

ASX Group Activities in FY09



September 2009

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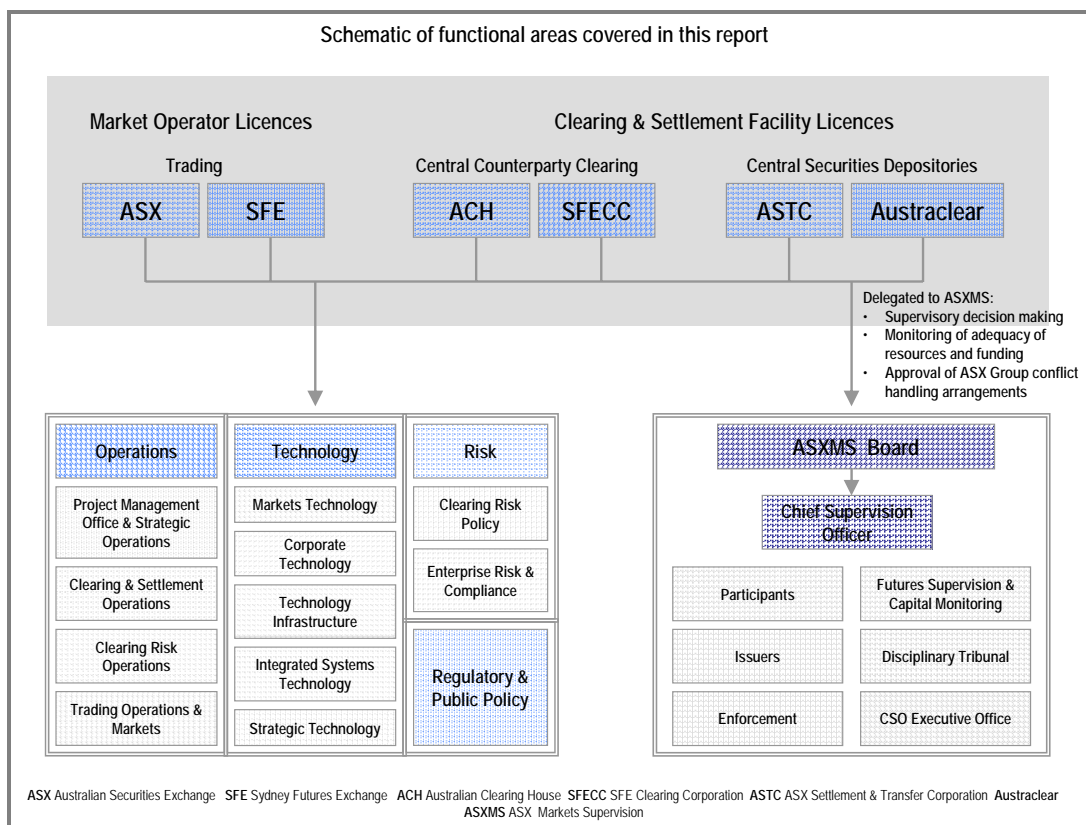
Executive Summary

What this Report is About

- 1 The Australian Securities Exchange (ASX) publishes monthly activity reports relating to its operational and risk management activities. In addition, since April 2009, ASX has introduced quarterly activity reporting of supervision activities performed by its subsidiary, ASX Markets Supervision Pty Limited (ASXMS). In the spirit of providing further transparency of ASX Group activities, and especially given the turbulence in global financial markets throughout FY09, ASX has published this report highlighting notable market events and ASX operational, supervisory and technological activities for the period 1 July 2008 to 30 June 2009 (the Reporting Period).
- 2 The main purposes of this report are to promote a better understanding of the role performed by ASX and to support market confidence. It complements the more shareholder-focused Annual Report of ASX Limited released on 20 August 2009.

The ASX Group

- 3 ASX is an operator of financial markets and clearing and settlement facilities with six separate licences - one in the listed holding company, ASX Limited, and five in subsidiary companies.
- 4 These companies are licensed to operate these markets and provide these facilities to listed companies, brokers and other organisations, subject to regulatory oversight by the Australian Securities and Investments Commission (ASIC) and the Reserve Bank of Australia (RBA).
- 5 Each licensed business has appointed another (unlicensed) subsidiary, ASXMS, as its agent to undertake certain supervisory functions. In this regard, ASXMS:
 - Monitors compliance of participants and listed entities with the ASX Group's Operating Rules including the surveillance of trading activity;
 - Investigates and takes enforcement action, including making referrals to the Disciplinary Tribunal, in respect of potential breaches of the Operating Rules; and
 - Refers to ASIC potential breaches of the Corporations Act.
- 6 An integral part of the responsibilities of the ASXMS Board is the ongoing monitoring of the adequacy of funding and resources for supervisory activities. In addition, the ASXMS Board monitors and approves the ASX Group's conflict handling arrangements as well as provides supervisory input to the ASX Group on matters of policy, rule development, operational and risk management, business development and other matters as necessary or required.



Report Highlights

7 ASX operates on the basis that market integrity is fundamental to the trading, clearing and settlement, and supervision services that it provides. Market integrity is a necessary ingredient in investor confidence and in turn, investor confidence is key to the long-term sustainability of ASX's markets. To support this, ASX has in place a comprehensive framework which in FY09 comprised of:

- Efficient and effective supervisory services via ASXMS;
- Sound and transparent processes to operate the market with well-defined controls;
- Robust and reliable technological infrastructure;
- Comprehensive risk control and exposure monitoring measures;
- Effective conflict handling arrangements; and
- Experienced and skilled supervisory, operational, risk management and corporate staff.

The solid foundation laid by this framework helped produce the activities and outcomes detailed in the body of this report.

Market Overview

- 8 **Introduction.** Fallout from the US sub-prime crisis continued to impact on Australian markets during FY09, with the first half of the December 08 quarter producing a crisis many commentators noted had not been seen since the Great Depression. Concerted government action to bailout the US financial system was followed by a coordinated series of interest rate cuts by Western central banks, in addition to a spate of national initiatives to recapitalise banks and guarantee consumer deposits at the height of the crisis. The largest one-day fall in the main ASX S&P 200 equity index occurred on 10 October 2008 when the index fell 8.4%, the worst day since the market crash of 1987, when fears of a mounting US recession panicked global markets.

These events have had a significant impact on the performance of the primary, secondary and derivative markets operated by ASX during the Reporting Period. Since the bankruptcy of Lehman Brothers Holdings Inc and the near collapse of AIG in November 2008 (caused by significant unrealised losses in the largely unregulated credit default swap (CDS) market), the Australian markets have experienced unprecedented levels of volatility and market dislocation. In response to these issues, public policy initiatives such as the government guarantee of bank deposits and short selling restrictions have also had their impact on ASX markets.

Equity Markets

- 9 **In the equity primary market,** as asset prices fell during the year and the prospects of a stable equity market rapidly receded, the level of IPO activity predictably reduced – albeit 45 new listings still occurred during the Reporting Period. For ASX-listed companies seeking to repair their balance sheets and re-finance their borrowings, the absence of available wholesale financing (for the reasons outlined in the debt market section below) meant that companies sought to raise capital through the equity market. As such, secondary capital raisings (particularly for larger companies) were robust and a record \$88 billion was raised in the Reporting Period. This ranked ASX third globally in capital raised after NYSE and LSE in the six months to June 2009.
- 10 **In the equity secondary market,** market volatility increased dramatically with 20-day historical volatility of the S&P/ASX 200 peaking at 65% in November 2008. Combined with the fall in asset prices (from a high of 6,852 the S&P/ASX 200 fell 54.5% to a low of 3,121 on 10 March 2009) there was a significant reduction in retail activity from November 2008 onwards. In addition, institutions adjusted their asset allocation reflecting a strong bias for cash or risk-free assets - which caused downward pressure on trading activity. Notwithstanding the reduction in traded value, trading volumes remained robust, with the average number of trades increasing by 16.6% to 420,002 in FY09 from 360,988. Combined with the average trade size falling to \$10,587 during the Reporting Period, this is indicative of the continuing increase in the use of Direct Market Access (DMA) and algorithmic trading strategies.

