

28th October, 2016

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Attn: Ms Diane Lewis
Senior Manager, Regulatory & Public Policy

By email: regulatorypolicy@asx.com.au

Dear Ms Lewis,

ASX's Replacement of CHES for Equity Post-Trade Services: Business Requirements

Following broad public commentary regarding the proposals to replace CHES, Computershare welcomes the publication of the consultation paper, "ASX's Replacement of CHES for Equity Post-Trade Services: Business Requirements". We appreciate the opportunity to provide our feedback on the documented proposals, and look forward to engaging with you throughout the CHES replacement process.

Computershare (ASX: CPU) is a global market leader in share registration and transfer agency, employee equity plans, mortgage servicing, proxy solicitation and stakeholder communications. We also specialise in corporate trust, bankruptcy, class action and a range of other diversified financial and governance services.

Founded in 1978, Computershare is renowned for its expertise in high integrity data management, high volume transaction processing and reconciliations, payments and stakeholder engagement. Many of the world's leading organisations use our services to streamline and maximise the value of relationships with their investors, employees, creditors and customers.

Computershare is represented in all major financial markets and has over 16,000 employees worldwide. In Australia, we employ approximately 1,700 staff across a range of national locations.

Computershare interfaces with CHES in a number of capacities, which inform the body of our analysis of the Business Requirements consultation paper. We are an ASX-listed issuer (with over 42,000 registered shareholders), with our listed securities cleared, settled and registered through CHES. We are also a market-leading share registrar in Australia and New Zealand; acting on behalf of 838 other issuers in Australia and 24 New Zealand issuers whose securities are CHES eligible. Additionally, we are a Non-Broker Participant ('NBP') in CHES, through our subsidiary, Computershare Clearing Pty Ltd; and also a third party technology provider to a number of other CHES participants, who use our CHAMP technology solution.

While the role of a registrar is not defined as a CHES User per se under the ASX Settlement Rules, registrars act on behalf of issuers by interfacing to CHES and undertaking, in an agent capacity, the various operational and technical responsibilities prescribed for issuers under the Rules. Moreover, registrars undertake broader servicing functions for issuers including consolidating their register of

members to provide central accessibility for the issuer and for public inspection purposes, including the CHESSE subregister, the issuer sponsored subregister, and any other issuances of securities; administering the issuer sponsored subregister; facilitating capital raisings; coordinating and administering corporate actions for issuers across their entire register of members (again, including the CHESSE subregister), including remitting dividends and other payments; reconciling total issued capital and ensuring integrity of the total issuance (including any overseas branch registers); and managing securityholder communications and securityholder meetings. Annually we manage and execute corporate actions for clients receiving and paying out tens of billions of dollars.

Computershare has been closely involved in the evolution of Australian post-trade systems and processes since prior to the inception of CHESSE. CHESSE was developed in an open and collaborative manner with cross-industry representation, ensuring that it met the needs of issuers and investors, as well as ASX broker participants and other market participants such as institutional investors and custodians. At that time, ASX was still member-owned and not operating on a for-profit basis. We look forward to ASX continuing this inclusive and representative development approach in the replacement of CHESSE.

As detailed below, we have a number of concerns with the level of information provided in the consultation paper, and therefore we do not believe that market stakeholders are sufficiently informed on ASX's intended developments to be able to engage in dialogue. As a result, we are also unable to adequately inform our clients on the impact for them.

We believe that distributed ledger technology may enable certain market-wide processing efficiencies to be introduced. It is exceptionally difficult however to comment on the strategic and commercial business implications of the model or models that ASX may have in mind (or how such models may potentially develop within the context of the replacement CHESSE system), without any explanation of how ASX proposes to deploy distributed ledger technology. It is also very difficult to assess the likely impact or the cost / benefit for different stakeholder groups to adapt their businesses and platforms to mesh with ASX's plans for the replacement CHESSE system.

We therefore request that ASX provide a detailed roadmap regarding its commercial proposal for the replacement of CHESSE, and that it expedites the establishment of user groups to provide constructive input to this significant and business critical technology project.

ASX recently announced that it would replace the Forum with the Business Committee as the primary advisory body to ASX regarding cash equities clearing and settlement infrastructure and services. The Forum had included a broad representation of ASX stakeholders. The Business Committee is however limited to representatives of users of ASX's clearing and settlement services and alternate market operators, and until the announcement supported and informed the deliberations of the Forum. We note that registrars were represented on the Forum but are not among the more limited stakeholders included on the Business Committee. Integral to the existing architecture and effective business operations of CHESSE, registrars should, in our view, continue to be included in the market discussions, as they have since the inception of CHESSE, including through ASX's formal advisory bodies. In view of ASX's advised 'end date' for CHESSE in 2019, greater clarity on ASX's intended approach and the commencement of informed and collaborative user group discussions are, in our view, increasingly time critical.

We look forward to engaging with ASX (and, where appropriate, broader stakeholders) on the issues presented in our response and others that arise during the course of defining and implementing this market-critical project. Thank you for the opportunity to make this initial submission.

