that the fully automated matching systems employed by large market participants with significant order flow are now similar in nature to those operated by licensed exchanges.

Previously, a consequence of having particular activities classified as the operation of a 'market' was that the entity needed to incur the costs associated with also providing supervisory services. When that was the case, ASIC faced the dilemma that requiring any entity which wanted to compete with existing licensed market operators to undertake such supervisory activities would potentially either result in a plethora of co-supervisors or deter entities from incurring the costs necessary to compete. However, this dilemma was addressed by the decision, which has been operative since 1 August 2010, of centralising participant and market supervision with ASIC.

Under the market licence framework, the rights of the operator relative to users must be formalised in 'rules' and changes to those rules are unable to be made without regulatory approval. Consequently, a decision to exempt a potential provider of multi-lateral market services from having to be licensed as a market operator amounts to a decision to put licensed market operators at a competitive disadvantage to unlicensed competitors in the speed with which changes can be made to their service offerings, and the overheads associated with monitoring and enforcing those rules.

The default mechanism for regulating activities that meet the definition of 'financial market' should be the market licensing regime, not the AFSL regime. The AFSL is primarily designed to protect retail investors.³ It is not intended to achieve the objectives relevant to regulation of a financial market. The more appropriate regulatory tool for professional financial markets is the market licence, which is designed to maintain market integrity and investor confidence in the efficient operation of market facilities.⁴

Under ASIC's current approach (see RG 172), which ASIC is proposing to perpetuate, ASIC advises the Minister to grant an exemption for multi-lateral service providers from the requirement to be licensed as a market operator whenever they happen to be a direct participant of an already licensed market operator. The recommended exemption is subject to thresholds which suggest that where the traded volume is less than 10% of all volume in the security, the exemption is automatic. Where the volume is between 10-50%, the exemption is subject to ASIC scrutiny. Where the volume exceeds 50%, the assumption is that a market licence is required.

Given the 1 August 2010 regulatory changes, there is no longer a proper policy basis for such an exemption, if there ever was.

The approach to exempting internal markets in RG 172 has been overtaken by the developments noted above, and should be re-considered. The reasoning in RG 172 implies that a market licence is not required because the participants are already subject to oversight by a market operator (or ASIC, as the case now is) and that this replaces the need for market operator licensing. In practice, however, ASIC's supervision of participants who operate dark pools does not involve any assessment of whether appropriate rules are in place to govern trade execution.

The failure to require all market operators to be licensed - and therefore the failure to require all market operators to have an obligation to do everything practicable to ensure that their actions are consistent with ensuring the fairness, orderliness and transparency of the relevant market - would compound the existing uncertainty as to what this existing obligation entails for those who are subject to it. As the tools to enable market integrity and market quality outcomes are increasingly being vested (appropriately) in ASIC as a response to the existence of multiple trading systems, it becomes progressively harder to identify which actions relating to these objectives - which are presumably intended to be captured by references to 'fair, orderly and transparency' markets - are intended to be the primary responsibility of the operators of trading systems.

ASIC could usefully clarify the rationale for licensing of market operators and its centrality to the protection of price formation by clarifying (in RG 172 relating to market supervision) the respective roles of ASIC and market operators in relation to achieving fair, orderly and transparent markets. It could usefully clarify that these concepts form part of a market operator's licence obligations in order to enable ASIC to hold all market operators accountable for supplementing ASIC's efforts to protect price formation. This would make it all the more apparent why it is not possible to simultaneously uphold the legislative intent and to allow some market operators to be exempted from the main licence obligations intended to apply to all providers of trading systems for markets with multilateral characteristics. This clarification of how the different components of the regulatory framework for multilateral markets fit together would also provide a transparent and consistent framework for the Government's assessment of rule change proposals (the existing legislation singles out the obligation expressed by reference to fair, orderly and transparent markets when inviting the Minister to review proposed rule changes by a market operator for "consistency of the change with the licensee's obligations").

Compensation Schemes

Granting a dispensation from being licensed as a market operator not only involves giving questionable dispensations from the rule review and annual inspection processes to which licensed market operators

³ Financial Markets and Investment Products, Corporate Law Economic Reform Program Proposals for Reform: Paper no. 6 ("CLERP 6"), pg 89.

⁴ CLERP 6, pg 69.

are subject. It also involves granting a dispensation from having to establish a compensation fund covering failures to complete transactions, insolvency or fraud.

ASX recognises that legislative change is likely to be required to complete the task of ensuring that like activities are regulated in a similar manner when it comes to compensating clients of intermediaries for losses occasioned by trade execution related activities. However there would appear to be considerable scope for ASIC to reduce the current unacceptable level of inconsistency of treatment of clients based on which trade execution forum is used.

Any applicant for a market operator's licence, when faced with a licence condition to satisfy involving setting up compensation arrangements covering loss to clients of fraudulent users of their trading systems, could reasonably expect to explore insurance options as the most inexpensive way of pre-funding a compensation 'fund' to an actuarially-determined minimum amount. Granting a licence on this basis would result in considerable inconsistency with the compensation fund arrangements that have applied to date and will continue to operate in respect of losses having a sufficient connection with use of the ASX's facilities, by virtue of the legislatively enshrined National Guarantee Fund arrangements.

ASIC could facilitate a beneficial narrowing of current legislated inconsistencies by:

- Supporting NGF coverage against failures to settle and insolvency involving retail clients as the minimum standard required of any market operator, with the consequence that new licence applicants would be expected to make arrangements for NGF coverage,

AND

- Supporting the making of a regulation by the Minister capping claims against the NGF in order to ensure that retail clients received a greater proportion of available funds in the event of losses that exhausted available funds.

Products to which ASIC's CP145 Proposals Apply

ASX has no objection in principle to ASIC's Market Integrity Rules applying to equity market products as defined by ASIC, being shares, managed investment products and CDIs. However, this is a reasonably narrow category of products, and may need to be expanded to achieve ASIC's regulatory objectives.

ASIC proposes in CP145 to impose certain minimum size thresholds on 'equity' orders eligible to be executed away from lit markets. ASX supports this proposal as appropriate recognition of the importance of maintaining liquidity in lit markets; the underlying rationale for allowing trading in dark pools being to address concerns about the market impact associated with large block trades. However, with a view to achieving ASIC's objective and minimising the opportunity for market users to circumvent the proposed regulation, we submit that consideration should be given to imposing comparable restrictions on retail participation in substitute products. One example of such products is contracts for difference (CFDs). There may also be other OTC traded products which, if not also captured by the appropriate regulation, would provide market users with the possibility of avoiding any Market Integrity Rules by electing to trade the substitute product rather than the regulated product.

Contracts for Difference

There are sound public policy reasons for extending the reach of ASIC's Market Integrity Rules to CFDs and CFD providers. Relevant regulatory objectives include investor protection and protecting the integrity of price formation in the CLOB.

Failure to extend the Market Integrity Rules to CFDs could provide incentives for CFD providers to target customers who want to circumvent rules that will apply to shares e.g. \$20,000 pre-trade transparency threshold. Regulatory arbitrage of this nature will distort the market and lead to a perverse outcome whereby trading occurs not only outside lit markets, but outside the regulated markets

framework entirely. Failure to capture CFD providers will incentivise them to develop new, low-leverage and equity-like investments designed to attract new traders to the OTC CFD market, at the expense of lit markets.

Any reduction in liquidity in the lit market as a result of the OTC providers removing trades, merely increases their opportunity to widen spreads and thus their own profitability to the detriment of the customer. OTC providers therefore have an incentive to weaken centralised price formation and its beneficial impact of reducing overall transaction costs.

The reasoning in CP145, based on public interest considerations, is that monetary thresholds should be used to restrict the ability to submit into non pre-trade transparent forums certain orders that could be executed in lit venues. This reasoning seems equally applicable to restricting the ability to submit orders to CFD providers in circumstances where their desired exposure could be achieved more safely and efficiently if they were required to do so through a product for which the regulatory regime provides that safety and efficiency.

The proposed new market structure rules include measures directed at preserving market quality in lit markets in Australian listed cash equities (CLOBs) by limiting the extent to which orders that could be efficiently matched in a lit market are allowed to be transacted in a dark venue. By imposing certain minimum size thresholds on orders eligible to be executed away from lit markets, the rules would appropriately recognise the importance of maintaining liquidity in lit markets.

Policy consistency requires that consideration be given to imposing comparable restrictions on retail participation in CFDs. Allowing retail orders to be effected as an OTC CFD in circumstances where it could have been executed either as a pre-trade transparent cash market transaction (albeit without the leverage) or as an exchange-traded CFD transaction, involves allowing individual retail customers to deal in a less efficient market at the expense of the public policy objective of preserving the efficiency of lit alternatives.

In the absence of a public policy approach which precludes retail access to OTC CFDs based on investor protection/complexity considerations, the focus should be on whether more efficient outcomes could be achieved for users of CFDs over shares, when considered in aggregate, by limiting retail access to OTC variants (in circumstances where a more efficiently priced variant is available either in a cash market or in a lit exchange-traded CFD market). The fact that a significant proportion of retail users of OTC CFDs continue to be unaware that they are taking a derivative position and not buying the underlying shares suggests that there is scope to devise a set of restrictions which simultaneously recognises the greater efficiency of exchange-traded markets and promotes regimes which provide more robust investor protection.

Consideration as to whether some of the proposed rules should apply to certain OTC products necessarily requires an articulation of whether the market quality and market integrity objectives which provide the *raison d'être* for the rules proposed by ASIC are equally applicable to some or all OTC transactions. If, for example, efficiency of price formation in Australian-listed equities is regarded as sufficiently important to warrant imposition of a best execution obligation on intermediaries dealing with retail customers (being an obligation that requires a focus on assuring best price by having to sometimes forego proprietary dealings with a customer in favour of routing orders to a competitor), then it follows that the core structure of OTC transactions involving the customer only obtaining whatever price its counterparty provider unilaterally decides to make available, is incompatible with achievement of the stated public policy objective.

Accordingly, the decision to impose various initiatives directed at assuring the efficiency of the price formation process necessitates a rather more fundamental review of the existing regulatory dichotomy between OTC and exchange-traded regulatory frameworks than merely whether OTC transactions could continue to be structured the same way and only have applied to them those new obligations which are compatible with existing bilateral contract structure. The proposed Market Integrity Rules

fundamentally challenge the ability to continue with the bilateral contractual structure at the heart of retail OTC derivative transactions over Australian-listed equities.

It is difficult to see how any regulatory framework could plausibly impose a best execution obligation which appropriately recognises price as the most important measure of best execution for retail customers in Australian-listed equities and simultaneously undermine the rationale for imposing that obligation by exempting any intermediary that structures the transaction as a derivative (eg CFDs).

Prior to the introduction of the rules which ASIC has proposed, there was a plausible alternative view (reflected in the existing regulatory framework) that if retail customers are presented with sufficient information to enable them to consciously opt out of certain regulatory protections associated with exchange-trading by choosing to contract bilaterally with a CFD provider rather than place an order for the underlying instrument, then they should be free to do so. This was thought to be reinforced by the obligation of financial advisers to act honestly, efficiently and fairly and their duty to know their client. The large scale failure to comply with these obligations witnessed in cases such as Storm Financial and Westpoint, culminating in the 'Future of Financial Advice' reforms proposed by the Government, would suggest that this approach needs reconsideration.

Further Issues for Consideration

Based on the definitions proposed, ASIC may not achieve its stated regulatory objectives in some instances. Practical problems may arise from the rules if they only apply to this limited subset of products. For example,

- is it practical for a market operator to apply anomalous order thresholds and orderly trading ranges only to some products (e.g. shares but not LEPOs, Warrants, Instalments, and certain AQUA Products which are structured as derivatives)?
- should cancellation policies apply only to some products (e.g. shares but not single stock ETOs)?
- should circuit breakers halt trading in only some products (e.g. shares but not single stock CFDs)?
- should direct electronic access requirements and controls on the use of algorithms apply only to some products?

In some cases it would seem more appropriate that consistent rules are applied to all products (e.g. trade cancellation, participant algorithmic controls). In considering whether to extend the reach of the Market Integrity Rules to all products, ASIC should assess the risk of regulatory arbitrage that could occur as a result of inconsistent rules and obligations.

We note that in some instances, the rules of a market operator may go beyond the requirements of the Market Integrity Rules to ensure consistency of standards in relation to products offered by that market operator.

Persons to which ASIC's CP145 proposals apply

As stated above, ASX supports the core elements of ASIC's proposed regulatory approach, being equivalent or like treatment of like activities.

We understand from CP145 that there is currently a narrow class of persons to whom the Market Integrity Rules could apply (market operators and market participants). In line with our comments above, we submit that ASIC should have the ability to apply the Market Integrity Rules to persons where this is appropriate and necessary to achieve ASIC's regulatory objective and to prevent regulatory arbitrage. In particular, we believe that ASIC should have direct regulatory recourse against clients of participants who connect to markets via direct access arrangements.

ASX would support efforts by ASIC to achieve regulatory amendments so that it can apply the Market Integrity Rules more broadly, as the case may require, to achieve the Government's regulatory objectives. In the interests of ASIC being a responsive regulator, we submit that ASIC should seek regulatory amendment to broaden the class of persons captured by the rules now, so that if and when ASIC becomes aware of a situation where it needs to apply the rules beyond market operators and market participants, it can do so in a timely manner.

Penalties

Rules which apply to market operators (other than the rules in Part LA) should have Tier 1 penalties. Most of the obligations covered by these rules relate to regular operational and reporting issues which will be covered by market operators' standard procedures. Hence, there should not be significant issues with breaches of these rules. If there are breaches they are likely to be minor and inadvertent. Further, market operators are already subject to a high degree of regulation and ASIC review under the licensing regime in the Corporations Act. Hence, high penalties under the MIR are not required or appropriate.

3. Extreme Price Movements

Overview of ASX Position

Based on the available information, ASX does not object to ASIC's proposal in relation to market operator order entry price controls. Pending regulatory certainty, it is currently anticipated that ASX will introduce price-based order entry controls to prevent anomalous orders from being entered into ASX Trade late in the first half of 2011.

ASIC has proposed that market operators cooperate to achieve a uniform approach to trade cancellation. There are clear public policy benefits, in the form of protecting the clearing house, in ensuring that trades that will be accepted by the clearing house through its Trade Acceptance Service are subject to identical cancellation parameters. ASX supports the objective of alignment between trade cancellation arrangements, irrespective of the trading venue. ASX submits that the most effective way to achieve alignment is for ASIC to set the parameters for trade cancellation in much the same way as ASIC is proposing in its draft Market Integrity Rules to set the parameters for volatility controls.

ASX does not support market operator controlled volume based filters, as the objective of these is better achieved through participant level controls. ASX submits that there has been insufficient evidence presented in relation to the potential effectiveness of market wide circuit breakers.

ASX notes that up/down controls are suggested by ASIC as an alternative to order entry filters or SSCBs. ASX does not currently have the technical capacity to implement these, and the implementation cost and time is at this stage unknown.

ASX would welcome the opportunity to consider more detailed proposals in relation to circuit breakers and up/down controls. We note that ASIC has indicated it will release a further consultation paper on these topics.

Discussion

ASX agrees with ASIC that new controls are needed in the Australian market to manage the risk of extreme price movements. The fragmentation of order entry associated with the commencement of new lit markets could exacerbate the risks of unwanted price movements and the impacts of those movements.

ASIC discusses four types of control in CP145. Overriding objectives for these controls include enhancing the level of confidence in the Australian market and encouraging investor participation.⁵ In our view, these objectives are achieved through the maintenance of orderly and efficient markets.

Order Entry Controls

Price-based controls

ASX does not object to an ASIC MIR that obliges market operators to have price-based order entry controls, but submits that order entry filters do not necessarily need to be aligned across lit market operators, as long as they are designed with any single stock circuit breaker or trade cancellation thresholds in mind. A market operator should design any pre-order filters with the aim of preventing a circuit breaker from being triggered by a one-off order entry error (sometimes referred to as a 'fat finger' error).

ASX has already announced its intention to introduce filters which will have upper and lower price limits, and will reject limit orders that fall outside the specified price bands. Price limits are expected to be an effective tool in managing erroneous order entry and very aggressively priced orders. ASX will proceed with implementation of its order entry filters when it is clear that these are consistent with ASIC's proposed Market Integrity Rules.

Volume-based controls

ASX does not support the proposal that market operators be compelled to introduce volume-based controls.

ASX is not convinced that implementing effective volume based pre-trade controls is achievable (or that it is suitable that the market operator be responsible for the level). ASX suggests that volume limits, in the context of a market with appropriate price limits, are best managed by participants as part of their credit and exposure risk management. ASX does not know the existing client's position, long or short, or the credit available to the client. Participant operated filters, which can be customised to accommodate the needs of different clients / risk appetites, are a better solution to volume based errors. To the extent that volume controls may prevent inadvertent trades, this should be managed at the client level (noting that clients may trade through more than one participant).

SSCBs

ASX does not object to ASIC's proposal that market operators should have controls in place to automatically limit certain priced orders from executing during extreme market movements in relation to single stocks. Overseas experience suggests that there are many different possible approaches to the design of SSCBs. ASX would welcome the opportunity to comment on a more detailed proposal. However, in the interim, we have set out our initial thoughts below.

A lesson from the US 'flash crash' was that if introduced, single stock circuit breakers should be aligned across trading venues. This could be achieved by placing responsibility on the primary market (i.e. listing market) for generating and distributing the circuit breaker signal to other market operators advising them when to halt trading in a security based on a SSCB being triggered.

ASX agrees that securities and derivatives markets are closely linked and that some controls may also be required for derivative markets. ASX is currently reviewing controls used by other world leading futures markets with a view to introducing some form of volatility controls in the ASX24 market.

⁵ ASIC CP145, pg 55.

SSCB Design

The principles behind SSCB design should include simplicity and transparency. The combination of these two attributes will contribute to certainty and investor confidence. As a general rule, ASX would consider wide price movement thresholds and short trading pauses to be more appropriate than small price movement bands and longer trading pauses, so that interference in the operation of the market is minimised to those occasions where trading is statistically well outside the range of normal or even unusually high volatility, and trading can resume quickly after the circuit breaker is triggered.

The reference price for the SSCB should be designed to minimise risk of 'contagion' from error – i.e. either last auction price or moving average price. The US uses a moving average price but it does not have a comparable continuous disclosure regime and intra-day halts to manage the release of price sensitive information. ASX's continuous disclosure regime and intra-day auction processes provide a highly transparent and reliable static reference price. If ASIC recommends a moving average price, it is important that the price re-sets if there is an intra-day auction as a result of a price-sensitive announcement. This means that price movements stemming from material company announcements are less likely to trigger SSCBs, which is a positive outcome.

Somewhere between 2 minutes and 10 minutes appears to ASX to be a reasonable time period to move the security into a call auction (where bids and offers can be submitted) before it resumes via open trading. A call auction allows liquidity and price discovery to re-establish before trading resumes. We note that US has adopted 5 minutes. We also note ASX Clear concerns that the longer the pause before trading resumes, the greater the risk associated with pricing exposures (i.e. an inability to mark to market at current market prices). ASX suggests that ASIC should be guided by participants when considering how long they would need to make an assessment of the market and resume trading.

ASX recommends that the price movement trigger should be calculated after an analysis of the 'normal' levels of intraday volatility for securities. Intra-day volatility calculations should take into account intra-day auctions following the release of material information (i.e. not a simple daily high-low analysis).

Alignment between market operators is essential in order to achieve the regulatory outcomes. Alignment could be achieved in several ways:

- Each operator has its own circuit breakers which use the same methodology and the same reference price.
- The 'listing' market hosts the circuit breakers, and when trading in that market is halted a data feed is sent to other market operators (in the same manner as for other halts) and trading is halted on other platforms.

Of these approaches, ASX supports the latter, being that the listing market is the determiner of a SSCB. This is consistent with the listing market determining other halts and suspensions and notifying other market operators of these.

SSCB Securities

ASX submits that there are a number of reasons to suggest that SSCBs should be applied only to the constituent securities of the ASX200 in the first instance:

- these are the most actively traded, liquid securities;
- stock prices are generally higher and therefore amenable from a practical viewpoint to percentage-based movement triggers;
- there are practical difficulties associated with designing SSCBs for low value securities – e.g. securities outside the top 200 trade less frequently, making the setting of appropriate triggers more complex;

- these securities are most likely to have derivative products or indices linked to them, including the SPI;
- significant mis-pricing in these securities is more likely to impact market integrity than mis-pricing in stocks that are not index constituents;
- ASX200 securities are those where there will be trading fragmentation in the first instance.

