



AGENDA

Business Committee Meeting

Timing: Wednesday, 19 February 2014 commencing at 12.00pm

Location: ASX offices – Level 1, 20 Bridge Street, Sydney

-
- | | |
|--|-------------------|
| 1. Introduction with lunch served on arrival | 12.00pm – 12.15pm |
| 2. Service Performance | 12.15pm – 12.40pm |
| a. Clearing and settlement service performance report | |
| b. Consultation Paper released on the Trade Acceptance Service and the Settlement Facilitation Service | |
| c. Sample report for individual participants on fees | |
| 3. Business Matters | |
| a. International benchmarking | 12.40pm – 1.10pm |
| Business Committee members are invited to provide feedback on user profiles for the benchmarking | |
| b. Draft consultation paper on moving to a T+2 settlement cycle | 1.10pm – 1.30pm |
| Business Committee members are invited to provide feedback on the draft consultation paper | |
| c. Roadmap for CHES | 1.30pm – 2.00pm |
| Feedback from the Technical Committee on ISO 20022 on the roadmap for CHES | |
| d. Clearing only participant structures | 2.00pm – 2.10pm |
| ASX to provide an update on progress and next steps | |
| 4. Management accounts for cash market clearing and settlement | 2.10pm – 2.20pm |
| The management accounts for cash market clearing and settlement services for the half year ended 31 December 2013 were released, together with ASX's half year results, on 13 February 2014. | |
| 5. Administration | 2:20pm – 2:30pm |
| a. Updated forward work program | |
| b. Minutes from the 9 December 2013 meeting | |
| c. The next Business Committee meeting will be held on Wednesday, 7 May 2014 commencing at 12.00 noon. | |

ATTENDEES

| MEMBERS | | |
|--------------------------------|----------------------|--|
| Company | Name | Job Title |
| ASX | Mr Peter Hiom | Business Committee Chair Deputy CEO, ASX |
| ABN Amro | Mr Barry Parker | Chief Executive Officer |
| APX | Mr David Lawrence | Chief Operating Officer & Company Secretary |
| Bank of America Merrill Lynch | Mr Anatoly Kirievsky | Vice President Compliance |
| BBY Ltd | Mr Arun Mahraj | Chief Executive Officer |
| Bell Potter Securities | Mr Dean Surkitt | Managing Director Retail |
| BNP Paribas | Mr Justin Christoper | Chief Operating Officer |
| Chi-X | Mr Jason Keady | Head of Market Operations |
| Citi | Mr Nick Pelham | Business Manager – Markets |
| Commonwealth Bank of Australia | Mr Sheridan Thompson | Head of Development & Innovation, Customer Experience, Equities & Margin lending |
| Deutsche Bank AG | Mr Russel Deal | Chief Operating Officer |
| Goldman Sachs | Mr Greg Hanlon | Chief Operating Officer |
| HSBC | Mr Andrew Bastow | Head of Securities Services |
| JP Morgan | Mr Samuel Mann | Chief Operating Officer |
| Macquarie Group | Mr Michael McKeown | Chief Operating Officer |
| Morgan Stanley | Mr Craig McGuire | Head of Operations |
| NSX | Mr Emlyn Scott | Chief Executive Officer |
| Pershing Securities | Mr Robert Forbes | Chief Operating Officer |
| RBS Morgans | Mr Peter Chisolm | Chief Operating Officer |
| UBS | Mr Conor Foley | Chief Operating Officer |

| ASX Management | |
|-----------------------|---|
| Name | Job Title |
| Ms Amanda Harkness | Group General Counsel & Company Secretary |
| Mr Tim Hogben | Group Executive, Operations |
| Ms Danielle Henderson | General Manager, Clearing Services |
| Mr Andrew White | General Manager, Settlement Services |
| Mr Bill McDonald | General Manager, Clearing & Settlement Technology |
| Ms Diane Lewis | Senior Manager, Regulatory and Public Policy |
| Mr Rodd Kingham | Senior Manager, Clearing Services |
| Mr Gary Hobourn | Senior Economic Analyst |

APOLOGIES

| MEMBERS | | |
|---------------|------------------|-------------------------|
| Company | Name | Job Title |
| Credit Suisse | Mr Andrew Farran | Chief Operating Officer |

FORUM MEETING PAPER AGENDA ITEM 2A

| | |
|------------------------------|--|
| Topic | Report on the operational performance of cash market clearing and settlement services |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To report on key performance metrics for ASX's clearing and settlement services. |
| Action required | To note the agenda paper. |

BACKGROUND

The clearing and settlement of equities performs a critical role in the operation of Australia's financial markets, helping to reduce counterparty and systemic risk, and provide transaction efficiency and certainty for end investors.

Core processes that provide these benefits include novation, netting and settlement.

Novation

Through a contractual process known as novation, ASX Clear becomes the seller to every buyer and the buyer to every seller, making it liable for completing all cleared transactions on the relevant market. Novation is deemed to occur at the point of trade and performs two important functions:

- it replaces the clearing participants' credit exposures to other clearing participants by substituting the clearing house as the central counterparty; and
- it enables the netting of settlement obligations.

Through novation, ASX Clear provides protection to non-defaulting clearing participants (and, indirectly, their clients) from the inability of a defaulting clearing participant to meet its obligations.

A key metric for monitoring novation is the percentage of on and off market trading that is novated.

Prior to novation, CORE (for ASX) and the Trade Acceptance Service (for AMOs) perform verification functions for trades submitted to ASX Clear. Following verification trades are registered for clearing. If the verification conditions are not satisfied then trades are rejected and not submitted to CHES. Once a trade is registered it is novated. Novation is deemed to have occurred at the point of trade.

Netting

ASX Clear is approved as a 'netting market' for the purposes of the Payment Systems and Netting Act. This enables the netting of settlement obligations in each individual equity, providing greater market efficiency at the time of settlement and reducing participant transaction and funding costs.

A key metric for monitoring netting is the percentage by which novated value is netted down for settlement. This metric is termed "netting efficiency".

Settlement

ASX's model for settlement maximises efficiency, while minimising the risk of settlement failure. It does this by simultaneously transferring the legal ownership of shares and facilitating the transfer of money for those shares. This is done through a Model 3 multilateral net batch settlement mechanism with irrevocable settlement finality at the end of the processing cycle. The transfer of money occurs across the Exchange Settlement Accounts of payment providers in the RBA's Information and Transfer System (RITS).

A key metric for monitoring settlement is the percentage of scheduled settlement that successfully settles (i.e. the opposite of the "fail rate"). This metric is termed "settlement efficiency".

Service availability

ASX's critical processes of novation, netting and settlement and are supported in ASX's core system CHES. It is critical for market operations, that CHES remains stable and available for processing. A key metric for monitoring systems availability is the percentage of systems uptime as measured against target availability times. The business service availability target for CHES is 99.80%.

For the December 2013 quarter, the average monthly system availability was 100% for CHES. The average monthly availability of CHES has been 99.99% between November 2011 and December 2013.

Trade Acceptance Service

ASX Clear's Trade Acceptance Service (TAS) provides a mechanism for Chi-X to submit trades into the clearing house. The CHES system performs the clearing and settlement functions.

The business service availability target for TAS is 99.80%.

For the December 2013 quarter, the average monthly system availability was 100% for the TAS. The average monthly availability of the TAS has been 99.98% between November 2011 and December 2013.

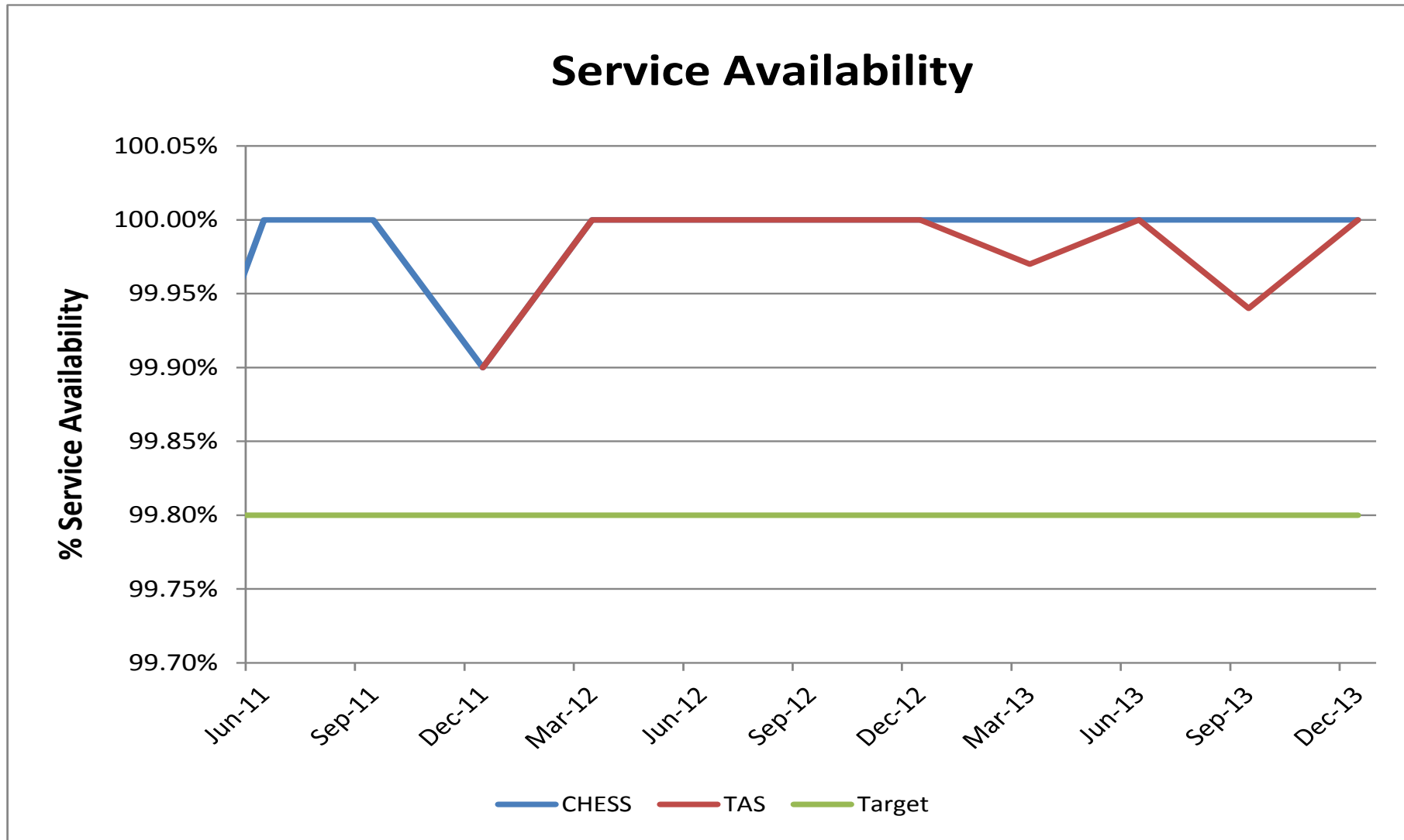
REPORTING ON CLEARING AND SETTLEMENT SERVICE PERFORMANCE

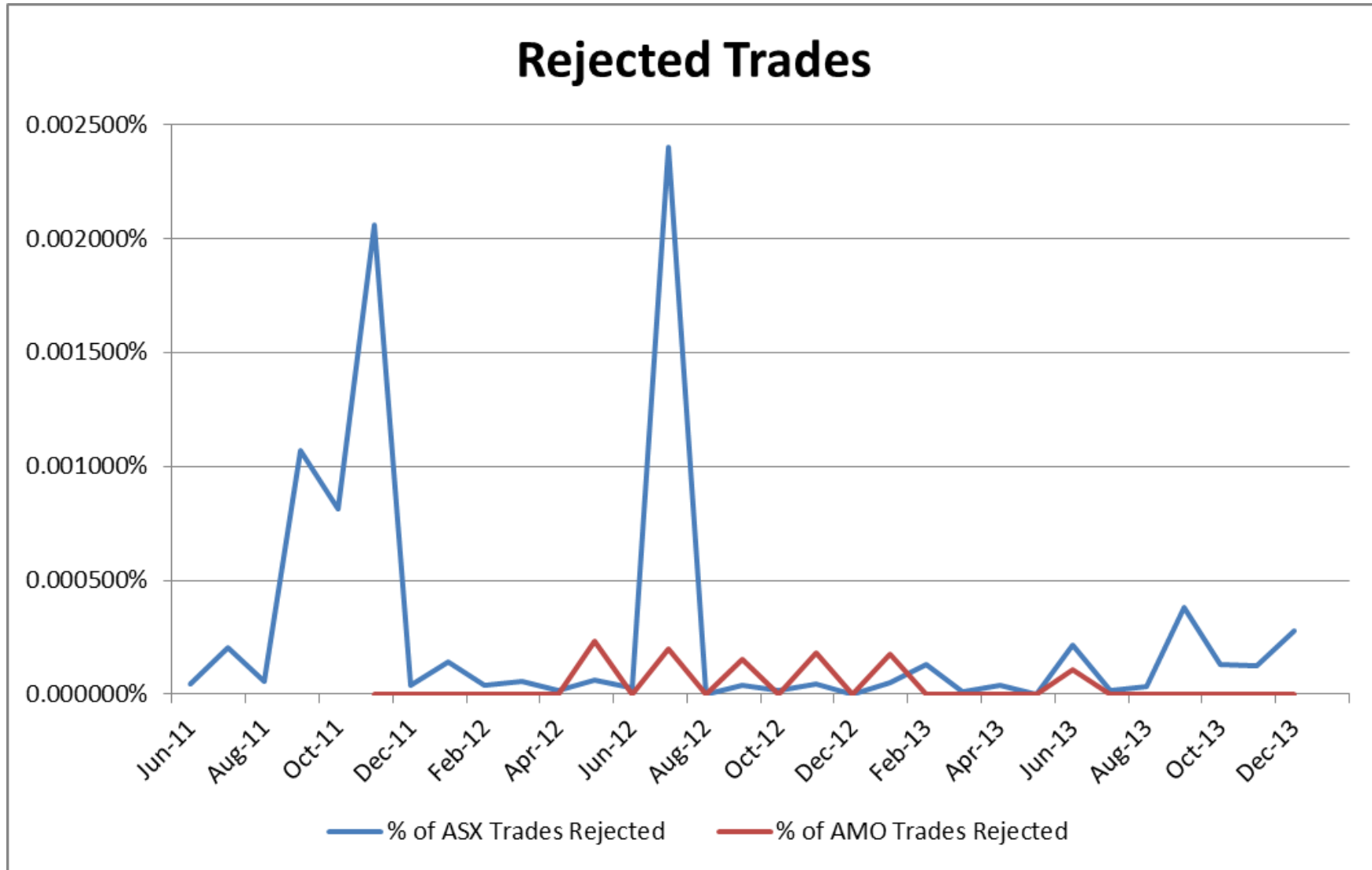
The key metrics noted above on novation, netting efficiency and settlement efficiency for the December 2013 and September 2013 quarter are reported in Attachment A. They are also supported by charts demonstrating a longer reporting period in Attachment B.

