



REPORT 392

Market assessment report: Chi-X Australia Pty Ltd

ACN 129 584 667

May 2014

About this report

This report relates to the period from 1 April 2012 to 31 March 2013 (assessment period).

About ASIC regulatory documents

In administering legislation ASIC issues the following types of regulatory documents.

Consultation papers: seek feedback from stakeholders on matters ASIC is considering, such as proposed relief or proposed regulatory guidance.

Regulatory guides: give guidance to regulated entities by:

- explaining when and how ASIC will exercise specific powers under legislation (primarily the Corporations Act)
- explaining how ASIC interprets the law
- describing the principles underlying ASIC's approach
- giving practical guidance (e.g. describing the steps of a process such as applying for a licence or giving practical examples of how regulated entities may decide to meet their obligations).

Information sheets: provide concise guidance on a specific process or compliance issue or an overview of detailed guidance.

Reports: describe ASIC compliance or relief activity or the results of a research project.

Recent Chi-X assessment reports

Entities	Report number	Date released
Chi-X Australia Pty Ltd (Chi-X)	REP 315	29 November 2012

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A Summary of observations and conclusions

Key points

ASIC may conduct annual assessments of market licensees, including Chi-X, under s794C of the Corporations Act.

The scope of our assessment can include any or all of the statutory obligations of a market licensee, for example, the obligation under s792A(c), which requires the market licensee to have adequate arrangements for operating the market, including arrangements to manage conflicts of interest and monitor and enforce compliance with the operating rules.

We use the market licensee's self-assessment report, our observation of the market licensee's performance, market intelligence and other things to form a view of how well the market licensee has operated its market.

Overall, our assessment concluded that Chi-X met its statutory obligations during the assessment period. However, there are three agreed actions that focus on the ongoing improvement in the operation of the Chi-X market. While important, the agreed actions do not detract from our overall conclusion that Chi-X complied with its statutory obligations during the assessment period.

The assessment

ASIC's obligations

Under s794C(1) of the *Corporations Act 2001* (Corporations Act), the Australian Securities and Investments Commission (ASIC) may assess how well a market licensee is complying with any or all of its licensee obligations.

Licensee obligations

- Under s794C(1), ASIC considered it appropriate to conduct an assessment of Chi-X Australia Pty Ltd (Chi-X) during the assessment period. In our assessment, we reviewed Chi-X's compliance with the statutory obligation to have:
 - adequate arrangements for operating its market, including arrangements for handling conflicts of interest, and monitoring and enforcing compliance with its operating rules (see 792A(c)); and
 - sufficient financial, technological and human resources to operate its market properly (see s792A(d)).

Assessment period

- Our assessment covers the period from 1 April 2012 to 31 March 2013 (assessment period), which aligns with Chi-X's financial year period. While our assessments generally cover the financial year, we ensure that significant post-financial year events are also reviewed, where necessary.
- 4 Our assessments generally begin in June each year, and only after Chi-X has submitted its annual regulatory report for the financial year as required by the Corporations Act.

Assessment findings

ASIC is satisfied that, in terms of the standards set out in the Corporations Act, during the assessment period, Chi-X had adequate arrangements in place for meeting its statutory obligations under s792A(c), and the provision of those services was sufficiently resourced under s792A(d).

Our approach to assessments

ASIC's strategic priorities

- ASIC's current strategic framework focuses on three key priorities. These are to ensure:
 - fair and efficient financial markets:
 - confident and informed investors and financial consumers; and
 - efficient registration and licensing.
- The first two of these are particularly important for licensed markets. For example, the adequate management and transparency of matters such as conflict handling arrangements are important to the fairness of the market. Similarly, technological resourcing supports the smooth operation of financial markets and underpins investor confidence in the market in which they are investing. For these reasons, we regard the assessment process as an important tool by which we continue to strive to meet our strategic priorities.

Guiding principles

- Our assessments are guided by certain principles that draw on the International Organization of Securities Commissions (IOSCO) *Objectives and principles of securities regulation* (IOSCO principles). The IOSCO principles we use to guide assessments are:
 - admission standards for participants are robust and administered in a fair and transparent way;

- post-admission standards are robust and effectively monitored and enforced in a fair and transparent manner;
- operating rules promote transparency to market users of material price and trading information;
- the deterrence of unfair trading practices is supported by robust arrangements for detection and prompt referral to ASIC of significant contraventions of the operating rules and the Corporations Act;
- conflicts of interest are adequately managed; and
- sufficient resources (including technological resources) are deployed to operate the market in a proper and reliable manner.

Methodology

- 9 In conducting our assessment, we:
 - held discussions with senior Chi-X personnel;
 - reviewed internal Chi-X documentation obtained under notices issued under s30 of the *Australian Securities and Investments Commission Act* 2001 (ASIC Act);
 - reviewed the annual regulatory report given to ASIC, dated 30 June 2013, as required under s792F of the Corporations Act;
 - considered information received from and about Chi-X in the ordinary course of ASIC's dealings with it as a market licensee;
 - considered information from external sources, including media and industry commentary; and
 - reviewed the operation of the market throughout the assessment period.

Focus areas for this assessment

- For the purposes of this assessment, and in considering Chi-X's statutory obligations, we focused on Chi-X's:
 - human resources, including its key person risk arrangements and its human resource utilisation strategies, in particular, planning for regulatory developments and product innovations;
 - technological resources, with particular emphasis on its information technology (IT) governance, business continuity and disaster recovery planning, security arrangements, external stakeholder communications, hardware and software reliability, and any technology-related audits;
 - implementation of its participant supervision program, including selfassessment questionnaires and participant visits; and
 - progress and implementation of the agreed actions from our previous assessment.

