

# Agenda

## Business Committee

Date	5 October 2022	Time	12:00pm- 2:00pm
Location	ASX offices – Level 1, 20 Bridge Street, Sydney/MS Teams		
<b>1. Minutes and Actions</b>			12:00pm- 12:15pm
a) Minutes from the 13 July 2022 Business Committee Meeting b) Open actions			
<b>2. Service Performance</b>			12:15pm- 12:25pm
a) Cash Market Clearing and Settlement - Operating Performance			
<b>3. CHES Replacement</b>			12:25pm- 1:25pm
a) Project progress update b) Assurance program update			
<b>4. Regulatory Expectations</b>			1:25pm-1:40pm
a) External audit of ASX's compliance with the regulatory expectations b) Annual report on Cash Equity Clearing and Settlement Service Developments			
<b>5. Service Enhancements</b>			1:40pm- 1:50pm
a) Update on developments			
<b>6. Other Matters</b>			1:50pm- 2.00pm
a) Forward work program b) AOB c) Next meeting – 7 December 2022			

## Action Items\*

\*For historical action items please refer to archived minutes [here](#).

Item number#	Action	Due date	Status	Owner
2021 Apr (1)	ASX to further consider NSX's data reporting request and engage bilaterally with NSX.	Jul 2021	Completed	ASX
2021 Apr (2)	ASX to confirm the timeframe for publishing an educational artefact around the phases of CHES batch settlement (as an outcome of industry engagement regarding the November 2020 settlement delay).	Jul 2021	Completed	ASX
2021 Apr (3)	ASX to further consider the need for clarity with the data migration process.	Jul 2021	Completed	ASX
2021 Apr (4)	ASX to confirm whether it would publish non-confidential submissions to the consultation on proposed changes to netting and settlement workflows.	Jul 2021	Completed	ASX
2021 Apr (5)	ASX to provide further detail at the next (July) meeting around its recent CHES replacement governance framework review.	Jul 2021	Completed	ASX
2021 Jul (1)	Given the CHES batch settlement delay on 4 May 2021, ASX to confirm CHES replacement will continue to segregate mFund obligations (including payments) from the settlement of cash equities in the CHES batch	Oct 2021	Completed	ASX
2021 Jul (2)	ASX to provide further background on the cause for a delay to ASX 24 payments on 4 May 2021, including whether there was a link to the CHES batch settlement delay on the same day	Oct 2021	Completed	ASX
2021 Jul (3)	ASX to consider how to engage with participants regarding analysis on the increase in settlement fail rates.	Oct 2021	Completed	ASX
2021 Jul (4)	ASX to engage bilaterally with a member regarding their objection to the presentation format of company logos on the proposed electronic CHES holding statements	Oct 2021	Completed	ASX
2021 Oct (1)	GIA to share their insights and experiences from their recent data migration and cutover activities as potential learnings for the CHES replacement project	Dec 2021	Completed	GIA
2021 Dec (1)	ASX to follow up bilaterally with Chi-X on the planning and timeframe to manage any potential industry impacts with Chi-X's planned move to the Cboe platform prior to CHES replacement go-live	April 2022	Completed	ASX
2021 Dec (2)	ASX to table contingency planning for CHES replacement for discussion at a future business committee meeting	July 2022	Completed	ASX
2021 Dec (3)	ASX to table at the April 2022 meeting the current take-up and the trajectory rate for investors opting in for electronic CHES holding statements to determine possible next steps	April 2022	Completed	ASX
2021 Dec (4)	ASX to include T+1 in the forward work program for further discussion; in the interim any member feedback on the materials presented would be welcomed	April 2022	Completed	ASX & BC Members
2022 Apr (1)	ASX to consider forums in which non-cash equity conversations can be undertaken, including Austraclear and recent issues and challenges for market repo transactions	July 2022	Completed	ASX

## Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO CLEARING	Barry Parker	Chief Executive Officer	
AFMA	Damian Jeffree	Senior Director of Policy	
ASX	Val Mathews	Business Committee Chair and Chief Customer and Operating Officer	
ASX	Bradley Campbell	Acting Co-head, Markets	
AIRA	Ian Matheson	Chief Executive Officer	Apology
ACSA	David Travers	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
AUSIEX	Patrick Salis	Chief Executive Officer	
BANK OF AMERICA	Stephen Hacker	Director, Head of Operations	
BELL POTTER SECURITIES	Robert Tesoriero	Settlements Manager	
BNP PARIBAS	*Sam Meares	Head of Banking Service Operations Aust & NZ	Mark Wootton, Head of Custody Product Aust & NZ
BOARDROOM	Martin Jones	General Manager Corporate Governance & Director	
CBOE	Mike Aikins	Chief Operating Officer, APAC	
CITI	Christopher Moore	Manager – Direct Custody & Clearing	
CMC	Andrew Rogers	Director of Broking Business	
COMMSEC	Sheridan Thompson	Head of Industry Engagement & Process Improvement	
COMPUTERSHARE	Scott Hudson	General Manager – Market Liaison	
CREDIT SUISSE	Winston Loke	Australian Equities COO	
FINCLEAR SERVICES	David Ferrall	Founder, Managing Director & CEO	
GOLDMAN SACHS	*Marton Laszlo	Head of A/NZ Operations	Yen Le, Executive Director
GIA	*Catherine Maxwell	General Manager, Policy & Advocacy	Megan Motto, Chief Executive Officer
HSBC	*Tanya Dioguardi	Client Services Manager at HSBC Custody Nominees (Australia)	Toni Icevski, Head of Client Services, Securities Services
J.P. MORGAN	Jonathan Evans	Head of Custody & Markets Operations	
LINK MARKET SERVICES	Peter Jackson	Chief Operating Officer	
MACQUARIE GROUP	James Indge	Cash Equities Business Manager	
MORGAN STANLEY	Rebecca Hill	Chief Operating Officer	
MORGANS	Daniel Spokes	Director, Client Support Services	Apology
NAB	Anita Mead	Head of Business Management, Self- Directed Wealth	
NSX	Chan Arambewela	Chief Operating Officer	
SIAA	Judith Fox	Chief Executive Officer	
SYDNEY STOCK EXCHANGE	Steven Larkins	Director	
UBS	Scott Hanlon	Head of Operations, Executive Director	

\* Delegate

## ASX Management

Name	Job Title	Apologies
Tim Hogben	Group Executive, Securities and Payments	
Daniel Moran	General Counsel	Apology
Hamish Treleaven	Chief Risk Officer	
Dan Chesterman	Group Executive, Technology and Data, and CIO	Apology
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade, Securities and Payments	
Diane Lewis	General Manager, Head of Regulatory Affairs	
Andrew Jones	General Manager, Issuer Services, Securities and Payments	
Suzu Munro	General Manager, Securities and Payments Operations	
Karen Webb	Senior Manager, Issuer Services, Securities and Payments	
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments	

## Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure (ASIC)	
Andia Petropoulos	Senior Analyst, Market Infrastructure (ASIC)	
Kylie Stewart	Senior Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	
Stephanie Bolt	Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	Apology

# Business Committee Report to the Boards of ASX Clear and ASX Settlement

## Business Committee Meeting

---

At its 13 July 2022 meeting, the Business Committee was updated on:

- the operating performance of CHES for the June quarter 2022
- the CHES replacement project, including updates on project progress, the replan of project timelines, customer contingency planning, operating rule amendments and an update on the assurance program
- electronic CHES holding statements, including a change to paper statements, a new process to notify participants of returned mail and an update on take-up of electronic statements; and
- the upcoming external audit of ASX's compliance with the regulatory expectations

### KEY ISSUES DISCUSSED

Computershare was reappointed as a member, an outcome from ASX's annual review of Committee membership.

Members were briefed on ASX's approach to re-planning a new go-live date for CHES replacement, with questions around the timetable for stakeholder input and concurrency of CHES user readiness activities. ASX also provided a high-level introduction on how it was considering contingency planning in the event a CHES user was not ready for go-live, with interest from members about whether the scenario planning would also contemplate issues with the CHES replacement system and how ASX would engage more broadly with stakeholders. There were questions and discussions on software provider readiness tracking presented by ASX during industry testing. EY attended to discuss their second independent assessment of ASX's assurance program report and to answer members' questions which included the timing for when external stakeholders will be consulted as part of the assurance program, and any metrics EY were putting around their assessment on the maturity of the program.

An update was provided on the trajectory for the take-up of electronic CHES holding statements and the new returned mail solution for paper statements.

The Committee was reminded that PwC would shortly commence its annual external audit of ASX's compliance with the regulatory expectations.

An update was also provided on the consultation paper released by ASX in June 2022 on market management in response to ASIC's Report 708.

### AGREED ACTIONS

There were no new actions raised at the meeting.

Draft minutes from the meeting are attached.



ASX

# Agenda

## Business Committee

Date	13 July 2022	Time	12:00pm- 2:00pm
Location	ASX offices – Level 1, 20 Bridge Street, Sydney		
<b>1. Minutes and Actions</b>			12:00pm- 12:20pm
a) Minutes from the 13 April 2022 Business Committee Meeting			
Open actions			
<b>2. Service Performance</b>			12:20pm- 12:30pm
a) Cash Market Clearing and Settlement - Operating Performance			
<b>3. CHES Replacement</b>			12:30pm- 1:30pm
a) Project progress update			
b) Project timeline and milestones			
c) Contingency planning			
d) CHES replacement operating rule amendments			
e) Assurance program update			
<b>4. Service Enhancements</b>			1:30pm- 1:40pm
a) Electronic CHES holding statements			
i. Paper statement change			
ii. New efficient process to notify participants of returned mail			
iii. Update on electronic statements take up			
<b>5. Regulatory Expectations – External Audit</b>			1:40pm-1:50pm
a) Update on the upcoming external audit of ASX’s compliance with the regulatory expectations			
<b>6. Other Matters</b>			1:50pm- 2:00pm
a) Forward work program			
b) AOB			
c) Next meeting – 5 October 2022			

## Action Items\*

\*For historical action items please refer to archived minutes [here](#).

Item number#	Action	Due date	Status	Owner
2021 Jul (1)	Given the CHESSE batch settlement delay on 4 May 2021, ASX to confirm CHESSE replacement will continue to segregate mFund obligations (including payments) from the settlement of cash equities in the CHESSE batch	Oct 2021	Completed	ASX
2021 Jul (2)	ASX to provide further background on the cause for a delay to ASX 24 payments on 4 May 2021, including whether there was a link to the CHESSE batch settlement delay on the same day	Oct 2021	Completed	ASX
2021 Jul (3)	ASX to consider how to engage with participants regarding analysis on the increase in settlement fail rates.	Oct 2021	Completed	ASX
2021 Jul (4)	ASX to engage bilaterally with a member regarding their objection to the presentation format of company logos on the proposed electronic CHESSE holding statements	Oct 2021	Completed	ASX
2021 Oct (1)	GIA to share their insights and experiences from their recent data migration and cutover activities as potential learnings for the CHESSE replacement project	Dec 2021	Completed	GIA
2021 Dec (1)	ASX to follow up bilaterally with Chi-X on the planning and timeframe to manage any potential industry impacts with Chi- X's planned move to the Cboe platform prior to CHESSE replacement go-live	April 2022	Completed	ASX
2021 Dec (2)	ASX to table contingency planning for CHESSE replacement for discussion at a future business committee meeting	July 2022	Completed	ASX
2021 Dec (3)	ASX to table at the April 2022 meeting the current take-up and the trajectory rate for investors opting in for electronic CHESSE holding statements to determine possible next steps	April 2022	Completed	ASX
2021 Dec (4)	ASX to include T+1 in the forward work program for further discussion; in the interim any member feedback on the materials presented would be welcomed	April 2022	Completed	ASX & BC Members
2022 Apr (1)	ASX to consider forums in which non-cash equity conversations can be undertaken, including Austraclear and recent issues and challenges for market repo transactions	July 2022	Completed	ASX

## Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO Clearing	Barry Parker	Chief Executive Officer	
AFMA	Damian Jeffree	Senior Director of Policy	
ASX	Val Mathews	Business Committee Chair and Chief Customer and Operating Officer	
ASX	*Rob Nash	Senior Manager, Markets	Helen Lofthouse, Group Executive, Markets
AIRA	Ian Matheson	Chief Executive Officer	Apology
ACSA	David Travers	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
AUSIEX	Eric Blewitt	Chief Executive Officer	
Bank of America	Stephen Hacker	Director, Head of Operations	
Bell Potter Securities	Robert Tesoriero	Settlements Manager	
BNP Paribas	Mark Wootton	Head of Custody Product Aust & NZ	
BoardRoom	Martin Jones	General Manager Corporate Governance & Director	
Cboe	Mike Aikins	Chief Operating Officer, APAC	
Citi	Christopher Moore	Manager – Direct Custody & Clearing	
CMC	Andrew Rogers	Director of Broking Business	
CommSec	Sheridan Thompson	Head of Industry Engagement & Process Improvement	
Computershare	Scott Hudson	General Manager – Market Liaison	
Credit Suisse	Winston Loke	Australian Equities COO	
FinClear Services	*Leigh Conder	Chief Operating Officer	David Ferrall, Founder, Managing Director & CEO
Goldman Sachs	Yen Le	Executive Director	
GIA	David O’Kane	Chief Operating Officer	Megan Motto, Chief Executive Officer
HSBC	Toni Icevski	Head of Client Services, Securities Services	Apology
J.P. Morgan	*Steve Hackers	Head of Markets Operations	Jonathan Evans, Head of Custody & Markets Operations
Link Market Services	*Natalie Raynor	General Manager, Registry Australia	Peter Jackson, Chief Operating Officer
Macquarie Group	James Indge	Cash Equities Business Manager	
Morgan Stanley	Rebecca Hill	Chief Operating Officer	Apology
Morgans	Daniel Spokes	Director, Client Support Services	
NAB	Anita Mead	Head of Business Management, Self-Directed Wealth	
NSX	Chan Arambewela	Chief Operating Officer	
SIAA	Judith Fox	Chief Executive Officer	
Sydney Stock Exchange	Michael Go	Chief Executive Officer	
UBS	Scott Hanlon	Head of Operations, Executive Director	

\* Delegate



Name	Job Title	Apologies
Tim Hogben	Group Executive, Securities and Payments	
Daniel Moran	General Counsel	Apology
Hamish Treleaven	Chief Risk Officer	
Dan Chesterman	Group Executive, Technology and Data, and CIO	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade, Securities and Payments	
Diane Lewis	General Manager, Head of Regulatory Affairs	Apology
Andrew Jones	General Manager, Issuer Services, Securities and Payments	
Suzy Munro	General Manager, Securities and Payments Operations	
Karen Webb	Senior Manager, Issuer Services, Securities and Payments	
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments	

### Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure (ASIC)	Apology
Andia Petropoulos	Senior Analyst, Market Infrastructure (ASIC)	
Matt Gibson	Senior Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	
Stephanie Bolt	Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	

## AGENDA ITEM 1: MINUTES AND ACTIONS

The Chair welcomed members and delegates to the meeting and noted three recent membership changes; Computershare had rejoined the Committee represented by Scott Hudson, David Ferrall was welcomed as the member for FinClear Services (replacing Leigh Conder), and Eric Blewitt was welcomed as the member for AUSIEX (replacing Mat Tilley).

Ian Matheson (AIRA), Rebecca Hill (Morgan Stanley) and Toni Icevski (HSBC) were apologies. David Ferrall (FinClear Services), was represented by a delegate, Leigh Conder. Peter Jackson (Link Market Services), was represented by a delegate, Natalie Raynor. Jonathan Evans (JP Morgan), was represented by a delegate, Steve Hackers. Megan Motto (GIA), was represented by a delegate, David O’Kane. Helen Lofthouse (ASX), was represented by a delegate, Rob Nash.

The Chair noted Roberto Fitzgerald from Ernst & Young (EY) attended the meeting to present an update on their independent assessment of ASX’s Assurance Program (agenda item 3e).

Also attending as observers were ASIC representatives, Nathan Bourne and Andia Petropoulos (Dodie Green was an apology), and RBA representatives, Matt Gibson and Stephanie Bolt.

The agenda, papers and presentation materials (for agenda item 4) were distributed to all members in advance of the meeting. A copy of EY’s June progress report on an Independent Assessment of ASX’s Assurance Program was also shared with members the day prior on an embargoed basis.

