



ASIC

Australian Securities & Investments Commission

Overview of CP 145 and REP 215: Australian equity market structure

November 2010

About this overview

This overview document is the same as Part 1 of Consultation Paper 145 *Australian equity market structure: Proposals* (CP 145). Both this overview and Part 1 of CP 145:

- summarise CP 145 and the accompanying report, *Australian equity market structure* (REP 215);
- describe the purpose and structure of CP 145; and
- include a summary of how we consider equity markets are evolving with and without competing exchange markets, and our proposals to respond to these developments.

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.

Document history

This document was issued on 4 November 2010 and is based on the Corporations Act as at 4 November 2010.

Disclaimer

The proposals, explanations and examples in this document do not constitute legal advice. They are also at a preliminary stage only. Our conclusions and views may change as a result of the comments we receive or as other circumstances change.

Contents

A	About Consultation Paper 145	4
	Who should read Consultation Paper 145	4
	Government’s policy to introduce competition for exchange market services	4
	ASX–SGX merger announcement.....	5
	Market licence applications.....	5
	Recent market developments	6
	Purpose and structure of CP 145	6
	Feedback sought	9
	Steps and timing for implementation	9
B	Summary of market developments and proposals	11
	The Australian equity market today	13
	Recent and likely equity market developments	16
	Competition for exchange market services	23
	Objectives of the proposals in CP 145	30
	ASIC’s proposed regulatory approach.....	30
	Summary of regulatory proposals.....	34

A About Consultation Paper 145

Who should read Consultation Paper 145

- 1 The proposals in Consultation Paper 145 *Australian equity market structure: Proposals* (CP 145) apply to:
 - (a) holders of an Australian market licence (market operators) that offer trading services in shares, managed investment schemes and CHESSE Depository Interests (CDIs) admitted to quotation on the Australian Securities Exchange (ASX) (collectively, ‘equity market products’);¹ and
 - (b) participants of markets in equity market products.
- 2 We expect that the proposals in CP 145 will impact:
 - (a) market participants, ASX and prospective operators of markets in equity market products, as the proposals apply to them directly;
 - (b) persons who access exchange markets through a market participant’s infrastructure, as certain proposals relate to the relationship between them and market participants, including the way they access exchange markets; and
 - (c) frequent investors in and issuers of equity market products—the proposals relate to how equity markets in Australia will function, including protections for investors and the efficiency of the price formation process on exchange markets, which will have a potential impact on asset valuation and capital raising.

Table 8 in Section B identifies the proposals that impact each of the above.

Government’s policy to introduce competition for exchange market services

- 3 On 31 March 2010, the Australian Government announced its support for competition between exchange markets for trading in listed products in Australia and its in-principle support for granting an Australian market licence (market licence) to Chi-X Australia Pty Limited (Chi-X).² The Government announced that competition is an important step in ensuring

¹ It is anticipated that the short sale tagging proposal (see proposal I4 in CP 145) will apply to a broader range of products (i.e. s1020B products in the *Corporations Act 2001* (Corporations Act)).

² The Hon Chris Bowen MP, Minister for Financial Services, Superannuation and Corporate Law, Media Release No. 032, *Government announces competition in financial markets*, 31 March 2010, <http://mfsscl.treasurer.gov.au/DisplayDocs.aspx?doc=pressreleases/2010/032.htm¶graphsID=003&min=ceba&Year=&DocType=0>.

that Australia's financial markets are innovative and efficient, as well as for the development of Australia as a leading financial centre. The decision was commensurate with Recommendation 4.5 of the Johnson Report,³ which encourages competitive, efficient and innovative equity markets.

- 4 The announcement of 31 March 2010 followed the Government's announcement on 24 August 2009 that ASIC would take over the supervision of real-time trading on Australia's domestic licensed markets,⁴ which the Government said was a necessary step in the process towards considering competition between market operators. Responsibility for market surveillance shifted from ASX and a number of other domestic market operators to ASIC on 1 August 2010.
- 5 We note that the new Government has confirmed that competition is still its policy subject to an appropriate regulatory framework being put in place by ASIC.

ASX–SGX merger announcement

- 6 On 25 October 2010 ASX and Singapore Exchange (SGX) entered into a merger implementation agreement.⁵ The issues raised by the merger implementation agreement are distinct from those addressed in this consultation process, and the merger proposal will be subject to various government, regulatory and shareholder approvals. For these reasons, CP 145 does not deal with issues associated with those approvals. See REP 215, paragraph 83, for a more detailed discussion of cross-border exchange consolidation.

Market licence applications

- 7 The *Corporations Act 2001* (Corporations Act) requires that a person must only operate a financial market⁶ in this jurisdiction if they have a market licence or are exempt from the requirement to hold a licence. During the 2007–08 financial year, three entities—AXE-ECN Pty Limited (AXE), Chi-X and Liquidnet Australia Pty Limited (Liquidnet)—applied for market licences to offer trading services in securities listed on ASX.

³ Australian Financial Centre Forum, *Australia as a financial centre: Building on our strengths* (Johnson Report), November 2009, www.treasury.gov.au/afcf/content/final_report.asp.

⁴ The Hon Chris Bowen MP, Minister for Financial Services, Superannuation and Corporate Law and the Hon Wayne Swan, Treasurer, Media Release No. 013, *Reforms to the supervision of Australia's financial markets*, 24 August 2009, <http://ministers.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2009/013.htm¶graphsID=003&min=ceba&Year=2009&DocType=0>.

⁵ ASX–SGX Joint News Release, *ASX and SGX combine to create the premier international exchange in Asia Pacific: The heart of global growth*, 25 October 2010, www.asx.com.au/about/pdf/20101025_asx_sgx_media_release.pdf.

⁶ A financial market is a facility through which offers to acquire or dispose of products are regularly made or accepted.

- 8 ASIC consulted in July and November of 2007 (CP 86⁷ and CP 95⁸ respectively) on the market licence applications and on minimum conditions for market operators to allow competition to develop efficiently and without adverse effects on the market as a whole. We also published independent economic advice we commissioned about the costs and benefits of competition between markets.⁹ A summary of the proposals in CP 95 and the feedback we received is in CP 145, Appendix 1.
- 9 At this stage, Chi-X is the only applicant actively pursuing its market licence. See CP 145, Appendix 2, for further details.

Recent market developments

- 10 Markets have evolved considerably since we consulted in 2007. These developments are summarised in Section B of this overview and discussed in detail in REP 215. We are interested in your feedback on whether there are any other key market structure developments that we have not commented on in CP 145 or in REP 215.

Purpose and structure of CP 145

- 11 In CP 145, we are revisiting the issues raised in our consultation papers in 2007, as well as addressing recent market developments.¹⁰ Irrespective of the granting of new market licences, we are proposing a number of market integrity rules that we consider are necessary to keep pace with technological developments and global financial market trends. These proposals are equally important in an environment with competing markets.

Part 1: Overview

- 12 Part 1 of CP 145 (which is the same as this document) provides an overview of CP 145 and includes:
- (a) Section A, 'About CP 145', which describes the purpose and structure of CP 145; and
 - (b) a Section B, 'Summary of market developments and proposals', which includes a summary of how we consider equity markets are evolving with and without competing exchange markets (this is also discussed in more detail in REP 215), and our proposals to respond to these developments.

⁷ Consultation Paper 86 *Competition for market services: Trading in listed securities and related data* (CP 86).

⁸ Consultation Paper 95 *Competition for market services: Response to CP 86 and further consultation* (CP 95).

⁹ Report 106 *Economic assessment of competition for market services* (REP 106).

¹⁰ This paper does not discuss issues relating to post-trade infrastructure, such as clearing and settlement.

Part 2: Response to recent and likely market developments

- 13 Part 2 of CP 145 outlines:
- (a) *the regulatory setting*—a description of the existing regulatory framework for market operators and market participants (see CP 145, Section C); and
 - (b) *the scope of the proposals*—details of the scope of our proposals, including the products to which our proposals apply and the persons to whom they apply (see Section D).
- 14 Part 2 of CP 145 also outlines the regulatory proposals that we consider are necessary whether or not a competing market operator enters the market. The introduction of competition for exchange market services will provide greater impetus for these changes. Part 2 addresses the following issues:
- (a) *extreme price movements*—such as that experienced on 6 May 2010 in the United States (US) (see CP 145, Section E);
 - (b) *electronic trading requirements*—it is important that there are appropriate systems and controls in place to mitigate against disorderly trading conditions (see CP 145, Section F);
 - (c) *best execution*—market participants already have choice in where and how to execute client orders and these decisions should be based on the best interests of clients (see CP 145, Section G);
 - (d) *pre-trade transparency and price formation*—to protect the price formation process on-market and reward investors for posting limit orders (see CP 145, Section H); and
 - (e) *market integrity measures and regulatory reporting*—to monitor new trading developments and help to maintain the integrity of the Australian market (see C 145, Section I).

Part 3: Response to competing exchange markets in Australia

- 15 The proposals in Part 3 of CP 145 address the additional regulatory issues that arise in a market environment with multiple exchange markets offering trading services in the same products. The proposals address the following issues:
- (a) *post-trade transparency*—to ensure consistent information is available to contribute to price formation and to evidence execution performance (see CP 145, Section J);
 - (b) *consolidation of pre-trade and post-trade information*—irrespective of where the information is generated (see CP 145, Section K);

- (c) *market operators: other obligations*—coordination between market operators to ensure trading halts and other events are managed consistently (see CP 145, Section L); and
- (d) *market participants: other obligations*—to maintain market integrity (see CP 145, Section M).