Nature of licence obligations

- A market licensee must meet a number of licence obligations, including ensuring they have:
 - adequate arrangements for operating the market, including for monitoring and enforcing compliance with its operating rules and handling conflicts of interest; and
 - sufficient financial, technological and human resources to properly operate the market.
- The market licensee must also, to the extent reasonably practicable, meet its obligation to operate a market that is fair, orderly and transparent. As this obligation underlies all other market licensee obligations, a market licensee that is not meeting one of its other market licensee obligations is also likely not to be meeting this obligation.
- A market licensee's obligations are ongoing and whether it is likely to comply with these obligations in the future cannot be judged merely by reference to its past compliance.
- We therefore use the assessment process to:
 - reach conclusions about the adequacy of the arrangements a market licensee has in place in accordance with its obligations under s792A(c) at the time of the assessment; and
 - identify issues, which in our view need, or may need, to be addressed to ensure ongoing compliance.

Adequate arrangements

In assessing how well a market licensee is complying with its statutory obligations to have adequate arrangements in place to operate its market and monitor its market participants' compliance with its operating rules, we consider whether a market licensee has adequate arrangements to monitor and enforce its operating rules, and to handle conflicts of interest.

Arrangements for monitoring and enforcing participants' compliance with operating rules

- In determining whether a market licensee is complying with its obligations to monitor and enforce its operating rules, we consider how the market licensee:
 - monitors market participant activity in relation to its operating rules to detect potential or actual non-compliance with the law or the market's operating rules;
 - plans and documents procedures for ensuring frequent and comprehensive assessment of its ongoing compliance with its obligations, and market participants' compliance with their obligations;

- deals with actual or suspected breaches of the law or the operating rules, including remedial, disciplinary and other deterrent measures;
- deals with complaints about the market or market participants; and
- shares information with ASIC and (where appropriate) operators of other markets.

Arrangements for handling conflicts of interest

- In assessing the adequacy of a market licensee's arrangements for managing conflicts of interest, it is relevant that the regulatory regime does not preclude the existence of conflicts. Chi-X must, however, manage any conflicts it does have so as not to allow its commercial interests to prevail over its obligation to operate a market that is fair, orderly and transparent.
- 18 Conflicts of interest may arise in any area where a market licensee makes decisions with respect to monitoring and enforcing its operating rules. For example, conflicts of interest may arise in connection with decisions about:
 - admission of a person to the market as a participant;
 - monitoring of a market participant;
 - investigative or disciplinary action;
 - the exercise of discretions, such as granting waivers from the market's operating rules; and
 - the determination of the fees schedule of a financial market, including any trading incentive programs and/or relevant shareholder rebates.
- In assessing a market licensee's arrangements for handling conflicts of interest, we consider a range of matters, including:
 - whether, under current arrangements, actual or potential conflicts of interest are reliably anticipated, identified and appropriately responded to;
 - whether there is a sufficient level of disclosure to the market about the nature and existence of any actual or perceived conflict and the steps taken to adequately manage it; and
 - whether the market licensee's organisational and reporting structures separate its commercial activities from its monitoring activities to a significant degree.
- For example, a suitable organisational and reporting structure is one where employees who are responsible for assessing the market licensee's compliance with its monitoring obligations report to a person who is not responsible for making commercial decisions.

Sufficient resources

- In assessing how well a market licensee is complying with its obligation to have sufficient resources to operate its market properly under s792A(d), we consider:
 - how the market licensee makes available and uses resources to support its arrangements for operating its market, taking into consideration:
 - the financial, technological and human resources made available during the assessment period; and
 - a general expectation that resourcing should increase in line with the market licensees' operations, and that any reduction is appropriate only where changed circumstances or specific efficiencies can be clearly demonstrated;
 - the market licensee's information technology system 'uptime' and instances of market disruption; and
 - our own experiences and observations, as well as those of market users, that there can be confidence that the market will operate in a reliable manner.

Assessment findings

ASIC is satisfied that, during the assessment period, Chi-X had adequate arrangements in place to meet its statutory obligations under s792A(c) of the Corporations Act, and that the provision of those services was sufficiently resourced: see s792A(d).

Agreed actions

- ASIC has identified three areas which focus on ongoing improvement of the operation of the Chi-X market. While the agreed actions are important, they do not cause us to qualify our overall conclusion that Chi-X met its statutory obligations during the assessment period.
- The agreed actions can be found in Section B of this report.

Market conditions

- A discussion of the market conditions for the 2012–13 financial year is contained in Section C of this report. The key features were:
 - The S&P/ASX 200 index (S&P/ASX 200), which covers trading on both Chi-X and ASX, increased by 16% in the 2012–13 financial year and 10.8% in the first quarter of the 2013–14 financial year.
 - Volatility of the S&P/ASX 200 has generally been stable throughout 2012–13. However, volatility fell to around 7% in early-2013, and

- peaked in July 2013 when the 30-day indicator rose to 20.3%. Since then, volatility levels have declined, falling to 10.3% by the end of the September 2013 quarter.
- Chi-X's growth in total turnover has outpaced that seen in the overall equity market. Chi-X increased its share of total equity market turnover from 1.7% in April 2012 to 14.3% in September 2013. This growth was driven by increases in its off-market turnover following the introduction of its trade reporting facility in May 2012. Chi-X's total market turnover of 14.3% comprised a 7.5% share of off-market trade reporting turnover and a 6.8% share of on-market order book turnover.

Agreed actions from previous assessment

- In November 2012, we published our first market assessment report of Chi-X, which included nine agreed actions: see Report 315 *Market assessment report: Chi-X Australia Pty Ltd* (REP 315).
- 27 Chi-X has completed all of the agreed actions in REP 315. Details on Chi-X's status in response to the agreed actions from REP 315 are set out in Section D.