The impact of the short selling ban imposed on 22 September 2008 (which was subsequently lifted for all but financial stocks on 19 November 2008, and for financial stocks on 25 May 2009) is more difficult to quantify. That said, in the three months following the introduction of the short selling ban, there was an observable reduction in value traded, and average bid/offer spreads increased by 16 bps to 61 bps. Whilst the impact of the ban was observed to be negative on liquidity and spreads, caution must be exercised when linking these observations with causality because other factors, including the substantial increase in volatility and specific market events over the same period, would also have had an impact.

- 11 **Equity derivative markets** have been diversely impacted. SPI Futures and XJO ETOs volumes (unlike almost all other ASX derivative products across the Group) grew by 14% and 42% respectively. This has been driven by a range of factors, including investors seeking to hedge their equity exposures in the downturn, the continuing and increasing use of SPI 200 Futures by domestic fund managers to manage their equity portfolios, and the trend towards index tracking strategies and the hedging of those positions. It has been further underpinned by the growth of independent proprietary traders (formerly locals) who have found additional opportunities in the face of declining activity by international Commodity Trading Advisers (CTAs) and hedge funds.

The growth in investment in passive index strategies is also indicated by the growth in funds under management for the State Street ASX 200 ETF of 95% to \$1.4 billion. More generally, the increasing understanding of the benefits of ETFs across a range of international and domestic equity indices and commodities appears to be reflected (albeit off a modest base) in an increase of funds under management across the sector of 21% to \$2.4 billion and the arrival of a number of major international ETF providers.

Volume and open interest in single stock ETOs have declined by 26% and 19% respectively, caused by an increase in volatility and a general decline in liquidity in that segment. Similarly, the warrants market has declined significantly, with volumes down 54% on 2008 and the number of new product listings subdued by increased volatility and constrained credit markets.

Debt Markets

- 12 **In the debt primary market**, the flight to quality, as evidenced by dramatically widening CDS spreads, saw refinancing and issuance of new debt restricted to all but government guaranteed entities. The inability to raise funds by banks and non-banks placed significant strain on Australian borrowers heavily dependant on offshore wholesale lenders. In response to the crisis, on 12 October 2008, the Commonwealth Government introduced a range of measures that enabled eligible borrowers to take advantage of the Commonwealth's guarantee. This stabilised access to funding for authorised deposit taking institutions but exacerbated the funding crisis for non-bank lenders and corporates. The resulting rationalisation saw much of the non-bank lending sector being absorbed into the banking sector and corporates replacing debt with equity through secondary capital raisings as highlighted above. This guarantee was further extended to the States on 25 March 2009.

The first six months of 2009 saw the primary market become increasingly crowded as the Commonwealth itself sought to issue unprecedented amounts of new debt to fund the various stimulus packages and widening budget deficit. The Commonwealth has issued \$32.2 billion, an increase of 511% over the prior reporting period, to the benefit of the management of the expiry process of the ASX Treasury Bond Futures contracts. However, a preference by investors for higher yielding Commonwealth guaranteed bank and semi-government debt has complicated an already difficult funding challenge for the Commonwealth, and has prompted the Australian Office of Financial Management (AOFM) to seek alternative funding sources in the retail market. Rapid and substantial policy easings during the period saw six falls in the official overnight cash rate from 7.25% to 3%, exacerbating volatility and uncertainty in the short-end of the yield curve.

- 13 **In the debt secondary market**, trading for all practical purposes ceased in all but government-issued paper. Whilst not a market operated by ASX, the collapse in liquidity in the secondary market impacted severely on ASX's debt derivative markets, as financial institutions moved to lower their risk profile significantly and reduce hedge-related and speculative position-taking. Arbitrage trading activity that would usually tend to compress pricing anomalies required traders to commit both funding and capital; wide price differentials particularly between October and

March 2009 pointed to persistent balance sheet and credit constraints with a large liquidity premium across debt markets.

Relative to secondary debt markets, liquidity in the ASX's key interest rate benchmark futures contracts held up relatively well, underscoring the fundamental strengths of regulated, transparent and centrally cleared marketplaces. Whilst the risk limits of institutions were significantly curtailed and participation from hedge funds and CTAs declined, independent proprietary traders have, in part, moved to fill the liquidity gap left by those participants. Notwithstanding this, by January 2009, turnover in the 90 Day Bank Bill Futures contract was down over 60% compared to the previous period in 2008; the 3 Year Bond Futures contract was down 57%; the 10 Year Bond Futures contract was down 52%. Increased volatility caused by aggressive rate easing impacted on volumes in short-dated options and 30 Day Interbank Futures which fell 59% and 38% respectively.

The decline in interest rate derivative volumes at ASX is broadly in line with similar declines at the world's largest derivative exchanges in Europe and the US.

The second half of the Reporting Period showed signs of improvement in overall market conditions, with the narrowing and stabilisation of credit spreads, the larger government debt issuance program, and the increased use of debt capital markets by the corporate sector to meet funding requirements, all contributing to increased activity.

Notwithstanding increased government debt issuance, ASX remains focused on the ongoing management of the futures expiry process. Periods of increased divergence between physical Commonwealth Government Securities (CGS) and respective ASX bond futures prices have been observed over the past six months and this underlines the importance of an ongoing and proactive approach to improve the operational processes surrounding expiry. ASX also supports the development of secondary CGS market transparency to further develop the quality and integrity of the CGS market and is willing to work with regulators, the Australian Financial Markets Association (AFMA) and market users to achieve this outcome.

Operations of the ASX Group Markets and Clearing and Settlement (CS) Facilities

The Year in Review

ASX

- 14 **ASX equity market:** The second major upgrade in as many years to ASX's equity trading system (ITS¹) was completed in May 2009. As well as replacing the core trading engine hardware and connecting gateways and routers, ASX also undertook an upgrade of the network connecting participants to ITS. Overall this upgrade delivered a capacity uplift to over two million equity trades capability per day and over 130 million messages (order changes) per day in traffic throughput. The equity cash market recorded its highest daily trade count on 18 September 2008, with 821,527 trades on ITS.
- 15 **ITS Co-location hosting service:** In December 2008 ASX launched an ITS Co-location hosting service. Co-location hosting enables participants of ASX to place their trading equipment (and, if they wish, that of their customers), and their assigned ITS Gateway machines, within the same secure physical data centre as the ASX ITS primary matching engine. This reduces network latency (a component of overall latency) to sub one millisecond. Co-location hosting is now being offered by a number of exchanges around the world.
- 16 **Equity market functionality enhancements:** In November 2008 ASX announced a range of proposed equity market enhancements, designed to improve liquidity in the Central Limit Order Book and ASX functionality for large order execution. These changes will be introduced in subsequent reporting periods.
- 17 **ASX AQUA market:** ASX launched the AQUA market² in September 2008 to meet the needs of product manufacturers of ETFs, structured products and managed funds. The initial result has seen the market for exchange-traded funds expand, with new products evolving across a broad range of asset classes.
- 18 **New Listed Investment Company (LIC) Index:** During the Reporting Period, ASX and S&P launched a new LIC index, which tracks the performance of listed LICs on ASX. Just after the Reporting Period, ASX and S&P launched a new Emerging Companies Index, which tracks the performance of 200 small cap companies in the market capitalisation range 300 to 650.

SFE

- 19 **Re-list 3 and 10 Year Interest Rate Swap Futures:** In July 2008, the 3 and 10 Year Interest Rate Swaps were re-listed. Changes to the product design allowed for the contract to be cash settled against the AFMA *data* 10am swap reference rates for the 3 and 10 year swaps.
- 20 **30 Day Interbank Cash Rate Options:** Options on the 30 Day Interbank Cash Rate Futures were launched in October 2008. The 30 Day Interbank Cash Rate Options contract provides a

¹ ITS is the Integrated Trading System – ASX's electronic platform for equities trading.

² Listing on the ASX AQUA market is enabled by a new Rules framework (the AQUA Rules) that supports the quotation of exchange-traded funds (ETFs), structured products and other innovative product structures that were not readily accommodated by the existing ASX Listing Rules and systems.

cost effective tool for managing short-term interest rate risk and shifts in the cash rate yield curve, as well as the opportunity to create trading strategies around cash rate expectations.

