



Annex A

LIST OF RESPONDENTS TO THE CONSULTATION PAPER ON PROPOSED REGULATORY MEASURES FOR DIGITAL PAYMENT TOKEN SERVICES

1. Allen & Gledhill LLP
2. Allen & Overy LLP, which requested for confidentiality of submission
3. Anchor Labs Inc (Anchorage Digital)
4. Ashwin Mathialagan, who requested for confidentiality of submission
5. Asia Crypto Alliance Ltd.
6. Asia Digital Exchange Pte Ltd
7. Asia Securities Industry & Financial Markets Association
8. Association of Crypto Currency Enterprises and Start-ups Singapore
9. Binance
10. Blockchain Association Singapore
11. CFA Society Singapore
12. CHP Law LLC
13. Clifford Chance Pte. Ltd., which requested for confidentiality of submission
14. CMC Markets Singapore Pte. Ltd.
15. Crypto.com, which requested for confidentiality of submission
16. DBS Bank Limited, which requested for confidentiality of submission
17. Derek Teo
18. DigiFT Tech (Singapore) Pte. Ltd.
19. Duane Morris & Selvam LLP
20. Dylan Loh
21. Ethics Ambassadors Pte. Ltd.
22. Fireblocks Pte. Ltd.



23. Flint & Battery LLC
24. GBBC Digital Finance
25. Hashkey Group
26. Holland & Marie Pte. Ltd.
27. Independent Reserve Singapore Pte. Ltd.
28. Ingenia Consultants Pte. Ltd., which requested for confidentiality of submission
29. Ivan Ferrari, Elevandi
30. James Lee
31. Kwang Jiaying
32. Luno Singapore Pte. Ltd.
33. Lymon Pte. Ltd., which requested for confidentiality of submission
34. Meta, which requested for confidentiality of submission
35. NAGRA, Kudelski Group
36. OCBC Bank Limited, which requested for confidentiality of submission
37. Okcoin Pte. Ltd.
38. Onchain Custodian Pte. Ltd.
39. PayPal Pte. Ltd., which requested for confidentiality of submission
40. Pragma Pte. Ltd.
41. R.Y.
42. R3
43. Revolut Technologies Singapore Pte. Ltd.
44. Ripple Labs Singapore Pte. Ltd.
45. SBI Digital Markets Pte. Ltd.
46. Securities & Exchange Commission of Thailand
47. Securities Association of Singapore, which requested for confidentiality of submission
48. Securities Investors Association (Singapore)
49. Shook Lin & Bok LLP, which requested for confidentiality of submission
50. Simmons & Simmons JWS Pte. Ltd.
51. Singapore FinTech Association
52. Sparrow Tech Private Limited



53. Sygnum Pte. Ltd.
54. Tan Kin Lian
55. TRM Labs
56. Uniswap Labs, which requested for confidentiality of part of its submission
57. UOB Limited
58. Upbit Singapore Pte. Ltd., which requested for confidentiality of submission
59. US – ASEAN Business Council
60. Visa Inc.
61. William Lai
62. World Federation of Exchanges
63. Xfers Pte. Ltd., which requested for confidentiality of part of its submission
64. Zhang Wei
65. Respondent A, which requested for confidentiality of identity
66. Respondent B, which requested for confidentiality of identity
67. Respondent C, which requested for confidentiality of identity
68. Respondent D, which requested for confidentiality of identity
69. Respondent E, which requested for confidentiality of identity
70. Respondent F, which requested for confidentiality of identity
71. Respondent G, which requested for confidentiality of identity
72. Respondent H, which requested for confidentiality of identity
73. Respondent I, which requested for confidentiality of identity
74. Respondent J, which requested for confidentiality of identity
75. Respondent K, which requested for confidentiality of identity

Seven respondents requested for confidentiality of identity and submission.

Please refer to Annex B for the submissions to Questions 6 – 10 (segregation and custody) and Annex C for the submissions to Questions 15 – 16 (market integrity).



Annex B

SUBMISSIONS FROM RESPONDENTS TO QUESTIONS 6 – 10 OF THE CONSULTATION PAPER ON PROPOSED REGULATORY MEASURES FOR DIGITAL PAYMENT TOKEN SERVICES

Note: The table below only includes submissions for which respondents did not request confidentiality.

S/N	Respondent	Responses from respondent
1	Allen & Gledhill LLP	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The Participants agree that DPTSPs should ensure customers’ assets are segregated from the DPTSP’s own assets (i.e. there should be on-chain segregation between client and proprietary assets, and they should not be held in the same wallet or be controlled by the trading function of the provider). The Participants also suggest that, in order to ensure alignment with the asset segregation measures, the appropriate books and records segregation must also be made mandatory.</p> <p>The Participants note that, for consistency with how client assets that are traditional capital markets products are treated, client assets that are DPT held and controlled in separate client wallets for the benefit of the customer should also be free from any lien and other encumbrances.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>The Participants express a need for consistency across traditional capital markets products and DPT in the application of safeguarding measures, assuming similar/ equivalent features.</p> <p>In this regard, the Participants agree with MAS’ general proposal to require DPTSPs to appoint an independent custodian to safekeep customers’ private</p>



		<p>keys to access their wallets or wallets held on their behalf, to help reduce the risk of loss or misuse of customers’ DPTs.</p> <p>However, the Participants note that (a) MAS intends to give effect to these consultation proposal by issuing Guidelines; and (b) MAS intends to separately consult on regulations governing DPT custody services on a standalone basis at a later date, in connection with the proposed amendments to the PS Act.</p> <p>In this regard, the Participants seek further clarity on the specific licensing and operational expectations of an independent custodian, in the event one must be appointed pursuant to these proposed DPT Guidelines, but pending further amendment of the PS Act (assuming these DPT Guidelines would be established before the amendments to the PS Act and the subsidiary regulations thereto come into force).</p> <p>Separately, the Participants note that (a) DPTSPs (whether local or foreign) that currently provide DPT custody services must make their own assessment as to the applicability of Singapore licensing requirements; and (b) generally, an existing financial institution regulated as a custodian or trustee in respect of traditional capital markets products may not have their own infrastructure consisting of hardware and software capabilities to custody DPTs, and accordingly, may choose to appoint a third-party DPTSP (whether local or foreign) to provide DPT custody services, where such DPTSP is duly regulated or licensed in the jurisdictions it operates.</p> <p>The Participants also observe that more established DPTSP groups providing a full suite of services (including exchange, trading and custody services) may house trading and custody functions in different affiliate entities. In view of this, the Participants seek further clarity on whether MAS would consider the custody arm (operating as a distinct and separate legal entity i.e. as a DPT custodian) to be sufficiently “independent” and segregated from other business functions of the same DPTSP group, where customers appoint the DPT custodian directly or via their existing traditional financial services provider (e.g. bank, trustee, custodian).</p> <p>Relatedly, for quicker settlement/withdrawal, customers of DPTSPs providing exchange or trading services may also choose to have a small percentage of their assets held in hot trading wallets operated by such DPTSPs. These DPT assets in hot wallets may not be segregated from other clients’ assets, and the private keys for this omnibus client hot wallet may not be held separately with the custodian arm/affiliate of the DPTSP.</p> <p>Hence, in view of the above, the Participants seek MAS’ further clarification and guidance on:</p> <ul style="list-style-type: none">(a) any specific criteria for the DPT custodian to be considered “independent”;
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		<p>(b) the proportion of customer DPT expected to be held with an independent custodian; and</p> <p>(c) whether the above criteria may be dependent on whether the underlying investors are retail, accredited or institutional investors.</p> <p>Other suggested safeguarding measures include implementing special reserve accounts for the exclusive benefit of customers (US SEC Rule 15c3-3), and mandatory participation by broker-dealers in customer protection mechanisms (such as the SIPC in the U.S. or the SGX fidelity fund).</p> <p>Finally, the Participants seek further clarification from MAS on whether providers of wallet infrastructure (who do not perceive themselves as custodians but provide a technology layer for wallets) will be construed as “independent custodians” for the purposes of the proposal.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>The Participants note that the high volatility of DPTs (even in a single day of trading) mirrors the volatility of US NYSE/ NASDAQ stocks, as well as the speculative element of such DPT trading. The Participants agree that disclosure requirements should generally be imposed (e.g. those imposed by the US SEC in relation to penny stock trading, Rule 15c2-11).</p> <p>The Participants suggest that DPTSPs collect and disseminate to retail customers information of DPTs and their issuers prior to the DPTSP commencing services. Such information would include the issuers’ general business profile, recent trading prices and volumes of the relevant DPTs, etc. The Participants note that this would mirror various jurisdictions’ approach on equity crowdfunding (e.g. the US/UK). (See Lin (2017), Managing the Risks of Equity Crowdfunding: Lessons from China; in particular, “Disclosure and Due Diligence Obligations” for fundraisers and platforms.)</p> <p>The Participants also suggest that DPTSPs should clearly specify to their customers which underlying providers they use, and whether there is any transfer of risk from one entity to another. For example, a centralised digital assets exchange may be using another firm at the back-end in relation to lending/staking services. Where this is not disclosed to the customer, this may prevent the customer from taking immediate action upon insolvency of the underlying lending/staking services provider.</p> <p>Further, while appointment of an independent custodian would help reduce the risk of loss or misuse of customers’ DPTs, the Participants observe that it may still be unclear how clients’ DPTs held with a DPT custodian would be protected should the DPT custodian become insolvent, especially if the</p>
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		<p>underlying DPT custodian is a foreign custodian subject to the foreign laws where it is incorporated. Hence, the Participants agree that there should be written disclosures on the consequences for the customers’ assets if the DPT custodian becomes insolvent.</p> <p>The Participants suggest that reconciliation should include computation on the total amount of assets in customers’ accounts and total amount of assets to be deposited into customers’ accounts. Proper record keeping of such computations would also provide clarity and certainty on the amount of assets held on behalf of customers.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>The Participants agree that proper segregation of duties and access rights would be essential to ensure safeguarding of private keys from misuse. It is also noted that requiring a suitably high proportion of customers’ DPTs to be held in cold wallets (where private keys are held offline) would also reduce the risk of hacking of such private keys.</p> <p>While custodians holding the private keys on behalf of their customers could ensure that customers’ instructions are authenticated appropriately via multi-party authentication, two-factor authentication and even call-back procedures if necessary, the Participants observe that it may be useful to establish the minimum technical standards or equivalent expected of the DPT providers to safekeep their clients’ private keys.</p> <p>Given that any loss of the private keys would render the DPTs inaccessible, the Participants suggest that it may also be useful to establish minimum standards for maintaining backup copies of customers’ private keys in case there is any technical issue in accessing the original copy.</p> <p>The Participants suggest that, where appropriate, audits on smart contract (where applicable), and assurance audits on the controls (including availability of real time access to the DPT holdings by the auditors) should be required.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
		<p>Question 6.</p>



2	Anchor Labs Inc (Anchorage Digital) ("Anchorage")	<p>MAS seeks comments on the proposed segregation measures relating to customers' assets.</p> <p>In order to protect customers and enhance market stability, MAS should require DPTSPs to (1) segregate customer and firm assets; and, in general, (2) segregate each customers' assets from other customers' assets. The first principle is standard in traditional finance and DPTSPs should readily agree to it if they want to be a responsible market participant. The second principle is also common in traditional finance and is enhanced by blockchain technology that provides added transparency for clients, their regulators and their auditors.</p> <p>Unfortunately, many unregulated DPTSPs commingle customers' digital assets with company owned digital assets—and in moments of market turbulence—this commingling creates uncertainty as to who actually has a claim to customer assets. Such uncertainty exacerbates market volatility as market participants rush to seek physical certainty of their assets, but are often locked out of their accounts. Lastly, because it's not entirely certain if in bankruptcy these commingled assets would be considered assets of the customer or the firm, these investors could face long pending litigation before ever receiving a portion of their funds, if any at all.</p> <p>There is a best practices approach that protects customer's assets, and it's a solution Anchorage Digital has on offer for other DPTSPs to better protect from counterparty risk. Generally, a customer's assets should be segregated in a separate vault(s) from other customer's assets, like what is done at Anchorage Digital. In the event of a security failure, this segregation limits the hacker's access to just one customers' vault, instead of access to the assets of multiple customers. Furthermore, it allows greater transparency as to who owns which assets which can help when the DPTSP, the customer, or the government verify this information. It is imperative that MAS not go so far as fully prohibiting the commingling of customer assets as there are instances where customer funds can be commingled for legitimate purposes related to transaction settlement, payment of commissions and taxes, as well other use cases.</p> <p>One other matter related to custody that MAS should discern carefully is the separation of exchange and custodian functions, while still allowing custodians to assist customers trade these assets as a broker. Unfortunately, there are exchanges, without duties of care to clients like custodians and brokers, that provide both exchange and custody services, exposing customers to high and undue risks and conflicts of interest that threaten financial stability and the financial wellbeing of customers. In question 7, where we focus on the importance of custodians, in detail, we go over the benefits to both customers and exchanges of separating custody and exchange services.</p> <p>Question 7.</p>
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		<p>MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Anchorage Digital also believes it is in the best interest of customers for MAS to require exchanges to appoint an independent custodian (i.e., a separate legal entity that is not affiliated with the exchange) to hold customer’s assets, so long as the independent custodian can access agency brokerage services through an affiliate of the independent custodian, but not the exchange. That is because exchanges may have conflicts of interest and heightened risks if they are providing both exchange and custodian services to both sides of numerous transactions. An exchange brings many counterparties together to execute trades and does not have the same duty of care to one customer as an agency broker has to its counterparties so the potential for conflicts of interest are greater. However, an agency broker acts in the best interest of one client to get the best price for a trade that the client requests (i.e, one to many) so the potential for a conflict of interest is lower.</p> <p>Further, if certain failed exchanges had relied on an independent custodian so that custody and exchange functions would have been properly segregated, fewer customers would have lost money. That is because instead of exchanges custodialing customer assets pre- and post- trade, without a duty of care, the DPTs would have been safely stored at the independent custodian where the customer has complete control over their DPT, not the exchange. Anchorage Digital has a new service called a Custody Exchange Network, that enables our customers needing to make a trade on an exchange to keep their DPTs safely stored in a segregated vault until settlement and then once cleared the new assets will quickly enter back into the customers secure vault at Anchorage Digital. This eliminates the need to prefund hot-omnibus wallets at exchanges, which exposes customers to great risks, and prevents customers from having their DPTs trapped on a distressed exchange.</p> <p>Equally important, exchanges benefit greatly from independent custody services, too. That is because independent custodians can provide transparency and certainty that customers affirmatively control the assets they purport to own, without having to custody them and take on the associated responsibilities until settlement. This is a win-win scenario for customers and exchanges, and it also reduces the opportunity for bad actors to commit fraud by taking customer funds and using them to fund unauthorized activities such as lending to other parties. The benefit comes from DPTs being securely stored at a non-exchange custodian, so only the customer has control over them. It is important to remember that these DPTs stored at custodians for safekeeping are not deposit institutions that fund loans. Instead, custodians securely hold</p>
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		<p>the cryptographic keys that unlock a customers’ DPTs, and the DPTs cannot be misappropriated by the custodian because, at least at Anchorage Digital, customer assets cannot be moved without approval from the customer.</p> <p>Additionally, to prevent the loss or misuse of customer funds, MAS should consider the four baseline requirements that any entity providing custody services should meet that we propose in question 9: (1) proof of exclusive control, (2) proof of existence, (3) hardware security, and (4) blockchain monitoring.</p> <p>To further protect consumers, MAS should weigh the merits of the four general principles for DLT regulations that we discuss in great detail in another comment: (1) always segregate customer and firm funds, (2) separate exchange and custodian functions, (3) related-party transactions must be fully disclosed, (4) fundamental financial risk controls must be implemented.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Anchorage Digital’s customers are institutions that have a deep understanding of the products and services we offer. Nonetheless, consumer protection is of the utmost importance to Anchorage Digital. We make it a priority to be transparent about important policies that impact customers and risks associated with services and products we provide.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>In the consultation paper MAS suggests the following control measures for to safeguard the private keys and storage of customer DPTs:</p> <p>“(a) instituting processes that restrict any one staff from being able to authorise and effect the movement, transfer or withdrawal of customers’ DPTs; (b) controlling movement or transfer of DPTs between the DPTSP’s preapproved hot, warm and cold wallets; (c) implementing operational controls to prevent the loss of cryptographic keys of DPTs that are held or managed by DPTSPs; (d) storing a suitably high proportion of customers’ DPTs in cold wallets; and (e) establishing a compensation process to handle any loss of such customers’ DPTs, arising from incidents that is attributable to the operations of the DPTSP.”</p> <p>Anchorage Digital generally agrees with these control measures; however, the use of the terms “hot” and “cold” when describing wallets and storage are</p>
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	<p>misleading as neither provide the level of security and efficiency that institutions require. Specifically, “cold wallets” are not an optimal choice for high-networth individuals or retail customers either because of their vulnerabilities to use-error resulting in irreversible loss of funds.</p> <p>Generating keys and addresses in a legacy “cold wallet” or cold storage system requires complicated human processes, in which operators must safely follow long chains of physical steps using multiple pieces of software and physical protective privacy measures. Keys are stored in a stable medium, often sharded into multiple geographic locations, anywhere from locked and monitored rooms in offices to high security vaults, with the goal of preventing individuals from accessing them. Executing transactions from cold storage may take anywhere from hours to days, requires many hands and steps to complete, and inherently compromises the security of the assets which means custodians usually “burn” an address after a single transaction.</p> <p>Because these human driven processes are so cumbersome, legacy cold storage is highly inefficient and unscalable for any modern fintech, and scaled use cases explicitly compromise on security from both cybercrime and human error or misconduct, and typically cannot securely allow for participation in on-chain activities such as governance and staking. Lastly, they are unable to provide a full and expedient auditability of ownership.</p> <p>However, Anchorage Digital has overcome the limitations of cold storage with its Hardware Security Module (HSM) Model which keeps private key data completely offline within air gapped hardware while transacting at speeds similar to a warm or hot wallet, with the added improvement of encoding policy engines that validate signing instructions inside the hardware itself. Anchorage Digital authenticates an institution’s policies, such as a quorum of user approvals, proving who initiated a transaction and verifying signer’s identity through multiple biometric and cryptographic checks. All of this is done with the private key material staying within the HSM where no client, Anchorage Digital employee, or third party can view, manipulate, or lose the most important data that controls assets. The HSM hardware technology in use by Anchorage Digital has a deep history being utilized for mission-critical security and has been vetted in accordance with the FIPS 140-2 standards. We provide more detailed information about the importance of HSMs below.</p> <p>Further, beyond the suggestions provided in the consultation paper MAS should discern carefully the merit of implementing four baseline requirements that all custodians must adhere to. These requirements are (1) proof of exclusive control, (2) proof of existence, (3) hardware security, and (4) blockchain monitoring. Each baseline requirement is explained in detail below and if met by independent DPT custodians in Singapore, we believe DPTs customers will be better protected, financial stability will be enhanced, and Singapore will be the world leader on DLT custody standards.</p>
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		<p>Proof of Exclusive Control</p> <p>A custodian’s ability to simply prove ‘physical possession or control’ of private key material is not enough because DPTs are fundamentally different from traditional financial instruments in terms of technology. Private keys—the cryptographic tools that grant access to a user’s digital assets—can exist in multiple instances and locations. This means that, even if a custody provider can prove possession and control of private key material on behalf of their customers, other copies of that private key material can and often do exist apart from the copy held in custody.</p> <p>Therefore custodians must be able to prove exclusive control over the private key material corresponding to a given wallet. Because of the nature of cryptographic assets, access to asset private key material is equivalent to access to the underlying assets (what we mean by digital assets having a “bearer nature”). The work of digital asset custody, then, is essentially the secure custody of private key material.</p> <p>The notion of exclusive control—that the assets are held exclusively by a custody provider because the asset private key exists exclusively within the custody provider’s control—is critical. Proof of exclusive control can be securely achieved through a combination of software, hardware, and operational processes. However, custody models that rely on private key redundancy (maintaining multiple physical or electronic copies) and physical security as a proxy for digital asset security can’t ever truly prove this. Not only that, but the simple existence of multiple copies of the same key within custody multiplies consumer risk by expanding the surface of attack and increasing the number of opportunities for internal collusion and theft.</p> <p>Proof of Existence</p> <p>Beyond proof of exclusive control, the ability to prove the existence of assets held under custody on a regular basis, or when requested by auditors or regulatory bodies, is also essential for consumer protection. In essence, proving possession of private key material is of little use if an entity providing custody services cannot also prove that the associated assets exist on a regular basis. Custodians of digital assets should be required to have the ability to prove asset existence when requested; doing so validates that the private keys exist, that the private keys are functional, and that they are held exclusively in the name of the proper parties.</p> <p>Hardware Security</p> <p>The twin goals of exclusive control and regular existence proofing are best met by using single-purpose hardware security modules (HSMs) for key generation and storage. On the first point, HSMs themselves can generate and store private key material without the need for that material to ever leave the HSMs,</p>
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		<p>thus ensuring exclusive control. On the second point, existence proofing via HSM-based architecture is easily and nearly instantly conducted through challenge-response authentication, which is not true of custodial solutions that rely on redundant copies of private keys as part of their security model. HSMs are also easily auditable by clients or third party auditors.</p> <p>Beyond facilitating these key consumer protection processes, when air-gapped and physically isolated from public network connectivity, HSMs provide a version of offline so-called “cold” storage that doesn’t require key sharding or the kinds of manual human operations other forms of cold storage typically rely on—all operations that introduce the possibility of human error, theft, or compromise, and can ultimately result in asset loss.</p> <p>HSMs also benefit from being well-known, mature, and rigorously tested technology. To this day, NATO militaries, major financial institutions, and many large technology companies already leverage HSMs whenever they have significant key management challenges. Relying on HSMs for digital asset custody also makes existing, long-established, and regularly reviewed US federal standards for private key security foundational to a custodian’s security architecture. The National Institute of Standards and Technology has developed the Federal Information Processing Standards (FIPS), standards and guidelines developed for use by the Federal government, approved by the Secretary of Commerce. HSMs rated FIPS 140-2 meet the stringent security requirements needed for cryptographic modules.</p> <p>Blockchain Monitoring</p> <p>To act in the best interest of consumers, markets, and capital formation, it is the responsibility of custodian providers to assess the distributed ledger technology and associated network by which a given digital asset is logged and transferred. Digital assets present unique security concerns, and any vulnerability at the protocol level stands the risk of being exploited, potentially at scale. The inability or unwillingness of an entity to assess and monitor a given blockchain’s integrity, as well as implement policies and procedures around periodic evaluation of changes to that blockchain puts consumers and the market at risk of material loss. It should be a nonnegotiable requirement custodian in the digital asset space to not only have the ability to proactively monitor the blockchains for those assets they wish to support, but to implement clear policies and procedures for doing so on a regular basis.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p>
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		<p>Anchorage Digital agrees that MAS should carefully consider measures to safeguard retail customers’ DPTs from the risks of unregulated borrowing and lending. Any DPTSPs that do provide these services, to retail or institutional customers, at the very least should provide a clear risk disclosure document and obtain the customer’s explicit consent.</p>
3	Asia Crypto Alliance Ltd. (“ACA”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>ACA is generally supportive of the proposal to require DPTSPs to segregate customers’ assets from its own assets. ACA notes that, as a matter of operational implementation, there will be short periods of time where the DPTSP’s own assets are held together with customers’ assets (such as fees from transactions) that will need to be “swept out” from the accounts/wallets where customers’ assets are held and transferred to the DPTSP’s own account/wallet. Any risks associated with such temporary comingling of assets can be mitigated through regular reconciliation processes.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We note that the key concern for the MAS is to address the insolvency risks associated with customers’ assets held by a DPTSP.</p> <p>Independent custodians may seem a safer option where recent events have shown how investors’ assets commingled with a DPTSP’s assets can result in severe losses for investors. However, careful deliberations are required if this measure is to be adopted. In particular, any independent custodian is also subject to insolvency risks themselves. As such, requiring customers’ assets to be held by an independent custodian does not protect customers from the event that the custodian itself becomes insolvent. The key to protecting customers’ assets from insolvency risks is to regulate how customer assets are being custodize.</p> <p>In addition, requiring customer assets to be held by an independent custodian may also lead to unintended consequences.</p> <p>If independent custodians become a requirement, is there a sufficient number of independent digital custodians available to provide such services for the entire industry, and at what price point? It will be dangerous and unsettling if the limited number of independent custodians results in concentration risk or oligopolistic practices ensue thus creating a pricing issue.</p>