Appendices and key terms

- 16 At the end of CP 145 there are five appendices, which provide:
- (a) a summary of our 2007 position on competing markets and feedback to CP 95 (see CP 145, Appendix 1);
 - (b) an overview of Chi-X's application for a market licence (see CP 145, Appendix 2);
 - (c) guidelines on the best execution reporting requirements (see CP 145, Appendix 3);
 - (d) the pre-trade and post-trade transparency data requirements, which will enable harmonisation of data published by each execution venue (see CP 145, Appendix 4); and
 - (e) standards for data consolidator/s (see CP 145, Appendix 5).
- 17 CP 145 also includes a list of key terms.

Cost recovery regime

- 18 CP 145 does not deal with proposals for a cost recovery regime to cover ASIC's additional market supervision costs. The fees regulations¹¹ to enable the recovery of ASIC's costs of supervision from the industry do not contemplate multiple market operators and recent market developments. The Government will need to amend the fees regulations in order to levy competing market operators, and will consult separately on the costs that need to be recovered and the basis for their recovery, including from whom and over what time period.

Penalties

- 19 CP 145 does not propose specific penalties for contravention of the proposed market integrity rules. However, we are seeking feedback on the appropriate maximum penalty to be set for contravention of each proposed market integrity rule: see CP 145, Section D. We intend to discuss possible penalties for each market integrity rule with participants and market operators during the consultation process.

¹¹ Corporations (Fees) Amendment Regulations 2010 (No. 3).

Feedback sought

- 20 We are seeking feedback on:
- (a) specific proposals for market integrity rules—identified as ‘proposals’;
 - (b) the draft market integrity rules that reflect the proposals (see the separate document *Australian equity market structure: Draft market integrity rules*); and
 - (c) issues that require further consideration—identified as ‘issues’. We note that if we were to develop proposals to address certain of the issues, legislative amendments may be required.

We will not treat your submission as confidential unless you specifically request that we treat the whole or part of it (such as any financial information) as confidential. Non-confidential submissions may be published on our website.

Comments should be sent by 21 January 2011 to:

Calissa Aldridge
 Exchange Market Operators
 email: marketstructure@asic.gov.au
 Australian Securities and Investments Commission
 GPO Box 9827
 Sydney NSW 2001

Steps and timing for implementation

- 21 There are a number of steps in ASIC assuming responsibility for supervision of real-time trading on ASX and putting in place a framework for competition: see Table 1.

Timing for competition and implementation

- 22 Based on our consideration of the comments we receive in response to CP 145, we will review and confirm the timetable in early 2011. We are working towards putting in place a framework for competition as early as practicable in 2011. We recognise that certain proposals in CP 145 are not mandatory for the commencement of competition for exchange market services (although competition will provide greater impetus for the proposals). We have identified in Section B, Table 7, those that we consider are necessary from day one. We are seeking feedback on appropriate transitional arrangements for the remaining proposals.

Table 1: Steps to transferring supervision and implementing competition

Step	Timing and process
Transfer of ASX supervision, which has meant making minimal changes to the existing supervision infrastructure and rule framework.	Implemented on 1 August 2010.
After the transfer, re-examine the rule framework for supervision to ensure it continues to meet the requirements of the Australian market and harmonise the rules across markets.	The immediate issues are in Part 2 of CP 145. The broader review of the rules is occurring separately: see paragraph 127
Put in place the regulatory framework for the introduction of competing exchange markets. Any ASIC market integrity rules are subject to Ministerial consent and Parliamentary disallowance.	The immediate issues are in Part 2 and Part 3 of CP 145.
Establish an appropriate cost recovery model. The Government will need to amend the fee regulations in order to levy competing market operators: see paragraph 18.	The Government will consult separately on the costs that need to be recovered.

B Summary of market developments and proposals

Key points

Equity markets are undergoing considerable change. There are regulatory issues that need to be addressed irrespective of whether competition in market services is introduced.

In considering market structure issues, we are guided by ASIC's priorities—to build confidence in markets, protect investors and facilitate capital flows.

We propose a regulatory approach that maximises market efficiency and opportunities for innovation, while mitigating risks to price formation and delivering the best outcome for investors.

Competition will bring both benefits and challenges—innovation, lower trading fees and narrower spreads; and fragmentation and a need for market operator cooperation.

ASIC is well prepared to regulate multimarket activity and we will thoroughly consult with industry.

23 Equity markets globally are undergoing considerable change. They are now overwhelmingly electronic and automated. Technology has increased the speed, capacity, automation and sophistication of trading for market operators and market participants. It has also opened the door for new types of market participants with innovative trading strategies. High-speed traders are becoming more prevalent. These trends are driving market structure, irrespective of whether competition between market operators is introduced.

24 In responding to these issues, we are guided by ASIC's priorities to:

- (a) build confidence in the integrity of Australia's capital markets;
- (b) protect retail investors; and
- (c) facilitate international capital flows.

We are committed to ensuring the Australian equity market has effective price formation and provides fair, orderly and transparent trading of financial products for fundamental investors,¹² both small and large. This will in turn facilitate efficient capital raising for companies.

25 We are proposing a regulatory approach to reflect changes in equity market structure, including potential competition in market services. We aim to maximise market efficiency and opportunities for innovation, while

¹² A fundamental investor is a person that buys or sells a security based on an assessment of the intrinsic value of the security.

mitigating risks to price formation and delivering the best outcome for investors. We will continue to focus on the interests of listed companies, fundamental investors and Australia's competitiveness as a regional financial centre. We also have the opportunity to put in place a robust framework for competition from the outset to provide certainty to market participants so they can better plan their business activities, including any information technology (IT) investments.

- 26 We have looked closely at arrangements overseas, including lessons learned from events like the 'flash crash' of 6 May in the US. We want to build on the strengths of the Australian market, such as its existing whole-of-market supervisory arrangements and its history of sound operation.
- 27 We expect competition to deliver more innovation in products and services, lower trading fees and narrower spreads. This means investors should have more choice and better services throughout the transaction cycle and cheaper execution costs. Recent developments in technology mean that investors are also likely to benefit from a faster and more efficient trading experience.
- 28 We expect recent market developments and competition to raise market integrity issues too. The 'flash crash' of 6 May in the US is a call for close analysis. It was a reminder of the speed markets can move and the need for market operators and regulators to cooperate to deal with these movements. Investors should be able to have confidence that they will be able to buy and sell their shares at a fair and efficient price on an orderly market. Companies should have confidence that share prices reflect their value.
- 29 Competition between market operators and the recent international trend towards trading in 'dark pools' (i.e. non-pre-trade transparent electronically accessible pools of liquidity) will change the price formation process in Australia. Fragmented data across venues will need to be consolidated. We need to balance the benefits to individual investors of trading in the 'dark' against the public good of contributing to price formation. This is particularly important because the market prices of products are used by investors to value their assets and by companies to raise funds.
- 30 ASIC's market surveillance duties have expanded considerably recently, and there has been an associated expansion in staff and expertise. We plan to be well prepared to regulate multimarket activity and will thoroughly consult with industry. We aim to implement a regulatory approach that supports the supervisory function and keeps pace with market developments.

The Australian equity market today

Execution venues

Exchange markets

- 31 Exchange markets are a type of execution venue that enables trading in listed products, including via a ‘central limit order book’ (CLOB). Many exchange markets also offer listing services for companies. They play an important role in business capital formation and household allocation of savings. We view the principal functions of exchange markets as offering a cost-effective mechanism for companies to raise funds and providing a venue for fair, orderly and transparent trading of listed securities once they are issued.
- 32 Exchange markets offer many benefits, including:
- (a) for companies (issuers)—lower capital costs and increased accessibility to their securities;¹³
 - (b) for investors—security, fairness and efficiency in managing their investments. A deep liquid market, with an efficient transparent price formation mechanism, enables investors to value their assets and manage their risk; and
 - (c) for the community as a whole—the efficient marrying of the needs of issuers and investors and the timely and efficient repricing of risk through trading on an exchange market are important drivers of economy-wide resource allocation and ongoing management of systemic risks.
- 33 Since 1987¹⁴ trading on the ASX exchange market has either taken place via:
- (a) the electronic CLOB, where bids and offers are matched on price–time priority. A CLOB allows maximum order interaction, where demand can meet supply in the most efficient manner; or
 - (b) the crossing market, which includes both on-order book crossings (must be at or within the spread) and off-order book crossings (large trades at any price). The crossing market assists the efficient functioning of the equity market by allowing large orders to be executed without causing dramatic price impacts on the CLOB.

Other types of execution venues

- 34 More recently, a range of other types of execution venues¹⁵ has become available, including new venues offered by ASX and by other parties: see

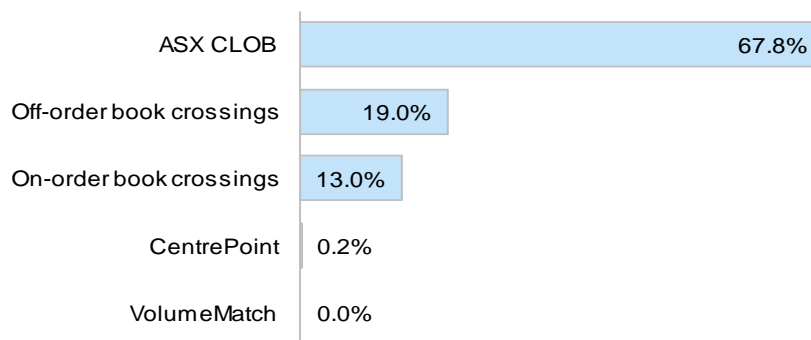
¹³ Not all exchange markets or execution venues offer primary listings services. For example, ASX, Asia Pacific Exchange and the National Stock Exchange of Australia provide this service, but Chi-X does not intend to provide this service.

¹⁴ ASX launched computer-based trading (SEATS) for a limited range of ASX-listed stocks in 1987, with the remaining stocks rolled out over subsequent years.