- 21 **Improvements to the option daily settlement price process:** Following a decline in option market liquidity, the process for determining the daily settlement price was amended in November 2008. The new process allowed for at-the-money trades (outright or strategy) undertaken throughout the day to affect the end-of-day settlement price. Previously, only orders and trades transacted in the last 10 minutes of the trading session could impact on the end-of-day settlement price.
- 22 **Clarification of Approved Bank Criteria³ in event of a bank downgrade:** In April 2009, in consultation with AFMA, ASX provided additional information on the application of the Approved Bank Criteria in the event of a major bank downgrade and its impact on the AFMA Prime Banks List.
- 23 **Settlement prices for electricity futures:** Enhancements were made to Daily Settlement Price (DSP) procedures effective from 8 June 2009. These enhancements improve the quality of DSPs, particularly in the longer dated part of the futures curve and better align individual quarter DSPs with the relevant calendar-year option DSPs. The DSP determination process for futures strip products now incorporates prices implied from underlying quarterly futures products where these are more competitive. Conversely, the DSP determination process for quarterly futures products also now incorporates prices implied from the relevant futures strip product where they are more competitive.

ACH and SFECC

- 24 Since Q4 FY09, global markets have stabilised as concerns over the severity of the global recession have subsided, combined with growing optimism that the coordinated government and central bank actions have stabilised the US financial system. As with the previous financial year, the increased volatility particularly at the end of 2008 shaped the central counterparties' (CCP)⁴ risk profile and drove increases in CCP risk exposures, which led to more frequent calling of intraday margins and reviews of risk control measures, such as margin rates and internal participant credit ratings.

During the Reporting Period the notable activities and achievements of ACH and SFECC included:

- 25 **Pro-active monitoring in high volatility periods:** In addition to the standard risk management practices used by ASX's CCPs (margining and stress testing), the impact of the global financial crisis on ASX's CCPs was effectively managed and reduced by pro-active enhancement of existing risk control measures and by the triggering of extreme scenario risk management activities (most notably throughout the volatile latter half of 2008), such as:
 - Margins - more conservative margin rate setting via additional use of qualitative factors and more frequent reviews; also, intra-day margin tolerances were reduced, increasing the likelihood of calls;

³ The Approved Bank Criteria is a set of objective criteria that is used to determine the Approved Banks for the purpose of the 90 Day Bill Futures delivery. One criterion is that the bank must be on the AFMA Prime Banks List and have been so for at least six months.

⁴ CCP clearing refers to the management (risk management, transaction monitoring, and netting) of a transaction after the matching of a buy and sale trade and prior to the legal fulfilment of the respective obligation. In the ASX Group's model, ACH and SFECC become the counterparties of the original buyer and seller for trades executed on ASX and SFE markets respectively.

- Stress testing - 'rebound' regimes were triggered for both CCPs, increasing the maximum Capital Stress Testing (CST)⁵ up/down scenarios (as relevant), and suspension of the discretionary collateralisation discount regime increased the likelihood of additional margin/cover calls for participants' large position exposures;
- Focused participant monitoring - extended use of clearing participant watch lists to more closely monitor higher risk entities and pro-active discounting of internal credit ratings of clearing participants, increasing the likelihood of additional margin calls; and
- Treasury investments – prudent reduction of limits on investment counterparties outside the 'four pillar' major trading banks and a reduction in the weighted average maturity (WAM) of its portfolio, and maintenance of excess liquidity levels.

Daily exposure updates were provided to senior management and the RBA during the most volatile periods.

- 26 **FSS-CCP⁶ compliance:** The RBA's 2008 Assessment Reports for both ACH and SFECC concluded that each CCP had complied with its obligations under the FSS 2003:1 for CCPs during the Reporting Period.

The RBA's 2009 Assessment Report was released on 22 September 2009. From their assessment the RBA found that all four CS facilities operated by ASX complied with the relevant Financial Stability Standards and did all other things necessary to reduce systemic risk over the year to end-June 2009. In the Report, the RBA acknowledges that the assessment period was "characterised by heightened volatility in financial markets" and that "all four licensed CS facilities were resilient to the turbulent market conditions".

- 27 **RBA liaison:** Detailed analysis of the performance of the CCPs' clearing risk control frameworks was provided via standard quarterly reports to the RBA (supplemented by more frequent *ad hoc* reporting during the volatile Q2 FY09) and discussed subsequently in quarterly operational liaison meetings with the RBA.
- 28 **Monitoring participant risk:** In early 2009, the Clearing Risk, Operations and Supervisory (CROS) Liaison Committee was created, to more formally and regularly bring together ASX personnel from relevant units to act as an information-sharing and discussion body for the purpose of improving ASX's ability to identify, assess and reduce central counterparty risk, operational and supervisory risk, and systemic risk. Monthly meetings include discussion of material events, activities and key performance indicators relating to clearing participants and, broader operational, supervisory and risk management issues and initiatives of the CCPs.
- 29 **Credit rating of ASXCC:** ASX constituted ASXCC as an intermediate holding company of its two CCPs with the intention to use ASXCC as a funding and treasury investment vehicle for the two CCPs. As part of this process ASXCC was publicly rated during the Reporting Period by S&P (at AA-, reflecting ASXCC's structural subordination to the underlying strength of the CCPs).
- 30 **Transition arrangements for default insurance:** In response to the GFC-related downgrading of the credit rating of ASX's default insurer, ASX was pro-active in ensuring effective transition plans were in place to move to alternative facilities if required.
- 31 **Stress testing:** Following the annual review of stress testing scenarios for both CCPs, enhancements were made to stress testing processes, with a notable outcome being

⁵ ASX's Capital Stress Testing model estimates ACH's probable loss in the event of severe but plausible price movements and the default of a clearing participant.

⁶ The RBA's Financial Stability Standards (FSS) that apply to CCPs.

confirmation that the existing scenarios in use for both ACH and SFECC were more extreme than any volatility observed during the Reporting Period. Enhancements included a substantial increase in the number of ACH scenarios used and a number of changes to SFECC parameters used in existing scenarios.

- 32 **Significant projects:** Significant progress across a number of key clearing risk projects was achieved during the Reporting Period. System implementations included a new treasury management system and new systems or substantial upgrades, which further enhanced capabilities in respect of ACH and SFECC counterparty risk exposure quantification and reporting. Other important project initiatives which were progressed during the Reporting Period, but are yet to be completed included:
- Development of a new collateral management system for SFECC;
 - The provision of clearing and settlement services for alternative market operators;
 - Implementation of the first stage of increases to minimum capital requirements for ACH participants; and
 - Enhancements to the default management plans and capabilities of both CCPs.
- 33 **Market consultation:** During the Reporting Period two important ASX clearing and settlement market consultation processes were completed in relation to proposed enhancements to Australia's equity settlement system and initiatives aimed at delivering efficiencies to the marketplace through the harmonisation and linking of the activities of the two CCPs. In addition, ASX contributed to the RBA's consultations during the Reporting Period on Financial Stability Standards applicability for overseas CCPs and on assessing 'sufficient equivalence' of overseas CCPs.
- 34 **Business continuity:** ASX also continued its comprehensive business continuity planning program, with successful testing during the Reporting Period of continuity capabilities for its DCS⁷, CHESS⁸ and EXIGO⁹ clearing and settlement systems, with each system operated from ASX's backup site for a full-day of clearing and settlement activity. Pandemic plans also were strengthened in response to the emerging H1N1 swine influenza threat.

ASTC and Austraclear

- 35 **Confidence in system:** During the Reporting Period record cash market trade activity was settled through CHESS, with a peak of over 800,000 cash market trades recorded on 18 September 2008. The number of entities that have holdings on the CHESS Sub-Register increased by 5.8% during the Reporting Period, compared to the end of the previous Reporting Period. Similarly, active sponsored holdings increased by 4.3% during the Reporting Period. These increases demonstrate users' confidence in the settlement facility through unprecedented periods of market volatility and uncertainty.
- 36 **Improvements in settlement framework:** During the Reporting Period ASX undertook several major initiatives that have demonstrably improved the settlement performance of CHESS and also put in place enhanced processes to cater for any future CHESS batch settlement failure. The changes relate to:
- Settlement shortfall fees;
 - CHESS processing schedule changes (pre settlement activity);

⁷ DCS - Derivatives Clearing System used by ACH.