If you have any questions in relation to our detailed comments, please contact me at Greg.Dooley@Computershare.com.au or at (02) 8216 5513.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'G Dooley', with a stylized flourish at the end.

Greg Dooley
Managing Director
Computershare Investor Services

Introductory Comments

We have responded below to the itemised questions of the Business Requirements consultation paper, drawing on experience from our various capacities in interfacing with CHES, as well as our deep local and global market experience. Firstly however, we would like to take the opportunity to highlight a number of concerns regarding ASX's approach to the replacement of CHES, including:

- › The consultation paper does not address ASX's public statements regarding its intended use of distributed ledger or blockchain technology;
- › It does not fully address the position particularly of issuers and investors, and includes a significant gap in business requirements for register management; and
- › It does not adequately address how the replacement system will support the core principles of the Australian market structure for securities registration

For the remainder of our comments, we have referred to the 'ASX subregister' in relation to the subregister to be administered by ASX post-CHES; and to the CHES subregister where we refer to present market arrangements.

- A. The Business Requirements consultation paper does not address ASX's public comments regarding use of blockchain technology to replace CHES, and the potential benefits this may provide to issuers and their investors

Prior to the announcement of its investment in Digital Asset Holdings on 22nd January 2016, ASX undertook market stakeholder discussions over a 12-18 month period on the replacement of CHES. Until that point, these discussions had primarily focused on replacing CHES messaging with ISO 20022 messaging and certain refinements to introduce processing efficiencies. This remains a central element of the Business Requirements paper and indeed at face value the paper can be read as addressing a fairly straight-forward technology replacement. However, since its January announcement, ASX has made a range of public statements regarding its intention to develop a blockchain-based solution to replace CHES which are not well represented in the paper and therefore create market uncertainty regarding ASX's intentions. The public comments from ASX suggest a more fundamental reconfiguration of the market model which is not discernible in the Business Requirements paper. We seek ASX's clarification regarding how it will make its decision on the use of blockchain and how market stakeholders can liaise effectively with ASX as part of this, including communication of a detailed roadmap and its proposed deployment model(s).

We are concerned that the consultation paper seeks market stakeholder engagement on the replacement of core post-trade system and processes for which ASX currently enjoys an effective monopoly, without being provided with information about integral aspects of the proposed replacement. For example, how are ISO 20022 messages and the distributed ledger intended to interact? Who will have access to nodes on the blockchain and for what purposes? How will a distributed ledger interact with the issuer's register of members, which as described above contains multiple components, not just the CHES subregister? It is unclear how the various elements that ASX has discussed publicly and in the consultation paper are intended to fit together and what any such approach means for the Australian market structure.

At ASX's Annual General Meeting in September, Chairman Mr Holliday-Smith is quoted as follows

"... Mr Holliday-Smith says unlike blockchain, the new ASX system won't be open to the public and will be on a private network..."

..Only ASX itself and regulators like the Australian Securities and Investments Commission and the Reserve Bank would have access to the system Mr Holliday-Smith said.

*"This is in a tightly-controlled, secure environment. There might be less than six distributed ledgers, there might be as few as three," he explained."*¹

This suggests that access to ASX's distributed ledger solution will be limited, with market participants not directly interacting with the ledger; and yet on page 15 of the paper we note the statement that 'known, licensed participants would be authorized to access the system, much like today'. We would therefore appreciate clarification on this, including how ASX is proposing to determine what these three to six ledgers are, how they will be structured and what data they will contain.

ASX has frequently noted its intention to move to a 'single source of truth' in public statements and in the consultation paper. Similarly, ASX has stated that under its distributed ledger solution:

*"Securities exist digitally only within the ASX register"*²

This appears to be a broader concept than the current CHESS subregister and calls into question the status of issuer sponsored subregister, which is also 'digital', as it is fully dematerialized. We seek ASX's clarification as to what this encompasses, particularly if the 'single source of truth' is intended to represent the share register for issuers. As noted earlier, there are at present multiple components that comprise an issuer's share register. If ASX is proposing an approach that alters the central structure of securities registration, then we urge it to communicate its proposals immediately to allow informed market analysis and discussion.

ASX has also made a number of public comments about benefits for issuers from adoption of a blockchain solution, potentially including improvements in securities issuance, corporate actions processing, voting at AGMs, paying dividends and real-time access to the register for transparency of security holders³. However, the consultation paper does not explain these potential benefits for issuers and investors or propose how they would be achieved.

B. The consultation paper does not adequately address the position of either issuers or their investors as key stakeholders in the replacement of CHESS

We are concerned with the absence of information regarding how the proposed structure will impact issuers and their investors. ASX should disclose how it intends to service issuers to allow informed analysis and feedback. Equally, the consultation does not adequately address how ASX will ensure existing services and functionality for issuers are preserved.