The Chair noted three suggestions from members on the agenda, two of which would be addressed at the meeting (derisking the CHES replacement project – addressed as part of agenda item 3c, and ASX’s consultation on market management in response to ASIC’s Report 708 – addressed as part of agenda item 6b). The third suggestion was to discuss risk-related matters including changes to capital requirements, stress testing, cash market margins, cryptocurrency ETFs, and ETO market conditions. The Chair noted that the Risk Consultative Committee which next meets on 28 July 2022 is the most appropriate forum for consideration on these topics, and recommended each organisation review their membership to the Risk Consultative Committee to ensure the right member from their organisation is participating in this forum.

### a) Minutes from 13 April 2022 Business Committee meeting and open actions

The Chair noted that ASX received no comments on the draft minutes circulated on 18 May 2022, and members had no further comments at the meeting. The minutes of the 13 April 2022 meeting were approved without any further changes.

The Chair provided an update on the open action raised at the last meeting, for ASX to consider forums in which non-cash equity conversations can be undertaken, including Austraclear and recent issues and challenges for market repo transactions.

The Chair noted that ASX had undertaken a comprehensive review of all engagement with stakeholders and the forums held, and that there is an extensive amount of engagement across the organisation, ranging from formal to informal, hosted by ASX or hosted by third parties such as industry associations. ASX had introduced several additional enhanced forums or working groups since September 2021 (including two operational working groups, one for markets and one for clearing and settlement). There are also a number of new CHES replacement project specific user groups.

Specific to Austraclear, the Chair noted the bi-annual Austraclear User Group meeting, where ASX consults with the major users of Austraclear and seeks input on the design and operation, development, and future work program for Austraclear.

A new ACSA working group had its first meeting on 3 May 2022, in response to market repo challenges, with participation from the custodian community.

The Chair invited feedback from members on any areas they do not feel has an appropriate forum for contribution. The action has been recorded as closed.

The Chair also provided an update on ASX's annual review of membership of the Business Committee. Referring to a presentation shared during the meeting, the Chair outlined the criteria and process undertaken for the review.

ASX had one expression of interest from Computershare, who have re-joined the Committee given their role as a vendor and user in CHES replacement and that CHES replacement remains a key focus for cash equities clearing and settlement albeit noting the Business Committee is not solely a CHES replacement committee.

Members did not raise any questions in respect of the update.

## **AGENDA ITEM 2: SERVICE PERFORMANCE**

### **a) Cash Market Clearing and Settlement - Operating Performance**

The ASX General Manager, Securities and Payments Operations provided an update on the operating performance of the cash market clearing and settlement services for the June 2022 quarter:

- Service availability for CHES and the Trade Acceptance Service were at 100% for the quarter.
- The daily average fail rate had decreased to 0.238%, compared to 0.251% for the March quarter, and averaged 0.279% for the previous twelve months. In the month of June both the maximum and minimum fail rates were the lowest observed since mid 2020.
- Trades remained strong (across all AMOs, by value and volume) in the June quarter, though marginally lower than the previous quarter.

Members did not raise any questions in respect of the update.

## **AGENDA ITEM 3: CHES REPLACEMENT**

### **a) and b) Project progress update, timeline and milestones**

The ASX Group Executive, Securities and Payments provided an update on project progress since the Committee last met.

In May 2022 ASX confirmed that April 2023 was no longer a viable go-live date for the project, as a result of a delay to the delivery of remaining application software. Planning for determination of a new go-live date was underway.

Testing of the next functional release of code, release 1.3, was tracking to plan and was expected to be deployed into ITE1 at the end of July 2022. The release includes an uplift to trade processing capability to 2.5 million trades per day, akin to today's average volumes. The accreditation process for software vendors has been split into two phases, an initial accreditation to be completed by end of this year and a final accreditation on the code complete candidate. ITE2 (the CHES user test environment) opened for connectivity at the end of April 2022. Four customers had been onboarded to date, with around 50 applications in progress (and at various stages). ASX will now consult on the usefulness of opening ITE2 for user testing in September 2022 given the delay to go-live.

ASX had published its response to the tranche three and consolidated operating rule amendments. New documentation had been published to support industry-wide testing and sample customer migration reports, and an information paper assessing the implementation options for cutover to the CHES replacement system would be published in the coming weeks.

In late June 2022 ASX had to reset the ITE1 environment during the batch settlement cycle to correct a matter in the code. The ASX Group Executive, Securities and Payments acknowledged the impact of a reset on ITE1 users, with the loss of data and scheduled transactions, including the impact to longer dated test scenarios around corporate actions. This was the second unplanned reset in ITE1, the first being in November 2021. When necessary and upon careful consideration ASX would continue to use resets to manage situations like this until version 1.4 of the code (the code

complete software) was provided by Digital Asset. Understandably, resets are not considered an option to resolve issues in a production environment.

A registry member asked how many customers ASX expected to on-board into ITE2. The ASX Group Executive, Securities and Payments confirmed the total target was around 90, and that it was important to balance the certainty of when CHES user testing will commence with organisations committing technical resources to set-up access to the environment. The registry member noted that resourcing is a serious challenge across the board at present.

Regarding the status of replanning the project go-live date, the ASX Group Executive, Securities and Payments noted the need to balance providing a go-live date to enable customers to plan and allocate resources and investments, against the need for ASX to do the right level of due diligence to produce a confident and realistic timeframe for go-live.

It was noted release 1.3 would address the balance of functional code, with release 1.4 to address the balance of non-functional requirements (NFRs), which were always planned to be delivered at the end of the project, and include substantial up-lift to the volumes the operating platform can support. ASX is also currently reviewing project risks related to scalability and performance and use of appropriate mitigations around those risks, including reviewing how contingency would be applied.

After this information has been obtained, and Digital Asset has provided its revised delivery plan, ASX would then be able to communicate with stakeholders regarding the re-plan, which will include a revised timeline and critical path milestones. This will allow ASX to engage with stakeholders across the industry, and to provide the right information for stakeholders to consider the re-plan and facilitate a bottom-up approach. ASX is still considering the best way to seek that input and address the lessons learned from the previous re-plan in 2020.

Once ASX has received input and feedback from the market, the re-plan will then go through an internal governance process with ASX executives, before being presented to ASX's board with the recommended revised timeline.

ASX has also engaged EY to undertake a parallel independent review of ASX's re-planning process, to help support ASX's decision making and provide assurance to the industry.

A participant member noted that ASX had previously communicated that the revised timeline would be available in October 2022, and asked whether this would now be November 2022. The ASX Group Executive, Securities and Payments confirmed ASX was still targeting to release the revised timeline in October 2022, subject to further planning.

A registry member asked whether ASX was recutting some work streams to remove bottlenecks and concurrency of activities. The ASX Group Executive, Securities and Payments noted that the amount of parallelism that can be run in the program would be subject to discussion with the industry as part of the bottom-up approach to the re-plan, along with the duration and the point in time the activity falls in the calendar year.

#### Customer readiness tracking during industry testing

Referring to a presentation shared during the meeting, the ASX Senior Manager, Equity Post Trade, Securities and Payments provided an overview of how testing is progressing in ITE1, on version 1.2 of the code base, noting that the ITE1 environment is for software providers only. There are 26 unique organisations connected in ITE1, with one additional organisation yet to connect and collectively the CHES replacement application has been thoroughly tested by all CHES user groups developing software.

At a high-level, for functional testing, there is a predetermined set of features by role. Not every CHES User type requires every ISO message. Clearing and settlement participants have the largest breadth of functionality to support, followed by registries and then payment providers and AMOs (who use FIX). From a messaging perspective, the functional builds for payment providers and AMOs is critical but relatively small by message type, and not included in the update.

Using a list of key features for each CHES user, ASX had developed internal reporting based on testing evidence within ITE1. Another important aspect of progress is what is not yet evidenced by an organisation's testing within ITE1, which feeds into ASX's engagement with software providers through its bilateral meetings.

Since ITE1 commenced, the majority of functionality has been tested across the respective roles, with close to 100% functional coverage across all CHES user types. Based on the features and functions by CHES user role – an anonymised peer-to-peer comparison was presented to provide a broad indication of how the market is progressing. Key highlight included:

- The third-party vendor group was noted as very focused and well progressed with functional testing.
- Clearing and settlement participants who are developing their own in-house software (many of whom use a proprietary global back-office system) were characterised as more varied in their progress, however it was noted that they would not necessarily be developing to all functions and features, and some intended to use the CHES User Interface as part of their solution. In-house developers can also request exemptions for functionality not applicable to their business. ASX was working closely with one outlier to ensure they will be ready for the initial technical accreditation phase.
- The share registry and PISP cohort (all but one are developing in-house) was characterised as previously lagging, but following targeted engagement this had significantly improved. ASX was working closely with a small number of outliers to ensure they will be ready for the initial technical accreditation phase.

ASX will continue to track readiness across key project milestones including accreditation, operational readiness and market dress rehearsals, and use metrics to aid engagement and support.

An industry association member asked what the difference was between the 27 organisations developing in-house software and the one organisation developing a proprietary solution, noting this had been separated out on the presentation slide. The ASX Senior Manager, Equity Post Trade, Securities and Payments clarified that whilst there are 27 organisations building software, one organisation had not connected to ITE1 to date; this organisation is expected to catch-up quickly.

Referring to the presentation shared during the meeting, a registry member asked whether the metrics measured number or size. The ASX Senior Manager, Equity Post Trade, Securities and Payments confirmed the metrics captured breadth of functionality to ensure all organisations have a system that supports their respective CHES user type, and noting that volumes are less material at this stage. The registry member noted that their reporting is showing a higher number of issues than indicated in the presentation materials, and that about half of the 16 items they are tracking as outstanding (having regard to size, scale and severity) are tracking red given the functionality is not available for testing at present. The ASX Senior Manager, Equity Post Trade, Securities and Payments acknowledged that this was a different metric, and the reporting shared in the presentation materials by ASX was at a higher level to demonstrate what testing has been attempted by whom for confidence at a messaging level, and the more granular level of technical accreditation will prove out every combination of a particular function.

A participant member asked if the presentation would be made available after the meeting. The ASX Senior Manager, Equity Post Trade, Securities and Payments confirmed that the presentation materials would not be distributed following the meeting, noting they include anonymous reporting across the market, but that ASX would provide each organisation with their own statistics as relevant.

### **c) Contingency planning**

The ASX Group Executive, Securities and Payments provided a high-level introduction to how ASX was considering contingency planning for industry readiness for the CHES replacement program (not how ASX was considering contingency planning within the timeline of the re-plan).

Contingency planning was being considered across:

- Whole of market readiness - transparency of the readiness activities and progress through key project milestones
- Pre-readiness activities (pre-cutover)

- Readiness activities or contingency planning over the cutover weekend.

Contingency planning will consider the scenario where a CHESSE user is not ready for key project milestones, including the implementation weekend, or ASX has concerns about the ability for that user to be ready based on their testing progress up to that date. The considerations and actions that ASX may take will depend on various factors.

ASX intends to be transparent about how it tracks the preparedness of the industry both in advance of go-live as well as over the cutover weekend as follows:

- Operational readiness will evidence users' functional capability
- Industry wide testing will prove that the industry can all work together
- Market dress rehearsals will allow users to test before and after processes related to the go-live weekend
- Attestations and commitments will be required from each user that they're technically and operationally ready under the operating rules

ASX will provide the market with reporting on key project milestones to help them understand progress against plan. Anonymised peer reporting will provide an indication as to industry progress, including where each organisation is in the development cycle compared to their peers. ASX will also provide reporting to the regulatory agencies.

Consideration is also being given to how ASX can leverage industry associations to work through any issues or challenges being experienced by CHESSE users.

Specific to the cutover weekend, ASX will define real-time activities, and a number of stages over the weekend that would trigger certain actions or activities of a CHESSE user being identified as not progressing to plan or being ready. Within those trigger events, ASX will do scenario analysis planning, to identify ASX's response to each of those situations.

In terms of next steps, ASX will continue to update the Committee, including finalising the pre-go-live tracking of milestones, and the reporting to the market.

An industry association member asked whether contingency planning would also contemplate issues with the CHESSE [replacement] system itself, including how they would be resolved during the cutover weekend and potentially on the first day of trading. The ASX Group Executive, Securities and Payments confirmed the scenario testing would address this, and that it would be shared with the market.

Another industry association member asked whether ASX would engage with individual CHESSE users in addition to the Business Committee on contingency planning. The ASX Group Executive, Securities and Payments advised that ASX would use webinars and stakeholder engagement forums to engage with the broader market, and that ASX's Participants Compliance team would also be involved.

#### **d) CHESSE replacement operating rule amendments**

The ASX Deputy General Counsel advised that ASX released its response to consultation on tranche three and the consolidated rules on 30 June 2022. The amendments in tranche three included netting, settlement, reporting, miscellaneous amendments, and the transitional rules addressing the migration cutover. Those rules also included changes to netting and settlement workloads.

ASX received eight submissions from a range of stakeholders including participants, payment providers, industry bodies and a registry, in addition to the 23 submissions ASX received in relation to tranches one and two. The ASX Deputy General Counsel thanked all who made submissions for their input.

In relation to the rule amendments, the changes resulting from feedback from this consultation were not significant. Reasons for this included:

- A number of the points raised were requests for clarification about operational processes

- Most of the queries concerning data governance related to points that are covered in ASX's published data governance paper on CHES and CHES replacement
- Some of the requests for changes were already covered by the existing drafting.

Examples of changes that were made in response to feedback include:

- Modification of the requirement for participants to take steps to obtain correct holder records, to use the same language as the Privacy Act 1988 (Cth)
- Clarification of the rule relating to system authentication to make it clear that a user or service provider can have access on behalf of a number of users.

The response to consultation includes a summary table that sets out each piece of feedback received and ASX's response to that feedback and, where relevant, the rule amendments that resulted.

Going forward, the rules will go through the regulatory process, and ASX aims to publish the final set of rules at least six months prior to the go-live date.

Members did not raise any questions in respect of the update.

#### **e) Assurance program update**

ASX's Chief Risk Officer introduced the topic and provided context before inviting EY to talk to its most recent assurance program report. ASX's assurance program for the CHES replacement project consists of a number of reviews across a wide range of topics at various important milestones in the project. EY, as ASX's appointed independent expert, had completed its second report as part of the ongoing semi-annual review of the assurance program.

The EY Partner (Roberto Fitzgerald) confirmed that EY's latest report had been shared with the Committee the day prior. It was the second independent report produced, and overall it found that the the assurance program continues to be fit for purpose, having regard to the breadth, depth, and sequencing of the assurance program. EY observed that ASX's assurance program continued to mature, and all three findings from EY's previous report dated 28 February 2022 had been satisfactorily closed. EY had two new forward looking findings in this report.

The first finding relates to how the assurance program is dealing with outcomes from the assurance reviews. While the vast majority of items that were raised as recommendations were tracked, measured, managed, reported and dealt with appropriately, EY did find some exceptions going back to 2019 where that didn't always happen. In a small number of instances, EY did not find evidence to the ASX standard where it was required. EY also noted that where a third-party review report did not have risk ratings, for a small number it was unclear how that got tracked into ASX's risk framework.

The second finding relates to materials for a go/no-go decision (at various key milestones in the project). EY's finding goes to being more precise about one particular criterion and having regard to this need for clarity as the project progresses and as any additional criteria are added. One criteria used the words 'sufficient controls', and EY noted that 'sufficient' is not part of ASX's risk management framework, and could be interpreted subjectively. Having clarity and consistently about each go/no-go decision criteria also applies to any further criteria that get added over the course of the project.

In terms of next steps, the EY Partner confirmed their next report was due in six months, around December 2022. The scope of that review would include checks that previous EY recommendations had been accepted, addressed and closed out. The review would also focus on assurance activities over the next six months, and the outcomes of those. In addition, two key aspects to the re-plan that would be considered:

- The scope of the assurance over the re-plan and the supporting activity and outcomes
- What the re-plan means for the assurance program itself (having regard to its breadth, depth, and timing)

Referring to a question raised at the last (April 2022) meeting, the EY Partner confirmed that EY would engage with stakeholders outside of ASX as ITE1 continues and ITE2 opens. EY would give further consideration to who they speak to, when they speak to them, and what they speak to them about.

A registry member noted EY was six months into their semi-annual assurance review, and asked why no external stakeholders had been engaged as part of EY's review to date. The EY Partner confirmed that EY had focused on its design work and the two reports issued to date, which are both published, and EY was cognisant of tying engagement with stakeholders to tangible and specific matters such as testing or accreditation as opposed to speaking generally to the reports it had produced.