		<p>Reliability and safety of customer digital assets are paramount especially given the relative newness of this asset class. A requirement from MAS for independent custodians may fuel new entrants into the market. The issue to ponder is whether recently established organizations have the required operational capability, internal safeguards, controls, and sufficient experience and knowledge to safely custodize digital assets.</p> <p>It is common practice in the traditional financial sector where financial institutions may hold clients’ assets in trust, there are required controls in place to protect investors’ assets. Some of these standards and best practices can form as guidance for DPTSPs seeking to provide safekeeping solutions for their customers.</p> <p>ACA holds the view that to adequately protect customers’ assets from the risks of insolvency, a DPTSP as well as independent custodians ought to be able to provide crypto assets custody provided they are subject to appropriate regulations relating to custody, including:</p> <ol style="list-style-type: none"> 1) generally, no commingling of customer assets with DPTSPs assets is encouraged but ACA urges further deliberations on the type of service offered by a DPTSP as there are instances where commingling of funds may be necessary from an operations standpoint (see our submissions to Question 6 above); 2) requiring customers’ assets to be held in trust for the benefit of customers and therefore “insolvency remote” from a legal perspective; 3) appropriate risk disclosures, including explicit authorization from clients in the event client assets are used by a DPTSP; 4) no rehypothecation of client assets; 5) restricting the use of customers’ assets by the DPTSP or custodian without customers’ consent; 6) monitoring and audits of assets including, where appropriate, the blockchain itself; and 7) a strong governance framework, not limited to: <ol style="list-style-type: none"> (a) clear reporting lines; (b) separation of duties among different lines of business; (c) implementation of a responsible officer regime for critical functions; and (d) reduce concentration risk through diversifying custody critical system service providers. <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p>
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		<p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>In principle, ACA agrees with the proposed control measures as indicated by MAS in regard to private keys and storage of customer DPTs.</p> <p>Ideally, the safekeeping of a client's private keys needs to be measured against optimal operational efficiency of a transaction’s life cycle with minimal human errors.</p> <p>“Cold Wallets” may be secure but there is always the human element to be accounted for. Furthermore, in regards to operational processes, “cold wallets” may present a challenge to a user in terms of settlement efficiency and cost. Aside from technical solutions, other factors to consider are processes such as user approvals, verification protocol, etc.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>In principle, ACA is of the opinion that unregulated borrowing and lending by DPTSPs needs to be brought into the regulatory fold.</p> <p>Given the global nature of the digital token business, forbidding the lending and borrowing of retail customers’ DPTs may result in retail customers heading towards unregulated and unlicensed DPTSPs located outside Singapore’s jurisdiction. It may be more prudent for lending and borrowing practices to be allowed under an approved control framework.</p> <p>Some elements to consider instituting, at minimum and not limited to, the following:</p> <ul style="list-style-type: none">(1) full disclosure, including clear information on retail customers’ legal rights when their assets are used by a DPTSP;(2) explicit client approval;(3) no rehypothecation of client assets; and(4) regular audits.



4	Asia Digital Exchange Pte Ltd	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
5	Asia Securities Industry & Financial Markets Association (“ASIFMA”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Members are generally supportive of the proposed segregation measures for customers’ assets by DPTSPs. Such measures would be critical particularly given the recent spate of high-profile misconduct cases and interconnectivity within the digital assets ecosystem.</p> <p><u>Independent custodian</u></p> <p>Members were of the view that custody requirements should be the same for both banks and nonbanks under the principle of “same activity, same risk,</p>



	<p>same regulation”. For any provider of digital asset custody services, Members suggested the following three key principles that should be adhered to irrespective of the underlying asset:</p> <p>Principle 1 (Separation of Financial Activities): safekeeping operations must be functionally separated from trading and other similar market activities;</p> <p>Principle 2 (Segregation of Client Assets): client assets must be segregated at all times from the bank’s (and non-bank’s) proprietary assets to ensure that they are bankruptcy remote; and</p> <p>Principle 3 (Proper Control): the custodian must maintain proper control over client assets in order to identify the entitlement holder and to mitigate any ‘single point of failure’ in the record of ownership.</p> <p>Principle 1 above is focused on preventing vertical integration of trading, investing and custody activities within the same legal entity. Members expressed that these functions should be conducted by separate legal entities with appropriate controls to mitigate conflicts of interests. While these may not need to go so far as to prohibit the exchange/ trading entity and the custody entity from being affiliated, they would need to have separate governance structures. In that vein, Members would support an “independent” custodian requirement if it is referred to as a separate legal entity with distinct governance and controls, but not if it further mandated that the separate legal entity be wholly unaffiliated with exchange/ trading entities.</p> <p>In respect of Principle 2 as applied to non-banks, other Members expressed a need to focus on the segregation of customers’ assets from a legal perspective. While Members agree that crypto assets should not be drawn into the bankruptcy estate of the DPTSP, Members felt that the measures should not go so far as to require an independent custodian.</p> <p>In that vein, Members noted that DPTs on deposit in a custodial account with a custodian should not form part of the custodian’s bankruptcy estate in the event of the insolvency of the custodian. If DPTs do form part of the bankruptcy estate of non-bank custodians, Members believe that such custodians should properly disclose the risks to their customers.</p> <p><u>Other matters relating to custodians</u></p> <p>Additionally, Members were of the view that DPTs not supported by a custodian should not be attributed a safekeeping obligation for the custodian, even if such unsupported DPTs are ledgered to the wallet maintained by the custodian for the customer as digital assets are not credited to a digital wallet in a traditional sense.</p> <p>Determining whether a digital asset has been allocated to a wallet requires querying the individual ledger for such digital asset, and the custodian may not have built the requisite connection to the ledger of the unsupported digital</p>
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		<p>asset to know that such unsupported digital asset has been ledgered to the wallet or to interact with such digital asset. For example, if the custodian only agrees to support Bitcoin and if Binance Coin (“BNB”) is dropped into the wallet, the custodian might not have connectivity to the BNB smart contract/ledger to know if the BNB has been ledgered to the custodian wallet or to instruct movements in BNB.</p> <p>Connecting to every digital asset poses risks to custodians as querying whether a smart contract had ledgered anything to a custodian’s wallets requires the custodian to submit a list of its wallets to the smart contract. In the event the smart contract was created by a bad actor or a sanctioned entity, sending such a list creates a potential vulnerability to the custodian.</p> <p>In respect of the disclosure measures proposed by the MAS, Members were of the view the MAS should emphasise the need for such disclosures to be clear and brought to the attention of retail investors, given that retail investors may not necessarily pay much attention to these disclosures.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Please refer to our response to Question 6.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Please refer to our response to Question 6.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Members are generally supportive of the proposed risk management control measures for customers’ DPTs and believe these are important to safeguard private keys and storage of customers’ DPTs.</p> <p>In this regard, Members believe that “attributable loss” (in paragraph 4.12(e) of the consultation paper) should be clearly defined. Members believe that requiring a process for redress and compensation in the event that crypto assets held in custody are lost should be limited to losses caused by the fault of the custodian (e.g., a failure of the custodian to meet its standard of care,</p>
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		<p>fraud on the part of the custodian, willful misconduct, or gross negligence). Some Members also expressed that a separate compensation process in the event of a loss of a customer’s DPTs is not necessary. Instead, client losses should be addressed as a contractual claim under the custody agreement.</p> <p>Members also expressed that the MAS should focus on technology solutions that are designed to ensure there is no ‘single point of failure’ in the record of ownership of client assets. From this perspective, the temperature of the wallet (e.g. hot / cold) would not be mandated, nor is the amount of assets that need to be held in a particular storage type. Members would support risk disclosure and transparency as to the key management solution that is used by a particular DPTSP.</p> <p>In addition, Principles 1 and 2 referred to in the answer to Questions 6-8 above would also help this process in that the custodial entity would be solely focused on being a custodian, and would design a key management system that was appropriately protective (more so than would an integrated exchange and custody entity whose main focus would likely be on trading).</p> <p>In addition, custodians should not be liable to vet the smart contract for all of its hidden features. Custodians should not be strictly liable for any loss in this respect, especially given the potential for losses caused by the nature of a public blockchain. Otherwise, this may discourage traditional custodians from providing services in this area, or it may encourage custodial offerings from special purpose vehicles designed to limit damages, neither of which is desirable from a customer protection perspective.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p><u>Lending/staking</u></p> <p>Members have no comments on the proposal to prohibit DPTSPs on lending out retail customers’ DPTs or conducting staking on behalf of retail customers.</p>
<p>6</p>	<p>Association of Crypto Currency Enterprises and Start-ups Singapore (“ACCESS”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>ACCESS agrees with MAS’ proposal regarding segregation measures.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments</p>



		<p>on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p><u>What constitutes or defines “Custody” and “Custodian wallet service”?</u></p> <ol style="list-style-type: none"> 1. ACCESS is of the view that given the variety of DPT wallet solutions available, of which the DPTSPs offering them control the wallets to varying degrees, it is important to first clarify the definition of “custodian wallet service” so as to only capture DPTSPs which have unilateral, absolute control over a wallet and can independently transfer DPTs out of the wallet on their own without requiring other co-signers or co-approvers. 2. MAS’ PSN02 paragraph 2-7 currently defines “custodian wallet service” as follows: <p style="text-align: center;"><i>“Custodian wallet service” means the service of safekeeping and administration of digital payment tokens or instruments enabling control over digital payment tokens”.</i></p> <p style="text-align: center;">However, the specific degree of “control” is not defined in PSN02.</p> 3. Paragraph 2.19 of MAS’ responses on 4 Nov 2020 to its Dec 2019 consultation on amendments to the Payments Services Act defines “control” over a DPT as follows: <p style="text-align: center;"><i>A DPT service provider will have “control” of a DPT if it has the ability to control access to any DPT or to execute transactions involving the DPT. In the same vein, the service provider is caught within scope if it has control over the DPT instrument, for instance a private cryptographic key, that is associated with any DPT. The control of the DPT or DPT instrument need not be absolute or exclusive, for example, a service provider will be caught within scope as long as it has control over one of the private keys of a multisignature wallet.</i></p> 4. ACCESS is of the view that this description of “control” in bold font above is too broad, as a DPTSP that merely controls one of the private keys in a multisignature wallet (or one “share” in an MPC wallet) would be unable to unilaterally transfer DPTs out of the wallet and thus cannot be considered as having control over the DPT or DPT instrument. Such DPTSPs that hold only one key/share of a wallet but cannot unilaterally transfer DPTs out of the wallet include: <ol style="list-style-type: none"> a. DPTSPs which provide backup key storage services, in which a customer who owns a 2-of-3 multisignature wallet gives them just one of the three keys to hold as a backup in case the customer loses his other two keys.
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		<p>b. DPTSPs which hold only one key of a 2-of-3 multisignature wallet so they can act as a trusted co-signer for a customer’s wallet, with the DPTSP only co-signing a transaction if it has verified that the transaction looks legitimate and is consistent with the customer’s known activity profile.</p> <p>5. As such, ACCESS is of the view that a DPTSP should only be considered as having control of the DPTs or DPT instruments if it indeed has absolute and exclusive control of the DPT or DPT instrument, and is able to unilaterally transfer DPTs out of the wallet. In practice, this would refer to the following scenarios:</p> <p>a. In the case of a non-multisignature wallet which has only a single private key, the DPTSP would be considered as controlling the DPT or DPT instruments if the DPTSP is the only person controlling the single private key and can unilaterally transfer DPTs out of the wallet.</p> <p>b. In the case of multisignature or MPC wallets, the DPTSP would be considered as controlling the DPT or DPT instruments if the DPTSP is the only person controlling the required quorum of private keys or MPC “shares” required to unilaterally transfer DPTs out of the wallet.</p> <p>6. Accordingly, ACCESS recommends that MAS refines the definition of “custodian wallet service” to only include those where the DPTSP can unilaterally transfer DPTs out of a wallet. DPTSPs that hold an insufficient number of private keys or shares to be able to unilaterally transfer DPTs should not be caught as providing “custodian wallet services”. A proposed working definition of “custodian wallet service” would be:</p> <p style="text-align: center;"><i>“Custodian wallet service” means the service of safekeeping and administration of digital payment tokens or instruments enabling unilateral control over digital payment tokens”.</i></p> <p>7. This definition is similar to how jurisdictions such as Malaysia view DPT custody. For reference, the Securities Commission of Malaysia’s “Guidelines on Digital Assets” provides the following guidance in Chapter 23 (“Requirements for Digital Asset Custodian”) on page 42 (emphasis in bold by ACCESS):</p> <p style="text-align: center;"><i>A person who merely offers a system by whatever means, which enable the asset owner to hold digital assets and the asset owner has full control of his digital assets, is not deemed to be a digital asset custodian for the purposes of paragraph 23.02. An asset owner is considered as having full control of his digital assets when he holds the private</i></p>
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		<p><i>key(s) to the wallet and the digital asset custodian does not have the ability to effect a unilateral transfer of the asset owner’s digital assets.</i></p> <p>8. A corollary of only considering DPTSPs which can unilaterally transfer DPTs out of a wallet as providing custodian wallet services is that firms which provide wallet solutions or wallet technology where they do not possess such unilateral control of the wallet should be prohibited from describing themselves as “DPT custodians” or say they are providing “custodian wallet services”. Referring to themselves as such may cause their customers to mistakenly believe that their DPT is being fully safeguarded by the firm, when in reality the firm may not actually fully control the DPTs in the underlying wallet.</p> <p>9. In addition, the meaning of “custody” from first principles should imply custody or safekeeping of property in a legally segregated and bankruptcy remote construct, meaning that in the event of default of the DPTSP, their assets would be safe from the creditors of the DPTSP. “Custody” is also usually accepted to mean legal segregation and bankruptcy protection of client assets, as opposed to just technological / cyber, operational safeguards to protect customers’ assets which may not possess true legal segregation and bankruptcy protection. As such, a DPTSP which purports to be providing “custody” or “custodian wallet services” must be able to demonstrate that it is providing “true” custody.</p> <p><u>Turning to the question proper</u></p> <p>1. Some ACCESS members support the idea of an independent custodian, while some members are of the view that an independent custodian may not be needed. We would like to present both views for MAS’ consideration.</p> <p>2. Ultimately, whether or not a DPTSP uses an independent custodian should be clearly disclosed to customers. Absent any regulatory requirement from MAS that a certain DPTSP appoints an independent custodian, customers should be made aware of the custodial arrangements used by a DPTSP, and customers should choose a DPTSP only if they are comfortable with its custodial arrangements and aware of the associated risks.</p> <p>3. The definition of “independent custodian” also needs to be clarified. There are a broad range of definitions and perceptions on what this actually means. For instance, does this refer to operational segregation within the same entity or group, or full segregation in a separate nongroup entity. Either option may be possible provided that customer’s assets are safeguarded in a legally segregated and bankruptcy remote construct.</p> <p>4. In addition, consideration needs to be given as to whether commingling of customer assets should be permitted with respect to a DPTSP’s custodial</p>
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		<p>wallet service offering. Where certain DPTSP products or services involve commingling of customer assets, these assets should still be legally segregated (from the DPTSP’s own assets) and bankruptcy remote, and disclosed to customers.</p> <p><u>Arguments for Requiring an Independent Custodian</u></p> <ol style="list-style-type: none"> 5. An independent custodian should be an entity that is legally and operationally distinct and separated from the DPTSP, does not have any common persons from the DPTSP helping run the business, and which is not controlled by (either directly or indirectly) the DPTSP in any way. 6. Having such an independent custodian provides a strong set of checks and balances to prevent the DPTSP from misusing or losing customers’ assets, similar to the traditional finance world where securities exchanges do not also custodize the securities that trade on them. 7. An independent custodian also helps ringfence and segregate customers’ assets from the DPTSP should the DPTSP face insolvency, and can help reduce financial contagion risks. It may also be easier for a liquidator to administer customers’ assets if they are held by an independent custodian rather than with the DPTSP which is facing liquidation. 8. Having an independent custodian will also reduce the risk of employee fraud, collusion or malfeasance should custody be done fully in-house. Even if there are separate in-house teams doing custodial work, being in the same company and sitting in the same office increases the chances that rogue employees will be able to get access to customers’ assets. 9. Though an independent custodian would be most applicable to DPT exchanges, an independent custodian may also be useful for other FIs handling DPTs such as asset/fund managers, broker-dealers and financial advisers. 10. Consideration should be given as to how the requirement to have an independent custodian should apply to a group which has operations and entities throughout the world – such a group could perhaps satisfy this requirement if its custody service is regulated by a comparable regulator, and it can demonstrate legal and operational segregation and bankruptcy remoteness. <p><u>Arguments for Not Requiring an Independent Custodian</u></p> <ol style="list-style-type: none"> 11. An independent custodian may not be necessary if the DPTSP can sufficiently demonstrate that it has appropriate robust technical, operational, bankruptcy remoteness and governance arrangements in place to properly safeguard customers’ assets. 12. Not all independent custodians may offer sufficiently robust custodial solutions equivalent to or better than what the DPTSP can do in-house.
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		<p>This is unlike the traditional finance world where independent custodians are robustly regulated; in the DPT space, there are only a relative handful of DPTSPs that are regulated for DPT custody in other jurisdictions.</p> <p>13. Some DPTSPs may wish to custodize DPTs that no independent custodian can currently support, or where there is a limited number of independent custodians who want to support. Hence in these cases, DPTSPs may have to self-custodize the DPTs.</p> <p>14. Some WG members were of the view that appointing an independent custodian would incur additional costs, which may have to be borne by the DPTSP or passed on to customers.</p> <p>15. Certain business models, such as DPT payment provider firms, involve frequent numerous transactions. Should DPT payment firms use an independent custodian, they will need to pay the independent custodian a fee which covers the safeguarding of assets and withdrawal fees. DPT custodians typically charge fees based on assets under custody and any additional withdrawal transactions beyond a certain number of “complementary” transactions included as part of that pricing tier (withdrawal transactions incur on-chain mining or gas fees so the custodian cannot bear these fees on their own). Given the high number of transactions that DPT payment providers will likely have, they may be bumped up into a higher-price tier relatively easily. Notwithstanding, even if a DPT payment provider were to self-custody customers’ assets, whenever they send out DPTs for their customers, the on-chain transaction fees will still have to be borne by the DPT payment provider or they may pass this fee on to their customer. This point also applies to exchanges that only do internal ledger rebalancing (where they self-custody all customers’ assets) so as not to incur on-chain transaction fees.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>ACCESS agrees with MAS’ proposal regarding segregation measures.</p> <p>There is potential to include Liquidity Risk Management procedures as disclosure requirements, similar to that being recommended by the Securities and Futures Act on Funds being managed by Investment Managers who undergo significant redemptions. MAS may consider looking at gating and significant withdrawal-type reporting requirements, where “significant” constitutes more than 50% of the DPTSP’s total fiat balance.</p> <p>Question 9.</p>
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		<p>MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <ol style="list-style-type: none">1. ACCESS agrees with MAS’ proposed risk management controls for customers’ DPTs.2. ACCESS agrees with the proposed requirement for a DPTSP to establish a compensation process (which could include insurance coverage for cases attributable solely to theft, loss or misuse by the DPTs or DPT instruments in custodial services wallets unilaterally controlled by the DPTSP) to handle any loss of customers’ DPTs arising from incidents attributable to the operations of the DPTSP. We note that the standard of liability assumed by the DPTSP towards the customer will necessarily depend on a number of factors. These include (but are not limited to) the operating model of the DPTSP, the cover provided by any policy of insurance the DPTSP may have entered into to protect it from losses and liabilities arising from its operations, and any requirements with regard to customer compensation imposed by the DPTSP or its group in other jurisdictions (since a harmonised approach to compensating customers in different jurisdictions may be appropriate). While a requirement for a DPTSP to disclose the compensation process to customers is therefore appropriate, DPTSPs should be permitted to determine the process itself and the standard of liability in accordance with factors they consider to be relevant.3. Some DPTSPs offer insurance coverage to their customers. While insurance cover is good to have, the total amount of insurance underwriting available globally is still insufficient to cover the entire DPT market. As such, ACCESS is of the view that MAS should not mandate that DPTSPs provide insurance coverage, notwithstanding that insurance is acceptable as a form of compensation coverage to customers.4. DPTSPs should keep a suitable proportion of customers’ DPTs in cold storage, but the exact percentage should depend in part on the particular business model of the DPTSP. For instance, DPT payment providers may need to keep a lower proportion of DPTs in cold storage as they may need to make frequent DPT transfers for their customers.5. DPTSPs should implement regular reporting that determine the exact amount of DPT in cold, warm and hot storage.6. DPTSPs should have proper arrangements in place for backing up the private keys or MPC shares. If there are no backup arrangements, DPTSPs must disclose this to clients.7. DPTSPs should have controls in place to reduce the possibility of collusion amongst staff with access control over the private keys that control wallets. Possible controls include regular, automated key rotations to
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		<p>reduce long-tail compromise of data, or other arrangements which achieve the outcome of reducing collusion. While MAS need not mandate a specific method for DPTSPs to reduce collusion risk, DPTSPs must be able to demonstrate how they achieve this.</p> <ol style="list-style-type: none"> 8. DPTSPs should also have external independent testing done (e.g. audits, quality assurance, penetration tests etc.) to ensure that there are sufficient controls, governance and oversight on the DPTSP. 9. DPTSPs should have clear authority matrices to determine access levels based on predetermined thresholds, and determined in accordance with the DPTSPs ongoing business and operational requirements. 10. DPTSPs should have adequate failsafe methodologies in place to protect against redundancies, fire, flood etc. 11. With regard to MPC wallets, the multiple private shares constituting a private key should each be housed in separate servers / cloud providers -- this mitigates single point of failure across many vectors.¹ MPC wallet providers may also wish to consider having regular, automated key rotations. An attacker needs multiple shares in order to compromise the underlying private key for MPC wallets, and with shares clouddistributed and rotated, this reduces the likelihood of attack. 12. Customer-defined wallet governance, access and wallet policy controls (such as setting velocity limits on the amount of DPT that can be withdrawn from a wallet within a day, etc). 13. DPTSPs providing custodial wallet services should also have backup key arrangements. <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>An initial distinction should be drawn between on-chain yield programs (such as staking and DeFi) and off-chain lending programs that essentially replicate traditional banking services using cryptocurrencies.</p> <p>Decentralised finance, or “DeFi,” is a transformational development made possible by blockchain technology. DeFi removes financial intermediaries from financial transactions, replacing banks, brokers, and other traditional financial institutions with open-source code operating on public, permissionless</p>
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¹ There should also be clarity as to whether the DPTSP is able to control each of these MPC private key shares held in the servers or cloud, as, if they can control a sufficient number of shares to sign the private key, they may be considered as providing custody rather than merely providing the technology. Conversely, where a DPTSP controls an insufficient number of MPC shares to sign the private key, they should not be permitted to describe themselves as providing “custody” since they do not truly unilaterally control the private key