For example, we note that ASX has suggested that it will provide near real-time access to the register to issuers as part of the replacement system. We strongly advocate improvement in transparency of reporting of security holders transactions on the ASX subregister. We urge ASX to

¹ [ASX to decide on blockchain by end of 2017](http://news.com.au), news.com.au; September 28th, 2016

² *Full-Year 2016 Results Presentation, ASX Ltd*, 18th August 2016; available at http://www.asx.com.au/documents/investor-relations/analyst_pres_fy16.pdf

³ See for example: [Blockchain reaction could blow away sharemarkets](#), Sydney Morning Herald, 28 March 2016; [Blockchain – update on ASX's investigation of the technology](#), Listed@ASX, June 2016; [Adopting blockchain in our financial markets: ASX plans and benefits for the market](#), ASX Annual Stockbrokers Conference, 1 June 2016

consider adopting gross real-time reporting of transactions to registrars to allow issuers to obtain equivalent visibility of their ASX subregister as compared to the issuer sponsored subregister.

The Business Requirements addressed in the paper do not sufficiently encompass register management functionality, with the exception of a reference to approving conversions and transfers between ASX and issuer sponsored subregisters. Inter-subregister movements are important functions but are nonetheless only one aspect of the interaction between ASX and share registrars. We have therefore detailed below in question 1 and appendix 1 the current business-critical messaging required for registry maintenance. Issuers need to be able to ensure integrity across their total securities register, as well as to have adequate arrangements for investor voting, and managing distributions and other corporate actions. Clear communication of the intended structure for registration, unless it is to remain unchanged through the CHES replacement, is therefore essential.

We are also concerned by what we anticipate will be a significant gap in ISO 20022 messaging as it relates to the Australian market model. We understand that the ISO 20022 suite of messages does not currently include specific messaging related to the registrar interface, although registration data is contained within certain messages. While the paper notes that ASX is mapping current CHES messages to ISO 20022, and will work with ISO to develop required additional messages, ASX should clarify if this is intended to include the necessary register update and maintenance functionality that we identify below at question 1, and how it proposes to interface with share registrars on behalf of issuers. Will ASX seek development of new ISO 20022 messages to address this gap or continue with the existing set? Does ASX propose to interface with share registrars through alternative means – for example, would share registrars become a node on the blockchain to interact with the ASX subregister security holder data through that mechanism? Or is ASX intending to restructure the register model so that register updates are not in fact provided to the registrar on behalf of the issuer? Clarity on this issue is critical to allow analysis of the impact for issuers, their agent registrars, and many of their investors.

C. ASX should address how the replacement system will support the core principles of the Australian market model

The Business Requirements consultation acknowledges the principle of 'name on register' securities registration. We commend ASX's recognition of the importance of this principle, which provides all investors with the option to hold direct legal title to their securities, while accepting that some investors may have a preference for using an intermediated structure in certain circumstances. We note that the consultation paper also briefly references the issuer sponsored subregister. We assume on this basis that ASX proposes to retain the current structure of an ASX subregister and issuer sponsored subregister, to comprise the total principal register of members (which is supplemented in some instances by overseas branch registers), however this is not clear from the paper. The paper does not provide an adequate description of the ongoing structure that ASX is contemplating; and how references to introducing an 'ASX Register' will impact the current register structure comprising the ASX-administered subregister and issuer sponsored subregister.

We query how the 'ASX register' would interact with the issuer's total register of members, which includes multiple records and data sets not administered by ASX. If the intention is that the distributed ledger and register are one and the same, ASX should communicate its proposed structure and facilitate informed discussion of the potential benefits and impacts. Any centralisation of record-keeping through the CHES replacement process should not, in our view, create a new de facto monopoly for ASX at the expense of competition for issuer services.

Investor choice regarding the manner in which their securities are registered and administered has long been a fundamental principle of the Australian securities market and was a significant element in the overall market agreement for establishment of CHESS. In addition to being able to elect to hold direct legal title to their securities, investors should continue to have the ability to choose whether to have their securities administered directly by (or on behalf of) the issuer, or by the investor's chosen intermediary. Not all investors want to have their securities administered through a broker under the broker sponsorship structure, or through a custodian or other intermediary. These arrangements generally involve ongoing fees payable to the intermediary and limit the investors' ability to move between various providers. Since its inception, issuer sponsorship has been a valued alternative for investors to hold securities without being tied to a particular broker relationship on an ongoing basis just to hold their securities.

The ASX-administered CHESS subregister is the largest component (in terms of issued capital) of any listed issuer's total register of members, as both the paper and our analysis below establish; however it is not the entirety of the share register. Issuer sponsored security holders remain a substantial component of the total register for the vast majority of Australian issuers. A relatively small number of issuers also operate overseas branch registers, which must be factored into managing total issued capital for those issuers.

Approximately 35% of shareholdings across securities registers that we maintain are issuer sponsored, while 65% of shareholdings on those registers are in the CHESS subregister. While approximately 85%⁴ of securities by value are held in CHESS subregisters (predominantly held by a relatively small number of major investors), 15% of securities by value are held in issuer sponsorship. These statistics demonstrate the continuing relevance of issuer sponsorship for a significant number of Australian securityholders, despite the comparatively lower value of their holdings vis a vis CHESS holdings. In our experience, this is comparable to the position in international markets, where active traders and larger shareholdings are maintained in the market Central Securities Depository while smaller holdings by value are held directly on the issuer-administered register, allowing those investors to avoid paying account-keeping fees to intermediaries.