An industry association member asked the EY Partner whether they could put a number or percentage on the maturity of the assurance program (e.g. 98% of the way there). The EY Partner noted that EY had not put a maturity methodology around it, but noted that as at today, the program had improved and evolved to a more mature state than when it was formalised in August 2021.

Following this line of question, a participant member asked if EY's methodology for ratings was more sufficient or insufficient, as opposed to a red, amber or green methodology. The EY Partner confirmed EY assessment is relatively binary – ie whether the assurance program is fit or not fit for purpose, rather than how fit or unfit it is. At this point in time EY is confident that the overall assurance program is fit for purpose.

#### **AGENDA ITEM 4: SERVICE ENHANCEMENTS**

##### **a) Electronic CHES holding statements**

Referring to a presentation shared during the meeting, the ASX General Manager, Issuer Services, Securities and Payments, provided an update on the electronic delivery option for CHES holding statements which went live in December 2021, and has been running without incident for over six months. Broker participants could opt customers in using existing infrastructure (a MT 201 or 203 message). In terms of an update on progress with opt-in, growth was good, from a low base, with over 20,000 investors now opted in, supported by 18 broker participants. Around half of the total investors now opted-in had occurred in the last month or so, driven by some smaller fintech brokers and supported by FinClear and Open Markets. The ASX General Manager, Issuer Services, Securities and Payments expected this rate of growth would continue at around the same pace. The more substantive and material changes would occur when the larger retail brokers are ready, many of whom have no commercial objection but need to consider how this project fits into their own organisation's forward planning.

Phase two of the work was to provide a new returned mail solution for both electronic and paper statements, and a new paper statement design (to align with the new electronic statement design). From 11 July 2022, all returned mail would be notified to participants electronically (either via ASX Online or SFTP) to allow participants to automate their back office systems and automate communications to their clients. This functionality had been in place for electronic holding statements since December 2021 and as of that week was also in place for paper statements. Participants may continue to receive paper statements from ASX for the next month or so, given the change became effective mid-month, but by September or October 2022 paper returned mail would likely be gone.

Members did not raise any questions in respect of the update.

#### **AGENDA ITEM 5: REGULATORY EXPECTATIONS – EXTERNAL AUDIT**

##### **a) Update on the upcoming external audit of ASX's compliance with the regulatory expectations**

ASX's Chief Risk Officer noted that the annual external audit of ASX's compliance with regulatory expectations would commence shortly, and would be conducted in the same manner as last year (interview based), led by PwC. PwC would determine a representative sample of Committee members and contact them directly to verify whether they would like to participate in the audit. The Committee was invited to contact Deanna Chesler or Glenn Mackrell from PwC if they wished to volunteer to participate, with PwC's interviews expected to occur in the first week of August



2022. ASX's Chief Risk Officer noted that further information on the scope of the audit and the regulatory expectation could be found in the supporting paper. The findings of the audit would be presented at the next meeting.

Members did not raise any questions in respect of the update.

## **AGENDA ITEM 6: OTHER MATTERS**

### **a) Forward work program**

Referring to the forward work program, the Chair outlined the items planned for discussion at the October 2022 meeting, including carrying forward an item the AIRA member will talk to regarding a white paper AIRA published in January 2022, 'Am I a Shareholder?'.

The Chair welcomed feedback and suggestions for agenda items for future meetings.

### **b) Any other business**

The Chair noted a suggestion from a Committee member to discuss ASX's consultation paper released in June 2022 on market management in response to ASIC's Report 708 on ASIC's expectation for industry in responding to a market outage. The Chair noted consideration of capacity at an industry level, given the magnitude of work in the industry at present. The ASX Senior Manager, Markets, provided an overview of the consultation paper, the first of three related consultation papers ASX will release to address ASIC's eight expectations (with the second expected in September 2022 and the third in December 2022). ASX had met with a number industry bodies and members of the Committee to date to discuss (around 40 stakeholders to date, with a further 40 scheduled in coming weeks), and members were invited to engage with ASX before the end of the consultation period on 9 August 2022. ASX would consider extensions to this deadline as requested.

Members did not raise any questions in respect of the update.

The Chair noted no new actions from this meeting.

The Chair thanked the Committee for their contributions and conversation.

### **c) Next meeting – 5 October 2022**

The next meeting is scheduled for 5 October 2022.

The meeting closed at 1.45 pm.

Signed as a correct record of the meeting.

---

Chair

---

Date



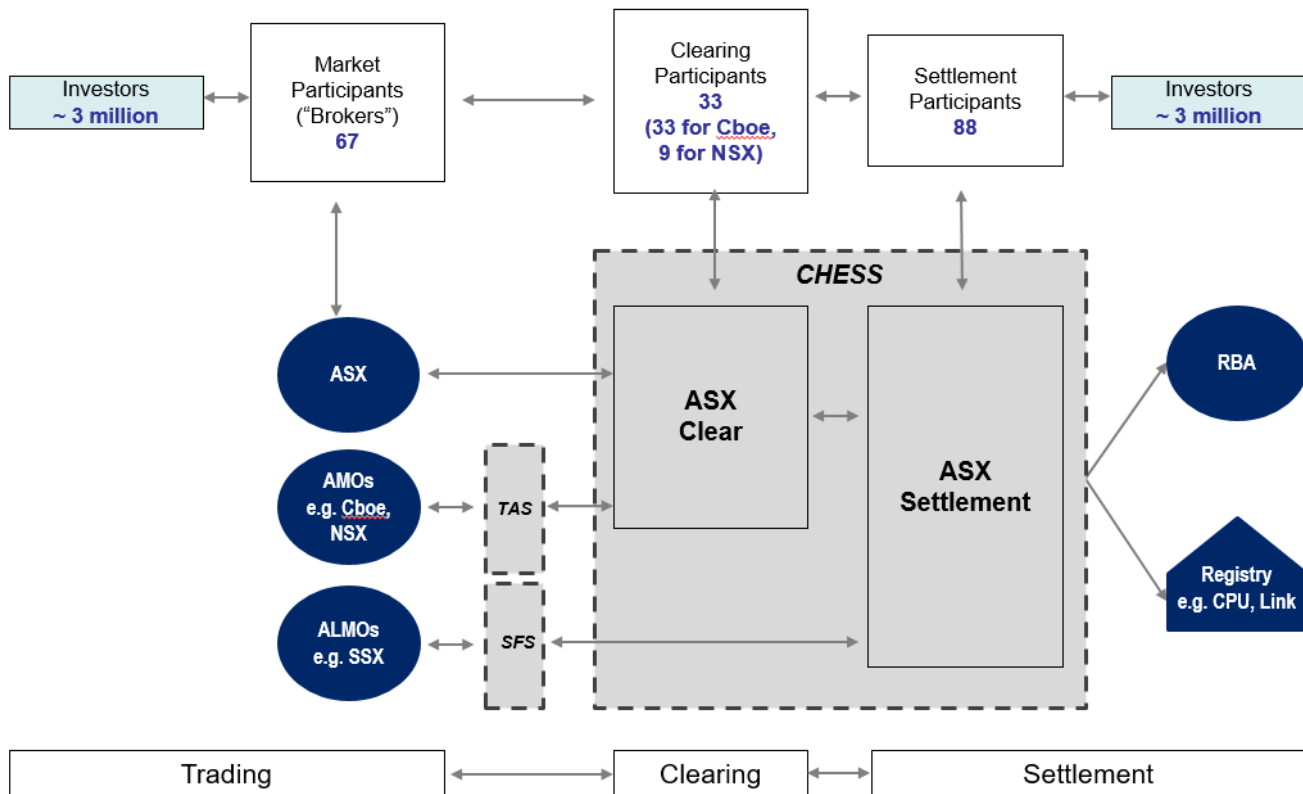
---

<b>Committee</b>	Business Committee
<b>Agenda title</b>	<b>Cash market clearing and settlement - Operating performance</b>
<b>Item</b>	2a
<b>Purpose</b>	To report on key performance metrics for ASX's clearing and settlement services
<b>Meeting date</b>	5 October 2022
<b>Prepared by</b>	General Manager, Securities & Payments Operations (Suzy Munro) Senior Manager, Settlement Operations (Brendan Laird)

---



# Market Structure Overview



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 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 maximises capital efficiency for clearing participants by permitting a single net exposure to be calculated and collateralised between the clearing house and each clearing participant.

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.

Trades submitted for clearing and settlement by any market operator are verified prior to registration by ASX Clear. If the verification conditions are not satisfied then trades are rejected. Once a trade is registered it is novated. Novation is deemed to be effective from the matching of bid/offer (on market trades) or recording of the trade (reported trades) for all trade execution venues.

<sup>1</sup> As of 31 August 2022

## Netting

ASX Clear is approved as a 'netting market', and ASX Settlement is an 'approved netting arrangement', for the purposes of the Payment Systems and Netting Act. This gives legal certainty to the netting of settlement obligations. Settlement on a multilateral net basis maximises market efficiency by 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 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 service availability target for CHES is 99.80%.

For the September 2022<sup>1</sup> quarter, the average monthly system availability was 100% for CHES. The average monthly availability of CHES has been 99.99% between November 2011 and September 2022.

## Trade Acceptance Service and Settlement Facilitation Service

ASX Clear and ASX Settlement's Trade Acceptance Service (TAS) provides a mechanism for Cboe and NSX to submit trades into CHES and the Settlement Facilitation Service (SFS) provides settlement arrangements for unaffiliated Approved Listing Market Operators (ALMOs) in respect of the CHES-eligible financial products listed on their markets (SSX). The CHES system performs the clearing and settlement functions.

The Trade Acceptance Service and Settlement Facilitation Service availability target is 99.80% (the same as CHES).

For the September 2022<sup>1</sup> quarter, the average monthly system availability was 100% for the TAS and Settlement Facilitation Service. The average monthly availability of the TAS and SFS has been 99.99% between November 2011 and August 2022 (the same as CHES).

## Reporting on clearing and settlement service performance

The key metrics noted above on novation, netting efficiency and settlement efficiency for the September 2022<sup>1</sup> quarter are reported in Attachment A. They are also supported by charts demonstrating a longer reporting period in Attachment B.

## Settlement Performance

A performance metric for monitoring the CHES settlement batch is the fail performance.

For the September 2022<sup>1</sup> quarter, the daily average fail performance has decreased to 0.219% and averaged 0.272% for the previous twelve months, between September 2021 and August 2022.

The daily average fail performance was 0.296% over the 3 year period from September 2019 and August 2022.

ASX Settlement Operations review daily settlement data for recurring trends in the settlement failure rate, to monitor and ensure there are no systemic issues.

<sup>1</sup> As of 31 August 2022

Month	August	July	June	May	April	March
Average Fail Rate	0.277%	0.160%	0.216%	0.231%	0.274%	0.241%
Maximum Fail Rate	0.885%	0.356%	0.313%	0.564%	0.576%	0.437%
Minimum Fail Rate	0.112%	0.098%	0.098%	0.115%	0.148%	0.132%
# of days Fail rate > 0.50%	2	0	0	1	3	0
Batch Settlement Extensions	1	2	2	1	0	1
Fall back of Payment Provider	0	0	0	0	1	0

The Maximum Fail Rate increased during August 2022 due to the following:

1. Trade netting was turned off for PAR (Paradigm Biopharmaceuticals limited) due to non-renounceable rights issue, between 17 and 19 August 2022. Removing netting from a stock undergoing a Corporate action rights issue is a standard process, and can contribute to an increase in fails.

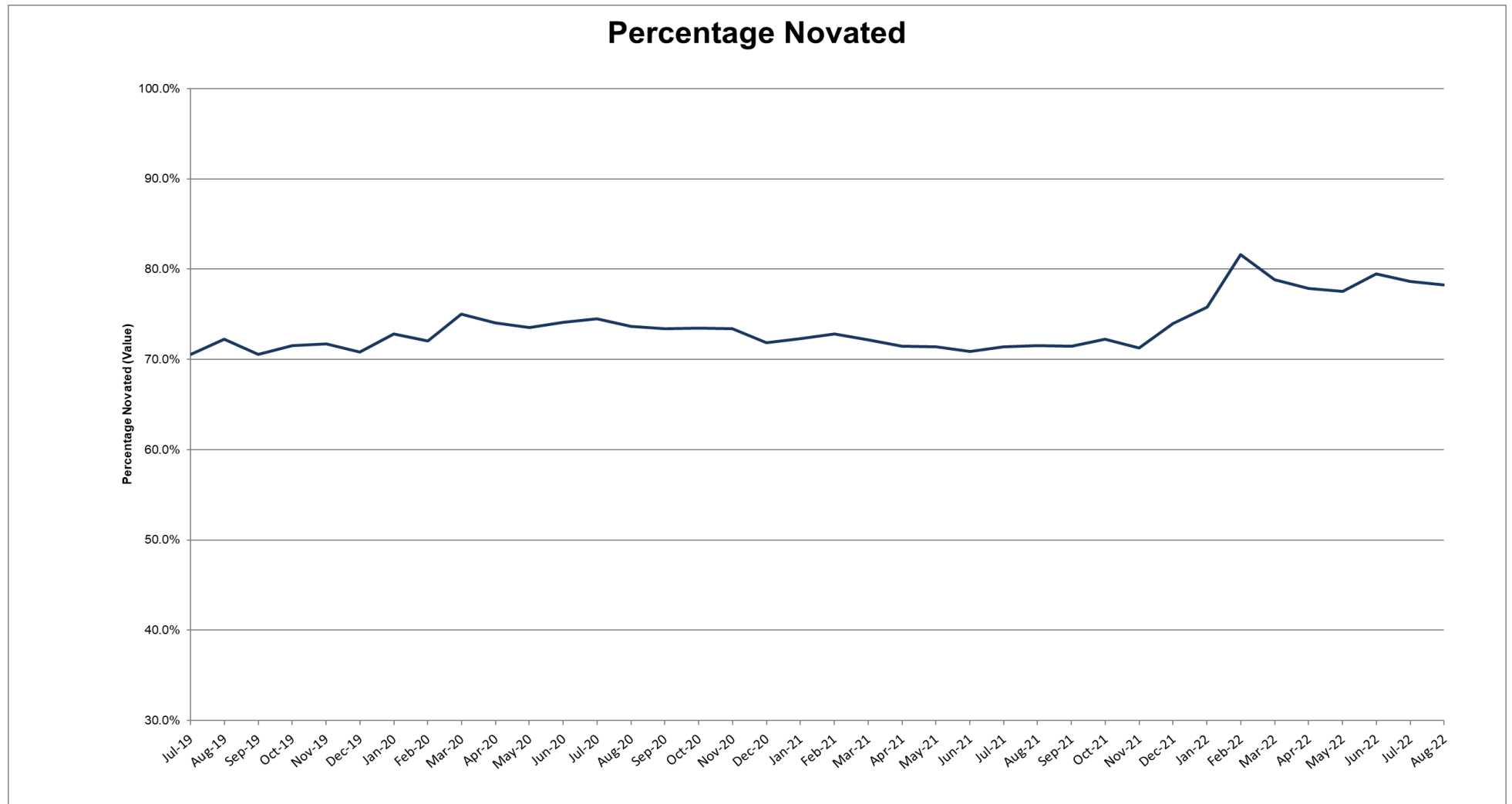
## ATTACHMENT A – SUMMARY METRICS RELATING TO THE PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICE

	September 2022 Quarter <sup>1</sup>	June 2022 Quarter	March 2022 Quarter
System Availability (CHES)	100%	100%	100%
System Availability (TAS)	100%	100%	100%
Total Trades Accepted (ASX)	71,874,293	112,436,196	124,158,530
Total Trades Rejected (ASX)	2	0	0
Total Trades Accepted (Cboe)	24,247,071	39,228,382	39,524,131
Total Trades Rejected (Cboe)	0	0	0
Total Trades Accepted (NSX)	117	151	325
Total Trades Rejected (NSX)	1	0	0
Total Settlements (SSX)	0	0	1
Total Value of Settlements (SSX)	\$0	\$600	\$0
Daily Average Traded Value (On and Off Market) *	\$10.06 billion	\$12.30 billion	\$14.13 billion
Daily Average Cleared Value *	\$7.89 billion	\$9.57 billion	\$11.16 billion
Percentage Novated *	78.4%	78.2%	78.7%
Daily Average Cleared Value Post-Netting	\$2.17 billion	\$2.65 billion	\$2.97 billion
Netting Efficiency (Value) *	72.5%	72.2%	72.8%
Netting Efficiency (Volume) *	98.9%	98.9%	98.90%
Daily Average Settled Value (Including Non-Novated)	\$11.27 billion	\$13.50 billion	\$15.83 billion
Settlement Efficiency (Value)	99.92%	99.90%	99.89%
Average Daily CHES Fail Rate (% Rescheduled to the next settlement date)	0.277%	0.238%	0.251%