Consultation

28 Chi-X has had the opportunity to view and comment on the factual accuracy of this report. Where appropriate, this report reflects Chi-X's comments.

B Agreed actions and observations

Key points

We have considered the adequacy of Chi-X's arrangements and the sufficiency of resources for the operation of the Chi-X market.

Our view is that Chi-X complied with its statutory obligations, as they existed at the time of the assessment period. We have identified three areas that are the subject of agreed actions which focus on the ongoing improvement in the operation of the Chi-X market.

While these agreed actions are important, they do not cause us to qualify our overall conclusion that Chi-X met its statutory obligations during the assessment period.

Nature of agreed actions

- Overall, our assessment concluded that Chi-X met its statutory obligations during the assessment period. Chi-X has an established record of delivering numerous system upgrades and initiatives to the market and has continuously operated in compliance with its market obligations.
- The agreed actions and observations in this section relate to matters which, in our view, focus on ongoing improvement to the operations of the Chi-X market.
- Our three agreed actions can be broken down into two categories:
 - human resources (agreed actions 1–2); and
 - technological resources (agreed action 3).

Human resources

- The first category of agreed actions relate to Chi-X's arrangements for human resources.
- In assessing the adequacy of Chi-X's human resources, we considered a range of matters, including:
 - Chi-X's approach to managing key person risks; and
 - Chi-X's human resource arrangements, in particular, when planning for compliance with regulatory changes and development of product innovations.

Background

- Chi-X currently has 15 staff. The resourcing requirements of Chi-X are the responsibility of local managers, who are able to raise any concerns directly with local senior management and, if necessary, the Chi-X Board. The Chi-X Executive Committee, which is comprised of Chi-X's Chief Executive Officer (CEO) and the heads of five Chi-X business units, meet on a weekly basis to discuss, among other things, the resource requirements of Chi-X, including human resources.
- The Chi-X Compliance team is also responsible for monitoring resources. The Compliance team is comprised of the Head of Compliance and a part-time Senior Analyst. In particular, the Compliance team is responsible for monitoring any resources that are required to ensure, monitor and assess compliance with Chi-X's market licensee obligations. The Compliance team reports to the Compliance Committee, which is comprised of an independent non-executive director of the Chi-X Board and the Head of Compliance. The Compliance Committee meets on a monthly basis and keeps records of discussions on these issues.

Key person risks

- In our previous assessment, we noted that because of the size of the Chi-X team, we thought there were several key person risks within the organisation, with one role in particular presenting an increased risk.
- In response to an agreed action in our previous assessment (see REP 315), a key focus for Chi-X during this assessment period was to address this risk.
- Chi-X has completed the agreed actions from the last assessment report and, in April 2013, recruited a permanent part-time resource that is sufficiently senior to assume responsibility for the particular role, if required. In addition, key person risk procedures have been developed for the specific role and relevant training has been provided.
- During the assessment period, we also became aware that another key person identified in our previous assessment had resigned. In response, Chi-X engaged a private company as a consultant for the particular role. The key person that had resigned was a director of the private company and had been nominated to provide the contracted services.
- We discussed with Chi-X the control framework in place to ensure that service-level arrangements were appropriate for the contracted services. Our assessment found that the performance and deliverables were the same as those stipulated when the contracted director of the private company was an employee of Chi-X.

- Due to these revised arrangements, we revisited Chi-X's key person risk arrangements for this critical function and were provided with a list of Chi-X staff that would back-up each of the key person's responsibilities.
- Although Chi-X has made progress with its management of key person risks since our previous assessment in REP 315, we believe it should broaden and further develop this framework to capture critical roles across its entire organisation. The widening of this framework will be important to ensure that these critical roles can be readily performed by other relevant staff within the organisation should unexpected events occur.

Agreed action 1: Management of key person risks

Chi-X has agreed to further develop its existing documentation on the processes and procedures that are necessary for the smooth function of critical roles across the entire organisation. These processes and procedures should include conducting specific training of staff nominated to fulfil the work duties of key staff.

Human resource utilisation

- The appropriate use of existing human resources is especially important for Chi-X because it is made up of a relatively small local team.
- Project planning and project management are important tools that can assist in managing and appropriately utilising the existing level of human resources for any market operator, to ensure change requirements are met in a timely manner. This includes ensuring that prospective market innovations have been subject to a level of analysis that includes a timely and thorough consideration of the regulatory implications of a proposal.
- We considered Chi-X's utilisation of human resources in light of:
 - some specific regulatory developments that arose during the assessment period; and
 - certain innovations that Chi-X wanted to introduce to the market.

Significant regulatory developments

- Chi-X has a good record of meeting regulatory deadlines, with one example being the set-up of its market in time for the 31 October 2011 launch.
- On 21 November 2012, ASIC announced new market integrity rules to address risks emerging from developments in market structure, including growth in automated trading and the changing nature of dark liquidity: see Media Release (12-290MR) ASIC makes key announcements on market structure, dark liquidity and high-frequency trading (21 November 2012). The new market integrity rules would be phased in over an 18-month period, with certain changes to be implemented on 26 May 2013 (the 26 May