In developing its replacement for CHESS, the ASX should ensure that issuer sponsored securityholders are not disadvantaged. We are therefore concerned with the absence of any detail in the Business Requirements relating to the interaction between the ASX subregister and the issuer sponsored subregister. Any replacement system must provide issuer sponsored holders with at least as effective access to the market, processing movements between the subregisters to facilitate trading and registration in at least as timely a manner as currently occurs through CHESS. Likewise, issuers require access to their total register of members, and any proposal that provides issuers access to only a portion of the register is inadequate in terms of visibility for issuers.

Impact of Policy Statements by CFR

During the consultation period, the Council of Financial Regulators ('CFR') issued policy statements on a) its expectations for ASX's conduct in operating its cash equity clearing and settlement services until such a time as a committed competitor emerges (referred to as 'Regulatory Expectations'); and b) a set of minimum conditions to ensure safe and effective competition should a competing provider

⁴ We note that this figure differs from the ASX's reported figure of 95% at p.21 of the paper. Our figure is derived from analysis across all CHESS-eligible securities registers administered by Computershare (excluding New Zealand clients cross listed on ASX).

specifically of clearing services emerge (referred to as 'Minimum Conditions (Clearing)'). In the Regulatory Expectations statement, CFR provides as follows:

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.

CS services are defined in the Regulatory Expectations statement as clearing and settlement services.

We note that the same day the CFR statements were issued, ASX released an update to its Cash Equities Clearing & Settlement Code of Practice ('Code'), which included the following statement in relation to 'Transparent and non-discriminatory access':

ASX is committed to ensuring 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.

We query the distinction in ASX's Code, which refers to not raising barriers to access to other clearing facilities, whereas the CFR Regulatory Expectations statement requires this commitment in relation to both clearing and settlement facilities. We would appreciate ASX's clarification regarding this difference, whether it is an inadvertent omission for example, and how ASX sees any potential impact in relation to the design and development of the CHES replacement system.

Consultation Questions

Scope of CHESS Replacement

Q1. Are there any other key business functions provided by CHESS that have not been identified in this paper that should be supported by the system that replaces CHESS? Explain the importance and value of any such business functions to you.

The consultation paper does not sufficiently address core register administration functionality. While it refers to the need for registrars to approve transfers and conversions between issuer sponsored and CHESS subregisters, which is a significant requirement, this is only one aspect of business-critical register management. The four areas of critical register management functionality are summarised below. In appendix 1, we have additionally identified the specific CHESS message types which currently support these four business functions. The replacement of CHESS should address these business functions.

1. Managing transfers and conversions between the CHESS and issuer sponsored subregisters
 - › As identified in the paper, this is a key requirement to efficiently manage movements between subregisters and facilitate ready access to the market for issuer sponsored investors. The infrastructure and processes for transfers and conversions provides interoperability between holding modes and delivers investor choice. With our analysis that 35% of an issuer's register reflecting issuer sponsored holdings, continued access to this function is vital.
 - › From a volume perspective, the message set supporting transfers and conversions represents 10% of our system interactions with CHESS on behalf of our issuer clients. In calendar year 2015, we processed well over 2 million transfers and conversions from the issuers register to the CHESS subregister and vice-versa.

2. Corporate Actions
 - › On an annual basis, we manage on behalf of our issuer clients hundreds of Corporate Actions amounting to tens of billions of dollars in value. This activity represents important messaging flows between Computershare, ASX and more generally market participants.
 - › To illustrate, holding transformations are used extensively during IPOs and other capital raisings. For retail offers, there may be a high volume of messages used to deliver the final security to holders on the CHESS subregister. Final allocations to issuer sponsored holders occur at the same time. For institutional placements this activity may be low volume but represent tens-to-hundreds of millions of dollars per transaction. We also manage acceptance messaging for off-market takeover bids as bidder's agent, and transfer messages as target's registrar.
 - › Holding adjustments are also used extensively, depending on the nature of a transaction. Again, processing of these updates for CHESS holdings occurs at the same time on issuer sponsored holdings. These transactions range from DRP allocations for elected securityholders through to updates to the whole register if a bonus is applied or corporate restructure is performed. The resulting transformation and adjustment messages are one

piece of an important business processes performed on the complete issuer's register.

- › Further, the design of Corporate Actions and offer structures are continually evolving, as demonstrated through the many variations of rights issues. We believe this should be a focus of any new system considered by ASX as the importance of this business function to smooth operation of the market for issuers and investors cannot be understated.
- › The volume of messages sent relating to this function varies depending on market conditions and the structure of any activities initiated by an issuer. Transactions for large issuers can involve instructions for hundreds of thousands of securityholders on the CHESSE subregister. Others can be lower volume but still represent significant value. In calendar year 2015, on behalf of our issuer clients we initiated well over 1 million adjustment and transformation instructions for holdings on the CHESSE subregister alone.