⁸ CHESS – system used for equities settlement.

⁹ EXIGO – settlement and depository system used for interest rate securities.

- Automatic close-out requirement on participants at T+5;
 - Increased transparency of settlement performance and peer group benchmarking provided to settlement participants;
 - Improving the understanding and transparency of settlement risk; and
 - CHES Real Time Gross Settlement (RTGS) Service.
- 37 **Disclosure of stock lending activity - RBA liaison:** ASTC and RBA undertook a series of discussions and industry workshops to determine both technical and regulatory requirements to increase the transparency of securities lending activity in the cash equity market. Specifically, ASTC consulted industry stakeholders to determine and implement an appropriate technical solution and regulatory framework to capture relevant, timely and contextual information. ASTC will continue to communicate with relevant industry stakeholders in preparation for the implementation milestones of October 2009 for gross position reporting and December 2009 for net position reporting.
- 38 **Short selling - ASIC liaison:** ASX provided senior regulatory policy, strategic and operational insight to ASIC, RBA and Treasury as part of regular updates (initially weekly then periodically as required) in order to assist ASIC in shaping the short selling response framework. Trading Operations and Markets (TOM) and ASTC provided statistical data, analysis and insight into the operational impact of the short selling prohibitions on settlement performance during the period September 2008 to January 2009. In conjunction with this reporting, ASTC provided and continues to provide settlement performance data to ASIC to assist in the evaluation of the impact of short selling on settlement efficiency. ASXMS provided analysis and insight into the reporting performance of participants of their short selling reporting obligations.
- 39 **Reduced fail rates:** During the Reporting Period equity settlement performance measures continued to improve, with record low levels of initial fails being noted on 23 April 2009 – 0.049% and rescheduled settlements on 3 April 2009 – 0.231% (i.e. 74 scheduled settlements failing to settle out of 47,212 scheduled settlements). Both initial and rescheduled fail rates are now consistently tracking below the historically 'normal' level of 1% (which in itself is low by global standards).
- 40 **Business continuity planning:** A major business continuity test of CHES and SWIFT¹⁰ was conducted on 12 June 2009. The scope of this test covered a 'loss of primary site and systems' scenario, with the system being operated from the ASX backup site for an entire day of 'live' clearing and settlement.
- 41 **System Uptime:** CHES operational availability was 100% throughout the Reporting Period.
- 42 **Completion of batch settlement:** There were no delays in the completion of daily equity settlements during the Reporting Period.
- 43 **Guarantee scheme for large deposits and wholesale funding:** In response to the Commonwealth Government's deposit and wholesale funding guarantee arrangements, from 1 December 2008, Austraclear provided approved participants with the ability to distinguish Electronic Negotiable Certificates of Deposit and Electronic Bank Accepted Bills as guaranteed in the Austraclear System.

¹⁰ SWIFT is the Society for Worldwide Interbank Financial Telecommunications that provides secure messaging services and interface software to wholesale financial entities.

Key Developments in Regulatory Policy

- 44 Regulatory efforts during the Reporting Period focused on a mix of proposed amendments to ASX's Operating Rules, the regulation of short selling and broader public policy issues, such as executive and director remuneration. The key regulatory policy initiatives undertaken during the Reporting Period include:
- ASX submissions, together with 'day-to-day' officer level contributions, to the Treasury, ASIC and the RBA on the design of effective regulatory and disclosure frameworks for short selling and securities lending. ASX also published a position paper on 'Transparency of short selling and securities lending' outlining the feedback received from an earlier consultation process, the benefits of increased transparency and issues for the Government to consider in designing an effective disclosure regime;
 - The further development of a proposal to liberalise the secondary capital raising regime for SMEs under the ASX Listing Rules. The proposal seeks to provide SMEs with greater flexibility to raise capital in a timely manner when the need or opportunity arises at a time when debt funding has been severely constrained for this part of the market;
 - An examination of the different rationales for ASX monitoring the financial position of different classes of participants in light of the evolution of market structure;
 - The introduction of a rule amendment placing additional obligations on participants in relation to partly paid securities;
 - A proposal in the ASX submission to the Productivity Commission Inquiry into Director and Executive Remuneration that the Listing Rules dealing with director and executive remuneration could be consolidated in the Corporations Act 2001 and removed from the Listing Rules; and
 - Policy Committee consideration of a number of proposed rule amendments, including authorising lodgement of draft proposed rule changes with ASIC.

Technology

- 45 During the Reporting Period ASX Technology continued to maintain the high standards that have been achieved over the past years, with high system availability continuing to be provided to customers and a strong focus on ensuring that all systems have sufficient capacity to handle the expected demands of a resurgent market. The integration of key infrastructure elements, particularly in networks and reporting tools has progressed well and, at the same time, staff turnover in Technology remained relatively stable.
- 46 **Performance of key business systems:** The ASX systems continued to perform very well during the Reporting Period, with all critical systems reporting availability above the service level of 99.8%. For example, ITS availability was 100% during the Reporting Period.
- 47 **Performance of supervisory systems:** In order to undertake real-time market surveillance and subsequent investigations, ASXMS relies primarily on the SMARTS system with additional support from IRESS¹¹ and the internally developed ASX Replay system. A major upgrade to SMARTS went live in May 2009 which has provided increased capacity and greater reliability. Over the Reporting Period, SMARTS had an availability of over 99.8%.

¹¹ An order-routing network that connects brokers and institutional investors in Australia.

48 **Major technology achievements** for the Reporting Period were:

- Capacity upgrades to trading systems that included the upgrade of the CLICK¹² trading platform and associated downstream systems and infrastructure to cater for over two million daily trades and over 130 million daily order book changes, and the upgrade of SYCOM¹³ and associated downstream systems to double available capacity;
- Provision of a co-location facility in ASX data centre, significantly reducing trade and order latency for equity trading;
- Commencement of a major architectural upgrade for SYCOM, coupled with the insourcing of SYCOM development and support by 2010;
- Upgrade of the SYCOM international network, bringing greater resilience and reliability, as well as major capacity upgrades;
- Implemented Property Index Contract and Coal (Energy Phase 1) contract onto SYCOM;
- Upgrade of EXIGO and SECUR¹⁴ to use latest Storage Area Network;
- Implemented corporate treasury system replacement (TMS);
- Significant upgrade to CHESS, including capacity improvements, short selling and securities lending reporting, and other customer enhancements;
- Major data centre infrastructure refreshment and continued refreshment of ASX corporate technology;
- The ASX.com website was re-engineered for improved performance, capacity and security; and
- Successful business continuity testing of critical systems in live production situations.

Supervision-related technology projects completed during the Reporting Period included the upgrade to the SMARTS market surveillance system, the Issuers Activity Solution and the ASX Compliance Monitor. Further detail is provided in the section ASXMS Technology Projects.

Supervision of ASX Markets and CS Facilities

ASXMS

49 ASXMS is a subsidiary of ASX which was established to provide separation of the supervisory functions from ASX's other functions, and to provide greater transparency and accountability in relation to those supervisory operations. ASXMS also plays an important role in a range of structures in place to address real and perceived conflicts of interest between the commercial functions of the ASX Group and the activities required to fulfil the ASX Group's obligations as a market operator and CS facility provider. The terms of the arrangements between ASX and ASXMS are contained in the Supervisory Services Agreement (SSA) most recently amended and effective from 1 May 2009.

50 The Chief Supervision Officer (CSO) of ASXMS reports directly to the ASXMS Board and not to the Managing Director and Chief Executive Officer (CEO) of ASX, except in relation to the CSO's role as Chairman of the ASX Corporate Governance Council. In respect of that position the CSO reports to the CEO.

¹² CLICK is the electronic platform for the trading of ASX derivative products.

¹³ SYCOM is the electronic platform for the trading of SFE derivative products.

¹⁴ SECUR is the derivatives clearing system used for SFE derivative products.

- 51 With effect on 1 August 2008 ASX appointed Mr Alan Cameron AM as Chairman of ASXMS. Mr Cameron is a former Chairman of ASIC and its predecessor, the Australian Securities Commission. Ms Jillian Segal AM, who also has a regulatory background, is the sole common director of both the ASX and ASXMS Boards.