Single stock derivative products could halt and resume trading in line with the underlying product, as occurs at present in relation to other trading halts and suspensions. Derivative products based on more than one underlying product (e.g. index-based futures or ETFs) could have their own SSCB. This would avoid difficult decisions as to whether a derivative with different underlying assets should be halted just because one or more of the constituent underlying products are halted.

Market Wide Circuit Breakers

ASX is not yet convinced that market wide circuit breakers are necessary. IOSCO's report on trading halts and market closures summarises the academic research into market wide trading halts. IOSCO concludes that the results of theoretical studies are mixed and that results of empirical studies suffer from statistical problems.⁶ One such study suggests that circuit breakers may have the perverse effect of increasing price volatility prior to the triggering because, on volatile days, traders will anticipate being locked out of the market by a circuit breaker, and so will bring forward their buy/sell orders.⁷ Other findings suggest that volatility after the circuit-breaker is the same as, or greater than, volatility would be predicted to be, if the circuit-breaker did not apply.⁸

ASX suggests that ASIC could monitor the effectiveness of the limit order filter / SSCB / trade cancellation regime before determining whether market wide circuit breakers are needed.

We note that a market operator can make an assessment at any time that the market should be suspended from trading, and that such assessments have been made in recent years in relation to different events including September 11 terrorist attacks, and market confusion around the announcement of new short selling rules. The use of these emergency powers is arguably preferable to the use of market wide circuit breakers, given the ability for people to discuss the nature of the event / probable cause of the market movement, and form an assessment about whether the market is orderly and should continue trading.

Trade Cancellation

ASX agrees with the principles articulated in respect of trade cancellation and supports alignment of cancellation policies across trading venues.

ASIC has proposed that market operators cooperate to achieve a uniform approach to trade cancellation. ASX supports the objective of alignment between trade cancellation arrangements, irrespective of the trading venue. ASX submits that the most effective way to achieve alignment is for ASIC to set the parameters for trade cancellation in much the same way as ASIC is proposing in its draft Market Integrity Rules to set the parameters for volatility controls. In practice, ASIC may put in place a rule which places obligations to reference the primary market or listing market in order to determine an appropriate reference price, in accordance with criteria that ASIC has pre-determined, and for application across all venues.

Until such time as the Market Integrity Rules take effect, ASX intends to work with ASIC to implement its updated trade cancellation policy. ASX's proposed policy is premised on the principles articulated by ASIC in CP145. It is recommended that these updates be finalised as soon as possible, with a

⁶ IOSCO Report on Trading Halts and Market Closures, October 2002

⁷ Goldstein, M., A., Evans, J. E., Mahoney, J. M., "Circuit Breakers, Volatility, and the US Equity Markets: Evidence from NYSE Rule 80A

⁸ IOSCO Report on Trading Halts and Market Closures, October 2002

subsequent review by ASIC of mandatory cancellation price bands when limit order filters and circuit breakers are introduced, so that these thresholds are complementary.

ASX notes that the current draft Market Integrity Rules contemplate the publication of the 'policies and procedures' for cancellation of clearly erroneous trades. This broad reference could be viewed to suggest that beyond the publication of the rules and procedures regarding the setting and exercise of trade cancellation rules, this could extend to internal policies on decision making processes/authorities. Such reference should be narrowed to the publication of rules and procedures governing the cancellation settings and their application.

Implementation

The introduction of filters and SSCBs will have timing and cost implications that ASX will need to consider before being in a position to introduce such controls. Some specific issues that arise with this include:

- technical implementation requirements and testing;
- setting any volume thresholds;
- coordinating with other market operators setting of price and volume thresholds and regular reviews
- timing and cost implications for ASX to the extent that further session state functionality needs to be developed to reflect the proposed parameters for periods when such 'volatility controls' are applied/ lifted.

Further Issues for ASIC Consideration

There is a reference in draft MIR E3-1(c) to timely cancellation of clearly erroneous trades. It is not clear whether this is intended to be mandatory or apply only when a trade that falls within the cancellation parameters is identified by ASX, or a participant and notified to ASX, for cancellation. If mandatory, this will have timing and cost implications for ASX to the extent that further functionality needs to be developed to identify any such trades.

Where ASIC seeks to limit trades being executed on other non-market execution venues (e.g. participants' crossing systems) is this expected to be addressed in each market operators operating rules or will ASIC MIR address this?

ASX suggests there may be benefits in an ongoing 6 monthly review of any limits set as well as applying different limits in different session states – particularly in relation to ASX24 products where trading overnight exhibits different characteristics to daytime trading during ASX operating hours.

4. Best Execution

Overview of ASX Position

ASX generally supports ASIC's proposed best execution policy. However, ASX does not support ASIC's suggested regulation of market operator order routing or ASIC's alternative best execution model which is derived from the North American approach. We cite recent academic research below, which suggests that the US order protection rules may have been detrimental to market quality and efficiency in the US.

ASX has no objection to the proposed transitional period for participants to meet best execution on ASX.

Discussion

Many market users rely on intermediaries to transact on their behalf. To date, in Australia, there has only been one lit venue for trading of ASX securities, and one set of rules for executing trades away from that lit venue. These arrangements, and in particular the single central limit order book operated by ASX, effectively ensure that market users achieve the best execution available at that time for transacting in a security.

Licensing of additional trading venues will mean that there is more than one lit venue for trading securities, and that prices to buy or sell may vary between those venues. It is conceivable that intermediaries, acting in their own self interest, may execute a client's order on a platform that offers benefits for the intermediary (e.g. in the form of a rebate), but which does not achieve the best possible price for the client. There may be other reasons why the agent (the intermediary) does not act in the best interest of the principal (the client) in obtaining the best available price. This principal-agent problem is widely recognised overseas and, as set out in CP145, there are various regulatory approaches adopted elsewhere in the world to seek to align the incentives of the intermediary with those of the client.

ASX agrees with ASIC's analysis that best execution obligations are needed to promote market efficiencies and investor protection.

ASIC's proposed model seems to be a good balance between the need to ensure clients receive best execution and the need to not unduly burden market operators or create an environment for 'gaming' of order entry based on speed. The following aspects of the model seem appropriate:

- Recognising the distinction between professional and non-professional investors;
- Imposing a monetary threshold above which transactions for all clients could take into account a range of factors.

ASX broadly supports ASIC's proposed best execution rule for the following reasons:

- An AFSL holder already has a fiduciary obligation towards their clients. It also has a 'know your client' obligation. It is therefore in a much stronger position to achieve the best outcome for its clients than a market operator (as set out in the alternative proposal).
- The proposal to take a holistic view towards a brokers' best execution (i.e. a given best execution policy will achieve best execution for the majority of clients in the majority of instances) may minimise costs for smaller brokers without unduly disadvantaging retail clients.
- Provision of market operator routing to be used at the discretion of participants will assist participants as it gives the participant a means of achieving the best execution (assuming transactions costs are not significantly different). As a result, participants will not need to develop a smart order router or use one offered by a third party. This will reduce the IT development and connectivity costs associated with best execution compliance for some participants.

Marketable and Non-marketable Orders

ASIC's proposed best execution requirement appears tailored towards 'marketable' (immediately executable) orders. The calculation of best total consideration in relation to marketable orders would be based on real-time information about the best bid and offer on different trading venues. It is not clear whether the Rule is intended to also apply to orders where the client has nominated a bid or offer price that is away from the prevailing market price. Applying ASIC's Rule as currently drafted, the best execution obligation would appear to extend to such orders, with the order presumably being submitted to the venue with the lowest execution fees. We submit that this may not always result in the best outcome for the client. It may also result in a tension between the best execution obligation and the participant's fiduciary obligation to its client (it could be argued, for example, that the order should be routed to the venue where it has a greater likelihood of being filled).

ASIC should clarify that the best execution rule applies only to orders that are immediately executable.

Market Operator Routing

ASX notes the suggestion in CP145 that where a market operator provides routing services on a commercial basis, that there may be obligations or rules attached to the offering. ASX does not support this suggestion. We refer to ASIC's principle of applying equivalent treatment to 'like' activity, and strongly argue that if ASIC was minded to introduce any obligations or rules for providers of routers, that these should apply to all commercial routing service offerings, and not just to those offered by market operators.

Comments on the Alternative Model in CP145

ASX does not support the introduction of a US or Canadian style order protection rule. Such an obligation would impose additional and unnecessary costs on market operators and may in fact undermine the objectives that ASIC is seeking to achieve.

We refer ASIC to recent academic research released in the US on the effects of Reg-NMS on market quality.⁹ Findings from that study are summarised in the excerpts below:

Our study shows that both the quoted and effective spreads increased and the quoted depth decreased significantly after the implementation of Reg NMS. We show that Reg NMS led to an increase in both the price impact of trades and return volatility and at least part of the increased return volatility is due to greater transitory price movements (i.e., pricing error). We show that order fill rates are lower and order cancelation [sic] rates are higher after the implementation of Reg NMS, suggesting an increased role of high-frequency traders. The impact of Reg NMS on execution speed varies across order types and trading venues. ...

Overall, our results indicate that liquidity providers on the NYSE and AMEX post wider spreads and smaller depths after the implementation of Reg NMS. Hence, contrary to the SEC's expectation, the Order Protection Rule neither reduces transaction costs nor improves market liquidity by encouraging public limit orders. Rather, our results support the view of opponents of the rule that Reg NMS would actually reduce market liquidity. As O'Hara (2004) suggested, the Order Protection Rule may have resulted in a deterioration of liquidity because it increased automated trades and/or it increased internalized orders at the large dealer firms, removing these orders from a public market. ...

Overall, these results suggest that Reg NMS resulted in greater trading costs, smaller market depths, greater return volatility, and larger pricing errors. We also find evidence of lower order fill rates and higher order cancelation [sic] rates after the implementation of Reg NMS. The effect of Reg NMS on execution speed varies across order types and trading venues.

On the whole, whether Reg NMS has benefited traders and investors depends on dimensions of market quality. For those who care more about the execution speed, Reg NMS has proven to have mixed verdicts. However, for those who care about execution costs, execution probability, and market volatility, the new regulation has proven to be detrimental, as many scholars and some market participants have feared.

ASX submits that the introduction of market operator order protection rules is premature and should only be considered when there is sufficient academic and practical experience to suggest that the market as a whole will benefit from the regulation. To date, there is insufficient evidence to suggest that

⁹ Chung, Kee H. and Chuwonganant, Chairat, Regulation NMS and Market Quality (November 11, 2010). Available at SSRN: <http://ssrn.com/abstract=1455969>

this is the case – indeed, the most recent research cited above suggests that order protection rules may be to the detriment of market quality.

Other Comments

Although Consultation Paper 145 appears to facilitate considerations other than strictly price (e.g. speed and likelihood of execution) this does not appear to be reflected in the draft MIR concept of ‘total consideration’ (Part GA of draft MIR) which will determine best execution obligations. This, coupled with transaction costs as a factor in comparing total consideration across execution venues may not lead to the market efficiency and innovation that ASIC is seeking.

We suggest that ASIC clearly advise under what circumstances (if any) a participant can contract out of the obligation with a client – considering clients under the monetary threshold may want other outcomes.

Implementation

While there is only one market for particular non-equity market products it is not clear that further best execution obligations (apart from existing obligations discussed in CP145, p77) are needed. However, if such obligations were implemented they would presumably be met by participants transacting on the existing market, in the existing manner, so it may not be an issue in practice.

Any requirements for market operator routing order protection rules would have timing and cost implications for ASX, to develop the necessary functionality as well as develop a framework both in ASX operating rules and operating rules of other market operators to facilitate the passing of trading messages between markets.

US experience was that market operators took up to 3 years to put in place arrangements in accordance with the Reg-NMS – it is not clear how much of this time was attributable to the routing component. ASX has not estimated the time to implement a similar model here, but is of the view that it would take somewhere between 1 and 3 years, dependent in part on the number of other changes being implemented.

5. Execution Quality Reporting

Overview of ASX Position

ASX does not support the proposed execution quality reporting for market operators. Mandating a regulated solution in the absence of a market failure in this area is premature and potentially counterproductive, stifling innovation.

The proposal seems designed to anticipate what the ‘market’ will need to make informed execution decisions when in practice this is actually a competitive and dynamic process that will respond to market incentives. Furthermore, the proposed report is derived from the US market and is not consistent with the proposed Australian rule framework. At best, much of the information reported will be obsolete or of no value to potential end users by the time it is published – as it is backward looking. At worst, the information may confuse or mislead market users.

Discussion

ASX can see some benefits in market operators publishing information that can be used by market users to assess market quality. ASX is not convinced, however, that there are benefits in this reporting taking the form of a mandatory and potentially inflexible regulatory requirement.

ASX is concerned that the content of any mandated reporting could perversely dictate the context in which competition occurs. Incorrectly framed 'quality' metrics could ultimately have a detrimental impact on the market.

In recent years, in conjunction with the growth of new trading styles, it is becoming increasingly apparent that traditional 'point in time' measures are not necessarily helpful indicators of market quality. New measures are needed that take into account the temporal nature of orders and the ephemeral nature of some types of liquidity.

Market users globally are re-thinking what are appropriate metrics of market quality. These may vary depending on the perspective of the end-user. They may also vary based on the economic cycle.

We think that any metrics introduced now are likely to be obsolete relatively quickly, but that they may be difficult to update once enshrined in a regulatory instrument.

ASX does not agree with the reporting model put forward in CP145. The reporting framework is based on market operators having routing obligations (Reg NMS), but is suggested as a means to assess market quality in a market with a participant-based best execution obligation (MiFid). There is a lack of alignment between the regulatory framework and the quality measures.

Some of the reporting criteria will not be helpful to market participants. For example, those participants that value latency can use a service provider to obtain very accurate measures of latency from trade initiation to confirmation receipt. ASX's measure of latency, being the latency of its execution engine, is only one part of the relevant measure for those participants that value latency.¹⁰

As stated above, ASX does not believe that enough research has been undertaken to determine clear measures of quality in a multi-venue environment with traders with different trading styles and objectives.

US Securities Industry and Financial Markets Association (SIFMA) expressed the view in a submission to the SEC: "SIFMA believes that, in their current form, neither of these rules [605, 606] provides useful and meaningful comparative information to market participants, particularly individual investors, or regulators, and that the rules should be either modified or rescinded in light of market developments."¹¹

Users will determine the dimensions and attributes that they value in a venue. Market Operators will respond to those dimensions to remain competitive. The example is the ASX investment in low latency trading and market data - competitively we will respond and highlight the important dimensions as and when they emerge. For example 3 years ago almost no customers were interested in the latency of ASX's matching or market data.

In recent years, in conjunction with the growth of new trading styles, it is becoming increasingly apparent that traditional 'point in time' measures are not necessarily helpful indicators of market quality. New measures are needed that take into account the temporal nature of orders and the ephemeral nature of some types of liquidity.

Implementation

ASX submits that ASIC consider undertaking a pilot study for market quality, using a small selection of securities and end users who can provide feedback on the usefulness of the information reported. This program could be expanded to additional securities or measures of quality over time. Ideally, the study would be overseen by appropriately qualified finance market academics.

¹⁰ Companies that provide latency monitoring services include Corvil and Correlix.

¹¹ www.sifma.org/WorkArea/DownloadAsset.aspx?id=897

ASX could produce a report based on the data suggested by ASIC. Development of reporting functionality for such reporting requirements will have time and cost implications for ASX. Timing is likely to be several months from the time when ASX knows with certainty the content of the reporting obligation.

If ASIC proceeds with this initiative, ASX suggests that ASIC would need to provide very detailed guidance as to the compilation of data so that market users could be confident that they are comparing like-with-like. (Examples may include agreement on rounding, and procedures for auditing the accuracy of published information).

6. Pre-Trade Transparency and Dark Pools

Overview of ASX Position

ASX supports ASIC's proposed approach to dark pools and dark orders in lit markets by providing exemptions to pre-trade transparency requirements in defined circumstances.

ASX agrees with the need for a threshold above which large block trades can be transacted off-market at any price, but believes that in addition to ASIC's proposed thresholds of \$1m and \$500,000, there should be an additional \$2.5m threshold for the largest listed entities. The \$1m threshold was established in the 1980s and for at least the largest 12 securities the lit market can easily manage orders of up to \$2.5m without any market impact.

ASX agrees with the need for a small trade threshold above which trades can only be transacted away from lit markets if they achieve meaningful price improvement, which ASX believes should be defined as the mid-point of the best bid-offer. We agree with ASIC that the threshold should be initially set at \$20,000 for most listed entities, but support a higher (\$50,000) threshold for the largest listed entities.

As argued above, ASX submits that dark pool operators that provide essentially the same service as a licensed market (i.e. a multilateral trading facility) should also be subject to the same market operator licensing regime as a licensed market.

In the absence of thresholds and market licensing of dark pools it is likely that business models which involve selling retail order flow to unlicensed dark pools could emerge in Australia, to the detriment of protecting the price formation process and retail investor protection.

Discussion

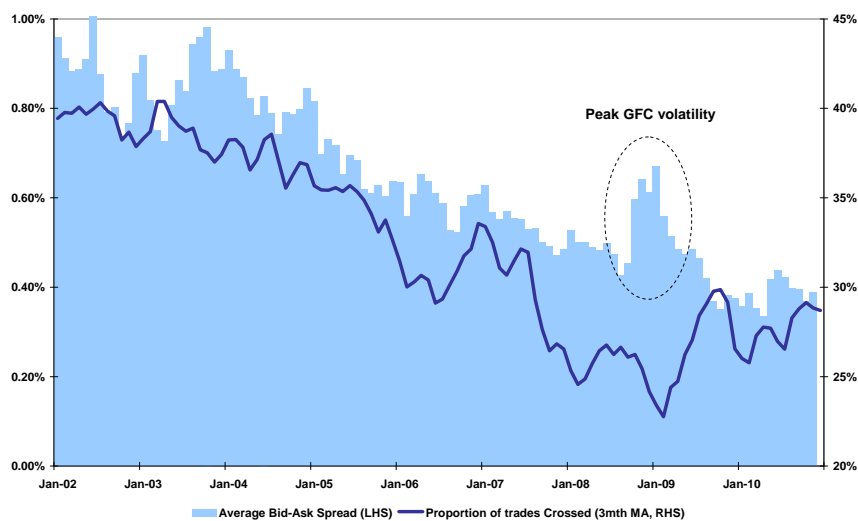
IOSCO identified three issues surrounding the use of dark pools (including broker crossing networks) and dark orders in transparent markets:

- the impact on the price discovery process where there is a substantial number of dark pools and/or orders submitted into dark pools and/or submitted into dark pools which may or may not be published;
- the impact of potential fragmentation on information and liquidity search and on market integrity due to possible differences in access to market and information;
- concerns relating to fair access by participants to dark pools on reasonable terms, to information on how the dark pool operates and data trading activity in that dark pool to enable participants to make informed trading decisions.

ASX agrees with IOSCO's and ASIC's view (expressed in CP145) that there is a risk that a significant shift from lit to dark markets could eventually impact negatively on the price formation process in Australia. We note that ASIC has indicated that recent evidence from the US suggests that such an effect is now becoming evident as the level of off-market activity has increased.

In Australia there has also been evidence to suggest that over time a decline in the amount of trading crossed away from the market and reported to ASX coincided with a significant decline in bid-ask spreads (with the period of the global financial crisis being an exception). While a range of factors may have helped drive the improvement in market quality over that time, the increased use of the central limit order book, including the increased liquidity brought to the market by high frequency traders who have a natural attraction to transparent and low latency markets, has certainly been a key driving force.

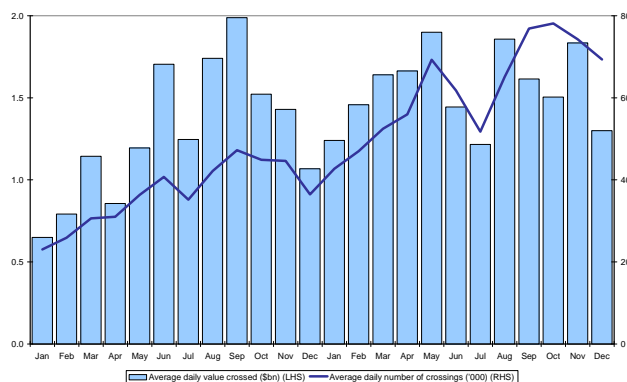
Average Bid-Ask Spreads and Percentage Crossed



More recently (since around January 2009), as the trend in the proportion of trades crossed has stabilised and then begun to edge back up, there is also the suggestion that the decline in spreads has stalled and also begun to nudge upwards. Again a range of factors may be influencing this trend, but it is also coinciding with the emergence of more sophisticated broker internalisation engines in Australia, which have become commonplace in the US and Europe, where the introduction of technology has enabled faster and more efficient internalised matching of client trades within a broker before they ever have the opportunity to interact with other orders in the lit market.