ATTACHMENT A – SUMMARY METRICS RELATING TO THE PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICES

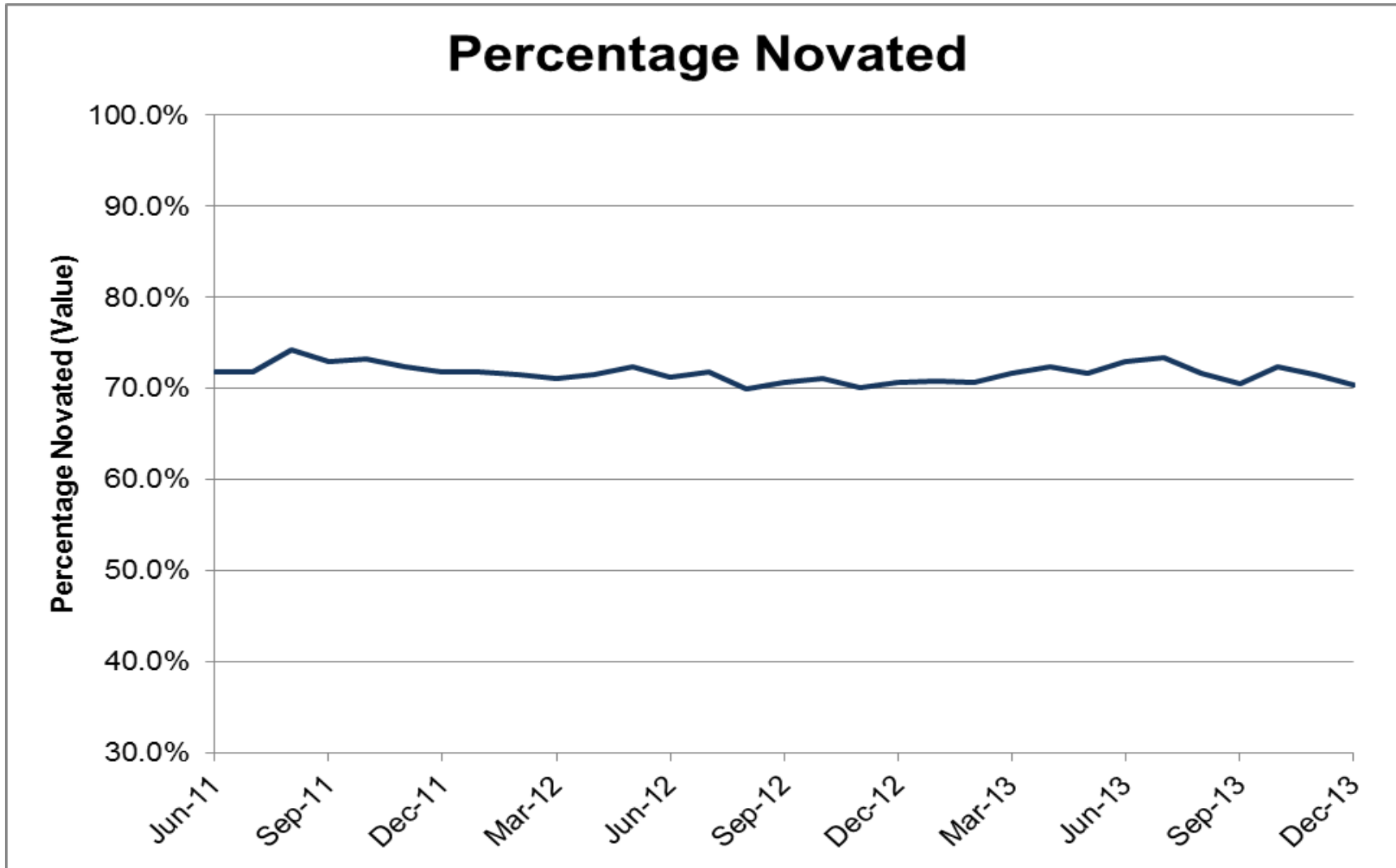
| | December 2013 Quarter | September 2013 Quarter |
|---|-----------------------|------------------------|
| System Availability (CHES) | 100% | 100% |
| System Availability (TAS) | 100% | 99.4% |
| Total Trades Accepted (ASX) | 43,971,842 | 50,312,273 |
| Total Trades Accepted (AMOs) | 10,113,292 | 9,651,069 |
| Total Trades Rejected (ASX) | 78 | 66 |
| Total Trades Rejected (AMOs) | 0 | 0 |
| Daily Average Traded Value (On and Off Market) | \$4.9 billion | \$4.9 billion |
| Daily Average Cleared Value | \$3.5 billion | \$3.5 billion |
| Percentage Novated | 71.4% | 71.9% |
| Daily Average Cleared Value Post-Netting | \$1.4 billion | \$1.4 billion |
| Netting Efficiency | 60.0% | 58.8% |
| Daily Average Settled Value (Including Non-Novated) | \$8.4 billion | \$7.9 billion |
| Settlement Efficiency | 99.9% | 99.9% |

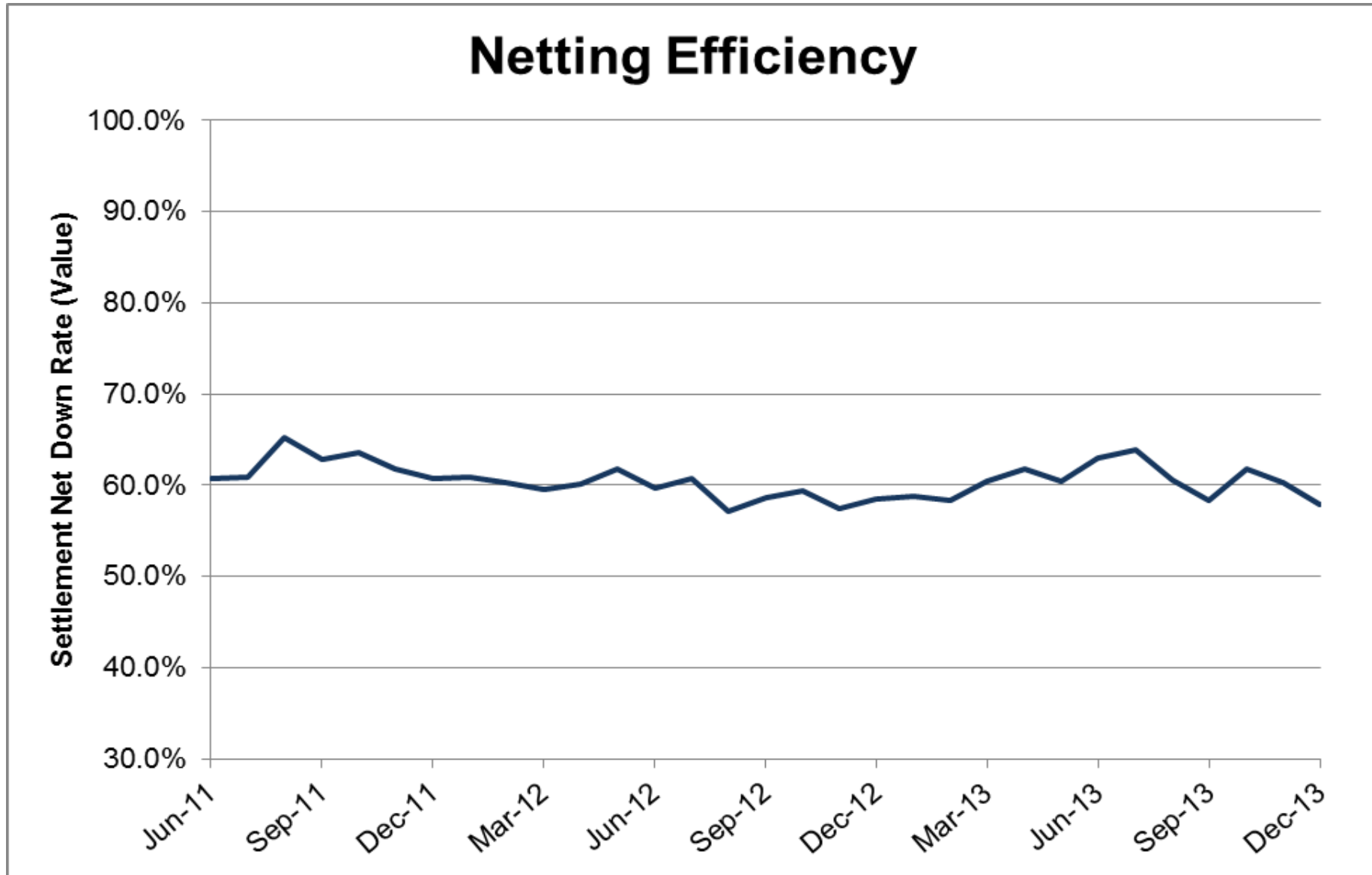
ATTACHMENT B – PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICES FROM JUNE 2011 TO DECEMBER 2013

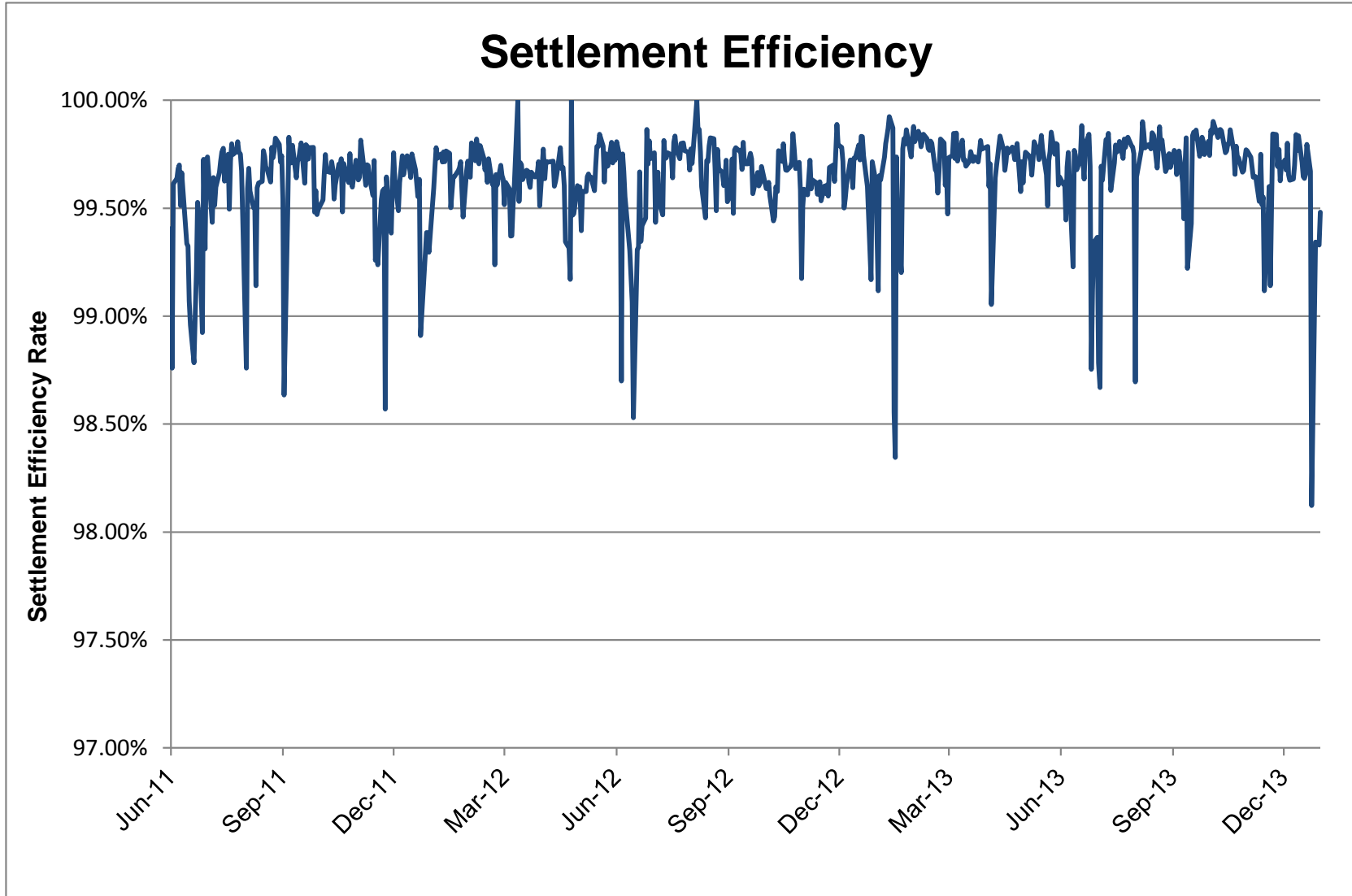




NB this chart excludes rejections caused by two one-off incidents: on 6 December 2011, 778 AMO trades were rejected due to a technical issue; and on 3 May 2013, 2202 ASX trades were rejected due to a participant issue.







BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2B

| | |
|------------------------------|---|
| Topic | Trade Acceptance Service & Settlement Facilitation Service Consultation Paper |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To inform Business Committee members of the recent release of a consultation paper on the Trade Acceptance Service and the Settlement Facilitation Service. |
| Action required | To note the agenda paper. |

ASX released a consultation paper on the Trade Acceptance Service and the Settlement Facilitation Service on 23 January 2014.

The consultation paper delivers on a commitment ASX made in the Code of Practice to consult on the service level agreements and the information handling standards for the Trade Acceptance Service and the Settlement Facilitation Service.

Submissions in response to the consultation paper are due by 14 March 2014.

The consultation paper is available [here](#).

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2C

| | |
|------------------------------|---|
| Topic | Clearing & Settlement – Activity and Fee Reporting (Sample only) |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To provide Business Committee members with a template of the proposed new cash market clearing and settlement activity and fee reports. |
| Action required | The Business Committee is invited to provide feedback on the proposed reports. |

BACKGROUND

Further to discussions and actions arising from the last Business Committee meeting and consistent with ASX's commitment to transparent in the Code of Practice, ASX has developed new reports based on activity levels and fees paid to be provided to clearing and settlement participants on a regular basis.

PURPOSE

The objective of the new reports is to provide participants with the following information:

- individual metrics per PID;
- comparison between the participant and anonymous peer group;
 - Market Rankings- 1st equals highest value or volume
 - Settlement Fails Rank- 1st equals highest fails rate
- greater granularity in the trade, clearing and settlement by volumes/value and fees;
- clearing benefit by value and volume; and
- failure and related fee reporting.

Subject to finalising the format of the report with the Business Committee, ASX will review what processes will need to be put in place to deliver the report. The aim is to deliver the report in April / May (for the March 2014 period).

QUESTIONS FOR THE BUSINESS COMMITTEE

- Does the Business Committee agree that the billing statements effect the appropriate breakdown of fees?
- Does the Business Committee recommend monthly or quarterly reporting of fees?

Attachments

Attachment A – Cash Market Clearing Activity and Fee Report

Attachment B – Cash Market Settlement Activity and Fee Report



October 2013

AAA Clearing Corporation Ltd

PID 1111

As Central Counterparty, ASX Clear provides novation and netting services to Clearing Participants for trades executed on ASX Trade or via an Approved Market Operator.

During October 2013, ASX Clear provided the following services to your organisation:

Participant ASX Cash Market Clearing Activity

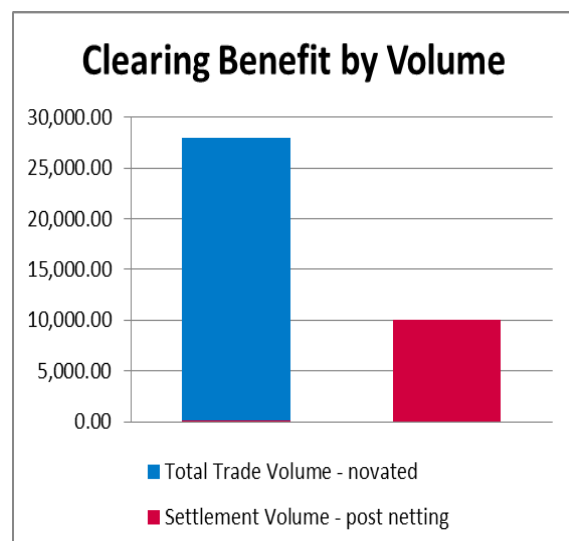
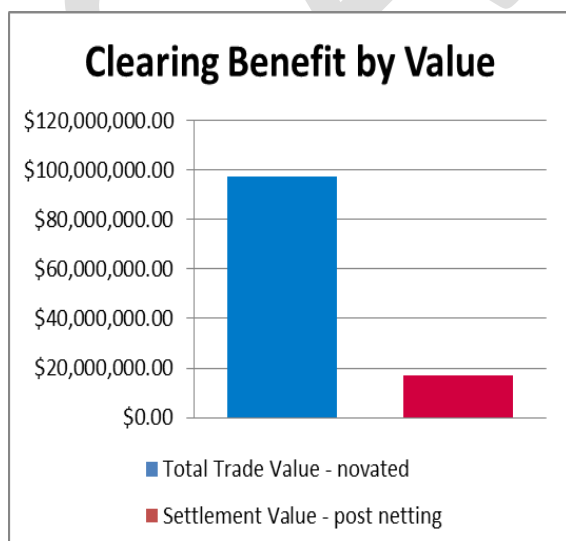
ASX Clear is a central counterparty for eligible trades and, through the process of novation and netting, assumes responsibility for settling those trades with you and reduces the trade exposure from gross to net.

The 'Total Trades Novated' by ASX Clear represents the value and volume of your on-market trades centrally cleared by ASX Clear.

The resultant 'Novated Settlement Obligation Post-Netting' represents the value and volume of settlements required to settle your novated trades.

The direct benefits to the Clearing Participant can be quantified in the comparative value and volume of cash and securities required to settle market obligations compared with the obligations entered into at the time of trade.

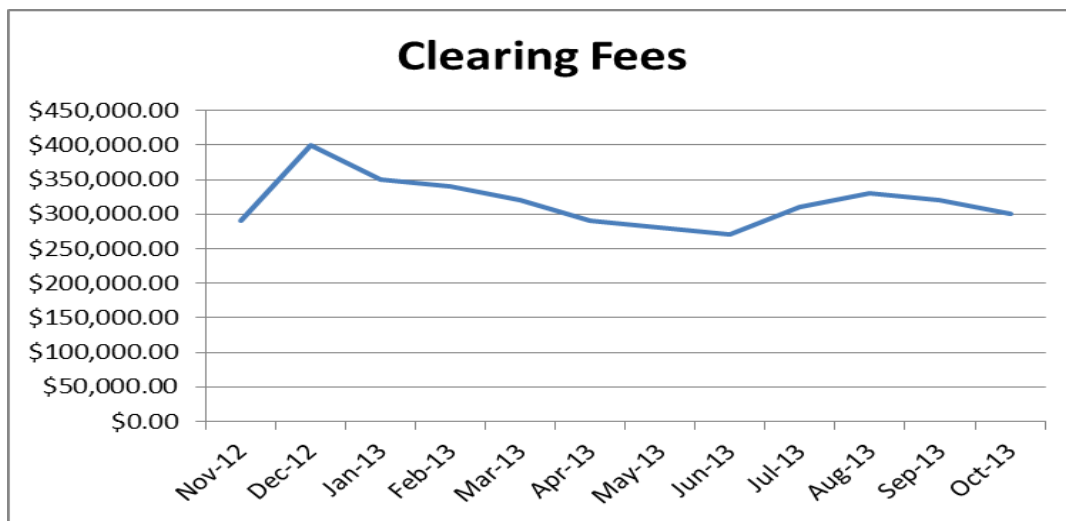
| October 2013 | Total Trades Novated | Market Rank | Novated Settlement Obligation Post-Netting | Market Rank | Clearing Benefit % |
|--------------|----------------------|-------------|--|-------------|--------------------|
| Value | \$97,500,000.00 | 9 | \$17,000,000.00 | 8 | 68.35 |
| Volume | 28,000 | 10 | 10,000 | 10 | 58.17 |
| Units | 20,000,000 | 13 | 14,000,000 | 6 | 52.93 |





Participant ASX Cash Market Clearing Transaction Fees

| October 2013 | Total Trade Novated | Fee Rate | Fee ¹ |
|--|-------------------------|-------------------|---------------------|
| Transaction Clearing Fee Equities | \$92,500,000.00 | 0.25 basis points | \$231,250.00 |
| Transaction Clearing Fee Interest Rate/Structured & Warrants | \$5,000,000.00 | 0.35 basis points | \$17,500.00 |
| Crossing Registrations | \$50,000,000.00 | 0.10 basis points | \$50,000.00 |
| Total | \$147,500,000.00 | | \$298,750.00 |



It is important to note that ASX Clear makes financial resources available to meet any shortfalls arising from the default of the clearing participant with the largest exposures under extreme but plausible market price movement scenarios. ASX Clear currently maintains \$250 million of its own capital for this purpose.

ASX Contact Details

If you require further information or would like to discuss clearing fees, please contact:

Rodd Kingham
 Senior Manager, Clearing Services
 Ph 02 9227 0427
 Email rodd.kingham@asx.com.au

This document provides general information only and may be subject to change at any time without notice. ASX Limited (ABN 98 008 624 691) and its related bodies corporate ("ASX") makes no representation or warranty with respect to the accuracy, reliability or completeness of this information. To the extent permitted by law, ASX and its employees, officers and contractors shall not be liable for any loss or damage arising in any way, including by way of negligence, from or in connection with any information provided or omitted, or from anyone acting or refraining to act in reliance on this information. The information in this document is not a substitute for any relevant operating rules, and in the event of any inconsistency between this document and the operating rules, the operating rules prevail to the extent of the inconsistency. © Copyright 2014 ASX Limited ABN 98 008 624 691. All rights reserved 2014.

¹ Exclusive of GST



October 2013

BBB Securities Pty Ltd

PID 2222

ASX Settlement provides services that reduce counterparty and systemic risk to Settlement Participants and provide transaction efficiency and certainty to end investors. Settlement is effected through the Clearing House Electronic Subregister System (CHES).

During October 2013, ASX Settlement provided the following services to your organisation:

Participant ASX Cash Market Settlement Activity

Batch settlement delivery versus payment (DvP) reflects the core function of the cash market settlement process in confirming and effecting the final movement of cash (i.e. cleared funds) and securities (i.e. good title).

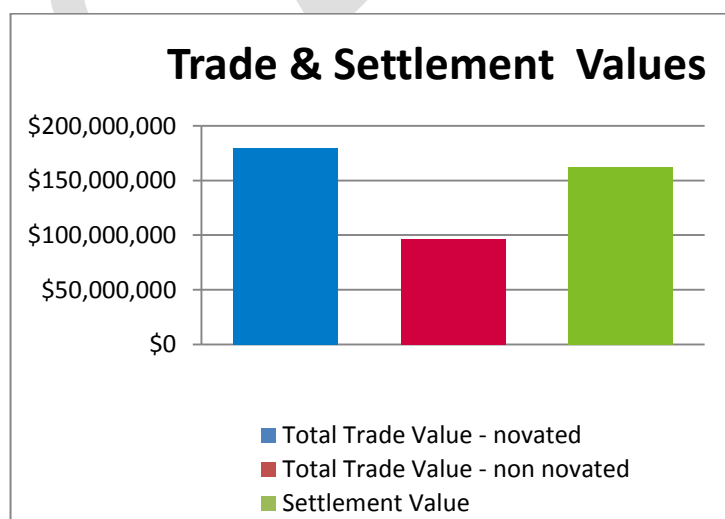
The batch process incorporates the settlement of all transactions including:

- novated transactions - on-market broker/broker trades (as generated by 164 messages); and
- non-novated transactions - bilateral instructions (101 messages).

Settlement provides netting and cash management efficiency with one netted line per stock and one net cash amount to settle the transactions per day (represented by 156 messages).