- changes). The 26 May changes required market operators and industry to implement changes to their technological systems to a set deadline.
- In the period since the 26 May changes were announced, Chi-X held discussions with ASIC regarding the application of the new market integrity rules to some of its order types. Over a period of months, ASIC and Chi-X worked together to clarify the relevant impacts of the changes on Chi-X.
- Chi-X could not make changes to its systems until the impacts of the changes had been clarified. Once that clarity had been established, Chi-X found that there was insufficient time to make the system changes necessary to meet the deadline. As a result, Chi-X sought a waiver from compliance with the 26 May changes for some of its order types.
- The waiver was requested because the changes required to be made to Chi-X's systems were complex and involved changes to its matching engine and, therefore, needed to be completed with a high level of attention to detail. A waiver was granted for a four month period to the end of September 2013.
- We acknowledge that the 26 May changes to ASIC market integrity rules may impact on the operation of the Chi-X order book in a way that requires considerable testing, review and analysis. However, we consider that industry had the necessary time to prepare for the changes and that a review by Chi-X of its project management processes may assist Chi-X in the future, should projects need to be delivered within short time frames.
- Our review of Chi-X's records found that there were several documents relating to its consideration of the 26 May changes that were not dated. This made it difficult for ASIC to understand when certain milestones were completed. We believe that Chi-X's capacity to estimate the overall magnitude of the project upfront would have been helped by the use of certain tools, for example, a detailed project plan to outline the scope of the project, tasks, responsibilities and target dates for certain milestones during the user requirement preparation stage.
- Once Chi-X Global Technology (Chi-Tech) receives the completed userrequirement information from Chi-X, it begins to make the necessary system changes. At this stage, we noted the existence of documented project management and monitoring processes initiated by Chi-Tech. Chi-Tech then provided a delivery date to Chi-X for completion of the system build.
- Chi-X then ran weekly status meetings and produced project status reports to monitor risks and issues. Importantly, the delivery dates for the system builds, which included specification changes for block trade thresholds

¹ The introduction of market competition resulted in ASIC adopting market integrity rules that were largely based on an ASX paradigm. As a consequence, they may have a more significant impact on some areas of Chi-X's systems, when compared to ASX.

(implemented in May 2013) and meaningful price improvement requirements (implemented in September 2013 as a result of the waiver Chi-X obtained) were met.

While we recognise that not all projects and initiatives require a resourceintensive approach to ensure deadlines are met, in some instances the use of a project management approach that begins before completion of userrequirement information may be beneficial. This is particularly important for a market operator, such as Chi-X, which has a relatively small number of staff.

Agreed action 2: Project management processes

Chi-X has agreed to review its existing project management processes and reflect any updated processes in its procedures.

Managing regulatory expectations

In early-October 2012, we became aware that some of Chi-X's order types may not have been fully compliant with the pre-trade transparency requirements contained in Chapter 4 of the ASIC Market Integrity Rules (Competition in Exchange Markets) 2011.

Note: In this guide, a reference to the ASIC Market Integrity Rules (Competition) is a reference to the ASIC Market Integrity Rules (Competition in Exchange Markets) 2011 as amended from time to time, unless otherwise specified.

- While Chi-X did not share our view, on 19 October 2012, it agreed to take steps and make changes to comply with our expectations (the 19 October changes). The 19 October changes required alterations to Chi-X's matching engine, which were not entirely straightforward. Chi-X indicated that the 19 October changes would need to go through its normal internal process for system changes, and would be implemented no later than 31 March 2013.
- The particular order types which needed to be made fully compliant were not actively used. However, to minimise potential non-compliance in the interim, Chi-X agreed to monitor the order types on a daily basis and follow up with participants if any relevant orders were received.
- During testing for the implementation of the 19 October changes, a number of issues arose that required resolution before release into Chi-X's production environment was possible. A new release was subsequently developed to include these changes.
- In the first quarter of the 2013 calendar year, Chi-X also commenced work on the 26 May changes. In Chi-X's view, the 26 May changes shared common ground with the 19 October changes required to make Chi-X order types fully compliant with the ASIC Market Integrity Rules (Competition), as they stood at the time, and Chi-X made the decision to incorporate them into the implementation program for the 26 May changes.

- In forming this view, Chi-X did not update ASIC on the amended implementation timeframe for the changes it agreed to make in October 2012. Chi-X maintains it would have been impractical to implement the 19 October changes to address ASIC's expectations by 31 March 2013, and then subsequently implement further amendments to address the 26 May changes.
- We appreciate that Chi-X would be reluctant to make amendments to its systems twice to account for changes it considered shared common ground. However, we believe Chi-X could have better managed its communication to ensure that it kept ASIC informed about changes it indicated it would implement within a certain timeframe. This is particularly important where considerations of compliance are concerned. ASIC and Chi-X will continue to work together in the future to ensure timely communication of this nature.

Product innovation

- 63 Chi-X has introduced a number of innovations since it commenced operation, some of which were introduced during the assessment period. Although we are very supportive of innovation we did query, during our assessment, whether Chi-X would benefit from developing more specific documented procedures, or checklists of actions, that need to be undertaken when an innovation is being considered by Chi-X's marketing, operations or technology teams.
- This was, in part, prompted after Chi-X approached ASIC with potential innovations that we considered were not sufficiently advanced, and had not been subject to a level of analysis that would support efficient regulatory clearance. Chi-X did not agree that the innovations were not sufficiently advanced for its understanding of the intended purpose, which was to alert ASIC to various initiatives it was considering developing. We acknowledge that:
 - this was the first time Chi-X had provided this type of information to ASIC; and
 - in some of these instances, we asked Chi-X to submit documentation in order to meet ASIC operational deadlines, which may have limited Chi-X's ability to further develop these innovations before submission.
- To assist market operators, such as Chi-X, to better understand the type of regulatory considerations associated with product innovations and other operating rule changes, we have recently prepared and provided an innovation policy consideration checklist. This document, in conjunction with any action arising from Chi-X's review of internal processes and procedures, will help Chi-X to implement innovations in the most efficient and timely manner possible. ASIC and Chi-X will continue to work together on this issue.