<sup>1</sup> As at 31 August 22

\* Commencing March 2022 quarter, Traded Volume now includes transactions (for all AMOS) with settlement status "I" (e.g. crossings, informational)

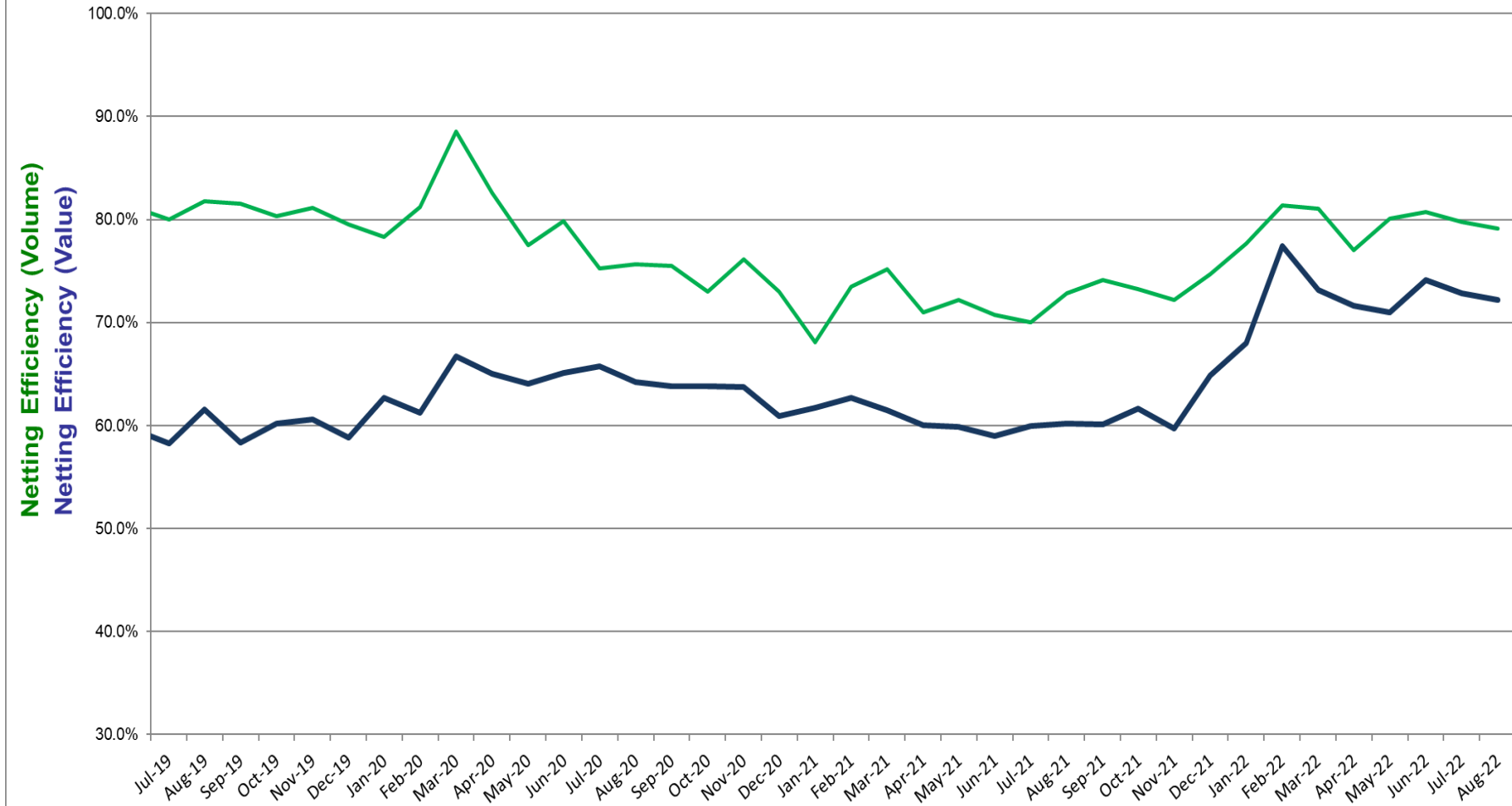
## ATTACHMENT B – PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICES FROM JUNE 2019 TO AUGUST 2022



- Commencing March 2022 quarter, Traded Volume now includes transactions (for all AMOS) with settlement status "I" (e.g. crossings, informational)

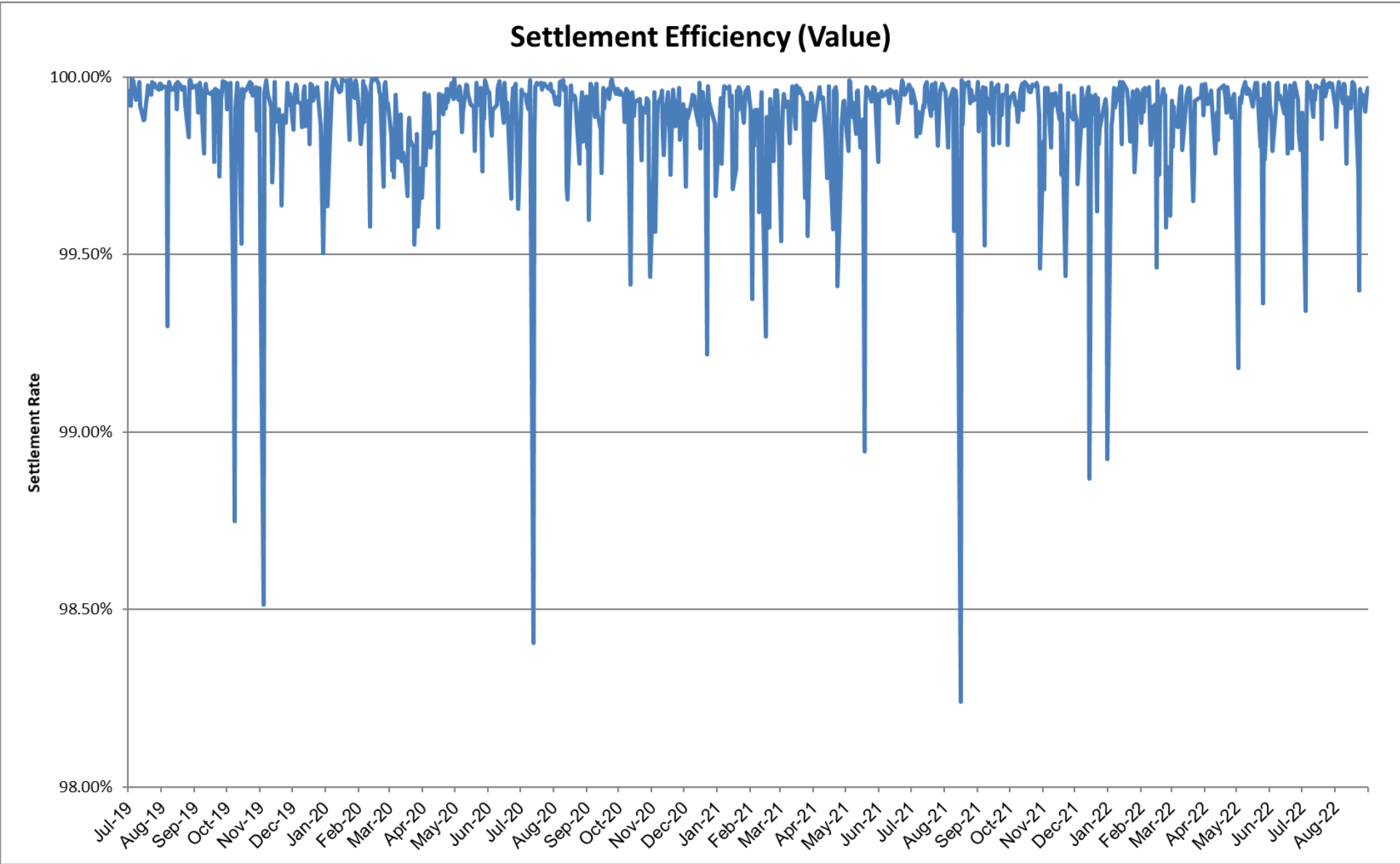
<sup>1</sup> As of 31 August 2022

## Netting Efficiency (Value and Volume)

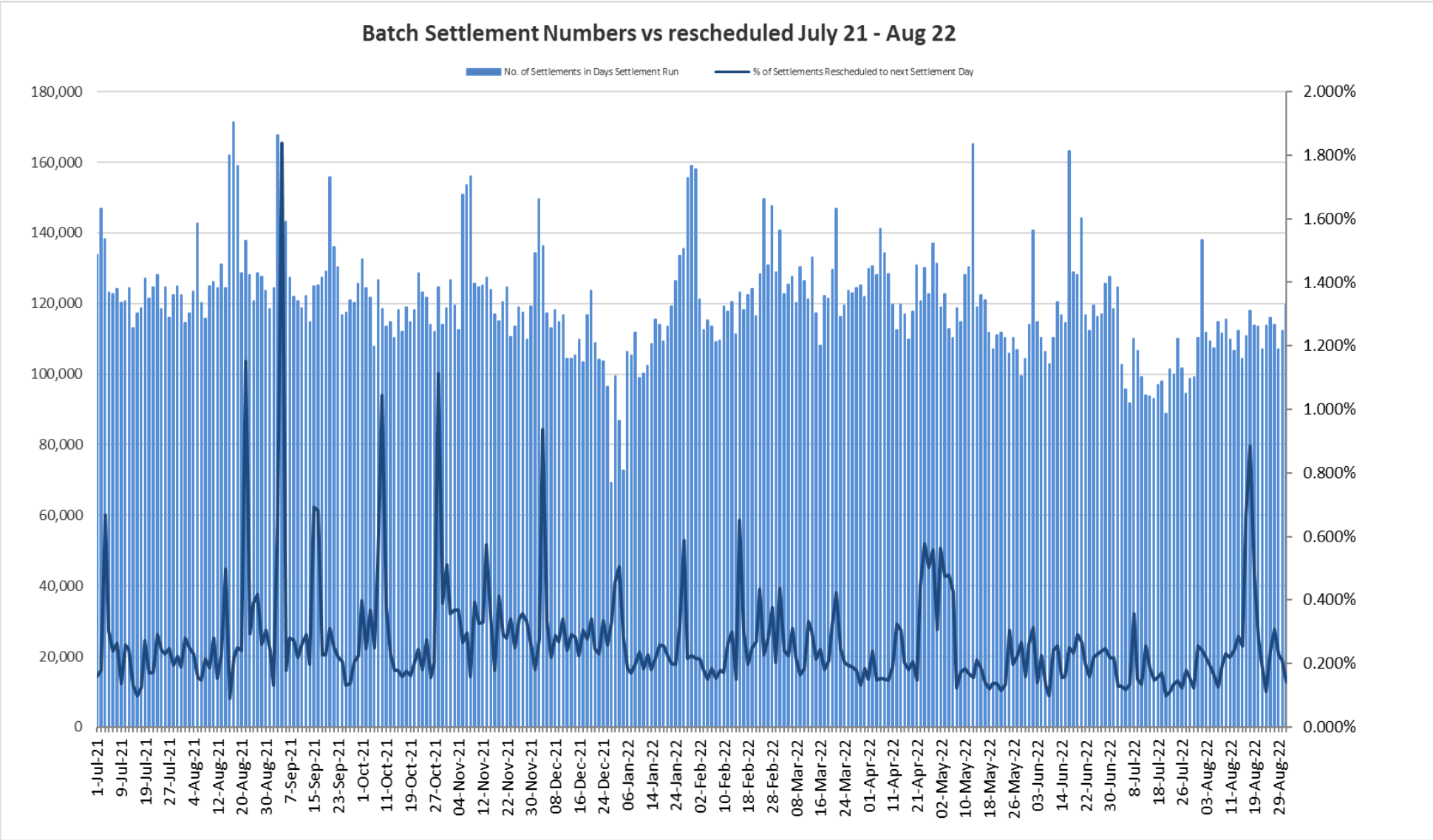


- Commencing March 2022 quarter, Traded Volume now includes transactions (for all AMOS) with settlement status "I" (e.g. crossings, informational)





ATTACHMENT C – BATCH SETTLEMENT NUMBERS VS RESCHEDULED JUNE 2021- AUGUST 2022



<sup>1</sup> As of 31 August 2022

<b>Committee</b>	Business Committee
<b>Agenda title</b>	<b>CHES Replacement</b>
<b>Item</b>	3a, 3b
<b>Purpose</b>	To provide Business Committee members with a project and assurance program update
<b>Meeting date</b>	5 October 2022
<b>Prepared by</b>	Group Executive, Securities and Payments (Tim Hogben) General Manager, Equity Post Trade, Securities and Payments (Katie McDermott) Senior Manager, Equity Post Trade, Securities and Payments (Keith Purdie) Chief Risk Officer (Hamish Treleaven)

### KEY SUMMARY POINTS

- ASX announced the go-live date for new CHES will not be before late 2024 as more development is required than previously anticipated to meet ASX’s scalability and resilience requirements for the application
- Accenture have been commissioned to provide an independent review of the new application. The review will also identify necessary actions for ASX to communicate a revised timetable to finish the project. ASX has committed to publicly release the findings of the review
- CHES user testing in ITE2 will not commence until ASX has consulted with stakeholders on a replan and announced a new go-live date. Commencement of CHES user testing will be no later than 12 months prior to a new go-live date
- ASX successfully deployed the latest functional release of code, version 1.3, into ITE1 on 1 August 2022 and 100% of the available functionality in ITE1 has since been tested by software providers, noting the testing has uncovered some new defects
- Initial accreditation in ITE1 has commenced with two pilot customers. ASX expects optional initial accreditation for other software providers to commence from October 2022
- An information paper has been published setting out the considerations and assessment by ASX to cutover from current CHES to the CHES replacement system, and to global standard message sets, using a risk-mitigated single cutover approach

### AGENDA ITEM 3A: PROJECT UPDATE

#### Revised timetable for go-live

On 3 August 2022, a market announcement and program update to CHES stakeholders was published to advise a delay to the schedule with the go-live date not expected to be before late 2024. It also confirmed the appointment of Accenture to perform an independent review of the remaining development of the application.

ASX and Digital Asset (DA) have identified that more development is required than previously anticipated to meet ASX’s scalability and resilience requirements for the application. This is contributing to delays to the delivery of the remaining technical components of the application. Therefore, ASX is seeking an independent assessment of the new application and the remaining deliverables. The review, which commenced in August 2022 and is expected to take 12 weeks, will identify necessary actions for ASX to communicate a revised timetable to finish the project. The final report will be provided to ASIC and RBA, and to EY as part of its ongoing reviews of ASX’s assurance program. The findings of the review will also be released publicly.

An implementation & transition working group webinar was hosted on the same day to provide clarity on what this review means for stakeholders’ preparation and readiness activities, including:

- 
- CHES user testing has been put on hold until consultation on a replan has completed, and a new go-live date announced
  - A revised plan will include a minimum of 12 months elapsed time from CHES user testing starting and go-live
  - CHES users can choose to complete the onboarding steps to set up network connectivity to ITE2 or wait until nearer the opening of ITE2 for CHES user testing
  - Software providers can continue with functional development and testing to version 1.3 of the software in readiness for initial accreditation activities commencing later this year

### **ITE1 software provider testing and accreditation**

On 1 August 2022, the latest version of the application, v1.3, was released to ITE1. From a functional perspective, this release included re-enabling two key functions – change of controlling participant and class mergers. From a non-functional perspective, the release contained the latest version of the VMware ledger and a number of performance improvements benchmarked at 2.5 million trades per day for batch processing, akin to today’s trading volumes. A number of known defects were also addressed (e.g. a known issue that temporarily suspended failover testing for AMQP users), as well as the provision of a number of new assisted tests including broadcast notifications, settlement batch delays and cancellations. Importantly, this release allows software providers to complete their development and undertake a level of regression testing before choosing to undertake initial accreditation activities.

All software providers have also now successfully been onboarded into ITE1, and while testing continues, some software providers have recently reduced their level of testing activity following the announcement on a delay to the schedule. Nevertheless, all available functionality in version 1.3 has been tested by at least one or more software provider.