The DvP settlement functions give settlement participants flexibility in managing their, and their underlying customers', on and off-market transaction activity through matched bilateral instructions.

| October 2013 | Number of Instructions | Settlement Value | % of Mkt Total | Mkt Rank (by value) |
|---|------------------------|-------------------------|----------------|---------------------|
| Settled DvP Settlement Instructions (MT156) | 98,000 | \$65,000,000.00 | 2.2 | 9 |
| DvP Settlement/Misc Payment (MT101) | 28,000 | \$97,500,000.00 | 2.4 | 7 |
| Total | 126,000 | \$162,500,000.00 | | |

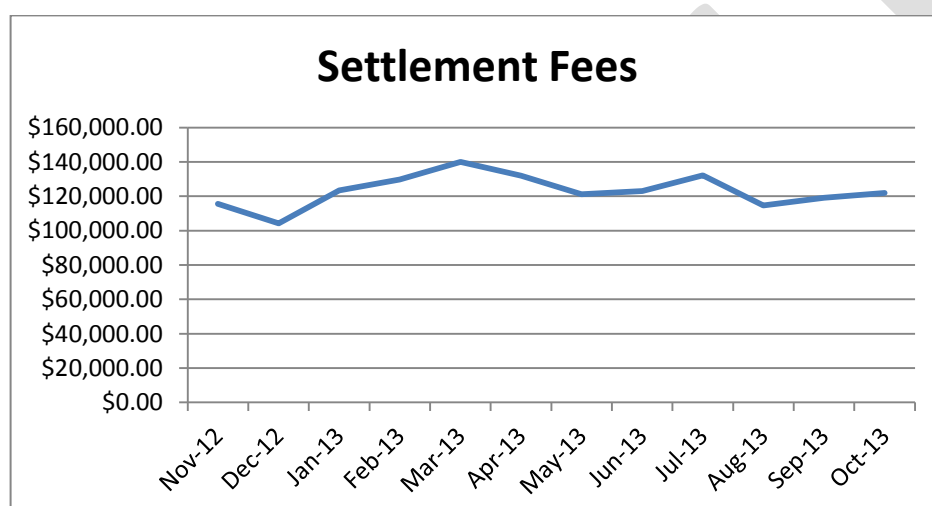




Participant ASX Cash Market Settlement Transaction Fees

Apart from DvP settlement transactions, participants can also effect off-market transfers and conversions of holdings on behalf of their clients via various CHES messages. Transfers include the transfer of a financial product from a CHES or other holding to any other CHES or other holding. Conversions include the movement of financial products from a holding on one subregister to a holding on another subregister without any change in legal ownership.

| October 2013 | No. of Messages | Fee Rate | Fee ¹ |
|---|-----------------|----------|---------------------|
| Settled DvP Settlement Instructions (MT156) | 98,000 | \$0.30 | \$29,400.00 |
| DvP Settlement/Misc Payment (MT101) | 28,000 | \$1.30 | \$36,400.00 |
| CHES & Subregister Transfer & Conversion | 49,000 | \$0.90 | \$44,100.00 |
| Other ² | | | \$4,100.00 |
| Total | 175,000 | | \$114,000.00 |



Participant Security Holdings

CHES registers the title (ownership) of shares on its subregister. The subregistry service is included within standard settlement fees and reduces risks for participants in facilitating settlement through expediting both, the movement of securities in preparation for settlement, and the timely allocation of securities to client accounts post settlement.

| October 2013 | # of Holders | # Non-Zero holdings | Value of Holdings | % of Market (by value) | Market Rank (by value) |
|----------------|--------------|---------------------|-------------------|------------------------|------------------------|
| Sponsored HINs | 20,000 | 150,000 | \$400,000,000 | 2 | 20 |

¹ Exclusive of GST

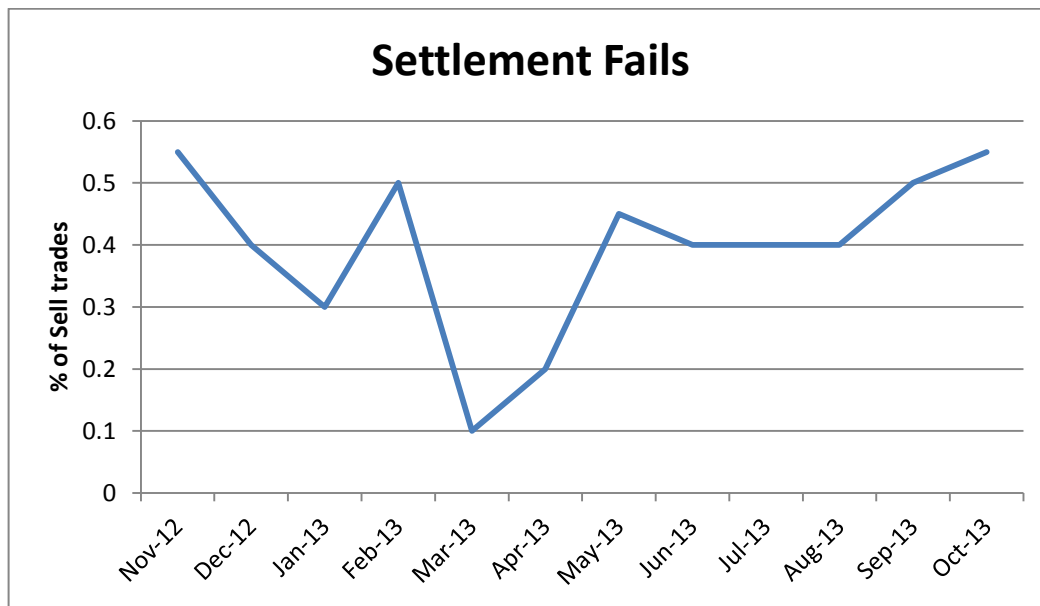
² Accumulated value of all other settlement related charges issued via your CHES invoice for the indicated month. For further information refer to [Schedule of Fees - Clearing & Settlement](#)



Participant ASX Cash Market Settlement Fail Statistics

A key measure of the efficiency of the settlement process is the reporting of settlement failures. On average over 99% of all transactions settle successfully through CHES.

| October 2013 | % of Sell Trades | % of Total Fail Position Value | Fail Performance Index | Rank | Total Levy Paid |
|-----------------------------|------------------|--------------------------------|------------------------|------|-----------------|
| Settlement Fail Performance | 0.55 | 0.32 | 58.18 | 26 | \$200.00 |



ASX Contact Details

If you require further information or would like to discuss settlement fees and ways to optimise fees or reduce your fail rate, please contact:

Karen Webb
 Manager, Settlement Services
 Ph 02 9227 0445
 Email karen.webb@asx.com.au

This document provides general information only and may be subject to change at any time without notice. ASX Limited (ABN 98 008 624 691) and its related bodies corporate ("ASX") makes no representation or warranty with respect to the accuracy, reliability or completeness of this information. To the extent permitted by law, ASX and its employees, officers and contractors shall not be liable for any loss or damage arising in any way, including by way of negligence, from or in connection with any information provided or omitted, or from anyone acting or refraining to act in reliance on this information. The information in this document is not a substitute for any relevant operating rules, and in the event of any inconsistency between this document and the operating rules, the operating rules prevail to the extent of the inconsistency. © Copyright 2014 ASX Limited ABN 98 008 624 691. All rights reserved 2014.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 3A

| | |
|------------------------------|---|
| Topic | International Cost Benchmarking |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To inform the Business Committee of the engagement of a consultant to conduct the international benchmarking report and provide an update on progress. |
| Action required | Business Committee members are invited to provide feedback on user profiles prepared by Oxera Consulting as input for one part of the international cost benchmarking report. |

Outcomes from the December 2013 Business Committee Meeting

At the December 2013 meeting, Business Committee members were provided with an overview of the proposed scope and methodology of the international benchmarking project. It was noted that Business Committee members would have the opportunity to be directly engaged in the project and, in particular, to provide feedback on the user profiles that will form one part of the project (bottom-up analysis).

An action item from that meeting raised the question of whether the connectivity costs associated with ASX providing clearing and settlement services to other market operators could be included in the benchmarking. ASX agreed to raise this issue with the successful candidate. That issue will be examined in the service level comparison, to determine who is responsible for providing connectivity in other jurisdictions and, if connectivity is provided by the FMI, whether the FMI charged for that service.

Update on Commissioning Work

Following the December meeting, ASX approached four consulting firms to seek proposals from them to conduct the review. Responses were received in early January by all four consultants. In making a decision, ASX assessed the proposed costs and the extent to which the firm was able to fulfil all or part of the required scope based on their experience and the extent to which they had previously undertaken a similar review. After assessing the proposals, ASX appointed Oxera Consulting (Oxera) to conduct the analysis. Oxera were best placed to deliver the report in the tight project timelines given their previous experience in this subject matter.

The project budget is between \$400,000-500,000. This will be reflected in the next set of Management Accounts for, with the cost apportioned between ASX Clear and ASX Settlement.

Oxera commenced work in mid-January and are well advanced in the initial desk research phase. They have also started contacting FMI's in North America and Europe to validate assumptions, and ensure they have an accurate understanding of clearing and settlement practices in other jurisdictions.

ASX and Oxera are making contact with exchanges in the relevant markets to encourage active engagement in the information collection process to ensure Oxera has accurate information for inclusion in the analysis. The response to these approaches to date has been encouraging. It is hoped that this will be reflected in the robustness of the final report.

Final Project Scope and Methodology

The scope of the analysis has not changed significantly since it was discussed at the last Business Committee meeting.

The countries to be covered in the review will be:

- **Americas:** United States, Canada, Brazil

- **Europe:** UK, Germany, France, Spain, [Switzerland and/or Denmark]
- **Asia-Pacific:** Australia, Japan, Hong Kong, Singapore, Korea

It was agreed with the consultant that this provided a good cross-section of jurisdictions by: region; size of market; market structure and stage of development.

Oxera have indicated that where financial centres have competing providers of trading and/or clearing services, it may be appropriate to include more than one provider in order to ensure the estimates cover a large part of the market. It will also depend on the extent to which pricing schedules are very different between service providers.

The cost and service level comparisons will focus on the clearing and settlement aspects of the trading value chain. While trading will remain part of the overall cost comparison, Oxera will use recent work they have undertaken to refresh the trading cost aspects presented in the earlier update they prepared for ASX (which was provided to the Business Committee at its August 2013 meeting). There will not be a service level comparison for trading given the focus of this project is on post-trade services.

The international cost comparison will be conducted:

- at an aggregate level (ie inclusive of all trading, clearing, and settlement costs);
- by separating out trading and post-trading (clearing, settlement and depository) costs;
- by separating out clearing and settlement costs.

The analysis will be prepared from two different cost perspectives to provide a cross-check on the overall conclusions:

- **A top-down approach**, where aggregate measures of the revenues received by FMI's for providing services are presented in a normalised form (for example, as a proportion of traded value and/or simple financial ratios). This approach provides an average cost across the market for these services; and
- **A bottom-up approach**, where a cost profile is modelled based on a specific sized trade or is based on a more detailed customer trading profile (user profile). This measure provides a more granular estimate that reflects that different trading behaviour can generate significantly different costs based on the structure of fees.

A wide spectrum of end-user types will be considered in the bottom-up modelling, including a range of user profiles within three broad groups:

- Retail investors;
- Institutional investors undertaking a range of common trading strategies; and
- Investors that pursue automated trading strategies, such as HFT.

The quantitative cost comparison will be complemented by other analysis (qualitative and/or quantitative) that will assist in the interpretation of the quantitative results and to ensure they are a like-for-like comparison or, if not, that those differences are clear to readers of the report.

This will include a comparison of services provided by FMIs in the different jurisdictions, to allow readers to consider to what extent costs in different markets reflect different services or service levels provided. For example, an assessment of:

- different access arrangements where, for example, FMIs may provide some services that are provided by third-parties in other jurisdictions;
- the nature and level of clearing participant capital contributions to CCP default funds and their priority in the event of a default;
- the approach to margining of cash equity positions, including the collateral accepted to meet margin requirements;
- different settlement models and arrangements, and their impact on clearing netting and settlement efficiency; and
- different settlement processes, including depository or holding processes.

User profile analysis

Attached is a brief note from Oxera providing draft user profiles that cover: seven end-investor types; and six intermediary types.

The user profiles that go into the bottom-up cost comparison combine the two separate profile types by matching end-users with an intermediary type. This captures not only how the end-investors trade and use the infrastructure but also how they connect to the infrastructure through their appointed intermediaries. It is these intermediaries who are directly charged by the service providers. Both aspects are taken together to determine the eventual costs calculated for the end-investor.

The draft profiles have been compiled based on public information on investor types and on participant trading, clearing and settlement metrics supplied by ASX, which Oxera have synthesised into the intermediary profiles.

Given that Australia-centric user profiles may not generate 'sensible' results in some jurisdictions where significantly different investor trading behaviour and/or FMI pricing structures apply, Oxera propose to also generate other profiles to try and capture these differences and to test the robustness of the results.

The scope of work agreed with Oxera provides for a maximum of eight user profiles, so the chosen profiles must seek to be broadly indicative of representative users.

Given that the end results are likely to be sensitive to the choice of detailed user profile in the bottom-up approach, the consultant will also perform a sensitivity analysis to test the relative costs across markets against changes in some of the key parameters.

Next Steps

Feedback on the profiles will be provided to Oxera and will help guide them in setting the final user profiles.

ASX is happy to facilitate contact between Oxera and any Business Committee members interested in providing more detailed direct feedback on the user profiles and intermediary profiles. Oxera have also expressed an interest in engaging directly with a small number of participants to better understand their perspectives on the Australian market and how they use clearing and settlement services to assist in framing their final report.

The Business Committee will be provided with an update on the progress at its next meeting on 7 May 2014. Should discrete elements of the analysis be finalised prior to the completion of the final report, it may also be possible for that analysis to be provided to the Business Committee at its next meeting.

Business Committee Feedback

Feedback is sought on the draft investor profiles. In particular, whether:

- the investor types chosen (2 retail, 2 hedge fund, 2 super funds, and 1 active proprietary trader) accurately portray a cross-section of core users for the purposes of the bottom-up analysis;
- the parameters chosen for each profile provide a reasonable foundation on which to base the analysis; and
- the parameters used to identify different intermediary types provide a reasonable representation of the different classes of ASX participant.