Staffing levels

- Chi-X believes that its current staffing levels are adequate, and it has no plans to increase them in the short-to-medium term, despite its growing market share. According to Chi-X, its systems are scalable, so it does not forsee a need to acquire a significant number of new staff as its market share grows.
- We believe that Chi-X should continue to closely monitor its level of human resources, and adjust this level as necessary. We will also continue to closely monitor Chi-X's staffing levels in future assessments. This will be particularly important for Chi-X if it take steps to expand its current business in any material respects.

Technological resources

- Technology plays an integral role for financial markets and, in the context of ASIC's strategic priorities, a fundamental role in ensuring financial markets are fair and efficient. In light of the ongoing evolution and advancements in financial market infrastructure technology, and the increase in cybercrime due to the online revolution, the sufficiency of a market licensee's technological resources, including a market licensee's arrangements for ensuring systems integrity and security against online attacks, will continue to be one of the key focus areas of our assessments in the foreseeable future.
- In reviewing the sufficiency of Chi-X's technological resources, we considered Chi-X's:
 - IT governance framework;
 - business continuity and disaster recovery planning arrangements;
 - systems integrity and security arrangements;
 - external stakeholder communications;
 - hardware and software reliability; and
 - technology audits.
- During the assessment period, Chi-X did not experience any system issues which affected its trading system. Chi-X has also successfully implemented all of its trading system updates since it began operations, including a number during the assessment period. This is an important achievement.
- Chi-X has service-level and escalation agreements in place with related entities for trading system incidents. However, these arrangements are between Chi-X and Chi-Tech and do not directly address actions involving ASIC, other market operators or participants of Chi-X.
- Having clarity and transparency around Chi-X's key incident management processes with these key stakeholders would ensure Chi-X continues to

operate a fair, orderly and transparent market in the event of an incident with one of its key technology systems in the future. We note that Chi-X has commenced steps to introduce support protocols and standardised procedures in this area.

Agreed action 3: System incidents

Chi-X has agreed to work with ASIC to expand its general incident management processes for material system incidents across all of its technology systems, including:

- allocating responsibility to identified senior managers for informing relevant market operators and ASIC of an incident; and
- listing factors that will be taken into account in deciding whether to inform relevant market operators and ASIC of an incident.

Other observations

Monitoring and enforcing compliance

73 Chi-X has an obligation to have adequate arrangements in place for monitoring and enforcing compliance with its operating rules. In this assessment, we focused on reviewing Chi-X's processes and procedures for admitting and monitoring its participants' compliance with its operating rules.

Background

- Chi-X has established a comprehensive framework for the monitoring and enforcement of compliance with its operating rules. The framework includes a:
 - (a) Compliance team, which investigates alleged breaches:
 - (b) Compliance Committee, which considers and makes decisions regarding alleged breaches; and
 - (c) Review Committee, which can consider applications from participants for the review of Compliance Committee decisions.

Participant application process

- Corporate entities are required to make an application to Chi-X for approval before being granted access to the Chi-X market as a participant. Chi-X considers applications for the admission of participants to its market in accordance with its operating rules and operating rules procedures.
- Chi-X's participant application process requires participants to set out their systems and controls for interacting with the Chi-X market. For example, each applicant for participant status must provide Chi-X with copies of its operations and management plan, so that Chi-X may have an adequate

understanding of how participants operate and apply adequate controls to their methods of interaction with the Chi-X market.

An operations and management plan includes the allocation of responsibilities to responsible managers and responsible executives, details of the order management and execution management systems that a participant intends to route orders through to Chi-X, and details of internal crossing systems or dark pools of the participant. After consideration by Chi-X's market, operations, IT and Compliance teams, a formal decision is made by Chi-X's Participant Suitability Committee.

In our previous assessment, we reviewed Chi-X's participant admission process in detail: see REP 315. There were a number of agreed actions in our previous assessment that Chi-X has responded to and implemented in practice, which we believe have improved its participant admission process: see Section D.

Participant self-assessment program

- During the assessment period, Chi-X implemented a participant self-assessment program, which is overseen by its Compliance Committee. The program is based on assessing participant responses to a questionnaire targeting specific risk areas for the Chi-X market, and applying that analysis to a risk matrix that is used as a tool for planning participant visits. Chi-X plans to undertake the self-assessment program on an annual basis.
- In December 2012, Chi-X issued a participant self-assessment questionnaire to the 27 participants of the Chi-X market at that time, the written responses were returned in February 2013.
- The participant self-assessment questionnaire sought to analyse and take action in the primary areas where Chi-X faces risks to the maintenance of a fair, orderly and transparent market, including accessing the Chi-X market and supervision and monitoring of activity on Chi-X.
- Participant's responses were reviewed, summarised and discussed internally. Chi-X's Compliance team then commenced a program of follow-up participant visits for three participants in May and early-June 2013.
- We did not find any significant issues of concern as a result of our review of Chi-X's participant self-assessment program.

Conflict handling arrangements

- As part of our assessment process, we reviewed Chi-X's conflict handling arrangements, including its:
 - (a) organisational and reporting structures;