		<p>blockchain networks. It has the potential to create financial markets that are open, free, fair and accessible to anyone with an internet connection. While the technology is still nascent, DeFi protocols have already proven their resiliency through periods of market stress, and regulators around the world are beginning to recognise the benefits.</p> <p>Providing access to DeFi protocols is distinguishable from engaging in traditional financial services activities. Typically, a DPTSP provides this access by taking onchain actions at the direction of the user. While DeFi protocols can present security risks if implemented incorrectly, a DPTSP has the ability to vet smart contracts for security and safety risks. Preventing DPTSPs from performing this service would likely push less experienced users to other means of participation in DeFi.</p> <p>Staking should also be differentiated from off-chain lending programs. Staking refers to the process of helping to secure a proof-of-stake blockchain network; stakers earn rewards in the form of the blockchain’s native cryptocurrency in return for helping to secure the network. The reward is transparent and comes directly from the blockchain protocol.</p> <p>ACCESS acknowledges that there are severe risks that can result from unregulated borrowing and lending, particularly when there is limited or no disclosure of who the counterparty is, the spreads and fees involved, who the customer faces in the relationship, and the counterparty’s financial status and reserves. Accordingly, ACCESS is generally of the opinion that DPTSPs should not be permitted to carry out borrowing and lending of customers’ DPTs without the customers’ knowledge or consent, and depending on the complexity of product, DPTSPs may consider incorporating further knowledge or suitability assessments for the product.</p> <p>ACCESS notes that if the customer is provided with full knowledge of the counterparty involved, the spread and fees, and the contractual relationship between the customer and the counterparty (whether the customer faces the counterparty directly or the DPTSP), the customer would be equipped with the relevant details to make informed decisions about their participation. It is also noted that in general, borrowing and lending are relatively standard products, and are considered less complex, and customers would generally be able to understand their structure and risks once provided with adequate information.</p> <p>ACCESS is also open to the possibility of having the DPTSP carry out an internal risk assessment on counterparties prior to facilitating any borrowing and lending between the customer and the counterparty. ACCESS would also like to highlight that it may be difficult to obtain information from the counterparty on its exposure and financial ability to weather crises, or to obtain consent from said counterparty to disclose the information to the end-customer so that</p>
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		<p>the customer can make an informed decision on whether to participate in the lending and borrowing product, and some guidelines on what is required for risk disclosure from the counterparty would be of assistance in such dealings.</p> <p>As noted above, ACCESS would also like to note that it is of the opinion that staking-as-a-service and other similar decentralized finance products should be distinguished from lending-as-a-service. Staking is carried out on-chain, and customers do not face the same kind of counterparty credit risk or exposure involved in lending-as-a-service. Additionally, staking makes it unattractive for network participants to act dishonestly in the blockchain network as their tokens would be locked away - if there was any corruption due to malicious activity by network participants, their tokens would likely suffer price volatility due to reputational risk. Staking is used to secure certain blockchains and validate blocks, and is one of the fundamental foundations of blockchain (for example, if lending is a USB thumb drive, staking is the computer hard drive).</p> <p>If staking is not permitted, then the blockchain would not be able to function, as network participants would no longer be able to verify new blocks of data being added to the network, meaning that even simple purchase and sale of cryptocurrency would take much longer to validate and effect. Taking steps to prevent users from carrying out staking would affect the global networks of many blockchains - for example, globally, Singapore is the 6th largest country with Ethereum nodes.²</p> <p>Our general stance is that regulatory efforts should not be to restrict the lending of DPTs, but rather to enhance the robustness of DPTSPs’ credit risk management.</p>
7	Binance	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Binance is supportive of MAS’s consultation proposals to inform customers of the arrangements and risks involved in having their assets held by DPTSPs.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>The Financial Stability Board’s recent consultation on “Regulation, Supervision and Oversight of Crypto-Asset Activities and Markets” identified in its Annex 1</p>

² See Etherscan, Ethereum Node Tracker, link at: <https://etherscan.io/nodetracker> (last accessed 12 December 2022)



		<p>“Essential functions, risks and relevant international standards” that Function 2: Wallets and custody are operational risks (please refer to Annex I)</p> <p>Through consultations such as those published by the FSB and MAS we expect that the regulation of crypto will introduce robust governance, effective risk procedures and adequate internal control mechanisms proportionate to the nature, scale and complexity of the risks inherent in the business model and the firm's activities. This will include disclosures relating to the risks and arrangements in customers having their assets held by DPTSPs, and the effective management of conflicts of interests by e.g. appropriate asset segregation, supported by internal systems and controls and external audit.</p> <p>Due to the inherent characteristics of crypto exchange businesses, and the underlying technology used, as compared with traditional financial services, it may be necessary to regulate them on a more bespoke basis. For example, depending on the business or customers of the DPTSP:</p> <p>it may not always be operationally feasible and may in fact increase security risk where a third party custodian is required to hold customers’ assets, they may list a wide range of tokens, some of which third party custodians may not be capable of holding, and;</p> <p>involving a third party custodian may require on-chain transfers which may compromise security, timeliness of transfer and increase cost to users.</p> <p>Binance proposes that, within regulatory guardrails, there should be flexibility to enable different risks to be managed appropriately by the DPTSP.</p> <p>In the context of the above, Binance seeks further clarification on what MAS envisages would fall within the definition of an independent custodian. In our view, the definition of independent custodian should encompass an independent corporate entity within the group structure of the DPTSP with appropriate insolvency ring fencing measures for wallets in order to safeguard users’ assets.</p> <p>2: https://www.fsb.org/wp-content/uploads/P111022-3.pdf</p> <p>3: (1) Operational risks: cyber security risks leading to unavailability or unauthorised outflow of customers' crypto-assets; This includes technical vulnerabilities including wallet software design and cyber security measures, and operational vulnerabilities such as loss or mismanagement of private keys. Misconduct risk from, e.g., loss of funds due to negligence, fraud/theft, poor administration, inadequate record keeping, or co-mingling of assets.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p>
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		<p>For firms licensed as DPTSP, Binance agrees that timely reconciliation of customers’ assets, together with the ability to make customer account information available to the customer is sensible. We suggest that for DPTSP best practice for customer reconciliation is ‘real time’.</p> <p>Operationally, including for security reasons, we would like to suggest that as long as the information required is available to the customer, on at least a monthly basis, the DPTSP should not be mandated to send the information to the customer uninitiated. Where the DPTSP’s functionality enables the customer to log-in and self-serve to access the information in their account directly, and in which there is a log of all their transaction data enabling them to view a statement of their account, then this should suffice in meeting the reconciliation and disclosure requirements proposed.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>In principle, Binance agrees on the proposed control measures to safeguard the private keys and storage of customers’ DPTs. However, we would like to suggest the following:</p> <p>That the proportion and mix of DPTs in hot and cold wallets is dependent on the DPTSP’s business model and should be managed in line with, for example, its liquidity risk management policy and processes to ensure good operational resilience. This proportion and mix should be managed operationally and not mandated by MAS. For example, mandating a small upper limit on the overall volume of DPTs that are able to be stored in a DPTSP’s hot wallet (e.g. 10 percent) could (i) impact the speed at which customer withdrawals can take place; (ii) compromise security systems of the DPTSP as it will require more sweeping from the cold to the hot wallet.</p> <p>In addition to having risk management controls for the storage of private keys, having such controls for the key generation process is also critical to safeguard private keys. As highlighted by MAS, private keys may be subjected to single points of failure, as well as internal or external threats. As such, we want to suggest the use of Multi Party Computation (MPC) in key generation, which is a mechanism to generate and split the private key into multiple pieces distributing them in multiple places and storing them securely so that no one person will have full access to the private key. This methodology, in our view, has superior risk controls against the traditional method of creating private keys.</p> <p>Binance considers user protection a top priority. We have instigated our own self-insurance fund (SAFU) as part of our commitment to users and investors</p>
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		<p>who place a significant amount of trust in centralised crypto exchanges. We are supportive of disclosing the process for compensating customers in the event of loss as a result of security breach. However, the compensation amount / magnitude could depend on various contributing factors, such as the DPTSP’s ability to procure sufficient insurance in the open market, and therefore should be left to the market and not be mandated.</p> <p>4: https://www.binance.com/en/blog/community/topping-up-safu-to-\$1b-8460049926432191856</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Our answer to Q5 is relevant to this question.</p> <p>Additionally, it may be helpful to consider the different aspects of the crypto ecosystem to ensure that services and activities can be made available to retail customers proportionate to the overall benefits and risk the industry presents to MAS and Singapore. For example, activities such as yield farming, staking and saving have different characteristics, risk profiles and utility within the crypto ecosystem and should be considered separately. The levels of risk and reward, complexity and impermanent loss also differs across the activities with saving and staking simpler than higher risk yield farming.</p> <p>In particular, staking is the process of supporting a blockchain network and participating in transaction validation by committing crypto assets to that network on-chain. It is used by blockchain networks which use the proof of stake consensus mechanism and is integral to the functioning of the blockchain network.</p> <p>Through appropriate regulation, including the use of disclosure and customer consent, it is feasible that simple, lower risk, saving and lending activities can be made available to retail consumers safely. Importantly, this should include staking products that support the blockchain network.</p>
8	Blockchain Association Singapore (“BAS”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We agree with the need for DPTSPs to segregate customers’ assets from the DPTSP’s own assets, and for DPTSPs to hold customers’ assets for the benefit of the customer.</p> <p>We however note that the actual level of segregation may differ by the business nature of DPTSPs and the availability of safekeeping institutions. To</p>

	<p>accommodate differing business and industry considerations, we propose that the focus be placed on satisfying the principles of asset segregation in the form of either i) legal segregation; ii) operational segregation; or iii) accounting segregation, etc. If a DPTSP is unable to achieve segregation internally through any of these three forms, they should be required to segregate customers’ assets with an independent custodian.</p> <p>We suggest that the focus of the segregation proposals should be allowing DPTSPs to focus on implementing the principles (i.e. the three forms of segregation). MAS should not prescribe the exact level or threshold of segregation of customers’ assets, for example the hot : cold wallet ratio. This is because prescribing such levels or thresholds may affect the normal operation of the DPTSP or impact the timely withdrawal process by the DPTSP. Instead, the level or threshold of segregation should be flexible to fit the various business nature or size of DPTSPs, as long as the segregation and practice is clearly disclosed to customers.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We are generally supportive of the need for DPTSPs to appoint an independent custodian to hold customers’ assets for larger or more complex DPTSPs, although we are of the view that this requirement should only be imposed on larger or more complex DPTSPs. Smaller DPTSPs (having regard to their scale and level of complexity) should instead be given the flexibility to decide on whether there is a need to appoint an independent custodian. In any case, all DPTSPs would be required to safeguard customers’ assets (see Question 6 above).</p> <p>We are of the view that this should be a gradual phased-in process (i.e. DPTSPs should be given a grace period to appoint an independent custodian), given the practical and operational challenges that DPTSPs may face at this juncture in respect of the independent custodian (as explained further below).</p> <p>We would like to seek clarity as to whether custodians who are related / connected / affiliated to a DPTSP, but who have put in place robust controls to ensure independence from the DPTSP, would still be regarded as “independent custodians” – we are of the view that this should be the case.</p> <p>Practically speaking, the number of reputable independent custodians that would be able to perform such custodial function may be limited – we are not aware of many independent custodians on the market who are able to carry out this custodian role particularly for substantial amounts of assets and who have robust risk management measures in place. This may also potentially</p>
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		<p>result in concentration risks (i.e. single point of failure), where these independent custodians may not have sufficient systems or resources to process a huge volume of DPT withdrawals during a market crash.</p> <p>DPTSPs may also face operational challenges when utilising independent custodians. For example, a custodian may not support certain DPTs – this could limit the operational flexibility of the DPTSP. In addition, if a custodian provides cold wallet services from off-shore, there could be significant delay in customers’ DPT withdrawals. When a customer requests to withdraw a large amount of DPT above the threshold maintained in the hot wallet, there needs to be a transfer from the cold wallet to hot wallet. If a custodian has a manual verification process, then the transfer will be impossible during the off-hours of the custodian, thereby potentially leading to customers’ losses when there is price volatility.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Proposed disclosure measures – We agree with the proposed disclosure measures that DPTSPs should provide to customers.</p> <p>Proposed reconciliation measures – We agree with the need for DPTSPs to conduct, on a daily basis, timely reconciliation of all customers’ assets, which are held on behalf of the customers by DPTSPs. In addition, we would also propose a need for DPTSPs to appoint an independent auditor to provide an attestation on the balance of customers’ assets held by the DPTSP, where the DPTSP does not hold the assets with an independent custodian.</p> <p>However, we are of the view that it should not be necessary for DPTSPs to provide customers with a monthly statement of account, where a DPTSP already provides real-time information on customers’ asset and transactions (deposit, withdrawal, order submission, open-order, settlement, fee, status of each actions, etc.) on an application or web browser, and where its customers are able to access these detailed logs on assets and transactions in real-time.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We agree that risk management controls for customers’ DPTs are necessary to ensure that DPTSPs manage risks effectively.</p> <p>However, we believe that it is more appropriate to suggest principles including never alone, segregation of duties, least privilege, audit trail, assessment on</p>
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		<p>third party custodian or wallet management system provider without mandating any prescriptive measures. This is because:</p> <ul style="list-style-type: none"> • the practices relating to the management of private keys will vary greatly depending on whether certain DPTSPs use third party wallet service provider or not. If a DPTSP has a proprietary wallet management system, it can set up its own tech-stack, policy and process. However, if it relies on a third party, it may have a very narrow room to wiggle; • the risk and availability of defensive measures on the management of private keys keep evolving; and • if a certain requirement is not acceptable for third party wallet service providers or custodians, it may have an adverse impact on the segregation of customers’ assets. <p>But again, this is a very specific topic in the broad area of investor protection. We are of the view that priority should be placed on other types of investor protection measures, such as segregation of customers’ assets.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We do not agree with the proposed restriction on DPTSPs to not lend out retail customers’ DPTs, and are of the view that it would be overly restrictive to impose such a blanket restriction. Given that one of the attraction of DPTs is the ability to earn interest and/or returns from the holding of DPTs, a blanket ban restriction on the lending of retail customers’ DPTs may lead retail customers to seek unregulated offshore DPTSPs to lend their DPTs to.</p> <p>Instead, we propose that risk disclosure requirements be imposed on DPTs, so that retail customers are informed of these risks involved. Alternatively, MAS may consider limiting the types of lending that DPTSPs can carry out to lower risk lending activities.</p> <p>Additionally, we wish to seek clarification from MAS as to whether the proposed restriction on lending out retail customers’ DPTs would also include staking (i.e. in a proof of stake consensus protocol) activities. The two concepts differ as staking is simply a “lock up” of a DPT and does not involve the lending, mortgaging, charging, pledging or hypothecating of DPTs in the ordinary sense. Furthermore, the risks of lending and staking are different given that in staking, there is no centralised entity that holds / controls the DPTs that are staked.</p>
		<p>Question 6.</p>



<p>9</p>	<p>CFA Society Singapore (“CFA Singapore”)</p>	<p>MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The recent collapse of a global DSTSP and the ripple effect on other DSTSPs have motivated many including us to contemplate various issues in the cryptoasset space. Hence, we are in agreement with the proposed segregation measures including the need for independent custodian and monthly reconciliation. MAS could perhaps also contemplate third party auditors for various aspects of the reconciliation process.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Please refer to our response to Question 6.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Please refer to our response to Question 6.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>The onus is on investors to hold and store private keys securely. This is not dissimilar to ATM, trading account, and access to other financial services logins and passwords. An additional requirement may be to incorporate another layer of security such as 2FA.</p> <p>Nevertheless, investors can opt for custodian services should there be a robust custodian ecosystem for emergency recovery when needed.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We strongly agree with the proposed restriction.</p>
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		<p>However, should lending out of DPTs be allowed, there must be express consent from investors and disclosure of risks involved in lending (such as counterparty risks) must be made known to investors.</p>
10	CHP Law LLC	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We believe that the requirement for an independent custodian becomes more crucial where high-risk trading activities are contemplated, for instance, where lending activities are involved.</p> <p>In the case of FTX, we understand that the FTX’s native tokens were used as collateral for the borrowing of customer’s assets, and the customer’s assets were not segregated from FTX’s own assets. However, this was not clear from FTX’s documentation, which stated that customer assets were segregated.</p> <p>In the case of high-risk trading activities, it may be worthwhile considering requiring DPTSPs to demonstrate that customers’ assets are segregated from its own assets (particularly where the DPTSP contemplates using its own assets for proprietary trading or lending activities).</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We believe that DPTSPs should appoint an independent custodian to hold customers’ assets, and the custodian should be regulated by MAS in a similar manner to the regulation of holders of a capital markets services licence for providing custodial services under the SFA, given that such licensees play a similar role as DPTSPs that provide custodial services. In the case of a foreign custodian, the entity to be appointed as custodian should be licensed to act as a custodian in the country where the account is maintained.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We are supportive of the proposed disclosure and reconciliation measures.</p> <p>In addition to the disclosures proposed by MAS, we think it would be crucial to ensure that the language contained in disclosures (whether in white papers or other marketing materials) is easy to understand. In particular, there should be clear and understandable descriptions on the technical details behind the DPT,</p>

		<p>such as the rights conferred by the DPT, the use cases of the DPT, how it is issued, and its associated risks.</p> <p>These disclosures are in our view important where customers’ assets are placed as collateral for leveraged trading. This implies that the DPTSP will utilise such customer assets as part of its own pool of assets, and should be clearly disclosed.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We are supportive of the proposed risk management controls for customers’ DPT.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We agree with the proposed restriction on DPTSPs not to lend out retail customers’ DPTs, although we believe that this restriction should not extend to non-retail customers’ DPTs provided that there are risk disclosures and consent from the customer is obtained.</p>
<p>11</p>	<p>CMC Markets Singapore Pte. Ltd. (“CMC Markets”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We agree and are supportive of the proposal.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We seek clarification on whether DPTSPs that also offer custodial services may be deemed to be independent?</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p>



		<p>We agree and are supportive of the proposed disclosure and reconciliation measures.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We agree and are supportive of the proposed risk management controls for customers’ DPTs.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
12	Derek Teo	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10.</p>



		<p>MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
13	DigiFT Tech (Singapore) Pte. Ltd.	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
14	Duane Morris & Selvam LLP	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Customers’ assets should be segregated from DPTSP’s own assets.</p>

	<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>There are additional safety precautions in the conventional capital market that are not yet accessible to the realm of crypto assets. These include the requirement that broker-dealers have in place consumer protection mechanisms like the SGX Fidelity Fund and special reserve funds for the benefit of customers, allowing them to be compensated in the event of defalcation, insolvency or liquidation.</p> <p>While we agree in principle with MAS’ approach to require DPTSPs to appoint an external custodian to hold customer DPTs from a consumer protection point of view, we are cognizant of the fact that many companies and investors will wish to monetize their DPT holdings instead of simply leaving it in third party custodian wallets. As such, we suggest the following options (or a combination of the following options) MAS can consider:</p> <ol style="list-style-type: none"> (1) A disclosure by the DPTSP + opt-in by the consumer approach; (2) Stipulate a minimum level of customer assets to be maintained at all times (akin to a bank’s reserve requirements); and/or (3) Imposing mandatory insurance requirements on DPTSPs based on the amount of customers assets held by the DPTSP (if not under custodial arrangement). <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We believe the proposed disclosure requirements when coupled with adequate pre-onboarding consumer education/assessments will be sufficient to allow customers to make an informed decision.</p> <p>We support the proposals on reconciling customer assets and providing statements of account. At the end of the day, it is hoped that a mandatory disclosure system supported by anti-fraud rules can help regulators differentiate the DPT projects which hold substantive fundamentals from those of a more speculative and gambling nature.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p>
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		<p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Staking is a key feature in the Proof-of-Stake validation model on many blockchains. The failure of a DPT is seldom the result of the staking mechanism, but rather the flawed underlying economics of the DPT. As such, restricting retail customer from staking will not remove the risk of loss of owning the DPT. What may be more useful is to mandate a set of disclosure requirements for DPTSPs to comprehensively explain the underlying economics of staking yields.</p> <p>In addition, many business models can survive charging low fees because they benefit from lending or staking customer DPTs out for a side profit. Coupled with the rise of the Proof-of-Stake validation model in the blockchain space, it would be more commercial if lending is permitted in a regulated manner (perhaps with a minimum reserve kept in cold wallets). Based on MAS Notice 649, the equivalent for banks currently stands at 8% for Tier 1 Liquid Assets. This can be a starting point of reference for DPTSPs.</p>
15	Dylan Loh	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9.</p>



		<p>MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p>
16	Ethics Ambassadors Pte. Ltd. (“EA”)	<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p> <p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>MAS proposed measures align with international standards (IMF, 2022). DPTSPs should operationally segregate their own assets (fiat and DPTs) from assets held on behalf of customers (MiCA, 2022). It can be further elaborated as follows:</p> <ul style="list-style-type: none"> a) Clients' assets should be restricted from use or lending without explicit customer consent. b) Users' wallet addresses should differ from DPTSPs' wallet addresses (IMF, 2022); c) A separate account should be created for each client to contain the details of its ownership of DPTs and transaction history (SCA, 2020); d) DPTSP should hold at all times amounts of DPTs equal to the aggregate amounts to which the DPTSP is obligated to all clients in the form of the same DPTs to which the obligation is (SCA, 2020); e) DPTs can be transferred from the customer account only upon the customers' instruction or consent, not solely on DPTSP initiative or discretion (SCA, 2020). <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Following international practice, EA suggests differentiating fiat currencies and crypto assets custody requirements as follows:</p>