Two pilot customers have commenced initial accreditation activities to identify any foundational issues in advance of opening up messaging accreditation to all software providers who choose to submit an application. Messaging accreditation activities are expected to commence from October 2022.

On 6 September 2022, there was an unplanned system refresh related to an end of day diary adjustment process resulting in a subsequent issue with the settlement batch. The reset led to a loss of test transactions, including any long-running test scenarios for corporate actions. ASX made the decision to reset to ensure a quicker restore of the service as opposed to the time it would take for a data fix. Monitoring has been put in place to prevent a recurrence in the short term with the underlying issue having been resolved as part version 1.4, which is still to be scheduled. Resets are only considered an option in a test environment.

The next release to ITE1, version 1.3.1, has been scheduled for the end of October 2022. This is considered to be a minor release that does not impact initial message accreditation activities but includes defect fixes for reporting and CHES UI as well as additional corporate action test data.

### **ITE2 CHES user testing and operational readiness assessment**

Following the delay to ITE2 availability for CHES user testing, organisations with in-flight ITE2 applications have been offered the option to either complete the connectivity onboarding steps or place their application on hold until further information can be provided on timelines. To date, ASX has received 37 applications for ITE2, with some having either completed or are in progress to complete the necessary steps for connectivity, while others have either agreed to put their application on hold or are still to confirm their intentions.

ITE2 availability for CHES user testing will be provided as part of the replan.

### **Cutover and migration**

An [information paper](#) explaining ASX’s assessment of the different implementation options was published on 20 July 2022. The paper set out the considerations and assessment to evaluate four options that included a single cutover for ASX and CHES users to the CHES replacement system, and at the same time adopt global standardised messaging (ISO 20022 and FIX with new and enhanced processes), as well as different variations of a phased implementation.

The information paper assesses the four implementation options using an evaluation criteria of operational risk, technical complexity, market impact and ASX impact. Based on the assessment undertaken, it has been determined that the least

---

complex and lowest risk option for the system migration is to cutover over a single weekend. The other phased options were either assessed to be not feasible, or introduce added risk, complexity, time and cost for both the market and ASX to achieve the end state. The paper also sets out how ASX will mitigate the risks of the single cutover implementation approach.

## Stakeholder engagement activities

### Software Provider Readiness working group

ASX hosted two software provider readiness working group since the Committee last met.

On 27 July 2022, working group members were provided with an update on ITE1 and messaging accreditation.

On 14 September 2022, working group members were provided with an update on ITE1 changes since the 1.3 release, including new assisted testing which includes both scheduled delays and cancellation of batch settlement to allow developers to test these scenarios. The focus of the session was on the initial message accreditation phase, including the process of applying updates to scenarios and feedback received from the market. The phase is optional and available to organisations who want to perform a readiness check to help with both internal and stakeholder updates and to identify any issues in their application builds.

The presentation materials and Q&A for both working groups can be found [here](#).

### Implementation and Transition working group

The most recent implementation and transition working group webinar was held on 3 August 2022, as referenced above. The webinar discussed the delay to the project schedule (announced earlier that day), and the independent Accenture review of the software, ITE1 updates, the information paper on the assessment of implementation options for cutover, the tranche 3 and combined rule amendments, and EY's second report on the assessment of ASX's assurance program. A recording of the webinar, presentation materials and Q&A can be found [here](#).

### Bilateral engagements across all stakeholders

ASX has hosted 88 bilateral meetings with stakeholders' from 1 July to 30 September 2022. A high level overview of these engagements and the key topics in focus is provided below.

- **Software providers** - regular bilateral meetings continued with a focus on software providers' testing in ITE1 including test tools, environment management and impacts of unplanned resets. Other key themes include initial accreditation activities and support for corporate action testing in ITE1. Some software provider monthly engagements have been placed on hold by mutual agreement with ad-hoc meetings to be scheduled when required and re-engaged as part of the re-plan activities.
- **Clearing and Settlement Participants** - ASX continues to be available for clearing and settlement participant bilateral engagement, however more recently the number of meetings has been in decline awaiting the outcomes of the replan. Recent engagements have included discussing the merits of continuing with ITE2 onboarding activities in the short term. Other key themes since the announcement of the project delay include providing more certainty in relation to key project milestones, especially the timing of ITE2 availability; and resourcing and budget considerations noting a number of participants have highlighted they are putting their CHES user readiness activities on hold until after a new timeline has been confirmed.
- **Share Registries** - Monthly bilateral meetings with share registries continue at an operational level and also in some cases at the executive level. Recent engagements have included key concerns around the immediate competing demands for resourcing especially in the absence of a confirmed timeline.

- 
- **Payment Providers** - ASX provided a project update at the most recent Equity Settlement Payment Provider Sub Committee (ESPPSC) meeting held on 16 August 2022.
  - **Approved Market Operators (AMOs)** – recent bilateral meetings included discussing timelines for participating in initial accreditation, Cboe’s platform transition arrangements, NSX’s platform upgrade, and the revised timing for consulting on the TAS legal terms for CHES replacement given the overall delay in the timeline.

### Project documentation

ASX continues to publish project documentation to prepare software providers and CHES users for various readiness activities as follows:

- In July 2022
  - Revision to the accreditation process to reflect the two phased approach
  - ITE2 onboarding page updates for CHES users
  - Updated scenarios for operational readiness
  - Assessment of implementation options for cutover
- In August 2022
  - New information to support software providers assisted testing and failover and recovery for AMQP
  - Accreditation checklists
  - Messaging accreditation scenarios
  - Supporting documentation for v1.3 code drop
- In September 2022 (targeted for release after this paper has been circulated to members)
  - New documentation for Ledger API contracts
  - Corporate actions ReferencePoint mapping

Full release notes for documentation published can be found [here](#).

### AGENDA ITEM 3B: ASSURANCE PROGRAM UPDATE

The Assurance program continues to track to plan. So far, 17 program assurance reviews out of 44 have been completed. These have resulted in 149 findings of which 22 remain open and are being actively monitored. An additional 27 reviews are scheduled, with 20 reviews aligned to key program milestones, and 7 reviews that are not dependent on program milestones. Findings from the Accenture Application Delivery Review will be tracked and reported through the Assurance Program.

The Assurance Program will be re-baselined in response to the replan of the CHES Replacement Program.

With respect to the additional Licence Condition reviews, EY’s third independent 6 monthly review is in progress. The scope includes a review of the Accenture Application Delivery Review Statement of Work (whether scope is fit for purpose); the status of remedial actions from the prior 6 month (June 22) review; assurance reviews and outcomes over the 6 month period; and the scope of other assurance activities over the replan, namely the EY Replan Review. The report is also expected to comment on the progress of the program’s replan and related assurance activities, noting these may not be concluded in time for the December reporting schedule. The December report is expected to be released early in the New Year.



<b>Committee</b>	Business Committee
<b>Agenda title</b>	<b>Regulatory Expectations</b>
<b>Item</b>	4a) and 4b)
<b>Purpose</b>	To provide the Business Committee with ASX's annual compliance reports pursuant to the Regulatory Expectations
<b>Meeting date</b>	5 October 2022
<b>Prepared by</b>	Equity Post Trade, Securities and Payments (Greg Hanlon) General Manager, Equity Post Trade, Securities and Payments (Katie McDermott) Chief Risk Officer (Hamish Treleven)

## COMPLIANCE REPORTS

The Regulatory Expectations for Conduct in Operating Cash Equity Clearing and Settlement Services in Australia (Regulatory Expectations) and ASX's Code of Practice, require ASX to publish annually:

- A report prepared by an external auditor on ASX's compliance with the Regulatory Expectations; and
- A cash equities clearing and settlement service developments report.

### Annual External Regulatory Expectations Audit

In the Regulatory Expectations, there is a requirement for ASX to commission an annual external audit by an independent assurance firm of its governance, pricing and access arrangements benchmarked against the Regulatory Expectations. PWC has conducted the sixth audit of ASX's compliance with the Regulatory Expectations. The assurance report concluded that:

*In our opinion, ASX has complied, in all materials respects, with the Regulatory Expectations as evaluated against the Compliance Framework for the year ended 30 June 2022.*

PWC will present its reasonable assurance assessment to ASX's Boards, and it has been provided to the regulators. The audit report is provided in Attachment A for the information of Business Committee members.

As a result of the audit, including the interviews with Business Committee members, PWC and ASX have agreed an action to respond to an issue raised. This is set out fully in the audit report that is attached, with a summary provided below.

### Summary of agreed action

Feedback or expectation	ASX action
<b>Transparent, non-discriminatory and fair and reasonable pricing of CS services</b>	
Some Business Committee members raised concerns that they weren't fully aware of their eligibility for discounts. We note that the schedule of fees published by ASX on its website includes descriptions of discounts, and further details of discounts are shared with ASX users by ASX on an individual basis.	ASX will communicate to members the discounts available and eligibility criteria.

---

Information regarding ASX's Cash Market Clearing and Settlement Revenue Sharing Scheme is published on page 3 of the Clearing and Settlement Schedule of Fees, and the continuation of the scheme and annual growth threshold is communicated via market notice annually.

ASX's Clearing and Settlement Schedule of Fees also describes one discount for a holder recordkeeping product code 04900105 (Holder/Holding Details Partial/Bulk Change of Participant). The description states that a 50% discount is available on incremental fees over \$40,000 (exclusive of GST) generated as a result of a large transfer of holdings. A large migration of HINs would be in most cases require the participant to engage with ASX to manage this event, and through this bilateral engagement ASX would communicate that the discount is available (where relevant) and eligibility criteria.

### **Annual Cash Equity Clearing and Settlement Services Developments Report**

In the Code of Practice, ASX committed to report annually on the cash equities clearing and settlement service developments and investment projects progressed during the year, and how the views of users were taken into consideration. This is the sixth report published since the Council of Financial Regulators released the Regulatory Expectations.

The annual cash equity clearing and settlement services developments report is provided in Attachment B.

### **ATTACHMENTS**

Attachment A Annual External Regulatory Expectations Audit

Attachment B Annual Cash Equity Clearing and Settlement Services Developments Report





# ***Independent assurance report on ASX Settlement Pty Limited and ASX Clear Pty Limited (ASX)’s compliance with the Regulatory Expectations for conduct in operating cash equity clearing and settlement services in Australia (the “Regulatory Expectations”) as represented in ASX’s Compliance Framework***

Dear Directors,

## ***Opinion***

We have been engaged by ASX Limited on its own behalf and on behalf of its subsidiaries ASX Operations Pty Ltd, ASX Settlement Pty Limited and ASX Clear Pty Limited (collectively referred to as the Client Entities, or ASX) to undertake a reasonable assurance engagement in relation to ASX’s compliance, in all material respects, for the year ended 30 June 2022, with:

- The Regulatory Expectations for the Conduct of Cash Equity Clearing and Settlement Services in Australia issued by the Council of Financial Regulators (CFR) in October 2016 and revised in September 2017 (the Regulatory Expectations) as represented in ASX’s Compliance Framework which comprises the ASX Code of Practice and related policies and procedures listed in Appendix B (together the Compliance Framework).

In our opinion, ASX has complied, in all material respects, with the Regulatory Expectations as evaluated against the Compliance Framework for the year ended 30 June 2022.

## ***Description and findings of the reasonable assurance procedures***

Appendix A to this report includes a description of the reasonable assurance procedures performed, detailed findings and agreed actions from those procedures. Appendix B contains ASX’s Compliance Framework and supporting documents.

## ***Basis for opinion***

We conducted our engagement in accordance with Standard on Assurance Engagements ASAE 3100 Compliance Engagements issued by the Auditing and Assurance Standards Board.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

## ***Responsibilities of the Directors and management of ASX***

The ASX Board has delegated matters to management, subject to financial and other limits. Our assurance engagement has been conducted on the basis that the Directors of ASX acknowledge and understand that they have ultimate responsibility. The Directors and management of ASX are responsible for:

---

*PricewaterhouseCoopers, ABN 52 780 433 757  
One International Towers Sydney, Watermans Quay, Barangaroo NSW 2000, GPO BOX 2650 Sydney NSW 2001  
T: +61 2 8266 0000, F: +61 2 8266 9999, [www.pwc.com.au](http://www.pwc.com.au)  
Level 11, 1PSQ, 169 Macquarie Street, Parramatta NSW 2150, PO Box 1155 Parramatta NSW 2124  
T: +61 2 9659 2476, F: +61 2 8266 9999, [www.pwc.com.au](http://www.pwc.com.au)*



- a) Identification of the Regulatory Expectations and the risks that threaten the Regulatory Expectations identified above being met.
- b) The compliance activities undertaken to meet the Regulatory Expectations.
- c) Identification and implementation of controls which will mitigate those risks that prevent the Regulatory Expectations being met and monitoring ongoing compliance.

### ***Our independence and quality control***

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, and apply Auditing Standard ASQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements in undertaking this assurance engagement.

### ***Our responsibility***

Our responsibility is to express an opinion, on ASX's compliance with the Regulatory Expectations, in all material respects, as evaluated against the Compliance Framework for the year ended 30 June 2022. ASAE 3100 requires that we plan and perform our procedures to obtain reasonable assurance about whether ASX has complied, in all material respects, with the Regulatory Expectations, as evaluated against the Compliance Framework for the year ended 30 June 2022.

An assurance engagement to report on ASX's compliance with the Regulatory Expectations involves performing procedures to obtain evidence about the compliance activity and controls implemented to meet the Regulatory Expectations. The procedures selected depend on our judgement, including the identification and assessment of risks of material non-compliance with the Regulatory Expectations, as evaluated against the Compliance Framework.

### ***Inherent limitations***

Because of the inherent limitations of an assurance engagement, together with the internal control structure, it is possible that fraud, error or non-compliance with compliance requirements may occur and not be detected. Additionally, there is a certain level of subjectivity within the subject matter as represented in the Regulatory Expectations.

A reasonable assurance engagement throughout the year ended 30 June 2022 does not provide assurance on whether compliance with the Regulatory Expectations will continue in the future.

### ***Matters relating to the electronic presentation of ASX's Compliance Framework***

This assurance report relates to the compliance of ASX with the Regulatory Expectations as represented in ASX's Compliance Framework for the year ended 30 June 2022 (compliance subject matter). The Client Entities are responsible for their website and its integrity, and we do not accept responsibility for any changes that may have occurred to the compliance subject matter information or ASX's Compliance Framework since they were presented on the Client Entities' website as at the date of this report. We have not been engaged to report on the integrity of this website. The assurance report refers only to ASX's Compliance Framework applicable as at the date of this report. It does not provide an opinion on any other information which may have been hyperlinked to/from ASX's Compliance Framework or to/from the Client Entities' website.



### ***Use of report***

Anyone accessing this report is taken to have acknowledged and agreed to the following:

This report has been prepared for use by the Directors, officers and employees of the Client Entities for the purpose of assisting ASX in addressing the Regulatory Expectations.

This report was prepared on the instructions of our client, ASX, in connection with certain of ASX's compliance activities. We have no knowledge or understanding of the circumstances or position of any other party. Our work was not planned or conducted having regard to the information any party may require regarding ASX's compliance activities, or the ways in which they may seek to make use of our report or the accompanying description of procedures and findings and we therefore make no representation concerning the appropriateness of this report or the accompanying description of procedures and findings for them. Except to the extent set out above, we performed our work and this report is prepared in accordance with the purpose and terms of our engagement by ASX and we accept no responsibility or liability to anyone else in connection with it. Anyone else who chooses to use or rely on our reports for their own individual purposes do so at their own risk.

This disclaimer applies:

- to the maximum extent permitted by law and, without limitation, to liability arising in negligence or under statute; and
- even if we consent to anyone other than ASX receiving or using this report or the accompanying description of procedures and findings.

*PricewaterhouseCoopers*

PricewaterhouseCoopers

By

A handwritten signature in black ink, appearing to read 'DC Chesler', with a horizontal line extending from the end.