- 52 ASXMS sets its own objectives and priorities, and has developed management and control processes to enable it to perform functions and duties under the SSA. The initiatives undertaken by ASXMS during the Reporting Period have been guided by its objectives as well as by developments in the markets it supervises; namely the onset of the global financial crisis and its impact on markets, participants and issuers.

ASXMS Business Units

EQUITY MARKETS conducted according to the Listing Rules, ASX Market Rules, ACH and ASTC Rules (the ASX Rules)

Issuers unit

Supervision of all listed entities - debt and equity, warrant issuers

Makes day-to-day decisions relating to:

- continuous disclosure monitoring
- processing IPO applications and subsequent capital raisings
- processing applications for waivers of the Listing Rules
- monitoring on-going compliance with other non-continuous disclosure related Listing Rules.

Participants unit

Supervision of Participant compliance with the ASX Rules

- **Surveillance** provides continuous, real-time monitoring of trading activity in ASX markets. Monitors for continuous disclosure, insider trading, market manipulation as well as trading rule breaches.
- **ASXMS Compliance** monitors compliance with the Rules through on-site reviews, self assessments and spot reviews Provides advice on the application of the ASX Rules
- **Investigations** carries out enquiries in relation to any potential significant breaches of the ASX Rules by Participants.

All ASX Group Rules (the Operating Rules)

Enforcement unit

- Provides independent and impartial legal review of investigations conducted internally within ASXMS
- Processes referrals and notifications of potential significant breaches under the Corporations Act.
- Advocacy role in representing and appearing on behalf of Licensees in proceedings conducted before the Disciplinary Tribunal.

Disciplinary Tribunal

- Determines through a process of peer review, disciplinary proceedings in relation to alleged contraventions of Operating Rules.

FUTURES MARKETS conducted according to the SFE, SFECC Rules and the Austraclear Regulations (the SFE Rules)

Futures Supervision & Capital Monitoring unit

Futures Supervision

- Surveillance of futures markets
- Monitoring compliance with the SFE Rules
- Investigating potential breaches of the SFE Rules

Capital Monitoring

Monitors compliance with the capital requirements set out in the Operating Rules [i.e. ASX & SFE Rules]

The Year in Review

Overall ASXMS

- 53 **ASXMS strategic reviews of certain areas:** During the Reporting Period an off-site conference was held by ASXMS that was attended by all directors and staff of ASXMS. At this conference, business plans were reviewed and analysed in light of current market and supervisory issues and future supervisory trends, and the structure of ASXMS was reviewed. This led to changes in governance documents, the restructure of ASXMS Compliance to enable more focus on the internal supervision arrangements and processes within participants having regard to emerging compliance practices, and reviews of the supervision practices of Capital Monitoring.
- 54 **ASIC referrals:** During the Reporting Period there were 88 referrals¹⁵ and 60 notifications¹⁶ made to ASIC. These included 20 suspected continuous disclosure breaches, 14 suspected market manipulation breaches and 31 suspected insider trading breaches. During the Reporting Period there were 42 finalisation letters received from ASIC. As at 30 June 2009 there were 119 referrals to ASIC for which ASX was awaiting a finalisation letter or other response.
- 55 **ASXMS/ASIC National Coordination Committee (NCC) meetings:** There was a new focus on quarterly ASXMS/ASIC NCC Meetings during the Reporting Period, in order to concentrate on matters with broader implications, such as a review of the content of continuous disclosure, insider trading, and market manipulation referrals, and the internal supervision of participants, including in the area of capital monitoring.
- 56 **Participant perception of market quality:** During the Reporting Period meetings were held with senior management of 14 major institutions as well as the CEOs and senior executives of 22 market participants.

Major issues raised by market participants included capital adequacy increases (since resolved); third-party clearing; positive impact of T+5 settlement close-out; increased supervisory visibility and activity of both ASX and ASIC; and 'fat finger' errors. On the whole, participants held a positive view of ASX's and ASXMS's management of the market.

- 57 **ASXMS Education and Research Program:** In 2007 as part of the Supervisory Toolbox Review, ASX announced that it would use the money collected from fines imposed by the Disciplinary Tribunal from 1 January 2007 to provide additional supervision-related education to market participants, listed entities and investors, and undertake supervision-related research.

After deducting external costs for running the Tribunals, the net money collected each year is expended on education and research initiatives during the subsequent year. During the Reporting Period a number of partnerships and projects commenced in the previous financial year crystallised and resulted in the delivery of a large number of educational events. Significant partnerships, which resulted in large numbers of events and attendees, included the Securities and Derivatives Industry Association (SDIA) Market Manipulation course and the AICD's 'The Listed Company Director' course. Other highlights included the continuation of the ASIC/ASX continuous disclosure and corporate governance seminar series; the JORC seminars (both the completion of the 2008 series and the commencement of the 2009 series); the AFMA futures

¹⁵ Referrals as those matters that ASXMS refers to ASIC which ASXMS has reason to suspect are significant contraventions of its Operating Rules or of the Corporations Act. Referrals require further action from ASIC.

¹⁶ Notifications are those matters prescribed under the Corporations Act that ASXMS is automatically required to notify to ASIC (e.g. trust account breaches, disciplinary action taken by ASX, etc). No further action is required from ASIC following a notification.

compliance forum; and the Chief Regulatory Officer (CRO) international conference in Sydney in September 2008.

During the Reporting Period the Education and Research Committee was set up to monitor the program in detail and make recommendations to the ASXMS Board on the approval of activities and expenditures.

- 58 **International networks:** During the Reporting Period ASXMS built on its international relationships established through membership of the CRO forum and the Intermarket Surveillance Group (ISG), and through unilateral relationships with other exchanges, in order to assess ASX policy and practice against international policies and practices. For example, ASX had discussions with NYSE about surveillance practices and minimum prices for securities; discussions with SGX on listing rule compliance practices; and discussions within ISG about short selling, surveillance systems and practices, market volatility and algorithmic trading.

Supervision of Listed Entities

- 59 **Public review of disclosure of Directors' Interest Notices and 'blackout trading':** Issuers continued to review disclosure of Directors' Interest Notices and blackout trading for the quarters ending 30 September 2008 and 31 March 2009. ASX released the results following the conclusion of each review. Where breaches were identified, ASXMS Issuers took immediate action by calling or writing to the entity seeking an explanation. ASX also made referrals to ASIC where there were potential breaches of the Corporations Act in relation to S205G.

The results from each review were forwarded to CAMAC for information as part of its review of market integrity. On 30 July 2009 CAMAC released its findings and recommendations on market integrity, which included recommendations for ASX and the ASX Corporate Governance Council to consider changes to their Listing Rules and Principles and Recommendations, respectively, concerning the disclosure practices of directors in relation to trading in securities in companies of which they are a director. ASX and the ASX Corporate Governance Council will consider these findings and recommendations over the coming months.

- 60 **Directors' trading during the 'blackout' period:** From the data collated for the quarter ended 31 March 2009 regarding directors' trading, ASXMS Issuers unit conducted a further analysis of trading by directors during the period between close of books and the release of full or half yearly results in apparent contravention of their entity's publicly disclosed trading policies.
- 61 **Public review of compliance with JORC Code¹⁷:** Issuers conducted and released the results of its first public review of disclosure by listed mining entities of their compliance with the JORC Code over a six-month period to 31 March 2009. For any material breaches identified, Issuers took immediate action to ensure that entities provided compliant or clarifying announcements to correct the breaches.
- 62 **Continuous disclosure:** Continuing tight debt market conditions have led to an increase in the number of listed entities coming to the market for additional equity capital. Accordingly, Companies Updates were issued to reinforce to listed entities the importance of ensuring confidentiality of discussions about potential fundraising activities prior to making a decision and an announcement, and also the availability of trading halts that may be useful in cases of significant capital raisings.

¹⁷ The Joint Ore Reserves Committee (JORC) Code is a Code of practice which sets minimum standards for public reporting in Australia and New Zealand of Exploration Results, Mineral Resources and Ore Reserves.