		<p>(a) If DPTSP is not licensed by a central bank to accept deposits (i.e., if DPTSP is not a financial institution), all money (fiat currency) held on behalf of customers should be kept in a bank or with a credit institution licensed in a jurisdiction accepted by the relevant authority (SCA, 2020). E.g., customer funds should be placed in the bank or other financial institution by the end of each working day (MiCA, 2022).</p> <p>(b) DPTSP should be allowed to hold DPTs on behalf of customers if it provides DPTs custodian services and meets the legal requirements to qualify for such services.</p> <p>(c) DPTSP can hold customers’ DPTs with a third-party custodian only if the third-party custodian qualifies to provide DPTs custodian services per local regulations requirements.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Disclosures</p> <p>It is important to distinguish between two types of disclosures required from DPTSPs:</p> <ol style="list-style-type: none"> 1. Information to be provided by DPTSP to authorities to obtain a license to operate, and 2. Information to be provided to users and investors to make informed decisions. <p>The information provided to authorities could be more extensive and include such information as a) management structure and competencies, b) organisational structure and beneficial owners, c) risks overview, d) business plan, e) financial statements, f) other trade names used, g) AML/KYC, internal cybersecurity, data privacy, anti-fraud, business continuity, consumer protection and other risk management related policies, h) flow of funds structure, etc. (NMLS, 2020)</p> <p>Users and investors, on the other hand, should have access to the following:</p> <p><i>1. The White Paper</i></p> <p>It should describe the project, operating model, governance, risks, technology, protocol, code, and other relevant details of the business scheme and should be published on the website of DPTSP. Supposing the DPTs are part of the model, the details should be provided about the rights and responsibilities attached to them, how they are issued, their pricing methods, and how they can be used or reimbursed. Other relevant characteristics should also be provided (e.g., if other assets or insurance back them) (MiCA, 2022).</p>
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	<p>The white paper can include the aspects suggested by MAS, i.e., if assets are segregated, if assets are commingled with other customers' assets, and the consequences in case of insolvency.</p> <p><i>2. Service Terms & Conditions</i></p> <p>This document would be (e-)signed by the user when entering the agreement for services with DPTSPs. As MAS suggests, it could include the arrangements related to services, e.g., instructions of use, terms of services, applicable fees, rights and responsibilities of parties, rights of withdrawal, access control, software requirements, custody policy, etc.</p> <p>The risks of DPTSPs depend on the type of services they provide. Therefore certain required disclosures should differ, e.g., DPT issuers would need to provide details about the arrangements and timing of DPT issuing, project milestones, and dependencies when custody service providers should indicate custody arrangements and how the assets are secured. Therefore, EA suggests making disclosure requirements based on the type of services provided by DPTSPs and the risks they pose.</p> <p>EU proposed regulation for Crypto Assets (MiCA, 2022) provides a sophisticated overview of disclosure requirements, which can be used as inspiration.</p> <p>Reconciliation</p> <p>MAS proposal didn't specify the kind of reconciliation required daily. If it requires reconciling total assets to customers assets with assets owned by DPTSP, or if it needs to reconcile total customers assets to each customer account.</p> <p>Some of the reconciliations might be extensive to be performed daily, especially when the assets are moving all the time. Therefore, EA suggests:</p> <ol style="list-style-type: none">1. The mentioned reconciliations should be performed every month (for the previous month-end period), which would also coincide with the timeframe for the requirement to issue account statements to customers;2. An alternative clause to reach the same goal can be defined as requiring DPTSPs to register as soon as possible any movements following instructions from their clients. In such cases, the internal procedures shall ensure that any DPTs movement is evidenced by a transaction regularly registered in the client's account (MiCA, 2022). <p>Statement of Accounts</p> <p>EA agrees that the statement of accounts should be available to the users of DPTSPs at least monthly, indicating the balance of DPTs, their value, and the transfers made during the period concerned. In addition, the same data should be provided to customers upon request at any time.</p> <p>Making the same data available for customers on the DPTSPs platform to be self-extracted could count as meeting the above requirements.</p>
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	<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Based on IMF (2022) advisory, requirements for the security of custodial wallets should go beyond technical details and be principles-based, e.g., the wallets and private keys protection measures should be proportionate to risks, aligned with best practices in cryptography and focused on the key protection.</p> <p>EA agrees with MAS proposed measures to secure customers' DPTs and cryptographic keys, except for the mandatory requirement to hold a proportion of customers' assets in the cold wallets. IMF (2022) explains that cold wallets also have inherent risks, although they differ from hot wallets, and the transfers between cold and hot wallets can also be intersected. Therefore, DPTSP should assess the risks based on the technology and security strengths and weakness to decide where to store customers' assets safely.</p> <p>The examples of requirements for private key protection can be as follows (SCA, 2020):</p> <ul style="list-style-type: none"> a) Cryptographic keys (or equivalent) related to users' access should be stored outside of a network that is exposed to attack; b) DPTSP should ensure that no single person within its custody, who has the rights to operate cryptographic keys, can solely authorise transactions of customers' DPTs; c) The log should be created and maintained for cryptographic keys and individual persons authorizing transactions; d) DPTSP should set policies and procedures to mitigate losses if cryptographic keys are compromised and introduce the arrangements until the relevant problem is resolved. <p>DPTSPs should have internal policies describing the creation, management, and control of cryptographic keys, including generation, verification, online and offline management, transaction and instruction signing processes, storage, and backup (SCA, 2020).</p> <p>EA would like to emphasise that not all information related to DPTs risk management or cryptographic keys should be available to the public. Exposing risks and weaknesses in publicly available documents can incentivise targeted attacks. The policies can be provided to authorities or customers with limited scope upon request.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to</p>
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		<p>protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>DPTSPs Lending of Customers DPTs</p> <p>EA considers that lending and borrowing of DPTs should be regarded as a separate service line, not comingled with custody or exchange services, and accordingly covered by different regulatory rules.</p> <p>Therefore, EA agrees that in cases where custody service is provided, the DPTs stored on behalf of the customer should not be used by DPTSPs for lending or other purposes. This is also aligned with the provisions proposed by EA regarding segregation measures relating to customers’ assets.</p> <p>Borrowing and Lending of DPTs</p> <p>EA does not consider that borrowing or lending DPTs for retail or other customers should be banned. Instead, the regulatory framework can be proposed based on the risks assessed. For example, the main risk retail depositors have is that they may not be able to withdraw the crypto assets due to the borrowers’ exposure to liquidity constraints. In this case, the assets used as collateral can be liquidated for the depositors to recover their investments (FRBN, 2022). Regulations could impose requirements for DPTSPs to have a contingency plan, reserves, and other controls to protect the financial interests of depositors and borrowers.</p> <p>Stablecoins are the most commonly deposited and borrowed in decentralised finance, and they pose a higher risk for financial market destabilisation in case of adverse shocks (FRBN, 2022). Therefore, EA suggests primarily covering borrowing and lending activities under the stablecoins regulatory framework and extending it to other DPTs when relevant.</p>
17	Fireblocks Pte. Ltd.	<p>Question 6.</p> <p>MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Fireblocks agrees with the requirements proposed in Para 4.7. The segregation of customer assets from the assets of the DPTSP will smoothen the process for a customer to recover its assets if the DPTSP goes insolvent. Such segregation is also consistent with the way that financial institutions operating in traditional capital markets currently safeguard customer funds.</p> <p>In relation to Para 4.8 – While practices like conducting daily reconciliation of customer assets and providing regular statements of accounts to customers are well-established and generally recognised as being good demonstrations of accountability to customers, these processes are tedious and error-prone. Large institutions are prone to data integrity issues resulting from human error, the use of outdated record-keeping technology, and incompatibility in technological systems arising from patchwork system upgrades. Fireblocks</p>



		<p>believes that DPTSPs should take advantage of the attributes of crypto-assets and blockchain technology to improve on the way that traditional financial institutions currently perform functions around account reconciliation, while still achieving the desired outcome of consumer protection. When a crypto-asset transaction takes place on the blockchain, the blockchain stores information on: (i) the transaction date and time; (ii) the amount sent; (iii) the sender's address; and (iv) the receiver's address. Blockchain records are immutable and publicly accessible. Where a DPTSP segregates each customer's assets using unique digital-wallet addresses that are independently verifiable on the blockchain, this allows both the DPTSP and the customer to use the blockchain to track and verify for the customer's actual crypto-asset holdings and the movements of such holdings. This clarity of record will be beneficial to the customer in the event that the DPTSP becomes insolvent. However, while holding each customer's assets at a unique digital-wallet address represents the most robust method of earmarking the customer's entitlement to those assets, Fireblocks acknowledges that there may be instances where a DPTSP needs to hold assets of multiple customers on a commingled basis within a single omnibus wallet address or where customer transactions are undertaken off-chain (e.g. for operational efficiency and/or to minimise gas fees). Regardless of the method of segregation, the DPTSP should be required to disclose to its customers the nature in which customer assets are segregated - i.e. whether segregation is done on the blockchain or via internal ledger accounting.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers' assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers' DPTs.</p> <ol style="list-style-type: none">1. Fireblocks' comments on the requirement to appoint an independent custodian - Using a third party custodian may expose a DPTSP to counterparty risks, technology risks, and operational risks in relation to the custodian.<ol style="list-style-type: none">(a) Counterparty Risk - Unlike the custody of traditional financial instruments, there is generally a lack of well-established custodians that specialise in the custody of crypto-assets. Some large custodian banks have announced their entry into crypto-asset custody. However, they usually support only a limited number of crypto-assets or apply custody standards that, while acceptable in traditional financial markets, do not meet the unique needs of crypto-assets and the market. Many of the commonly used crypto-asset custodians are highly niche technology companies that were established for the
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		<p>purposes of filling the custody gap in the crypto-asset industry. DPTSPs may end up using a custodian that is located overseas or has a smaller balance sheet than the DPTSP. This exposes the DPTSP to risks arising from unclear or changing crypto-asset regulation abroad (e.g. where the appointed custodian loses or has an uncertain regulatory status or is subject to unclear standards) and bankruptcy risks in relation to the custodian.</p> <p>(b) Technology Risk - The custody of crypto-assets is inherently complex and fast-evolving, and custodians will necessarily have differing levels of proficiency in relation to the operational issues that arise. First, different crypto-assets may have technical particularities that require modifications to the mode of custody. For example, a custodian that employs multi-signature signing technology (multi-sig) will need to implement this technology differently depending on the blockchain that the crypto-asset resides on. Poor implementation of multi-sig can result in hacks. Second, the properties of crypto-assets may change from time to time (e.g. due to network upgrades or migrations). Third, at the heart of crypto-asset custody is the issue of private-key security. Custodians that are not familiar with the technological aspects of private keys will not be able to securely safeguard crypto-assets. Given the spectrum of complex issues involved in crypto-asset custody, a DPTSP’s appointment of a custodian may not in itself be sufficient to ensure proper safeguarding of the relevant assets.</p> <p>(c) Operational Risk - Crypto-asset markets operate 24/7. The time that a crypto custodian takes to move crypto-assets in and out of storage can have a direct impact on their customers’ ability to execute trading strategies during times of heavy market volatility. Some custodians require at least 24 hours prior notice of withdrawals. A 24-hour delay, in the crypto market, can have a huge impact on a DPTSP’s business. This can make the appointment of a custodian commercially unviable for many DPTSPs.</p> <p>2. Fireblocks’ comments on suggested control measures – DPTSPs should be subject to robust corporate governance requirements that are set out in policies and procedures, and also encoded in the technology used by the DPTSP. The implosion of companies such as FTX and Celsius were largely a result of failures in internal governance. Fireblocks has seen customers use the custody services of Celsius and FTX because they were regulated institutions and perceived to be safer. However, it is now revealed that both companies failed to implement appropriate internal processes to safeguard customer funds. For example, the bankruptcy examiner of Celsius Network found that the Celsius custody program was launched without sufficient accounting and operational controls or technical</p>
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		<p>infrastructure, resulting in customers now facing uncertainty regarding which assets belong to them. Similarly, FTX lacked an independent and functionally competent board of directors, did not maintain proper cash management procedures, and failed to appoint competent auditors for the business, resulting in an inability to mitigate the actions of bad actors within the company. Even if FTX had held customer assets with an independent custodian, the custodian would have acted on FTX’s instructions in relation to withdrawals of custodied assets. An independent custodian would not have been in a position to ensure that FTX had complied with all the requisite corporate governance requirements. At the minimum, DPTSPs should be required to put in place policies and processes around the use of customer assets, be subject to regular independent financial and process audits, and appoint functionally competent to key leadership positions. Corporate governance requirements should, to the extent possible, be encoded in the technology employed by DPTSPs. In particular, DPTSPs should use custody solutions that ensure that no one person can execute transactions on behalf of the DPTSP. For example, the solution can be configured to require that a requisite quorum of individuals approve the transaction before it is signed. The requisite quorum may differ depending on the nature of the transaction, so it is important that the DPTSP chooses a solution that accommodates different approval requirements.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <ol style="list-style-type: none"> 1. Fireblocks’ comments on the safeguarding of private keys - Fireblocks agrees with the areas of private key compromise set out in Para 4.10 of the consultation. Given the criticality of the private key to the safeguarding of crypto-assets, the private key must be safeguarded at all times during its lifecycle, during key generation, key signing, and key storage. <ol style="list-style-type: none"> (a) The private key should be generated (i) in a distributed manner, so that at no point is a single private key present. This can be done through such threshold technologies as multi-sig and MPC; and (ii) in a secure

		<p>environment (e.g. in an air-gapped device or in a hardware-level secure enclave within a cloud server).</p> <p>(b) Private-key material should be securely stored to minimize the risk of loss and unauthorised access. First, private keys should be distributed across multiple locations (whether in the cloud or on-premise) so as to minimise the loss of the private key when any one location is compromised. Second, each location where private-key material is contained should be adequately secured. The two most common ways to secure private-key material are via (i) Federal Information Processing Standards (FIPS) 140-2 compliant hardware security module (HSM) and (ii) hardware-level secure enclave technology (such as Intel software guard extension, Amazon AWS Nitro, ARM TrustZone and others). HSM is a physical device, separate from a computer, on which sensitive data can be stored, and that can only be accessed by authorized individuals. Hardware-level secure enclaves isolate sensitive data within a system.</p> <p>(c) Cold storage solutions, if used, should ensure that neither the private key nor the device securing the private key is required to come online at any stage after the completion of the initial device setup and installation. Fully air-gapped optical solutions are generally preferable to solutions where the transaction is moved between the online computer and offline computer through a disk-on-key storage device that can be compromised.</p> <p>2. Fireblocks’ comments on mandating the use of cold wallets – Fireblocks believes that the critical component to security is not determined by whether one uses a hot or cold wallet, but whether a single private key is able to authorise transactions in relation to associated crypto-assets and whether that private key is stored securely. Fireblocks’ views in relation to the secure storage of private-key material are set out in section 1(b) above.</p> <p>In relation to the use of a single private key to sign transactions - The use of a single private key (inherent in cold wallets, among others) results in a single-point-of-failure risk since an unauthorised party that obtains access to the single private key will be able to gain control of the associated crypto-assets. Today, the two most common technologies in the market that seek to eradicate the single-point-of-failure risk are multi-sig and MPC. Multi-sig is a signing process in which signatures from two or more users, each holding a piece of the private key, are needed to effect transactions. This means that no single private key is able to authorize transactions in relation to the associated crypto-assets. With MPC, by comparison, the private key takes the form of at least three cryptographic key shares (“MPC key share(s)”). The data in relation to each MPC key share is encrypted and stored in different locations known as endpoints. Information is never</p>
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		<p>shared between the endpoints, meaning that a bad actor that manages to gain control over one of the endpoints will not be able to access the data stored in another endpoint. When a signature on a blockchain transaction is requested, a quorum of at least three of the endpoints engage in a distributed signing process where each of the endpoints individually validates the transaction. With MPC and multi-sig, crypto-assets can remain secure even if online private-key material is compromised.</p> <p>Cold wallets have their own inherent weaknesses. First, the movement of assets out of cold-storage wallets is slower and is not ideal for companies that need to transact crypto-assets at high frequency. Second, cold wallets usually require a person to be physically involved in the movement of crypto-assets from cold to hot-wallet storage in order for the crypto-assets to be transacted. This means that there is a single point of failure in regards to that human interaction.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
<p>18</p>	<p>Flint & Battery LLC</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We agree that there should be a clear segregation of customer’s assets (whether retail or non-retail) from the service provider’s assets. Further, we propose that MAS mandates that all DPTs received from customers continue to be owned by the customers and that such DPTs are held on behalf of such customers, unless there is a clear reason, for example, that the DPTSP is in the business of lending out the customer’s DPT, and even so, obtained clear and unambiguous consent and also made the requisite risk disclosures. To be clear, the law should recognise that where the DPTSP is sued by third parties, such third parties cannot claim these customer DPTs to satisfy a judgment against the DPTSP.</p> <p>In addition to the above, and on a related note, we have also proposed, in Question 10, that if a DPTSP engages in the lending of a customer’s DPT, that should be its only business. For example, such a DPTSP cannot also operate the business of being an exchange. This reduces the risk that a DPTSP functioning as an exchange will also concurrently suffer the risk of a DPTSP in the lending business segment.</p>



		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We agree that DPTSPs should be required to appoint an independent custodian to hold all customers’ assets (whether retail or non-retail) and that the rules applicable to the fund management industry should be imported, subject to fine-tuning.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We agree that customers should be adequately informed of the arrangements and risks involved in having their assets held by DPTSPs. We agree with the proposed disclosures and reconciliation measures. However, we further propose that:</p> <ul style="list-style-type: none">a. DPTSPs shall disclose whether customer assets are used for anything other than transactions specifically instructed by customers.b. The reconciliation of DPT holdings of customers shall be available on a real-time basis for all customers not just on a daily basis. <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We express no view on the restriction on DPTSP’s not to lend out retail customers’ DPT but may lend out only non-retail customers’ DPT. It is our opinion that if a DPTSP engages in the lending of a customer’s DPT, that should be its only business. For example, such a DPTSP cannot also operate the business of being an exchange.</p>
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		<p>MAS should conduct a study into at what point a DPTSP will pose systemic risks to the financial market by conducting activity similar to that of a traditional bank or digital bank. Where such risks are present, we propose that regulation similar to that governing a bank should apply: e.g. capital requirements, audit, liquidity ratios, IT redundancy, etc.</p> <p>The legislation regulating the DPTSP should include a statement clarifying that it makes no statement on whether a DPT is an asset.</p>
<p>19</p>	<p>GBBC Digital Finance (“GDF”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>GDF firmly agrees with MAS’ proposals for segregation of customer assets from those of the DPTSPs.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Given the drawbacks of such a proposal (currently a limited number of suitable custodians, limiting provider choice), GDF believes that the realisation of the proposal at this time would lead to concentration and counterparty risks with a small number of custodians, alongside increased service costs for customers due to a lack of market competition. Some DPTSPs may also seek out cheaper alternatives that whilst meeting with any regulatory guidance could nonetheless put customer assets at risk due to lower standards of care and security. It can also be noted that the model wherein venues safely provide their own custody is well established in Traditional Finance where the model is not inherently unsafe.</p> <p>Additionally, such measures may hinder innovation in the custody related space. DPTSPs could be encouraged to consider custody solutions that could enable additional control and security for customers. (i.e. hybrid or fully segregated custody solutions external to the trading platform.)</p> <p>As an additional control measure, MAS could consider that DTPSPs post their balances on-chain so that independent verification can be easily and cheaply achieved by any independent party.</p> <p>At a future juncture, once the market matures and more custodians come to market, including regulated financial institutions, it may be more suitable to reassess this requirement at that time. This would need to bear in mind not only factors of customer asset segregation from the DPTSP but also the increased costs that will inevitably be pushed downwards to customers. An</p>



		<p>alternative approach may seek to strengthen the Technology Risk Management requirements for licensing to ensure that there are appropriate safeguards in place.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>GDF agrees with the proposed disclosure requirements. As a secondary benefit, reporting will be helpful in the context of tax planning, reconciliation, AML/KYC surveillance and provision of secondary services such as asset management platforms, etc.</p> <p>However, with regards to the disclosure requirements GDF notes that often such notices as proposed can be buried in terms and conditions that are only accessible from a checkbox link. GDF would propose that MAS considers appropriate wording such that any risk notices and disclosures should be written in suitably straightforward language (in English, this might be wording proposed by the Plain English Campaign – http://www.plainenglish.co.uk/), and that such notices be suitably visible.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>GDF agrees with the proposed controls as outlined in the consultation document; particularly, the three principles highlighted. GDF would propose including a further measure for active monitoring and alerting of wallets with dynamic, appropriately configured parameters such that any unusual activity on any wallet is alerted early. The use of dynamic parameters that can update based on a rolling average set of behaviours will ensure that volatility of movement between wallets (such that might occur during high market demand) will not trigger false positive alerts, and will allow the DPTSP to focus on underlying unusual behaviours.</p> <p>Further, DTPSPs might also be required to institute automated messaging to retail customers of changes to wallet balances, in the same way that fiat banks notify their retail clients of payments and withdrawals of their FIAT accounts. Such a requirement would greatly enhance the visibility of activity of the venues, as well as serving as a mitigant for online fraud.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to</p>
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		<p>protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>GDF is in agreement with MAS that it is important to protect retail customers from harm. However, GDF does not agree with an outright ban on DPTSPs being able to mortgage, charge, pledge or hypothecate the retail customer’s DPTs. To do so removes consumer choice and wealth generation opportunities that may be possible with credible strategies.</p> <p>Rather, GDF recommends that all customers, retail or non-retail, be provided with detailed explanations of not only risks, but also investment strategies used by the DPTSP as well as the experience of the team managing such investments. Retail customers should be qualified as described in Question 3 to first ensure they have both the required knowledge as well as the risk tolerance to undertake such investments. If such risk disclosures are adequate, accurate and clear, then the ability for a retail customer to agree to lend its digital assets in return for a yield is not a complex product, and such a product should be available to retail customers to enjoy, and not just be for the benefit of sophisticated counterparties.</p> <p>Should a retail customer not wish to participate in allowing DPTSP to use their DPTs for lending purposes. DPTSPs should then separately ring-fence such DPTs. GDF believes that the combination of education and awareness, transparency through disclosures, and voluntary assumption of risk would form sufficient safeguards.</p> <p>There are already credible DPTSPs providing these types of services to retail customers with substantial experience and risk management protocols in place to prevent retail customers from harm.</p>
20	Hashkey Group	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We generally agree that the segregation of customer assets would be essential in ensuring adequate investor protection – especially given recent occurrences of misconduct among internationally significant participants in the industry. In our experience, we comply with similar measures required in other jurisdictions. This would also more clearly distinguish and inspire confidence from investors in MAS licensed DPT service providers.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>We are of the view that it may be a more practical option to allow DPT service providers to self-custody customers’ assets on a segregated basis – combined with robust reporting and auditing requirements. As current DPT custody service providers in Singapore are not yet regulated, any onshore independent custodian would arguably be open to the same if not greater risks in terms of risk of loss/misuse of customer assets. On a very fundamental level, requiring legal segregation and safeguarding of customer assets to ensure that customer assets are separate from the DPT Service Provider’s assets in the event of insolvency should be sufficient.</p> <p>In our experience, a possible alternative for consideration in the future would be to require client assets to be held under an appropriately licensed subsidiary that does not conduct any business other than that of receiving or holding client assets on behalf of the DPT service provider. This is an asset custody requirement that we have had to meet in our other jurisdictions of operation.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We are in general agreement with the disclosure and reconciliation measures.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We are in general agreement with the proposed measures for the safeguarding of private keys and of customer DPTs.</p> <p>With the safeguarding of private keys, in addition to suggested policies, procedures, and operational controls, a possible option would be to require DPT service providers to implement minimum technological security measures, such as with Hardware Security Modules (HSMs). HashKey Group’s licensed virtual assets trading platform operator uses a HSM to support both hot and cold wallets. The HSM ensures that private keys do not leave the HSM steel box – execution of transactions will always occur inside the HSM without the private keys being exposed. DPT service providers can be made to self-evaluate and disclose their key management solutions to the Authority.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p>
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		<p>We agree that DPT service providers should not be permitted to lend or otherwise hypothecate the DPTs of retail customers – this should work in conjunction with the requirement to segregate and account for the assets of the customers. We suggest that this restriction should be clearly distinguished from any staking, validation or any other transaction carried out on the instruction of the customer – these should not be covered by the restriction.</p>
21	Holland & Marie Pte. Ltd.	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>In general, instead of mandatory business conduct measures, we would propose (1) significantly augmented disclosure requirements and (2) assessments to ensure that customers understand the risks associated with certain business practices.</p> <p>We would propose that if a DPTSP does not implement certain business conduct measures that protect customers, then the DPTSP should be required to (1) prominently (at multiple points in the customer journey, in bold, capital letters, prominent fonts and never at the bottom of a DPTSP’s website) disclose the risks to customers and (2) conduct an assessment that the customer understands and accepts such risks. We believe this combination of disclosure and assessment enables businesses to operate with flexibility while protecting customers.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We refer to our response to question 6. We note that some exempt entities trade on a “title transfer” basis where the DPTs become the assets of the DPTSP upon transfer to the DPTSP. We would propose the MAS engage with the industry to understand the implications of any changes that would require DPTSPs to only transact on a non-title transfer basis.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We support the proposed disclosure and suggest that there be requirements that the disclosures are made in “plain English” and made prominently at multiple points in the customer journey (in bold, capital letters, prominent</p>