- (b) conflict management policies;
- (c) processes and procedures for identifying and managing conflicts of interest; and
- (d) conflicts register.
- Our previous assessment reviewed Chi-X's conflict handling arrangements in detail: see REP 315. In this assessment, we sought to understand how they had evolved and whether they continue to operate effectively in practice.
- 86 Chi-X's structure for identifying and managing its conflicts of interest includes:
 - a corporate governance framework with an independent non-executive director on the Chi-X Board; a Compliance Committee, which is chaired by an independent non-executive director; a Review Committee, which is chaired by an employee of a market participant; a Participant Suitability Committee; and an Audit Committee;
 - allocating the ultimate responsibility to Chi-X's CEO, with assistance and monitoring by the Compliance team and oversight by the Compliance Committee, which reports directly to the Chi-X Board; and
 - ensuring the Compliance team plays an independent role in identifying and managing any conflicts of interest that may arise, and has a separate reporting line to the Compliance Committee.
- In March 2012, the Chi-X Board resolved to establish an Audit Committee. The Audit Committee had its Terms of Reference settled on 30 November 2012 and its first meeting has been timed to coincide with Chi-X's external audit for the 2014 financial year. The Audit Committee is comprised of two members. The chair is an independent non-executive director of the Chi-X Board. The other member is an independent consultant who is also a senior partner in the audit team of an Australian member of a global accounting firm.
- In November 2012, the then CEO announced his intention to resign. An independent recruitment agency was engaged to conduct a global search, and in April 2013 a new CEO was announced. The new CEO was formally appointed by the Chi-X Board in May 2013.
- Chi-X's conflicts register includes entries relevant to both the current and previous CEO's. The new CEO was appointed from a participant of Chi-X, with the period between the two roles minimal. Although the new CEO's previous employment with the participant may conflict with the duty to treat participants equally and supervise the market appropriately, Chi-X has mitigated this potential conflict by making Chi-X management aware of this issue and the need to excuse the new CEO from matters concerning his previous employer.
- 90 Chi-X's previous CEO remains on the Chi-X Board as an independent nonexecutive director and will also chair Chi-X's Audit Committee, which will

review Chi-X's compliance activities as part of its key tasks. ASX, in their *Corporate governance principles and recommendations*, note that previous employment in the last three years in an executive capacity may affect a director's independence status. However, Chi-X distinguishes its circumstances on the basis that:

- (a) it is not a public company, it is a small private company with a limited number of positions on its board;
- (b) operating a market is an esoteric business in which its previous CEO has vast experience and knowledge; and
- (c) there are significant external (e.g. ASIC) and internal (e.g. licence requirements) governance checks and balances on Chi-X.
- Chi-X has emphasised that the previous CEO has had some time away from the business, and was also quite separate from Chi-X's compliance function while at the helm. Chi-X advises that it will take steps to address any specific conflicts on a case-by-case basis.

Monitoring compliance with licence obligations

- Ohi-X's processes for monitoring compliance with its market licence obligations (including conflicts) includes internal reviews conducted by the internal audit division of Chi-X's parent company, Chi-X Global Holdings LLC (Chi-X Global). For example, during the assessment period, Chi-X Global's internal audit team conducted a review of Chi-X, including Chi-X's trading operations, incident management, data back-up and retention, and business continuity. No material issues were noted as a result of their review.
- The newly established Audit Committee will also play a key role in monitoring, and providing an additional level of oversight of, Chi-X's compliance function.
- In accordance with s792F of the Corporations Act, Chi-X submitted its annual regulatory report to ASIC in June 2013, outlining the extent to which it has complied with its obligations as a market licensee.

C Market conditions

Key points

This section discusses the market conditions during the assessment period and any significant post-assessment period events, where necessary. Some key features included:

- The S&P/ASX 200, which covers trading on both Chi-X and ASX, increased by 16% in the 2012–13 financial year and 10.8% in the first quarter of the 2013–14 financial year.
- Volatility of the S&P/ASX 200 has generally been stable throughout 2012–13. However, volatility fell to around 7% in early-2013, and peaked in July 2013 when the 30-day indicator rose to 20.3%. Since then, volatility levels have declined, falling to 10.3% by the end of the September 2013 quarter.
- Chi-X's growth in total turnover has outpaced that seen in the overall equity market. Chi-X increased its share of total equity market turnover from 1.7% in April 2012 to 14.3% in September 2013. This growth was driven by increases in its off-market turnover following the introduction of its trade reporting facility in May 2012. Chi-X's total market turnover of 14.3% comprised a 7.5% share of off-market trade reporting turnover and a 6.8% share of on-market order book turnover.

Market performance

- Following a period of weakness in the previous financial year, the Australian equity market began to stabilise and then recover during the first half of the 2012–13 financial year: see Figure 1. The S&P/ASX 200, which covers trading on both Chi-X and ASX, increased by 12.5% between July and December 2012. The improved performance of the S&P/ASX 200 was in line with a general rebound in global equity markets during this period.
- The March 2013 quarter saw continued gains in the S&P/ASX 200, with the index increasing by 6.8% during the quarter. In contrast to these strong gains, the June 2013 quarter was noticeably weaker, with the index falling by 3.3% during the final quarter of 2012–2013.
- After declining in the June 2013 quarter, the Australian equity market rebounded strongly during the first quarter of the 2013–14 financial year, with the S&P/ASX 200 increasing by 10.8% between July and September 2013.

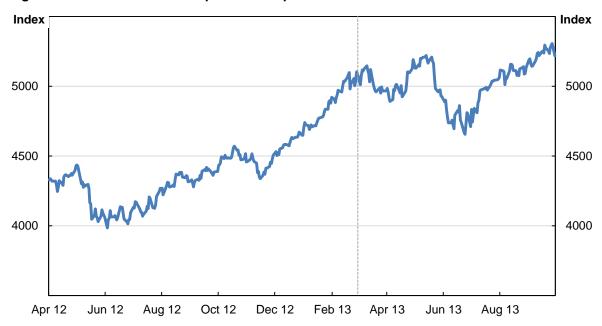


Figure 1: The S&P/ASX 200: April 2012-September 2013

Source: Bloomberg

Volatility of the market

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Volatility in the Australian equity market was broadly stable over the course of the 2012–13 financial year. However, this masks a period where volatility fell to around 7% in early-2013: see Figure 2.² After trending downward throughout most of the June 2013 quarter, volatility levels rose sharply between late-June and mid-July 2013, reaching a peak of 20.3%. Since then volatility levels have declined noticeably, falling back to 10.3% by the end of the September 2013 quarter.