Crossing Activity – January 2009 to December 2010

Average Daily Crossings: Number and Value



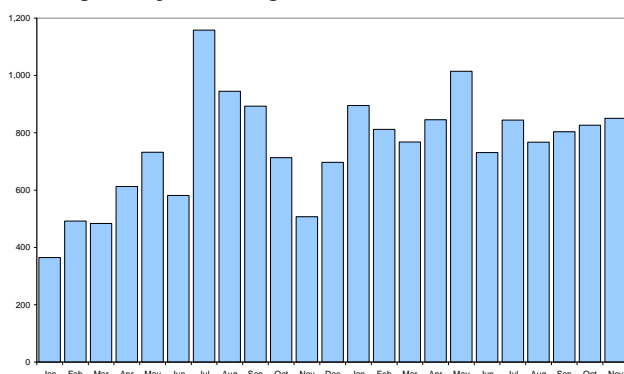
It is clear that in the past two years both the number of crossings conducted and the value of those crossings have trended upwards.

The number of crossings has trebled from around 20,000 to around 70,000 a day.

Over the same period the value crossed has doubled to \$1.5 billion a day.

Crossing Activity – January 2009 to December 2010

Average Daily Crossings: Volume of Shares (millions)



Looking at the volume of shares crossed (which removes the valuation impact of the change in asset prices) also supports the view that crossing activity has risen over the past two years.

Around 800 million shares are crossed daily compared to around 400 million two years ago.

While it is difficult to precisely quantify the tipping point at which dark pool activity begins to erode the quality of the market (ie adversely impacting the efficiency of price formation), we remain of the view that exceptions to the pre-trade transparency requirements that have served the Australian (and other) equity markets well for a long period of time should be limited to cases where there is a strong policy rationale.

We note that in the US, Nasdaq has conducted research that suggests that for the most liquid stocks the tipping point may be around 40 per cent of trading occurring in dark pools. It is reasonable to assume that for smaller and less liquid securities that the tipping point may well be significantly lower.

ASIC is to be commended for devising a set of market structure proposals that are broadly consistent with market quality providing a public benefit that, like market integrity, will not be maximised without some regulatory intervention. ASIC's proposals generally reflect a recognition that meeting the interests of long term investors and listed companies in markets being fair, orderly and transparent needs to be complemented by structural interventions directed at lowering the total costs of intermediation to investors ('market quality').

ASX broadly supports ASIC's proposals to only allow exceptions to the requirement for pre-trade transparency in limited circumstances, to achieve the objective of maximising the price formation benefits of allowing most orders to interact on a fully-transparent market to improve price efficiency and the fair treatment of investors.

This is consistent with the position outlined by IOSCO in its most recent paper on dark pools that "all regulators consider transparency, both of current trading and recently completed trades, to be a core element in ensuring that markets operate in a fair, orderly and transparent manner."¹²

It is worth remembering, at a high level, one of the clearest lessons to be taken away from the global financial crisis was the benefit of having deep, liquid and transparent equity capital markets to facilitate capital formation and capital flows throughout the capital market and the broader economy.

In contrast, the greatest dislocations and freezing up of credit were experienced in markets characterised by non-transparent pricing arrangements which distorted asset valuations and where the lack of a central marketplace delivered uncertainty and a lack of liquidity to underpin orderly price movements. Policymakers responded to the problems this delivered by seeking to channel more OTC activity (for example standardised derivative contracts) through more transparent trading venues and to avail themselves of the benefits of centralised clearing mechanisms. This policy response was occurring

¹² International Organization of Securities Commissions (2010), "Issues Raised by Dark Liquidity", Report of the Technical Committee, October 2010, page 19.

at the same time that growing levels of activity in the most transparent trading markets (listed equities) was increasingly moving into less transparent venues (ie dark pools).

Pre-trade transparency is designed to promote the optimal matching of supply and demand. We agree that Australia requires a rule framework that explicitly sets out pre-trade transparency principles. This framework will perform a vital role in allowing market operators and potential operators to develop innovative and internationally competitive trade execution mechanisms, within prescribed boundaries that maintain overall market quality (e.g. as measured by bid/offer spreads and low trade search costs).

A common and enforceable standard is essential to minimise regulatory arbitrage, which could damage the integrity of Australia's markets and increase overall transaction costs for retail and institutional investors. Such clearly defined pre-trade transparency thresholds/rules are already a feature of the Australian equity market – although to date these have been set and implemented through ASX's Operating Rules.

ASX submits that in a multi-operator environment it is more appropriate for ASIC to set these rules/thresholds and to apply them consistently across the market. It also provides the regulator with flexibility to make adjustments around the edges (for example, adjusting thresholds where necessary) consistent with the evident legislative intent of ensuring there is no loss of market quality.

There are two market failures that warrant regulatory intervention to deliver efficient price discovery:

- The first is a free-rider problem, whereby investors trading through a dark pool or whose orders have been internalised by a broker benefit from the pre-trade transparency provided by other investors who expose their orders in the lit market, without themselves having to expose their own orders.
 - We note that the recent IOSCO report on dark pools also highlighted this issue, noting because dark orders and dark pools do not contribute to pre-trade price discovery, there may also be concerns about whether they free-ride on the revealed intentions of other participants in the market.”¹³
- The second is that the behaviour of some individual investors operating in their own specific interests (to get the best price for their individual order) do not produce the most efficient outcomes for the market as a whole as they may impose externalities (ie higher costs) on other users.
 - By diverting orders away from the lit markets, it can be expected that prices obtained on the lit markets will be less informed and will possibly also be more expensive (ie higher bid-ask spreads) for those who are willing to expose their orders on the lit market.
 - It is important to note that the depth of the order book at the best bid and offer can often be relatively thin, even for the most liquid stocks, so any loss of liquidity can potentially begin to impact on the top of the order book. Of course the sensitivity of the spread to loss of liquidity is most pronounced in less liquid stocks.

ASX is supportive of the general thrust of the ASIC objective and its policy approach – we have previously argued for the use of value thresholds to limit dark pool activity rather than a market share approach as been used in other markets such as the US.

The ASIC approach also appears broadly consistent with the direction of new proposals by the Canadian Securities Administrators and the Investment Industry Regulatory Organization of Canada which indicates that if traders want to go off-market and place their orders on 'dark pools,' they will need to meet a minimum size requirement. In addition, the Canadian organizations are recommending that

¹³ International Organization of Securities Commissions (2010), "Issues Raised by Dark Liquidity", Report of the Technical Committee, October 2010, page 19.

'meaningful price improvement' be required in certain circumstances and that, generally, visible orders should be executed before dark orders at the same price on the same marketplace.

Similar proposals are also being debated in other jurisdictions, including in Europe, in relation to proposals to limit the flow of trading activity to dark pools.

However, ASX believes that the imposition of value thresholds alone is not enough to ensure that dark pools are appropriately regulated. Dark and lit markets compete directly. Failing to require dark markets to submit to similar regulation to that imposed on lit markets favours dark markets over lit markets and potentially exposes participants in dark markets and their customers to a much lesser level of protection than is available in lit markets. Accordingly, ASX strongly urges ASIC to be much less willing to institutionalise regulatory arbitrage by advising the Minister to grant exemptions to dark pools from having to be licensed as a market operator.

A market operator, such as ASX, requires a licence to operate a dark pool (i.e. Centre Point and VolumeMatch). Other operators of dark pools should be subject to equivalent regulatory oversight and licensing given ASIC's overriding stated objective of treating and regulating similar activities in a similar way.

Pre-Trade Transparency Above Block Size

As noted above the principal justification for allowing equity market trades to be conducted away from requirements for pre-trade transparency is that the market impact costs associated with exposing large orders are significant enough to more than offset the impact of allowing these trades to not add to pre-trade price discovery. ASX has always had in place rules, now largely to be transferred to the ASIC Market Integrity Rules, requiring these trades to be reported in a timely manner to at least contribute to post-trade transparency.

Block Trades

The traditional rationale for allowing trades to be conducted away from a fully-transparent market was limited to certain orders of large size, where disclosure of the order could expose the investor and the market to unnecessary market impact costs, increasing the overall transaction costs for these trades.

While advances in technology, including the emergence and increasing use of sophisticated trade execution algorithms to 'slice-and-dice' large orders, attempt to minimise the market impact costs of transacting large sizes may have arguably reduced the need for transacting large orders off-market, ASX believes that an exemption for orders of large size remains a justifiable exclusion from pre-trade transparency requirements.

The \$1 million block special crossing threshold contained in the ASX crossing rules has been in place for over 20 years and while simple, we believe it is no longer appropriate to have a single threshold across the market.

ASIC is proposing a two tiered threshold with the \$1 million threshold remaining in place for a handful of the largest companies with the remainder of the market operating with a block trade threshold of \$500,000. ASIC has also sought market views on whether two additional tiers: \$2.5 million for the top dozen companies and a \$200,000 level for the smallest companies should be considered.

ASX supports ASIC's proposal for a tiered block trade regime. As CP145 noted ASX has previously suggested, and consulted on, a three tier system (\$2.5m, \$1m and \$500,000). We continue to support that model and those thresholds – which we believe strikes the appropriate balance between the interests of individual traders and the interests of the market as a whole.

We believe it better balances the needs of traders to transact large orders with minimal market impact while maintaining a requirement for orders to be transacted with full pre-trade transparency where that can be done without unnecessary cost.

Research previously conducted for ASX by SIRCA has established that an appropriate broad rule of thumb is that once an order exceeds 2.5% of a stock's average daily value, the market impact of transacting through the lit market becomes significant enough to justify off-market trading.

We submit that such analysis (which has been updated recently to confirm the conclusions are still valid) continues to support a \$2.5m top tier (rather than the \$1m proposed in CP145) for the twelve most liquid securities rather than the 20 year old \$1m level. The analysis showed that there is such strong liquidity (as measured by average daily value traded) in the lit market in those 12 stocks that orders up to at least \$2.5 million could be disclosed without causing market impact costs.

This analysis also supports a \$1m threshold for the next 20 or so companies.

While ASX continues to support a \$500,000 bottom tier for all other entities, we are also generally sympathetic to ASIC considering a lower tier of \$200,000 for the smallest companies along similar conceptual lines. The current \$1 million threshold is a significant impediment (or in the case of small companies an effective prohibition) to block trades at the middle and bottom ends of the market.

As a practical matter, ASX notes ASX Trade is capable of handling up to three block trading thresholds but additional development would be required to introduce a fourth tier.

ASX supports an annual review of the level of off-market trading conducted using the block trading exemption to determine the impact of the chosen thresholds and to assess whether they need to be adjusted. We also support a stock transition regime (movements of securities between bands) that is tied to the quarterly index re-balance for the top two tiers and to the semi-annual ASX top 300 re-balance for the remaining tiers.

Portfolio and Facilitated Special Size Block Trades

ASIC is proposing to keep the existing thresholds contained in the ASX Operating Rules for these block trades for the purpose of exempting them from the pre-trade transparency obligation. ASX supports the continued ability to conduct such trades, away from the requirement for full pre-trade transparency, which has been a useful feature of the Australian market to date.

Pre-Trade Transparency Below Block Size

In CP145 ASIC indicates that it had considered limiting exemptions to the pre-trade transparency obligations to large orders and those conducted outside of normal trading hours. Such an approach would certainly be consistent with the primary argument advanced for allowing off-market trading, namely the market impact costs associated with large orders.

As noted above we believe the evidence shows that, at an aggregate level, there is a correlation between the level of off-market activity and the bid-ask spread (that is, as off-market trading decreases spreads are lower).

This suggests that further exemptions from the pre-trade transparency requirements, beyond those justified by means of the large order exemption, should only be considered where there are robust reasons.

Price Improvement Trades/Priority Crossings

ASIC indicated an interest in providing some scope for non-pre-trade transparent trading below block size but in larger than average size.

CP145 argued that the threshold for 'price improvement' trades needed to capture higher than average trade sizes, but be low enough so that trades that may have market impact have a choice of where to trade and also to ensure the existing proportion of pre-trade transparent trades does not decline significantly.

It is true that many dark pools use prices formed in the transparent market to directly determine prices on the dark pool (for example, mid-point match type price determination). As noted earlier, the price formation process in lit markets generally produces the most efficient price. There is a clear trade-off between allowing all investors to benefit from this price efficiency by requiring all trades below block size to be transacted on lit markets and the potential benefits in allowing some to benefit from this price formation but also potentially getting additional price improvement in the dark pool.

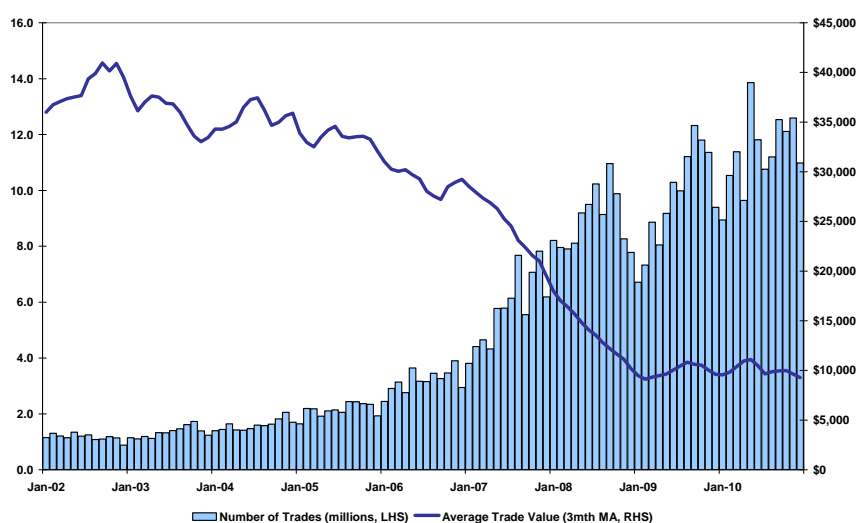
These market dynamics will differ across securities given the potential for price improvement. The risk associated with the loss of orders to dark pools are often directly related:

- in securities where liquidity is highest and spreads are the tightest, the potential price efficiency cost from loss of liquidity is lower and consequently the benefit of price improvement is also low; and
- in securities where liquidity is low and spreads are wide, the potential 'cost' is high from even a small loss of liquidity to dark pools but the potential private benefit of price improvement is also high creating significant incentives to shift order flow to dark pools.

A two-tier market, where a group of investors can profit from the activities of others (ie those who post limit orders in a lit market) and also gain an additional benefit through further price improvement must raise the question why anyone would have an incentive to expose their trading intentions through posting these limit orders in a lit book.

This implies that any ability to free ride on pre-trade price discovery and to impose externalities on others should only be allowed in limited circumstances. Investors should be rewarded for displaying liquidity by ensuring they do not effectively lose price-time priority to orders which are diverted to dark pools by the offer of price improvement.

Cash Equity Trading (Jan 2002-Dec 2010)



While ASIC has proposed doubling the average trade size for the purpose of determining a threshold for 'price improvement' trades we can see arguments for setting a higher threshold, at least for larger companies in which market liquidity is greater.

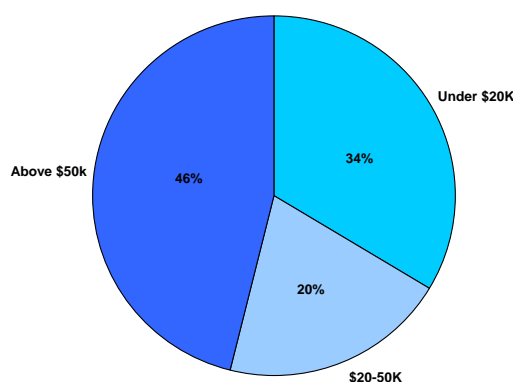
We believe that the data supports an initial conservative approach to setting the threshold, for example a higher (eg \$50,000) threshold for large companies (we suggest the same 12 companies subject to the top tier of the block crossing thresholds) – and can see arguments for applying that more broadly across all companies in the interests of both simplicity and because the natural tensions between private benefit and social cost are most evident at the lower end.

For the top twenty companies by market capitalisation the average trade size is between \$15,000-\$40,000, while this range declines to around \$2,000-5,000 for stocks that make up the Small Ordinaries Index.

ASX notes that ASIC originally considered setting the threshold at an across the board \$50,000 before eventually settling on the lower \$20,000 figure.

An examination of trade size across the market shows that, by value traded (and excluding block trades, ie those above \$1m), around 34% of trades are below \$20,000, 20% are between \$20-50,000 and 46% above \$50,000.

Proportion of Value Traded by Size (ex Block Crossings)

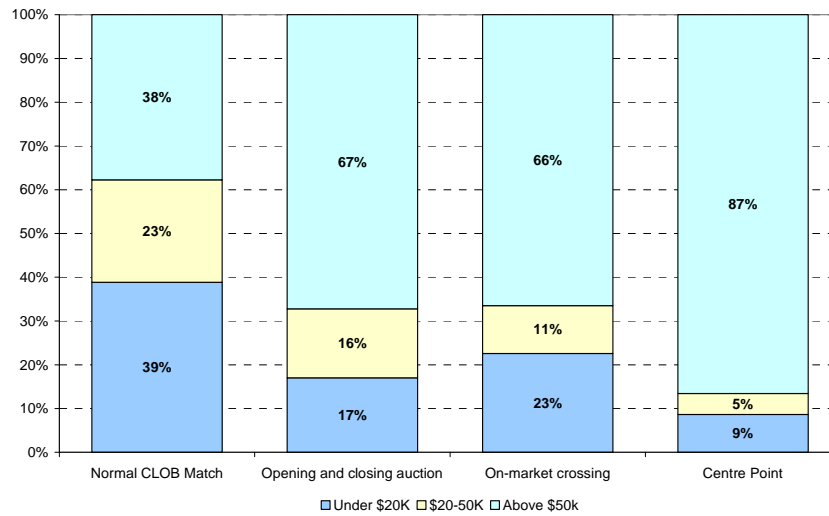


* Trade data for October 2010.

It is also worth noting that these proportions can vary across different trade types: the proportion of trading below \$20,000 is highest in normal trading at 39% reflecting the impact of algorithmic trading, through to around 22% for priority crossings, down to 8% for the new ASX Centre Point market.

In contrast around 38% of normal trading is in trade sizes above \$50,000 and 66% for priority crossings and 87% for the new Centre Point market.

Proportion of Value Traded by Size (by Market Segment*)

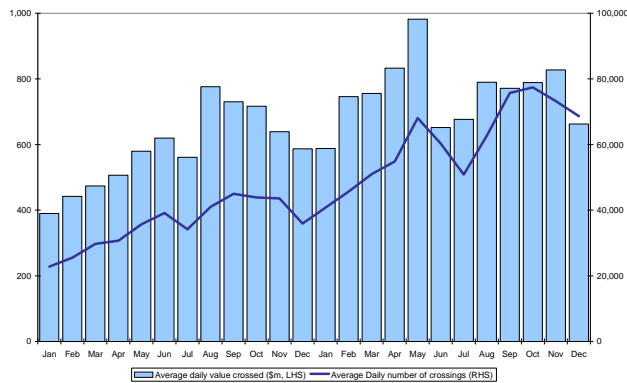


* Data for October 2010 across all listed entities, representing total trade values for normal CLOB trading (\$68bn), opening/closing auction (\$10bn), on-market crossing (\$17bn) and Centrepoint market (\$0.3bn).

Assuming no behavioural change as a result of the imposition of the new threshold, this would mean that around half of value traded would be available for price improvement. In practice, behaviour would actually change so the proportion would likely be higher.

Crossing Activity – January 2009 to December 2010

On-Market Crossings: Number and Value

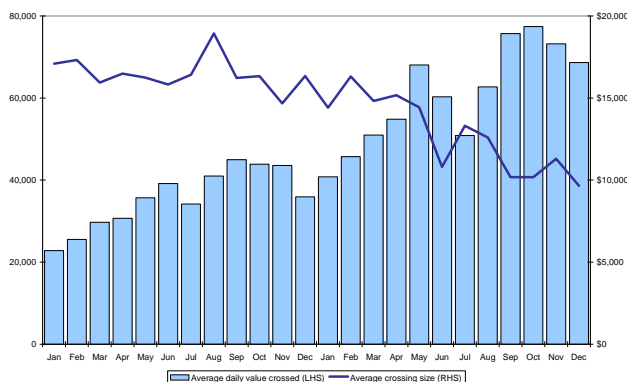


In the past two years both the number of priority crossings (crossing below the block special threshold) and the value of those crossings have trended upwards.