		<p>fonts and never at the bottom of a DPTSP’s website). We also think plain English disclosures should be made for unregulated activities involving DPTs such as staking, including a clear description of what happens to the customer’s token upon effecting the transactions.</p> <p>We are supportive of the proposals on reconciling customer assets and providing statements of account.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We are not supportive of the proposed restriction. Instead, we would propose that DPTSPs provide appropriate disclosures and confirm through their assessment of the retail customer that such customer understands the risks involved.</p>
<p>22</p>	<p>Independent Reserve Singapore Pte. Ltd. (“Independent Reserve”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>A. Segregation of Customer Assets</p> <ol style="list-style-type: none"> 1. IR SG is in full support of a requirement for DPT Service providers to hold customer assets completely separately from their own. Similar to the current requirements under the PSA where a safeguarding institution is required to safeguard customers’ fiat in an appropriately segregated customer account, customers DPTs must be held in customer-segregated accounts. Further, the audit required under the PSA for DPT service providers should include a specific test of the segregation of DPT assets held on behalf of customers. <p>RE: Statement of account. DPT Service Providers should be able to comply with this requirement by allowing customers to access this information at any time. This is how a reputable and licensed exchange should operate: customers should always be able to access details of their DPT and fiat holdings at any time, and any past transactions.</p>



	<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>A. Main takeaway</p> <ol style="list-style-type: none">1. Paragraphs 4.8 - 4.11 capture the majority of the wallet and private keys management principles that should be employed by a reputable and capable custodian. None of the ‘threats’ identified in 4.10 are eliminated by using an Independent Custodian. Using a third party custodian would simply transfer the existing threats from one entity to another and make the number of potential failure points increase.2. Conflicts of interest and management conflicts exist in every financial services business and there are adequate mechanisms available to manage these conflicts. DPT providers can employ the same management mechanisms to ensure the principles of wallet management and key management are upheld. Introducing a third party to the management of customer assets only increases risk in the process due to the increased number of actors and also the integration points between the IT systems of the exchange and the third party custodian. It is important to keep in mind that these integration point vulnerabilities have been exploited in the past, namely the Bitstamp hack in 2015 where customer funds were lost even though a 3rd party custodian (BitGo) was in place. We fully support the measures and principles proposed in paragraphs 4.8 to 4.11, being: Daily reconciliation, segregation of the assets from company assets, private keys stored without any single points of failure, restriction of access and managing hot and cold wallets. Additionally, concentration risk increases for customers and the sector in general if a custodian experiences a loss event. All funds for all the DPTSPs the custodian services would be impacted rather than a single service provider. Using an independent custodian also makes customer claims during a loss event more complicated and a potentially worse outcome as the likely loss amount for a concentrated risk would be much higher than a single service provider.3. Bankruptcy-remoteness should be a core focus. DPTSPs do not need to have an “independent custodian” by virtue of a segregated legal entity/team, but should instead ensure that all arrangements pertaining to customer assets are kept bankruptcy-remote (i.e. in customer trust accounts and wallets) where commingling of customer and proprietary
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		<p>assets is disallowed, and all customer assets are only for single purpose asset utilisation, i.e. only for the purpose for which they have been deposited/held in that particular wallet/account as accorded for in the terms and conditions of the specific service being provided by the DPTSP.</p> <p>Storage Types Defined:</p> <p>To provide clarity for the service providers, MAS should seek to define the attributes of Cold, Warm and Hot wallets.</p> <p>We propose that for any individual DPT asset: Any value greater than either S\$2m or 5% of total value of the DPT, should be retained in cold storage.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We agree with the proposed reconciliation measures: Daily reconciliation of all customer assets.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.</p> <p>A. Operational controls</p> <ol style="list-style-type: none">1. DPTSPs must document the policies, procedures and safeguards that are employed to safeguard the private keys and customer assets. There are a number of different ways that DPTSPs and Custodians can manage private keys and wallets; as such, overarching principles such as those detailed in paragraphs 4.9-4.11 should be minimum requirements for the policies, procedures employed by the DPT service provider.2. A key component of the management process employed by any DPT service provider must include the capability to report on the assets held at a point in time, which customer the assets belong to and the split between cold / hot wallet storage. <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers' DPTs. MAS also seeks comments on any other measures to protect customers' DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>A. Products focused on Lending</p>
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		<ol style="list-style-type: none"> Such restrictions should not extend to DPTSPs providing Earn/Yield products where the customer has to take a positive action of his own accord, to transfer his DPTs from a non-yield bearing wallet to a yield bearing wallet. In such instances, mitigating actions such as relevant terms and conditions relating to the specific Earn/Yield product to be disclosed clearly to the customers when they sign on to such services, so they are aware of the risks of such product types. To note that an outright ban on DPT lending activities will push retail investors to be pursuing such services through unregulated foreign DPTSPs
23	Ivan Ferrari, Elevandi	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers' assets.</p> <p>Very much agree. Segregation should always be implemented.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers' assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers' DPTs.</p> <p>This would simply add costs and useless red tape complexity. The chain could be infinite: who will check that the custodian is reliable? A custodian of the custodian? I'd rather regulate DPTSPs such that they must hold assets safely or repay / cover them 1-1 in case of failure. Obviously, regulation must also ensure that adequate funds (or insurance) are in place at any given time to cover for any failures.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>This would simply add costs and useless complexity.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.</p> <p>The only measure I would implement would be: "establishing a compensation process to handle any loss of such customers' DPTs, arising from incidents that is attributable to the operations of the DPTSP". I would leave it to each DPTSPs</p>



		<p>to decide on how to exactly operate and police their platforms, as long as that outcome is guaranteed.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Partially disagree. In my view it should be allowed but: 1. DPTSPs should establish 3 clear tiers, from safer to very high risk, and in those 3 buckets only allow some "approved" coins. 2. Retailers should go through a short quiz to evaluate which risk bucket they want in. It should be clearly stated anyway that in all 3 cases retailers could lose it all so they should never invest more than they are willing to lose.</p>
24	James Lee	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>NIL</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Independent custodian should be engaged to ensure separation of assets is enforced.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>DPTSP should disclose to customers if they are to create synthetic digital assets that is similar to synthetic Credit Debt Obligation (CDO) products that could impact the value of digital assets owned by the customers kept at DPTSP.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p>



		<p>The security measures over the PK and storage of customers' DPTs should be aligned and guided by MAS TRMG 2021 on top of the controls highlighted in this paper.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers' DPTs. MAS also seeks comments on any other measures to protect customers' DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Liquidity is the inherent risk of DPTs and restricting the lending activities does not do DPTSP any good. Instead, the control over the yields offered by DPTSP to customers can be considered. For instance, if existing SGD fixed depo rate in the retail banking space is 3%, yields from these digital assets should not be more than 1.5x of this rate else DPTSP might encounter difficulty to generate enough returns to pay the yields in times of challenging trading cycle such as "Winter".</p>
25	Kwang Jiaxing	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers' assets.</p> <p>Can use credit card to purchase Cryptocurrency and also do not need to do test.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers' assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers' DPTs.</p> <p>Can use credit card to purchase Cryptocurrency and also do not need to do test.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Can use credit card to purchase Cryptocurrency and also do not need to do test.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.</p>



		<p>Can use credit card to purchase Cryptocurrency and also do not need to do test.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Can use credit card to purchase Cryptocurrency and also do not need to do test.</p>
<p>26</p>	<p>Luno Singapore Pte. Ltd. (“Luno”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Segregation between customer and corporate DPT:</p> <p>Luno has shared its views on the MAS’ proposal to ban DPTSPs from trading for its own account under Q11 below. In the event that this practice remains permitted, Luno shares the view that the DPT used for these activities should be completely segregated from customers’ DPT.</p> <p>Many DPTSPs which offer customers a broker / instant settlement option, (like Luno) maintain a corporate “float” of DPT. The float is used to directly settle a customer’s DPT purchase via its broker product and, as soon as the transaction is settled, Luno will make the corresponding trade to replenish its DPT float. The purpose of the corporate float is to ensure that sufficient liquidity is available to immediately settle the customer’s request. The DPT which comprises the corporate float should be segregated for accounting purposes and rigorous financial controls should apply to the proof of those reserves. Note, however, that in cases where this corporate DPT float is subject to the same custodian arrangements described under Q7 below, the DPT itself might not be physically segregated from customer funds.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Luno is generally supportive of the use of independent custody arrangements by DPTSPs. The use of independent custodians (like BitGo) are a common industry practice and Luno regards these commercial arrangements as a fundamental component of safeguarding customer funds. In considering</p>



	<p>whether to prescribe any specific requirements relating to the use of independent custodians, the MAS may find the below explanations helpful.</p> <p>Types of independent custodian arrangements and expected controls:</p> <p>Third party custodians offer a variety of custody arrangements to DPTSPs. There may be some differences across custody providers but, in general, DPTSPs will be required to select whether they want the custody provider to issue the DPTSP with (i) custodial wallets or (ii) non-custodial wallets to store the DPT concerned.</p> <p>In the custodial scenario, the custody provider will issue the DPTSP with a DPT wallet(s) to store customer funds. Here, the custody provider holds the private key(s) for the DPT wallet and therefore has full control over the DPT concerned. The custody provider should, at minimum, provide the DPTSP with insurance or other forms of guarantees over those funds.</p> <p>In the non-custodial scenario, the custody provider’s infrastructure will still be used to issue the DPTSP with a DPT wallet(s) to store customer funds but, in this scenario, the DPTSP will hold the majority of private key shards (for example 2 of 3) and the custody provider will hold the remainder (for example 1 of 3). To complete a transaction (i.e. to move DPT between wallets), each of the multiple private key shards must be signed (referred to as multi-signature or multi-sig).</p> <p>Both the custodial and non-custodial options offer added protection to safeguard DPTSP customers’ DPT holdings. Custodial wallet arrangements hand over greater control to the independent custodian which, in theory, offers an additional layer of protection but these offerings are also more expensive and may not be commercially viable to all DPTSPs. DPTSPs may therefore choose to make use of custodian options, non-custodial options or a combination of both depending on the circumstances.</p> <p>Independent custodian need not be used for 100% of customers’ DPT:</p> <p>Third party custody arrangements may not be immediately available for a new type of DPTSP and may otherwise not be appropriate to use for the full portion of DPT held by a DPTSP. As the MAS is aware, DPTSPs generally make use of different storage levels to safeguard customers’ crypto and may distinguish between “cold storage” and “hot wallets”. We note that the MAS has requested input under Question 9 below relating to these levels and the controls which should be in place to minimize the risk of loss or misuse of customers’ DPTs. For purposes of this Question 7, our view is that it is preferable for a DPTSP’s “hot wallet” to be subject to one of the independent custodian arrangements described above, but that DPTSP should not be mandated to make use of an independent arrangement for this portion of DPT where it has determined that the internal controls relating to the safeguarding thereof are sufficient.</p>
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	<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Luno is supportive of the proposed disclosures and reconciliation measures outlined in paragraph 4.7 of the Consultation but does not believe that the measures proposed in 4.8 are necessary or practical in the circumstances.</p> <p>The MAS suggests at 4.8 that DPTSPs should conduct, on a daily basis, timely reconciliation of customers’ DPT which are held on behalf of customers by DPTSPs. Daily reconciliations relating to DPT are not, in our view, practical at this time. For fiat balances, DPTSPs are able to make use of existing solutions to automate reconciliations and at Luno, for example, reconciliations of customers’ S\$ are performed daily. Similar solutions to reconcile DPT are not, to Luno’s knowledge, widely available nor well established. The reconsolidation exercise for customers’ DPT is therefore currently more manual and more complex, owing to the third party custodian arrangements and segregation controls in place for customers’ DPT. As such, Luno currently performs these reconsolidations on a monthly basis which is the common industry practice. Other controls are, of course, in place to provide Luno with comfort during the month that everything is working as expected (for example transaction authorisation controls, transaction monitoring and a comprehensive set of alerts). The MAS may therefore wish to consider evaluating a DPTSP’s controls but should not, in our view, mandate DPTSPs to perform daily reconciliations relating to customers’ DPT.</p> <p>The MAS also suggests at 4.8 that DPTSPs should provide customers with a statement of account minimally on a monthly basis. Many retail customers invest in DPT as a long term investment - the term “HODL” is often used to refer to the strategy of not selling DPTs even when there is price volatility. While a regular statement may be useful for retail customers who actively trade DPTs, sending a monthly statement to a long term investor serves little value. Statements should, of course, be accessible. A Luno customer, for example, may retrieve a statement relating to their transactions at any time. In this regard, the requirements already outlined in PSN07 relating to transaction receipts are more than sufficient.</p> <p>In the event that the MAS does go ahead with introducing the requirement relating to monthly statements, it is recommended that the MAS include appropriate exceptions similar to those contained in the Securities and Futures Act. In particular, DPTSPs should not be required to send a retail customer a monthly statement where (a) the customer has not participated in any trading activity since the date on which the last statement of account was made up to; and (b) statements are available to the customer on a real-time basis in the</p>
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		<p>form of electronic records stored on an electronic facility and the customer has consented to those particulars being made available to him in this manner; or (c) the customer has otherwise requested, in writing, not to receive the statement of account on a monthly basis from the holder.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Luno supports the proposed measures set out under paragraph 4.11 of the Consultation.</p> <p>Each of the measures proposed are appropriate and effective measures to protect against the risk of loss or misuse of customers’ DPTs and should, at minimum, already be in place for DPTSPs licensed or seeking to license in Singapore.</p> <p>In addition to the measures proposed by the MAS in paragraph 4 of the consultation, the MAS may wish to consider imposing a proof of reserves audit requirement on DPTSPs as an additional control to minimize the risk of misuse of customers’ DPTs. This requirement would require DPTSPs to appoint independent auditors and periodically publish its proof of reserves, to demonstrate to customers that the DPTSP holds the DPT it says it holds. By way of example, Luno’s latest quarterly report is available here: https://discover.luno.com/luno-releases-full-verification-of-customer-cryptocurrency-for-q3/</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>DPT products which offer a higher yield of return are always going to be attractive options for retail customers. Luno acknowledges the risks posed to retail customers where the underlying revenue streams associated with these products are unclear or unsustainable. To cater for these risks, Luno notes that the MAS is considering restricting DPTSPs altogether from lending out retail customers’ DPTs.</p> <p>This approach would indeed amount to strict regulatory treatment for retail customers and, in Luno’s view, should not be adopted in Singapore. The consequences of such a strict regulatory approach would no doubt result in Singapore consumers choosing to make use of international and/or unregulated platforms. Luno would, instead advocate for including services</p>
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		<p>associated with DPT borrowing and lending within the scope of the PSA. Providers who offer these types of services should be subject to the same stringent controls as other DPTSPs. In particular, DPTSPs offering these types of products should have the necessary risk disclosure requirements in place.</p>
27	NAGRA, Kudelski Group	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Smart, but simple segregation measures are required for governance and auditing purposes.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Rather than mandating to appoint independent custodian, any asset storage option shall have regulatory requirement framework for the DSPSP to operate. Preferably any custodian service shall pass independent security audit.</p> <p>There are several custody solution deployment models with their own unique risks and benefits. The choice of model the financial institution must consider and deploy should be determined through a combination of time-to-market, technical maturity, security resources and capabilities, business and cyber risk tolerance, and regulatory requirements.</p> <p>We believe that applying a security lens through a modified STRIDE methodology, or Mozilla Rapid Risk Assessment for discovery of threats against a full-stack custody solution and its perceived capability is appropriate. The categories of threats fall into Spoofing, Tampering, Repudiation, Information Disclosure, Denial of Service, and Elevation of Privilege.</p> <p>Security Maturity Criteria:</p> <ul style="list-style-type: none"> • Storage setup methods (Warm > Cold > Hot). Priority is given to warm wallet because it gives the flexibility to add-on future use cases such as wealth management (cold) and still maintain the asset liquidity requirements (hot). This is very nuanced tho. • Secrets Management • Governance: Constitutes Risk-based policies applicable to transactions • Authentication: mechanisms available to authenticate users to the custody platform. 2FA is highly recommended and sought.



		<ul style="list-style-type: none"> • Authorization: mechanisms available to authorize users to the custody platform and verify and sign transactions. 4-eyes-only principle is highly recommended and sought. • Audit Capabilities: Logging capabilities are reviewed • Vulnerability Management: ability of the vendor to quickly fix the identified vulnerabilities • Multi-Tenancy: ability of the solution • Supply Chain Management: technology stack is sourced from known and reputed origins. <p>Technical Maturity Criteria:</p> <ul style="list-style-type: none"> • Asset Support (Bitcoin, Ethereum...). Asset Agnostic solutions are given priority • Change Management (Crypto-Agility): Ability of the vendor and the solution to accommodate cryptography changes made to blockchains • Reporting Capabilities: Ability of the solution to provide tax, accounting reports... • AML • Advanced Blockchain Support such as a staking • In-custody trading • Fiat Support • Usability: The ability of solution to be frictionless, easy to use, and requires minimal technical acumen. • Comprehensive Technical Documentation <p>Vendor Maturity Considerations</p> <ul style="list-style-type: none"> • Financial Solvency: Having enough financial resources fosters both confidence in markets and investor protection. Key considerations include prudential mechanisms in place to support the operations, protections in place to compensate investors (e.g., an asset protection plan, or compensation fund or scheme) and adequate financial resources to ensure an orderly wind down in the case of an insolvency. • Operational Capacity: must have available and suitable numbers of staff who are appropriately trained and competent to discharge their duties effectively. • Skilled Resources: Includes experienced experts from a multiple domain such as fund manager, cybersecurity experts, cryptographers, financial regulators, etc. A custody provider should be able to discuss how their signing model works and what protections they've built into the process.
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		<ul style="list-style-type: none"> • Security Compliance with a major international or local standard • Partner pool: includes associations and affiliates. This is critical to the success of stakeholder relationships and the confidence of customers. • Client pool • Customer testimonials <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Blockchain technology provides methods to act quick in case of any alerting activity is detected, Customers shall have adjustable alert levels to define the alarm and potential block/suspend thresholds for suspicious activity.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We believe there are existing standards against which custody solutions can be evaluated that start enterprises on the right journey. We believe that the FIPS (hardware security), SOC (internal controls), and ISO standards (internal controls) align with many of the required controls for secure storage of the key material and processes surrounding digital asset custody. Additionally, since blockchain transactions are irreversible, additional capabilities, processes, procedures and policies are required for key usage, transaction verification, Disaster Recovery (DR), and Business Continuity (BCP). For instance, critical control standards such as those applied to air-gap networks will be useful as a baseline for cold storage environments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>DPTs used for services / programmable benefits shall not be use for further financial purposes such as unregulated borrowing, NAGRA recommends to have programmalbe DPT categories to define accepted use cases (refer to project Orchid – purpose bound money)</p> <p>Question 6.</p>
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28	Okcoin Pte. Ltd.	<p>MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We support having customers’ assets being segregated from the DPTSPs’ own assets. However, as rightly pointed out by MAS, having an independent custodian would not be appropriate in the context of the DPT sector given this would be too broad a scope of coverage and over-extends what is currently being covered in the securities market. To do otherwise, would make it too draconian and commercially challenging for DPTSPs.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>See our response to #6. In addition, crypto-asset third-party/independent custodians may also hold customers’ keys in a centralized manner, comingling customers’ funds with the custodian’s own crypto-asset funds and creating a dependency of the customer on the custodian different than in more traditional financial custody relationships.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We are of the view that such disclosures would be useful.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>While we agree that having such measures to safeguard private keys would be useful, we would caution MAS that such requirements should not be prescriptive (i.e. it should not be laid down in a Notice). Instead, DPTSPs should have the options to choose what controls are best suited for their particular context and business model.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p>
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		<p>We respectfully disagree that there is a heightened risk of consumer harm in the DPT space as compared to the securities space. The DPT space is being regulated especially with the PSAA coming into effect. The risk of over-regulation is not to be desired given it will lead to businesses relocating from Singapore given an overtly complicated regulatory landscape. As such, instead, we propose that regulatory measures between the DPT and securities frameworks should be aligned given parity, fairness and consistency.</p> <p>Based on the above, we respectfully submit that for both retail and non-retail customers, DPTSPs should be limited to providing a clear risk disclosure document / risk warnings and obtain the customer’s explicit consent that they are aware and have been well informed of the risk(s) involved.</p>
29	Onchain Custodian Pte. Ltd. (“ONC”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>ONC’s POV:</p> <p>There must be segregation of clients’ funds at every stage. For digital assets, there must be different dedicated wallets used for client funds, and separate wallets used for DPTSPs funds, and they should never be co-mingled.</p> <p>(1) Segregation of client’s fund (A MUST)</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>ONC’s POV:</p> <p>There must be a regulated third party custodian appointed to hold DPTSPs customers’ funds to avoid any kind of foul play using/involving customers’ funds.</p> <p>Customers can still use DPTSPs services and trade without moving their assets out of safety and security of custodian, by being given credit lines on DSPSPs platform based on confirmation of customer assets stored by custodian.</p> <p>The custodian must be independent and regulated. This will be one of the safest ways to regulate the industry and asset class and eliminate foul play by independent DPTSPs.</p> <p>Having third party custodian hold DPTSPs funds would also help in reporting and reconciliation, and external audit confirmations for those DPTSPs.</p> <p>(1) 3rd Parties Independent custodians (A MUST)</p>