Figure 1. The following venues operate under ASX crossing rules and are not pre-trade transparent (i.e. they are dark pools):

- (a) CentrePoint is an ASX-operated venue that references the midpoint of the bid–ask spread on ASX’s CLOB. Trades execute in time priority.
- (b) VolumeMatch is an ASX-operated venue that facilitates the matching of anonymous large orders (over \$1 million) with reference to the last price on ASX’s CLOB.
- (c) There are a number of dark crossing systems offered by market participants and third parties for buy-side firms (e.g. Liquidnet and ITG POSIT) or that automatically match client order flow (e.g. UBS’s Price Improvement Network (PIN) and Goldman Sachs’ Sigma X).

Figure 1: Trading breakdown, August 2010¹⁶



Source: ASX data¹⁷

Interconnection of trading on ASX and ASX 24

35 Trading in certain products on ASX and ASX 24 (formerly the Sydney Futures Exchange) are intrinsically linked. This is because certain ASX 24 futures and options contracts are priced on the basis of the expected future price movements of the underlying product traded on ASX. Futures and options contracts may be linked to an individual product (e.g. a derivative over BHP Billiton) or a basket of products (e.g. the ASX 24 SPI 200 futures contract).¹⁸

36 This interconnection means that price movements on ASX or in certain ASX securities flow through to trading on ASX 24 and vice versa. This occurs

¹⁵ An execution venue is a facility, service or location on or through which transactions in equity market products are executed and includes each individual order book maintained by a market operator, a crossing system and a participant executing a client order against its own inventory otherwise than on or through an order book or crossing system.

¹⁶ Figure 1 illustrates the breakdown of trades done on the CLOB, CentrePoint, VolumeMatch and via crossings. It has not been possible to isolate the proportion of dark crossing systems. They are included in the crossing figures.

¹⁷ ASX Market Announcement, *ASX Group monthly activity report*, ASX Limited, August 2010,

www.asx.com.au/about/pdf/20100906_asx_group_monthly_activity_report_august_2010.pdf.

¹⁸ An ASX 24 SPI 200 futures contract enables investors to trade movements in the S&P/ASX 200 Index in a single transaction, thereby allowing exposure to Australia’s top 200 companies without having to buy or sell shares in every company in the index.

both in normal trading conditions and when there are extreme price movements. Therefore, any controls to address anomalous order entry and to manage volatile trading conditions should be coordinated between derivative markets and markets trading the underlying securities.

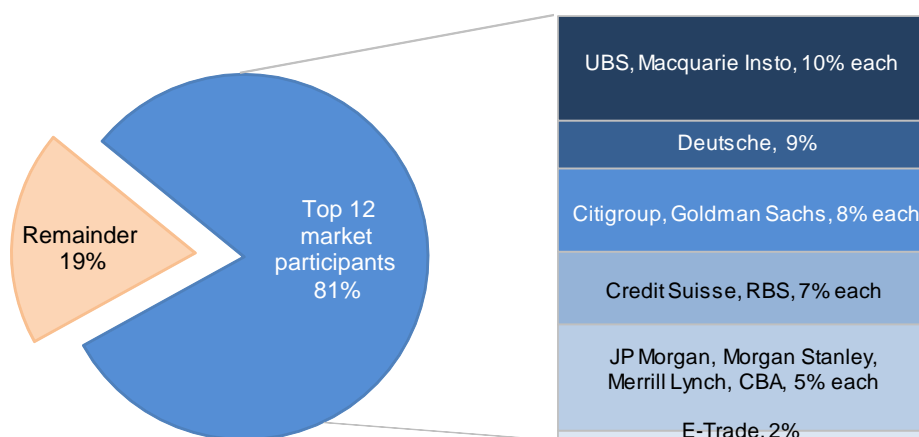
37 While the proposals in CP 145 apply to equity markets, many are also relevant for trading in futures. We are seeking feedback on which proposals could apply to futures. In any event, we propose that operators of equity markets and futures markets should cooperate in matters such as responding to extreme price movements.

38 This linkage between equity and derivative markets is discussed further in REP 215, paragraphs 297–305.

The broking industry

39 There is substantial competition in the broking industry. There are approximately 90 ASX market participants, and around an additional 150 indirect participants that use market participants’ authority to trade on behalf of their clients as a substantial part of their business model. The market is relatively concentrated, with the top 12 market participants accounting for approximately 81% of the market and the top three market participants (UBS, Macquarie and Deutsche Bank) accounting for close to 30% of the market: see Figure 2.

Figure 2: ASX participant market share of equity value, 2009–10



Source: IRESS Market Technology Limited (IRESS) data

Investors

- 40 Retail investors consistently represent 15–20% of equity market turnover. The private sector fund management industry is reasonably concentrated with five fund managers (Commonwealth Bank, National Australia Bank, AMP Ltd, Macquarie Group and ANZ Bank) accounting for approximately 70% of funds under management.¹⁹

Recent and likely equity market developments

- 41 Stakeholders have benefited from technological developments that have improved the efficiency of markets. Trading costs, including exchange and brokerage fees, bid–ask spreads and settlement charges, have fallen in many jurisdictions, including Australia.²⁰

Possible ASX and SGX combination

- 42 ASX and SGX have entered into a merger implementation agreement. The transaction will be subject to various regulatory and shareholder approvals both in Australia and Singapore. This type of cross-border exchange market consolidation is a growing trend (NYSE Euronext is a recent example): see REP 215, paragraph 83, for more detail.

6 May ‘flash crash’

- 43 The 6 May ‘flash crash’ in the US was a reminder of the speed and interconnection of markets, and the need for market operators and regulators to cooperate to deal with significant market movements. US equity markets experienced an extreme price decline, with some stocks falling to US\$0.01 before bouncing back again.
- 44 US regulators have described the event as a ‘liquidity crisis’ stemming from a large computer-driven order in the E-mini S&P 500 futures contract (E-mini) on the Chicago Mercantile Exchange (CME). The sell order triggered automated selling in the E-mini and the other most actively traded stock index instrument—the S&P 500 exchange-traded fund. Sentiment quickly

¹⁹ IBIS World Report, *Funds management (except superannuation funds) in Australia*, IBIS World, June 2010, www.ibisworld.com.au/industry/default.aspx?indid=1822.

²⁰ ASX has reduced its trading fees from a headline fee of 0.28 basis points (bps) to 0.15 bps. On-market and off-market crossings are down from 0.15 bps to 0.10 bps and 0.075 bps to 0.05 bps respectively: see Market Announcement, *ASX fees and activity rebates*, ASX Limited, 3 June 2010, www.asx.com.au/about/pdf/20100603_asx_fees_and_rebates.pdf.

flowed through to trading in individual stocks. This was in an environment where prices were down for the day and liquidity was already thin.²¹

45 Factors that exacerbated the fall included a propensity for participants to place ‘market orders’²² rather than ‘limit orders’²³ and market operators responding in different ways. The Chairman of the US Securities and Exchange Commission (SEC), Mary Schapiro, has noted that 6 May shook investor confidence. She cited a decline in individual investor participation in the equity markets and stated that 6 May ‘was clearly a market failure’.²⁴

46 We have a number of proposals that respond to 6 May in CP 145, Sections E and F. See REP 215, paragraphs 91–117, for a more detailed discussion of what happened on 6 May and what it means for market integrity.

Algorithmic trading

47 One of the most significant recent developments in Australian and global equity markets has been the dramatic growth in automated electronic trading. Developments in technology and execution venues have facilitated this growth.

48 The use of algorithms (automated electronic trading activity whose parameters are set by predetermined rules) in Australia has grown rapidly over recent years and we expect the growth to continue. Although it is not possible to measure directly, ASX estimated in its February 2010 review, *Algorithmic trading and market access*²⁵ (ASX Review), that algorithms account for approximately 30–40% of ASX cash equity turnover.

49 Algorithms are used for a variety of purposes, the most common of which are outlined in Table 2.

50 The ASX Review outlined a number of intended actions for ASX and recommendations for consideration by ASIC relating to algorithmic trading and market access. We have had regard to the recommendations in developing the proposals in CP 145: see CP 145, Section F.

51 For further details about algorithms and their purposes, see REP 215, paragraphs 122–126.

²¹ Joint Report, *Findings regarding the market events of May 6, 2010*, US Commodity Futures Trading Commission and US Securities and Exchange Commission (SEC), 30 September 2010, www.sec.gov/news/studies/2010/marketevents-report.pdf.

²² A market order is an order at the best price currently available.

²³ A limit order is an order for a specified quantity of a product at a specified price or better.

²⁴ ML Schapiro, *Strengthening our equity market structure*, Address by SEC Chairman, Economic Club of New York, New York, 7 September 2010, www.sec.gov/news/speech/2010/spch090710mls.htm.

²⁵ ASX Review, *Algorithmic trading and market access arrangements*, ASX Limited, 8 February 2010, www.asx.com.au/about/pdf/20100211_review_algorithmic_trading_and_market_access.pdf.

Table 2: Types and purposes of trading algorithms

Name	Purpose
Trade execution algorithms	Designed to minimise the price impact of executing trades of large volumes of products by 'shredding' orders into smaller parcels and slowly releasing these into the market.
Strategy implementation algorithms	Designed to read real-time market data and formulate trading signals to be executed by trade execution algorithms.
Stealth/gaming algorithms	Designed to take advantage of the price movement caused when large trades are filled, and also to detect and outperform other algorithmic strategies.

High-frequency trading

52 Specialised forms of high-speed algorithmic trading are emerging—that is, the use of high-speed computer programs to generate, route and execute orders. High-frequency trading (HFT) is a subset of this. While there is not a commonly agreed definition of HFT, it is characterised by:

- (a) the generation of large numbers of orders, many of which are cancelled rapidly; and
- (b) typically holding positions for very short time horizons (i.e. ending the day with a zero position).