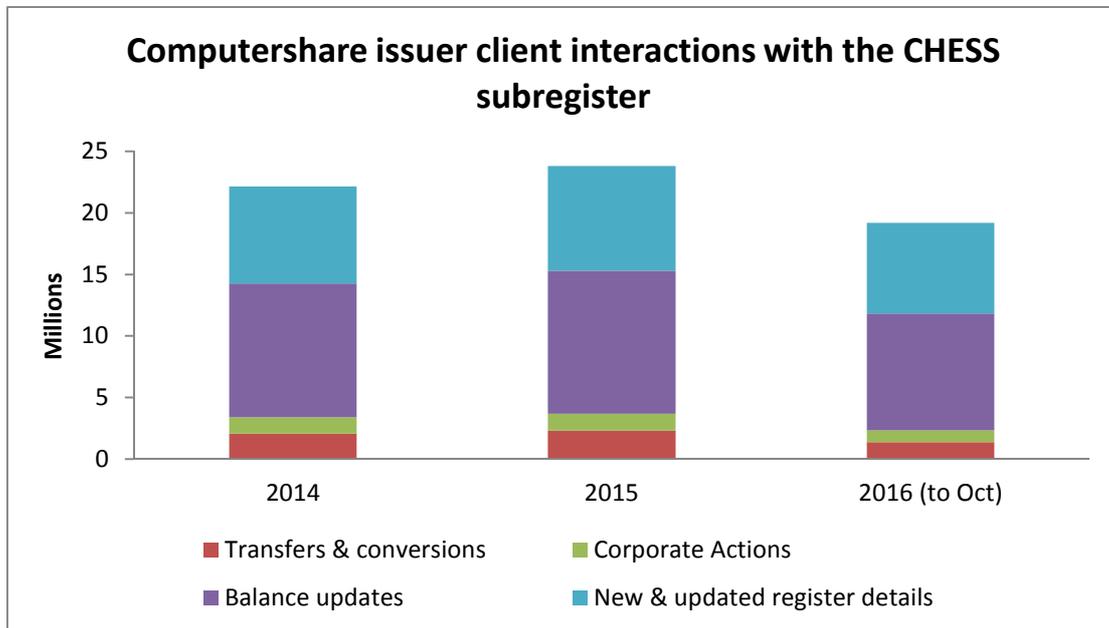
3. Balance updates to the issuer's register

- › Net end-of-day movement reports are received on a nightly basis and update the issuer's share register with the net movements of securityholders on the CHESSE subregister, where a movement has occurred that day. With this update, issuers have an integrated view of all securityholder positions. The issuer's total register is consolidated by their registrar to maintain integrity, and to also serve as a location for inspection of the register by approved parties, including regulators and relevant individuals. Furthermore, details and balances on the register are used for analytics and execution of corporate actions, as described elsewhere.
- › The continued provision of this information to the issuer's registrar is critical and should be enhanced, as described elsewhere in our response to facilitate real-time gross reporting of CHESSE subregister transactions.
- › These updates can represent 50% or more of our system activities with CHESSE. During corporate action periods, additional sets are received reflecting CUM positions. Volumes vary with market conditions however they generally range between 10 – 11 million report messages per year.

4. Registration details

- › This category includes various messages to update the issuer's register with new and modified details for securityholders on the CHESSE subregister. Currently, name and address details are considered mandatory while other details such as email addresses and direct credit instructions are sporadically provided.
- › These details maintain the issuer's record of securityholders and are essential to support the range of securityholder communications activities, facilitate processing of activities such as corporate actions and proxy voting, and any other form of exercise of securityholder rights.

- Message volumes relating to these activities represent approximately one third of our system interactions with CHESS. New holders on the CHESS subregister represent close to 15% of that volume.



Q2. What are your views on ASX implementing only a limited suite of business function and service enhancements in the replacement of CHESS, in order to minimise risk and disruption to the market?

In our view, any developments – limited or comprehensive – must preserve the core principles of the Australian market structure, including the ‘name on register’ security registration structure and the provision of investor choice to hold securities on either the issuer sponsored subregister or on the ASX subregister.

The lack of detail on key aspects of ASX’s proposed approach to the replacement of CHESS creates a level of risk and uncertainty for market participants, including in particular issuers. In our opinion, ASX should detail its intended CHESS replacement model, including addressing the various elements that have been included in its public statements, to allow for better informed market discussion on functions and services.

Q3. What are your views on each of the potential business functions and service enhancements identified in the paper for implementation with the replacement of CHESS?

Subject to our preceding comments, we do agree with inclusion of the ‘existing business functions to be provided by the new system’. We note that these need to be supplemented by inclusion of core register update functionality addressed in our response to question 1.

With reference to the adoption of ISO 20022, we acknowledge the benefit to participants that operate in multiple markets from moving to a messaging protocol that is being increasingly adopted internationally. However, in view of our understanding that ISO 20022 does not currently provide specific messaging to support a registrar interface, which is business critical under the Australian share registration structure, we request ASX’s clarification regarding how it proposes to address this gap.

In relation to the potential service enhancements, we request clarification from ASX regarding the proposed facility for securities to remain in the holder's name until the point of settlement, specifically as it relates to holders on the issuer sponsored subregister. It appears that the second proposed enhancement on holding locks will support this 'direct title' settlement. This will require specific messaging between the registrar, administering the issuer sponsored subregister, and ASX which we need to understand further. If this proposed enhancement proceeds, there will also need to be procedures established regarding administration of the locks.