² The indicator measures the standard deviation of the change in the closing price of the index for the 30 most recent trading days. The measure is then expressed as an annualised percentage. An increase in the volatility measure can be interpreted as an increase in the riskiness of the overall stock market.

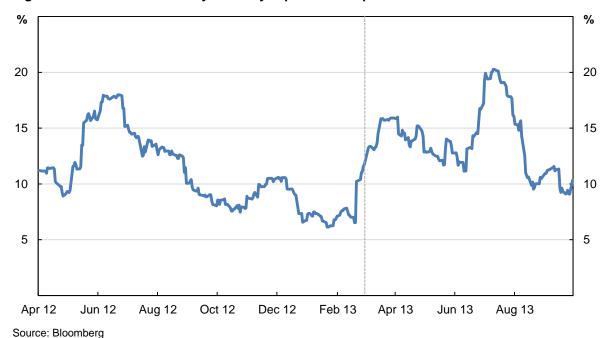


Figure 2: S&P/ASX 200 30-day volatility: April 2012-September 2013

Market activity

Daily turnover in the S&P/ASX 200 averaged \$3.8 billion from April to December 2012.³ Turnover increased in 2013, averaging \$4.5 billion per day in the first quarter of 2013, and \$4.7 billion per day over the year to August 2013.

100 Chi-X's growth in total turnover has outpaced that seen in the overall equity market. In April 2012, Chi-X was still a relatively new exchange with less than \$100 million turnover per day, or 1.7% of total equity market turnover: see Figure 3. Over the remainder of 2012 and early-2013, Chi-X's share of total turnover rose significantly to 11.5% (\$478 million turnover per day) in January 2013, as a result of Chi-X opening their trade reporting facility in May 2012 (allowing for the reporting of off-market trades) and brokers beginning to meet their best execution obligations.

101 Chi-X's turnover continued to trend upwards throughout 2013 despite monthly variations. In September 2013, Chi-X conducted average daily turnover of \$681 million, or 14.3% of total equity market turnover. This comprised of a 7.5% share of off-market trade reporting turnover and a 6.8% share of on-market order book turnover.

³ IRESS.

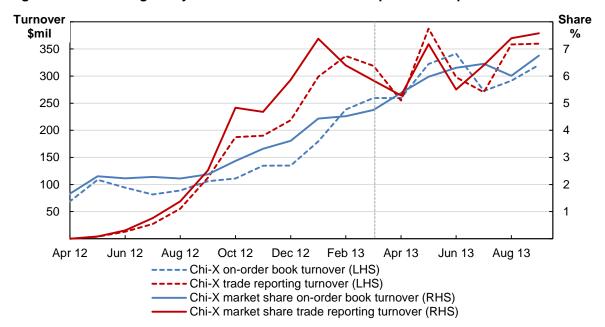


Figure 3:Chi-X average daily turnover and market share: April 2012-September 2013

Source: SMARTS

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The increase in the Chi-X market's turnover has coincided with similar strong growth in the number of trades reported on the Chi-X market. The average daily number of trades on Chi-X has increased from 26,000 in April 2012 to 187,000, or a peak of 19.1% of total market trade count, in March 2013. Chi-X's average number of trades jumped above 200,000 per day in May 2013, but has since fallen to 159,000 per day (18.5% of total market trade count) in September 2013, driven primarily by a reduction in the number of trades conducted off market: see Figure 4. This fall in trade count is unmatched by a decrease in total turnover, resulting in an increased average trade size for Chi-X off-market trades over the past few months. More generally, the average trade size on Chi-X remains lower than the average trade size on ASX.

Trades Share '000 140 14 120 12 100 10 80 8 60 6 40 20 2 Apr 12 Aug 12 Oct 12 Dec 12 Feb 13 Apr 13 Jun 12 Jun 13 Aug 13 ---- Chi-X on-order book trade count (LHS) ---- Chi-X trade reporting trade count (LHS) Chi-X market share on-order book trade count (RHS) Chi-X market share trade reporting trade count (RHS)

Figure 4: Chi-X average daily number of trades and market share: April 2012-September 2013

Source: SMARTS

D Agreed actions from previous assessment

Key points

In November 2012, we published our first assessment report of Chi-X (REP 315), which included nine agreed actions. Chi-X has taken steps to comply with these.

In November 2012, we published our first assessment report of Chi-X (REP 315), which included nine agreed actions. Table 1 lists Chi-X's progress against each agreed action arising from our previous assessment.

Table 1: Agreed actions from previous assessment of Chi-X

Agreed actions	Status	
Agreed action 1: Disclosure of conflicts and conflict handling arrangements	During the assessment period, Chi-X uploaded documentation about its conflict handling arrangements onto its website. The documentation can be accessed at: www.chi-x.com.au/compliance.aspx	
Chi-X has agreed to update its public website to include the names of the entities with which it may have material actual or potential conflict, the nature of the conflict, and the arrangements that it has in place to manage the conflict		
Agreed action 2: Conflicts register	Chi-X has expanded its conflicts register to capture more information about the nature of each conflict.	
Chi-X has agreed to expand its conflicts register to include all potential material conflicts, and incorporate further details on who identified the conflict, how the conflict was identified, and the date on which the conflict was identified.		
Agreed action 3: Hidden order threshold control failure	Chi-X provided a copy of this report to ASIC on 30 November 2012.	
Chi-X has agreed to provide ASIC with a final report on the outcome of its internal review on the hidden order threshold control failure, including the changes that it plans to implement to address the issues highlighted by that review, by 30 November 2012.		
Agreed action 4: Participant admission process	Chi-X has made a range of improvements to its processes for admitting participants to its market to address this agreed action. Discussions are continuing with ASIC on further improvements.	
Chi-X has agreed to review its processes and procedures for the admission of participants, and implement improvements, including:		
 ensuring that admission is not granted until a participant is ready to commence trading operations; 		
where possible, ensuring that a participant is in a position to commence trading operations immediately upon admission taking effect;		