Deanna Chesler  
Partner

Sydney  
13<sup>th</sup> September 2022



**Appendix A**

**Description and findings of the reasonable assurance procedures**

#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
1(a)	ASX should make an explicit public commitment to investing promptly and efficiently in the design, operation and development of the core CS (clearing and settlement) infrastructure for the Australian cash equity market, including the Clearing House Electronic Sub-register System (CHES) and any future replacement system. This commitment should be supported by governance processes that enable users to provide input on the setting of the investment strategy. Investments should ensure that, to the extent reasonably practicable, the performance, resilience, security and functionality of the core CS infrastructure meet the needs of users, recognising the diversity and differing needs of users. At a minimum, the core CS infrastructure should accommodate internationally accepted communication procedures and standards.	1. Examined the Code of Practice published on ASX’s website.	1. The Code of Practice includes an explicit public commitment: “ASX will invest in the ongoing operation and development of the core cash equities Clearing and Settlement infrastructure promptly and efficiently. Such investments will seek to meet the needs of users, recognising the diversity and differing needs of users”. ASX has committed to replacing CHES with a “secure and contemporary replacement system using global standards.”	Not applicable.
		2. Enquired with management about the governance process that allows Business Committee members to provide input into the strategy. Examined the minutes of ASX Clear Pty Limited and ASX Settlement Pty Limited Boards (together ASX CS Boards).	2. The governance process includes the Business Committee, a number of Working Groups (Connectivity and Integration; Implementation and Transition), focus groups and ad hoc public consultations. Business Committee papers include summaries (including attendees) of Working Group meetings and the public consultations. The ASX CS Boards receive a summary of the Business Committee meetings including recommendations made by the Business Committee members.	Not applicable.
		3. Examined the Business Committee minutes on a sample basis for the year ended 30 June 2022 as published on ASX’s website as well as the latest Business Committee Charter dated April 2019 for evidence of opportunities for members to provide input and ask questions.	3. The Business Committee Charter outlines the role of the Business Committee and the procedures for sharing agendas, supporting papers and minutes of meetings. We noted that in the minutes of the Business Committee sampled for testing, members were invited to provide input and ask questions.	Not applicable.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
		<p>4. Examined public documents to evidence ASX's explicit public commitment to the design, operation and development of the CHES replacement program.</p>	<p>4. We examined an Independent Expert Report on ASX's Assurance Program for the implementation of the CHES replacement program, dated 30 June 2022. The results of the Independent Expert Report indicated that ASX's Assurance Program in connection with the CHES replacement program continues to be fit for purpose, subject to the completion of two recommendations. We understand from management that one of these recommendations has been addressed and the other is currently being actively managed.</p> <p>A separate independent expert has also been appointed to provide a review over the new CHES application software. The results of this review are not yet available at the date of our report.</p>	<p>Not applicable.</p>
1(b)	<p>ASX should ensure that the membership of its user governance arrangements is representative of the user base of its CS services, and that members are able to have a strong input into the agenda and format of meetings or other user governance mechanisms and the setting of priorities.</p>	<p>1. Examined the composition of the Business Committee on ASX's website, considered the ASX's clearing and settlement customer base and assessed it against the Business Committee members' composition to identify how ASX considers different users' needs.</p>	<p>1. The Business Committee has 32 members, including 18 clearing and settlement participants, 2 ASX members, 6 independent industry associations representing clearing and settlement participants and custodians, 3 market operators, and 3 registry providers. Participants include large institutional brokers and smaller retail brokers.</p>	<p>Not applicable.</p>



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
		<p>2. Enquired about ASX's procedure to review the Business Committee composition on a periodic basis. Examined the minutes of the annual Business Committee membership review meeting.</p>	<p>2. The Business Committee composition is reviewed on an annual basis to ensure it is representative of ASX's user base. During the year, a registry provider was added as a member to the Business Committee on request. The changes were approved at the Business Committee membership review meeting which included final sign off by the Business Committee Chair.</p>	<p>Not applicable.</p>
		<p>3. Obtained and examined on a sample basis the emails sent to Business Committee members with the agenda, supporting papers and minutes of Business Committee meetings.</p>	<p>3. For the sampled Business Committee meetings examined, the Business Committee meeting agendas and associated papers were sent to Business Committee members, on average, 7 days before the date of the Business Committee meeting. This is consistent with the Business Committee Charter. Management informed us that the Business Committee members can use this notice period to provide input into the agenda.</p> <p>The agendas we examined included a standing item for discussion of previous meeting minutes with Business Committee members.</p> <p>We examined a sample email that was sent to the Business Committee Chair from a member, requesting to add an agenda item for an upcoming meeting. We noted that the agenda item was ultimately excluded from the final agenda as it did not relate to the roles and responsibilities of the Business Committee. A separate meeting however was held between ASX and the Business Committee member to discuss the matter.</p>	<p>Not applicable.</p>



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
		4. Interviewed a sample of Business Committee members and enquired about whether they had an opportunity to provide input into the agenda of Business Committee meetings.	4. A sample of Business Committee members were interviewed and noted they were invited to suggest additional agenda items for upcoming Business Committee meetings. Business Committee members also noted that feedback could be provided through other forums, including industry working groups, bi-lateral conversations and public consultations.	Not applicable.
1(c)	ASX should demonstrate that it has had regard to the views of members in setting the terms of reference for the external audits of its governance, pricing and access arrangements carried out in accordance with the Regulatory Expectations. This may take the form of members' non-objection of the proposed terms of reference. These terms of reference may change following any review of the Regulatory Expectations.	1. Examined the Terms of Reference and the Business Committee minutes dated July 2022.	1. The Regulatory Expectations External Assurance Report Terms of Reference were presented to the Business Committee for their comments during the July 2022 Business Committee meeting and were included in the Business Committee papers sent to members ahead of the meeting.	Not applicable.
		2. Interviewed a sample of Business Committee members and enquired about whether they had an opportunity to comment on the proposed terms of reference and service for the assurance engagement.	2. A sample of Business Committee members were interviewed and noted that the proposed terms of reference and service for the assurance engagement were presented to them during the year. The responses obtained from Business Committee members and the minutes of the July 2022 meeting indicated that there were no objections to the terms of reference.	Not applicable.
1(d)	ASX should maintain accountability arrangements that provide for regular public attestations as to the effectiveness of its interactions with users. For example, the following arrangements would be appropriate: (i) ASX's user governance mechanisms operate on a 'comply or explain' basis; that is, the relevant Board would take actions in accordance	1. Examined a sample of Business Committee member recommendations from Business Committee meeting minutes and assessed if they were addressed in subsequent Business Committee meeting minutes.	1. A recommendation is defined by the Charter as a recommendation to the Clearing and Settlement Boards that has a broad consensus of those members present at the relevant Business Committee meeting. There were no formal recommendations that met this definition during the period.	Not applicable.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
	<p>with recommendations from the user governance mechanisms, or else explain why such actions had not been taken.</p> <p>(ii) ASX report, on at least an annual basis, the service developments and investment projects that it has progressed and how it has taken into consideration the views of users.</p>	<p>2. Interviewed a sample of Business Committee members and enquired about:</p> <p>i) whether they have made any recommendations to the Business Committee and if so, if they were acted on or explained.</p> <p>ii) their perception of the effectiveness of ASX's public attestations on the progress of the CHES replacement program.</p>	<p>2. i) A sample of Business Committee members were interviewed and noted feedback had been shared with ASX at the Business Committee meetings, and outside of the Business Committee meetings. ASX was responsive to feedback that was provided by members.</p> <p>ii) A sample of Business Committee members were interviewed and noted that the extent of the delays to the CHES replacement program, announced on 3 August 2022, were not anticipated based on the public attestations made by ASX in the lead up to 3 August 2022, and the messaging provided at the 13 July 2022 Business Committee meeting.</p> <p>Our review of public CHES replacement program updates issued by ASX in the lead up to the 3 August 2022 announcement, as well as the CHES replacement program update presented in the 13 July 2022 Business Committee meeting found the public attestations indicated an expected delay to the April 2023 go-live date, however the extent of the delay was not announced until 3 August 2022. We understand from ASX that the announcement was made as soon as reasonably possible, to meet its continuous disclosure obligations.</p>	Not applicable.
1(e)	<p>ASX should formally commit to retaining a Board structure for ASX Clear and ASX Settlement that comprises a minimum of 50 per cent of non-executive directors that are also independent of ASX Limited, and where a subset of these independent directors can form a quorum.</p>	<p>1. Examined the Code of Practice.</p>	<p>1. The Code of Practice includes an explicit public commitment to retain a Board structure for ASX Clear Pty Limited and ASX Settlement Pty Limited with a minimum 50% of non-executive directors that are also not directors of ASX Limited. The Code of Practice also provides that ASX ensures non-executive directors can form a quorum to be able to consider competitively sensitive information provided by another market operator.</p>	Not applicable.





#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
		2. Examined the composition and resumes of ASX Limited, ASX Clear Pty Limited and ASX Settlement Pty Limited directors as published on ASX's website.	<p>2. The ASX Clear Pty Limited and ASX Settlement Pty Limited Boards comprise at least 50% non-executive directors.</p> <p>As at the date of our report, the three independent non-executive directors that are not directors of ASX Limited are Stephen Knight (Chairman), Adrian Todd, and Carolyn Colley. The other three directors that are directors of ASX Limited are Ken Henry (Independent Non-Executive Director), Peter Marriott (Independent Non-Executive Director), and Helen Lofthouse (Chief Executive Officer). We note that Helen Lofthouse was appointed as Director on 17 August 2022, Her predecessor was Dominic Stevens who held the position as Director during the year until 31 August 2022.</p>	Not applicable.
		3. Examined ASX's Board Charter as published on ASX's website.	3. The ASX Clearing and Settlement Boards Charter was updated on 6 May 2022. No significant changes were made to the charter. The charter states that the ASX Clear and ASX Settlement Boards shall comprise at least 50% non-executive directors who are not also directors of ASX Limited. ASX Clear and ASX Settlement shall also ensure that a quorum can be constituted by directors who are not also directors of ASX Limited, which is in accordance with the Regulatory Expectations.	Not applicable.
		4. Examined a sample of ASX's Boards meeting minutes.	4. ASX's directors discuss at each Board meeting individual director's interests and potential conflicts.	Not applicable.
1(f)	ASX should establish governance structures and reporting lines at the management and operational levels that promote access to its CS services on commercial, transparent and non-discriminatory terms.	1. Enquired about ASX's governance and reporting lines for clearing and settlement services.	1. Enterprise Compliance is headed by a General Manager who reports to the Chief Risk Officer, who is responsible for reporting to the Board. Equity Post-Trade Services, and Securities and Payments are headed by General Managers who report to the Group Executive of Securities and Payments, who is responsible for reporting to the Board.	Not applicable.

#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
	These arrangements should ensure that the interests of users are upheld in accordance with Regulatory Expectation 3. This may be demonstrated, for example, through the key performance indicators set for relevant management.	2. Enquired with management and examined a sample of ASX staff balanced scorecards (key performance indicators).	2. Employee balanced scorecards promote access to its CS services on commercial, transparent and non-discriminatory terms.	Not applicable.
2(a)	ASX should ensure that all prices of individually unbundled CS services, including rebates, revenue-sharing arrangements and discounts applicable to the use of these services: (i) are transparent to all users of the services (ii) do not discriminate in favour of ASX-affiliated entities, except to the extent that the efficient cost of providing the same service to another party was higher (iii) are made available to stakeholders in a form such that the impact of pricing changes can be readily understood.	1. Examined the Clearing, Settlement and Issuer Administration Service Schedule of Fees dated 29 November 2021 and the Clearing and Settlement Schedule of Fees dated 1 June 2022.	1. ASX prices are transparent as they are published on the website. The Clearing, Settlement and Issuer Administration Service Schedule of Fees, dated 29 November 2021, was bifurcated in June 2022 to split the pricing for clearing and settlement services and issuer administration services into separate fee schedules. No changes were made to the pricing of clearing and settlement services. The detail of the fees for ASX services is also included in the invoices sent to customers.	Not applicable.
		2. Selected a sample of ASX invoices issued to various users to test whether clearing and settlement prices charged are in accordance with prices published on ASX's website for the year ended 30 June 2022.	2. The prices for the clearing and settlement services as included in the sample of invoices tested were consistent with the prices published on ASX's website within the Clearing and Settlement Schedule of Fees, effective from 1 July 2021 to 30 June 2022.	Not applicable.
		3. Interviewed a sample of Business Committee members and enquired about whether the prices of individually unbundled clearing and settlement services, including rebates, revenue-sharing arrangements and discounts have been made available to them and are understandable.	3. Some Business Committee members raised concerns that they weren't fully aware of their eligibility for discounts. We note that the schedule of fees published by ASX on its website includes descriptions of discounts, and further details of discounts are shared with ASX users by ASX on an individual basis.	ASX will communicate to members the discounts available and eligibility criteria.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
2(b)	ASX should maintain an appropriate method for determining the prices of its CS services so as to generate expected revenue that reflects the efficient costs of providing those services, including a return on investment commensurate with the commercial risks involved.	1. Examined the Enterprise Wide Pricing Framework dated January 2017 to ensure that it includes documentation on the method for determining the prices of its clearing and settlement services.	1. ASX's method to determine the prices of its clearing and settlement services is documented in its Enterprise Wide Pricing Framework (EWPF). There have been no changes to the EWPF during the period.	Not applicable.
		2. Examined the 2021 and 2022 cash market clearing and settlement management income statement audit reports to inspect whether these are unqualified.	2. ASX cash market clearing and settlement management income statement is subject to an annual external audit under Australian Auditing Standards. PwC issued unqualified audit reports for the cash market clearing and settlement management income statement for the years ended 30 June 2021 and 30 June 2022.  The notes to these audited reports include ASX methodology for the internal cost allocation and transfer pricing policy between ASX group entities for clearing and settlement of cash equities in Australia.	Not applicable.
		3. Examined the latest independent benchmarking report (2016) issued by Oxera on ASX clearing and settlement services' costs.	3. In 2014 ASX commissioned Oxera, an independent economics consultancy firm, to benchmark ASX clearing and settlement services' costs against the costs of using the services provided by financial market infrastructure providers in other countries. The overall conclusion was that "when taking into account the scale of trading, the costs of post-trading services in Australia are in line with the costs of similar services provided in financial centres of a comparable size". An update to this report was commissioned in 2016 and the findings were consistent with the 2014 report.	Not applicable.
2(c)	ASX should make an explicit public commitment that any changes in the prices of its CS services will not be	1. Examined the Code of Practice published on ASX's website.	1. The Code of Practice includes an explicit public commitment that "ASX Clear and ASX Settlement will not implement price changes with the purpose of materially shifting revenue streams between	Not applicable.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
	implemented in a way that would materially shift revenue streams between aspects of its trading, clearing and settlement services.		other trading, clearing and settlement services".	
		2. Examined the Clearing, Settlement and Issuer Administration Service Schedule of Fees dated 29 November 2021 and the Clearing and Settlement Schedule of Fees dated 1 June 2022.	2. There were no changes to clearing and settlement prices during the year from 1 July 2021 to 30 June 2022.	Not applicable.
		3. Examined the 2021 and 2022 cash market clearing and settlement management income statement audit reports to inspect whether these are unqualified.	3. Refer to section 2(b)2 above for the results of PwC's audit of the cash market clearing and settlement management income statement.	Not applicable.
2(d)	ASX should publish any increases in its CS fee schedules along with an attestation justifying their reasonableness. For the most material such increases, this attestation would be expected to refer to relevant metrics and other evidence, such as the calculated return on equity, benchmarked price lists, or an independent review of how ASX's cash equity CS fees compare with those of CS facilities in other markets.	1. Examined the Clearing, Settlement and Issuer Administration Service Schedule of Fees dated 29 November 2021 and the Clearing and Settlement Schedule of Fees dated 1 June 2022.	1. There were no changes to clearing and settlement prices during the year from 1 July 2021 to 30 June 2022.	Not applicable.
		2. Interviewed a sample of Business Committee members and enquired about pricing changes and whether they were supported by reasonable explanations in line with regulatory expectations.	2. A sample of Business Committee members were interviewed and confirmed there were no pricing changes during the year relating to clearing and settlement services. Future changes were discussed in relation to issuer services however this is outside the scope of clearing and settlement services.	Not applicable.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
		3. Enquired of management in relation to ASX's future pricing methodology for the CHES replacement system.	3. No additional details in relation to pricing for the new CHES replacement system have been provided since the previous year. ASX has committed to keeping the fees for like-for-like clearing and settlement services consistent with the current fees. ASX noted the pricing of clearing and settlement services is subject to a process of review by Regulatory Agencies before it can be shared with Business Committee members and clearing and settlement users.	Not applicable.
2(e)	ASX should maintain an appropriate model for the internal allocation of costs, including the cost of allocated capital, as well as policies to govern the transfer of prices between the relevant ASX Group entities. Compliance with the model and policies would be expected to be subject to internal audit review. The model and policies should be based on reasonable cost allocation principles. For example: (i) where possible, costs should be directly allocated to the service(s) which give rise to those costs (ii) shared costs should be allocated based on appropriate and transparent metrics.	1. Examined ASX's internal cost allocation and transfer pricing policy between ASX group entities for clearing and settlement of cash equities in Australia.	1. ASX's internal cost allocation and transfer pricing policy is published on ASX's website and includes ASX's internal cost allocation and transfer pricing policy between ASX group entities for clearing and settlement of cash equities in Australia.	Not applicable.
		2. Examined the 2021 and 2022 cash market clearing and settlement management income statement audit reports to inspect whether these are unqualified.	2. Refer to section 2(b)2 above for the results of PwC's audit of the cash market clearing and settlement management income statement.	Not applicable.
2(f)	ASX should negotiate commercially and in good faith with unaffiliated market operators and CS facilities regarding fees and other	1. Enquired with management about extensions to existing services entered into during the year.	1. There have been no new negotiations in relation to AMO access in the period.	Not applicable.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
	financial contributions charged for any extensions to its monopoly CS services, and in particular those provided under the existing Trade Acceptance Service and the Settlement Facilitation Service.	2. Examined correspondence with Approved Market Operators (AMO) who requested Trade Acceptance Service (TAS) or Settlement Facilitation Service (SFS) access during the period.	2. There were no new TAS or SFS requests during the period. Fees and other financial contributions charged for TAS and SFS access have been clearly communicated to AMOs.	Not applicable.
		3. Interviewed a sample of Business Committee members and enquired about the TAS and SFS onboarding process.	3. No concerns were raised with respect to fee negotiations for TAS or SFS access.	Not applicable.
3(a)	ASX should have objectives for its CS services that include an explicit public overarching commitment to supporting access to its CS services on commercial, transparent and non-discriminatory terms. ASX should maintain standard user terms and conditions that are consistent with these objectives, taking into account the legitimate business interests of ASX and any parties seeking access to its CS services.	1. Examined the Code of Practice as published on ASX's website.	1. The Code of Practice includes the following comment: "ASX is committed to providing access to clearing and settlement services on transparent and non-discriminatory terms, and will respond to requests for access in a fair and timely manner".	Not applicable.
		2. Examined ASX's TAS and SFS terms and conditions as published on ASX's website.	2. TAS and SFS agreements contain standard user terms and conditions that provide for ASX to grant non-discriminatory access to its clearing and settlement services. From examining the TAS and SFS terms and conditions, we noted that it is:  i) Of comparable quality to the services provided to ASX. ii) In accordance with applicable laws, rules and procedures. iii) Without discriminating in relation to clearing and settlement participants on the basis of where the trade was effected or reported.	Not applicable.
		3. Examined ASX's Operating Rules as published on ASX's website.	3. ASX Operating Rules incorporate the standard terms and conditions applicable to all users of ASX's clearing and settlement services.	Not applicable.