53 The ASX Review suggests HFT accounts for 3–4% of turnover. Feedback ASIC has received from the industry and comments in the press suggest this figure may now be higher.

54 High-frequency traders (HFTs) use a variety of trading strategies—however, they can be broken into three broad categories: see Table 3.

Table 3: HFT strategies

Name	Description of strategy
Statistical arbitrage	Seeks to exploit pricing inefficiencies either between related products or markets.
Electronic liquidity providers	Involves making a two-sided market with a view to profiting by earning the bid–ask spread.
Liquidity detection	Seeks out whether there are large orders existing in a matching engine. Some liquidity detection strategies are described as 'predatory' in nature.

- 55 ASX has announced plans for a new, even faster execution venue, called ‘PureMatch’, which is designed for HFTs and other users of high-speed trading technology.²⁶ The types of entities that may use this venue include proprietary trading entities (e.g. GETCO), proprietary trading desks within a multiservice market participant (e.g. Goldman Sachs) and hedge funds (e.g. Renaissance Technologies).
- 56 We expect growth in high-speed trading to lead to greater emphasis on latency,²⁷ demand for increased market capacity, enhanced co-location²⁸ facilities, new order types, and increased demand for direct electronic access (DEA)—that is, access to markets via the connection of a market participant.
- 57 An expansion in the number of users of DEA will give rise to a need to further consider market participant risk controls.
- 58 HFT potentially provides benefits, such as contributing to price formation, keeping prices similar between venues, the provision of liquidity and the tightening of spreads (although potentially with lower depth at the best prices). It also raises a number of important questions, including questions about:
- (a) fairness—HFTs’ speed of access to markets and data compared with other investors;
 - (b) the impact of HFTs’ speed and volume of order entry and cancellation on price formation;
 - (c) HFT’s impact on long-term investor confidence in markets;
 - (d) HFT’s impact on data and data management costs; and
 - (e) the necessary risk controls.
- 59 There is a more detailed discussion about HFT and the impact it may have on market quality in REP 215, paragraphs 127–172. We seek feedback about its prevalence and impact in Australia in CP 145, Section F.

Other technology-driven developments

- 60 In addition to enhancements for automated trading, ASX is responding to demands for greater speed and capacity by upgrading to a new trading system expected to be launched in November 2010, called ‘TradeMatch’, which will provide enhanced functionality to the existing CLOB.²⁹ This new technology is expected to substantially reduce latency and boost capacity.

²⁶ ASX Market Announcement, ASX Fees and Activity Rebates, ASX Limited, 3 June 2010, www.asx.com.au/about/pdf/20100603_asx_fees_and_rebates.pdf.

²⁷ Latency is the time it takes for data to get from one point to another.

²⁸ Co-location is where market participants and other service providers locate their systems with the exchange matching engine in a single data centre.

²⁹ ASX Market Announcement, ASX fees and activity rebates, ASX Limited, 3 June 2010, www.asx.com.au/about/pdf/20100603_asx_fees_and_rebates.pdf.

- 61 The emphasis on speed has also led to the demand for co-location services and low-latency data feeds. ASX has announced plans to build a new co-location facility outside the Sydney central business district by August 2011.³⁰ Data and system vendor IRESS has announced that it will be a foundation customer of the new ASX co-location facility. IRESS and Chi-X have also agreed to co-locate.³¹ In some cases overseas, different execution venues have co-located in ‘neutral’ centres to reduce latency between markets.³²
- 62 Technology is reducing data processing and communication costs, as well as facilitating faster data processing and communication speeds. This has enabled smaller order sizes, finer pricing between buy and sell orders (e.g. narrowing the bid–ask spread) and faster order execution. The accuracy and speed of access to pre-trade and post-trade data will become increasingly important, as well as the impact of increasing volumes on system capacity.
- 63 Investors and market participants will increasingly need to make order routing decisions. The existence of multiple venues (e.g. CentrePoint, VolumeMatch and various crossing systems) means there is more choice in where and how market participants execute client orders. It is important that these execution decisions are made on the basis of achieving the best result for the client. ASX has indicated that it will launch a smart order router (SOR),³³ called ‘ASX Best’, to enable ASX market participants to route orders to ASX for execution within the expanded ASX execution venue offering.³⁴ It is likely that larger market participants will develop their own SOR tools. CP 145, Section G, outlines our best execution proposal, which will require market participants to utilise tools like SORs. REP 215, paragraphs 173–207, elaborates on the purpose of best execution.
- 64 These developments may flow through to changes to middle office, back office and order management systems.

Dark pools and internalisation

- 65 There has been a proliferation of dark pools overseas and an increasing volume of trading that is executed on these venues. In the US, for example, the number of dark pools has tripled since 2002 and the volume of trades

³⁰ ASX Market Announcement, *New data centre for ASX*, ASX Limited, 10 June 2010, www.asx.com.au/about/pdf/20100610_new_data_centre_for_asx.pdf.

³¹ IRESS Media Release, *IRESS launches low-latency trading eco-system in Australia*, 29 October 2010, www.iress.com.au/news.aspx.

³² This is to reduce latency when routing between markets. For example, National Association of Securities Dealers Automated Quotations (Nasdaq), Better Alternative Trading System (BATS), International Securities Exchange (ISE) and others use BT Radianz’s data centre in the US.

³³ An SOR is an automated process of scanning various execution venues to determine which venue will deliver the best outcome on the basis of predetermined parameters.

³⁴ ASX Market Announcement, *ASX fees and activity rebates*, ASX Limited, 3 June 2010, www.asx.com.au/about/pdf/20100603_asx_fees_and_rebates.pdf.

executed through dark pools has more than doubled in the three years from 2007 to 2010.³⁵ In addition, a further 17.5% of trades are internalised by ‘broker–dealers’ without any pre-trade transparency.³⁶ There is recent evidence that the combination of increased volume of internalisation and trading on dark pools in the US have impacted price formation (i.e. resulting in wider spreads and less depth of liquidity): see CP 145, Section H and REP 215, paragraphs 208–247.

- 66 While we do not expect a proliferation of dark pools to the same extent as experienced in the US, we do expect dark pool and other internalisation activity to rapidly grow in Australia. We understand that a number of market participants have plans to develop dark pools and/or enhance their internalisation activity, which taken together, we consider could impact the price formation process on public markets in Australia. This could be to the detriment of listed companies and fundamental investors who rely on prices on pre-trade transparent markets (and prefer deep liquid markets) for asset valuation, to inform investment decisions and to support fundraising.
- 67 To manage this risk we propose common pre-trade transparency market integrity rules that would apply equally to market operators and market participants that are designed to promote the use of pre-trade transparent orders. These arrangements will limit the anticipated rapid rise in dark pools and internalisation and the potential to have a negative impact on the price formation process. See CP 145, Section H, for our proposals relating to pre-trade transparency and to address the impact of dark pools on price formation.
- 68 We note that there are also dark pool developments in the region. Chi-East (a Chi-X Global and SGX joint venture) received approval from the Monetary Authority of Singapore in October 2010 for a dark pool service for Asian investors that will include ASX 200 shares.³⁷

Investors

- 69 Algorithmic trading strategies have allowed large institutional orders to be transformed from single trades on non-pre-trade transparent execution venues to a multiplicity of small trades on pre-trade transparent execution venues, which can reduce market impact. The increased use of algorithmic strategies may also be a response to avoiding detection by HFTs. The proliferation of HFT has meant that in the US ‘funds must now employ dark

³⁵ TABB Group Liquidity Matrix, www.tabbforum.com.

³⁶ SEC Concept Release, *Equity market structure* (Release No. 34-613358), SEC, 13 January 2010.

³⁷ Chi-East News Release, *Chi-East receives regulatory approval to launch independent, pan-Asian, non-displayed trading venue*, Chi-East Pte Ltd, 4 October 2010.

pools, crossing networks, smart order routers, and other technologies to protect ... investors' interest'.³⁸

- 70 Much retail investor equity market activity is now being transacted online through 'limited advice' or 'execution only' market participants at lower commissions than previous 'full service' models. Retail investors are and should continue to benefit from better prices as algorithms drive spreads tighter.
- 71 More choice in execution venues and incentives for order flow increase the risk that market participants may not deal with clients on terms most favourable to clients. This risk exists currently, given there are already multiple execution venues (i.e. provided by ASX and crossing systems), and it may increase as more execution venues emerge and, with competition, as market operators compete more intensively for order flow. We need to formalise a best execution obligation to apply to market participants. Australia stands out among advanced jurisdictions in not having such a requirement at present. Our proposal is in CP 145, Section G.

Listed companies

- 72 The price formation process is important to listed companies. Capital raising is most efficient when asset prices are based on full information and are stable—as investors can have confidence in the valuation of the assets. There are two key recent trends that may impact the price formation process and that may therefore impact listed companies:
- (a) HFT—we expect that the trend towards more automated trading and HFT should increase liquidity, which during normal trading conditions should smooth prices and contribute to price stability. However, when liquidity is thin, automated trading may contribute to more price volatility and may increase the cost of capital; and
 - (b) dark pools—there is a risk that the price formation process may be undermined if too much liquidity moves into dark pools, which also has the potential to increase the cost of capital.
- 73 We seek your feedback on the impact of HFT and dark pools on price formation, and therefore on listed companies, in CP 145, Sections F and H. We also highlight, in Table 5 of this document, that the impacts on companies may vary by their size.

³⁸ SEC, *Statement of Kevin Cronin*, Global Head of Equity Trading, Invesco, SEC Market Structure Roundtable, 2 June 2010, www.sec.gov/comments/4-602/4602-11.pdf.