We also note that the holding lock enhancement is proposed to support corporate action processing and request ASX to provide more detail on its proposed revised management of corporate actions in this regard.

Q4. Would you expect the business functions and service enhancements identified in the paper to provide a net benefit to your organisation, and if so, how would you categorise the significance of the net benefit - small / medium / large? If possible, please provide a quantification of any net benefit.

As a NBP, the adoption of ISO 20022 itself will not necessarily provide direct benefit based on our business model. However we acknowledge that, as both NBP and technology provider, the replacement of CHESS will inevitably require some development on our behalf.

In our capacities as issuer and share registrar, as the business requirements do not address critical register maintenance functionality except in relation to the CHESS subregister, we are unable comment on possible benefits for us or our clients at present. We look forward to discussing these with ASX once further details are provided.

Q5. Are there other business functions and service enhancements that are consistent with ASX's guiding principles that have not been identified and which you think should be considered as part of the replacement of CHESS?

In addition to our comments at question 1, we have identified several items that would leverage ASX proposals and enhance the overall efficiency of the structure for issuers:

- › ASX has indicated the intention to collect holder contact details to enable it to default to electronic dissemination of CHESS holding statements. We are strongly of the view that electronic contact details should be considered part of the securityholder registration details and by corollary should be included in register updates to the issuer's agent.
- › Additionally, we recommend the inclusion of functionality for registrars to initiate or trigger updates to CHESS holder email addresses & street addresses; and establishment of a communication process with ASX to facilitate updates received either through the CHESS participant or through the registrar, to allow coordination of address details for both participant and issuer. We currently conduct campaigns on behalf of clients to collect email addresses for shareholder communications. Email addresses received directly by the registrar for CHESS holders and those reported by CHESS participants through ASX must be coordinated. We discuss current issues with management of CHESS holder street addresses in question 16.
- › Similar to ASX's proposal for electronic issuance of CHESS holding statements, issuers should also be authorised to default to electronic security holder communications for all communications unless the investor indicates a requirement for paper versions. This communication may be by email, where addresses are provided, or by other electronic means

for appropriate communications⁵. We appreciate this will require arrangements between ASX and share registrars to manage requests for paper versions and administration of bounced e-communications etc, however it will represent a significant benefit for issuers and investors, and improvement in the efficiency of security holder communications for the market as a whole. Moreover, the market should not need to wait for a CHES replacement system for this benefit to be delivered. Nor is it necessary to wait for distributed ledger technology to deliver this better stakeholder outcome and lower cost.

- › In the interests of an open and competitive market, we believe that the issuer should be entitled to appoint any agent to send CHES holding statements, including ASX, based on the issuer's right to receive full transaction data for all security holders. We question the basis on which ASX continues to retain the monopoly right to provide this service at a mandated fee to issuers.
- › Further to our comments regarding the need to address register update functionality, we also urge ASX to take this opportunity to upgrade the current process to allow gross real-time (or near real-time) reporting of changes on the ASX subregister to the issuer's register of members, allowing issuers full visibility of their security holders' records. The net end of day reporting currently provided is no longer international best practice, for example we note Euroclear UK & Ireland has been providing gross real-time updates to the respective registrars for the last 20 years. Real-time gross transaction reporting would be consistent with ASX's stated intention to enhance visibility for issuers.

Q6. Are there any non-functional requirements or connectivity models you would like ASX to consider for the replacement of CHES?

The operation of the existing CHES environment is well managed and has withstood the test of time amongst increasing market volumes and threats posed by cybercrime. Any replacement system must be able to demonstrate that it can meet increased performance and volume benchmarks while ensuring that current and future security issues are well managed. The system should be able to deal with peak loads representative of large issuers performing concurrent corporate actions under heavy trading activity.

Introduction of ISO 20022 message standards

Q7. Would you expect the adoption of ISO 20022 messaging standards to provide a net benefit to your organisation? If so, how would you categorise the significance of the net benefit – small / medium / large? If possible, please provide a quantification of the expected costs and benefits of the implementation of ISO 20022 messaging standards.

As discussed above, we do not anticipate that ISO 20022 messaging will provide direct benefits to our NBP.

In relation to issuer and registrar functionality, please refer to our earlier comments regarding the existing gap in ISO 20022 messaging to support register updates in Q3. We understand that development of entirely new ISO 20022 messages is an extensive process that requires participation by all national Securities Market Practice Groups, and it is not clear to us whether the organization will

⁵ See for example the Treasury's consultation on [Technology neutrality in distributing meeting notices and materials](#), 4th May 2016

approve the necessary range of new messages. Will ASX otherwise continue to support proprietary CHESSE messaging for registrars to address this gap, and if so for how long? What does ASX envision the process, time and cost will be to issuers and registrars to upgrade to ISO 20022? What is ASX's contemplated fallback if neither route offers a cost effective solution?