#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
3(b)	Service level agreements should commit ASX to providing access to its CS services for unaffiliated market operators and CS facilities on operational and commercial terms and service levels that are materially equivalent to those that apply to ASX as a market operator or CS facility.	1. Examined ASX's TAS and SFS terms and conditions as published on ASX's website and listed in section 3(a).	1. Refer to section 3(a)2.	Not applicable.
		2. Interviewed a sample of Business Committee members and enquired about whether ASX had adhered to their published protocols i.e. providing access to unaffiliated market operators and CS facilities on operational and commercial terms and service levels that are materially equivalent to those that apply to ASX as a market operator or CS facility.	2. A sample of Business Committee members were interviewed and noted that access to CS services had been provided on operational and commercial terms that were materially equivalent to those that apply to ASX.	Not applicable.
3(c)	ASX should publish and adhere to protocols for dealing fairly and in a timely manner with requests for access. These protocols should include reasonable timeframes for responding to enquiries and arrangements for dealing with disputes. Nothing in the protocols should affect either party's right to refer a dispute to arbitration by the ACCC once the arbitration regime is implemented.	1. Examined ASX's Operating Rules, TAS and SFS terms and conditions as published on ASX's website and listed in section 3(a).	1. Refer to section 3(a) above for review of the standard user terms and conditions that provide for ASX to grant non-discriminatory access to its clearing and settlement services.	Not applicable.
		2. Examined TAS and SFS agreements as published on ASX's website to assess whether the template includes a protocol for dealing with disputes.	2. Clause 43 of the Trade Acceptance Service Legal Terms and Clause 13 of the Settlement Facilitation Service Agreement sets out dispute resolution processes.	Not applicable.
		3. Examined AMO and ALMO access request procedures as published on ASX's website.	3. Individual access request procedure documents for AMOs and ALMOs set out target timeframes for ASX to respond to access requests from AMOs and ALMOs.	Not applicable.
		4. Examined ASX Cash Equities Clearing and Settlement Code of Practice - Access Protocols as published on ASX's website.	4. ASX Cash Equities Clearing and Settlement Code of Practice - Access Protocols include target timeframes for dealing with access requests as well as dispute resolution arrangements.	Not applicable.



#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
		5. Interviewed a sample of Business Committee members and enquired about whether the ASX had adhered to their published protocols i.e. dealing fairly and in a timely manner in relation to requests for access to cash equity clearing and settlement services, where relevant.	5. Refer to section 3(e)3.	Not applicable.
3(d)	ASX should make an explicit commitment to ensuring that any investments in the systems and technology that support its cash equity CS services do not raise barriers to access from unaffiliated market operators or CS facilities. Announcements of any material investments in the systems and technology that support ASX's cash equity CS services should be accompanied by a public attestation that those investments will be designed in a way that does not raise such barriers.	1. Examined the Code of Practice as published on ASX's website.	1. The Code of Practice includes a commitment by ASX to ensure "its investments in the systems and technology that support its cash equities clearing and settlement infrastructure are not designed in such a way as to raise barriers to access to other market operators or clearing facilities".	Not applicable.
		2. Examined ASX's website for evidence of stakeholder engagement in relation to the development of and connectivity to the new CHES replacement system.	2. Unaffiliated AMOs and CS facilities can provide feedback on the CHES replacement program through a range of stakeholder engagement groups. Any concerns with respect to future access to the CHES replacement system can be raised through these groups, as well as public consultations and bilateral discussions. A separate working group for Connectivity and Integration is also available to AMOs and other CS users.	Not applicable.
3(e)	ASX should retain, and periodically review, its standards for the handling of sensitive or confidential information. Consistent with governance arrangements that promote access on commercial, transparent and non-discriminatory terms (see Regulatory Expectation 1(e)),	1. Reviewed the Conflict Management Policy, as published on ASX's website.	1. The Conflict Management Policy includes various measures that ASX has in place to ensure that conflicts of interest are appropriately managed. These measures include requirements relating to ASX Clear and ASX Settlement Board arrangements, and the Information Handling Standards in place to manage confidential or competitively sensitive information of unaffiliated AMOs.	Not applicable.





#	Regulatory Expectation	Procedures	Detailed Results	Agreed Action
	<p>these arrangements should ensure that conflict sensitive information pertaining to the strategic plans of unaffiliated market operators or CS facilities is handled sensitively and confidentially, and cannot be used to advance the interests of ASX as a market operator or CS facility.</p>	<p>2. Reviewed the Information Handling Standard published on ASX's website.</p>	<p>2. ASX's Information Handling Standard provides for:</p> <ul style="list-style-type: none"> <li>i) Protection of AMO's confidential and sensitive information.</li> <li>ii) Access to sensitive information is restricted to appropriate ASX employees.</li> </ul>	<p>Not applicable.</p>
		<p>3. Interviewed a sample of Business Committee members and enquired about whether ASX had adhered to their published protocols for the handling of conflict sensitive information.</p>	<p>3. A sample of Business Committee members were interviewed, and one member noted perceived discriminatory treatment in relation to a conflict sensitive matter. The concerns raised by the member included the timing of ASX responses and the handling of information that was relevant to the strategic plans of the member.</p> <p>We obtained evidence that ASX had adhered to its internal protocols on the handling of conflict sensitive information. Such protocols included reporting the matter to the CS Board and the regulators (the Australian Securities and Investments Commission and the Reserve Bank of Australia), as well as meeting the requirements of the ASX Clearability Policy.</p>	<p>Not applicable.</p>



## Appendix B

### ASX's Compliance Framework and supporting documents

The table below includes the policies, procedures and other documents which we referred to within our report that form part of the Compliance Framework.

Compliance Framework Supporting Document	Date	Hyperlink
13 July 2022 Draft Business Committee Meeting Minutes	July 2022	Not available on ASX's website at the date of our report
2014 Oxera report: 'Global cost benchmarking of cash equity clearing and settlement services'	June 2014	<a href="https://www2.asx.com.au/content/dam/asx/about/Global_cost_benchmarking_of_cash_equity_clearing_settlement_services_Final_20Jun14.pdf">https://www2.asx.com.au/content/dam/asx/about/Global_cost_benchmarking_of_cash_equity_clearing_settlement_services_Final_20Jun14.pdf</a>
2016 Oxera report: 'Global cost benchmarking: review of price lists'	April 2016	Not available on ASX's website
ASX Boards' members details	As applicable as at the date of this report	<a href="https://www2.asx.com.au/about/our-board-and-management/asx-clearing-and-settlement-boards">https://www2.asx.com.au/about/our-board-and-management/asx-clearing-and-settlement-boards</a>
ASX Business Committee Charter	April 2019	<a href="https://www2.asx.com.au/content/dam/asx/about/charter-of-the-business-committee.pdf">https://www2.asx.com.au/content/dam/asx/about/charter-of-the-business-committee.pdf</a>
ASX Business Committee Meetings - agendas, papers, minutes and Business Committee reports to the ASX Boards	Various version dates as applicable as at the date of this report	<a href="https://www2.asx.com.au/about/regulation/clearing-and-settlement-of-cash-equities-in-australia/stakeholder-engagement/business-committee">https://www2.asx.com.au/about/regulation/clearing-and-settlement-of-cash-equities-in-australia/stakeholder-engagement/business-committee</a>
ASX Business Committee Role and Membership details	As applicable as at the date of this report	<a href="https://www2.asx.com.au/about/regulation/clearing-and-settlement-of-cash-equities-in-australia/stakeholder-engagement/business-committee">https://www2.asx.com.au/about/regulation/clearing-and-settlement-of-cash-equities-in-australia/stakeholder-engagement/business-committee</a>
ASX Cash Equities Clearing and Settlement Code of Practice - Access Protocols	October 2020	<a href="https://www2.asx.com.au/content/dam/asx/about/cop-access-protocols.pdf">https://www2.asx.com.au/content/dam/asx/about/cop-access-protocols.pdf</a>
ASX Clearability extract from Clearing Risk Policy	April 2022	Not available on ASX's website
ASX Clearing and Settlement Boards Charter	May 2022	<a href="https://www2.asx.com.au/content/dam/asx/about/cs-boards-charter.pdf">https://www2.asx.com.au/content/dam/asx/about/cs-boards-charter.pdf</a>
ASX Clearing and Settlement Schedule of Fees	June 2022	<a href="https://asxonline.com/content/dam/asxonline/public/documents/schedule-of-fees/asx-clearing-and-settlement-schedule-of-fees.pdf">https://asxonline.com/content/dam/asxonline/public/documents/schedule-of-fees/asx-clearing-and-settlement-schedule-of-fees.pdf</a>
ASX Clearing, Settlement and Issuer Administration	November 2021	<a href="https://asxonline.com/content/dam/asxonline/public/documents/schedule">https://asxonline.com/content/dam/asxonline/public/documents/schedule</a>



Compliance Framework Supporting Document	Date	Hyperlink
Services Schedule of Fees		<a href="#">-of-fees/clearing-settlement-and-issuer-administration-services-schedule-of-fees.pdf</a>
ASX Code of Practice	May 2017	<a href="https://www2.asx.com.au/content/dam/asx/about/asx-code-of-practice.pdf">https://www2.asx.com.au/content/dam/asx/about/asx-code-of-practice.pdf</a>
ASX Conflict Management Policy	October 2020	<a href="https://www2.asx.com.au/content/dam/asx/about/policies/conflict-management-policy.pdf">https://www2.asx.com.au/content/dam/asx/about/policies/conflict-management-policy.pdf</a>
ASX correspondence with participants and internal meeting packs in relation to the conflict sensitive matter discussed in section 3(e)	Various dates	Not available on ASX's website
ASX Enterprise Wide Pricing Framework	January 2017	Not available on ASX's website
ASX Information Handling Standard – Settlement Facilitation Service	September 2020	<a href="https://www2.asx.com.au/content/dam/asx/about/sfs-information-handling-procedure.pdf">https://www2.asx.com.au/content/dam/asx/about/sfs-information-handling-procedure.pdf</a>
ASX Information Handling Standard – Trade Acceptance Service	September 2020	<a href="https://www2.asx.com.au/content/dam/asx/about/tas-information-handling-standard.pdf">https://www2.asx.com.au/content/dam/asx/about/tas-information-handling-standard.pdf</a>
ASX internal cost allocation and transfer pricing policy between ASX group entities for clearing and settlement of cash equities in Australia	As applicable as at the date of this report	<a href="http://www.asx.com.au/cs/documents/cost_allocation_policy.pdf">http://www.asx.com.au/cs/documents/cost_allocation_policy.pdf</a>
ASX Operating Rules	Various dates	<a href="https://www2.asx.com.au/about/regulation/rules-guidance-notes-and-waivers">https://www2.asx.com.au/about/regulation/rules-guidance-notes-and-waivers</a>
ASX Process for Amending Rules, Procedures, Determinations, Guidance Notes and Practice Notes	June 2022	Not available on ASX's website
ASX Settlement Facilitation Service (SFS) Agreement	March 2014	<a href="https://www2.asx.com.au/content/dam/asx/about/Settlement_Facilitation_Service_Agreement.pdf">https://www2.asx.com.au/content/dam/asx/about/Settlement_Facilitation_Service_Agreement.pdf</a>
ASX Trade Acceptance Service (TAS) – Legal Terms	October 2021	<a href="https://www2.asx.com.au/content/dam/asx/about/final-trade-acceptance-service-legal-terms.pdf">https://www2.asx.com.au/content/dam/asx/about/final-trade-acceptance-service-legal-terms.pdf</a>
ASX Trade Acceptance Service and related Product Services Review of Legal Terms	February 2021	<a href="https://www2.asx.com.au/about/regulation/public-consultations">https://www2.asx.com.au/about/regulation/public-consultations</a>
Audited Cash Market Clearing and Settlement Management Income Statement - 2021	June 2021	<a href="https://www2.asx.com.au/about/regulation/clearing-and-">https://www2.asx.com.au/about/regulation/clearing-and-</a>