Surveillance

- 74 There is a risk to market integrity and market orderliness if ASIC is not well placed to adequately monitor the market conduct of participants and traders that deploy emerging electronic trading strategies.
- 75 Data management needs will increase (both due to increased volumes and complexity). Mechanisms will be required to monitor HFT and other high-speed trading strategies and dark pool trading. Broker compliance operations can also be expected to experience a similar increase in the complexity of their business. This challenge exists currently and has the potential to be greater with market developments and competition. To manage this risk ASIC will need an enhanced market surveillance capability: see CP 145, Section I.
- 76 We have been liaising with other regulators in the region, as well as in the US, Canada and Europe, to better understand and respond to these challenges and we intend to continue this dialogue.

Competition for exchange market services

Overseas experience

- 77 Regulatory reforms in the US, Canada and Europe³⁹ have resulted in substantial competition for trading services in these markets. We expect that competition for exchange market services in Australia will compound the benefits and challenges discussed above.
- 78 There has been a proliferation of new execution venues. In the US there are around 50 execution venues, in Europe over 100 venues and in Canada nine venues. In Europe and the US many of these venues are dark pools. The growth in new venues and dark trading has resulted in significant fragmentation of order flow. See Table 4 for a summary of overseas experience.

³⁹ Regulation National Market System (Reg NMS) and Regulation Alternative Trading System (Reg ATS) in the US, the ATS regime in Canada and Markets in Financial Instruments Directive (MiFID) in Europe.

Table 4: Summary of overseas experience with competing exchange markets

Issue	Lessons from overseas experience
1. Fragmentation of liquidity	Too much fragmentation and non-pre-trade transparent trading can reduce the quality of price formation on public pre-trade transparent markets. It is important to incentivise trading in pre-trade transparent execution venues and to limit the volume of dark trading.
2. Fragmentation of prices	Market forces will not necessarily lead to consolidation of prices across all markets. At a minimum, investors and listed companies should be able to access best bid and ask prices for each pre-trade transparent market and all post-trade information at reasonable cost, and regulators should play a role in delivering this outcome.
3. Best execution	With more choice and incentives for order flow, it is important to have a clearly defined best execution rule, which ensures client interests are protected. Investors must have sufficient access to information to allow them to monitor their broker's execution performance, and regulators must be able to monitor and enforce the best execution rules.
4. Consistent treatment	It is important that there is equivalent treatment for parties undertaking similar activities. This will limit opportunities for regulatory arbitrage.
5. Surveillance and risk controls	Surveillance across multiple markets increases the complexity of monitoring. Regulators need sufficient information, including about the origin of orders and trades. Standardised market integrity risk controls, such as circuit breakers, and cooperation are essential.
6. Reduction in trading fees	The growth in new execution venues has led to significant competition for order flow overseas, resulting in aggressive fee reductions for trading. New pricing models have been implemented to attract different types of order flows and there are frequent fee changes and fee 'specials' aimed at attracting order flow.
7. Significant reductions in bid-ask spreads	<p>In Canada, bid-ask spreads fell from 15 bps in early 2008—when competition really began—to 10 bps by mid-2010.⁴⁰ These benefits started with the larger stocks and are flowing through to smaller stocks. In the US, 'reduced transaction costs have enabled a mutual fund investor to reasonably expect an investment balance that is perhaps 30% higher than what they could have expected only a decade ago'.⁴¹ However, in some markets this has been offset by increased search costs. This is true in Europe where fragmentation is compounded by a lack of consolidated data.</p> <p>Retail clients benefit from improved prices as a result of tighter spreads and greater execution certainty offered by higher trading volumes.</p>
8. Innovation	There has been considerable investment in technology throughout the entire trading cycle, which has improved the efficiency of markets and provided investors with new instruments and order types that may better serve their needs.
9. Clear regulatory framework	Regulators should set the full regulatory framework at the outset of the introduction of competition to maximise market integrity and to reduce the impact for industry of system changes.

⁴⁰ Investment Technology Group (ITG) Review, *Canadian market microstructure review second quarter 2010: Have some new HFT strategies come to town?*, ITG, 20 July 2010, www.itg.com/news_events/papers/ITG-Canada-Market-Microstructure-Q2-2010.pdf. We note that it is unclear how much of this reduction was due to competition rather than other market developments.

⁴¹ SEC, *Statement of George U Sauter*, Managing Director and Chief Investment Officer, The Vanguard Group, Inc., SEC Market Structure Roundtable, 2 June 2010, www.sec.gov/comments/4-602/4602-5.pdf.

Competing exchange markets in Australia

- 79 It is difficult to decouple market developments that are occurring irrespective of the introduction of competing exchange markets and the impact of introducing competition. The regulatory approach we adopt will significantly influence the impact that competition has on the Australian market. We have an opportunity to establish a robust framework and regulatory approach to competitive markets in Australia. However, this will require stakeholders to focus on the medium-term public benefits of ensuring confidence in the integrity of the price formation process and robustness of our markets. If we successfully translate the lessons from overseas markets, we should be able to maximise the benefits of competition and minimise the costs of fragmentation.
- 80 Australia is well positioned for the introduction of competition—we are able to learn from experience in other jurisdictions and build on an already strong foundation.

Expected benefits from competition

- 81 We expect that Australia should be able to achieve benefits similar to those experienced overseas and outlined in Table 4, items 6–8. In particular, we expect the benefits from competition under the proposed regulatory framework may include innovation, maintained or improved market quality (including market depth, liquidity and price formation) and more choice in execution venues, as well as lower costs (i.e. tighter spreads and lower transaction costs) for investors. To retail investors, this can translate into lower brokerage fees if market participants pass on the reductions in market fees as execution venues compete for volume.⁴²
- 82 The proposed regulatory framework seeks to balance the efficiencies and dynamism that can be expected to flow from competition with our priorities to build confidence in the integrity of our capital markets, protect investors and facilitate international capital flows. In particular, the proposed regulatory framework seeks to add to market depth and liquidity (and so limit or reduce indirect market impact costs) on pre-trade transparent markets on a sustained basis, enhance market price formation and increase capital raising capacity.
- 83 Competition between exchange markets may also impact other markets (e.g. derivative markets with equity referenced futures, options and contracts for difference). Competition is likely to result in greater depth in equity markets, which should reduce short-term volatility across related products and

⁴² There is already a reasonable level of competition among retail brokers in Australia; therefore, it is reasonable to expect that cost savings will be at least partially passed on to clients.

facilitate hedging by derivative market makers. This could reduce the costs of trading in derivative products. See REP 215, paragraphs 297–305.

84 It is reasonable to project the gross benefits to the economy will surpass the additional resources, technology and information costs to be incurred by the industry. See REP 215, paragraphs 276–289, for a discussion of the costs.

85 We discuss the impact of competition on investors in REP 215, paragraphs 292–296.

Expected regulatory issues from competition

86 There are various regulatory issues involved in introducing competition. Competition will, in some cases, increase the regulatory issues already outlined as a result of broader market developments, including providing greater impetus for a best execution rule.

Fragmentation

87 While there is already fragmentation of liquidity in Australia—between ASX’s execution venues and market participant crossing systems—pre-trade and post-trade information is centralised through reporting to ASX. Competing exchange markets will mean that this market information will fragment between markets, which could harm price formation if the information is not brought together in a single consolidated view in an efficient and cost effective way. In addition, fragmentation may also result in erosion of liquidity in pre-trade transparent markets and enhance surveillance challenges. We outline a number of options for achieving a consolidated view of pricing in CP 145, Section K.

88 Where there are multiple exchange markets, we also need to ensure market operators cooperate to put in place consistent market controls to reduce and mitigate the risk of volatile or unusual market events. Standardisation of trading halts across execution venues will also reduce the potential for the types of problems that arose in the US on 6 May. See CP 145, Sections E and L, for our responses to 6 May and proposals for market operator cooperation.

89 More discussion of the likely benefits and costs of competition is set out in REP 215, paragraphs 276–309. We are interested in receiving feedback on what the industry perceives to be the likely benefits and costs of competition in Australia.

Cost recovery for ASIC’s supervision function

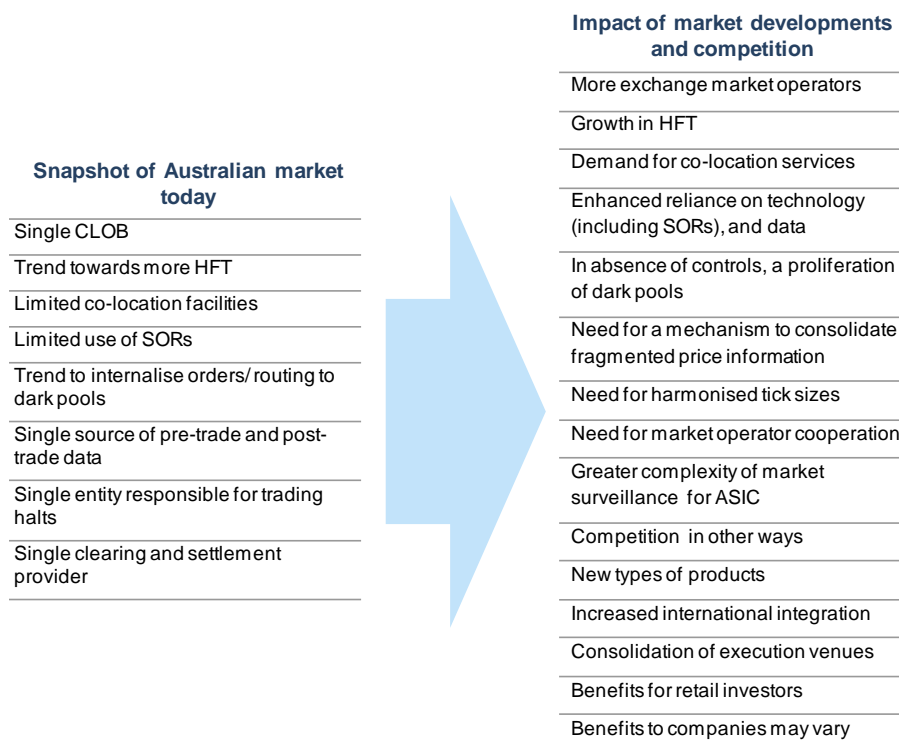
90 The fees regulations enabling recovery of ASIC’s costs from the industry for our new real-time market supervision function do not contemplate multiple

market operators offering equity market products.⁴³ The Government will need to amend the regulations before the commencement of competition in order to levy competing market operators (who in turn may pass on some levy contribution to market participants). The Government will consult separately on the costs that need to be recovered and the basis for their recovery, including from whom and over what time period.