The number of priority crossings has trebled from around 20,000 to around 60,000 a day.

Over the same period the value crossed also trebled to \$600 million a day.

On-Market Crossings: Number and Average Value



The growth in these smaller size crossings has also been accompanied by a strong decline in the average size of such crossings. This decline occurred at a time when the average size of CLOB trades was relatively flat.

The average priority crossing value of \$10,000 is approaching the average trade size in the CLOB which, as previously discussed, has been driven in large part by algorithmic trading.

Given overseas experience of technology driving average order size in dark pools sharply lower (and a similar trend already happening in Australia), one risk of setting the threshold too low initially may be to create an incentive for a rapid pick-up in dark market activity. The free-rider effect is also likely to be higher where investors can see the prospect of price-improvement is available to a larger group of investors, so there is an incentive to make sure you take advantage yourself.

There is scope, with ASIC setting the thresholds for the impact of the threshold to be monitored, to see what effect it has and to allow ASIC to be flexible in adjusting it should the amount of dark pool trading or its impact on spreads become a cause for concern.

We consider a higher initial threshold is more appropriate for larger companies (say \$50,000), but that \$20,000 may be appropriate for other smaller companies. Protecting price discovery is important for all securities (not just the top ASX200) and less liquid securities are more likely to be subject to adverse price movements.

While a complicated tiered approach (reflecting liquidity and associated spreads) is theoretically possible, but would be problematic to implement. It is also worth noting that it is easier, for example, for an institutional investor to change their execution algorithm settings to get around the threshold by slicing large orders into fewer parcels of larger size than they currently do (in turn generating larger average trades). In contrast, retail investors have limited flexibility to increase their order size.

A higher threshold would also better reflect the level where market impact costs may begin to emerge for mid-small capitalisation stocks.

ASIC has correctly identified that this policy is about keeping lit markets liquid and maintaining the tightest possible bid-offer spreads. Achieving price improvement from a benchmark with a wider spread is a false economy.

Ensuring lit markets retain liquidity is likely to have positive flow-on effects given that more liquidity brought on-market is likely to attract order flow from algorithmic and high frequency traders. This will generate an additional network effect (i.e. liquidity begets liquidity) suggesting that more orders in the lit books will attract other orders, particularly as we would expect spreads to remain low or reduce further as a result of this measure.

ASIC asked if 'stub' orders that remain after partial execution of an unlit order and that fall below the threshold for transaction in an unlit market should be required to be routed to a pre-trade transparent market. ASX believes that such a stub order is effectively a new order that it should be displayed in a lit market. ASX already adopts this approach for VolumeMatch (purging orders once the 'stub' falls below the \$500,000 threshold) and undisclosed orders (stubs below \$500,000 become displayed).

We do not think there should be exceptions because this will significantly detract from the purpose of the minimum threshold. An order that has been partially filled is essentially a new order and should be treated as such.

ASX notes that the effect of the ASIC 'price improvement' threshold proposal is that priority crossings will no longer exist as a trade execution option on the ASX market as all small crossings would have to go through a lit market, and those above the threshold would not meet the price-improvement criteria. Even if priority crossings were considered to be 'partially transparent' orders they would not (as currently designed) meet the time-priority requirements for partially transparent orders entered on the CLOB as they 'jump the time queue'.

Centre Point Orders and Centre Point Crossings

The ASX Centre Point orders and Centre Point crossings will be effectively limited to 'trade sizes' above the proposed ASIC minimum threshold.

As noted previously, ASX accepts the arguments that orders below the minimum thresholds should be directed to a lit market – to maintain the efficiency of the price discovery process. Both order types will satisfy the need to provide price-improvement, as they are transacted at the midpoint of the best bid and offer on the ASX lit market.

Meaningful Price Improvement

ASIC asked whether price improvement for trades below block size should be required to be 'meaningful price improvement' given the gaming which occurs in the US with negligible price improvement offered to attract orders to dark pools.

ASX would agree that the price improvement exception should reflect 'meaningful' price improvement and that is best achieved by requiring a mid-point match arrangement.

Many price improvement venues around the world (including ASX's Centre Point market) already offer mid-point pricing. We think it is reasonable that both sides of the trade should share equally in any price improvements. This can be guaranteed by using a mid-point requirement.

We would be concerned if, for example, retail investors received a lower share of any price improvements relative to institutional customers on the other side of such trades. For example, there is nothing to stop a broker or other dark pool crossing between the best bid and offer with only a small proportion of the benefit going to the retail customer and the bulk to the institutional customer. At a minimum, we believe that any price improvement should be required to be shared equally between the buyer and seller.

It is also worth noting that a reduction in mandated tick sizes in the lit market would also offer the potential to deliver 'price improvement', at least for more liquid stocks which generally trade at the tightest spreads, when measured against a benchmark of existing prices – and this improvement would be available to all clients, not just to those trading in dark pools and free-riding off price formation in the lit market.

Dark Orders in Lit Markets

Partly Transparent/Iceberg Orders

ASX does not object to the concept ASIC proposes for partly disclosed orders. We do not think there should be an exception to the small trade threshold for partially transparent orders. That is, where there is an intermingling of transparent and non-transparent orders within a market, the former should always have time priority at the same price – to reward the contribution of these orders to price formation.

We note that the ASX Iceberg is not a 'partially transparent' order as it is only the displayed portion that can be immediately executed against. The ASX Iceberg is essentially a reload function for a larger parent order that has been broken down into a number of smaller orders. The smaller orders are all fully transparent pre-trade and so should not be affected by the small order threshold. That is, in a sense they are no different – in an execution sense – to a large order that has been sliced up by an algorithm or a broker for incremental execution in smaller pieces.

In each case there is a parent order that is non-transparent, for example it is hidden within the Iceberg order, it sits within an execution algorithm at a broker, or it is held within the internal order management system at a fund manager.

- As an example, a \$100,000 parent order can be broken down by an ASX Iceberg into ten \$10,000 orders. The first \$10,000 order displays both price and volume and behaves exactly like any other limit order in the book – *i.e.*, it starts at the back of the time queue at the order price and progresses through the time queue as executions at that price occur ahead of it.

- Once the first \$10,000 order is fully executed, the Iceberg reloads the second \$10,000 order at the back of the time queue and the cycle continues until the total parent order is depleted.
- Therefore the ASX Iceberg order simply automates the loading of the 10 x \$10k limit orders, which are all fully transparent and follow price-time priority.

Provided the orders that are routed to the market are fully displayed, there is no benefit in trying to force the parent order onto the market. In fact this would probably act against the policy intent ASIC is trying to achieve as brokers and investors would seek even darker mechanisms to avoid a detrimental application of transparency.

ASX Undisclosed orders

The ASX 'Undisclosed order' is a partially transparent order, in that the price is displayed but not the volume, with a minimum order size of \$500,000.

CP145 indicates that partially transparent orders cannot have time priority over fully displayed orders. We assume this means they cannot join the time queue at that price ahead of other limit orders that were in that queue before them.

We also assume that it does not mean that such an order cannot move up the time queue as its 'earns' time priority – otherwise these orders would never execute unless they moved up a price point, and only then as long as other orders joined them at that price.

Given this, we understand that the ASX Undisclosed orders as currently designed are not affected by ASIC's proposals.

Fully Undisclosed orders

We do not think fully anonymous orders (both price and volume hidden) should be allowed in lit order books unless they also provide price improvement. Fully anonymous orders (that do offer price improvement) that exist in a book with other displayed orders could introduce significant potential for gaming in that book, which is why ASX established Centre Point orders as an order type that does not interact with other orders in the central order book.

If ASIC was to allow fully anonymous orders in a lit order book to be treated in the same manner as displayed orders in that book, there would be several flow-on consequences. These include reduced incentive for market users to post limit orders, and a larger proportion of orders becoming fully undisclosed.

ASIC should not allow fully undisclosed orders in lit books. ASIC should only allow undisclosed orders that offer price improvement when they do not interact with the lit book.

Out of Hours Exception

ASIC propose that trades conducted outside of normal trading hours can be exempted from the pre-trade transparency requirements. For this purpose, normal opening hours would need to be defined as the earliest market opening and latest market closing time of any market.

ASX believes that this exemption should be available in circumstances where the market(s) to which a participant is connected is not open but other markets to which that particular participant is not connected are open for trading.

If fully automated systemic matching of orders outside of market hours starts to emerge, ASIC will have to reconsider this exception.

Pegged Orders

As noted previously pegged orders (for example mid-point match type execution) are readily able to utilise data to reference price their orders into the market of their choice. There are two related issues around reference pricing.

The first relates to what the reference price should be. Under the European MiFID framework, multi-lateral trading facilities (MTFs) are required to use reference data that is "widely published and is regarded generally by market participants as a reliable reference price". This is commonly interpreted as referring to the primary market of the stock traded, but following guidance from the Committee of European Securities Regulator, dark pools can either use data from the security's home market or a consolidated best bid-offer.

We believe a similar approach would be appropriate in Australia. A participant remains bound by the best execution requirements so if a better price is generally available on another market then they would be obliged to route the order to that market.

Users should be able to 'peg' to any consolidated data source. Although we note that users would still be subject the requirement to have the appropriate data licences from the data originator, to enable them to use the data for a commercial purpose.

Other Measures to Minimise the Shift to Dark Pools

ASIC has asked whether re-introduction of the ten second rule for on-market crossings on ASX (as used to apply to ASX priority crossings) should be considered. We note that ASX priority crossings will no longer be available under the proposed new rules unless they meet the dollar thresholds in the new rules. The reason ASX chose to drop the ten second requirement from its current rules is its potential interference with algorithmic trading and, for that reason, ASX would not support its reintroduction.

Algorithmic trading is generally conducted through fully transparent markets and its growth in Australia has coincided with a significant decline in bid-ask spreads ASX would therefore argue that it is price discovery friendly. We think the benefit of having in place a ten second rule (less trading in dark versus lit venues), would be outweighed by the detriment it would cause (reduced execution algorithmic trading in the lit books).

Other Issues

The ASIC exceptions to pre-trade transparency requirements do not appear to capture all existing ASX permitted crossings, specifically: Index Replicating Special Crossings, ETF Special Trades, Underwriting Disposal Special Crossings, Exchange Approved Special Crossings and Completion of Order Special Crossings.

While some of these crossing order types are rarely used, it is unclear if the absence of an exemption for these crossing types may impede legitimate off-market transactions. We suggest that ASIC may wish to consult with participants about whether these order types remain useful and whether the removal of an exemption for them would impede legitimate transactions.

How Achievable is Implementation of the Proposal in Terms of Timing (and Costs)?

ASX would need system change (development and testing) to:

- remove/modify the existing priority crossing functionality in ASX Trade;
- set minimum levels for Centre Point orders and Centre Point crossings to reflect the new threshold(s) and, depending on the decisions about reference prices, possibly to ensure those orders offer price improvement to anything other than the prices in ASX TradeMatch (eg a national best bid-offer); and

- implement any more than three tiers for reporting of block trades into ASX Trade.

7. Content of Pre-Trade and Post-Trade Transparency

Overview of ASX Position

ASX believes ASIC has a key role in setting the rules to protect the integrity of market data – both pre and post-trade data – and that these rules are integral to the efficient operation of the equity market in all of its lit and dark structures. This function is critical to ensure that fragmentation of trading activity does not lead to a deterioration in the quality of data available to assist price formation given the important economic role that efficient price signals play.

We support the broad framework ASIC is proposing to govern both pre and post-trade data provision. We note it largely ensures the continuation of current arrangements with which all investors are familiar, and which have facilitated efficient market trading. ASIC can overcome the potential problems associated with multiple markets reporting data, and create a reliable and efficient system for tracking trade flow, by adopting a variation of ASX's trade reporting rule, with common and enforceable minimum standards to minimise regulatory arbitrage.

We support ASIC's position that all post-trade data (including those trades executed on broker operated dark pools) must be reported immediately, except in limited circumstances where some limited deferral may be available. Given the requirements are largely based on existing market practice this would provide continuity for participants and other users of market data.

It is important to acknowledge that while creating a reliable and consistent source of information across markets is an important pre-requisite for market data, different investors will continue to have different data needs, in terms of the scope and timeliness of pre-trade and post-trade data, to underpin their investment and trade execution needs. Any framework for market data provision needs to provide flexibility for data products to emerge that meet the needs of each investor segment.

We recommend that ASIC review its proposed rules in relation to pre-trade information for quote-driven markets. There is no commentary in CP145 which explains the rationale behind all of ASIC's draft rules, particularly the rationale for requiring market makers to be individually identified.

Discussion

ASX currently determines what pre and post-trade information is released to the market, and (in the case of post-trade data) when it is made available. If there are multiple operators, there should be a common and enforceable minimum standard determined by the regulator to minimise regulatory arbitrage and to maintain the reputation of Australia's markets as transparent and efficient.

Most problems in market data that have emerged overseas have related to post-trade data, which includes information from both lit and dark markets – and it is the latter that have caused most difficulties. Pre and post-trade data from lit venues are generally reliably produced on a consistent basis across those venues.

There is a need to avoid the short-comings of overseas regimes (for example in Europe the proliferation of OTC post-trade reporting facilities) where regulatory loopholes have been exploited resulting in proliferation of quasi-regulated venues whose transactions are not accurately captured by post-trade reporting rules.

Overseas experience, particularly in Europe, indicates the need to have common reporting standards to facilitate the integrity of data consolidation and reporting or else there is a strong risk that the search costs of piecing together fragmented and inconsistent data can make it difficult (if not impossible) for investors and regulators to get a clear picture of secondary market trading.

Consistent standards of reporting will assist price formation by ensuring the information associated with pre and post-trade transparency is immediately and clearly transmitted to the market to enable investors to make informed investment decisions and will ensure that participants have the capacity to meet their best execution obligations.

ASX supports this regulatory objective. ASIC rules are necessary to establish common and enforceable minimum standards to ensure that accurate and relevant post-trade data from all sources is provided in a common format so it can be consolidated and disseminated generally by an information vendor in a timely manner and on a reasonable and non-discriminatory commercial basis.

Pre-Trade Transparency

Pre-trade transparency includes making available accurate information on the price and volumes of prospective trades including resting limit orders.

ASX agrees with ASIC that for order driven markets a depth of market approach is appropriate, with publication of aggregate numbers and volumes of orders at each price level.

As noted earlier, it is important to appreciate that different users may require different pre-trade information on which to base trade execution decisions, in terms of the level of detail required, the latency of data, and cost of that data. For example, the needs of HFT and retail customers will be markedly different. Setting minimum and consistent standards for the creation of data by licensed markets helps facilitate the production of innovative and flexible data products designed to meet the needs of each investor segment.

We note that ASX already provides such level of detail on pre-trade orders through its various data products and believes that it is effective in supporting an efficient trading environment. We support other lit market operators also being required to make available full depth and details of order book data, not just top of order book data. Such detail is important for participants to be able to satisfy their best execution obligations.

For quote driven markets, ASIC proposes the current best bid-offer of each market maker and volume at those prices, where such commitments are binding, should be displayed. We question the rationale for requiring that all market makers (and their quotes) to be individually identified, particularly in the context of the anonymity of participants that has become the norm in the order driven market.

We note that the ASX markets that operate with market makers (eg options, warrants, AQUA) should be considered as order driven markets and not quote driven markets for the purpose of these pre-trade transparency obligations. Markets makers in these products are liquidity providers but the markets are designed such that client orders can interact with other orders entered into the order book with no special rights afforded to the market maker as is the case in quote driven markets.

ASIC indicates in CP145 that the proposed data fields to be reported on a continuous real-time basis by operators of lit markets for pre-trade purposes are broadly consistent with existing information published by ASX. The additional fields required: currency (when not denominated in AUD), execution venue; and special market code to describe an order in a special market [eg cum special or ex special market] appear sensible but will require changes to ASX's trading system to implement.

Post-Trade Transparency

Reliable and timely post-trade information is critical, both in terms of assisting investors to make informed investment decision by providing an accurate historical record of price movements and volume traded in particular securities and assisting investors/participants in making decisions about the choice of trade execution venue.

ASIC indicates that broadly the same post-trade information that is currently being reported is being continued. One difference it notes is that the time stamp for off-order book trades should reflect the time of execution as well as the time of reporting (where they are different).

ASX agrees that post-trade data should be provided free of charge after a short period and we have traditionally made such information available with a 20 minute delay. Such arrangements are of particular benefit to retail investors as it has enabled historical daily information on individual securities to be made widely available on a number of public websites and market information vendors.

ASX supports ASIC's adoption of a variation of ASX's trade reporting rule which basically requires that all trades (including those on broker operated dark pools) must be reported immediately except in particular circumstances where some limited deferral may be available:

- facilitated principal transactions that are large in size (based on a existing ASX categories and size requirements); or
- trades outside normal trading hours – where reporting must occur at least 15 mins prior to the commencement of trading on any market the next day.

However, ASX believes that this latter requirement should be adjusted such that the timing for reporting of trades outside of normal hours should refer to normal trading hours of market(s) for which the participant is connected. In this regard, it is possible that different market operators will have different normal opening hours and different hours for reporting after-hours trades. Depending on arrangements for opening hours of trading/reporting a participant should not be required to join a market just to satisfy the after-hours reporting requirement.

ASIC asks in CP145 if there is value in publicly disclosing whether a trade was: an agency or principal trade; generated by a dark order; generated by an algorithm; or conducted on a crossing system and should be uniquely identified on post-trade publications to assist market participants find liquidity?

ASX does not have a strong view on these issues, as it is largely for investors to determine whether publication of such information would assist them in making investment and trade execution decisions. For our part, it isn't clear that this information would add to the price discovery process but it is clear that it would impose additional systems costs to collect and publish. We note that ASIC may also require such information to be collected on order records for surveillance purposes (see discussion below).

ASX would also note that one of the short-comings of overseas regimes has been the exploitation of regulatory loopholes, resulting in proliferation of quasi-regulated venues whose transactions are not accurately captured by post-trade reporting rules. ASIC can overcome these problems, and create a reliable and efficient system for tracking trade flow, by requiring market operator licensing of these venues.

As a practical matter in respect of reporting required by market operators in respect of dark pools operated by them, we note draft MIR H(4)(2)(b) appears to require information that would not be within the knowledge of market operators unless participants accessing the dark pools identified with each order the number of Australian clients on behalf of which orders were entered into that execution venue. Corresponding obligations would need to be imposed on participants to identify that information (either by ASIC or the market operator). A market operator however will not know if the information provided to it by participants meets this test, but should be able to rely on any information provided to it.

Post-Trade Transparency: Activities Not Reported

ASIC identifies particular securities related activities that don't need to be reported as part of the post-trade reporting requirements:

- Passing of an order – a reporting requirement is only triggered when a trade is executed, not when it passes through a chain of intermediaries;
- Primary market transaction (e.g. allotment of a capital raising, etc); and
- Stock lending or borrowing (which may or may not eventually result in a trade execution). Note reporting of securities lending/borrowing activities are already captured by other regulatory requirements.

ASIC's objective in setting these exemptions appears to be only to capture true secondary market activity and exclude intermediary transactions (to avoid potential double counting) which could otherwise provide a false sense of the volume of trading.

ASX supports the proposed ASIC exemptions and agrees that clearly defining reporting requirements (ie the type of activities to be reported) are important to ensure the integrity of the reporting system.

However ASX seeks clarification that these requirements do not have an unintended consequence of removing other reporting exemptions currently available through the ASX operating rules directed at excluding certain wholesale trades from coverage by the NGF.

The Corporations Law has traditionally left it to the market licensee to determine what 'reportable transactions' are and therefore those transactions which obtain the benefit of NGF cover. That is, the definition of 'reportable transaction' in Corporation Act Regulation 7.5.01¹⁴ envisages that a market licensee will decide what is reportable for the purposes of invoking NGF protection.

This has enabled certain wholesale transactions, such as ETF Special Trades and transactions in Wholesale Loan Securities, to be excluded from NGF coverage through the ASX operating rules. We have dealt with this in the ASX rules by requiring those transactions to be 'notified' to ASX as opposed to 'reported'. This helps to protect the NGF from claims related to these types of trades (which are mostly, if not exclusively, undertaken by wholesale investors) and thereby boosts the level of protection the NGF affords to retail investors.

Implementation

Where additional fields are to be required to be included in pre and post-trade reporting there will be systems changes required by the market operator and market participants/independent trading software vendors.