Q8. How important is it to your organisation that ASX continues to support CHESSE messaging for a period of time to allow for your organisation's transition to ISO 20022 standards?

Please refer to our response to question 7 above, in relation to registry messaging. Overall, we consider it very important for ASX to provide a transition period from CHESSE messaging to ISO 20022 for all CHESSE users. This will be particularly important for those users that do not already utilise ISO 20022 elsewhere in their business operations.

We also wish to highlight that the metrics provided on page 11 have the potential to create a misleading impression regarding which are the most business-critical CHESSE messages, to be included in the replacement system. It is to be expected that messages relating to trade reporting and settlement are the most used, given the market settlement structure. This however should not be taken to suggest that other messages are not critical for the smooth functioning of the market. For example, register updates are provided only as net end of day movement reports – therefore one per securities issuance per day if there is any movement, as compared to multiple daily trade notifications and settlement instructions for the same security. The quantity does not determine the structural relevance of the messaging and functionality.

Q9. ASX currently supplies and supports two client-side CHESSE messaging gateways – CHESSE PC and CHESSE Access. Are you a user of either of these services? If so, which gateway do you use?

Computershare New Zealand currently uses CHESSE PC to support 24 New Zealand clients who are dual listed on the NZX and ASX.

Q10. If you are a user of CHESSE PC or CHESSE Access, would you be seeking continuation of this gateway service from ASX (for either CHESSE or ISO 20022 message suites)?

Computershare New Zealand currently maintains the register for 24 issuers who are dual listed on the NZX and ASX. To date, transactional volumes have not necessitated a direct connection between our NZ registry system and CHESSE. CHESSE PC is used as a means for receiving CHESSE updates, such as net movements and registration details, and is required to keep our client register's current. The current procedures we have developed to consume data from CHESSE work effectively. Any new environment should support options that do not require direct systems connectivity.

Q11. Does your organisation have the capability to support and migrate to ISO 20022 messaging now? If yes, what business categories do you use? If your organisation does not currently have this capability, does it have plans to implement it in the near to medium term?

No, we do not have the capability to support and migrate to ISO 20022 at present.

Q12. If ASX was to mandate the use of ISO 20022 securities messaging, how long would your organisation need to migrate to ISO 20022?

We are unable to estimate this on the basis of information provided in the consultation paper. In addition to registry, Computershare will need to migrate the CHAMP system used by our own NBP as well as by our external CHAMP users. To formulate an estimated migration path, we need:

- › a fuller explanation of the proposed market model;
- › completion of ASX's mapping exercise with SWIFT and identification of changes to existing ISO 20022 messages and required new ISO 20022 messages, to support replacing the CHES clearing and settlement functionality; and
- › communication of which existing ISO 20022 messages that CHES users will need to support to conduct their business with ASX.

Q13. Do you have a preference about the approach to the implementation of ISO 20022 messaging - for example, a big bang approach or per business function or other?

As with past CHES developments, a formal accreditation process should be undertaken to allow market participants and their representatives to test the new interface and demonstrate readiness. The implementation plan should include the ability for an organisation to roll-back to the existing interface, should unforeseen issues arise early in proceedings.

Q14. Does your organisation have a preference for the network used for ISO 20022 messages - for example, SWIFTNet, ASX Net or other?

We currently maintain a fully redundant 128Kbps connection to ASX via the BT Radianz network along with redundancy via a separate network for business continuity. We would prefer that the existing connection options remain in place. We would also like the new environment to support Internet VPN tunnels to allow cheaper connectivity and extend our DR/BCP options.

However, as stated elsewhere, we seek more detail regarding the design of the distributed ledger solution. Without sufficient information from ASX on the proposed system and market architecture, we are unable to adequately comment on connectivity requirements of a replacement system.

Other requirements and considerations

Q15. Please provide your views on the potential enhancements and new services identified in this paper. Would these enhancements and new services be beneficial to your organisation?

We note the prospect of consolidating Austraclear and the CHES replacement platform. We appreciate that this may offer efficiencies to users of both existing platforms. However, such consolidation should not be detrimental to the fundamental principles of the equities market structure, including 'name on register' and the availability of investor choice to have their securities administered by the issuer or an intermediary.

Indeed, the introduction of Austraclear services into the new platform could prove to be beneficial to the market if debt market servicing evolved to take on attributes known to exist in the equities market, such as the 'name on register' and investor choice aspects of securities ownership. This would provide processing efficiency and greater transparency to debt issuers while providing the ability for their agents to deliver consolidated analytical functions not possible in the current environment.

Computershare acts as agent for wholesale and government debt issuers representing hundreds of billions of dollars and currently interacts with Austraclear to facilitate interest and redemption payments on their behalf. We would welcome discussion on potential enhancements that could arise from development in this area.

KYC is also addressed in the paper as a possible future enhancement for the new platform. However, new requirements for CRS/FATCA reporting will have been implemented across the market prior to ASX's indicated timeline for CHES replacement. We would therefore appreciate clarification regarding the expected timeframe for KYC development and its potential scope, and how this may interact with FATCA/CRS reporting processes. Will ASX now require its brokers to provide FATCA/CRS information, to be passed onto the issuer's registrar as appropriate, or will provision of this information remain voluntary for brokers? What due diligence procedures are anticipated?