Likely impact of market developments and competing exchange markets in Australia

91 Given our proposed regulatory approach, our current best view of the changes likely to occur in Australia as a result of market developments and competing exchange markets is illustrated in Figure 3.

Figure 3: Snapshot of Australian market today and the impact of market developments and competing exchange markets



92 The expected impacts of market developments and the introduction of competition in Australia are described in more detail in Table 5. We are interested in your feedback on whether these impacts are likely to occur in Australia and if there are other impacts that we have not listed here.

⁴³ Corporations (Fees) Regulations 2001.

Table 5: Likely changes resulting from market developments and competing exchange markets

Change	Description of change
More exchange markets	In addition to Chi-X, there are likely to be one or two other markets offering pre-trade transparent execution venues. We expect competition between these execution venues will lead to reductions in trading fees and innovation in the way in which fees are charged (e.g. maker–taker pricing, fee discount periods and, volume rebates). There is also likely to be innovation in the types of orders (e.g. hidden orders) and trading mechanisms.
Growth in HFT and other high-speed trading	Multiple low-latency, pre-trade transparent execution venues will create trading opportunities for new types of traders, particularly HFTs. In overseas markets, a large portion of this trading is by electronic liquidity providers. This is also likely to occur in Australia. HFT will likely result in further reductions in average order sizes in pre-trade transparent venues; many more orders per trade; increased trading volume; tightening of spreads, although potentially with lower depth at the best prices; and greater deployment of intermarket arbitrage strategies. This is likely to place increased pressure on institutional buy-side firms to use algorithms in pre-trade transparent markets and seek block liquidity in dark pools. In the absence of a US-style ‘trade-through’ rule, ⁴⁴ growth in HFT volume is likely to be lower than has been observed in US markets. Growth of HFT in Australia is also likely to be constrained by the ban on naked short selling.
Demand for co-location services	An increased focus on speed will lead to increased demand for co-location services. Execution venues may build or outsource the operation of data centres. Adequate transparency and disclosure of pricing and access rules for these data centres will aid in ensuring fair access concerns are addressed.
Enhanced reliance on technology and data	Market participants will face new challenges in developing technology that allows them to connect to multiple markets. This will lead to new demand for, and supply of, technology services, including smart order routers, trading algorithms, middle and back office order management, execution quality analytical tools and risk controls (e.g. for market operators and for market participants offering direct electronic access to clients). Technology will increasingly become a barrier to entry, although it is expected that low-cost solutions will be offered to smaller participants. The accuracy and speed of access to pre-trade and post-trade data will become increasingly important, as will the impact of increasing volumes on system capacity.
More dark pools/internalisation	The dark pool execution venues currently operating in Australia are also likely to face competition from new entrants. Indeed, we are already seeing movement in this space. This will include additional market participant crossing systems. However, given our proposed size restrictions on dark trading (see Table 7), we anticipate the number of dark venues will not proliferate to the same extent they have in the US and Europe, and will perform more of their traditional role of facilitating execution of large market impact orders.

⁴⁴ A trade-through rule protects displayed bids and offers from being bypassed.

Change	Description of change
Need for a mechanism to consolidate fragmented pre-trade and post-trade information	Fragmentation of market data will be minimised through the provision of consolidated prices. A consolidation mechanism will help ensure fair and efficient price formation. It also ensures small investors have access to information at a reasonable cost. However, institutions and proprietary traders will likely invest in low-latency data feeds provided directly from exchange markets. Without a clear mechanism for delivering consolidated prices, it is likely that Australian investors will experience the same problems as those observed in Europe, including high data costs and high search costs.
Need for harmonised tick sizes ⁴⁵	Standardisation of tick size rules across execution venues will prevent market operators from competing on tick sizes, reducing the possibility for market participants to step ahead of limit orders by an economically insignificant amount.
Need for market operator cooperation	Cooperation is essential for fair, orderly and transparent markets. Standardisation of trading halts across execution venues will also reduce the potential for the types of problems that arose in the US on 6 May.
Greater complexity of market surveillance/supervision	There will be greater challenges for ASIC in market surveillance. Surveillance across multiple execution venues will increase the complexity of monitoring the market. Data management needs will increase (due to both increased volumes and complexity). Functionality will be required to monitor HFT strategies and dark pool trading. Market participant compliance operations will experience a similar increase in the complexity of their business.
Competition in other ways	There is the potential for competition in other ways—for example, competition in clearing services, listings, data services and cross-border trading.
New types of products	Lower transaction costs, increased market depth and lower latencies facilitate the creation of new products. For example, there is a trend towards index products, including exchange-traded funds.
Increased international integration	Lower transaction costs, increased market depth and lower latencies facilitate international capital flows, more closely linking the Australian equity market with international venues.
Consolidation of execution venues	Whether or not the ASX and SGX merger is approved and proceeds, consolidation of some current and future execution venues (including cross-border) can be expected to occur in the future. Such consolidation is a global trend.
Benefits for retail investors	Retail clients will obtain improved prices as a result of tighter spreads, greater execution certainty offered by higher trading volumes and product innovations.
Benefits to companies may vary	It is possible that the net benefits to companies may differ by their size. It is anticipated that competition will initially be limited to ASX 200 companies. Therefore, initially, there will be little or no impact on trading for companies outside this group. However, liquidity may increase, especially for larger companies, which may facilitate capital raising. As was the case in Canada, it is possible more liquidity will shift to smaller companies over time. However, if there is a tendency towards greater price volatility, it may be harder to raise additional capital.

⁴⁵ A tick size is the minimum amount by which share prices are allowed to vary.

Objectives of the proposals in CP 145

- 93 Building on our high-level priorities in paragraph 24—to build confidence in the integrity of Australia’s capital markets, protect retail investors and facilitate international capital flows—there are a number of specific objectives that have guided our thinking in responding to the regulatory issues presented by general market developments and competing market operators: see Table 6. We consider that the achievement of these objectives will improve the performance of the financial system, including improving the efficiency of the capital formation process in Australia and the overall efficiency and development of the Australian investment landscape.

ASIC’s proposed regulatory approach

- 94 There are competing interests in the market structure debate and both ASIC and the Government need to ultimately make decisions about the regulatory approach on a public interest basis.
- 95 In preparing our proposals we have looked closely at the regimes and experience overseas. We have liaised with Australian industry, as well as with regulators and industry in the US, Canada, the United Kingdom (UK), France, Germany, Hong Kong and Singapore. We intend to continue this dialogue.
- 96 Given the evolution of our market and the increasingly significant role that technology is playing in competition between ASX products, we propose a number of changes that may be necessary whether or not a competing market operator enters the market. We had intended to address these issues as part of a longer term review of the market integrity rules that were made when supervision was transferred to ASIC in August 2010. The introduction of competition for exchange market services will provide greater impetus for these changes and we propose to consider these issues simultaneously (albeit some may be transitioned in over a longer period of time).

Table 6: Objectives of the proposed regulatory framework

Objective	Description
Market quality	<p>Our objective is to promote general market quality and efficient price formation, and to minimise any negative impacts of order fragmentation to multiple execution venues, through:</p> <ul style="list-style-type: none"> • ensuring the availability of consolidated pre-trade and post-trade data; • mechanisms to promote deep pre-trade transparent markets; and • controls to limit unnecessary volatility and promote market stability.
Market integrity	<p>Our objective is to deliver market integrity through:</p> <ul style="list-style-type: none"> • common minimum risk controls and conduct standards for market participants and market operators; • cooperation arrangements between ASIC, market operators and other stakeholders to promote fair, orderly and transparent markets; • consolidated and tailored pre-trade and post-trade data for the market and ASIC; and • efficient ASIC surveillance systems and sufficient capacity to anticipate changes in market structure—supported by a fair and reasonable cost recovery regime.
Investor protection	<p>Our objective is to promote investor protection through:</p> <ul style="list-style-type: none"> • a clear best execution requirement; • post-trade reporting and information to assess the quality of order execution; • other market integrity rules; and • education of retail investors on the implications of changes in markets.
Fairness	<p>Our objective is to promote fair markets through:</p> <ul style="list-style-type: none"> • clear requirements for fair and equal access to services, including consolidated information about orders and trades; • functional regulation that applies similar obligations to similar activities; • common and non-discriminatory rules that apply to all market operators; and • market operators taking steps, on an ongoing basis, to ensure that their exchange markets are fair, orderly and transparent.
Efficient implementation	<p>Our objective is to ensure efficient implementation of the final rule changes, including:</p> <ul style="list-style-type: none"> • recognising that the principles underlying the existing framework in Australia have worked well and build on the strengths of the existing framework and avoid any unwarranted change; • taking account of international best practice, including the core principles of the International Organization of Securities Commissions (IOSCO);⁴⁶ • learning the lessons from overseas experience (e.g. some of the issues now emerging from analysis of the 6 May 2010 ‘flash crash’) by taking a measured approach to the transition to competition; and • having a regulatory framework that is as simple and robust as possible, with clear responsibilities imposed on market operators and market participants.