Compliance Framework Supporting Document	Date	Hyperlink
		<a href="#">settlement-of-cash-equities-in-australia/financial-statements</a>
Audited 'Cash Market Clearing and Settlement Management Income Statement' - 2022	June 2022	Not available on ASX's website
CHES Replacement AMO Overview	Various dates	<a href="https://asxchessreplacement.atlassian.net/wiki/spaces/CSP/pages/106660878/AMO+Overview">https://asxchessreplacement.atlassian.net/wiki/spaces/CSP/pages/106660878/AMO+Overview</a>
CHES Replacement Updates: CHES Replacement Project Update: March 2022 CHES Replacement Project Update: May 2022 CHES Replacement Project Update: August 2022	Various dates	<a href="https://www2.asx.com.au/markets/clearing-and-settlement-services/ches-replacement">https://www2.asx.com.au/markets/clearing-and-settlement-services/ches-replacement</a> <a href="https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ches-replacement-project-update-220328.pdf">https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ches-replacement-project-update-220328.pdf</a> <a href="https://www2.asx.com.au/content/dam/asx/documents/unlinked-docs/ches-replacement-project-update.pdf">https://www2.asx.com.au/content/dam/asx/documents/unlinked-docs/ches-replacement-project-update.pdf</a> <a href="https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ches-replacement-project-update-august-2022.pdf">https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ches-replacement-project-update-august-2022.pdf</a>
CHES Replacement: Confirmed changes to netting and settlement workflow	June 2021	<a href="https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ches-replacement-response-to-consultation-feedback-confirmed-changes-to-netting-and-settlement-workflow.pdf">https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ches-replacement-response-to-consultation-feedback-confirmed-changes-to-netting-and-settlement-workflow.pdf</a>
CHES Replacement: Proposed changes to netting and settlement workflow consultation paper	February 2021	<a href="https://www2.asx.com.au/content/dam/asx/participants/clearing-and-settlement/ches-replacement/stakeholder-communications/asx-ches-replacement-project-consultation-paper-proposed-changes-to-netting-and-settlement-workflow.pdf">https://www2.asx.com.au/content/dam/asx/participants/clearing-and-settlement/ches-replacement/stakeholder-communications/asx-ches-replacement-project-consultation-paper-proposed-changes-to-netting-and-settlement-workflow.pdf</a>
CHES Replacement: Summary of stakeholder engagement	Various dates	<a href="https://www2.asx.com.au/markets/clearing-and-settlement-services/ches-replacement/stakeholder-engagement">https://www2.asx.com.au/markets/clearing-and-settlement-services/ches-replacement/stakeholder-engagement</a>
Independent assessment of ASX's Assurance Program for its Implementation of the CHES Replacement Program (Six Monthly Progress Report) by Ernst and Young	June 2022	<a href="https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ey-ches-assurance-program-review-30-june-2022.pdf">https://www2.asx.com.au/content/dam/asx/markets/clearing-and-settlement-services/ey-ches-assurance-program-review-30-june-2022.pdf</a>
Media Release: CHES Replacement Schedule Delay Independent Review	August 2022	<a href="https://www2.asx.com.au/content/dam/asx/about/media-releases/2022/29-03-august-ches-replacement-schedule-delay-independent-review.pdf">https://www2.asx.com.au/content/dam/asx/about/media-releases/2022/29-03-august-ches-replacement-schedule-delay-independent-review.pdf</a>
Media Release: Delay to the ASX CHES Replacement Project and Independent Review, media release by the Reserve Bank of Australia	August 2022	<a href="https://www.rba.gov.au/media-releases/2022/mr-22-22.html">https://www.rba.gov.au/media-releases/2022/mr-22-22.html</a>



<b>Compliance Framework Supporting Document</b>	<b>Date</b>	<b>Hyperlink</b>
Procedures for Access Requests by Approved Listing Market Operators (ALMOs)	October 2020	<a href="https://www2.asx.com.au/content/dam/asx/about/almo-procedures-for-access-requests.pdf">https://www2.asx.com.au/content/dam/asx/about/almo-procedures-for-access-requests.pdf</a>
Procedures for Access Requests by Approved Market Operators (AMOs)	October 2020	<a href="https://www2.asx.com.au/content/dam/asx/about/amo-procedures-for-access-requests-2020.pdf">https://www2.asx.com.au/content/dam/asx/about/amo-procedures-for-access-requests-2020.pdf</a>
Regulator Correspondence	Various dates	Not available on ASX's website
Regulatory Expectations	September 2017	<a href="https://www.cfr.gov.au/publications/policy-statements-and-other-reports/2016/regulatory-expectations-policy-statement/pdf/policy-statement.pdf">https://www.cfr.gov.au/publications/policy-statements-and-other-reports/2016/regulatory-expectations-policy-statement/pdf/policy-statement.pdf</a>
Regulatory Expectations External Assurance Report Terms of Reference	July 2022	Not available on ASX's website



# Cash Equity Clearing & Settlement Services Developments

**Annual Report**

September 2022

# Contents

Executive Summary	3
<b>1. CHES Replacement project</b>	<b>3</b>
1.1. Project progress .....	3
1.2. Timeline and replan activities .....	4
1.3. Stakeholder engagement .....	4
1.4. Project documentation .....	4
1.5. Rule amendments .....	5
1.6. Looking forward .....	5
<b>2. Other service enhancements</b>	<b>5</b>
2.1. Enhancement 1 – TAS and Product Services Legal terms review .....	6
2.2. Enhancement 2 – Enhancement to TAS – reporting for AMOs .....	6
2.3. Enhancement 3 – CHES Holding Statements .....	6
<b>3. Future planned enhancements and other initiatives</b>	<b>7</b>
3.1. TAS and Product Services Legal terms review for CHES replacement ...	7

# Cash Equity Clearing & Settlement Service Developments

## Annual Report

September 2022

### Executive Summary

This annual report has been prepared to provide an overview of the service developments and investment projects ASX has undertaken during the 12 month period to 30 June 2022 (FY22) for cash equity clearing and settlement services.

The most significant investment project continues to be CHES Replacement - the project to replace the CHES system using distributed ledger technology (DLT). A summary of the key FY22 activities for this project are provided in Section 1 of this report.

In addition, a number of other important investments to core cash equity clearing and settlement services have been delivered during the period, as summarised in Section 2, including the initiative to introduce an electronic delivery option for CHES Holding Statements. Planned future enhancements are outlined in Section 3.

## 1. CHES Replacement project

### 1.1. Project progress

The project has advised a delay to the customer readiness activities and the implementation date. The project is in the process of replanning the milestones and has engaged Accenture to provide an independent third party assessment of the remaining application deliverables.

Progress made through FY22 across the program is set out below.

Delivery of code and functionality in the Customer Development Environment (CDE) was completed with software release 10 (CDE 10) on 27 September 2021. This allowed software developers to complete development before being progressively transitioned from CDE into Industry Test Environment 1 (ITE1) in readiness for technical accreditation. The CDE environment was subsequently decommissioned following the transition of software providers to ITE1, marking a key milestone for the program.

ITE1 opened in November 2021, allowing testing to commence in readiness for technical accreditation. Participation and testing has been strong throughout the reporting period. Although outside of this reporting period, ITE1 users have successfully tested 100% of released functionality, with ASX continuing to provide support to ensure successful testing and development. Additionally, the program marked a key milestone with the third major version release of software (version 1.3) into ITE1, which implemented increased performance, stability and some functional changes.

Significant progress has been made across the market to clean up HIN exceptions and ensure compliance with ASX data attributes before migrating to the CHES replacement system. ASX would like to thank all participants involved. Around 70% of the reported HIN data exceptions were remediated by CHES participants in FY22, and 16 participants removed all of their exceptions. This outcome was achieved through updates to the client registration data to ensure compliance with ASX's CHES account guidelines or the cancellation of the affected HINs. Around 169,000 dormant client HINs were cancelled in FY22 as part of ASX's fee amnesty on bulk cancellations. This initiative ensures CHES participants move to the CHES replacement system with clean client account data.



## 1.2. Timeline and replan activities

A market [announcement](#) and communication on 11 May 2022 to CHESStakeholders confirmed April 2023 for go-live is no longer viable. The decision reflected the delay to the remaining delivery of application software.

A subsequent [announcement](#) was made outside of this reporting period (3 August 2022) to confirm that ASX does not expect the go-live date for the CHESSt replacement system could be before late 2024 (further commentary in section 1.6).

## 1.3. Stakeholder engagement

ASX continues to give careful consideration to the quality of its engagement program with stakeholders on CHESSt replacement, including the type of engagement and mechanism to ensure that it is effective, efficient and meets the needs of relevant stakeholders and the project. The project has convened a range of stakeholder forums to cater to different purposes and stakeholder groups. This includes larger virtual forums to allow the communication of key information to the full range of industry stakeholders, dedicated working groups for each of the user groups (cohorts) to allow detailed engagement on the relevant issues for those user groups, and regular updates within the Business Committee. Engagement and attendance within these forums continues to be strong with active participation across all stakeholders. During the reporting period the following forums were convened:

- a. Business Committee (4)
- b. Implementation and Transition Working Group Webinar (10)
- c. Software Provider Readiness Working Group (8)
- d. Clearing and Settlement Readiness Working Group (3)
- e. Share Registry Readiness Working Group (1)
- f. PISP Readiness Working Group (1)
- g. AMO Readiness Working Group (3)

The project also engaged with the full range of stakeholders bilaterally and on a regular basis to answer and address specific stakeholder needs as the project progresses. Bilateral meetings continued with clearing and settlement participants, share registries, software vendors, approved market operators (AMOs), payment providers, PISPs and industry associations with 447 meetings throughout the year.

Comprehensive information about the project is also provided and regularly updated on the [CHESSt Replacement website](#).

## 1.4. Project documentation

ASX continued to release project documentation to the market via ASX's dedicated CHESSt replacement [market documentation portal](#):

- Functional specifications, procedures, guides to testing services, failover and recovery guides, connectivity guidance, specific test environment application forms, certificate management and code drop information, message accreditation scenarios and guides, and revisions to accommodate changes to netting and settlement workflow in response to Tranche 3 consultation feedback from the market on 31 August 2021.
- Published ASX Settlement procedures and guidelines ([APGs](#)) to support the CHESSt replacement system.

- Specific landing pages for each cohort have been created to allow for easier navigation of material , available at the following locations:
  - [Clearing & Settlement Participant](#)
  - [Approved Market Operator \(AMO\)](#)
  - [Product Issuer Settlement Participant \(PISP\)](#)
  - [Issuer \(Registry\)](#)
  - [Payment Provider](#)

### 1.5. Rule amendments

Various operating rule amendments are required to support the operation of the new system and reflect the solution design for new or changed functionality. Public consultation on the rule amendments occurred over three tranches, with consultation on the third tranche and combined rules package completed over the period<sup>1</sup>. Consultation on the tranche 3 and combined package of rule amendments was completed – [public consultation](#) commenced on 31 August 2021 and [ASX's response to consultation feedback](#) was published on 30 June 2022.

### 1.6. Looking forward

Outside of the reporting period, ASX released an information paper setting out the considerations and assessment by ASX to cutover from current CHES to the CHES replacement system, and to global standard message sets (including ISO 20022 and FIX, both from CHES proprietary format message), using a risk-mitigated single cutover approach. The [paper](#) was issued on 20 July 2022.

An [announcement released on 3 August 2022](#) confirmed that ASX does not expect that the go-live date for the CHES replacement system could be before late 2024. ASX and Digital Asset (DA), our application software provider, have identified that more development is required than was previously anticipated to meet ASX's scalability and resilience requirements for the application.

ASX has engaged Accenture to undertake an independent review of the new CHES application. The review, which commenced in August 2022 and is expected to take 12 weeks, will identify necessary actions for ASX to communicate a revised timetable to finish the project and will be a key input into the replanning exercise. The final report will be provided to ASIC and RBA, and to EY as part of its ongoing reviews of ASX's assurance program. The findings of the review will also be released publicly.

## 2. Other service enhancements

During the reporting period, ASX has progressed a number of incremental enhancements to CHES and/or associated processes and reports, and the Trade Acceptance Service. The key enhancements related to core clearing and settlement services are summarised below.

---

<sup>1</sup> Tranche 1 and Tranche 2 were completed from 2019-2020.

### **2.1. Enhancement 1 – TAS and Product Services Legal terms review (5 years)**

The Trade Acceptance Service Legal Terms require that ASX undertake and publish a review of the legal terms every five years, commencing twelve months prior to the expiry of the current terms period. ASX commenced its latest review and consultation with AMOs in December 2020, and on 26 February 2021 published the review of Legal Terms for the ASX Trade Acceptance Service and related Product Services (referred to collectively as the TAS). The review did not identify a need for significant changes to the Legal Terms. The proposed minor changes to the Legal Terms identified through the review were explained in the review paper, with attachments A and B to the review paper setting out in mark-up the proposed changes.

Accordingly, the TAS continues to be made available on substantially the same terms for another five years, with effect from 31 October 2021, with re-published Legal Terms.

### **2.2. Enhancement 2 – Enhancement to TAS – reporting for AMOs**

The TAS Legal Terms provide for a number of reports to be made available to each market operator using the TAS. A change request was submitted to ASX in April 2021 requesting additional reports be made available regarding clearing and settlement performance specific to each market operator's reported trades for their listed securities. The performance statistics include for example, the percentage of reported trade's novated, netting efficiency, settlement efficiency and settlement fail rates. ASX has provided a summary of CHES performance reporting (all CHES activity covering all markets) to the Business Committee and on the ASX website on a regular basis. The additional reports were made available to each AMO using the TAS from 1 March 2022 on a monthly basis. The provision of the additional reports also necessitated changes to the Legal Terms for the TAS, which came into effect on 1 March 2022. AMOs were consulted as part of this process.

### **2.3. Enhancement 3 – CHES Holding Statements – Electronic delivery option and enhancements to returned mail process**

CHES holding statements are sent to holders with a HIN after each month in which there has been a change to a holders balance. Holders with securities recorded under a HIN have the protection of a trusted, independent and standardised record of the transaction. Holders are also sent notifications where their CHES sponsor or broker has advised ASX that their registration details have changed.

CHES holding statements and notifications have traditionally been sent by mail. ASX introduced a new service on 13 December 2021 that provides shareholders in listed companies and investment products with the option to receive their CHES holding statements and notifications electronically. Holders can opt-in (via their broker) to receive electronic statements, and also to provide their email details to the issuer (via their registry).

This new service provides holders with access to an electronic portal for fast, reliable and secure records of share ownership and confirmation of changes to their CHES holding details, including a personal archive of statements that will build over time. Holders will continue to have the choice to receive paper or electronic statements.

In July 2022, ASX also transitioned the printed paper statements to the new provider, aligning the design of statements and notifications to the contemporary design featured in the electronic statements. This enabled an improved returned mail process where details of both bounced emails and returned mail are now delivered to the sponsoring broker, electronically. A market notice outlining the changes and where to find more information is available [here](#).

ASX has confirmed effective 1 July 2022 unlimited electronic holding statements sent to holders will be included within the subscription charge, and ASX has also reduced the fee for paper statements to \$0.50 per statement.

To encourage take up by participants on behalf of their customers, ASX has temporarily waived the fee that would normally be charged to the broker to send the message to CHES advising an email address and opting in to the service for an existing holder.

### 3. Future planned enhancements and other initiatives

ASX publishes a quarterly Market Notice to advise of technology upgrade releases planned for the next 6 to 12 months across the various customer facing platforms, including CHES.

ASX has made, and continues to make, investments in the existing CHES system. This includes increasing the system's capacity, speed and resilience to manage surges in trading volumes, such as those seen during periods of COVID-related market volatility.

#### 3.1. TAS and Product Services Legal terms review for CHES replacement

As part of go-live of the CHES replacement system, ASX intends to undertake a further review and introduce amendments to the TAS Legal Terms related to the new system. These changes will include:

- Extend the Legal Terms so as to apply to ASX Limited (as a market operator), reflecting that from the commencement of the new system all market operators will be accessing the trade acceptance service on the same basis using a FIX gateway;
- Replace existing CHES message references with equivalent FIX message references.

ASX will consult with each AMO acquiring the Trade Acceptance Service in relation to the replacement system. ASX will commence engagement with AMOs on the relevant revisions to the Legal Terms at least eighteen months before the go live date.



---

<b>Committee</b>	Business Committee
<b>Agenda title</b>	<b>Service Enhancements</b>
<b>Item</b>	5a
<b>Purpose</b>	To provide Business Committee members with an update on developments
<b>Meeting date</b>	5 October 2022
<b>Prepared by</b>	General Manager, Issuer Services, Securities and Payments (Andrew Jones) Senior Manager, Issuer Services, Securities and Payments (Karen Webb)

---

Members will be provided with a verbal update on recent and planned service enhancements.

<b>Committee</b>	Business Committee
<b>Agenda title</b>	<b>Forward work program</b>
<b>Item</b>	6a
<b>Purpose</b>	To update members on the forward work program of the Business Committee for 2022
<b>Meeting date</b>	5 October 2022
<b>Prepared by</b>	Business Committee Chair, Chief Customer and Operating Officer (Val Mathews)

The Business Committee will meet four times in 2022. The meeting dates are:

- 13 April 2022 – 12.00-2.00pm
- 13 July 2022 – 12.00-2.00pm
- 5 October 2022 – 12.00-2.00pm
- 7 December 2022 – 4.00-6.00pm

Subject to any input from members who wish to suggest additional items, the forward work program of the Business Committee in 2022 will continue to be predominately focused on providing updates on CHES replacement and the assurance program including EY's findings. Also, in response to recent developments, the forward work plan will focus on the activities to identify a revised implementation timetable including a new go-live date.

Additionally, ASX will monitor global adoption of T+1 settlement and discuss the appropriate timing for this item on the forward work program.

Members of the Business Committee are invited to suggest topics for inclusion in the forward work program at any time by contacting the Business Committee Secretariat by email at [BCSecretariat@asx.com.au](mailto:BCSecretariat@asx.com.au).

## ATTACHMENTS

Attachment A Business Committee Forward work program 2022

## Attachment A: Business Committee Forward work program 2022



Note: the forward work program does not include the standing agenda items for each meeting.