Q16. Please outline any additional significant functional enhancements and new services that your organisation thinks should be considered.

In addition to our response at question 5, we offer the following comments:

- › We would like to see the ability for an issuer's registrar to initiate and update address details for CHES broker sponsored holders built in to the new environment. Under the current structure, 10-15% of the more than 1 million annual address change requests we receive from investors cannot be dealt with as the holding is administered on the CHES subregister. As required, we direct the investor to their sponsoring broker to manage the update. This creates frustration for the investor and delays in processing. A future system should allow for the registrar to perform a more active role in this process, while ensuring reconciliation of details with CHES and the sponsoring broker.
- › Key investor details including email address, bank account and TFN / ABN information make the operation of an issuer's register efficient and improve the overall investor experience. A future system should mandate that the issuer's registrar receive this information upon the establishment of a CHES holding and support updates as necessary.
- › Technology developments should allow issuers greater transparency and more timely updates to their register of members. As discussed in question 5, we seek the provision of real time gross movements to CHES holdings in place of the current net end of day reporting process. This will also provide greater visibility for investors who contact registrars and use the registrar's online services to monitor their shareholdings.
- › Further, we see benefit in providing functionality that allows for optional submission of instructions to the issuer's register that would provide:-
 - DRP elections for holders on the CHES subregister
 - Proxy voting elections, and
 - Instructions relating to elections and payments associated with various Corporate Actions.
- › Additionally, we propose allowing registrars to execute transactions on CHES holdings, where instructed by the shareholder and duly authorised by the controlling CHES participant via an agreed channel.

Q17. Do you have any other comments on the matters discussed in this paper?

Please refer to the views expressed in our introductory comments and responses throughout. We welcome further industry discussion on the future of the Australian equities market.

Appendix 1: Current CHESS Registry Update & Maintenance Messages

Business Function	CHESS Message Type	CHESS Message Description
CHESS/Issuer Sponsored Transfers and Conversions	401	Registry to CHESS Conversion Authorisation
CHESS/Issuer Sponsored Transfers and Conversions	403	Registry to CHESS Conversion Rejection
CHESS/Issuer Sponsored Transfers and Conversions	404	Issuer Sponsored to CHESS Conversion Authorisation Request
CHESS/Issuer Sponsored Transfers and Conversions	405	Registry to CHESS Transfer Authorisation
CHESS/Issuer Sponsored Transfers and Conversions	407	Registry to CHESS Transfer Rejection
CHESS/Issuer Sponsored Transfers and Conversions	408	Issuer Sponsored to CHESS Transfer Authorisation Request
CHESS/Issuer Sponsored Transfers and Conversions	416	CHESS to Issuer Sponsored Conversion
CHESS/Issuer Sponsored Transfers and Conversions	418	CHESS to Issuer Sponsored Transfer
Corporate Actions	421	Holding Transformation
Corporate actions	422	Applied Registry Transaction
Corporate Actions	425	Holding Adjustment
Corporate actions	426	Applied Registry Authorisation Response
Corporate actions	430	Applied Code Change
Corporate Actions	431	Takeover Transfer
Corporate actions	432	Cancelled Offeror Initiated TKO Acceptance request
Corporate Actions	546	Revised Holder Registration Details
Corporate Actions	701	Takeover Acceptance Rejection
Corporate Actions	702	Takeover Acceptance Removal Authorisation Request
Corporate Actions	703	Takeover Acceptance Removal Authorisation
Corporate Actions	704	Takeover Acceptance Notification
Corporate Actions	705	Takeover Acceptance Removal Rejection
Corporate Actions	706	Effectuated Offeror Transaction
Corporate Actions	707	Offeror Takeover Acceptance Removal
Corporate Actions	710	Rejected Offeror Takeover Acceptance
Corporate Actions	711	Offeror Takeover Acceptance
Balance updates to Issuer's Register	506	Cum Entitlement Net Movement
Balance updates to Issuer's Register	510	Holding Net Movement
Balance updates to Issuer's Register	524	Total Cum Entitlement Balance
Balance updates to Issuer's Register	532	Total Holding Balance
Registration Details	512	Holding Registration Details
Registration Details	534	Notified Tax File Number/ Australian Business Number
Registration Details	759	Holding Advice Acceptance
Registration Details	760	Holding Advice Notification
Registration Details	761	Holding Advice Rejection
Registration Details	762	Effectuated Registry Transaction
Misc*	466	CHESS to Registry Holding Balance Request
Misc	468	CHESS to Registry Holding Balance Response Acknowledgement
Misc	472	CHESS to Registry Holding Balance Reject Acknowledgement
Misc	503	Reporting Request
Misc	505	Reporting Request Cancellation
Misc	518	Rejected Transaction
Misc	526	Accepted Reporting Request
Misc	530	Cancelled Reporting Request
Misc	538	End of Reporting
Misc	540	Invalid Transaction

*the miscellaneous messages are less commonly used activities that were not included in our business critical functionality in response to question 1.