¹⁴ *reportable transaction* means a transaction that is entered into before or after the commencement of this Part in relation to securities, and:

- (a) is or has at any time been a sale or purchase, by a participant (the *first dealer*) of a participating market licensee, of securities, if the securities are quoted on a financial market of a participating market licensee when the agreement for the sale or purchase is made, and:
- (i) in any case -- the participating market licensee's operating rules, as in force when the agreement for the sale or purchase is made, require the first dealer to report the sale or purchase to the participating market licensee; or
 - (ii) if the sale or purchase is to or from, as the case may be, a participant (the *second dealer*) of a participating market licensee -- the last-mentioned participating market licensee's operating rules, as in force when the agreement for the sale or purchase is made, require the second dealer to report to the last-mentioned participating market licensee the purchase or sale of the securities by the second dealer from or to, as the case may be, the first dealer.

8. Consolidation of Trade Information

Overview of ASX Position

ASX does not support the proposed mandatory consolidated tape comprising both pre-trade information (including depth data) and post-trade information. The proposal takes experience from overseas markets and applies it in Australia without regard to the Australian context and without considering other more appropriate responses – e.g. imposing appropriate regulatory and reporting standards for OTC trades.

ASIC has not presented any evidence of market failure in Australia that would warrant regulatory intervention in the form of a mandatory consolidated tape or price controls for provision of market information. ASIC's proposal would potentially stifle innovation in market information products by market operators and information vendors and would likely result in unintended consequences.

CP145 incorrectly posits that market information is a public good. ASX strongly rejects this proposition. There is considerable effort and investment in producing market information.

ASX fully supports ASIC's ability to conduct whole-of-market surveillance and acknowledges its need for access to pre-and post-trade information across all markets. However, this is a separate consideration and should not be confused with public information usage. A regulatory data feed for ASIC purposes can be achieved with market operators providing data as requested by ASIC, either to ASIC directly or to an entity acting on behalf of ASIC for the purposes of regulatory consolidation.

Discussion

Regulations must be appropriately widely cast to meet the regulatory objectives and to prevent regulatory arbitrage. However, regulation should also be the minimal needed to meet those objectives. Excessive or inappropriate regulation may unnecessarily constrain market behaviour, create inappropriate incentives or impose unnecessary costs or have unintended consequences on the market.

One of the many challenges in achieving this balancing act is to ensure that all relevant regulatory objectives are clearly articulated and that rules are not imposed unless they assist in meeting those objectives with minimal unwanted side-effects. ASX is not convinced that the consolidated tape proposals in CP145 meet these basic principles of good regulation.

Public Information

In the current regulatory environment, ASX is the sole creator of quote data and consolidates its own lit and dark post-trade information with OTC post-trade information. In other words, ASX effectively performs the role of market information consolidator. The Government has indicated that additional Australian Market Operator licences will be issued in the near future. In a multi-platform market, the issue arises as to whether, and if so how, consolidated market information should be made available to the market and to the market supervisor (ASIC).

This is a question of market design for market information services, including identifying the proper place for market forces and the proper shape of any regulatory intervention in the market to address market failure.

While it is not labelled as such, CP145 suggests that ASIC has identified and intends to address a potential market failure in relation to pre- and post-trade information in a multi-market environment, being the risk that fragmentation of trading information across markets may hinder price formation *if a consolidated view of pricing is not easily available*.¹⁵ In other words, ASIC has assumed a failure by the market to provide consolidated market information for market users which is easily available, without presenting any evidence of this failure.

¹⁵ CP145, para 377.

ASX agrees that in a fragmented market environment, investors require information to be brought together in a way that allows comparison of prices across different venues. However there is currently no factual basis for concerns that Australian market users will be unable to obtain consolidated trade information 'easily'. ASX's view is based on the existence of multiple information vendors operating in a competitive environment, each with existing distribution arrangements in place, coupled with the limited nature of the anticipated change to the existing market data arrangements (moving from one lit venue to two or three lit venues, while maintaining the status quo for dark pool reporting via a lit venue).

ASX submits that the greater risk of a possible market failure in relation to fragmented trade information is the risk of a reduction in the standard of market data quality and integrity. These are necessary qualities for market confidence, efficiency and integrity. As evidenced in the US, if there is a sole information consolidator who has not kept pace with technological advancements, and does not meet the needs of market users, then those users will rely on other information sources, making the consolidated feed redundant. As evidenced in Europe, if consolidated information contains individual data points that are considered to be unreliable or lacking in integrity, perhaps due to double reporting, then market users may lose confidence in the usefulness of reported information as a whole.

We submit that this potential market failure of quality and integrity should be addressed by ASIC setting standards, and ASX is accordingly supportive of the measures proposed by ASIC in relation to pre-and post-trade reporting discussed in the section above. ASX supports ASIC's proposed reporting measures because we believe they are an appropriately tailored form of regulatory intervention and will be effective in achieving the regulatory objectives of maintaining high standards of information quality and integrity.

Australian and overseas experience suggests that lit venues (i.e. regulated markets) consistently produce high quality pre and post-trade information. A key issue for ASIC will be to ensure that any unregulated trade venues produce equally high quality and timely post-trade data. The risk is that incorporation of lower quality information from OTC venues may diminish the overall value of any consolidated data product. This is a further reason for the Government to require all internalisers and operators of dark pools to be regulated as market operators.

ASIC Supervisory Data

To effectively undertake its surveillance activities, and maintain market confidence and market integrity, ASIC will require a real-time consolidated view of market activity in both lit markets and dark pools. The content of this feed is distinct from any public market feed – i.e. it would include public and private information, rather than just public information. ASIC has indicated that its preference is that a third party provide this information to ASIC, rather than ASIC consolidate the information for its own use.

The requirements of consolidation for ASIC surveillance purposes and the information used by the public should not be in anyway confused, inter-dependent or linked. ASX will make available to ASIC or to a regulatory data consolidator acting on ASIC's behalf, any information that is required by ASIC to perform its supervisory functions. This will be a continuation of the current arrangements.

Regulatory Objectives to be Achieved

Perhaps because CP145 did not identify a market failure in respect of information consolidation that requires regulatory intervention, it also did not contain a clear articulation of the regulatory objectives to be achieved through consolidation of trading information. Market outcomes, when they work, should be preferred because the price mechanism is an efficient means of managing the required coordination process.

ASIC does identify several benefits of a quote tape (pre-trade data) and a consolidated tape (post-trade data), and ASX does not dispute any of these. However, we strongly disagree with the assumption in CP145 that there is a need for a regulatory outcome to achieve technical consolidation of market

information. In other words, the benefits of consolidation will be achieved without regulatory intervention. The risk of a consolidated tape disrupting existing commercial arrangements is high.

ASIC has identified a number of things that a consolidated tape would facilitate. These benefits are in some instances (for example, the facilitation of best execution monitoring) merely a restatement of the benefits of a consolidated tape, without the identification of how the regulation should achieve that end or whether it will achieve it more effectively than market (competitive) forces.

It is unclear whether ASIC considers that all the 'benefits' associated with a consolidated tape are regulatory objectives. It would be helpful in assessing ASIC's proposal if there was a clear statement of the relevant regulatory objectives. ASX submits that ASIC should focus on that which is minimally required to meet the regulatory objectives (once these have been articulated).

As stated above, ASX submits that the relevant regulatory objectives in relation to market information in a fragmented market place are that market information as a whole is of high quality and integrity. ASX therefore places a strong emphasis on ASIC's role in setting pre-trade and post-trade reporting standards.

In the absence of a market failure in the areas listed below (and no evidence has been presented to suggest that such a market failure exists), the following are not appropriate regulatory objectives or outcomes:

- Market information price control so as to interfere with competitive market forces;
- Disruption of contractual and commercial arrangement currently in place; and
- Mandated product design or product unbundling.

Further discussion of these inappropriate and unwanted outcomes is set out below.

Appropriately Tailored Regulation

ASX submits that the proposals in CP145 in relation to information consolidation do not reflect generally accepted principles of good regulation. That is, the proposals are not appropriately tailored in a manner to ensure that the regulation does not exceed that which is required to achieve clearly articulated regulatory objectives.

In the Australian Government's Office of Best Practice Regulation Best Practice Regulation Handbook. Hon Lindsay Tanner MP writes in the Foreword to that document:

"Well designed regulation has a vital role to play in overcoming some of the problems that lead to inefficient or inequitable market outcomes. However, 'well designed' is an important qualifier. Poorly designed regulation may not achieve its objectives and can impose costs on businesses and the community more broadly."

The Wallis Report findings state:

"One of the most complex issues facing governments is identifying the appropriate level and form of intervention. Regulatory efficiency is a significant factor in the overall performance of the economy. Inefficiency ultimately imposes costs on the community through higher taxes and charges, poor service, uncompetitive pricing or slower economic growth.

The best way to control the costs and to ensure the effectiveness of regulation is to place it within a consistent framework. To do this, it is necessary to establish clearly what needs to be regulated and why, as well as to define the principles for effective and efficient regulation."¹⁶

¹⁶ Financial System Inquiry, Final Report ("Wallis Report"), March 1997, pg. 177.

Lack of clarity around the likely market failure and the Government's regulatory objectives in turn means that there is a range of vaguely expressed proposals in relation to information consolidation.

Pre- and Post-Trade Information

CP145 defines the consolidated tape as a source of pre-trade and post-trade information. We note that in other jurisdictions pre-trade information from multiple sources is typically referred to as the best bid and offer (BBO) or quote tape, whereas post-trade information from multiple sources is typically referred to as a consolidated tape.

Pre-Trade Information

By definition, *pre-trade information* is only fragmented across the lit venues of licensed market operators. ASIC rules around pre-trade transparency, tick sizes, common participant ID, synchronised time stamps etc will mean that in effect, ASIC is prescribing the relevant content and standards in relation to pre-trade information consolidation. Information vendors will be expected to technically consolidate (a task they have committed to doing) and distribute the information (a task they already do).

ASX submits that demand for pre-trade information from market users will mean that information vendors have an incentive to both consolidate and distribute consolidated pre-trade information. In other words, notwithstanding fragmentation, participants will continue to obtain the information they need from information vendors to achieve their execution strategies as occurs at present. We submit that there is currently no evidence to suggest that existing market forces and incentives will not result in consolidation in an efficient, effective and timely manner without the need for regulatory intervention.

ASX notes ASIC's acknowledgement that ASX has undertaken the role of market information consolidator to date. ASX is currently exploring the possibility of continuing to undertake the role of consolidator if the regulatory framework permits this. ASIC's proposed Rules in relation to pre-and post-trade reporting, which are generally supported by ASX, will provide the necessary information needed by entities to produce a combined information feed, and will provide a benchmark against which users of the combined feed can assess the quality of the information that they receive.

We note and agree with ASIC's assumption that there are likely to be only a very small number of lit market venues (i.e. operated by ASX and Chi-X in the first instance).

Post-Trade Information

Consolidation of *post-trade information* will help market users assess execution quality, determine whether they have achieved best execution, and assess the value of their share portfolio. Unlike pre-trade information, consolidated post-trade information will be sourced from both lit and dark venues. However, ASIC has proposed that dark venues report in the first instance to a lit venue, being a continuation of the current arrangements. In the event that the Government continues to allow the dark venues to operate outside the market operator licensing regime, ASX supports the requirement that reporting should occur via a licensed venue. Reasons are set out earlier in this paper, but include ensuring consistency of compensation scheme arrangements which will benefit retail investors.

A key problem encountered in Europe has been the lack of integrity and transparency of post-trade information as a result of poor reporting standards for off-market transactions.¹⁷ There are differences between the structure and size of the European and Australian markets which are important factors in assessing the likelihood of the market failure in Europe translating to Australia. First, in Europe there are around 50-venues across several countries all providing post-trade information. Secondly, there is no requirement to be licensed, or to report this data to a licensed market operator equivalent, meaning that information vendors must source information from a large number of off-market trading venues, across

¹⁷ European Commission, Review of the Markets in Financial Instruments Directive (MiFID) at http://ec.europa.eu/internal_market/consultations/docs/2010/mifid/consultation_paper_en.pdf

multiple countries. Finally, and perhaps most significantly, there have been no clear rules around the content or reporting of off-market trading information (although the introduction of rules is imminent). The first two points will not apply to the Australian situation because there are fewer venues here. ASIC has addressed the last point in its proposed Market Integrity Rules both around the content of post-trade reporting. This is a significant proposal and is supported by ASX. It will help Australia to avoid some of the major pitfalls around post-trade consolidation experienced in Europe.

ASX currently makes post-trade information publicly available for free on a 20-minute delayed basis. This information can be used by investors for monitoring the value of their portfolio, or in considering their capital allocation in making investment decisions. At this stage, and subject to regulatory intervention by ASIC, it is ASX's intention to continue to make this information available on the same terms and in the same manner as at present.

Summary

ASX currently performs the role of consolidating off-market trade information and lit market information, and is exploring the possibility of continuing to do so in the future. ASIC has proposed Market Integrity Rules around the content of pre- and post-trade reporting which are intended to ensure that information is of high quality and integrity.

ASX submits that there is currently no factual basis to conclude that both pre- and post-trade information consolidation will not occur in an efficient, effective and timely manner without the need for regulatory intervention beyond ASIC's proposed rules around information reporting requirements.

If necessary, based on changes to the market or evidence of market failure, ASIC can set further requirements around the reporting, content or compilation of trade information. This will help to further the regulatory objectives of information that is of high quality and integrity.

Information Usage

One of the (presumably) unintended consequences of ASIC's proposal is that the consolidated information, as envisaged, could be used for commercial purposes to the detriment of the market operator that has invested in the capability to provide and supply the information. A consolidated tape should not undermine the ability of the market operator to contract with information users in relation to the permitted uses of information contained within any consolidated feed. Such uses may include creating products that reference price information sourced from the market operator.

Any interference in the ability of a market operator to shape its contractual and commercial relationships, including its ability to exclude or impose restrictions on use of information or its pricing decisions, is an unwarranted regulatory interference which will impact existing commercial arrangements and potentially distort incentives across a range of investment, product development and other activities.

Consolidated information should only be used for the purposes that have been agreed (i.e. contracted / licensed) between the end user and the market operator (information provider). These purposes will vary, depending on the nature of the users. For example, proper purposes for the use of market information that could be the subject of a contract between the market operator and the end user could include:

- to inform trading decisions,
- to inform investment decisions,
- regulate or supervise trading or related activity,

- to create a commercial product or information offering that is derived from the value of trades disclosed (e.g. VWAP prices and orders, market on open orders, market on close orders, indices),
- to create derivative financial products (i.e. CFDs, single stock futures, etc).

We assume that it is not ASIC's intention to undermine legitimate commercial information provision by market operators. However, on one interpretation, the proposed consolidation of pre-trade and post-trade information as described in CP145 could have considerable implications for ASX's current information offering.

Information Fees

ASIC has only made a number of general observations about pricing:

- ASIC considers that all pricing should be reasonable and non-discriminatory.¹⁸
- In order to be able to charge a reasonable price for the consolidated information, consolidators should be able to obtain trade information from market operators at a reasonable cost or at no cost, and on reasonable terms.¹⁹
- ASIC poses the question: Should market operators be able to profit from providing information to consolidators or should market operators be obligated to provide their most socially valuable information, such as top five best bids and offers, for no fee at no cost?
- ASIC states that the obligation of market operators to provide information at reasonable cost or at no cost, and on reasonable terms, would only relate to information provided to ASIC-approved consolidated tape providers in their capacity providing the top five bids and offers per product and all post-trade information. Market operators may negotiate different agreements to provide information for other uses.²⁰
- ASIC considers that consolidated tape providers should provide the top five bids and offers per product and all post-trade information on an unbundled basis. However, they could offer additional services separately.²¹

ASX submits there are a number of deficiencies in these comments.

The most important is an apparent assumption that information is a public good. There are a number of times that ASIC suggests that the information should be provided to consolidators at 'no cost' or a 'reasonable cost'. There is reference to 'socially valuable information'.

A pure public good has features of non-excludability (if the good is supplied no consumer can be excluded) and non-rivalry (consumption of the good by one consumer does not reduce the quantity available for another). Public goods do not conform to the conditions necessary for a competitive market, as the wrong incentives are given to consumers and producers.²²

However, it should neither be assumed that the information the subject of the Consultation Paper is a public good nor that the consequence is public price regulation.

Market information is not a pure public good, as it can be excludable by appropriate contractual restrictions and the enforcement of copyright.

¹⁸ ASIC CP145 at p 136.

¹⁹ ASIC CP145 at p.141.

²⁰ ASIC CP145 at p 136.

²¹ ASIC CP145 at p 136.

²² Richard Cornes & Todd Sandler, *The Theory of Externalities, Public Goods and Club Goods* (Cambridge University Press, Cambridge, 2nd ed, 1996); Jean Hindriks & Gareth Myles, *Intermediate Public Economics* (MIT Press, Cambridge, Mass, 2006).

Price regulation will affect market incentives, investments and product development. It should only be pursued in the clearest of circumstances requiring regulation of the market.

The price that is paid for information should be a market price. ASIC provides no definition or metrics to define a 'reasonable price'. A 'reasonable' price is not a 'low' price. It is one that provides a commercial return to those producing the information, that is, a market-based price.

Price regulation should not be justified by reference to the very structure of consolidation implemented. ASIC gives no justification for the statement that the consolidator should be able to charge a 'reasonable' price (suggesting no or low prices) for the consolidated information. The consolidator should charge a market-based price for the information. If it is not able to do so, it is not the function of the market operators to subsidise the consolidator. That is neither efficient nor competitive.

Any proposal which does not provide a commercial return to market operators raises significant issues and uncertainty in relation to the basis for making investment and undertaking product development.

Building on the comments made above in relation to usage of information, ASX submits that access costs for provision of information should not be confused with Licence Royalties payable to a market operator by information users. Market Integrity Rules should not remove or undermine the market operator's ability to licence the use of its information to end users.

Information Delivery

ASIC has identified a number of different options with respect to the provision of consolidated information. As stated above, ASX does not support any of these options on the basis that there is insufficient evidence of market failure to justify regulatory intervention, and there may be unintended consequences stemming from that intervention.

ASX submits that regulation should not create new sources of market power, and that ASIC should adopt an approach which is the least restrictive of competition. Any market operator should be able to be a consolidator.

A key risk that we associate with mandatory consideration of information consolidation is the stifling of innovation (and competition that would otherwise occur) in relation to information provision. This is particularly the case if the scope of the consolidated tape was not minimised to achieve the regulatory objectives. Innovation can result in new delivery methods and may reduce latency, jitter (ie volatility in latency), or other aspects of information delivery that are valued by the end user, noting that end user needs are likely to continue to develop and change over time. We are not convinced that anyone, including ASIC, possesses the relevant skill set to 'pick winners' in advance in the context of appointing a consolidator(s), and submit that it should be left to the market.

If ASIC was to mandate the consolidated content, the compilation approach and a single consolidator, the risk of dampening significant technical innovation in terms of the delivery and quality of the consolidated tape is tangible. We refer to the US as our example here, where innovation in information provision has occurred in non-consolidated tape products. The consolidated tape is rarely used by market users because the latency is significantly higher than direct feeds. The US system is also predicated on best execution and order protection obligations which are different to those proposed by ASIC for the Australian market.

Innovation in information provision is important because the price formation process results in prices that are relied upon by market users and others for a range of purposes including capital raising, transacting, managing risk, financial planning, forecasting and trend analysis. Over time, the profile and/or needs of information users will change. This is positive; and innovation in the provision of information will contribute to broader market efficiencies and to meeting the changing needs and profile of information users. Innovation will also contribute to lower information costs.

Other Comments

Draft MIR J1-1 requires a market participant to ensure that all post-trade information is complete and accurate. A market operator will not know if the information provided to it by participants meets this test and accordingly should be able to rely on any information provided to it.

Summary

The problems associated with fragmentation of post-trade information, being information derived from both lit and dark pools can be mitigated with minimal unwanted side effects in a model where:

- Information processors (i.e. vendors and market operators) provide a technical solution to fragmentation of pre- and post-trade information; i.e. to consolidate information feeds from market operators and distribute this information according to the reporting rules that ASIC has proposed.
- Users of information obtained from any vendor would continue to be contractually bound to use the information in accordance with any terms and conditions and fees payable to the market operators that have provided the information.
- The information consolidators are primarily information processors or functional intermediaries. The consolidator does not, by virtue of the consolidation role, obtain any rights to licence or on-sell the consolidated information other than in accordance with the terms of the commercial agreements entered into between the market operator and the information user.