- 63 During the periods leading up to the deadline for lodging periodic reports for half-year or annual reporting in January and July 2009, two Companies Updates were issued to give further guidance to listed entities to assist them in meeting their disclosure obligations. They were aimed at providing guidance to listed entities of their obligations under Listing Rule 3.1 in relation to any expected material variations in their financial results.
- 64 **Corporate governance review:** The results of the review of corporate governance disclosures in annual reports of listed entities with a year-end 30 June 2008 were released in July 2009. The review showed that listed entities continued to improve their corporate governance reporting. Following completion of the review of 30 June 2008 annual reports, a review was conducted on annual reports of listed entities with a year-end 31 December 2008, the results of which were released on 4 August 2009.
- The significance of this later review was that it was the first review of compliance against the revised Principles and Recommendations which came into effect for listed entities with a financial year commencing on or after 1 January 2008.
- The report detailing the review of compliance with the revised Recommendations was intended to operate as further guidance for listed entities, so as to draw to their attention areas where improvement could be achieved. Overall reporting levels continue to be high.
- 65 **Issuers Activity Solution:** The new Issuers Activity Solution (IAS), an electronic reporting and data collection system to be used by Issuers staff, was implemented on schedule. IAS delivers a web-based application allowing collection of Issuers activity and data nationally, and replaces the manually-based Compliance Activities Log recording system.
- 66 **National Accounting Committee:** The National Accounting Committee was established to focus on accounting and financial issues. During the Reporting Period, the program of review of an entity's financial position on the basis of information provided in periodic quarterly, half-year and full-year financial reports lodged, was extended from a pilot program applying to WA-listed entities only to all listed entities.

Supervision of Participants

- 67 **Focus on internal supervision practices of participants:** During the Reporting Period ASXMS repositioned its compliance monitoring by re-weighting its focus on participant internal supervision practices. This continued throughout the Reporting Period and resulted in a 'top-down, bottom-up' review process focussing on both micro and macro management, compliance, and risk controls within participants, in order to enhance the culture of preventative compliance within participants. This theme was communicated through various ASXMS industry presentations and communications, and was a key driver in the strategic review and restructuring of the ASXMS Compliance unit that took place at the end of the Reporting Period.

In order to strengthen this focus, ASXMS and ASIC have discussed aligning ASX expectations and ASIC licensing expectations. A review of various management and supervision related rules and guidance was initiated by ASXMS, and ASXMS has scoped a review of relevant international internal supervision standards of market, clearing and settlement participants (which will be undertaken in FY10).

- 68 **Short selling, securities lending and borrowing reporting:** In line with events overseas, ASIC moved in September 2008 to ban covered short selling temporarily. In tandem with ASIC's actions, ASX also amended its Market Rules to prohibit naked short selling. In the following

months, ASX worked closely with ASIC to facilitate the smooth implementation of changes to the short selling arrangements. Changes to these arrangements required ASXMS to monitor potential instances of dealing contrary to the amended rules, as well as compliance with new short-selling reporting obligations. A series of new risk-based compliance measures were implemented to review participants' compliance with the new short selling reporting obligations and to monitor the accuracy of short selling activity reported.

- 69 **Trading in Partly Paid Securities:** During Q4 FY09, in consultation with ASIC, ASX Market Rule 7.1.2 was amended to require market participants to enter into a Client Agreement with Retail Clients who are engaging in a market transaction to buy a Partly Paid Security (as defined in Market Rule 2.10) for the first time. The obligation was introduced to require market participants to alert retail clients of the need to inform themselves of the rights and obligations associated with trading partly paid securities. The rule was designed to reinforce those existing provisions of the Corporations Act applying to brokers that require the disclosure of facts and risks associated with the trading of financial products. Following the rule amendment, regular reviews have been undertaken to identify participants who have traded in Partly Paid Securities and to request a copy of the Client Agreement and related order records.
- 70 **Introduction of forced closure of unsettled positions at T+5:** During the Reporting Period, the obligations of the new ASTC Settlement Rule 10.11.12 came into force with the first assessment date of 6 April 2009. This obligation requires settlement participants to close-out settlement shortfalls that remain after Batch Settlement on T+5, by purchasing or borrowing the shares required to complete the settlement. During Q4 FY09 ASXMS Compliance implemented a program under which it would review any failed settlement on T+10 or greater, to investigate ASTC Participants' action having regard to the obligations under the ASTC Settlement Rules, and to refer appropriate cases for disciplinary action before the Disciplinary Tribunal.
- 71 **Changes to minimum core liquid capital requirement:** On 1 January 2009 the minimum core liquid capital requirement for ACH participants increased from \$100,000 to \$2 million. Capital Monitoring issued updated guidance documents to reflect the change, including an update to the Capital Liquidity Handbook. A report by ASIC and the RBA on the minimum ACH core liquid capital requirement was released by the Minister in April 2009. As a result, further rule amendments will need to be made. Capital Monitoring will continue to work with Clearing Risk Policy on these changes and will continue to monitor participants' ability to meet the proposed new requirements.
- 72 **Capital monitoring:** During the Reporting Period, in addition to the monitoring of daily, weekly or monthly capital returns lodged by both ASX and ACH participants, Capital Monitoring continued to apply supplementary market monitoring measures, such as the request for industry wide ad-hoc returns, when there were significant falls in the market. Participants on a rating of 1 under the Derivatives Stress Testing¹⁸ as well as participants on the Watch List were also subject to extra monitoring.

During the Reporting Period, a high level structural and strategic review of ASXMS's Capital Monitoring function was undertaken and a number of actions were initiated. These were:

- A New Financial Returns Solution to facilitate the lodgement and analysis of participants' futures and equities capital returns.
- Research and review of risk calculation methods used in other overseas jurisdictions as part of the ASXMS Research and Education Program.

¹⁸ Derivatives Stress Testing assesses the risk of a participant having insufficient capital to cover the additional counterparty obligations as a result of the failure by its clients to pay additional margin calls on open option positions due to a fall in the market of 10%. A rating of 1 is the highest risk rating under Derivatives Stress Testing.

- Introduction of participant-specific spot checks to be conducted when certain indicators are triggered by a participant.
 - A review of the pro-forma auditor's report on financial information to provide more explicit noting of the checks that have been performed by the auditor before a sign-off on their audit opinion.
 - The development of Capital Monitoring workshops with SDIA as part of the ASXMS Research and Education Program in order to educate participants and their auditors on the capital requirements of ASX's Operating Rules.
 - A self assessment-based review of risk-based participant re-authorisations under ASX Market Rule S1A and ACH Rule S1.
- 73 **Bankruptcy of Lehman Brothers:** Following Lehman Brothers Holdings Inc filing for bankruptcy in the United States, Capital Monitoring identified the only participant involved in credit derivatives trading to ascertain whether it had any exposure to Lehman Brothers. This participant confirmed it had no exposure to Lehmans.
- 74 **Orderly expiry of futures contracts:** During the Reporting Period all expiries of futures contracts, including expiries for less actively traded contracts such as Greasy Wool, were conducted in an orderly manner.
- 75 **Commonwealth Government bond issuance program:** In response to the need to fund the significant increase in the budget deficit, there has been a substantial increase in Commonwealth Government bond issuance by the Australian Office of Financial Management (AOFM). As part of its normal course of business, ASX has been monitoring the suitability of the operational processes surrounding expiry, and the final-day position concentration limits in the 3 Year and 10 Year Bond Futures contracts. In anticipation of an increasingly liquid secondary market, ASX determined that a minor (less than 10%) increase in the final day limits for both contracts would be made, effective for the June 2009 expiry.

In addition, following discussions with relevant regulators (ASIC and RBA) and market users, ASX has commenced implementation of some enhancements to the polling process used to determine futures settlement prices. ASX has also issued a Notice to raise the profile of the trading risks around expiry and to inform the market of the powers and procedures ASX may invoke to determine a settlement price in the event that data is unavailable through the usually reliable market polling process.