Cost benchmarking study

Note prepared for the Business Committee

11 February 2014

Draft for comment: strictly confidential

1 Introduction

The Oxera study for ASX consists of three elements:

- *User-profile analysis*—user profiles (for investors and brokers) will be designed and then applied to the fee schedules of Financial Market Infrastructure providers (FMIs). This will then provide an estimate of the costs of using post-trading services.
- *Revenues analysis*—average costs across the market will be estimated by taking aggregate measures of the revenues received by FMIs and the total volume of service provided. Other financial metrics will also be included.
- *Service-level comparison*—the services will be compared to allow readers to consider to what extent costs in different markets may reflect different services provided or service levels.

This note focuses on the user-profile analysis.

2 User-profile approach

Each of the three approaches to this study has advantages and disadvantages. However, to conduct like-for-like comparison across financial centres, a user-profile approach has certain advantages. This is because costs can vary between financial centres for two reasons: differences in price, and differences in the way brokers and investors use infrastructure providers. With revenues analysis, it would be difficult to assess the extent to which cost differences across financial centres are due to differences in prices or in profiles. In the user-profile approach, however, the profile can be kept the same across all financial centres, so that any cost differences found would be due only to differences in price. The user-profile approach also allows the costs of different types of investor (retail and institutional) and broker (small and large) to be estimated.

Oxera has adopted user-profile analysis in studies for the European Commission and the Securities and Exchange Commission of Brazil, and for infrastructure providers such as Euroclear.

The user profiles will never fully capture the experience of all brokers and investors—there is a lot of heterogeneity among brokers and investors. The purpose of the user-profile analysis is to capture the approximate experience of several different types of user. Sensitivity analysis (where certain aspects of the profiles are changed) will be undertaken to ensure that the findings of the analysis are sufficiently robust and that all profiles together sufficiently represent the experience of the whole market.

The user profiles will represent Australian users and the analysis will therefore show how the costs incurred in Australia compare with the costs that similar brokers and investors would incur in other financial centres. Where there are significant differences between financial centres in terms of use of FMIs, additional profiles for some financial centres will be developed and used to validate the robustness of the results.

3 Draft user profiles

Tables 3.3 and 3.4 present the draft user profiles for investors and intermediaries. These have been informed through various sources of data on the Australian market. (Tables 3.1 and 3.2 directly below summarise the purpose of each parameter, with the shaded rows highlighting the parameters that determine the estimated costs for each user in different financial centres.)

These user profiles contain all the parameters that might be relevant in the financial centres covered by the study. There are some parameters that are not necessarily relevant in an Australian context but are relevant in other financial centres. For example, in Australia, the charge for trade execution is based on the value of the transaction, whereas in some other financial centres a fee per transaction is charged.

Oxera will conduct conference calls with brokers and investors in Australia to further inform these user profiles.

Table 3.1 Explanation of parameters in investor profiles

| | | |
|---------|---|--|
| 1 | Value of Australian equities under management/capital employed (\$) | Used to calculate depository fees when pricing is based on the value of the end-investor's holdings (e.g. as is the case in Brazil). Also allows for the total costs of trading, clearing and settlement services to be calculated relative to the value of capital employed by the investor. |
| 2 | <i>Typical number of different securities held at any point in time</i> | <i>Not directly used in the calculations. Included to illustrate that diversification by the investor is greater than the number of securities traded each year, and reconciles implied turnover ratio with assumptions about the number of securities, the average value of order and the value of assets under management.</i> |
| 3 | <i>Average number of different securities traded per year</i> | <i>Not directly used in the calculations. Gives context to the number of trading events.</i> |
| 4 | Average number of 'trading events' per year | Each decision to trade in a particular equity, each day, is defined as a 'trading event'. For example, suppose that a superannuation fund decides to change its position in a stock over four days, this will count as four trading events. Now suppose that a high-frequency trader trades in and out of the same security multiple times each day, this counts as one trading event. The number of trading events is reported on an annual basis to reflect the infrequent trading activity by retail investors. Used to calculate the cost of settlement services associated with moving securities from the clearing member's account to the end-investor's (or their custodian's) account, where fees are based on the <i>number</i> of settlement instructions. |
| 5 | Average value of an order in a particular security to be traded in a 'relatively short period' (\$) | 'Relatively short period' refers to the period during which an investor may ask their broker to change their position in a stock. For pension funds, this may be a few days, eg, if they want to change their position in a stock by a large amount. Used to calculate the cost of settlement services associated with moving securities from the clearing member's account to the end-investor's (or their custodian's) account where fees are based on the <i>value</i> of settlement instructions (e.g. as is the case with the Hong Kong Securities Clearing Company). |
| 6, 7 | Average value traded per month/year (\$) | Used to calculate ad valorem trading fees. This is combined with netting efficiencies to calculate ad valorem clearing fees when fees are charged according to the end-investor's activity (e.g. as is the case with BM&F Bovespa). Also required to calculate the total costs of trading, clearing and settlement services relative to the value of trading by the investor |
| 8 | <i>Average holding per security (\$)</i> | <i>Not directly used in the calculations. Gives context to the diversification of the investor's portfolio.</i> |

Table 3.2 Explanation of parameters in broker profiles

| | | |
|---------|--|---|
| 1 | Average trade size (bargain across the exchange) (\$) | In conjunction with the investor's average trading parcel, determines how many trades are conducted. Important in jurisdictions where fees are charged according to the number of trades (e.g. as is the case with Deutsche Börse). |
| 2, 3 | Average value of trading per month/per year (\$) | Used to calculate ad valorem trading fees. This is combined with netting efficiencies to calculate ad valorem clearing fees where these are charged (e.g. as is the case with the Hong Kong Clearing Company). Also determines the level of volume discounts where these are based on the monthly or annual value of trading, and used to incorporate fixed fees (e.g. membership fees to the exchange). |
| 4, 5 | Average number of transactions per day/per year | Linked to the average value of trading and average trade size, not independent. Important in jurisdictions where fees are charged on the number of trades. |
| 6 | Average value of custodian account (CSD level—total) (\$) | Used to calculate depository fees where pricing is based on the value of the holdings by the intermediary (e.g. as is the case with EuroClear). |
| 7, 8 | Average number of settlement instructions per day/per year | Implied by the netting efficiency at the CCP and the number of daily transactions by the intermediary. Used to calculate the cost of settlement services where fees are based on the <i>number</i> of settlement instructions by the intermediary. |

Table 3.3 Investor profiles

| | 1. Frequent retail trader | 2. Infrequent retail investor | 3. Hedge fund—small | 4. Hedge fund—medium | 5. Superannuation fund—mid | 6. Superannuation fund—large | 7. HFT |
|---|---------------------------|-------------------------------|---------------------|----------------------|----------------------------|------------------------------|-------------------|
| 1 Value of Australian equities under management/capital employed (\$) | 140,000 | 300,000 | 30m | 300m | 200m | 10bn | 1.6m |
| 2 Typical number of different securities held at any point in time | 60 | 20 | 100 | 200 | 250 | 500 | 5 |
| 3 Average number of different securities traded per year | 30 | 9 | 100 | 200 | 100 | 200 | 50 |
| 4 Average number of trading events per year | 30 | 9 | 1000 | 1500 | 5,000 | 15,000 | 8,000 |
| 5 Average value of an order in a particular security to be traded in a relatively short period (\$) | 2,000 | 10,000 | 60,000 | 400,000 | 70,000 | 400,000 | n.a. ¹ |
| 6 Average value traded per month (\$) | 5,000 | 7,500 | 5m | 50m | 29m | 500m | 3.3m |
| 7 Average value traded per year (\$) | 60,000 | 90,000 | 60m | 600m | 350m | 6bn | 40m |
| 8 Average holding per security (\$) | 2,333 | 15,000 | 300,000 | 1,500,000 | 800,000 | 20m | n.a. ¹ |

Note: ¹ The HFT investor is assumed to be pursuing a trading strategy whereby its net position at the end of the day in each security is flat. They are unlikely to be able to achieve this net flat position in each security all the time and therefore are likely to include some settlement costs. To estimate these, we assume that the HFT has a non-zero position in five securities at the end of each trading day and will calculate the average holding in each security (item 8) and average (net) value of an order in each security (item 5) assuming that the position in each security is equal to the average trade size of HFT observed at ASX in 2013 of c. \$5,500. As these outcomes do not reflect the trading strategy the HFT is pursuing, these estimates have been omitted. Figures have been rounded to two significant figures.

-
- Retail: based broadly on data from the Australian Share Ownership Study.¹ The ‘frequent retail trader’ is designed to capture a trader who is more likely to use an online trading portal. The ‘infrequent retail investor’ represents a more high-net-worth individual adopting a ‘buy and hold’ strategy.
 - Hedge funds: broadly based on the ASIC analysis reported in the ‘Australian hedge funds sector and systemic risk’ report.²
 - Superannuation funds: based on APRA data.³ Each of the top 10 funds has, on average, a \$10bn holding of Australian equities. In comparison, the median-sized funds have around \$200m. There is no direct measurement of average turnover of the equities held by superannuation funds. However, based on the turnover of ASX exchange (which is 1.4 double count) and data on European pension funds, the turnover ratio for superannuation funds is likely to be between 0.5 and 1 (double count). (The turnover on ASX exchange is an upper bound of the turnover for superannuation funds).
 - HFT: based on information from ASX on trading activity, supplemented by information from academic research on hedge funds active in European and US markets.⁴ This profile may need to be refined as further information on the typical intra-day and inter-day net positions is obtained.

¹ ASX (2013), ‘Australian Share Ownership Study’, based on market research conducted in September-November 2012.

² Australian Securities & Investments Commission (2013), ‘The Australian hedge funds sector and systemic risk’, report 370, September 2013.

³ Including, for example: Australian Prudential Regulation Authority (2013), ‘Quarterly Superannuation Performance’, June 2013.

⁴ See for example, J. Chen, H. Hong, M. Huang, J. Kubik (forthcoming), "Does Fund Size Erode Performance? Liquidity, organisational diseconomies and active management".

Table 3.4 Broker profiles

| | A. Retail brokers —online | B. Retail brokers —advice | C. Institutional— small | D. Institutional— mid | E. Institutional— large | F. HFT/ Market-making |
|--|--------------------------------------|--------------------------------------|------------------------------------|----------------------------------|------------------------------------|----------------------------------|
| 1 Average trade size (\$) | 5,500 | 7,600 | 5000 | 5000 | 5000 | 5,500 |
| 2 Average value of trading per month (\$) | 1.85bn | 635m | 1.25bn | 6.25bn | 13.3bn | 2.3bn |
| 3 Average value of trading per year (\$) | 22.2bn | 7.62bn | 15bn | 75bn | 159bn | 27.6bn |
| 4 Average number of transactions per day | 16,000 | 4,000 | 12,000 | 59,000 | 126,000 | 20,000 |
| 5 Average number of transactions per year | 4m | 1m | 3m | 15m | 32m | 5m |
| 6 Average value of custodian account (CSD level - total) | 20bn | 15bn | 1bn | 12bn | 52bn | 1m |
| 7 Average number of settlement instructions per day | 560 | 140 | 420 | 2,120 | 4,520 | 5 |
| 8 Average number of settlement instructions per month | 12,000 | 3,000 | 9,000 | 45,000 | 96,000 | 100 |

Note: The HFT investor is assumed to be pursuing a trading strategy whereby its net position at the end of the day in each security is flat, but on average it has a non-zero position in five securities at the end of each trading day. This results in, on average, five settlement instructions (one for each security) per day. Figures have been rounded to three significant figures.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 3B

| | |
|------------------------------|---|
| Topic | Draft Consultation Paper on moving to a T+2 Settlement Cycle |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To provide the Business Committee with a draft consultation paper on the introduction of a T+2 settlement cycle and to discuss timeframes to progress this work. A 'confidential' copy of the draft consultation paper will be provided to Business Committee members separately to the other meeting papers. |
| Action required | The Business Committee is invited to provide feedback on the consultation paper. |

OVERVIEW

As recommended by the Business Committee in its last meeting, ASX has accelerated consideration of a T+2 settlement cycle for cash equities in Australia. This topic has been given the highest priority in the Forum and the Business Committee work program over the next 18 months.

ASX has engaged with a number of retail and institutional participants, and other industry stakeholders including custodians and system vendors, informally seeking feedback on the introduction of T+2 in the Australian market over the last few months. Through this engagement, ASX has sought to identify the key expected impacts from a transition to a T+2 settlement cycle for inclusion in the consultation paper.

The feedback received in those discussions has provided strong support for ASX to undertake a formal consultation process regarding the introduction of a T+2 settlement cycle.

NEXT STEPS AND CONSIDERATIONS

ASX proposes to publicly release the consultation paper in final form as soon as practicable following the receipt of input from the Business Committee. It is proposed that written submissions will be due on 7 April 2014.

During the consultation period, ASX will welcome further bilateral engagement with participants and will also seek to engage with broader industry stakeholders, such as, issuers and buy side investment managers.

At the next meeting, ASX will provide the Business Committee with a summary of feedback received through the consultation process. At that time, the Business Committee will discuss what recommendation should be provided to the Forum on the introduction of a T+2 settlement cycle, including a possible timeframe for implementation.

The recommendation of the Business Committee will be provided to the Forum at its 23 June 2014 meeting.

QUESTIONS FOR THE BUSINESS COMMITTEE

- Does the draft consultation paper capture the significant impacts to industry from transitioning to a T+2 settlement cycle?
- Are the questions included in the draft consultation paper sufficient to validate the benefits and preconditions to move to a T+2 settlement cycle?
- Do participants have a preferred form for further engagement through the consultation process, for example, bilateral or multilateral with the inclusion of buy side firms?