Implementation

A cost-benefit analysis of the proposal in CP145 must be undertaken. The analysis ought to be wholly forward looking to demonstrate the causal link in achieving the regulatory objective.²³

As proposed, ASIC's model will have significant implications for ASX. These implications include:

- Disruption to existing contractual and commercial arrangements;
- Time and cost for relevant consolidator model to be chosen by ASIC, including hidden costs associated with ASIC's ability to 'pick winners';
- Time and cost for each market operator to negotiate and enter into relevant agreements with information users;
- Time and cost for the distribution of revenue from the consolidated tape to be negotiated by providers; and
- Time and cost to facilitate the relevant connections to provide the information (to the extent that such connections do not already exist).

9. Market Integrity Measures

INFORMATION TO ASSIST WITH ASIC SURVEILLANCE

Overview of ASX Position

ASX agrees that establishing a comprehensive framework for capturing real-time client and origin-of-order information will involve a range of issues and complexities and likely involve significant time, effort

²³ Australian Government *Best Practice Regulation Handbook* (June 2010), p.75.

and expense to implement. This will require significant stakeholder engagement to assess the cost and benefits of different options for delivering a solution over the medium term.

While it may be possible to put in place some interim measures to improve access to real-time information in a shorter period of time, the benefits of such an approach need to be weighed against the potential investment of time and resources to deliver an outcome that may only be in place for a relatively short period of time.

Any interim measures should be clearly targeted at activities and investor groups identified as being a particular risk to market integrity.

Discussion

ASIC has indicated that access to broader real-time client data would enhance its ability to monitor the market particularly as the market evolves and the use of new, complex, and rapid-fire trading strategies grows.

No particular deficiencies have been identified with the existing system which operates in Australia, which requires participants to maintain transactional records for a period of seven years identifying clients and being required to provide this information to the regulator on demand. However, it is timely to consider whether changes in the nature of secondary market trading require new surveillance tools.

ASIC having real-time visibility of clients on all orders and trade reports would be likely to speed up the identification of suspicious activity and subsequent enforcement action.

While the proposals may speed up investigation and enforcement actions it is less clear that the benefits (in terms of increased market confidence) of this outweigh the potential cost of a complex and all-encompassing solution where the costs will ultimately be borne by end investors.

We agree with ASIC that the best way forward is to 'work with industry to consider options for delivering such a solution over the medium term'. This will enable a full assessment of the costs and benefits of particular options.

While this process may indicate that a unique client identifier provided to all customers may be the most efficient means to achieve this outcome (particularly given an individual client can transact through multiple participants) there may be other less comprehensive solutions that meet any regulatory risk assessment.

ASX has no particular insight to many of the specific questions posed by ASIC which relate directly to the participant-client relationship and the ease with which the data can be automated for transmission in an order message.

ASIC has indicated that it is considering interim measures to put in place prior to development of a more comprehensive solution. We believe that in the interests of minimising investment in systems changes (that could be made quickly redundant by subsequent policy decisions) any such interim measures should be targeted at specific high risk areas.

For example, we note ASIC mentioned the large trader identifier being considered in the US, and if this is an area of concern in Australia, then those traders whose trading exceeds certain thresholds could identify themselves to ASIC and be provided with a unique identifier. In contrast, measures designed to identify retail shareholders would seem to be a low priority on any risk-based assessment.

The ASX Review of Algorithmic Trading and Market Access Arrangements (February 2010) initially considered whether the whole-of-market supervisor should require algorithmic traders to be identified as such ('client ID'). The client ID could arguably take one of several forms: real-time tagging of each order with a flag that indicates it was generated by an algorithm; or registration of algorithmic traders and

connection via designated IT (pre-order). The ID would not be publicly available – it would be solely intended to assist market supervisors.

In considering whether to recommend the introduction of real time flags, the Review focused on what the information would be used for, and whether the benefits of this use would outweigh the compliance costs that clients and brokers would incur.

The Review's focus subsequently expanded to consider whether the whole-of-market supervisor should require all orders to carry a client ID. To be meaningful in helping to detect misconduct, the client ID would have to be the same, irrespective of which broker or which trading platform a client used to execute their orders. It was considered that this information would provide the supervisor with a new tool to detect insider trading, manipulation, and front-running irrespective of the method of execution, the broker or the trading platform.

However, the ASX review noted the implications of this change for brokers and trading platforms, including the IT changes that may be required to capture and convey the client ID. It was also considered that there may be privacy concerns which should be considered, and balanced with the potential benefits of the changes proposed.

As such, ASX supports ASIC engaging with key stakeholders to explore these issues in more detail and conduct a rigorous cost-benefit analysis.

Implementation

As ASIC notes depending on options proposed it will likely involve significant systems change to established order management systems, trading systems, client account opening and back office systems. For market operators such as ASX that would include providing scope for additional fields in trading messages.

IDENTIFICATION OF SHORT SALES

Overview of ASX Position

If ASIC believes that the pre-trade tagging of short-sales at the time an order is entered will improve their surveillance of the market and detection of inappropriate market activity, ASX would be able to facilitate this through changes to our trading systems to capture this information.

While it is possible for market operators to use these tagged orders to aggregate and publish, on a daily basis, the level of gross short sale activity (to replace the existing manual reporting requirements) we are not convinced that the information provided is actually informative and may in fact mislead the market about the level of short selling activity. We believe that information on (directional) short selling is best provided by the existing daily net position reporting regime which ASIC administers.

Discussion

At the time of the global financial crisis concerns emerged about the impact short-selling had on the market, this prompted the short-term suspension of the ability of investors to engage in covered short selling of some securities and regulatory change to effectively ban naked short selling. There were a range of legislative measures to tighten up the overall regulation of short selling in Australia.

At that time it was also decided that greater transparency of the level of short-selling activity would be useful information for both investors and regulators, to enhance market surveillance activities and to help inform the price discovery process.

ASX agrees with the primary objective of establishing arrangements to enable ASIC to provide credible oversight as to whether laws relating to market manipulation and the spreading of false rumours are being breached.

Appropriately regulated short selling can enhance market liquidity and price discovery. Liquid markets lower the cost of capital for firms and lower transaction costs for investors buying and selling securities by minimising the market impact of trades. The price signals short selling can provide, when appropriate transparency is in place, can often deliver valuable information to investors on market perceptions of the appropriate value of securities. Knowing the level of short selling in a stock is a relevant factor which assists market users in their own buying and selling decisions.

We agree that real time tagging of orders would ensure there is an audit trail of short sale activity. We have not seen evidence to indicate short selling has been used as a means of market manipulation and the prohibition of naked short selling would have reduced the risk of it happening in the future. That said, if ASIC believes this tool would enhance their market surveillance role ASX would be able to facilitate the collection of that information through changes to our trading system and believe that other market operators would be able to do likewise.

We understand that short selling that occurred off-market, in a dark pool or broker internalisation engine, would also be required to be identified by the client and 'tagged' at time of order entry and then notified to a market operator at the time of reporting the trade. We assume that the dark pool will require equivalent systems in place to capture the required information.

It has also been argued that requiring market operators to aggregate and publish the data (to replace the existing daily gross sale reporting arrangements) would provide the market with valuable information on the amount of gross daily short selling to supplement the aggregate net position reporting which ASIC administers.

ASX believes that the most valuable source of data on directional short selling is the net position data and that gross short sale reporting (whether achieved through tagging or the existing arrangement) is of minimal benefit to the market and is just as likely to mislead investors about the level of short selling as it is to inform them. While we do not favour publishing gross short sales data, we do believe it is possible to achieve that outcome if required by the Market Integrity Rules.

While gross data would provide a daily indicator of the aggregate level of short sales in a particular stock, particular caution would need to be exercised in interpreting such data, given it may overstate the amount of directional short selling undertaken, ie it does not show when short-sales are 'unwound'. There may also be a real concern by fund managers that publication may disclose commercially sensitive information on trading strategies that could be exploited by other market users. We believe market users are best placed to provide insights on the pros and cons of publishing the gross data, and if so, under what conditions.

Implementation

There would be systems changes required for both participants and market operators in developing the tagging of short sale orders, as well as for market operators in aggregating and publishing the reports on a daily basis.

10. Electronic Trading Requirements

FEEDBACK ON HIGH FREQUENCY TRADING (HFT)

Overview of ASX Position

High Frequency Trading (HFT) activity that has been observed in Australia to date (which has not approached levels experienced in some overseas markets) appears to have been a net positive for price formation in the Australian market (helping to lower bid-offer spreads) and has not raised systemic market integrity issues.

ASX does not see the need, at present, for HFT-specific policies such as those mentioned in CP145 (eg minimum order sizes, minimum order to trade ratios etc). However, ASX supports ongoing monitoring by ASIC of the growth and nature of HFT activities. Such measures may be considered in the future should concerns arise.

As set out below, ASX is concerned that the combination of market fragmentation and maker-taker pricing (if permitted in Australia) could lead to a similar explosion of HFT volume that has been experienced in the US, which has been accompanied by concerns about the impact of HFT on the quality of the market and the emergence of undesirable market conduct.

While ASIC does not specifically mention a sponsored access model as part of its discussion of direct electronic access requirements, we believe that its references to work IOSCO has done in this area and the specific minimum requirements they propose (which essentially mirror many of our own suggested rules) suggest ASX's access model may be compliant.

Discussion

Ensuring that the activities of HFT (or any other significant new trading strategies) do not impact on market quality, market integrity or systemic stability is an important role for a regulator to undertake to ensure that the regulatory framework does not fall behind market trends.

ASX sees some scope for market based solutions to manage some particular issues that may arise in the future from HFT, particularly with regard to capacity and latency issues.

Some other measures suggested within CP145 (eg volatility controls) while applying to the market as a whole would also address some potential concerns which are often spoken about in regards to HFT.

ASIC posed a number of questions on the size, nature and impact of HFT on markets in Australia, ASX responses to these questions follow. These issues/views are also covered in more detail in ASX's review of *Algorithmic Trading and Market Access Arrangements* published in early 2010.

What HFT Strategies are Prevalent in Australia? Do they Affect Market Operation or Pose Risks to Integrity?

HFT is a loosely used term to describe a sub-set of algorithmic trading. The SEC has described the characteristics of HFT as follows:

Other characteristics often attributed to proprietary firms engaged in HFT are: (1) the use of extraordinarily high-speed and sophisticated computer programs for generating, routing, and executing orders; (2) use of co-location services and individual data feeds offered by exchanges and others to minimize network and other types of latencies; (3) very short time-frames for establishing and liquidating positions; (4) the submission of numerous orders that are cancelled shortly after submission; and (5) ending the trading

day in as close to a flat position as possible (that is, not carrying significant, unhedged positions over-night).²⁴

The academic and trade literature then generally breaks HFT down into three subgroups: market making, statistical/index arbitrage, and momentum/opportunistic HFT.

According to Australian brokers, index arbitrage is still the most common HFT strategy in Australia and the one that has been here the longest. The broader range of strategies commonly referred to as 'statistical arbitrage' is also being reported as growing on ASX from low levels along with momentum traders.

The most common form of HFT in the US and Europe and the one that contributes the most to the volume of orders, trades and value traded is liquidity provision – also referred to as 'unofficial market making'. This is not the same as formal market making, with exchange established and monitored obligations.

An increasing order to trade ratio is generally accepted as being indicative of increased levels of HFT activity. The cash equity market order to trade ratio is now 7:1, up from 5:1 three years ago. This ratio is much higher for activity coming from ASX's Co-location facility (which is predominately HFT related trading) – where the ratio is between 20 and 40:1.

Feedback from brokers, which is supported by the order to trade ratio, suggests that liquidity provision HFT is yet to start on ASX in any great volume. Liquidity provision HFT is the most latency sensitive form of HFT. It can produce very high (80 to 200:1) order to trade ratios.

ASX Cash Equity Market Trade Metrics:

	2007	2008	2009	2010
Value Traded (billion)	\$1,576	\$1,394	\$1,154	\$1,366
Number of Trades (million)	68	106	116	136
Average Trade Size	\$23,092	\$13,108	\$9,961	\$10,014
Number of Order Book Changes (million)	334	563	827	919
Order to trade ratio	4.9	5.3	7.1	6.7

It is expected that HFT will continue to grow in the coming months. New ASX technology solutions, such as a faster trading platform (Pure Match), additional co-location facilities, new sponsored access arrangements, and competition between trade execution venues are likely to drive increased HFT.

This will create issues for participants (including clearing and settlement participants), which will need to manage to ensure they have appropriate systems capacity and risk management systems in place to accommodate future growth in the number of trades that will need to be processed.

Do you consider that the above conduct is inappropriate or undesirable? What other examples of conduct should we be focusing on?

The levels of HFT order and trade volume experienced in US/Europe has demanded much greater capacity for market operations than was the case even five years ago. Similar demands for greater capacity have already emerged in Australia and are likely to accelerate.

²⁴ <http://www.sec.gov/rules/concept/2010/34-61358.pdf> page 45.

To manage this, ASX has moved pro-actively from a maximum of 500 messages per second in the SEATS system to 20,000 in the replacement ITS system and now 100,000 messages per second capacity in the new ASX Trade system. Trade capability has also risen sharply, going from 500,000 trades per day in SEATS to 5m trades in ASX Trade.

ASX has long recognised the importance for market operators of keeping ahead of the curve and providing sufficient excess capacity to meet increasing trading activity and to avoid spikes in activity leading to performance issues – or even system outages.

HFT activity also demands much lower latency (faster trade processing speeds) requiring co-location services (physically housing broker and exchange execution hardware and software together in the same infrastructure) and new sponsored access arrangements for connecting HFT firms to the exchange. Latency in ASX trading systems has gone from being measured in seconds, to hundreds of milliseconds, and to sub 10 milliseconds in 2010. The new ASX Trade system which went live in November 2010 has taken ASX into microsecond territory - 300 microseconds.

Does HFT affect Market Integrity?

At its simplest HFT is a timeframe for the entry of orders, and therefore it is not inherently good or bad for market integrity. HFT can provide liquidity in rising and falling markets (within limits described below) and is generally seen in the US as having played a key role in equity market performance in liquidity terms during the GFC.

Technology, regulatory reforms and competition have all been drivers of HFT activity in overseas markets.

The concerns that do exist overseas with HFT include the question of whether this activity has altered market dynamics (including the balance between short-term 'traders' and long-term 'investors'), which in turn may impact price discovery and through this channel the ability of companies to raise capital efficiently.

These concerns have tended to come to the fore as HFT begins to emerge as the dominant form of trading as it has in US lit markets, driven to a large extent by the incentives provided by maker-taker pricing. Market watchers question whether the basic dynamics of how markets have traditionally worked have been distorted with a corresponding alteration in the behaviour of non-HFT investors in that market. For example, encouraging some investors to shun public lit markets, where most HFT activity has been based, in favour of trading in dark pools.

The academic literature on this subject, such as it is, will take some time to reach conclusive views on whether any of these concerns are valid, making it a challenging environment within which regulators globally are also trying to come to grips with these questions.

ASX itself has also not reached a conclusive view on these issues and we don't think a well considered view can be formed at present given the phenomenon is still in the relatively early development stages, as is the shift in trading between lit and dark execution.

These concerns around HFT are expressed in a number of ways:

- The claim that HFT is essentially **ephemeral liquidity**. It can be there one minute (or more likely millisecond) and gone the next, which leads to complaints that HFT dominated markets are a series of '*flickering lights*' that traditional liquidity seekers have difficulty understanding or trading against.
 - This is often associated with views following the events of 6 May 2010 in the US that market making HFT firms will not stay in a market during a time of market turmoil where risks are enhanced. Traditional market makers can also 'go missing' during major market uncertainty,

and both they and HFT have the technological ability to withdraw all of their orders almost instantaneously prompting sharp market movements.

- Therefore when HFT reaches a very high proportion of total average daily value (ADV), as it has in the US and to a lesser degree Europe, then the market as a whole is carrying the risk that the trading dynamics can change sharply in the blink of an eye.
 - Market performance has traditionally been measured in terms of high liquidity, depth of order book, low spreads, and level of trading activity (high trade count, high share volumes, high value traded), all of which are still features of markets where HFT dominates. However, market operators, investing professionals and researchers, are all starting to reassess what market quality indicators are most appropriate in a post-HFT world. They have recognised that the concept of 'liquidity' today does not necessarily mean what it did ten years ago when 'deep-and-liquid' meant a market that could consistently absorb large volumes of activity without significant price impact.
 - In today's HFT dominated market all of the traditional measures of market quality remain high, but the apparent liquidity on the trading screen can, as it did on 6 May, disappear very quickly. This is particularly the case if the HFT volumes are controlled by a relatively small number of large HFT players.
 - Order depth and liquidity no longer go hand in hand in a HFT dominated market, because a significant portion of the apparent volume in the market can shift rapidly.
 - Technology has fundamentally changed market dynamics. For example, in a period of just 0.1 seconds (100,000 microseconds) ASX Trade can accept 10,000 orders and order cancellations) and with a latency of 300 microseconds an individual order could be changed over 300 times. In contrast, 5-10 years ago there would have been little or no change over such a short timeframe.
 - Market quality indicators going forward will need to evolve to take other factors into account. These factors are only now being established at an academic research and market operator level, but are likely to include measures around the time that limit orders actually spend in the book.
- Concerns that HFT activity may drive non-HFT investors to off-market execution venues. This behaviour change can be driven by the 'flickering lights' phenomenon noted above, and/or the size of trades occurring in the lit markets as a result of HFT.
 - A key effect globally of the emergence of HFT and traditional algorithmic trading (the execution algorithms that slice and dice larger parent orders), has been the significant drop in average trade sizes, driven by very small order sizes used by HFTs (they do not want to take large bets on market direction). Algorithm generated order sizes will match average order sizes because the execution algorithm just wants its orders not to stand out in the crowd.
 - This effect has been seen on all global markets where HFT and algorithmic trading have featured. This can drive block traders to either embrace execution algorithms, or seek block execution in dark books.
 - Similarly, the ephemeral nature of the liquidity on the screens – the sub-millisecond placement, withdrawal, replacement of orders, can leave traditional buy side and retail clients and their brokers asking if that they're losing out to HFTs and they will not get best execution relative to HFTs.
 - US exchanges and brokers describe how equity volumes are two to five times greater than they were before HFT became dominant. They also note that 30% of this 'inflated' US equity volume is now being executed in dark books or through systematic internalisers. This trading most likely includes retail and traditional buy side investors for whom the new market dynamics are not attractive – either because of the flickering lights, or the size of orders/trades. A very large portion of these orders would be limit orders, which generally help stabilise markets under stress.

- **Gaming, illegal or other market misconduct.** There seems to remain a concern within the community that HFT and algorithmic trading can be used for a range of activities that are already, or should be, banned from the market. ASX remains of the view that the measures ASIC and ASX have, or are proposing to, put in place adequately deal with these concerns, which we believe are a marginal issue in Australia at this stage. HFT is as susceptible to being used inappropriately as any other method of trading. As a general rule, legislative provisions and associated regulations dealing with market misconduct should be capable of being applied consistently to both automated and non-automated trading mechanisms.

All that said, it is important that in an environment of rapid market technology advancements regulators continually monitor and assess whether regulations and their monitoring and enforcement practices are able to keep pace with developments. Particularly with regard to the existing regulatory regime around market manipulation or other market misconduct. This is not specific to HFT related strategies but rather the enabling force of technology as a whole.

It is important to also recognise that technology does not necessarily only increase the risk of facilitating new forms of possibly undesirable practices (eg in overseas markets the emergence of ‘sniffer orders’ or ‘liquidity baiting’) but that outdated rules can also unnecessarily restrict legitimate activities.

- For example, the recent Corporations Amendment Bill to clarify the status of wash trades was introduced in response to concerns that an algorithmic trading led increase in ‘accidental’ wash-trades was causing unnecessary uncertainty in the market. These trades do not pose a threat to market integrity but were still effectively prohibited by the existing legislation.

As noted in the section (see below) on maker-taker pricing, that can add a new dynamic to the market, as it has in the US, and even raise concerns around trading incentives which may increase the risk of inappropriate, if not necessarily illegal, trading activity.

Minimum Order Sizes

ASX is not in favour of a minimum order size at this stage although ASIC could revisit the issue if concerns arise (they have not yet appeared) with the quality of liquidity in lit markets as a result of trade sizes shrinking further and liquidity continuing to drain into dark books and systematic internalisers.

Instead of using a minimum order size obligation, ASX believes it would be more appropriate to consider using a range of other tools to achieve a balanced outcome without the unintended difficulties that a mandated minimum order size might cause.