		<p>(2) Comingled of funds – Risks of comingling guideline</p> <p>(3) Reporting and reconciliation of funds (Statement of Accounts/ Balance inquiry available)</p> <p>(4) Independent meaning a regulated custodian ~ based SG prefer (for e.g., Onchain Custodian)</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>On Questions 6, 7 and 8</p> <p>ONC’s POV:</p> <p>Agree with MAS on the proposed segregation measures relating to customers’ assets. An independent custodian or custodians should be appointed by DPTSPs in order to segregate and safeguard customer’s fund from the DPTSPs own with requirements similar to those practiced in the capital markets. Such arrangement would also help deter the risk of comingling of funds and for easy reporting purposes and to assure customers that their funds are safe.</p> <p>DPTSPs should be accountable for such reporting of figures and regularly or upon request show the proof of segregated funds with their chosen custodian partner.</p> <p>Written disclosures should also be provided to customers on a timely basis and any updates of such disclosures should be pass to customers and informing the customers the soonest.</p> <p>Linking to the above mentioned of independent custodian, and reporting as mentioned above, DPTSPs should also provide clients with their statement of account including their assets and transactions monthly as what has been practice in traditional finance such as in banks. Proper bookkeeping practices should also be implemented to ensure best business practices and to instill customer’s confidence.</p> <p>(1) Reporting and reconciliation of funds (Statement of Accounts/ Balance inquiry available)</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>ONC’s POV:</p> <p>Agree with MAS comments on the proposed risk management controls which are certainly important in safeguarding the DPTs of customers. In addition to</p>
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		<p>those mentioned by MAS (the principles mentioned), the company can always do periodic checks such as on a semi-annual basis on their controls in place.</p> <p>They could also have a rotation of duties or personnel that holds the private keys as long as there is no conflict of interest between the staff and the job duties that staff is required to perform. DPTSPs can also have a dedicated team to oversee the distribution and management of the private keys and storage of the customers’ DPTs. DPTSPs could also possibly pre-set threshold such as above a certain amount or percentage, DPTSPs can suggest customers to shift some of their DPTs into cold wallet should the customers do not that amount for safeguarding purposes.</p> <p>Also, user management controls should be put in place allowing to add multiple approvers to any transactions/wallets, as well as whitelisting of withdrawal addresses.</p> <ol style="list-style-type: none"> (1) Check and Balance principle apply (2) 4 eyes principle apply: Checker – Makers / Initiator – Approval (3) Reduce warm holding, encourage cold wallets solution (4) Daily sweeping of warm wallets holding to Cold Wallets <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>ONC’s POV:</p> <p>Calculated restriction should be placed on customers of various DPTSPs to lend out DPTs, there shouldn’t be a full proposed ban on lending. Agree with MAS point that DPTSPs should not mortgage, charge, pledge or hypothecate the retail customer’s DPTs. Suggested restriction on retail customers’ lending and staking activities and access can be linked to the above questions.</p> <p>Full disclosures should be provided to customers prior to customers entering such activities, full knowledge and education should be provided to customers who wish to enter such activity, test of the customer’s knowledge should also be taken into account to where the test with a perfect score should be embedded into the pre- screening of customer prior to the customer entering such an activity. DPTSPs can also set or limit the amount any customer can lend based on the customer’s asset with the DPTSPs i.e. maybe only 25% of the assets of the customer can be used for such riskier products unless client risk profile changes with also the relevant tests being passed by customers.</p> <ol style="list-style-type: none"> (1) Risk disclosure to customers
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		<p>(2) Should NOT BAN lending to retail customers</p> <p>(3) Borrowing and lending must have Collateral</p>
30	Pragma Pte. Ltd.	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comment.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We are of the view that a requirement that a DPTSP appoint an independent custodian is an effective and advisable risk mitigant.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We are of the view that the proposed disclosure and reconciliation measures are appropriate. Given the volatility in DPT values, we are also of the view that the monthly statement should track the absolute value of the customer's DPT holdings, i.e., current value less basis, so that the customer may adequately and easily evaluate their position.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We are of the view that the proposed risk management controls are useful and appropriate. We are also of the view that DPTSPs should be subject to extant technology risk management (TRM) requirements and have in place adequate TRM controls to safeguard private keys and the storage of customers' DPTs.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p>



		<p>We are of the view that the proposed prohibition on DPTSPs' mortgaging, charging, pledging, or hypothecating retail customers' DPTs. We are also of the view that requiring DPTSPs to provide non-retail customers a clear risk disclosure document and obtain customers' explicit consent is useful given the inherent volatility of DPT values. Such risk disclosures and consents should provide explicitly the lack of recourse for customers' losses in such transactions.</p>
31	R.Y.	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers' assets.</p> <p>No comments.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers' assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers' DPTs.</p> <p>No comments.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.</p> <p>No comments.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers' DPTs. MAS also seeks comments on any other measures to protect customers' DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>As a retail customer, I am unable to navigate all the technical aspects of DeFi and would want to rely / use some DPTSPs to assist me with this, typically for a fee (usually a cut of the DeFi yield). I recognise the risk that the DeFi yield protocols are risky, which is why I allocate risk-appropriate amounts to such protocols via DPTSPs. However, if MAS where to prohibit this for retail</p>



		<p>customers entirely, it would restrict the ability for retail customers to participate since it would not make economic sense for them to research each DeFi protocol due to the risk-appropriate amount that is being risked (which is typically a smaller amount, and not worth the research time).</p> <p>Thus, instead of a total prohibition for retail, a similar approach can be adopted for this, in line with the recommendations in this paper (i.e. education, disclosure, and explicit consent):</p> <ol style="list-style-type: none"> 1. Prior to allowing retail customers to participate, the customers have to pass the risk assessment questionnaire that the DPTSPs set; 2. The DPTSP should be transparent about what are the underlying protocols that they have exposure to, and not just legally own (e.g. to prevent DPTSPs from hiding exposures via corporate structures, as was recently alluded to where one DPTSP allegedly had exposure to UST but used corporate structures to obfuscate the exposure); and 3. The DPTSP would have to obtain explicit consent (i.e. customer must “opt-in”) to participate in such a structure. All applicable fees and charges should be disclosed for the customer to make an informed decision. <p>This is similar to the argument that MAS makes that it is impossible to ban such activities outright, because this would just force retail customers to transact with the protocols directly (which increases the risk that something will go wrong as retail customers may not be as technically savvy as DPTSPs). Additionally, with the enhanced controls around conflict of interest, disclosures, etc. that MAS has proposed in this paper, DPTSPs will be able to serve retail customers who are willing to allocate a risk-appropriate amount to such DeFi protocols.</p>
32	R3	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Crypto exchanges like Binance, Coinbase and FTX market themselves as a platform for customers to buy and sell cryptocurrencies but in reality, they are operating more like banks where they do stockbroking, proprietary trading/investing, provide credit facilities and even hypothecate customers’ funds (without authorization in the case of FTX). We strongly support MAS’ proposed segregation measures relating to customers’ assets to prevent another disaster from happening. The Canadian Securities Administrators (CSA) have announced on 12 December 2022 crypto exchanges operating in the country must segregate user funds from operational cash.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments</p>



		<p>on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Given the immutable nature of blockchain where a transaction in cryptocurrency is irreversible, the regulators today should err on the side of caution by taking the “prevention is better than cure” approach. Before we have robust regulatory framework for the crypto markets globally where misconduct will be taken to task effectively, we feel that appointing an independent custodian is perhaps the safest and most reliable measure for ensuring assets segregation for customers in this climate. For example, US based Grayscale Investments has engaged Coinbase Custody to hold \$2.7 billion of its crypto assets since 2019. Other control measures, apart from the appointment of independent custodians, could include DPTSPs having internal controls in place to provide periodic reconciliation of customers’ assets, attested by reputable external auditors.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Instead of a full restriction on DPTSPs from lending out retail customers’ DPTs, MAS may wish to consider requiring DPTSP to make distinct disclosure on their lending/borrowing program and require that retail customers opt in to such a program should they choose.</p>
33	Revolut Technologies	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p>



	<p>Singapore Pte. Ltd. ("Revolut")</p>	<p>We agree with the proposal by MAS that customers' assets should be segregated from the DPTSPs' own assets, and held for the benefit of the customer.</p> <p>We propose that trust arrangements be recognised as an adequate safeguarding measure and omnibus accounts should suffice as long as the account is dedicated to customers' assets and held for the benefit of the customer. This is in line with the e-money safeguarding option and would meet MAS' intention of facilitating the return of customers' assets in the event of the DPTSP's insolvency.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers' assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers' DPTs.</p> <p>We suggest that the requirement for an independent custodian should at most align with the SFA (e.g. fund management companies may require one but brokers should not require one) as the risks of the underlying activity are similar, regardless of the asset class.</p> <p>Concerns regarding the reliability / insolvency of the custodian would not be effectively mitigated with an independent custodian in most cases unless custodians are subject to higher standards to ensure that they would be more reliable and less susceptible to insolvency (which does not appear to be the case currently). There would therefore not be a significant difference in the effectiveness of custody in the event of insolvency as long as the DPTSP adequately segregates customers' DPTs.</p> <p>With regards to concerns such as conflicts of interest in relation to the business model of the DPTSP (i.e. whether it is a fund management company, broker-dealer, etc.), we believe that this is something that the MAS has considered in determining which entities under the SFA require independent custodians and the same principles would apply to DPTSPs.</p> <p>There would also be a practical concern whereby there may not be a DPT custodian that offers custodial services for certain DPTs, which would then make it impossible for DPTSPs to offer these DPTs.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We agree that the proposed disclosures to customers on the assets held with DPTSPs are appropriate and adequate.</p>
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		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We generally agree with MAS’ proposed risk management controls framework to ensure the safety and control of customers’ DPTs, however we would like to request for greater clarity on the applicability with regards to what is deemed as “control”, and the requirement for storage in cold wallets.</p> <p>We would like to clarify if such measures would only apply where the DPTSP has exclusive control as we note that there can be varying degrees of control over the movement of customers’ DPTs. In particular, we would also like to seek clarification on how the concept of control would apply to DPTSPs using third-party custodians as the custodian would likely be the party with control of the private keys - would a special agreement be required between DPTSPs and the custodian with regards to management or control of the keys to comply with the proposed measures, or would DPTSPs not be subject to the requirements if they do not have such control?</p> <p>With regards to storage, while we agree that DPTSPs should keep a suitable proportion of customers’ DPTs in cold storage, the exact percentage should depend on the particular business model of the DPTSP and its operational requirements as designating a fixed number could hinder operations and conversely make it less safe for customers. We propose that MAS can provide principles and guidance on how this percentage should be determined by DPTSPs and MAS can monitor the adequacy by requiring DPTSPs to regularly report on the amount of DPTs in cold, warm and hot storage respectively. We would also like to understand if this requirement would apply to DPTSPs that use a third-party custodian or if full reliance can be placed on the custodian to fulfil this requirement.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We agree with the option to impose risk disclosure requirements on DPTSPs, so that retail customers are informed of the risks involved. However, we disagree that a total ban on staking and lending activities should be imposed for retail customers as the disclosures should suffice to ensure customers make an informed decision. Should the MAS still deem lending activities to be of too high risk to be offered to retail customers, we would also like to differentiate staking from lending and propose that staking should still be allowed for retail</p>
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		<p>customers given that the risks are significantly lower and have real value in ensuring the smooth operation of blockchains.</p> <p>Unlike lending, staking is akin to a form of “fixed deposit” for DPTs where the customer commits to allowing the platform to use their DPTs to power the proof-of-stake consensus mechanism of the blockchain. The DPT is not lent out to any other party and is only held for the agreed period of time by the platform to verify and secure transactions on the blockchain and derive rewards for the customer from that. The risk involved would primarily be the fluctuation in the value of the DPT during the lock-in period, which would be the same as if the customer chose to continue holding the DPT without staking it. There is no counterparty risk involved in this arrangement unlike lending, and as long as DPTSPs hold customers’ staked DPTs in a segregated manner for the benefit of customers, it should not impact the customers’ claim even on insolvency.</p> <p>With regards to lending, we do acknowledge that there is an additional counterparty risk similar to that of securities lending. We therefore suggest that instead of placing a ban on lending, it can be allowed so long as measures similar to securities lending are put in place to mitigate the associated risks, including adequate disclosures.</p>
34	Ripple Labs Singapore Pte. Ltd. (“Ripple Labs”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Ripple has no comments on this question.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Ripple has no comments on this question.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Ripple has no comments on this question.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p>



		<p>Ripple is supportive of the proposed risk management controls for customers’ DPTs.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Ripple respectfully submits that the proposed restriction on DPTSPs not to lend out retail customers’ DPTs is unduly harsh, and not in line with the principle of “same risk, same activity, same treatment” and technology neutrality. As highlighted in the Consultation, this proposal is stricter than the regulatory treatment of retail customers’ securities under the Securities and Futures Act.</p> <p>Furthermore, Decentralised Finance (“DeFi”) protocols such as Automated Market Makers (“AMMs”) offer a number of benefits, such as allowing DPTs to be traded in a permissionless and automatic way by using liquidity pools rather than a traditional market of buyers and sellers. These liquidity pools can be optimized for different purposes, and increase efficiency in DPT markets.</p> <p>We understand that MAS is studying the regulatory and risk management implications of DeFi protocols under Project Guardian, and support this initiative. Ripple believes that requiring risk disclosure requirements on DPTSPs on staking or lending activities so that retail customers are informed of the risks involved is a better, risk-sensitive alternative, until MAS formulates a regulatory framework for DeFi.</p>
<p>35</p>	<p>SBI Digital Markets Pte. Ltd. (“SBIDM”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Requirements to segregate client DPTs from the assets of DPTSPs should be the same as those in the traditional capital markets space. Consistent safeguarding of client money, irrespective of whether traditional or digital asset type, will both require financial firms dealing in DPTs to adhere to time-tested methods for protecting investor assets and hasten DPTs' incorporation into the wider pool of trusted financial assets.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>SBIDM does not see a need for the incorporation of independent custodians in the broker/dealer space. Periodic reporting by licensed entities should be a sufficient control.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>SBIDM believes that DPTs should be treated in the same way traditional capital markets products are treated. Here, disclosures to clients should be the same as those already required for traditional products and services.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>SBIDM believes that DPTs should be treated in the same way traditional capital markets products are treated. Here, private keys should be subject to controls that 1) minimise the risks posed by both internal and external malicious actors, 2) put into place technology risk management principles already established in other areas of financial technology, and 3) provide for customer protections in the event of malfeasance on the part of the DPTSP.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
<p>36</p>	<p>Securities & Exchange Commission of Thailand</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>On this issue, the Securities and Exchange Commission (“SEC”) Thailand believes that requiring DPT business operators to use third-party custodian</p>



		<p>services will help mitigate risks towards customers’ assets, such as the risk of loss/misuse of customers’ DPTs by the platform operator. On the other hand, independent custodians have a few drawbacks. For instance, it costs a relatively high transferring fee and takes some time to withdraw assets, hence, DPT operator will incur higher cost while having less flexibility in providing its service. Should MAS consider these obstacles as essential, it could provide a room for DPT operator to be able to store some of the customers’ assets on their own, i.e. specific threshold, while depositing the rest in the independent custodians. This threshold guideline of holding customers’ assets may provide flexibility and not produce unreasonably high costs in doing business.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
37	Securities Investors Association (Singapore) (“SIAS”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>There should be appropriate segregation measures relating to customers’ assets.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>DPTSPs should be required to appoint an independent custodian to hold customers’ assets. Regular internal audits should also be conducted.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>The proposed disclosure and reconciliation measures are appropriate and adequate.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>SIAS agrees with the proposed risk management controls for customers’ DPTs, and to conduct regular internal audits.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>SIAS agrees with the proposed restriction on DPTSPs not to lend out retail customers’ DPTs.</p>
38	Simmons & Simmons JWS Pte. Ltd.	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We support the proposal to require DPTSPs to ensure that customers’ assets are segregated from the DPTSPs’ own assets and held for the benefit of the customer and respectfully suggest that this be supplemented with use and/or withdrawal restrictions similar to that under the Securities and Futures (Licensing and Conduct of Business) Regulations (“SFR”).</p> <p>We would also suggest that the proposal for DPTSPs to provide written disclosure to customers be limited to retail customers similar to the position under Regulations 27A, 47DA and 47E of the SFR.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>We respectfully submit that requiring DPTSPs to appoint an independent custodian should not be necessary given that: (a) there is already a proposal requiring DPTSPs to segregate customers’ assets from their own assets; and (b) DPT custody will be covered in Phase 2 of the PS Act amendment.</p> <p>In addition, requiring all DPTSPs to appoint an independent custodian may lead to increased concentration risks (and potential pricing issues) as we understand that there is currently a limited number of such service providers. Additionally, independent custodians are also subject to insolvency risk themselves. We also note that concentration risks can introduce anti-competitive risks, as well as cybersecurity risks, i.e. “the juicier the honeypot, the more likely the flies will come”.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>We have no feedback on this.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We have no feedback on this.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We respectfully suggest that MAS considers regulating the lending of retail customers’ DPTs (e.g. by imposing appropriate additional risk disclosure requirements on DPTSPs) instead of imposing a complete ban on DPTSPs’ lending of retail customers’ DPTs.</p>
39	Singapore FinTech Association (“SFA”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The Participants are in broad agreement about the segregation of customer assets but seek greater clarity from MAS on the implementation of this measure. For example:</p>



		<ul style="list-style-type: none">i. what is the extent of segregation that MAS is proposing (i.e., on-chain segregation of individual client assets? Onchain segregation of client assets from DPTSPs own assets?)ii. what would MAS consider as “robust ledgering systems” and what would MAS prefer to see with respect to such ledgering systems. <p>In general, instead of mandatory business conduct measures, the Participants propose that subject to full and frank disclosure to customers on how customer assets are held, as well as clear explanations on the associated risks, MAS consider allowing flexibility on how a DPTSP holds its assets. The Participants note that the means by which a DPTSP handles its DPT differs greatly with respect to the costs/benefits associated with various methods. For example, greater security (i.e., on-chain segregation of clients’ assets on a per-client basis) results in costs for the client or DPTSP in relation to transaction fees for client trades and/or transfers of DPT (even within the same ecosystem of a DPTSP). A less fee intensive regime (i.e., an omnibus setup where all client assets are held in a “client wallet” backed up by a ledgering system) would have efficiencies in transaction fees and speed, however, may have drawbacks with respect to identification of individual client assets. To address this, the Participants propose a clear and significant disclosure requirement with respect to how a customer’s assets are held by the DPTSP. Clients should be made aware of the benefits and risks associated with the DPTSP’s chosen method of handling DPT assets and can make an informed choice based on the same.</p> <p>In summary, the Participants propose (1) significantly augmented disclosure requirements and (2) assessments to ensure that customers understand the risks associated with certain business practices.</p> <p>The Participants propose that if a DPTSP does not implement certain business conduct measures that protect customers, then the DPTSP should be required to (1) prominently (at multiple points in the customer journey, in bold, capital letters, prominent fonts and never at the bottom of a DPTSP’s website) disclose the risks to customers and (2) conduct an assessment that the customer understands and accepts such risks. The Participants believe this combination of disclosure and assessment will enable businesses to operate with flexibility while protecting customers.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>The Participants do not believe that there should be a requirement for external custody. The Participants note that external custody does not necessarily</p>
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		<p>provide for better security. In addition, the Participants note that concentration risks increase for customers if the custodian loses funds for all the DPTSPs it services and that using an independent custodian also makes claims during a loss event more complicated and potentially worse for consumers. The Participants suggest that relevant disclosures be made to customers (so that they know whether and where their DPTs are being held in custody) in order to make an informed decision.</p> <p>If the Authority does not accept the above suggestion, the Participants are open to the idea of independent custodians but seek clarity on the following issues:</p> <ol style="list-style-type: none">1. There are currently only a small number of DPT custodians in the Singapore market which are nonlicensed and mainly for securities. To require DPTSPs to place customer’s assets with them may result in not only high costs due to additional compliance measurements, fees, etc. but more importantly, concentration risks. The lack of regulations around DPT custodians results in uncertain standards over the robustness of risk management and internal controls at these DPT custodians in safeguarding customers’ DPTs. In this regard, the Participants seek clarity on whether “independent custodians” need to be regulated and if so, whether offshore custodians (regulated in their home jurisdiction) would qualify as independent custodians.2. There could be unclear relationship arrangements around who is holding the private keys / controls over the wallets. If DTPSPs continue holding the private keys / controls, does it still meet the objective of having independent custodians?3. There could be increased costs which are ultimately passed down to the retail customers. Imposing an independent custodian requirement across the board for all DPTSPs for all DPTs would impact smaller DPTSPs from a cost perspective as the movement of DPT assets from the independent custodian to trading wallets or on a p2p basis could increase the amount of fees that will have to be charged or absorbed by the DPTSPs. 44. Issuing a custodian licence for the retail market may require even more stringent rules to manage the safeguarding concerns (such as capital requirements, TRM, fit & proper, etc.).5. Whilst it may not be a fully independent arrangement, the Authority may wish to consider custodian services offered by related entities of the DPTSPs, so long as there are safeguards in place and the necessary risk disclosures have been made. This may help increase liquidity, reduce costs, and reduce counterparty and concentration risk.
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		<p>6. If DPTSPs were required to appoint an independent custodian to hold customer assets, would that defeat the "possession" prong of the definition of "facilitating the exchange of digital payment tokens" such that facilitating the exchange of digital payment tokens would no longer be a regulated activity? If not, when would the DPTSP have possession?</p> <p>7. The Participants propose that MAS allows for selfcustody by exchanges for tokens below a certain threshold (possibly a market cap threshold to be determined in consultation with the industry). The reason for this is that custodians may not be able or willing to provide custody services for small tokens and requiring independent custody from the first "dollar" would squeeze smaller token providers out of the market and prevent innovation.</p> <p>The Participants suggest that customers can choose to have their digital assets custodied by the DPTSPs, having taken note of and accepted such risks. At the very least, accredited investors should be afforded this custody option, especially when they have been made aware of how the DPTSPs custodise their assets and have accepted the risks.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>The Participants are generally agreeable to the proposal but caution that implementation would require more lead time.</p> <p>In addition to the proposed measures, the Participants propose that DPT Exchanges perform a proof of reserve to provide transparency and evidence of DPT holdings. Please refer to the link below. https://www.gate.io/proof_of_reserves</p> <p>The Participants support the proposed disclosure measures and suggest that there be a requirement that the disclosures Page No. 9 be made in "plain English" and made prominently at multiple points in the customer journey.</p> <p>The Participants also think plain English disclosures should be made for unregulated activities involving DPTs such as staking, including a clear description of what happens to the customer's token upon effecting the transactions.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.</p>
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	<p>The Participants agree in principle to the proposal.</p> <p>The Participants reiterate their first submission to Question 7 that companies such as exchanges that are already offering their own in-house custody solution as a by-product of their service should be allowed to continue to do so (including the control measures suggested).</p> <p>The Participants note that implementation of the suggested control measures may prejudice smaller DPT service providers that do not have a large number of staff (e.g., the proposed requirement on <i>“instituting processes that restrict one staff from being able to authorise and effect the movement, transfer or withdrawal of customers’ DPTs”</i>).</p> <p>The Participants seek clarity on whether the implementation of the suggested control measures can be outsourced to third party service providers. The Participants seek further clarity on “control” within the context of custody. For example, would such “control” refer to a single person having unilateral control of the underlying DPTs.</p> <p>The Participants suggest that the proposed risk management controls for customers’ DPTs should be tailored to the underlying business model of the DPTSPs. Specifically, apart from the proposed private key management controls, key generation controls and wallet set-up are equally important as well.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>In general, the Participants have concerns about the proposal to restrict lending and staking of DPT.</p> <p>Restricting these services for Singapore DPTSPs may trigger retail customers to conduct lending and staking with offshore providers. Staking is an important ecosystem activity that makes blockchains and the projects built on them more secure by validating transactions.</p> <p>Instead, the Participants suggest that lending and staking be allowed on the condition that clear consent is obtained from customers in plain English. This should also extend to Defi lending (i.e., placing customer’s DPTs in lending pools where such DPTs are then lent quickly to borrowers through smart contracts).</p> <p>The Participants seek clarity on the scope of the proposed restrictions. By way of example, does the proposal prevent a DPTSP from providing Earn/Yield products where the customer has to take a positive action of his own accord to transfer his crypto assets from a non-yield bearing wallet to a yield bearing</p>
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		<p>wallet? In such instances, the Participants suggest that it would be appropriate for the relevant terms and conditions relating to the specific Earn/Yield product to be disclosed clearly to the customers when they sign on to such services, so they are aware of the risks of such product types.</p> <p>The Participants suggest that services allowing customers to pledge their existing assets (DPTs or fiat) as collateral to borrow other types of DPTs (subject to over collateralisation where the borrowed amount must be lower than collateral) should be permitted as the risks are contained to the relevant collateral ratio. This is to cater to retail customers who wish to have access to other DPTs for a certain period without the need to sell /exchange their existing assets. DPTSPs who are providing these services can provide relevant risk awareness disclosures (including transparency of where the DPTs are held and who has control over the DPTs) and educational programs to customers.</p>
40	Sparrow Tech Private Limited	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We agree with MAS’ proposal to require DPTSPs to provide clear written disclosures to customers on the segregation arrangements of customers’ assets.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We agree that customer assets should be segregated from the DPTSP’s own assets to minimise the risk of misuse of customers’ DPTs.</p> <p>However, we would like to seek MAS’ guidance on what would constitute an independent custodian. Would a related entity within a Group that is operationally and legally independent of the DPTSPs qualify as an independent custodian? We would propose for MAS to allow for a related entity within the Group to be appointed as the custodian to hold customers’ assets provided that proper control measures and legal segregation is in place.</p> <p>In addition, we would like to seek MAS’ guidance on whether the custodian needs to be regulated similar to some of the requirements imposed in other jurisdictions? If so, we would propose for MAS to allow for a foreign regulated custodian to be appointed to hold customers’ assets (e.g. a custodian holding a TCSP licence in Hong Kong).</p> <p>Question 8.</p>