⁴⁶ IOSCO Report, *IOSCO objectives and principles of securities regulation (IOSCOPD323)*, IOSCO, 10 June 2010.

97 The core elements of our proposed regulatory approach are designed in large part to:

- (a) protect the price formation process; and
- (b) apply equivalent treatment to ‘like’ activity.

The core elements are interlinked and should therefore be considered as a package rather than in isolation. It will be important for there to be a mechanism to ensure orders are routed to the venue with the best outcome, for market efficiency and investor protection reasons. It is equally important that there are sufficient and complementary incentives in place for investors to display limit orders, as limit orders drive the price formation process on market, which is important for capital allocation decisions and capital raising. We considered two ‘packages’, as illustrated in Figure 4.

98 The summary of our proposals in Table 7 shows:

- (a) the full suite of regulatory proposals in CP 145. It should be clear which proposals are designed to protect the price formation process and apply equivalent treatment to ‘like’ activity;
- (b) the objective/s relevant to each proposal; and
- (c) our expectations about timing—the proposals that must be implemented before competition can commence and those that are not tied to competition.

99 Draft market integrity rules reflecting the proposals in CP 145 are set out in the document *Australian equity market structure: Draft market integrity rules*.

Figure 4: The two regulatory ‘packages’ we considered to promote price formation

	Package 1: Proposed—Principles-based	Package 2: Alternative—Trade-through
Market efficiency	<p>Best execution obligation (best total consideration)</p> <p>Professional investors may nominate objectives other than total consideration</p> <p>Routing obligation on the participant</p> <p>No mandated linkages at the market operator level</p> <p>Reporting on execution quality and order routing to hold participants/venues accountable</p>	<p>Trade-through rule—mandated linkages, market-level routing based on best price (top-of-book or full depth-of-book)</p> <p>Factors other than price not relevant</p> <p>Possible participant routing of unfilled portion</p> <p>Reporting on execution quality and order routing to hold participants/venues accountable</p>
Best result for clients	<p>Best execution—best outcome for client</p>	<p>Best execution—best outcome for client</p>
Incentives to display limit orders	<p>Orders below a certain size (no market impact) on pre-trade transparent market. Applies to participants and markets</p>	<p>Trade-through rule—pre-trade transparent orders are protected (either top-of-book or full depth-of-book)</p>
Pre-trade transparency	<p>All orders below a certain size must be on pre-trade transparent market</p> <p>Otherwise, price improvement or block trades at any price to manage market impact</p>	<p>Execution venues must be fully pre-trade transparent when they have sufficient volume</p>
Post-trade transparency	<p>Immediate publication of trades</p>	<p>Immediate publication of trades</p>
Consolidated information	<p>Full consolidation of market data</p>	<p>Full consolidation of market data</p>
Arguments for each package	<p>Builds on existing structure in Australia—factors other than price are relevant</p> <p>Promulgates innovation</p> <p>Pre-trade transparency exceptions manage market impact</p> <p>Requires fewer mandated linkages than trade-through</p> <p>Onus on participant to deliver best result</p> <p>Limits ‘natural liquidity’ shift to dark pools</p>	<p>Embeds virtual price–time priority, protecting limit orders</p> <p>Simple for market participants to maintain single connection</p> <p>Price is simple to measure for execution quality and is a fair measure</p> <p>Flexibility for smaller/newer venues to operate to a lower regulatory standard/cost</p>
Arguments against each package	<p>Pre-trade transparent orders may be traded through</p> <p>More challenging to evidence execution on factors other than price</p> <p>Limits the size to which large orders may be sliced before becoming pre-trade transparent</p>	<p>Requires complex linkages between market operators</p> <p>Forces price to be more important than other factors</p> <p>Risk of information leakage and market impact for large orders</p> <p>Best price execution will be systematised and may be ‘gamed’</p> <p>May encourage more fragmentation when pre-trade threshold reached</p>

Summary of regulatory proposals

100 This section summarises the regulatory proposals set out in CP 145 and related matters.

Table 7: Summary of regulatory proposals

Issue	Proposal	Objective	Required for competition
Scope of products	<p>The proposals relate to shares, managed investment schemes and CDIs admitted to quotation on ASX.</p> <p>We are seeking feedback on whether some of the proposals should be extended to other products, such as futures, other equity-related products and debt products.</p>	Fairness	Yes
Persons in scope	<p>The proposals relate to market operators and market participants.</p> <p>We are seeking feedback on whether the proposals should be extended to indirect market participants, fund managers and approved data consolidators.</p>	Fairness	Yes
Proposals in response to recent and likely market developments			
<p>Extreme price movements</p> <p>(in part a response to the 'flash crash')</p>	<p>A market operator must have:</p> <ul style="list-style-type: none"> pre-trade price and volume controls to prevent the entry of anomalous orders; the capability to immediately and automatically suspend trading in a specific product and/or market-wide if the price in a specific product and/or index shifts by a prescribed threshold in a certain time period; and transparent and predictable arrangements for cancelling clearly erroneous⁴⁷ trades, which must be harmonised through a protocol between market operators and ASIC.⁴⁸ 	Market quality and integrity	<p>No</p> <p>(but as soon as possible; market operators will need to have cooperation arrangements in place from day one)</p>
<p>Direct electronic access (DEA)</p> <p>(i.e. access to markets via the connection of a market participant)</p>	<p>A market participant must ensure DEA⁴⁹ clients meet certain standards, including having adequate financial resources and procedures.</p> <p>A market participant and its DEA clients should have a contract in place governing the market access arrangements. A market participant must have:</p>	Market quality and integrity	<p>No</p> <p>(possibility to implement in stages)</p>

⁴⁷ A clearly erroneous trade is a trade that deviates so substantially from current market prices that it is deemed to be erroneous.

⁴⁸ ASX Public Consultation, *Trade cancellation policy*, ASX Limited, 6 October 2010, www.asx.com.au/about/pdf/20101006_trade_cancellation_policy.pdf.

⁴⁹ The proposals do not apply to online retail market participants.

Issue	Proposal	Objective	Required for competition
(in part a response to the 'flash crash')	<ul style="list-style-type: none"> • adequate systems and controls (e.g. pre-trade); and • capacity to immediately disable DEA clients' access. <p>Note: ASIC already has the power to direct a market operator to suspend a market participant.</p>		
Algorithmic trading (in part a response to the 'flash crash')	A market participant must ensure that all systems used to generate orders by it and its DEA clients are appropriately tested, monitored continuously during use, and able to be immediately disabled.	Market quality and integrity	No (implement soon after)
Best execution	<p>A market participant must take reasonable steps to obtain the best total consideration for its clients. 'Total consideration' may be interpreted as 'price' for a transitional period. However, professional clients and clients transacting in sizes of \$500,000 or more may nominate other objectives.</p> <p>A market participant that deals with clients:</p> <ul style="list-style-type: none"> • must have policies and procedures in place for complying with the best execution obligation; • should identify execution venues where orders on behalf of clients may be executed. We do not expect that all market participants must have direct connections to all execution venues; • should review the arrangements at least annually; • should disclose to clients that it has a best execution obligation and the execution venues on which client orders may be executed; • should ensure incentives for order flow and bundling arrangements do not alter its best execution obligation; • must be able to demonstrate to its clients and to ASIC that it has executed client orders in accordance with their execution arrangements; and • should publish a periodic report about order routing decisions (we propose a similar report to SEC Rule 606 in the US). <p>An execution venue should publish a report about the prices, speed and volume of its executions (we propose a similar report to SEC Rule 605 in the US).</p> <p>We are seeking feedback on whether there is benefit in market operators offering order routing and, for a transitional period, whether we should explicitly enable market participants to meet their best execution obligation solely on ASX.</p>	Market quality, investor protection and fairness	Yes (for obligation) No (for best execution reporting—possibility to implement in stages)

Issue	Proposal	Objective	Required for competition
Pre-trade transparency	<p>A market participant must display orders on a pre-trade transparent market subject to the following exceptions:</p> <ul style="list-style-type: none"> • <i>blocks</i>—for the most liquid products, the order would result in a trade of \$1 million or more and for other products it would be \$500,000 or more; we are seeking feedback on whether there should also be a \$2.5 million threshold for products with the highest liquidity and a \$200,000 threshold for those with the lowest liquidity; • <i>portfolios</i>—the existing ASX thresholds for portfolio trades; • <i>price improvement</i>—where the price is determined to be within the spread of the best bid and offer across markets in a size equal to or greater than \$20,000; • <i>undisclosed orders</i>—where the order is a dark order on a pre-trade transparent market and the size is equal to or greater than \$20,000; and • where trades are done outside the normal trading hours of all markets. <p>A market operator must make pre-trade information available immediately on a continuous basis.</p> <p>Market operators and market participants operating dark pools must periodically report to ASIC on the nature and activity of trading on the pool. This will enable ASIC to monitor developments.</p>	Market quality and fairness	Yes
Market integrity measures (in part a response to the 'flash crash')	<p>A market participant must:</p> <ul style="list-style-type: none"> • notify suspicious activity to ASIC; and • distinguish on orders and trade reports short sales to ASIC. <p>We are considering whether a market participant should also include on orders and trade reports for the benefit of market operators and ASIC only (i.e. it would not be publicly available):</p> <ul style="list-style-type: none"> • the origin of the order, including if on behalf of a client the categorisation of the client; and • for orders and trades originating from a market participant's algorithm, a unique identifier for the algorithm. <p>We are considering whether large traders should identify themselves to ASIC and transmit their unique identifier on all orders.</p> <p>A market participant must identify on trade reports the execution venue for transactions not done on an order book.</p>	Market integrity	No (expect to implement in stages; expect changes with the least systems impact to be implemented at or soon after competition)