- We support ASIC’s proposed setting of a minimum trade size before trading can move to dark pools (which offer price improvement) to encourage greater order flow to transparent order books and away from dark pools/order internalisation crossing engines. ASX believes the policy should be allowed to be tested for a period to see what impact it has on market dynamics prior to any longer term decision on other responses such as minimum order sizes.
- Where concerns don’t relate to market conduct issues – such as, for example, the impacts of HFT activities on systems capacity etc, they would be best and most efficiently addressed by a market (ie price based) solution rather than a regulatory solution. This could include a combination of operators determining the nature of the services they wish to provide to HFT clients (eg collocation of trading systems) and whether they should introduce pricing structures related to some or all of: order to trade ratio; order size; trade message usage; clearing message usage; and data message usage. If the concerns are market wide as opposed to applying to only one market operator, ASIC could consider imposing charges to deter such activity by changing the economic incentives. We believe such an outcome would be unlikely to be necessary.

In Europe, for example, policymakers have been examining the role pricing structures play in the prevalence of the HFT activity. It has been estimated that the lower level of HFT trading (in excess of 35% and rising) in Europe compared to the US markets (70%) may reflect the relative costs of operating a HFT strategy.

Any consideration on order size limits should have regard to the following:

- Potential impact on corporate actions (rights issues/DRPs/SPPs) and custodial arrangements which can create small odd lot holdings.
- It would raise the issue of how the market would deal with odd-lot trading.
- Any minimum order requirements would need to be standardised across markets to reduce regulatory arbitrage.
- Whether such limits would be unnecessarily restrictive for retail investors who generally trade in smaller parcels than institutional investors, particularly in Australia where the level of retail participation is high on a global comparison.
- Given the diverse size of ASX listed entities, consideration would have to be given to whether any such limit should only apply to larger, more liquid companies where HFT strategies are largely concentrated. If it were to be applied across all companies, including micro caps, then consideration would need to be given to how it might be structured to not unnecessarily hinder trading in the securities of smaller companies.
- Depending on where a minimum order size was set – there would need to be analysis of the impact on execution algorithmic trading, which raises no market integrity concerns and but is generally positive in terms of market quality as it supports price discovery by largely being transacted through a lit market.

High Order Cancellations

A high order-to-trade ratio is a feature of most HFT activity and in particular the market making form of HFT. A high order to trade ratio is also a feature of exchange traded options (ETO), warrant and exchange traded funds (ETF) market making. Legitimate order book changes by designated market makers as part of their business should not be of any concern to regulators. In fact, market makers have contractual obligations which require them to be responsive to changing market circumstances.

Even where the activity is not conducted by a contracted market maker, ASX does not believe such order entry behaviour is inappropriate *per se* because HFT firms are required to adjust their orders constantly in response to market movements, or the fundamental triggers of their particular strategies. While the number of order entries and cancellations are significantly higher than in the past this is a function of the speed of new technologies and, in the case of markets with multiple operators, the ability to arbitrage between markets.

High order volumes are a capacity issue for all market operators and something that needs to be actively managed by them, when making capacity and other technology decisions. We do not think setting a maximum order to trade ratio is called for at this stage in Australia's development.

However, market operators do need to closely monitor excess capacity levels to ensure activity levels do not drag down the operational performance of the market i.e. interfering with the operational efficiency of the market by flooding the market with messaging which squeezes out other orders.

The high rate of order cancellation goes to the point noted above about the impact HFT may have on the dynamics of the market. High order cancellation adds to the 'flickering lights' argument that the quality of liquidity is diminished once HFT dominates a market. ASIC should monitor the development of

HFT in the Australian market to assess its impact over time, particularly if its growth should accelerate, and only consider introducing measures to restrict such activity later if there were concerns about the quality of liquidity or the price discovery process in the Australian market.

In addition, if concerns emerge relating to the impact of HFT on systems capacity and stability these are generally best addressed by market operators, as part of their normal business operations. Such measures could include designing and setting prices for certain services, determining which services to provide and to maintain appropriate risk management practices to ensure system stability (ie the ability to throttle down or remove access where maximum capacity is approached).

What impact does HFT have on price formation and the depth and quality of trading interest in the order book?

In some sense it is too early to form conclusive judgements on the net impact of HFT on overall trading efficiency and on price formation.

In Australia, the activity is still relatively new and growing rapidly and in any event it is always difficult to isolate the impact of one particular factor when there are a number of drivers of trading activity and price formation. For example, the depth and quality of trading interest in the order book is determined by, amongst other things, volatility in equity values (driven by both local and international factors) as well as the routing of orders to dark pools including internalised brokers crossing engines.

Evidence and opinions from overseas are mixed on the impact of HFT. The views of the exchange community, the buy side and sell side globally differ across and within stakeholder groups based the diverse views expressed in the trade press and at industry conferences. The academic world does not seem to have reached a consensus position either.

The current review of market structure by the SEC and the review of MIFID in Europe will be informative once concluded.

Those who support HFT suggest that it has had a positive impact on price discovery because:

- HFT firms bring significant new liquidity to the market that did not exist prior to the evolution of HFT. These HFT firms turn over their positions at a rate far exceeding typical investor capital/funds enabling them to leverage their relatively small capital base into significant trading volume.
- It is true that spreads, volumes, values, trade numbers are significantly improved in markets where HFT exists. While it is possible to attribute growth in trading activity to HFT, it is not yet possible to conclusively determine that HFT has driven the improvement in spreads (where other factors may well have played a role).
- HFT firms have proven themselves to be profitable in both rising and falling markets and this suggests they can support price discovery throughout the asset price cycle.
- The fact equity markets performed normally during the worst of the GFC (when many less liquid OTC markets dried up) was seen as evidence that HFT supports price discovery.

Those who do not support HFT believe:

- HFT may indirectly damage price discovery by driving more traditional investors to off-market execution venues because of very small trade sizes and investors not being able to compete in getting best execution with the 'flickering lights' of the HFT dominated lit markets. It is worth noting however that the US experience has been that trade sizes have also been falling rapidly in dark pools as technology is now being applied in these execution venues and attracting a greater share of automated trading.

- This diversion of liquidity to dark pools widens spreads and therefore negatively impacts price discovery. We note that ASIC's proposed small trade threshold for dark orders (without price improvement) will specifically be targeted at addressing this concern.

The earlier ASX paper on Algorithmic Trading (February 2010) included some research conducted by SIRCA, which did not show any evidence that increased levels of algorithmic or high frequency trading had led to significant or obvious changes in the quality of ASX markets over the period examined. Further work is being conducted to see whether traditional measures of market performance, particularly concepts of liquidity, need to be reconsidered in a world where market conditions can change very rapidly.

It is, however, worth noting that since around 2006, when ASX made a number of market enhancements to support algorithmic trading there has been a significant increase in the number of trades and an associated decline in average trade size. This trend generally coincided with both a decline in bid-ask spreads (excluding the peak period of the GFC) and a decline in crossing activity.

Should there be formal obligations on electronic liquidity providers to help maintain orderly trading conditions (e.g. to provide two-sided quotes and to limit their ability to be aggressive liquidity takers during extreme conditions)?

In summary, ASX does not support the introduction of formal obligations on electronic liquidity providers, unless these providers are benefiting from a rebate (including a 'maker' or 'taker' rebate). Where incentives in the form of a rebate are provided then it is appropriate for minimum contractual obligations to help to maintain orderly trading conditions and market quality. See further below for discussion on maker-taker pricing and formal market making obligations.

Should electronic liquidity providers be exempt from the naked short selling ban? If so, why? What criteria should be used for determining whether or not a particular provider or class of providers should be awarded an exemption (see REP 215, paragraph 170)?

There does not seem to be any compelling justification for these firms to be given generic relief from the naked short selling ban ahead of other professional market players. Of course, the existing class order relief provided to market makers in limited circumstances to hedge risk from market making activities should be retained.

ASX's view on this matter may be different if the liquidity providing HFTs were obligated to minimum spread and volume requirements as suggested by ASIC above, in which case there may be a case for giving those market makers this additional benefit because they would be providing the market with a valuable service (prescribed spreads and volumes).

SPONSORED ACCESS

ASX supports the introduction of minimum standards for direct electronic access, as set out in Part FB of the proposed rules. ASX seeks confirmation that these minimum requirements will cover sponsored access arrangements, where appropriate risk management controls remain within the control of the sponsoring participant.

ASX does not support allowing so-called 'naked' sponsored access model where the sponsoring participant does not have pre-order release management and control of the risk filters.

Direct electronic access is defined as 'an arrangement between a participant of a licensed market and a client who is not a participant of a licensed market under which the client submits orders directly to the licensed market using the participant's trading system'. We assume that this is intended to cover both the arrangement where orders pass through the participant's trading application (known as direct market

access or automated order routing) and the arrangement where orders pass through a participant's gateway and filters controlled by the participant (sponsored access).

The discussion in CP145 states that ASIC's proposals formalise and incorporate international expectations including the IOSCO report 'Principles for direct electronic access to markets', but it is not clear from the actual proposals that they cover sponsored access arrangements. In contrast the IOSCO report does define direct electronic access to include both automated order routing and sponsored access.

Sponsored access is already available on the ASX 24 market. Earlier this year ASX indicated that it also proposes to introduce sponsored access to the ASX market. If the minimum requirements were to apply only to direct market access then there would be a regulatory gap in relation to direct electronic access. Hence, it is important to clarify that the minimum requirements apply to sponsored access arrangements as well as direct access arrangements.

ASX's *Algorithmic Trading and Market Access Arrangements* paper released in early 2010 describes in more detail how the proposed new sponsored access arrangements compare with the existing participant risk management controls for direct market access (DMA) business.

The differentiators of the supported models of DMA and sponsored access are purely the systems in which the pre-release control are enabled and the directness of the technical connectivity to the exchange. There is no difference in the scope of the pre-release controls, as all orders are required to be filtered by participants prior to submission to ASX.

Under all models the participants continue to be obliged to exercise pro-active and real-time risk control over its clients' trading activities. In addition ASX is proposing to enable participants to segregate the activities of individual sponsored access arrangements by providing clients with a unique participant identifier to allow a participant to monitor trading of individual clients and intervene (including through the triggering of an automated 'kill switch') where approved trading parameters are breached.

MAKER-TAKER PRICING

Overview of ASX Position

ASX strongly agrees with ASIC's observation in Report 215 that maker-taker pricing can "create distortions and inefficiencies in the market".²⁵ The use of maker-taker pricing is a significant issue that warrants much closer consideration than was given in CP145 and Report 215. There is strong evidence to support ASIC's observation about the pricing inefficiencies and distortions that can be caused by maker-taker pricing. These issues arise because the maker-taker model provides incentives irrespective of the size of the order (and resulting trade), and because the incentive is targeted at one side of a trade only.

Accordingly, ASX submits that ASIC should prohibit maker-taker pricing. We acknowledge the presence of maker taker pricing in other markets. However, ASIC should not be persuaded that its existence elsewhere provides a satisfactory reason for permitting it in Australia. It is our observation of the price distortions that have occurred in markets where market taker pricing exists that has caused ASX, and should cause ASIC, to come to the view that it should be banned in Australia.

ASIC should continue to allow market operators to offer incentives for liquidity provision subject to certain minimum requirements. Such requirements could include minimum number of securities per order; maximum two-sided spread; minimum time that the market maker has to be present in the market (as a daily percentage); not offering differential incentives between passive and active liquidity; and

²⁵ ASIC Report 215, page 57.

limiting rebates to entities that are trading on their own behalf. These requirements are suggested as means to address the unwanted and damaging side-effects of maker-taker pricing.

Discussion

Innovation in fee models in the US has led to a 'maker-taker' pricing structure operating in some markets. There is a strong incentive for market operators to adopt maker-taker pricing, particularly for new venues entering a market and attempting to attract liquidity. However, the benefits received by that new venue are far outweighed by the direct and indirect costs associated with maker-taker pricing. Because these externalities are not borne by the market operator, there is little incentive for any individual venue acting in its own self-interest to not adopt maker-taker pricing. The direct costs, in the form of 'taker' fees are typically borne by retail and long-only investors. The indirect costs, in the form of loss of market quality and integrity, or increased risk of a 'flash crash' event occurring, are harder to quantify and are borne by market users and other market operators using a more traditional pricing model.

Overseas experience suggests that incumbent market operators – even those who have concerns about the effects of maker-taker pricing on the market – have often had little choice but to also adopt the maker-taker model in order to effectively compete against new entrants.

ASX does not take a view that HFT is inherently 'good' or 'bad'; however we strongly submit that maker-taker pricing combined with HFT leads to an excess of HFT activity that produces damaging and unwanted market outcomes.

Specific problems that have been associated with maker-taker pricing and which are discussed in more detail below include: pricing inefficiencies;²⁶ disparity of transaction costs between market participants who are net liquidity providers versus those who are net liquidity takers (typically to the detriment of retail investors and long- fund managers)²⁷; distortion of bid-ask spreads;²⁸ creation of a conflict with best execution obligations;²⁹ damage to market quality though encouragement to make very small bid-offer volumes³⁰; disruption of the natural price discovery process³¹; favouring of short term traders over long term investors³².

ASIC's regulatory objective should be to ensure that practices or activities such as maker-taker pricing do not damage the efficiency of the market, impose unfair costs on certain market users, or damage the quality and integrity of the market.

Background

In the late 1990s electronic communication networks (ECNs) emerged to compete with traditional securities exchanges in the US. ECNs introduced a new and novel pricing model designed to attract liquidity away from the traditional exchange. ECNs initially charged fees for both passive (liquidity provider) and aggressive (liquidity taker) trades, with a lower fee for passive. However, competition among trading platforms eventually led to the current system where rebates are paid to liquidity providers, while takers of liquidity are charged a fee. An inverse model also exists, known as 'taker-maker pricing'. ASX's comments refer to both forms, but for ease of reference we refer here to 'maker-taker pricing' as a short-hand reference to all variations of this order by order rebate model.

²⁶ Goldman Sachs submission to SEC Concept Release

²⁷ UBS submission to SEC Concept Release, SIFMA submission to SEC Concept Release; Themis Trading Submission to SEC Concept Release; Professor James J Angel, Submission to SEC Concept Release

²⁸ SIFMA submission to SEC Concept Release; Senator Edward E Kaufman letter to SEC Chair, Hon Mary Shapiro, 5 August 2010

²⁹ Morgan Stanley, comment letter to US SEC March 4, 2010

³⁰ James J Angel, Lawrence E Harris, Chester S Spatt, Equity Trading in the 21st Century, February 23, 2010

³¹ UBS submission to SEC Concept Release; Senator Edward E Kaufman letter to SEC Chair, Hon Mary Shapiro, 5 August 2010; Professor James J Angel, Submission to SEC Concept Release

³² Modern IR Equity Analysis <http://modernir.com/msm/index.php/2010/08/03/jul-26-30-your-volume-and-the-maker-taker-model/>

By the early 2000s, with multiple, competing, US trading platforms adopting this pricing structure, the size of the passive rebate quickly grew – offset by the fee charged for aggressive (immediately executable) orders. The SEC was concerned that the cost to the liquidity-seeking side of the trade would be prohibitive, to the detriment of overall market efficiency. In 2003 the SEC introduced rules capping the maximum charge for taking liquidity at 30 basis points.³³ The provisions are now in Reg NMS Rule 610C.³⁴

Evidence from the US in the past few years suggests that the SEC's regulatory intervention was insufficient to prevent damage to the market from maker-taker pricing. However, ASIC is in a strong position to learn from overseas experience in this regard, and should take steps to ensure that maker-taker pricing is not permitted in Australia.

Maker-taker pricing is a key driver of two factors that contributed to the May 6 flash crash: the high levels of HFT activity in the US market, and the relatively high percentage of long-term investor activity that has shifted from lit markets to dark pools. On May 6 the confluence of these factors (along with others) contributed to a rapid withdrawal of liquidity from the market, accompanied by a short-term surge in selling activity driven in part by dark pools re-routing retail order flow to lit markets to manage their own risk exposures.

The risk of extreme price movements is also exacerbated by maker-taker pricing because it removes the focus of market participants from the underlying profit on a particular trade to the profit to be made by the act of trading alone. "The study, manipulation, and maximization of liquidity movement have come dangerously near to disconnecting underlying business fundamentals from stock markets. Intermediaries trade stuff for spreads. They don't own investments for their intrinsic value."³⁵

Externalities: Impacts of Maker-Taker Pricing on Market Efficiency, Quality and Integrity

There is strong evidence to suggest that maker-taker pricing is associated with a number of unwanted side effects.

Pricing Inefficiencies

Maker-taker pricing creates pricing inefficiencies which in turn drives perverse market behaviours. Two examples described in UBS's submission to the SEC Concept Release state:³⁶

- The effect of the maker/taker model in the US is particularly sensitive with respect to stocks that are quotable in sub-pennies, where the rebates frequently exceed the bid increments of the stocks being traded. This often results in a situation called 'rebate arbitrage,' where market participants post quotes on both sides of the national best bid and offer and attempt to earn the rebate on each side. The combined rebates on the bid and offer exceed the spread in the security. Long-investors pay an access fee whether they are buyers or sellers.
- As a result of latency between a direct market data feed and the dissemination of the consolidated quotation tape, HFTs can place orders ahead of long-investors and cause the investor to be a liquidity taker instead of a liquidity provider, thus earning a rebate for the HFT and resulting in the long-investor paying an access fee.

³³ BMO Capital Markets Quantitative Execution Services, *The Impact of High Frequency Trading on the Canadian Market*, July 22, 2009.

³⁴ The Rule says a trading centre can charge (or allow to be charged) no more than \$0.003 per share for accessing its protected quotations.

³⁵ Modern IR Equity Analysis <http://modernir.com/msm/index.php/2010/08/03/jul-26-30-your-volume-and-the-maker-taker-model/>

³⁶ UBS submission to SEC Concept Release

Disparity of Transaction Costs

Maker-taker pricing creates a wide disparity in the overall cost of trading between market participants who are net liquidity providers versus those who are net liquidity takers (typically to the detriment of retail investors and long- fund managers).³⁷

Under a maker-taker pricing model, fees and rebates are not consistently applied to the buyer and the seller. The result is that the beneficial owner of a buy order is not transacting at the same price as the beneficial owner of the sell order. For example, an exchange may charge a fee of \$0.0030 per-share for removing liquidity and offer a rebate of \$0.0021 per-share for adding liquidity. However, when the exchange publishes the best offer for a stock-say, \$5.00 per-share for 300 shares-that offer will not take into account the fee or the rebate. And if a buyer crosses the market and buys those 300 shares, the price reported on the consolidated tape will be \$1,500.00, even though the buyer actually paid \$1,500.90 and the seller received \$1,500.63 (and the exchange received \$0.27). These discrepancies distort the incentives for the broker-dealers intermediating customer orders on exchanges and other trading venues.³⁸

The main US securities industry body SIFMA stated in its submission to the SEC Concept Release in 2010, "...maker-taker pricing subsidizes professional traders using co-location and direct data feeds at the expense of retail and long-term investors. It appears that the bulk of the maker-taker rebates for adding liquidity are paid to firms engaged in HFT. A high rebate often implies a higher taker charge, which is in turn paid by long-term investors either directly, or indirectly through increased costs on their executing broker-dealers that, ultimately, are passed through to them. Maker-taker pricing also has been said to distort economic spreads. For instance, for stocks trading in penny increments, a taker fee can represent up to a 50-60 percent mark-up from displayed prices. As a result, broker-dealers increasingly spend significant resources analyzing the impact of taker fees on execution quality."³⁹

Distortion of Bid-Ask Spreads

Maker-taker pricing distorts bid-ask spreads. Maker-taker fees in the US are SEC regulated and limited to three-tenths of a penny per share (30 basis points). While spreads are narrow in active stocks, they might be in a sense artificially so, because rebates and fees must be factored into quoted prices. Thus, 'true' spreads can actually be as much as 30 bps lower than the best bid and 30 bps higher than the best offer. In securities with a spread of a penny, a 60 bps difference between the quoted spread and actual spread is significant.⁴⁰

Conflict with Best Execution

Maker-taker pricing creates inherent conflicts of interests. Participants are not required to pass along rebates to their customers, so brokers might be inclined to direct order flow to the trading venue offering the lowest transaction costs, but not necessarily the best order execution.⁴¹

Market Quality Damaged

Maker-taker pricing encourages HFT market makers to make very small bid-offer volumes, which impacts the quality of the market.⁴² Rather than pay increased execution fees to access liquidity on lit markets, and in order to avoid the HFT dominance of the lit markets, many long-term investors in the

³⁷ UBS submission to SEC Concept Release, SIFMA submission to SEC Concept Release; Themis Trading Submission to SEC Concept Release; Professor James J Angel, Submission to SEC Concept Release

³⁸ Goldman Sachs submission to SEC Concept Release

³⁹ SIFMA submission to SEC Concept Release

⁴⁰ SIFMA submission to SEC Concept Release; Senator Edward E Kaufman letter to SEC Chair, Hon Mary Shapiro, 5 August 2010

⁴¹ Morgan Stanley, comment letter to US SEC March 4, 2010

⁴² James J Angel, Lawrence E Harris, Chester S Spatt, Equity Trading in the 21st Century, February 23, 2010

US have sourced liquidity off-market in dark books and systematic internalisers. This in turn further exacerbates the decline in lit market quality.⁴³

Disruption of Natural Price Discovery Process

Maker-taker pricing disrupts the natural supply/demand dynamic of the price discovery process, creating incentives to access liquidity using practices such as flash orders and actionable indications of interest, which the SEC has proposed to eliminate.⁴⁴ It also creates incentives for HFTs to interpose themselves between natural buyers and sellers who would have traded with each other had the high frequency firm not intervened (thereby increasing the costs of trading for those natural market users).⁴⁵

Maker-Taker Pricing and Official Market Making

As noted in the HFT section above, proponents of maker-taker pricing have compared it favourably to market making, and have argued that it is simply a new or modern form of the existing market making model. ASX rejects the suggestion that maker-taker pricing should be encouraged as a form of market making. There are significant differences between official market making and maker-taker pricing. Official market making contributes to market efficiency and lowers costs for market users; whereas evidence suggests that maker-taker pricing increases costs for market users and reduces the quality of the market.