		<p>MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No further comments.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We support MAS’ proposal for DPTSPs to have strong risk management controls for customers’ DPTs such as storing a suitably high proportion of customers’ DPTs in cold wallets.</p> <p>In terms of other measures to further protect customers’ assets, MAS may wish to consider requiring DPTSPs to have in place insurance coverage over customers’ assets. For secure storage of private keys for assets at rest, MAS may consider requiring some form of hardware security measures (e.g. for DPTSPs to have in place FIPS 140-3 Level 3 or above certified HSM). Having in place proper governance policies to set out controls over authorisation of withdrawals as well as prevention against internal/external hacks would also be critical.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We would like to propose for DPTSPs to allow for the rehypothecation of retail customers’ DPTs, subject to their explicit consent and proper risk disclosures being provided (similar to what is being proposed for non-retail customers). Given the proposed customer risk awareness assessment, we are of the view that retail customers who have been assessed for suitability should be given the option to deploy their assets parked with the DPTSPs for other uses subject to their explicit consent.</p>
41	Sygnum Pte. Ltd. (“Sygnum”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Sygnum is generally supportive of the measures proposed by the Authority in relation to segregation of customer assets but seeks clarity on the:</p>



		<ul style="list-style-type: none"> • extent of segregation that the Authority is proposing (ie. on-chain segregation of individual customer assets? On-chain segregation of customer assets from DPTSPs’ own assets?) • what would the Authority consider as “robust ledgering systems” and what would the Authority prefer to see with respect to such ledgering systems. <p>Sygnum would also propose that, subject to full and frank disclosure to its customers on how it holds customer assets as well as clear explanations on the associated risks, the Authority should also consider allowing flexibility on how a DPTSP holds its assets. This is because the means by which a DPTSP handles its DPT may differ with respect to the costs or benefits associated with various methods.</p> <p>For example, greater security (ie. on-chain segregation of customer assets on a per-customer basis) results in costs for the customer or DPTSP in relation to transaction fees for customer trades and/or transfers of DPT (even within the same ecosystem of a DPTSP). A less fee intensive regime (ie. an omnibus setup where all customer assets are held in a “customer wallet” backed up by a ledgering system) would have efficiencies in transaction fees and speed, however, may have drawbacks with respect to identification of individual customer assets.</p> <p>To address this, Sygnum would propose a clear and significant disclosure requirement with respect to how a customer’s assets are held by the DPTSP. Customers should be made aware of the benefits and risks associated with the DPTSP’s chosen method of handling DPT assets and can make an informed choice based on the same.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Sygnum welcomes greater clarity on how customer assets are safeguarded. However, Sygnum would like to seek the Authority’s clarification on the proposed independent custodian requirement:</p> <p>What are the parameters the Authority looks at with respect to whether a custodian is independent?</p> <p>For example, would private key handling (i.e. private keys not held by the customer or the DPTSP) be a factor for determining independence?</p> <p>Would custody of DPT assets with related entities subject to separate controls or management within a group structure constitute as “independent”?</p>
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		<p>Would the Authority permit the use of independent custodians which are offshore and regulated in their respective jurisdictions?</p> <p>Do such independent custodians have to be regulated? For example, custody of DPT assets is not yet regulated in Singapore.</p> <p>Imposing an independent custodian requirement across the board for all DPTSPs for all DPTs would, in Sygnum’s view, impact smaller DPTSPs from a costs perspective as the movement of DPT assets from the independent custodian to trading wallets or on a peer-to-peer basis could increase the fees that will have to be charged or absorbed by the DPTSP. Having a small number of independent custodians holding a large number of third party DPTs could also raise questions on how these DPT assets will be segregated and/or handled vis-à-vis the assets of the custodian (especially if such DPT custodians are not regulated in Singapore or in foreign jurisdictions).</p> <p>From a practical perspective, if the Authority does mandate the requirement for an independent custodian, Sygnum would propose that the Authority consider allowing DPTSP to perform self-custody for certain DPTs that are not widely supported. Similarly, the Authority may consider applying a threshold value to the DPT that a DPTSP can perform self-custody as a potential means to control risks of loss/misuse of customer DPT assets.</p> <p>Given that Authority is already proposing mandatory disclosure requirements on how a customer’s digital assets are custodised as well as the risks involved in the same, Sygnum further suggests that customers can choose to have the digital assets custodised by the DPTSP, having taken note of and accepted such risks.</p> <p>Sygnum is of the view that at the very least, accredited investors should be afforded that custody option, especially when they have been made aware of how the DPTSP custodises their assets and have accepted the risks.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Sygnum supports the requirements in relation to disclosure of the risks and arrangements pertaining to custody.</p> <p>Further, should there be mandatory disclosures and risk notices or acceptance by customers, then as suggested in Sygnum’s response in question 7 above, customers should be able to choose to have their assets held by the DPTSP (ie. DPTSP not required to have independent custody of such assets).</p>
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		<p>Sygnum is of the view that at the very least, accredited investors should be afforded that custody option, especially when they have been made aware of how the DPTSP custodises their assets and have accepted the risks.</p> <p>Reconciliation of customer digital assets on a regular basis is a measure that Sygnum wholly supports. Sygnum would like to suggest that more frequent reconciliation of customer digital assets be imposed on DPTSPs that hold or custodise more than a stipulated threshold amount of DPT. Below such threshold, more frequent reconciliation could be optional, however, in such case, reconciliation should be carried out at least two times a week with account statements made available on request or at least once a month.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Sygnum supports the requirement of robust processes in place to manage the control of private keys associated with custodial wallets. Sygnum suggests that there be flexibility in how those robust processes are implemented. For example, the broad principles mentioned in the Authority’s consultation paper should be guidelines and not a “tick-the-box” exercise given that custody of private keys/digital assets can be handled currently in-house through a system of hot/cold wallets, through third party custodians or a hybrid of the two. For example, how would “control” over a private key be addressed when a private key is “split” with control over the separate components held by internal and external parties?</p> <p>Sygnum would like to seek further clarity on the Authority’s views on the “compensation process” raised in the consultation paper on page 18 at paragraph 4.11(e). Where DPTSPs operate on an “execution” only basis, and such DPTSPs take reasonable commercial measures to manage their technical and IT risks, what is the extent of the “compensation” that Authority suggests that DPTSPs provide? Would there need to be a system to compensate customers who suffer losses to their digital assets through third party fraud (ie. similar to the OCBC phishing scam that occurred in early 2022).</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Sygnum broadly supports the measures to restrict the general retail public from participating in such lending or staking DPT programs as the risks associated with such programs are often not fully transparent, with the focus</p>
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		<p>being on the yields generated, rather than how the customer’s DPTs are used to generate such yields. Sygnum wholly supports the requirement of clear consent, disclosure and risk warnings to be provided in order for any customer (accredited or otherwise) to participate in such programs.</p> <p>Sygnum is of the view that with sufficient disclosure, risk warnings and informed consent, such lending or staking DPT programs could be made accessible to the retail public with additional guardrails. For example, beyond understanding and acknowledging risk, perhaps thresholds for retail participation could be instituted (ie. caps on % of digital assets held with the DPTSP that could be locked up in such programs).</p>
42	Tan Kin Lian	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>I agree that customers' assets should be segregated. They should preferably be held by custodians who are properly supervised and audited.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>I agree that DPTSPs should be required to appoint independent custodian to hold customer assets.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>I suggest that exchanges should appoint an auditor who should make a daily reconciliation of balances and transactions in the platform.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>See my answer to Q18.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to</p>



		<p>protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>I agree with this restriction.</p>
43	TRM Labs	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The proposed segregation measures provide clear guidance on regulatory expectations with regard to segregation of customer assets by DPTSPs and broadly mirror existing requirements on safeguarding of customer monies for fiat payment services under the PS Act.</p> <p>On a related note, we note that loss of customer assets in the recent FTX failure was due to mismanagement of these assets and the fact that they were insufficiently collateralised. To this end, several firms have begun publishing proof of reserves to reassure their customers and the wider community that their assets were in safe hands. The unique qualities of blockchains - transparent, traceable, public, permanent, private, and programmable - allow for more visibility on financial flows, real time insights into on-chain proof-of-reserves, and regulatory oversight. TRM’s blockchain intelligence, which layers raw blockchain data with threat intelligence on 26 blockchains and millions of DPTs, allows regulators insights into licensing determinations, supervision, and the ability to verify representations related to proof-of-reserves. TRM looks forward to providing such insights as MAS moves forward in this consultation.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Two of the top reasons for loss of customer assets are cyber security breaches and misappropriation/mismanagement of customer assets. According to TRM, and as discussed more fully below, over US\$3.7 billion has been lost to hacks to the digital assets ecosystem in 2022. Those hacks, the vast majority of which have been against the decentralized finance space, continue to be a threat and, in the wake of the collapse of FTX, corporate malfeasance is also an important issue to continue to track. However, we note other measures proposed by MAS already address these two risk areas.</p> <p>For example, cyber risk (i.e. loss of customer monies due to hacks and security breaches) is a threat to both trading platforms and custodians alike. The enhanced technology risk management requirements proposed by MAS would already shore up cyber security practices among DPTSPs. MAS should continue</p>

		<p>providing best practices and working with industry to ensure the hardening of cyber defenses.</p> <p>With regard to misappropriation or misuse of customer assets, the risk may be higher when the assets are self-custodised by a trading platform, although independent custodians are not immune. However, the other risk management controls proposed for customers’ DPTs, such as governance controls on the authorisation of transfer and withdrawal of customers’ DPTs, would also effectively address this risk. One option is rather than introducing an independent custodian requirement upfront, MAS could first observe if the enhanced technology risk management requirements and risk management controls sufficiently address the risk of loss of customer monies.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
44	Uniswap Labs	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>No comments.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
45	UOB Limited (“UOB”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The Bank is agreeable to the proposed segregation measures and is of the view that ensuring no co-mingling of assets is important. We also suggest the following:</p> <ol style="list-style-type: none"> 1. Customer’s assets should not be encumbered or pledged as collateral and should be promptly accessed if there is request for redemption. 2. If the DPTSP has issued multiple DPTs, the assets for each DPT should be maintained separately. 3. DPTSP must be able to demonstrate the clear segregation of assets in trust that allows it to return the customers’ assets in the event of the DPTSP’s insolvency. <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>The Bank is of the view that having an independent custodian is appropriate especially for non-banking entities. The following measures should be considered for the custodian:</p> <ol style="list-style-type: none">1. Concentration of assets in custodian2. Conflict of interest due to any other services that may be provided by the custodian3. Protection against claims of custodian’s creditors4. Real time auditing of blockchain custodians <p>The Bank is also of the view that fully licensed bank can be exempted from the independent custodian requirement. Instead, a fully license bank</p> <ol style="list-style-type: none">1. Should be required to segregate the DPT assets from other assets held in their custody.2. Should not be allowed to use DPTs as a form of collateral / reserves in any forms.
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>In addition to the proposed disclosure and reconciliation measures, we propose adding the following measures:</p> <ul style="list-style-type: none">• Segregation between assets for different DPTs if applicable• Publication of DPT value-related information on website• Provide relevant information related to customers’ assets on a real-time basis <p>The same processes for other asset class holdings (e.g. capital markets investments) should be adopted</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>In addition to the proposed risk management controls, the Bank also suggests the following:</p> <ol style="list-style-type: none">1. To include details of insurance taken by the DPTSP to protect against a technology breach.2. Proper governance processes need to established for each DPTSP. For example, the implementation of a 4-eye check process.



		<ol style="list-style-type: none"> 3. The movement of transfer between hot to cold wallet needs to have manual steps in between. 4. Cold wallets should be kept offline. i.e., It should never be in touch with the internet and private keys should never leave the wallet. 5. Cold wallets should only be used to sign transactions 6. MAS to consider coming up with a list of recommended or approved DAC providers 7. The percentage of hot/ cold wallet should be documented and audited. 8. With regards to storing a suitably high proportion of customers’ DPTs in cold wallets, the Bank is of the view that the proportion should be at least 75%. 9. To consider updating the law of property rights (eg. if an account is compromised after the proposed measures are in place, who will bear the responsibility? Can the investor get back anything from DPTSP?) <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We have no further comments on the proposed restriction.</p>
46	US – ASEAN Business Council	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>Custody requirements should be the same for both banks and non-banks under the principle of “same activity, same risk, same regulation”. For any provider of digital asset custody services, there are three key principles that should be adhered to irrespective of the underlying asset:</p> <ol style="list-style-type: none"> 1. <i>Separation of Financial Activities</i>: safekeeping operations must be functionally separated from trading and other similar market activities; 2. <i>Segregation of Client Assets</i>: client assets must be segregated at all times from the bank’s (and non-bank’s) proprietary assets to ensure that they are bankruptcy remote; 3. <i>Proper Control</i>: the custodian must maintain proper control over client assets in order to identify the entitlement holder and to mitigate any ‘single point of failure’ in the record of ownership. <p>The first principle – separation of financial activities – is focused on preventing vertical integration of trading, investing and custody activities within the same</p>



		<p>legal entity. These functions should be conducted by separate legal entities with appropriate controls to mitigate conflicts of interests. While these may not need to go so far as to prohibit the exchange / trading entity and the custody entity from being affiliated, they would need to have separate governance structures. In this sense, we would support an “independent” custodian requirement if it is referred to as a separate legal entity with distinct governance and controls, but not if it further mandated that the separate legal entity be wholly unaffiliated with exchange/ trading entities.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Please refer to our response to Question 6.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Please refer to our response to Question 6.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Rather than being prescriptive as to how the technology should be established, the focus should be on technology solutions that are designed to ensure that there is no “single point of failure” (principle #3 above). From this perspective, the temperature (hot, warm, cold) of the wallet is not mandated, nor is the amount of assets that need to be held in a particular storage type.</p> <p>We would support risk disclosure and transparency as to the key management solution that is used by a particular DPTSP. In addition, the other two principles (#1 and #2 above) would also help this process in that the custodial entity would be solely focused on being a custodian and would design a key management system that was appropriately protective (more so than would an integrated exchange and custody entity whose main focus would likely be on trading).</p> <p>In terms of the compensation process in the event of a loss of customer’s DPTs, we do not think the law should mandate a particular compensation process. Particularly where the system is established in accordance with the three</p>
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		<p>principles above, we support a position where any client losses should be addressed as a contractual claim under the custody agreement.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
<p>47</p>	<p>Visa Inc. (“Visa”)</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>As a general matter, Visa advocates for the principle of same risk, same regulation. Many of the risks associated with DPTs exist in stocks, commodities, and their associated service providers, with existing regulatory tools to mitigate these risks. Visa supports addressing these risks with the same regulatory tools, to the extent appropriate. In turn, Visa suggests that MAS evaluate whether a separate regulatory regime needs to be created specifically for DPTs, or whether it is more appropriate to address these risks under existing regulatory regimes to avoid parallel and siloed regulatory frameworks.</p> <p>Given the above, Visa agrees with the proposal to segregate customers’ assets from the Digital Payment Token Service Provider’s (DPTSP’s) own assets and held for the benefit of the customer. We agree with MAS that it is critical to protect customers’ assets, especially in the event of the DPTSP’s insolvency or other unforeseen circumstances.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Visa agrees that DPTSPs should be required to appoint an independent custodian to hold customers’ assets. As a consequence, DPT custodians should be subject to at least the same level of requirements as custodians of traditional assets, with potentially additional requirements to address new risks presented by DPTs.</p> <p>Question 8.</p>



		<p>MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Visa agrees that the proposed disclosure and reconciliation measures are appropriate.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Visa agrees that new activities such as providing custody and administration of digital payment tokens present new risks compared to traditional assets. Visa supports MAS gathering information on this important topic, and suggests that MAS create a framework or guidance to promote effective measures to safeguard private keys and storage of customers’ DPTs.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Visa agrees with the proposed restriction on DPTSPs not to lend out retail customers’ DPTs, and suggests MAS work with DPTSPs and the industry to implement additional measures to ensure protection of customers’ DPTs from risks of unregulated activity by DPTSPs.</p>
48	William Lai	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The segregation measures relating to customers’ assets should be standard and mandatory for all financial service providers including DPTSPs as they should all have the fiduciary responsibility to their own clients. Permitting DPTSPs to commingle their own assets with customers’ assets should never be permitted.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p>



		<p>In the absence of a fully independent regulated centralised custodian such as CDP in SG for public listed securities, it would be prudent to appoint an independent 3rd party custodian such as a FI trustee / custodian to hold the customers' assets. Control measures for custodian services to be provided by DPTSPs must conform (or even stricter) to similar equivalent standards of those independent trustees / custodians.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Such proposed disclosure and reconciliation are appropriate and adequate provided the DPTSPs have a robust and secured platform with highest internal risk management, controls and governance standards, policies and control processes to safeguard their customers.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.</p> <p>Private keys held in wallets for DPTs are the equivalent of digital signature / password and must generally be safeguarded with highest level of protection albeit it is well known that such private keys are still being stolen by hackers or internal theft at certain DPTSPs.</p> <p>With the DLT, such stolen unauthorised transferred coins to another account could be traced and perhaps there should be a global recovery process to ensure that such 'disputed' DPTs at whichever platforms be 'frozen' and not permitted to be further transacted until resolutions through a proper legitimate process.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers' DPTs. MAS also seeks comments on any other measures to protect customers' DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Borrowing or lending of DPTs and cryptocurrencies must always be explicitly agreed by both parties as such services are not generally offered to all customers to facilitate covering of short-sellings that are highest risk activities.</p> <p>If the customers' assets are properly segregated from DPTSP's own assets, DPTSPs could not mortgage, charge, pledge or hypothecate the retail</p>
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		customer’s DPTs which would be considered to be illegal as they are not their own assets.
49	World Federation of Exchanges (“WFE”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>The WFE agrees that customer assets ought to be segregated from a DPTSP’s own assets and that this segregation should be verifiable. This is standard industry practice in financial services and protects customers in the event of insolvency. Current TradFi industry practice for financial services could provide a useful starting point for how segregation can be achieved. This would also ensure a level playing field with traditional financial services.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
50	Xfers Pte. Ltd. (“Xfers”)	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p>



	<p>Xfers is supportive of the proposal to segregate a DPT service provider’s corporate assets from the customer’s assets.</p>
	<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Proposal:</p> <p>Xfers is not supportive of the requirement that an independent custodian be appointed to hold the customers’ assets.</p> <p>Explanation:</p> <p>Firstly, the requirement that customer assets be held by an independent custodian would necessarily require additional regulations for such licensed DPT custodians to ensure that they have the necessary security and capital to ensure customer withdrawals can be smoothly facilitated. This puts into question what the precise regulations for such custodians should look like. Such rules have not been offered in this consultation paper and thus the industry has not had the opportunity to comment on whether they would be fit for purpose.</p> <p>Secondly, the efficacy of such a requirement is premised on the anticipated market for DPT custodians comprising many firms offering such custodian services (e.g. at least monopolistically competitive). However, the existing market appears to be dominated by a handful of DPT custodians such that requiring customer assets to be independently held by such custodians would only result in concentrating the risk in those few companies for the entire industry. The disproportionately few number of existing independent custodians, as well as the likely high capital and compliance costs of ensuring customer assets are secure, would likely mean that such risk will continue to be concentrated to an oligopolistic market of custodians. This is particularly dangerous given that such a market boasts a few, highly lucrative, targets for hacking; it also risks compromising the assets of large swathes of customers upon the collapse of one custodian company.</p> <p>Lastly, relying on an independent custodian does not necessarily limit the mitigation of corporate malfeasance or negligence. Third party custodians may still be victim to security breaches, insolvency, etc. Instead, we submit that the risk management controls for DPT custody proposed in Question 9 below are</p>



		<p>sufficient, and that DPTSPs should be allowed to keep customer assets in self-custody given these risk management controls.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Xfers is supportive of the proposed disclosure and reconciliation measures.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Xfers is generally supportive of the proposed risk management controls. We hope that the guidance for such controls would also include the importance of balancing risk management controls with operational demands such as the timely withdrawal or transmission of DPTs. This is to ensure DPT service providers will ensure both smooth operations and protective measures against adversity.</p> <p>Separately, should the requirement that customer assets be held with an independent custodian be implemented (per Question 7), the proposed risk management controls must at least apply equally to such independent custodians.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Xfers is not supportive of the proposed restrictions on DPT lending. The proposed rules may fail to protect customers’ DPTs from the risks of unregulated borrowing and lending by encouraging customers to transfer their DPT assets to foreign companies instead.</p> <p>Proposals:</p> <ul style="list-style-type: none"> (1) Distinguish between DPT trading platforms and DPT yield products (2) Implement the relevant risk control measures between the two different products <p>Explanation:</p>
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		<p>(1) Distinguish between DPT trading platforms and DPT yield products</p> <p>Xfers understands that the assets of retail consumers have been misappropriated or compromised during events such as the collapse of FTX, Zipmex, and LUNA. However, the risks associated with a retail customer’s DPT trading activities, and the customer’s decision to simply lend out their DPT assets to gain a yield, are starkly different. The former risks involve volatility in the price of a DPT as a result of market fluctuations. The primary duty of a DPT exchange would be to ensure timely transactions of the customers’ DPT assets. The business model of a DPT trading platform does not involve loaning out customer assets. Even if it were, such a clear concentration of risk in a single entity should be prohibited or regulated separately.</p> <p>In contrast, where companies only provide an earn or yield product based on the customer’s DPT assets, the customer enters into a contract with a DPT service provider such that the customer is minimally guaranteed the original value of DPT assets loaned to the DPT service provider. Such a customer is looking to deploy his assets in high-yield products offered by the DPTSP – i.e. they are explicitly consenting to the risks involved with their DPTs being loaned out or invested by the DPTSP. The primary obligation of such businesses would be to pay its customers back the agreed sum in the contract.</p> <p>These two different business models illustrate the different risks that MAS is seeking to regulate with the blanket ban on the lending and leverage of retail customer DPT assets. For exchanges, the ban is seeking to prevent the misappropriation of consumer assets by eliminating the possibility of unconsented lending or leveraging. It also seeks to mitigate the concentration of risk if a single company is exposed to both fluctuating values of DPTs in its trading business, and has additional obligations to customers of its yield products.</p> <p>Given that there are starkly different challenges that a DPT trading platform and a DPT yield product offer, Xfers proposes to then implement relevant risk control measures for each product rather than to ban the activity altogether.</p> <p>(2) Implement the relevant risk control measures between the two different products</p> <p>Imposing a blanket ban on the loaning and leveraging of DPT assets represents an unduly restrictive approach to protecting retail consumers, especially when such activities are not banned in other jurisdictions (e.g. the US). Xfers does not think this is advisable from both a regulatory and consumer perspective.</p> <p>Firstly, from a regulatory perspective it is inconsistent to ban the lending or leveraging of customer assets where the customer has consented to such activities, since the lending of investment assets is not restricted under the SFA. For instance, the SGX already facilitates share-lending on an opt-in basis. Even if DPTs were considered more volatile than traditional securities, the</p>
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		<p>solution would be to mandate greater disclosure or prudential requirements for companies offering a DPT yield product.</p> <p>Secondly, the proposed restrictions may result in retail consumers being incentivised to seek out unregulated foreign entities that offer DPT yield products instead. This would ultimately defeat the proposed regulations’ purpose of protecting the vulnerable personal assets of retail customers. DPT yield products are prolific in the international market, and it would be difficult from an enforcement perspective to prohibit consumers from engaging with the vast array of foreign companies offering such products. An outright ban on regulated DPTSPs lending out retail customers’ DPTs would thus only displace the risk of doing so away from Singaporean companies to the responsibility of the Singaporean customer themselves.</p> <p>It is thus imperative that MAS offers a solution that is consistent with its existing securities regulatory framework, and that offers retail consumers a well regulated choice to lend or leverage their DPTs in the market. Differentiated rules can thus be implemented to achieve this:</p> <p>(A) DPT trading platforms should not be allowed to lend or leverage their retail customers’ assets, even with their consent. If they would like to offer a DPT yield product, they should set up a separate entity to do so. Such an approach is consistent with the proposals under the Stablecoins Consultation Paper (Question 7) where stablecoins issuers are not allowed to stake or invest its SCS or digital assets. Instead they can only do so under a separate entity (e.g. a sister company).</p> <p>(B) DPT service providers that only offer earn or yield products should be subject to additional prudential and disclosure requirements (unless offering only to accredited/institutional investors). These could be similar to the proposed reserve assets and prudential requirements in the Stablecoins Consultation Paper (Question 5 and 7) to ensure that the DPT service provider has the capital to fulfill its contractual obligations to the customer. Separately, different transaction limits can be imposed for individual retail customers, accredited investors, and corporate entities. This would help to ensure that the risk exposure of individual retail customer is appropriately limited.</p>
51	Zhang Wei	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments</p>