Enforcement and Disciplinary Tribunal

- 76 **Disciplinary matters:** During the Reporting Period Enforcement finalised 34 matters and there were 51 matters in progress as at 30 June 2009. In that period, Enforcement lodged 25 matters with the Disciplinary Tribunal. Twelve matters were carried over from FY08, bringing the total number of matters before the Tribunal in the Reporting Period to 37.
- 77 **Integration of ASX/SFE disciplinary processes:** There has been a successful integration of the ASX/SFE disciplinary processes following a review of the ASX and SFE investigations and enforcement practices, procedures and processes in Q2 FY08. Since the integration in March 2008, Enforcement has received six matters from SFE and finalised one of those matters. An appeal in respect of a decision of the Business Conduct Committee was referred to Enforcement under the new regime. The appeal was dismissed and a Circular advising the outcome was published.
- 78 **Failure to settle T+3:** The nature of the matters currently on hand and under review by Enforcement covers a range of regulatory actions across all the rule books. However, breaches

relating to late settlement (ASX Market Rule 5.7.3) were a dominant issue within the disciplinary matters undertaken by Enforcement. There has been an emphasis on these types of breaches over the past 12 months. It is considered that this trend, and the identification and reporting of such matters, will diminish in the future with the changes to settlement that were introduced in April 2009, whereby participants are now required to commence closing out positions at T+ 5 and by no later than T+10.

- 79 **Increased complexity and seriousness of matters:** During the Reporting Period, there was a significant increase in the complexity and seriousness of matters involving allegations of market manipulation, unprofessional conduct and short selling. The Disciplinary Tribunal was required to make findings involving dishonesty, lack of probity and unprofessional conduct, and it imposed substantial pecuniary penalties.
- 80 **Highest fine imposed by Disciplinary Tribunal during Reporting Period:** The most significant fine imposed by the Disciplinary Tribunal during the Reporting Period was an amount of \$145,000 plus GST imposed in respect of a breach of ASX Market Rule 13.4.1(b)(ii) and ASX Market Rule 4.10.1(a), (v) and (c) for market manipulation. Comparatively, the highest fine imposed in the last reporting period was \$175,000 plus GST for breaches of the same rules. These significant fines can be attributed to the increase in the complexity and seriousness of matters dealt with by the Tribunal involving allegations of market manipulation, unprofessional conduct and short selling.
- 81 **Higher penalty imposed by Appeal Tribunal:** The Appeal Tribunal allowed an appeal by ASX from a decision of the Disciplinary Tribunal in respect of three contraventions of the rules relating to manipulative trading and unprofessional conduct, and total fines imposed were increased from \$175,000 to \$235,000. In this appeal the Tribunal found that the participant had engaged in unprofessional conduct involving a substantial or consistent failure to reach reasonable standards of competence and diligence. In its decision, the Appeal Tribunal took the opportunity to send a strong message to the market about the severity of penalty which participants should expect in respect of serious matters.
- 82 **Tricom Equities Limited:** On 10 July 2009, the Disciplinary Tribunal determined that Tricom Equities Limited had committed 10 contraventions of ASX Operating Rules over an extended period of time¹⁹. These contraventions included settlement failures, capital liquidity failures and market manipulation. The Tribunal found that some of the contraventions were so significant and serious that they deserved the imposition of the highest financial penalty available at the time the contraventions occurred. As a result, the Disciplinary Tribunal fined Tricom a total of \$1.35 million plus GST.
- When releasing its determination, the Disciplinary Tribunal reinforced the view that the substantial sanctions imposed constituted a real punishment on Tricom and should send a strong deterrent message to other market participants.
- 83 **Tribunal Handbook:** A handbook on the ASX Disciplinary and Appeals Tribunals and their procedures has been approved by the Chairman of the Appeals Tribunal to assist the market in understanding the operation and procedures of the Disciplinary and Appeals Tribunals.

ASXMS Human Resources

- 84 During the Reporting Period additional headcount was added to Surveillance, Capital Monitoring, Compliance, Enforcement and Tribunals. As at 30 June 2009 there were a total of 110 full-time equivalent employees (FTE) in ASXMS compared to 103 FTEs as at 30 June 2008, representing

¹⁹ The Tribunal hearing took place during the Reporting Period.

an increase of 7%. This continues the trend of increases in headcount of ASXMS for each of the last five years.

- 85 In assessing whether resourcing levels are adequate to perform the supervisory functions delegated to ASXMS by the ASX Group licensees, the ASXMS Board and management have regard not only to the staffing numbers but also to the skills and experience of ASXMS staff, and to supervisory outcomes achieved. Importantly, other factors that would increase the effectiveness of ASXMS resources such as technology tools, team re-structures (including job redesign), as well as changing the skills mix are also considered in a multi-dimensional approach to resource management within ASXMS.

ASXMS Technology Projects

- 86 Three major technology projects were completed during the Reporting Period. These were:
- **ASX Compliance Monitor System**, which is an automated web-based system to assist the ASXMS Compliance team with the management of Notifications and Assessments from ASX participants. It also improves internal workflow and resource allocation, and allows greater transparency of management decision-making. The project was implemented in February 2009.
 - **The Issuers Activities Solution**, which is a system to facilitate the data entry and collation, and generation of reporting for Issuer's monthly activities, and which replaced paper-based processes. Apart from facilitating consistency of reporting across all states in relation to monitoring and compliance activities undertaken under the Listing Rules, there have been efficiency gains and improvement in management oversight as issuer-related information is now available from the one system. This project was implemented in October 2008.
 - **The upgrade to SMARTS**, which will offer greater transaction capacity and scope for more sophisticated alerting algorithms to better monitor real-time market trading. Phase 1 of the project went into production in May 2009 and Phase 2 of the project will be continued through the next reporting period.
- 87 Additionally, two supervision-related technology projects have been in delivery phase during the Reporting Period. These are:
- **The Non-trading surveillance system**, which will enhance the research capabilities of the Surveillance area by allowing it to collate and monitor non-trading information from disparate sources, with the aim of increasing the effectiveness and efficiency in detection of insider trading activities, thereby improving the quality of referrals to ASIC. Proof of Concept of the new system will be trialled with the Surveillance team from August 2009, and the final product delivery is expected to be completed around June 2010.
 - **ASX Return Lodgement and Monitoring system** for the Capital Monitoring team is a web-based solution which will allow ASX, ACH, SFE and SFECC participants to submit their returns to ASX electronically. ASXMS staff will use this system to analyse these returns. SFE participants currently submit their returns manually and ASXMS staff also analyse these manually. The new system is a replacement that will improve security, system performance and reliability, and increase efficiency by replacing two systems with one. Expected go-live date for this project is December 2009.
- 88 One other project is in pre-definition phase, namely the ASXMS Business Architecture Review project. This will provide a holistic understanding of the functions, processes, procedures,

structure, entities and roles across ASXMS, reducing the lead time required in future projects and allowing for easier identification of potential areas of improvement.

Looking Forward - Areas of Future Focus for the ASX Group

- 89 **Continuing evolution and development of product micro-structure:** Over the next 12 months ASX expects to complete the roll out of the first range of new energy-related derivatives contracts which commenced with coal, natural gas, New Zealand electricity, renewable energy derivatives in July 2009, and continues in FY10 with renewable energy certificates and emission permit futures contract listings. ASX is also well progressed in the development of a second generation of property contracts to augment the ASX-listed CFD platform scheduled for launch in late 2009. ASX also plans to introduce a debt market for Commonwealth Government Securities later in FY10, designed to provide an opportunity for retail investors to access low risk interest rate products. It will also provide AOFM with a widened distribution platform.

Project AQUA, targeted at unlisted funds and structured products, continues to attract new listings including exchange-traded funds. ASX expects to augment this offering with improvements to the applications/redemptions paper-based process for these products.

ASX also plans to maintain its successful series of investor events in the US, Asia and Europe, as well as extending its services to its listed companies through investor relations offerings, improved reporting, and additional seminar series.

In addition, ASX continues to develop enhancements to its trade execution environment for equities with a range of initiatives under regulatory consideration, as well as further initiatives planned to promote liquidity and retain market quality and integrity. These will include the expansion of co-location services offered to both ASX and SFE Participants.