Key differences between market making and maker-taker pricing are summarised below:

Issue	Official Market Making	Maker-Taker Fees
Characteristics	<ul style="list-style-type: none"> - applies to contractually bound designated market makers - benefits only available if contractual obligations met - minimum order value (e.g. \$20,000) on the bid and ask - maximum spread (e.g. as a % of share price) - minimum time in market (e.g. 80% of the day) 	<ul style="list-style-type: none"> - applies to all venue users - benefits in the form of a rebate paid for passive orders (liquidity makers) - fee charged for aggressive orders (liquidity takers) - no other minimum requirements
Creates Pricing Inefficiencies	<p>No. Minimum time in market obligations reduce the timing imbalances of order flow in the market and lower pricing risk borne by natural buyers/sellers. This reduces the costs of trading for the natural counterparties.</p> <p>Benefits accrue to the market maker irrespective of whether liquidity is passive or aggressive.</p>	<p>Yes. The one-sided rebate encourages HFT to interpose between natural buyers and sellers, adding to the costs of trading for the natural counterparties. Benefits only accrue to the party that is the 'maker'.</p>

⁴³ Professor James J Angel, Georgetown University, submission to SEC Concept Release

⁴⁴ UBS submission to SEC Concept Release

⁴⁵ Senator Edward E Kaufman letter to SEC Chair, Hon Mary Shapiro, 5 August 2010

Issue	Official Market Making	Maker-Taker Fees
Disparity of transaction costs	No. Market makers do not execute on behalf of clients, and the trading fee paid by the counterparty to the market operator is fixed and not contingent on whether the order is a passive or aggressive one.	Yes. Intermediary may not pass on the benefits of any rebate received; true transaction costs may be opaque. There are no limitations on whether order flow is proprietary or client.
Distortion of bid-ask spreads	No. Minimum volumes and maximum spreads are set out in the contract. The trading fee paid by the counterparty to the market operator is fixed and transparent.	Yes. There are no minimum volumes which can create the illusion of a smaller bid-ask spread but with minimal depth. 'Gaming' activity and fast trading speeds can create uncertainty about 'true' spread, and whether order will be a maker or a taker
Damage to market quality	No. Market quality is enhanced due to contractual obligations.	Yes. The absence of any obligations in relation to order volume, 2-sided quotes, and time in market can contribute to behaviour that damages market quality. US evidence suggests that long-term investors have turned to dark pools to avoid HFT dominated maker-taker markets. This loss of liquidity from lit markets further damages market quality.
Disruption of natural price discovery	No. Price discovery is enhanced due to contractual obligations. Minimum time in market obligations reduce the timing imbalances of order flow in the market and lower pricing risk borne by natural buyers/sellers.	Yes. Maker-taker fees can encourage the development of new techniques that undermine the price formation process, such as flash orders; and can encourage the use of dark pools by long-term investors.
Favouring of short term traders over long term investors	No. Contractual obligations are designed to maintain a level playing field – for example phenomenon associated with maker-taker fees such as ephemeral liquidity and gaming of retail order flow have not been experienced with official market making.	Yes. HFT 'makers' earn a rebate, which is subsidised by the high trading fees charged to the natural counterparties. HFT firm Getco reported that it earns a rebate on 80% of its volume (meaning other market users such as long-term investors paid high 'taker' fees for these trades).

11. Market Operators

Overview of ASX Position

ASX agrees that market operators offering trading in the same securities may need to align certain aspects of their operations (e.g. trade cancellation) to ensure the smooth operation of the market as a whole.

The 9 areas for cooperation listed by ASIC in section L of CP145 are each substantive issues in their own right. However, there is insufficient analysis of the regulatory policy issues or ASIC's proposed approach to enable sufficient consideration of these issues.

ASX also suggests that ASIC review its proposed penalties in relation to Rules which require cooperation. There should be no penalty in relation to Part LA of the MIR, which requires market operators to reach an agreement which is then subject to the approval of ASIC. A penalty is not appropriate as it would apply to all market operators regardless of the reason why agreement has not been reached.

ASX recommends that ASIC consult the market with more details of its proposed protocol and cooperation arrangements and any associated penalties.

Discussion

ASIC has an important role in identifying those areas where harmonisation or cooperation is needed to protect the integrity of the market as a whole; as distinct from other areas where it is appropriate to allow competitive forces to influence outcomes, or to rely on the existing Corporations Act obligations to achieve the relevant regulatory objective.

The Corporations Act requires a market licensee to do all things necessary to ensure that the market operated by that licensee is fair, orderly and transparent. Where there is more than one market offering trading in the same securities, then it is possible that the actions of one market operator or inconsistent actions by all operators will affect the fairness, orderliness or transparency of the market as a whole.

Regulatory intervention may be appropriate to achieve whole-of market integrity outcomes. CP145 makes a statement along these lines: "Cooperation and coordination in multimarket environment will be imperative to upholding the integrity of the market". However there is no attempt to apply this statement to each of the areas nominated by ASIC, or to explain why these areas have been nominated. This makes consideration of the proposals difficult.

ASX recommends that ASIC undertake further analysis of the regulatory objectives to be achieved, and the most appropriate means of achieving those objectives. This could form part of a dedicated consultation paper on the proposed protocol and cooperation arrangements and any associated penalties.

ASIC proposes Market Integrity Rules requiring a market operator to comply with a protocol with ASIC and other market operators. Each of the nominated issues listed is a substantive issue in its own right, and there is no obvious common thread to warrant alike treatment by way of protocol or cooperation arrangements.

The proposal in CP145 would benefit from consideration of some of the following points:

- What is the regulatory or public benefit of achieving cooperation or alignment for each of the listed areas?

- How would cooperation be achieved, taking into account the diversity of subject matter?
 - In some areas, ASX would favour an ASIC rule (e.g. trade cancellation) whereas in other areas it not clear whether any form of regulatory intervention is required (e.g. opening hours).
 - In respect of system outages or market emergencies, ASX already has in place robust practices and arrangements. ASX has no objection to discussing with ASIC what role ASIC may play in a multi-venue environment, but we would strongly object to any obligation to cease trade execution on ASX because there has been a system outage on another market operator platform.
- What would be the process or arrangement for ongoing review or change?

To the extent that we have been able to provide comments based on the limited information available, these comments are set out below.

Arrangements for synchronising trading halts and suspensions

ASX will continue to advise the market, including other market operators, of trading halt and suspensions in a timely manner as part of its listing rule responsibilities.

ASX is developing a tailored data product that can be used by market operators for immediate electronic notification of trading halts and suspensions.

ASX supports the introduction of Market Integrity Rules that prohibit trading of securities (on a lit or dark venue) when the listing market has placed that security into a trading halt or suspension.

Arrangements for managing system outages on one or multiple markets

As the listing market and the primary trading venue ASX intends to remain operating in the event of systems outages in any other market – unless ASX formed the view that the particular event was such that ASX was unable to meet its licence obligation to operate a FOT market.

ASX assumes other market operators would take a similar approach, although they may face more challenges in maintaining a FOT market in the face of an outage in the primary market.

ASX would strongly object to any obligation to cease trade execution on ASX because there has been a system outage on another market operator platform.

Arrangements for responding to market events and emergencies, such as a natural disaster

ASX already has in place such arrangements and has no objection to discussing with ASIC what role ASIC may play in a multi-venue environment.

ASX would strongly object to any obligation to cease trade execution on ASX because there has been a market event or natural disaster that has impacted another market operator platform.

Procedures for the assignment of common symbols and identifiers

ASX will continue to assign codes for entities seeking admission to the Official List following discussions with the listed entity and will advise the market, including other market operators, of those codes in advance to the official commencement of trading.

A similar process will apply to advising the market about the timing of entities being removed from the Official List.

ASX does not object to ASIC's proposal that other market operators use the same identifiers for participants and listed entities as used on ASX.

Synchronisation of clocks to the UTC

ASX acknowledges that to achieve its regulatory objectives in relation to data quality and integrity, ASIC may need to consider measures designed to overcome fragmentation of data. No regulatory measures will be 100% effective in overcoming the effects of fragmentation.

The proposal for synchronised clocks could work in a number of ways, with varying costs and degrees of accuracy. However, there will always be a margin for error, and this will arguably only increase as latency is further reduced and innovation in trading continues.

The comments below relate to the practical implementation issues associated with achieving the objective of synchronised clocks.

Clocks can be synchronised via GPS receivers using standard commercial time serving devices, however drift management and reporting for all Market Operators against a standard clock (e.g. UTC) will require the use of an external authority. ASX has not identified a source of time other than NMI that carries a guaranteed level of accuracy from an Australian authority.

Given the potential order rate for ASX Trade of 100,000 per second and a sustained trade rate of 5,000 per second, accuracy for logging purposes should be in the range of 10- 200 microseconds. This will require a highly accurate clock source and a highly accurate synchronisation model. Future developments in trading technologies and trade rates would require a review of timing accuracy. The accuracy threshold will therefore need to be dynamic.

The proposal to synchronise clocks will have time and cost implications for ASX to the extent that message protocols (including FIX protocol) need to be amended to provide greater specificity/accuracy of times. Additional functionality will be needed to facilitate this.

In order to adopt NMI-certified time, extra equipment would be required. According to preliminary investigations, the set up costs of this for ASX are approximately \$200,000. There will also be ongoing costs, which have not been estimated at this stage.

Importantly, we note that ASIC's current proposal as reflected in draft Rule L3-1 does not require Participants to synchronise their clocks. We consider that for ASIC to achieve the objective of a reliable audit trail it should require Participants to synchronise their clocks with the same source as market operators. We refer to Canada's IROC Rule 10.14, where this is the case.

Tick sizes

ASX does not object to a continuation of the existing tick sizes.

Any Market Integrity Rule in relation to tick sizes (or order price increments) must extend to all facilities and venues for trading – i.e. lit and dark venues. If internalised trades can occur with different tick sizes to lit venues, then this would create an uneven and unfair playing field.

It would be helpful if ASIC would consult further on its proposed mechanisms for reviewing or changing tick sizes once securities are traded on more than one lit venue.

Arrangements for managing differences in operating hours between markets

ASX does not support regulation around opening hours. These should be for market operators to determine in the usual course of business.

ASX believes that it should be incumbent on market operators (both lit markets and dark pools) seeking to allow trading outside of the normal operating hours of the listing market to justify to ASIC how they are proposing to ensure trading is conducted in a fair, orderly and transparent manner on their market.

ASX's Company Announcements Office (CAP) is open 8:30am to 7:30pm (8:30pm during daylight saving) Sydney time, Monday to Friday on ASX Trading Days. Listed entities can submit announcements for release to the market during this time, and announcements after CAP closes are released to the market the next trading day. Where there is trading of the entity's securities on more than one platform, then the entity must ensure that it remains in compliance with its continuous disclosure obligations.

Fair access to markets

ASX does not support additional regulation of market operators in relation to fair access to markets. The market operator licence obligations already include the obligation to operate a 'fair' market. Additional regulation is unnecessary.

In relation to the ASX market, ASX does not consider that there are any circumstances where services create an unfair barrier. There are obviously different types of service offered to meet the needs of different clients.

Having a vertical pricing structure does not give rise to any issues as fees for trading, clearing and settlement are set by reference to the service provided, rather than the structure of the provider.

Expectations about information sharing

There should not be a general obligation on a market operator to provide information to other market operators free of charge. Further, any information that is provided to another market operator under the Market Integrity Rules should be used only for the purposes of the rule in question (i.e. non-commercial purposes consistent with compliance with the Rule).

Market operators should be able to enter into normal commercial pricing arrangements for non-regulatory use of information.

General arrangements for cooperation.

ASIC suggests that a market operator must make available to other market operators information relating at least to real-time orders, executed trades and company announcements. It is not clear why this information would be required by other market operators. Furthermore, this information is already available in the usual course through multiple data vendors. Regulatory intervention is not required.

Implementation

ASIC's proposals will have time and cost implications for ASX including:

- market operators must negotiate and enter into relevant cooperation agreement;
- market operators must facilitate the necessary connections regarding sharing of information and automatic functionality to synchronise actions if market integrity type action is taken on one of markets;
- amending agreements for co-location to provide for any additional synchronisation service.

12. Appendix: Overview of ASX Positions

Subject	Overview of ASX Response
Scope of Proposals	<ul style="list-style-type: none"> • ASX supports the core elements of ASIC's proposed regulatory approach, namely an objective of protecting the price formation process and generally applying equivalent treatment to 'like' activity. • ASX supports immediate harmonisation of all ASIC Market Integrity Rules (including the remaining Market Integrity Rules not addressed in CP145 that deal with participant conduct and the participant-client relationship) across market operators to reduce the scope for regulatory arbitrage. • ASX submits that ASIC should review its current policy about when to recommend exemption of operators of dark pools from being licensed as market operators. The market licensing provisions should be applied to all operators of venues that undertake 'like' activity (i.e. operate a multilateral facility). • ASIC and Government are encouraged to adopt measures to give effect to uniform compensation scheme arrangements for retail investors. • In addition to the issues raised by ASIC in CP145, ASX would like to see consideration given to modifying the cumbersome operating rule approval/disallowance process that presently operates under section 793E of the Corporations Act.
Extreme Price Movements	<ul style="list-style-type: none"> • Based on the information provided in CP145, ASX does not object to ASIC's proposal in relation to order entry market operator price controls. • ASX supports the objective of alignment between trade cancellation arrangements and submits that the most effective way to achieve alignment is for ASIC to set the parameters for trade cancellation to be applied across all venues. • ASX does not support market operator controlled volume-based filters, and is not convinced that ASIC has provided enough information to make a compelling case for market wide circuit breakers. • ASX would welcome the opportunity to comment on more detailed volatility control / circuit breaker proposals.
Electronic Trading Requirements	<ul style="list-style-type: none"> • ASX agrees that the net impact of high frequency trading in Australia has generally been positive, but that it is important to ensure that an appropriate regulatory framework is in place. • There is no need at present for HFT-related policy measures but ASIC should monitor how HFT develops in a multi-operator environment and if problems do emerge, consider an appropriate regulatory response. • ASX supports the introduction of minimum standards for direct electronic access and understands that these should be consistent with sponsored access arrangements, where appropriate risk management controls remain

Subject	Overview of ASX Response
	<p>within the control of the sponsoring participant.</p> <ul style="list-style-type: none"> • ASX does not support allowing a so-called 'naked' sponsored access model where the only risk management controls are within the control of the end-client.
Best Execution	<ul style="list-style-type: none"> • ASX generally supports ASIC's proposed best execution policy. • ASX does not support regulation of market operator order routing. To impose an obligation on a market operator router to always route to the venue with the best bid/offer is to effectively impose a US-style market operator best execution obligation on market operators. There are many reasons why this would produce a sub-optimal outcome, as outlined in ASIC's CP145.
Execution Quality Reporting	<ul style="list-style-type: none"> • ASX does not support the proposed execution quality reporting for market operators. • The proposed report is derived from the US market and is not consistent with the proposed Australian rule framework. At best, much of the information reported will be obsolete or of no value to potential end users by the time it is published – as it is backward looking. At worst, the information may confuse or mislead market users.
Pre-Trade Transparency	<ul style="list-style-type: none"> • ASX supports measures to limit the leakage of orders from lit to dark markets based around an approach comprising: <ul style="list-style-type: none"> ○ A large block trade threshold where orders can be transacted away from the market at any price, with a three tier threshold of \$2.5m, \$1m, and \$500,000; and ○ A small trade threshold of \$50,000 for a group of the top listed companies and \$20,000 for other companies below which trades must be sent to fully pre-trade transparent market. • All trades between these thresholds should only be able to be transacted away from lit markets where there is meaningful price improvement (defined as the midpoint of the best bid-offer). • Other exemptions to pre-trade transparency obligations should be continued for portfolio and facilitated special block trades and out-of-hours trades.
Market Integrity Measures	<ul style="list-style-type: none"> • ASX agrees that ASIC should engage actively with industry to assess the costs and benefits of moving to a surveillance system based around real-time collection of client and origin-of-order information. • Any interim measures to improve access to client information should be clearly targeted at activities and investor groups identified as being a particular risk to market integrity.
Content of Pre- and Post-Trade Transparency	<ul style="list-style-type: none"> • ASX supports ASIC's regulatory objective of protecting the integrity of pre and post-trade market data by setting appropriate minimum standards across lit and dark markets. Ensuring that all operators of lit and dark

Subject	Overview of ASX Response
Consolidation of Information	<p>markets are licensed is a necessary first step.</p> <ul style="list-style-type: none"> • ASX agrees with ASIC's proposed exemptions from post-trade reporting requirements, subject to confirmation they do not affect the existing Corporations Regulation definitions of 'reportable transactions' for the purpose of compensation arrangements. <ul style="list-style-type: none"> • ASIC has a regulatory role to maintain the integrity and quality of market information. However, ASIC can achieve its regulatory objectives in relation to integrity and quality of data without mandating a form of 'consolidated tape'. • ASIC has not presented any evidence of market failure that would warrant regulatory intervention in the form of a mandatory consolidated tape or price controls on provision of market information. • ASX specifically does not support the proposed mandatory consolidated tape comprising both pre-trade information (including depth data) and post-trade information. • ASIC's ability to conduct whole-of-market surveillance is a separate consideration and should not be confused with public information usage. A regulatory information feed for ASIC purposes can be achieved with market operators providing data as requested by ASIC, either to ASIC directly or to an entity acting on behalf of ASIC for consolidation.
Maker-Taker Pricing	<ul style="list-style-type: none"> • ASX strongly agrees with ASIC's statement that maker-taker fees can create pricing inefficiencies and distortions. • Failure to prohibit maker-taker pricing will result in increased trading costs for retail and long-term investors and distort the market in favour of HFTs. • Maker-taker pricing provides an incentive for HFTs to stand in between natural buyers and sellers who would have traded with each other had the HFT firm not intermediated. This introduces inefficiencies into the market. • ASIC should continue to allow market operators to offer incentives for liquidity provision as long as certain minimum requirements are met, including minimum volumes on both sides of the market, at maximum spreads, for a minimum time that the market maker has to be present in the market (as a daily %), and not offering differential incentives between passive and active liquidity.
Identification of Short Sales	<ul style="list-style-type: none"> • ASX does not object to undertaking systems changes to facilitate the tagging of short sale orders should ASIC believe that such an audit trail provides it with a useful tool in identifying and prosecuting inappropriate market conduct. • ASX believes there is minimal (if any) benefit in a market operator aggregating and publishing such data, on a security by security basis, as ASIC's existing net position reporting regime is a superior measure of directional short sale activity.

Subject	Overview of ASX Response
Market Operators: Other Obligations	<ul style="list-style-type: none">• ASX does not object to ASIC's premise that there will need to be alignment between market operators in certain areas.• The nine areas for cooperation listed by ASIC in section L are each substantive issues in their own right. However, there is insufficient analysis of the regulatory policy issues or ASIC's proposed approach to enable sufficient consideration of these areas.• ASX recommends that ASIC consult the market with more details of its proposed protocol and cooperation arrangements.