Issue	Proposal	Objective	Required for competition
Proposals in response to competing exchange markets in Australia			
Post-trade transparency	<p>A market participant must immediately report all trades to a market operator. The party that should report is the executing or selling party.</p> <p>A market operator must publish the information immediately.</p> <p>We propose to permit delayed publication in accordance with existing ASX procedure 3500—where the trade meets the \$2 million, \$5 million, \$10 million and \$15 million thresholds.</p>	Market quality and integrity	Yes
Consolidation of pre-trade and post-trade information	We intend to bring about an outcome of consolidated information being available to market users. We are considering a number of options: see CP 145, Section K.	Market quality and integrity	Yes
Market operator: cooperation	A market operator must comply with a multimarket protocol (the protocol will govern arrangements relating to trading halts and suspensions, and sharing of information).	Market quality and integrity	Yes
Synchronised clocks	A market operator must synchronise its clocks to a clock nominated by ASIC.	Market quality and integrity	Yes
Identifiers	A market operator must use common market participant identifiers and stock symbols.	Market quality and integrity	Yes
Tick size	A market operator must implement common tick sizes (we propose to retain the existing ASX tick sizes).	Market quality and integrity	Yes
Trading to be on licensed market	Market participants must not transact by means other than under the rules of a market operator, subject to certain exceptions.	Market quality and integrity	Yes
Trading during a trading halt	A market participant must not trade on a CLOB or off-order book during a market-integrity-related trading halt or suspension.	Market quality	Yes
Trade confirmations	If a single client order is executed in multiple fills and across multiple markets, a market participant may aggregate transactions into a single confirmation.	Market quality and efficient implementation	Yes
101	While these regulatory proposals apply to market participants and market operators, they are likely to also impact persons that access markets indirectly through a market participant, investors and listed companies: see Table 8.		

Table 8: Persons impacted by the regulatory proposals

Proposal	Investors	Listed companies	Indirect participants	Market participants	Market operators
Proposals in response to recent and likely market developments					
Extreme price movements: see CP 145, Section E.	✓	✓	✓	✓	✓
Direct electronic access: see CP 145, Section F.	✓		✓	✓	✓
Algorithmic trading: see CP 145, Section F.	✓		✓	✓	✓
Best execution: see CP 145, Section G.	✓		✓	✓	✓
Pre-trade transparency: see CP 145, Section H.	✓	✓	✓	✓	✓
Market integrity measures: see CP 145, Section I.	✓	✓	✓	✓	✓
Proposals in response to competing exchange markets in Australia					
Post-trade transparency: see CP 145, Section J.	✓	✓	✓	✓	✓
Consolidation of information: see CP 145, Section K.	✓	✓	✓	✓	✓
Market operator cooperation: see CP 145, Section L.					✓
Synchronised clocks: see CP 145, Section L.				✓	✓
Identifiers: see CP 145, Section L.				✓	✓
Tick size: see CP 145, Section L.	✓	✓	✓	✓	✓
Market participant: off-book trading: see CP 145, Section M.				✓	✓
Trade confirmations: see CP 145, Section M.	✓		✓	✓	

Mechanisms for implementing the proposals

102 We intend to implement our proposals through market integrity rules,⁵⁰ unless otherwise stated. This is a new rule-making power that ASIC received as a result of its new supervisory function under the *Corporations Amendment (Financial Market Supervision) Act 2010*. Draft market integrity rules reflecting the proposals in CP 145 are set out in the document *Australian equity market structure: Draft market integrity rules*.

103 Market integrity rules are legislative instruments. ASIC will need to complete a Regulatory Impact Statement before finalising any rules. We will also require Ministerial consent before making any rules and any rules are subject to Parliamentary disallowance.⁵¹

104 The proposed market integrity rules would supplement existing ASIC Market Integrity Rules (ASX Market) 2010, which came into effect on 1 August 2010, and will supplement any new market integrity rules that are created for Chi-X.

Note: Additional market integrity rules that may apply to Chi-X (e.g. to address participant conduct and harmonise arrangements such as trading during a takeover and settlement timeframes) are not in CP 145. Proposed market integrity rules for new markets will be the subject of separate targeted consultation with relevant stakeholders.

105 Regulations are required to enable the recovery of ASIC's costs of market supervision from the industry to cater for multiple market operators and market developments. Regulations would also be required if the Government chose to change the scope of ASIC's jurisdiction to make market integrity rules to persons other than market operators and market participants.

Implementation and transitional arrangements

106 We expect that certain proposals in CP 145 will take time and investment to implement and that certain proposals are not essential to enable competition for exchange market services to commence. We expect that certain proposals may be implemented soon after competition commences and others may need to be implemented in stages over a longer period of time. We seek your feedback on whether transitional requirements are necessary and what those arrangements should be.

107 For example, we expect that transitional arrangements may be necessary for proposals relating to extreme price movements, electronic trading,

⁵⁰ Some of the issues would require regulations to be made to broaden the scope of ASIC's power to make market integrity rules.

⁵¹ A House of Parliament may disallow a market integrity rule within 15 sitting days after it is tabled in the House if a motion to disallow has been given and within the 15 days: a resolution to disallow is passed, the motion is not withdrawn or the motion is not acted upon.

evidencing best execution and client identification. We are considering specific transitional arrangements for connectivity required for best execution designed to reduce the burden of implementation for market participants and enable competition to commence sooner than if all market participants were required to comply from day one.

108 The questions in CP 145 are framed to seek your feedback on costs, benefits and implementation challenges. We expect that the proposals will require investment in technology, staff and compliance processes to varying degrees. This investment will contribute to the performance of the Australian market and our competitiveness internationally. Some likely impacts are outlined in Table 9 (note this is not an exhaustive list). We are particularly interested in feedback on these areas and your view on the timeframes required to implement the proposals.

109 Some clients of market participants will also be impacted. They may need to:

- (a) be educated about the implications of the proposals for them;
- (b) enter into new DEA agreements;
- (c) receive market participant disclosures about best execution;
- (d) interpret consolidated market data; and
- (e) consent to receiving aggregated trade confirmations.

110 The feedback in response to issues raised in CP 145 and in REP 215 will provide the basis for more developed consideration of market developments. The feedback may also lead to further measures on issues for which we do have proposals.

111 A lesson we have taken from jurisdictions that have introduced competition for exchange market services is that there are efficiency gains of a central body facilitating industry dialogue about technical implementation issues, including market-wide testing. We are interested in feedback about the role ASIC should play in facilitating implementation of the proposals in CP 145.

Table 9: Likely impacts of the proposals on market operators and market participants

Area	Possible impacts—market operators	Possible impacts—market participants
Technology (see REP 215, paragraph 309 and Figure 9, for a gap analysis and more on technology impacts)	Market operators will need systems to: <ul style="list-style-type: none"> • control order entry into matching engines; • automatically halt trading; • capture and on route additional data for execution quality reporting and for ASIC surveillance; • incorporate changes to pre-trade transparency arrangements; and • synchronise clocks in trading and reporting systems to a Universal Time Clock. 	Market participants will need systems (either their own or those of third parties) that: <ul style="list-style-type: none"> • filter client orders and can disable DEA client access and algorithms; • can process market data, determine to which execution venue to route orders based on predefined parameters and then route the orders; and • capture and on route additional data for execution quality reports (if operating an execution venue), for order routing reports, for trade publication and for ASIC surveillance.
Human resources	Market operators will need staff to: <ul style="list-style-type: none"> • consider the implications of the proposals, including the impact on technology; • cooperate with ASIC and other market operators; • provide investor education about the consequential changes to their market; and • provide training to other staff. 	Market participants will need staff to: <ul style="list-style-type: none"> • consider the implications of the proposals, including the impact on technology; • assess if DEA client agreements are sufficient; • monitor compliance with best execution arrangements and review the arrangements; • make best execution disclosures to clients; and • provide training to other staff.
Compliance policies and procedures	Market operators will need to: <ul style="list-style-type: none"> • review existing policies and procedures and amend where necessary; • put in place new policies and procedures for trading halts and trade cancellations; and • have procedures for ensuring clocks remain synchronised. 	Market participants will need to: <ul style="list-style-type: none"> • review existing policies and procedures and amend where necessary; and • put in place new best execution policies and procedures.

Parties involved in the process

112

There are a number of parties involved in giving effect to these proposals:

- (a) The Government ultimately decides whether and when to introduce competition for trading services, including approval of any new market licences, and the approval of ASIC's market integrity rules. ASIC's market integrity rules are also subject to disallowance by Parliament.
- (b) Treasury advises the Government, including if any regulations (such as fee regulation changes) are necessary.
- (c) ASIC advises the Government and Treasury on market licence applications and other financial market issues and makes market integrity rules with Ministerial consent.

- (d) The Australian Competition and Consumer Commission (ACCC) has jurisdiction over competition-related issues.
- (e) Market operators must amend their operating rules and written procedures to reflect the new regulatory framework. Cooperation between market operators and ASIC relating to implementation, operation of markets and surveillance is imperative.
- (f) Market participants, investors, and data and system vendors need to respond to the new regulatory framework.

Education

113 As a separate matter we intend to engage industry about the best mechanism to educate the wider marketplace on the issues raised in CP 145. Education for retail investors may be required about the changing market landscape, proposed new investor protections (e.g. best execution), what the changes mean and where to get advice. It may be communicated, for example, through:

- (a) our consumer website (FIDO);
- (b) articles in relevant financial and industry association magazines; and
- (c) specific ASIC publications.