- 90 **ASX Market Access:** ASX Market Access is defined as the rules, procedures and systems that govern access to ASX markets by participants and their customers. This includes the participant structures and rule books of SFE and ASX, the technical solution for access to the market and the functionality for controlling access (both at the exchange and participant level). Since the merger of ASX and SFE, there have been a number of drivers that have caused ASX to embark upon an evolution of its Market Access model. The key drivers include increased offshore participation, increased algorithmic trading (both onshore and offshore), increased customer demand for new access models (such as electronic access, direct market access and sponsored access), and general advances in technology innovation that have enabled greater STP and risk management capabilities.

ASX has already completed a number of initiatives to improve its Market Access Model. These include a major re-structuring of the SFE proprietary trading participant structure; introducing remote participation for ASX participants from Hong Kong and Singapore; developing ASX co-location facilities; enhancing the SFE international network; and harmonising a number of ASX and SFE access-related policies regarding technology deployment by participants. These changes have assisted the management of participants, broadened access, increased operational efficiency and, more generally, developed liquidity.

The ongoing process of development continues with the objectives of:

- Meeting the access needs of customers as those needs evolve;
- Increasing market participation and liquidity;
- Enhancing market operations capabilities;

- Strengthening risk management capabilities; and
- Continued harmonisation of ASX and SFE rules and procedures (where appropriate).

With these objectives in mind, ASX has commenced a number of initiatives aimed at overall operational improvement, as well as to manage the implications for the ASX Market Access Model of increased algorithmic trading and direct client access to the market (both institutional and retail). Specifically, these initiatives are:

- Evolving the ASX and SFE rule frameworks to more efficiently facilitate user access (including Sponsored Access for ASX);
- Identifying potential rule, procedure and functional enhancements to the control features available to ASX for the markets it operates; and
- Identifying potential rule, procedure and functional enhancements to the control features available for participants to manage their clients.

This scheduled work to evolve the ASX Market Access Model is closely linked to the work already commenced with regards to algorithmic trading set out below.

- 91 **Reforms to the supervision of Australia's financial markets:** In August 2009 the Australian Government announced that the Australian Securities and Investments Commission (ASIC) will assume responsibility for the supervision of real-time trading on Australia's domestic licensed markets.

The change will mean that the supervision of trading activity and the enforcement of rule compliance by market participants currently performed by ASX and the independent Disciplinary Tribunal will become the responsibility of ASIC once the proposed legislation is passed by the third quarter of 2010. Importantly, ASX will retain responsibility for the supervision of entities listed on the market it operates.

ASX believes the timeframe and next steps outlined by the Government are appropriate, and will work constructively with the Government and ASIC in the coming 12 months to implement the transfer of responsibilities.

- 92 **Continuing reviews of Supervision function:** ASXMS is also reviewing the way in which it monitors compliance with its rules, and is planning a greater focus on risk-based supervisory activities to ensure that its resources and responses to potential breaches are swift and effective. In this respect, ASXMS will maintain its particular focus on continuous disclosure and surveillances practices, compliance by mining entities with the JORC code, and supervision practices for new products traded on ASX markets.

Further attention is planned on the governance of listed entities and the internal supervision of participants on the basis that this will result in the early identification of risk and the correction of non-compliance.

- 93 **Review of algorithmic trading:** ASX continues to monitor the level of algorithmic trading that occurs in its markets and has for some time been enhancing its technology infrastructure, functionality, rules framework, pricing and supervisory processes to both accommodate this type of trading and to manage its impact on the market. Whilst it should be noted that a large majority of algorithmic trading (both buy and sell side) is conducted for such reasons as market impact minimisation, arbitrage, asset allocation, and many other traditional trading strategies, there is a small portion of trading algorithms in use internationally that employ strategies that may raise questions as to their impact on ASX as operator of the market and on other non-algorithmic market users. The impact that this type of algorithmic trading is having on markets globally

raises complex supervisory issues and the growth of algorithmic trading more generally continues to drive the need for ongoing enhancements to systems capacity and operational processes.

With these issues in mind, a review of algorithmic trading on ASX has commenced with the objective of identifying improvements to the rules framework, supervisory and operational processes, and technology infrastructure to ensure that ASX continues effectively to meet the needs of its customers as well as to operate its markets.

The objectives of the review include:

- Identifying the generic types of algorithms that are currently employed and the specific algorithmic products currently offered by intermediaries;
- Estimating growth in trading volumes executed through these algorithms in the next three years;
- Setting out the potential supervisory, operational and capacity issues that these trends raise; and
- Making a set of recommendations to enhance the operational environment over the short to medium-term (over and above improvements to ASX systems, rules and processes already underway).

These recommendations may include specific initiatives such as requiring intermediaries to identify orders generated by trading algorithms, preventing certain types of trading behaviour through new system functionality and/or new rules, and developing new system functionality and/or processes to identify trading behaviour that may be indicative of a breach of the rules. The initial review is intended to be completed in November 2009, at which point ASX will assess the scheduling and implementation of the recommendations. In the event that alternative market operator licenses to trade ASX-listed securities are granted at some point in the future, ASX is of the view that a further review will be necessary to assess changes to regulation, as the issues of managing algorithmic trading become significantly more complex in that environment.

- 94 **Responding to changes in regulation:** ASX continues to initiate a large number of amendments to its rules to ensure that they remain contemporary. ASX continues to strive for a quality of analysis and balancing of competing demands in its rule development processes that can facilitate efficient and timely review processes.

Continuing regulatory and supervisory challenges in FY10 are likely to require ASX to respond flexibly to changes in any regulation which is introduced to deal with these challenges. For instance, ongoing commentary about whether the contracts underpinning the regulatory framework, as articulated by the Wallis Committee, need to be revisited has the potential to require ASX to contribute to the public debate.

As regards the ability of retail investors to access ASX's services, ASX expects to be contributing to the discussion on the respective roles and responsibilities of market operators and the holders of financial services licences.

In addition, ASX will continue to support the recently commenced pilot reporting phase to provide enhanced transparency of equity market securities lending data, and will continue to liaise with ASIC and RBA to ensure the effective introduction of mandatory reporting expected by December 2009.

Finally, ASX will contribute to the debate in relation to recommendations of CAMAC on Market Integrity and review the relevant Operating Rules, where it is appropriate for ASX to be part of any solution to bring about improved compliance in the areas reviewed by CAMAC.

- 95 **Continuing evolution and development of core system capabilities:** ASX is scheduling upgrades to SYCOM®, to DCS (to enhance intra-day ACH derivatives risk exposure quantification), to CHESS v7 (in October 2009 to enhance the transparency of securities lending, driven by variation to the RBA's Financial Stability Standards for Securities Settlement Facilities requiring greater disclosure of settlement information by ASX) and to EXIGO (v3 enhancing functionality to support the demands of both internal and external stakeholders).
- 96 **Continuing enhancement of CCP risk protections:** ASX will build on a number of initiatives already in progress, including outcomes of market consultations on CCP harmonisation initiatives and enhancements to Australia's equity settlement system undertaken in the Reporting Period. ASX will implement a number of projects to operationalise risk management policy enhancements, boost functional capabilities and further improve operational robustness across both CCPs, and continue pro-active management of each CCP's financial resources to ensure optimal ongoing composition and overall quantum. ASX will also undertake further market consultation on additional risk control initiatives (including a proposal to introduce margining for the cash equity market). In addition, through its participation in (and current chairmanship of) CCP12, the global association of central counterparties, ASX will provide a significant contribution to the formal international consultation soon to commence by the IOSCO Committee on Payment and Settlement Systems to enhance its "Recommendations for CCPs", the *de facto* global standards for CCPs.
- 97 **PMO innovation and best practice:** The centralised project delivery function at ASX provides a robust and consistent evaluation and implementation framework for ASX to achieve its strategic objectives. The current project framework will further mature as ASX seeks to continuously improve its project capability in an 'industry best practice' manner.
- 98 **Implementing the ASX technology strategy:** The Technology function has two principal objectives - to ensure that all critical ASX systems have sufficient infrastructure, capacity and support to maintain and exceed the service levels for ASX customers; and to provide a strategic direction for ASX's systems for the next three to five years and beyond.

The ASX Group continues to improve the capacity and performance of ASX's critical trading and clearing platforms to meet the challenges of market growth and increased business functionality. In addition, there are a number of initiatives underway which will improve ASX's technical infrastructure as well as improve its project delivery effectiveness.