FORUM MEETING PAPER AGENDA ITEM 3C

| | |
|------------------------------|--|
| Topic | CHES Replacement and Technical Committee Feedback |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To report on the roadmap to replace CHES and Technical Committee on ISO 20022 feedback on that roadmap. |
| Action required | To note the agenda paper, and to consider the proposed amendment to the role of the Technical Committee. |

BACKGROUND

At its meeting, the Business Committee recommended that ISO 20022 be linked to the CHES replacement initiative. The Business Committee also saw benefit in understanding the roadmap for CHES prior to progressing to a detailed solution for the introduction of ISO 20022 standard messaging.

The Technical Committee on CHES messaging and ISO 20022 (“the Technical Committee”) met on 7 February 2014 to provide ASX with feedback on early stage considerations for a strategy to replace CHES. The Technical Committee considered an indicative timeline for the project of up to 3 years, together with a range of options for the replacement of CHES, options for the deployment (i.e. migrate to ISO 20022 independently or in conjunction with CHES replacement), and go-live strategy.

FEEDBACK FROM THE TECHNICAL COMMITTEE

The Technical Committee agreed with the following recommendations made by ASX:

- that CHES messaging be migrated to ISO 20022 in conjunction with CHES replacement – for example by moving to technology that has native ISO 20022 capability – to avoid re-working by both customers and ASX; and
- that go-live be based on implementing all changes to all functional categories (e.g. clearing, settlement, sub-registry) simultaneously, with securities being migrated to the new infrastructure in batches. This will require the existing infrastructure running in parallel during the migration phase.

The Technical Committee asked ASX to consider keeping the period for the parallel run detailed above to a minimum. While the Technical Committee agreed that such a parallel run managed the risk and complexity of migration, the Technical Committee considered the overhead of such a parallel run to be significant and requested that the parallel run period be as short as possible.

The Technical Committee also asked ASX to review similar migrations internationally to garner lessons learnt to support the go-live strategy

PROPOSED AMENDMENT TO THE ROLE OF THE TECHNICAL COMMITTEE

The Business Committee is asked to consider the feedback from the Technical Committee detailed above and to endorse an amendment to the responsibilities of the Technical Committee such that it becomes the “Technical Committee on CHES replacement”. The Technical Committee itself endorsed this change, subject to Business Committee approval. The topic of CHES messaging and ISO 20022 would then be considered by the Technical Committee in the context of CHES replacement.

NEXT STEPS

ASX will present a more detailed roadmap to the Business Committee meeting at its 7 May 2014 meeting.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 3D

| | |
|------------------------------|--|
| Topic | Roadmap for Clearing Participants Structures |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To inform the Business Committee members of changes implemented to Clearing Participant structures, and considerations for further developments. |
| Action Required | The Business Committee is invited to provide feedback on the scope and prioritisation of further initiatives to drive flexible participant arrangements. |

OVERVIEW

ASX has implemented a number of changes to clearing participant structures aimed at aligning to structures customer's business models and provide opportunities for efficiencies in capital deployed for clearing members. They include;

1. facilitating Australian Approved Deposit Taking Institutions (ADIs) becoming clearing participants by clarifying and removing duplicative obligations between the ASX Operating Rules and APRA's prudential requirements;
2. allowing Clearing Participants to operate under multiple Clearing & Settlement PIDS; Benefits participants who can have Regulatory Capital and Daily Margins assessed at a Legal Entity level for multiple PIDS; and
3. tiered Capital Requirements for General Clearing Participants; Rules currently in draft target 3Q14 finalisation.

In January 2014 ASX, announced the formation of a Participant Transition Team. The team brings together the lifecycle of participant admissions, restructures and resignations in one team, covering all participant types, trading, clearing and settlement for all markets and asset product classes.

The ASX Participant Transitions Team is actively working with a number of clearing participants to realise capital benefits available to them from these changes. In addition, the Transitions Team works closely with participants to bring together a multidisciplinary team to advise and guide participants to best manage legacy systems and trade flow processing and minimise impacts to clients from the restructures.

NEXT STEPS AND CONSIDERATIONS

As part of the forward work program, ASX committed to undertake a review of "clearing only" participant structures and HIN sponsorship arrangements. Due to the acceleration of the T+2 programs, ASX will revisit this topic for consideration at the next Business Committee meeting scheduled for 7 May 2014.

The request to undertake the review was initiated by a number of existing and prospective participants articulating a desire to use their balance sheets for clearing but only have a legal and contractual relationship with the trading participant and not the trading participants end client. Feedback from these participants indicates that such a model would allow the clearing participant to remove themselves from the additional overheads that come with the settlement element, including the operational requirements and the additional compliance obligations relating to the end client.

The review will seek to determine with whether the clearing participant and settlement participant obligations can or should be decoupled.

Initial enquiries suggest that the clearing only model would require a 'principal to principal model' to be operational, where the trading participant takes the orders from its clients and facilitates their execution as a principal on the market. It could otherwise be described as an 'aggregation model', which is, apparently, prevalent offshore.

ASX will seek to understand the demand for changes to the current model, the risk and benefits, the significance of the change, especially as it relates to regulatory and licensing regimes and embedded client protections as required under Corporations Law.

ASX will also give consideration to HIN sponsorship arrangements and HIN portability opportunities as a separate exercise.

QUESTIONS FOR THE BUSINESS COMMITTEE

- Is there interest from the Business Committee in exploring bilateral discussions on clearing only aggregator model? If so, in light of broader industry priorities, what is the Business Committee's view on the relative priorities of exploring this model?
- Are there additional topics that should be included in the forward work program for consideration in later periods with regard to flexible participant structures?

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 4

| | |
|------------------------------|--|
| Topic | Management Accounts |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To inform Business Committee members of the cash market clearing and settlement management income statements for the half year ended 31 December 2013. |
| Action required | To note the agenda paper. |

On 13 February 2014, ASX published, together with ASX Limited's half year financial results, cash market clearing and settlement management income statements for the half year ended 31 December 2013.

The cash market clearing and settlement management income statements for the half year ended 31 December 2013 are available [here](#).

CASH MARKET CLEARING

The cash market clearing management income statement reflects a profit after tax of \$13.3 million, an economic profit after capital charge of \$2.1 million and a return on equity of 11.9%.

The management accounts do not include clearing of equity options.

CASH MARKET SETTLEMENT

The cash market settlement management income statement reflects a profit after tax of \$12.1 million, an economic profit after capital charge of \$5.1 million and a return on equity of 18.0%.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 5A

| | |
|------------------------------|--|
| Topic | Forward Work Program |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To provide Business Committee members with an updated forward work program developed for the next twelve months. |
| Action Required | The Business Committee is invited to provide feedback on the scope and prioritisation of initiatives included in the updated forward work program. |

OVERVIEW

ASX has developed a forward work program that provides a detailed schedule of initiatives ASX intends to progress over the coming two years. The forward work program has been developed around the following four major themes:

1. Capital efficiency and industry economics;
2. Participant structure flexibility and efficiency;
3. Service Innovation; and
4. Technology and Infrastructure enhancements.

The forward work program was endorsed by the Forum on 2 October 2013.

In its 9 December 2013 meeting, the Business Committee requested the priorities in the forward work program be adjusted in accordance with:

- the introduction of a T+2 settlement cycle being of a higher priority than the initiative to introduce ISO 20022 standard messaging; and
- the introduction of ISO 20022 standard messaging should be linked to the replacement of CHES.

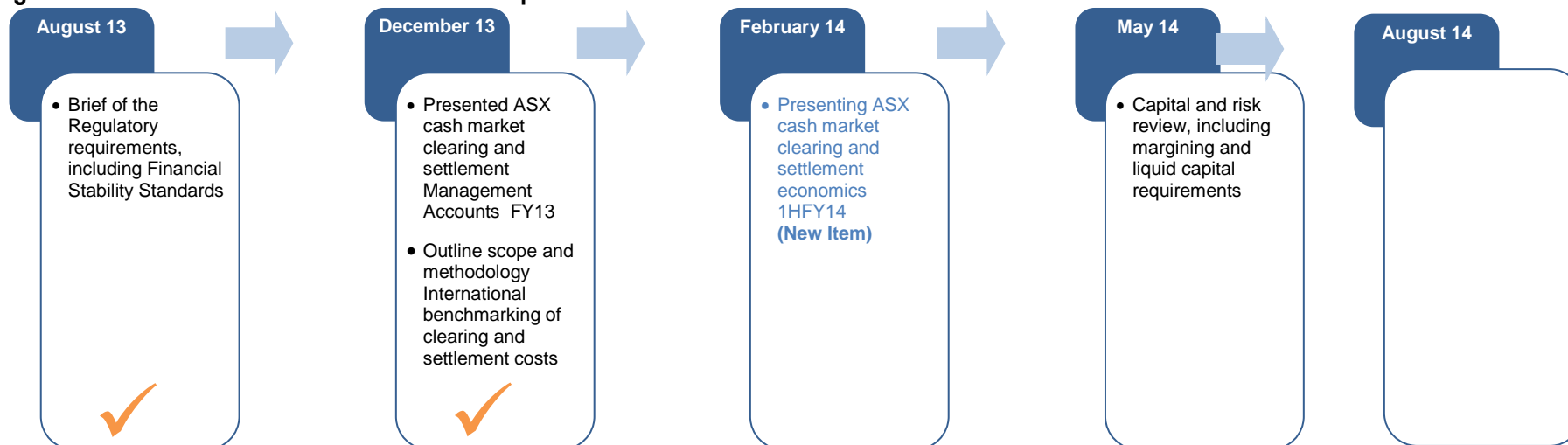
QUESTIONS FOR THE BUSINESS COMMITTEE

- Does the adjusted forward work program reflect industry priorities?
- Are there additional topics that should be included in the forward work program for consideration in later periods?

FORWARD WORK PROGRAM

| Theme | Objectives | Possible topics for discussion / agenda items | Description of topic |
|---|---|---|--|
| 1. Capital Efficiency and industry economics | To minimise the capital costs for ASX's customers whilst maintaining robust CCP capital support | a. ASX cash market clearing and settlement economics | ASX published the management accounts in respect of the clearing and settlement of cash equities in Australia on the 22 nd August 2013 at the same time that ASX reported its full-year results. ASX will provide a detailed briefing at the 19 February 2014 Business Committee meeting. |
| | | b. International benchmarking of cash market clearing and settlement costs | ASX Clear and ASX Settlement will consult the Forum and the Business Committee on the scope and methodology of the international price benchmarking prior to it being commissioned. |
| | | c. Capital and risk review, including margining and liquid capital requirements | ASX will provide a review of risk protections provided since the introduction of cash market margining and will review liquid capital requirements in this context. |
| | | d. Regulatory requirements, including Financial Stability Standards | ASX will brief the Committee on the ASX consultation paper on the new Financial Stability Standards relating to account segregation and portability, and liquidity risk released on 29 July 2013. |

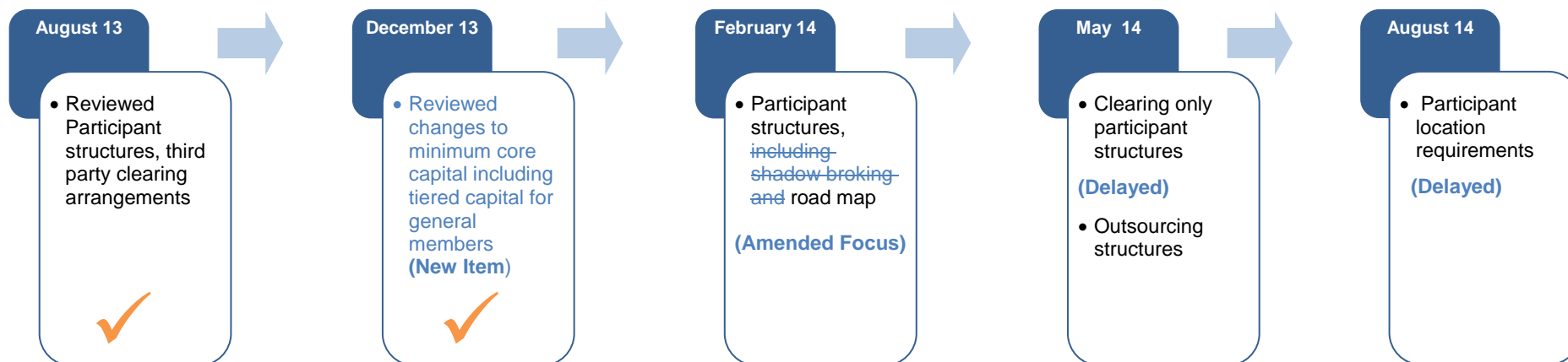
Timing for Business Committee Consideration of Topics