Agreed actions Status

- updating its compliance checklist to include the date on which the application was received, the date on which follow-up inquiries were made, records of all correspondence relating to followup inquiries made for items on the checklist (including the responses from the applicant and the date on which the responses were received), and the date on which the application was approved;
- updating its participant admission letter to ensure that its newly admitted participants are aware of the effective date of admission, and that, upon admission, the participant will be required to comply with the Chi-X Operating Rules and ASIC Market Integrity Rules (Chi-X Australia Market) 2011;
- ensuring that accurate and complete records are maintained in all the files and systems that it uses for reviewing and approving participant applications;
- continuing to enhance its processes and procedures for recording Participant Suitability Committee meeting minutes; and
- updating all documents relating to the admission of participants to ensure the documents reflect the current processes and procedures.

Agreed action 5: Monitoring participants' compliance with its operating rules

Chi-X has agreed to finalise the processes and procedures relating to its participant self-assessment program, and provide ASIC with a copy of the self-assessment questionnaire and its plan for rolling out the questionnaire to its market participants by 30 November 2012. In addition, Chi-X should provide ASIC with its schedule for targeted participant visits by the end of the 2012 calendar year.

Chi-X submitted its finalised procedures for its participant self-assessment program and a copy of its participant self-assessment questionnaire to ASIC on 30 November 2012. Chi-X also provided ASIC with the dates for its scheduled participant visits in early May 2013.

Agreed action 6: Monitoring compliance with licence obligations

Chi-X has agreed to finalise the establishment of its Audit Committee and provide ASIC with a copy of the Audit Committee Terms of Reference by 30 November 2012, and ensure that the committee's mandate includes the review of the Compliance team's activities.

Chi-X finalised the Audit Committee's Terms of Reference, and subsequently submitted it to ASIC on 30 November 2012.

Agreed actions

Status

Agreed action 7: Minutes relating to Compliance Committee meetings

Chi-X has agreed to update the Compliance Committee's Terms of Reference to reflect the revised requirements for the recording of meeting minutes that relate to its internal compliance and participant compliance matters, including the reporting of the minutes to the Chi-X Board, and provide a copy of the updated Terms of Reference to ASIC by 31 December 2012. Chi-X updated the Terms of Reference for its Compliance Committees to reflect the more detailed recording requirements, and submitted it to ASIC on 29 December 2012.

Agreed action 8: Ongoing monitoring of human resource requirements

Chi-X has agreed to finalise the development of its performance monitoring metrics and provide ASIC with a copy of the relevant documentation by 31 December 2012.

Chi-X submitted the metrics to ASIC on 29 December 2012. Chi-X advised that these metrics are subject to review and will evolve with experience.

Agreed action 9: Management of key person risk

Chi-X has agreed to develop documentation on the processes and procedures that are necessary for the smooth operation of the function that is managed by the specific key person risk that ASIC has identified to ensure that the role can be performed by other relevant staff if the key person is unavailable to carry out this crucial function. The documentation should include a reference guide for accessing and maintaining the key documents managed or held by this role. In addition, appropriate cross-training should be provided to relevant staff to ensure that they are able to sufficiently support its independent non-executive director, if required.

Chi-X developed documentation to deal with the specific key person risk identified by ASIC. The documentation outlines the nature of the risk, the emergency arrangements in place in the event of unforseen absence and the key tasks and tools required to undertake the role. Relevant training was provided and is a continuing process.

Key terms

Term	Meaning in this document
ASIC	Australian Securities and Investments Commission
ASIC Act	Australian Securities and Investments Commission Act 2001
ASIC Market Integrity Rules (Chi-X)	ASIC Market Integrity Rules (Chi-X Australia Market) 2011—rules made by ASIC under s798G of the Corporations Act for trading on Chi-X
ASIC Market Integrity Rules (Competition)	ASIC Market Integrity Rules (Competition in Exchange Markets) 2011—rules made by ASIC under s798G of the Corporations Act that are common to markets dealing in equity market products and CGS depository interests quoted on ASX
ASX	ASX Limited or the exchange market operated by ASX Limited
Australian domestic licensed financial market	A financial market licensed under s795B(1) of the Corporations Act
Australian market licence	Australian market licence under s795B of the Corporations Act that authorises a person to operate a financial market
Ch 7 (for example)	A chapter in the Corporations Act (in this example numbered 7)
Chi-Tech	Chi-X Global Technology, which is the technology division of Chi-X Global
Chi-X	Chi-X Australia Pty Ltd or the exchange market operated by Chi-X
Chi-X Global	Chi-X Global Holdings LLC, which is the parent company of Chi-X
Chi-X Operating Rules	All rules determined or established by Chi-X that deal with the activities or conduct of the market or the activities or conduct of persons in relation to the market
Corporations Act	Corporations Act 2001, including regulations made for the purposes of that Act
IOSCO	International Organization of Securities Commissions
IOSCO Principles	The Objectives and Principles of Securities Regulation, originally adopted by IOSCO in September 1998, as amended from time to time
market integrity rules	Rules made by ASIC, under s798G of the Corporations Act, for trading on domestic licensed markets
market licence	An Australian market licence

Term	Meaning in this document
market licensee	Holder of an Australian market licence
participant	A participant of a licensed market
s794C (for example)	A section of the Corporations Act (in this example numbered 794C), unless otherwise specified
S&P/ASX 200 Index	An index of the largest 200 shares listed on ASX by market capitalisation