FORWARD WORK PROGRAM

| Theme | Objectives | Possible topics for discussion / agenda items | Description of topic |
|--|---|--|--|
| 2. Participant Structure Flexibility & Efficiency | To align ASX's participant access regime with its customers' evolving business models | a. Participant structures, including shadow broking & road map | ASX will also provide a 'road map' of initiatives aimed at improving participant structure flexibility and efficiency. ASX will present a proposal for the introduction of tiered capital for general clearing participants. ASX will also present proposals on other clearing participant structures and seek feedback on potential benefits to customers in terms of capital costs, margin efficiencies, operating costs and transactional efficiency. |
| | | b. Clearing only participant structures | ASX will present a proposal for the introduction of a clearing only general participant status and seek feedback from the Committee on whether this may encourage greater flexibility in terms of outsourcing arrangements. HIN sponsorship arrangements will also be examined in this review. |
| | | c. Participant location requirements | ASX will provide an update on industry trends in terms of participant location in clearing and settlement and will seek feedback from the Committee on whether greater flexibility is required and could be supported under current legal and regulatory settings, and identify what domestic location requirements are necessary. |
| | | d. Outsourcing structures | ASX will provide an update on industry trends in outsourcing arrangements and will seek feedback from the Committee on whether greater flexibility is required and could be supported under current risk, legal and regulatory regimes or whether formal requirements on outsourcing are necessary. |
| | | e. Multiple third party clearing arrangements | ASX will highlight recent changes to clearing participant structures, provide an update on approvals and explain how these changes relate to third party clearing arrangements. |

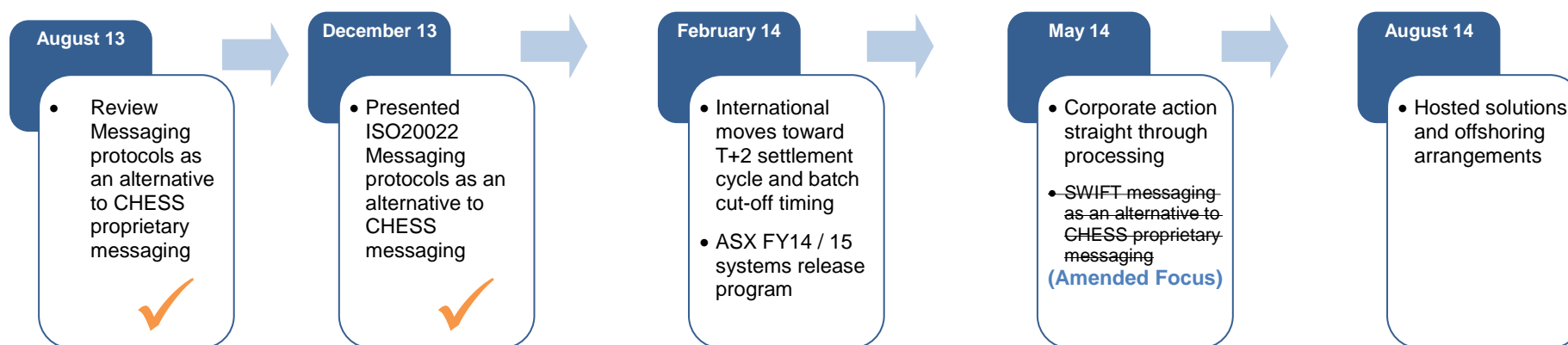
Timing for Business Committee Consideration of Topics



FORWARD WORK PROGRAM

| Theme | Objectives | Possible topics for discussion / agenda items | Description of topic |
|------------------------------|--|--|---|
| 3. Service Innovation | To deliver global best practice cash market clearing and settlement services | a. Corporate action straight through processing | An initiative which will deliver a streamlined process for the announcement, data capture and delivery (using ISO 20022) of corporate action information. The first phase of the initiative includes dividends, interest payments, capital returns reorganisations, and is expected to be live by end 2013. |
| | | b. SWIFT messaging as an alternative to CHES proprietary messaging | ASX will present a proposal to introduce a global messaging standard as an alternative to CHES proprietary messaging. |
| | | c. International moves toward T+2 settlement cycle & batch cut-off times | T2S in Europe will move European equity settlement to T+2 while DTCC has consulted on moving US equity settlement to T+2 or even T+1. The Committee will explore what this might mean in the Australian context, and also consider batch settlement timing against an international comparison. |
| | | d. Hosted solutions and offshoring arrangements | ASX will provide an update on industry trends towards clearing and settlement participant hosted solutions, including offshoring arrangements, and seek the Committee's feedback on whether greater flexibility is required and could be supported under current risk, legal and regulatory settings. |
| | | e. ASX FY14 / 15 systems release program | ASX will provide a roadmap of the coming year's CHES release programme and seek the Committee's feedback on implementation considerations. |

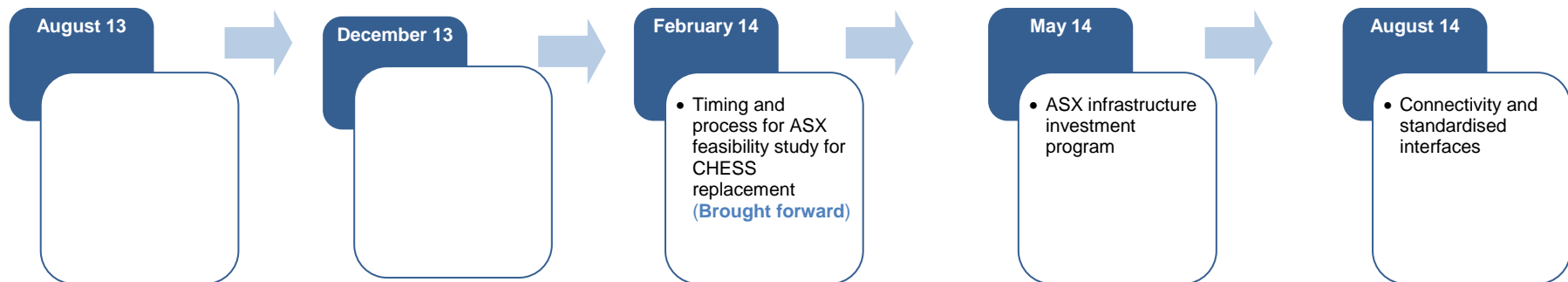
Timing for Business Committee Consideration of Topics



FORWARD WORK PROGRAM

| Theme | Objectives | Possible topics for discussion / agenda items | Description of topic |
|--|--|--|--|
| 4. Technology & Infrastructure Enhancement | To maintain and upgrade technology and infrastructure consistent with global standards | a. ASX infrastructure investment program | ASX will provide a roadmap of its three year infrastructure investment program and seek the Committee's feedback on service innovation requirements and the market infrastructure considerations. |
| | | b. Timing and process for ASX feasibility study for CHES replacement | ASX will provide a plan for the commencement of a CHES replacement feasibility study. A technical committee may need to be established in order to roadmap industry considerations and requirements. |
| | | c. Connectivity and standardised interfaces | ASX will provide a connectivity and interface standardisation roadmap and further review connectivity options (eg. ASX Net, SWIFTNet etc.) |

Timing for Business Committee Consideration of Topics



Post Council of Financial Regulators' review & policy decision on market structure in Q1 2015

- International trends in multiple CCPs and access / infrastructure implications
- CHES investment FY15 / 16

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 5B

| | |
|------------------------------|---|
| Topic | Minutes from 9 December 2013 meeting |
| Date of the Meeting | 19 February 2014 |
| Purpose of this paper | To provide Business Committee members with a copy of the minutes and Business Committee report to the Forum from the 9 December 2013 meeting. |
| Action required | To note the minutes and report to the Forum from the 9 December 2013 meeting. |

Draft minutes and the draft report to the Forum from the 9 December 2013 Business Committee meeting were emailed to all members of the Business Committee on 20 December 2013 for comments by 31 January 2014.

The draft minutes and report to the Forum have been amended to include an additional action item to reflect comments provided by a member of the Business Committee. The additional action item relates to the inclusion of connectivity costs associated with providing clearing and settlement arrangements to other market operators in the final Request For Proposal (RFP) for the international cost benchmarking.

The Business Committee minutes were signed by the Chair on 31 January 2014.

A copy of the minutes and report to the Forum from the 9 December 2013 meeting are provided in Attachments A and B.

ATTACHMENTS

Attachment A – Minutes from 9 December 2013 Meeting
Attachment B – Business Committee Report to the Forum



MINUTES OF THE BUSINESS COMMITTEE
MONDAY, 9 DECEMBER 2013
ASX LIMITED
LEVEL 1, 20 BRIDGE STREET SYDNEY

1. Introduction and overview of meeting agenda

- a. Oral report by the Chair of the Business Committee on the key issues discussed at the 2 October 2013 Forum meeting
- b. Correspondence from the Chairman of the Boards of ASX Clear and ASX Settlement to Forum Members

2. Management accounts for cash market clearing and settlement

3. Outcomes from the Forum meeting

- a. International cost benchmarking – scope and methodology
- b. ISO 20022 Standard Messaging
- c. Consideration of a T+2 settlement cycle & batch cut-off

4. Policy update and Financial Stability Standards

- a. Feedback on the segregation and settlement finality consultation process and next steps
- b. Policy update on the minimum core capital requirements

5. Administration

- a. Minutes from the 16 August 2013 meeting
- b. Next meeting

ATTENDEES

| MEMBERS | | |
|--------------------------------|---|---|
| Company | Name | Job Title |
| ASX | Mr Peter Hiom | Business Committee Chair Deputy CEO, ASX |
| ABN AMRO Clearing | Mr Barry Parker | Managing Director |
| APX | Mr David Lawrence | Chief Operating Officer & Company Secretary |
| Bank of America Merrill Lynch | Mr Anatoly Kirievsky | Vice President Compliance |
| BBY Ltd | Mr Arun Mahraj | Chief Executive Officer |
| BNP Paribas | Mr Mark Wootton | Head of Local Custody |
| Chi-X Australia | Mr Jason Keady | Director Markets and Operations |
| Commonwealth Bank of Australia | Mr Sheridan Thompson | Executive Manager, Strategic Development, Commonwealth Securities Limited |
| Deutsche Bank AG | Mr Russel Deal | Chief Operating Officer |
| Goldman Sachs | Mr Greg Hanlon | Chief Operating Officer |
| J.P. Morgan | Mr Samuel Mann (attendance by dial-in) | Business Manager, Australia Equities |
| Macquarie Group | Mr Michael McKeown | Chief Operating Officer |
| Morgan Stanley | Mr Craig McGuire | Head of Operations |
| NSX | Mr Emlyn Scott | Chief Executive Officer |
| Patersons Securities | Mr Sam Budiselik (attendance by dial-in) | Chief Operating Officer |
| UBS | Mr Conor Foley | Chief Operating Officer |

| ASX Management | |
|-----------------------|--|
| Name | Job Title |
| Ms Amanda Harkness | Group General Counsel & Company Secretary |
| Mr Ramy Aziz | Chief Financial Officer |
| Mr Tim Hogben | Group Executive, Operations |
| Mr Alan Bardwell | Chief Risk Officer |
| Ms Danielle Henderson | General Manager, Clearing Services |
| Mr Andrew White | General Manager, Settlement Services |
| Ms Diane Lewis | Senior Manager, Regulatory and Public Policy |
| Mr Rodd Kingham | Senior Manager, Clearing Services |

APOLOGIES

| MEMBERS | | |
|------------------------|------------------|----------------------------|
| Company | Name | Job Title |
| RBS Morgans | Mr Peter Chisolm | Chief Operating Officer |
| Bell Potter Securities | Mr Dean Surkitt | Managing Director Retail |
| Citi | Mr Nick Pelham | Business Manager – Markets |

The meeting commenced at 3.00pm.

AGENDA ITEM 1: INTRODUCTION AND OVERVIEW OF MEETING AGENDA

The Chair thanked Committee members for attending the additional meeting this year. The Chair noted that the additional meeting provided an opportunity for the Committee to be updated on the first Forum meeting and to provide input to the request for proposal (RFP) that will be shortly issued on for the international cost benchmarking.

a. Oral report by the Chair of the Business Committee on the key issues discussed at the 2 October 2013 Forum meeting

The Chair provided Committee members with an overview of the Forum meeting noting that it was well attended and that there was a good discussion on the management accounts, the operational performance of cash market clearing and settlement services and the international cost benchmarking to be commissioned in 2014.

The Chair also informed Committee members that the forward work program was discussed and received broad support from Forum members. It was noted that an update on the key streams of work in the forward work program will be provided under agenda item 3.

b. Correspondence from the Chairman of the Boards of ASX Clear and ASX Settlement to Forum Members

The Committee noted the correspondence from the Chairman of the Boards of ASX Clear and ASX Settlement (the Boards) to Forum members dated 13 November, which was included in the meeting papers. The Chair briefly commented on the commitment by the Boards to support the three streams of work prioritised by the Forum – the international cost benchmarking, consideration of a T+2 settlement cycle and the cut-off time for batch settlement, and the development of ISO 20022 standard messaging.

AGENDA ITEM 2: MANAGEMENT ACCOUNTS FOR CASH MARKET CLEARING AND SETTLEMENT

The Chair introduced ASX's CFO to speak to a presentation on the management accounts for cash market clearing and settlement and the cost allocation and transfer pricing policy, which were included in the meeting papers. It was noted that it was the same presentation that had been given at the Forum meeting

The meeting was informed that this was the first time that ASX has prepared these management accounts and that it is the first time that ASX has allocated costs and capital at this level. The meeting was also informed that the management accounts would be prepared annually and published at the same time as ASX reports its full-year results. ASX's CFO noted that the accounts and the cost allocation and transfer pricing policy had been reviewed and approved by the Boards, and subject to external audit.

ASX's CFO took Committee members through the presentation on the management accounts, specifically noting that:

- the structure of the clearing house is quite unique with ASX contributing all the default capital compared to clearing houses in other markets, such as those in Europe where participants provide a significant proportion of the default capital;
- the staff costs for the provision of these services are consistent with the staff costs for ASX Group, that is, staff costs represent approximately 50% of overall costs;

- the EBITDA margin for the provision of these services is consistent with that of the ASX Group. The return on equity for the provision of cash market settlement services is a little higher than that for cash market clearing on the basis of the Delivery Versus Payment (DVP) settlement model and that ASX Settlement is not required to hold default capital (a large proportion of the capital held by ASX Settlement is held to mitigate operational and business risk);
- the statements have been prepared on a going forward basis and, as such, there is no interest expense recorded in relation to the debt facility that ASX recently replaced with equity capital following the capital raising undertaken in July; and
- stress testing exposures over the last ten years confirmed that the amount of capital held by ASX Clear and ASX Settlement in respect of the cash market was appropriate.

A Committee member queried whether the money that was transferred to ASX Clear Pty Limited when the National Guarantee Fund (NGF) was split was included in the clearing risk capital allocated to cash market clearing. ASX's CFO noted that while the money that was transferred is included in the allocated capital, the corresponding liability was also transferred to ASX Clear Pty Limited. ASX's CFO explained that if there was a default event and the capital was depleted, ASX has an obligation to replenish that capital.

AGENDA ITEM 3: OUTCOMES FROM THE FORUM MEETING

a. International cost benchmarking – scope and methodology

A timeline for commissioning analysis and publishing a report on the international cost benchmarking in June 2014 was tabled at the meeting. The Chair informed the meeting that the Forum had requested that the international cost benchmarking be accelerated, and noted that while the timeframe for undertaking this type of analysis is challenging, ASX is committed to delivering the report by the June 2014 Forum meeting.

ASX's General Manager for Clearing Services spoke to the agenda paper, noting that:

- ASX has approached and had preliminary discussions with three consultants regarding the RFP. It was noted that ASX has sought guidance from the consultants in relation to the scope and methodology of the analysis, for example, which jurisdictions should be included in the analysis, the appropriate number of user profiles to be incorporated to provide meaningful results across different types of investors and trading styles (likely to be between 10 and 15), how to take account of different service offerings in different markets and whether there is benefit in undertaking the analysis from both a bottom-up and top-down perspective;
- there are a number of complexities in undertaking this analysis, in particular, in relation to taking into account the different market structures and capital structures across different markets and, subsequently, disaggregating the costs of clearing and settlement services. In this context, it is likely that the report would be a 100-plus page report. It was noted that ASX was committed to delivering a report that presents an objective and transparent analysis, with the assumptions made and the rationale for those assumptions clearly set out. It was further noted that, to the extent possible and subject to pricing data being available, the analysis would cover unbundled clearing and settlement service costs;
- the benefit of restricting the analysis to between 10 to 15 countries was that it allowed for greater depth of analysis and a more robust service and cost comparison;
- the final RFP will be sent out to the three consultants later in the week after taking into account any feedback received in this meeting; and
- ASX will invite Committee members to provide input on the user profiles at the next meeting **[Agreed Action 1]**.

A Committee member queried the scope of the analysis and whether the connectivity costs associated with providing clearing and settlement arrangements to other market operators could be included in the benchmarking. The Chair agreed in-principle that these costs should be included in the report. The Chair also noted that ASX would include this in the final RFP and discuss it with the successful consultant [**Agreed Action 2**].

The Chair invited comments on the proposed scope and methodology for the analysis, including in relation to the jurisdictions identified, the number of user profiles and the proposed approach to the analysis. The Committee agreed to the jurisdictions identified and no objections were raised in relation to the proposed methodology for the analysis.

A Committee member commented on the structure and length of the invoices their organisation receives from ASX for clearing and settlement services. He queried whether there may be scope for ASX to examine the fee schedule and invoicing to simplify the statements in relation to fees paid by participants.

The Chair responded that ASX will prepare a report for individual participants which would provide for greater transparency in relation to fees and what was driving any changes in amounts paid. The Chair advised the Committee that ASX would prepare a sample report for consideration at the next meeting [**Agreed Action 3**].

Given the timeframe for undertaking the international benchmarking and finalising a report, the Chair noted that the report would not be completed in time at its May 2014 meeting. However, the Chair offered to brief the Committee on the report shortly before the Forum meeting on 23 June 2014.

RECOMMENDATIONS TO THE FORUM

- There were no recommendations to be provided to the Forum on this item.

b. ISO 20022 standard messaging

The Chair introduced ASX's Group Executive for Operations, in his capacity as the Chair of the recently established Technical Committee on CHESSE messaging and ISO 20022, to update the Committee on the first meeting of the Technical Committee.

The Chair of the Technical committee informed the meeting of the key points discussed at the 25 November 2014 Technical Committee meeting, noting that:

- the Technical Committee was of the view that moving to a global standard would be expected to deliver significant cost savings to global participants as it would allow them to operate standardised technical infrastructure, with centralised support;
- a number of Technical Committee members were also of the view that participants operating only in the Australian market would benefit from the adoption of ISO 20022 standard messaging by reducing the barriers to entry of further technology providers and by assisting in managing technology infrastructure overheads and on-going costs;
- there was general agreement that the current CHESSE messaging protocol was 'not broken', and that CHESSE messages were effective and contained rich data content. It was also noted that the bespoke nature and complexity of CHESSE messages partly explained the additional costs in the Australian market;
- the Technical Committee agreed that the full suite, rather than a sub-set, of CHESSE messages needed to be ISO 20022 compliant to provide real benefits and cost savings to participants;
- Technical Committee members were broadly of the view that the introduction and provision of "ISO 20022-like" messages (messages that are not fully ISO 20022 compliant as the unique

CHESS business processes and message models do not fully align with ISO 20022) would not provide sufficient cost savings and benefits to participants to warrant proceeding with the initiative;

- there was agreement that ISO 20022 standard messaging should be mandated rather than be provided as an alternative to CHESS proprietary messaging to assist in building the business case for such a significant change. This was subject to the industry being provided sufficient timing for implementation;
- there was also broad agreement on the importance of aligning this initiative with any plans to refresh or replace CHESS. The Technical Committee saw the move to implement ISO 20022 standard messaging as a medium term initiative and that it would be better to take the opportunity to examine the current message content and what may be needed in the future before introducing ISO 20022 standard messages. This timeframe would also accommodate the need to obtain approval for any new messages not currently defined under ISO 20022, which would likely take up to 18 months; and
- the Technical Committee agreed that there was merit in the implementation of the standard being aligned, where possible, with its implementation in other major markets, in particular the markets in Asia Pacific, such as Japan, China and Korea.

A Business Committee member acknowledged that in the last meeting he had indicated that it was important for ISO 20022 to be introduced on the basis that his organisation could continue to use CHESS proprietary messaging as they did not have international operations. The Business Committee member noted that following further internal discussions his organisation was now open to the introduction of ISO 20022 standard messaging as a replacement to CHESS proprietary messaging, and he confirmed that mandating its adoption would assist with the business case.

There was some discussion of the benefits of linking the introduction of ISO 20022 standard messaging with the refresh or replacement of CHESS, with a member commenting that there would be merit in understanding the roadmap for CHESS prior to progressing to a detailed solution for the introduction of ISO 20022 standard messaging.

A timeline for the consideration of the introduction of ISO 20022 standard messaging was tabled at the meeting. The meeting noted that the Technical Committee will continue to meet to consider the scope of coverage of the initiative, and to examine the current message content and what may be needed in the future.

RECOMMENDATIONS TO THE FORUM

- There were no recommendations to be provided to the Forum on this item.

c. Consideration of a T+2 settlement cycle and batch cut-off

A timeline for considering the introduction of a T+2 settlement cycle and the cut-off for batch settlement was tabled at the meeting. The Chair informed the meeting that the Forum had a lengthy discussion on T+2 and had requested that the work be accelerated on the basis that it was expected that it would lead to a reduction in cash market margining.

ASX's General Manager of Settlement Services spoke to the agenda paper, noting that:

- an issue not highlighted in the agenda paper which will be canvassed in the consultation paper relates to the possibility of a shorter settlement cycle leading to a reduction in the financial resources required to be held by ASX Clear to mitigate counterparty risk (noting that this would require regulatory clearance) and, if the regulators allowed a reduction in the pre-paid financial resources, the potential for a reduction in the clearing fee;

- in addition to the expected reduction in cash market margining, a shorter settlement cycle is expected to lead to a reduction in the liquid capital requirements (in so far as they relate to cash equities) for clearing participants;
- the consultation paper will put forward the possibility of pushing back the batch cut-off time as an option for addressing concerns custodians may have in relation to servicing their offshore clients within a shorter settlement cycle; and
- a draft of the consultation paper will be provided to the Committee for consideration at its next meeting.

The Committee agreed that progressing the initiative on T+2 was of a higher priority than the initiative to introduce ISO 20022 standard messaging. Committee members also agreed that consideration should be given to implementing T+2 earlier than the 3 years set out in the agenda paper. A number of Committee members were of the view that an 18 month to 2 year timeline for implementation was appropriate given the potential benefits for the industry.

The Committee agreed that the consultation paper should seek feedback from stakeholders in relation to what is the appropriate transition period.

A Committee member noted that an outcome of a reduced settlement period may be increased delivery fails and that managing that risk and the cost impact to participants needed to be considered as part of the consultation.

A Committee member suggested that it would be helpful if ASX could undertake some analysis and calculate what the expected benefits of a shorter settlement cycle would be for participants in relation to the reduction in cash market margining for inclusion in the consultation paper.

The Chair confirmed that ASX would include this analysis in the consultation paper [**Agreed Action 4**].

RECOMMENDATIONS TO THE FORUM

- The Business Committee recommended that progressing the initiative on the introduction of a T+2 settlement cycle is of a higher priority than the initiative to introduce ISO 20022 standard messaging.

AGENDA ITEM 4: POLICY UPDATE AND FINANCIAL STABILITY STANDARDS

a. Feedback on the segregation and settlement finality consultation process and next steps

The meeting noted and welcomed the outcome of maintaining the existing single house account structure in the cash market from the recent ASX consultation process undertaken on the new Financial Stability Standards in relation to account segregation. A Business Committee member requested that the work undertaken by Brendon Luscombe, ASX General Manager of Clearing Risk Management, to achieve this outcome should be recognised.

ASX noted that proposed amendments to the ASX (Clearing and / or Settlement) Operating Rules to provide enhanced cash market client protection would be in place by April 2014, and that the proposed CHES processing flow for client broker sponsored sales are expected to be implemented in the November 2014 CHES release.

RECOMMENDATIONS TO THE FORUM

- There were no recommendations to be provided to the Forum on this item.

b. Policy update on the minimum core capital requirements

The meeting noted the outcomes from the recent ASX consultation process on the minimum core capital requirements for direct participants and the possible introduction of a tiered minimum core capital requirement for general participants. It was noted that:

- the minimum core capital requirement for direct participants will remain at \$5 million; and
- ASX will progress a proposal to introduce a tiered minimum core capital requirement for general clearing participants.

RECOMMENDATIONS TO THE FORUM

- There were no recommendations to be provided to the Forum on this item.

AGENDA ITEM 5: ADMINISTRATION

a. Minutes from the 16 August 2013 meeting

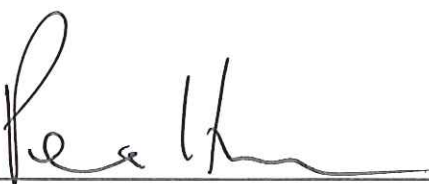
The Chair noted the proposed revision to the minutes from the 16 August 2013 meeting and invited comments on the proposed revision. As there were no comments on the proposed revision, the Chair noted that the minutes were approved.

b. Next meeting

The Committee noted that the next meeting will be held on Wednesday, 19 February 2014.

As there was no further business discussed, the meeting closed at 4.40pm.

Signed as a correct record of the meeting.



Chairman

31 / 1 / 2014

Date



BUSINESS COMMITTEE REPORT TO THE FORUM

From the 9 December 2013 Business Committee meeting

Key Recommendations

- The Business Committee recommended that progressing the initiative on the introduction of T+2 settlement cycle is of a higher priority than the initiative to introduce ISO 20022 standard messaging.
- The Business Committee expressed the view that ISO 20022 should be linked to the CHES refresh / replacement initiative.

Key Issues Discussed

- The high priority of introducing a T+2 settlement cycle in the next two years given the expected reduction in cash market margining and potential cost reduction benefits for the industry.
- The need to mandate the adoption of the ISO 20022 messaging protocol rather than offer it as an alternative to CHES proprietary messaging to assist in building the business case for such a significant change. The Business Committee also saw the introduction of ISO 20022 standard messaging as a medium term initiative on the basis of the benefits of linking the introduction of ISO 20022 standard messaging with the refresh or replacement of CHES.
- The process and methodology for undertaking the international cost benchmarking to be commissioned in early 2014. The Business Committee was comfortable with the jurisdictions identified for inclusion and no substantive issues were raised in relation to the proposed scope and methodology for the analysis. ASX agreed to an additional service (the TAS) being included in the report in response to a request from a member of the Business Committee.

Agreed Actions

1. At the next meeting, the Business Committee will be invited to provide input into the user profiles for the international benchmarking.
2. ASX to include connectivity costs associated with providing clearing and settlement arrangements to other market operators in the final Request For Proposal (RFP) for the international cost benchmarking and discuss the inclusion of these costs in the analysis with the successful consultant.
3. ASX to prepare a sample participant report on fees for consideration at the 19 February 2014 meeting of the Business Committee.
4. ASX to undertake analysis of the expected benefits of a T+2 settlement cycle for participants.