		<p>on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>I fully support MAS’ proposal for segregation and independent custody of retail customers’ assets. Admittedly, this will be a special requirement for DPTSPs which is not broadly applicable to their counterparts in the general capital markets. However, there are good reasons to impose this extra requirement.</p> <p>First, in the traditional capital market, broker-dealers need access customers’ assets mainly to facilitate margin trading or short selling. Since the Token Proposal would prohibit margin trading (and, supposedly, short selling) by retail customers, there is no compelling needs for crypto broker-dealers to use customers’ assets. Whereas the segregation and custody requirement might constrain institutional investors or AIs from short selling, I expect the impact to be limited insofar as the requirement applies to retail customers’ assets only.</p> <p>Moreover, there are other safeguarding measures in place in the traditional capital market that are not yet available to the world of crypto assets. These include the special reserve accounts for the exclusive benefit of customers (e.g. US SEC Rule 15c3-3), and mandatory participation by broker-dealers in customer protection mechanisms (such as the SIPC in the U.S. or the SGX fidelity fund). Absent similar protective strategies in the crypto industry, separate custody of retail customers’ assets would be a valuable feature of any responsible DPTSP.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>MAS proposes disclosure measures regarding the arrangements and risks involved in having retail customers’ assets held by DPTSPs. While all these proposed measures are appropriate, disclosure rules about asset holding alone may not be adequate to protect retail customers of DPT transactions. In view of their volatility and speculative nature, crypto assets are similar to penny stocks. Therefore, the disclosure requirements for penny stock trading could be a good reference (e.g. US SEC Rule 15c2-11). For instance, before providing their services, DPTSPs should collect and disseminate to retail customers information of DPTs and their issuers, including the issuers’ general business nature, recent trading prices and volumes of the relevant DPTs, among others.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p>
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		<p>No comments.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>I fully agree with MAS’ proposal to prohibit DPTSPs from lending out retail customers’ DPTs. As MAS rightfully points out, the sources of DPT lending yields are often dubious, including unregulated financial institutions (e.g. Celsius), unregistered or unauthorised mutual funds (e.g. many staking pools), as well as speculative DeFi projects (e.g. Terra / Luna). Some of these projects are essentially Ponzi schemes.</p>
52	Respondent A	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We agree that a DPTSP’s own assets should be segregated from the assets held for the benefit of the customer. We also agree that more clarity is required on the framework and requirements surrounding DPT custody by DPTSPs and look forward to additional guidance from MAS in Phase 2 of the PS Act Amendment.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>We agree that an independent custodian should be appointed to hold customer assets. We further propose that these independent custodians need to be a MAS-regulated entities (such as MAS regulated DPTSPs) to strengthen protection of customer assets. Nonetheless, we await more guidance from MAS in Phase 2 of the PS Act Amendment on the detailed requirements regarding DPT custodians.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>For DPTSPs that hold assets on behalf of customers, MAS’ proposal of daily reconciliation of all customers’ assets, and providing customers with a statement of account, comprising information on the customer’s assets and transactions, minimally on a monthly basis is appropriate.</p>



		<p>However, for DPTSPs that only facilitate DPT transactions for customers, a transactional advice would be more appropriate to enable customers to reconcile their DPT flows with the statement of accounts provided by DPTSPs who hold their DPTs.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>We agree that the proposed control measures will strengthen customer asset protection for all DPTSPs. We emphasize that these control measures are especially important for DPTSPs that act as independent custodians for other DPTSPs and as such, welcome MAS to work with industry players to develop the proposed control measures into detailed guidelines as part of Phase 2 of the PS Act Amendment.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
53	Respondent B	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We support the principle that the customers assets should be identified, segregated, and held for the benefit of the customers. However, these requirements are not sufficient to mitigate the risk of loss if DPTSPs are allowed to manage customers DPTs and consequentially mismanages these assets.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Consistent with the treatment under the Regulation 54 of the Securities and Futures (Licensing and Conduct of Business) Regulations, banks, merchant banks, and finance companies whom are exempted from section 13(1) of the PSA should similarly be exempted to hold customers DPTs with an independent</p>



		<p>custodian. Banks should be allowed to hold customers DPT within their own networks.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>For a bank that has legal custody but does not operate the wallet, where the client's DPTs resides in an omnibus wallet with a custodian bank outside Singapore, and where the bank does not consider custodial relationships as outsourcing arrangements, we propose that such banks perform due diligence over the risk of loss of private keys and are allowed to satisfy themselves under its own counterparties management. We are of the view that there is no need to further prescribe controls on banks, merchant banks, and finance companies unless they operate wallets.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>We agree with these proposals – the restrictions should be imposed on DPTSPs regardless of whether they act as principal or agent in lending out retail customers’ DPTs.</p>
54	Respondent C	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>As a proprietary trading firm, we agree with the proposal that customer assets should be segregated from a DPTSP’s own assets and held either (1) in a separate account for each customer under that customer’s name or (2) in an account in the name of the DPTSP as agent for and for the benefit of the DPTSP’s customers. Commingling of customer and DPTSP assets places customer assets at risk of loss, both during business as usual and in the event of the DPTSP’s insolvency. We understand that measure (1) or (2) above, together with the independent custodian requirement discussed in Question 7</p>



	<p>below, would under the bankruptcy laws of many jurisdictions result in the customer assets being treated as outside the bankruptcy estate and thus unavailable to an insolvent DPTSP’s general creditors. It would be helpful if MAS or another appropriate Singaporean authority could confirm that this would be the case under Singaporean insolvency law.</p> <p>We also note that the proposed segregation measures would be consistent with requirements in other jurisdictions. For example, they would broadly parallel the “qualified custodian” requirement for investment advisers registered with the U.S. Securities and Exchange Commission (“SEC”) that have custody of client assets³ and the requirement for futures commission merchants (“FCM”) regulated by the U.S. Commodity Futures Trading Commission (“CFTC”) to account separately for customer funds and segregate such funds as belonging to customers.⁴ These segregation obligations require that the custodian holding customer assets fall into one of a small number of categories of highly regulated institutions, e.g., a bank, a trust company, an SEC-registered broker-dealer, another CFTC-registered FCM, a CFTC-registered derivatives clearinghouse, or a foreign financial institution that customarily holds customer financial assets for its customers and keeps advisory clients’ assets segregated from its proprietary assets.</p> <p>Finally, however, we note that use of a separate segregated account for each customer per arrangement (1) above may not be possible if MAS chooses to permit customers to affirmatively elect to lend their assets to other customers on the platform to support leveraged trading (see response to Question 10 below).</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>As a proprietary trading firm, we believe that DPTSPs should be required to appoint an independent custodian to hold retail customers’ assets. Affiliation between a custodian and an exchange or market participant could give rise to serious conflicts of interest. A prominent example of the harm that may result from such conflicts is the currently unfolding FTX bankruptcy and related criminal and regulatory charges. In this matter, FTX, as custodian of customer assets on its platform, allegedly loaned massive amounts of customer funds to its affiliated trading firm, Alameda Research, in violation of FTX’s platform terms of service.</p>
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³ See 17 CFR 275.206(4)-2.

⁴ See 17 CFR 1.20. While the CFTC’s regulatory requirements do not apply to “spot” DPT transactions, we believe this segregation model is appropriate for retail customers engaged in spot DPT trading, given customer pre-funding of transactions on exchange platforms.



		<p>Of note, the CFTC⁵ and the U.S. federal banking regulators⁶ require registered swap dealers to use an independent custodian to hold initial margin that they post and collect for uncleared swaps, partly because of concern that a loss of market confidence in a custodian could lead to a loss of confidence in its affiliates that are swap counterparties and vice versa.⁷ Though these requirements apply only to swaps and not to “spot” trading, the underlying rationale of concern about contagion in loss of market confidence could apply similarly to a custodian holding assets for pre-funded spot trades and its affiliates.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>As a proprietary trading firm, we support the proposed disclosures and reconciliation measures. In particular, it would be useful to require disclosures as to whether customers’ assets are segregated from the DPTSP’s own assets and held for the benefit of customers, and any other arrangements the DPTSP has in place to protect customers’ assets in the event the DPTSP becomes insolvent. Each of these disclosures could help market participants better evaluate platform / counterparty risk and limit platform participation or trading through or with brokers or counterparties as appropriate.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>As a proprietary trading firm, we support appropriate risk management processes and controls—for example, with respect to digital wallets—for DPTSPs custodial retail customers’ DPTs, such as exchanges and custodians serving retail customers. However, requirements in this area should be principles-based to permit some flexibility to allow organizations to tailor implementation to their specific control systems and business requirements.</p> <p>In addition, while these risk control obligations are appropriate for custody of a retail third party’s assets, they should not be required for transfer and receipt of DPTs in settlement of bilateral trades with nonretail counterparties or for a proprietary trading firm’s self-custody of its own DPTs. These latter scenarios do not present the risks and other public policy concerns associated with custody of retail customers’ DPTs.</p>
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⁵ 17 CFR 23.157(a)-(b).

⁶ 12 CFR 45.7(a)-(b).

⁷ Margin Requirements for Uncleared Swaps for Swap Dealers, 81 Fed. Reg. 636, 671-72 (Jan. 6, 2016).



		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Lending by DPTSPs is acceptable for purposes of trading on margin, but otherwise should be restricted. In particular, lending of retail customers’ DPTs should not be permitted or, if permitted, should be subject to clear, prominent disclosures of the terms of the lending program and an affirmative opt-in by the retail customer. We believe that lending of customer assets can create conflicts of interest that undermine the exchange’s role of safeguarding customer assets, as seen in the ongoing FTX matter referenced above.</p>
<p>55</p>	<p>Respondent D</p>	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>We believe that the public will only use DPTs and blockchain technology if they are confident that their assets are protected. Customer assets need to be protected from the risk of misuse and in the case of the insolvency of a DPTSP. There are steps that regulators and market participants can take to maximise customer confidence. Segregation of customer assets from a DPTSP’s own assets is one important step, but it is not the only one. Moreover, the type of segregation offered or required may vary by activity or service provided. Custodians holding customer assets should be subject to robust regulatory oversight. This would be enhanced by the transparency of the blockchain, which makes publicly visible the sum total of DPTs held by a custodian. Customer deposits should be backed by assets—and if a participant promises they will be backed 1:1, then this promise must be kept. Platforms should not be able to use customer assets without customer consent. Service providers should be required to disclose how assets are held and used, and regulators should have sufficient oversight powers to ensure service providers follow through with these disclosures. Assets should be tracked through robust recordkeeping so that they can be returned to their rightful owners. In sum, the ultimate outcome should be the same: customers should have priority over all other creditors in the insolvency of the relevant intermediary.</p> <p>We anticipate that requirements for the segregation of cash belonging to customers will likely be folded within the existing safeguarding provisions in the Payment Services Act (PSA), which specifically relate to the handling of money. Given the global nature of the DPT space, we would suggest expanding the current provisions relating to safeguarding customer money by permitting the maintenance of trust accounts with foreign institutions licenced outside Singapore, subject to the assurance that these foreign trust accounts remain</p>



		<p>insolvency remote. That change would better facilitate non-Singapore dollar currency transactions.</p> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>As noted in our response to Question 6, regulators can increase customer confidence by subjecting custodians to robust regulatory oversight. This is enhanced by the transparency of the blockchain, which makes publicly visible the sum total of DPTs held by a custodian. But it is not clear to us why a custodian that meets such high regulatory standards must be independent from the DPTSP for which it holds customer funds. Combining exchange services with custody of trading assets comes with no meaningful risk of misalignment between the incentives of the custodian and the exchange. The custodian holds the assets, and the exchange matches orders to buy and sell those assets. In fact, as discussed in the “Promoting an efficient and risk-reducing market structure” section above, having exchange services and custody within the same technology stack allows for real-time settlement of DPT transactions, which provides significant risk-reducing benefits to consumers.</p> <p>We also believe that it is paramount that before mandating any DPT custody practices, MAS amends the PS Act to extend its application to stand-alone DPT custody service, and provides a set of comprehensive rules for the provision of such services. The rules governing DPT custody should operate in tandem with the rules on other DPT services already covered by the PS Act. Any changes to, or extension of, the existing DPT regulatory regime should be implemented by way of the PS Act Amendment, rather than by the issuance of non-binding guidelines.</p> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>Further to our comments in response to Question #3, we agree with the policy rationale of ensuring that customers are informed of, and understand the risks involved in, having their assets held by DPTSPs. Such disclosures could be made</p>
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		<p>through the form of a “Crypto Risk Statement”⁸ provided to customers at the point of onboarding.</p> <p>However, the level of detail included and form of such disclosures should be carefully considered. From experience with our customer base, we have found that risk warnings are best comprehended and internalised where they are fewer (between 2-3) and when they are highlighted in the logged-in experience just before a product or service is accessed for the first time. A lengthy Disclosure Statement shown to a user during onboarding has a risk of not being properly read and understood (or accurately remembered at the appropriate time).</p> <p>Finally, we would argue that a statement of account could be delivered or made available to customers in a variety of ways. For example, Coinbase users are able to access their portfolio and view their current holdings, historic transactions and generate reports relating to their activity at any time. In our view, requiring such information on a monthly basis, when customers can themselves see it at any time, would add little value. We agree that DPTSPs should provide this information to consumers, but would suggest that DPTSPs retain flexibility in how they make this information available.</p> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>As explained in response to Question #7, we believe that the security of customers’ DPTs is of paramount importance. DPTSPs that hold custody of customers’ DPTs should take careful measures to safeguard private keys. We commend MAS’ focus on this issue, and agree with the importance of the principles outlined in section 4.11 of the paper.</p> <p>Coinbase for its part has implemented the “never alone,” “segregation of duties,” and “least privilege” principles described by MAS. Coinbase manages DPTSP customer wallets throughout the key lifecycle. Coinbase wallet operations implement, monitor, and audit for adherence to the principles outlined in section 4.11, and Coinbase-managed wallets, including DPT private keys, have never been compromised.</p> <p>Notwithstanding a DPTSP’s security safeguards, customers who fail to take their own adequate safeguards may nonetheless suffer loss of their DPTs. The compromise of customer-held credentials and resulting losses, in spite of protections offered to customers, are referred to as account takeovers. Most account takeovers are due to scams and are independent of DPTSP operations</p>
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⁸ For an example, see the *Coinbase Crypto Risk Statement* for Canadian customers.



		<p>safeguards. We offer multiple on-line security features such as multi-factor authentication that can help mitigate account takeover risks.</p> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>An initial distinction should be drawn between on-chain yield programs (such as staking and DeFi) and off-chain lending programs that essentially replicate traditional banking services using cryptocurrencies.</p> <p>Decentralised finance, or “DeFi,” is a transformational development made possible by blockchain technology. DeFi removes financial intermediaries from financial transactions, replacing banks, brokers, and other traditional financial institutions with open-source code operating on public, permissionless blockchain networks. It has the potential to create financial markets that are open, free, fair and accessible to anyone with an internet connection. While the technology is still nascent, DeFi protocols have already proven their resiliency through periods of market stress, and regulators around the world are beginning to recognise the benefits.⁹</p> <p>Providing access to DeFi protocols is distinguishable from engaging in traditional financial services activities. Typically, a DPTSP provides this access by taking on-chain actions at the direction of the user. While DeFi protocols can present security risks if implemented incorrectly, a DPTSP has the ability to vet smart contracts for security and safety risks. Preventing DPTSPs from performing this service would likely push less experienced users to other means of participation in DeFi.</p> <p>Staking should also be differentiated from off-chain lending programs. Staking refers to the process of helping to secure a proof-of-stake blockchain network; stakers earn rewards in the form of the blockchain’s native cryptocurrency in return for helping to secure the network. The reward is transparent and comes directly from the blockchain protocol.</p> <p>To address the perceived risks associated with staking, we believe MAS should require DPTSPs to obtain a clear consent from their retail customers that they understand the risk and rewards associated with staking. Completely restricting staking would ultimately lead to worse outcomes, as it would push the activity to offshore and unregulated exchanges.</p>
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⁹ For example, Sopnendu Mohanty, Chief FinTech Officer of the Monetary Authority of Singapore, has stated that “digital assets and decentralised finance have the potential to transform capital markets [and] enabl[e] more efficient and integrated global financial networks.” *First Industry Pilot for Digital Asset and Decentralised Finance Goes Live* (2 November 2022).



		<p>Moving to off-chain lending, we strongly believe that a DPTSP must not use a customer’s assets for anything without the customer’s informed consent. For example, a DPTSP should not be able to lend customer assets without a clear indication from the customer that she understands the risks and nonetheless wishes for the DPTSP to do so. We do not, however, think that MAS should prohibit an agreement between a DPTSP and a customer entered into with informed consent and appropriate disclosure.</p>
56	Respondent E	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>This was addressed in question 3.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>This was addressed in question 3.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
57	Respondent F	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p>



		<p>No comments.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>Make sure that customers are protected by MAS. Look at Hodlnaut, they forfeited their licence with MAS, leaving customers unable to fend themselves. Maybe there could be a longer lead time till the licence got forfeited, so that customers are still protected. MAS could also do checks on what providers do with the customers’ assets. It was known that Hodlnaut risked customers’ assets and lied about it. I personally encountered a platform glitch on Tokenize where my LUNA was triggered to sell at \$12 when I had a few hundred thousands of it. Tokenize took it back and said it is not my money. If it was another established exchange, they would not take the money back because it is their fault. MAS and its local exchanges should learn from the better ones instead of restricting and banning, because cryptocurrencies are not bad assets. Only bad providers who are out to cheat.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>Customers should always be responsible for their own private keys and storage of their assets. Cryptocurrencies are supposed to be decentralised, having someone or an institution take care of this defeats the purpose.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>Borrowing and lending from providers should be regulated according to customers’ financial abilities. If platforms are the ones lending out and</p>



		<p>borrowing for liquidity and interest, then MAS should do regular checks to make sure they are not doing something like what Hodlnaut or other big names did. Learn from better companies like Nexo and how they managed to survive and even offered a helping hand, instead of coming up with own rules. It is possible to tie up with better companies as a safety net.</p>
58	Respondent G	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
59	Respondent H	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p>



		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p> <hr/> <p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p> <hr/> <p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p> <hr/> <p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
60	Respondent I	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p> <hr/> <p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p> <hr/> <p>Question 8.</p>



		<p>MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers’ DPTs. MAS also seeks comments on any other measures to protect customers’ DPTs from the risks of unregulated borrowing and lending by DPTSPs.</p> <p>No comments.</p>
61	Respondent J	<p>Question 6. MAS seeks comments on the proposed segregation measures relating to customers’ assets.</p> <p>No comments.</p>
		<p>Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers’ assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers’ DPTs.</p> <p>No comments.</p>
		<p>Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.</p> <p>No comments.</p>
		<p>Question 9. MAS seeks comments on the proposed risk management controls for customers’ DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers’ DPTs.</p>



		No comments.
		Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers' DPTs. MAS also seeks comments on any other measures to protect customers' DPTs from the risks of unregulated borrowing and lending by DPTSPs.
		No comments.
62	Respondent K	Question 6. MAS seeks comments on the proposed segregation measures relating to customers' assets.
		No comments.
		Question 7. MAS seeks comments on whether DPTSPs should be required to appoint an independent custodian to hold customers' assets. MAS also seeks comments on other control measures that would help to minimise the risk of loss or misuse of customers' DPTs.
		No comments.
		Question 8. MAS seeks comments on whether the proposed disclosure and reconciliation measures are appropriate and adequate, and whether any other disclosures would be useful.
		No comments.
		Question 9. MAS seeks comments on the proposed risk management controls for customers' DPTs. MAS also seeks comments on any other measures to safeguard the private keys and storage of customers' DPTs.
		No comments.
		Question 10. MAS seeks comments on the proposed restriction on DPTSPs not to lend out retail customers' DPTs. MAS also seeks comments on any other measures to protect customers' DPTs from the risks of unregulated borrowing and lending by DPTSPs.
		No comments.



Annex C

SUBMISSIONS FROM RESPONDENTS TO QUESTIONS 15 – 16 OF THE CONSULTATION PAPER ON PROPOSED REGULATORY MEASURES FOR DIGITAL PAYMENT TOKEN SERVICES

Note: The table below only includes submissions for which respondents did not request confidentiality.

S/N	Respondent	Responses from respondent
1	Allen & Gledhill LLP	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
2	Anchor Labs Inc (Anchorage Digital) (“Anchorage”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Anchorage Digital agrees that DPT trading platforms should put in place “good industry practices to detect and deter unfair trading practices in DPT markets.”</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Anchorage Digital does not have a comment to provide on this question.</p>
		<p>Question 15.</p>

3	Asia Crypto Alliance Ltd. (“ACA”)	<p>MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <hr/> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>ACA fully supports the requirement to implement market surveillance and other monitoring mechanisms to detect unfair trading practices. It should be part of the operator’s compliance program to put in place effective monitoring mechanisms if they transact in DPT.</p> <p>However, as noted in the MAS consultation, this is still an area where the industry has challenges defining and prioritizing key risk areas and having available system vendors that can provide adequate solutions to safeguard these risks.</p> <p>It is recommended that MAS work with industry associations like ACA to agree on a basic framework. ACA will in turn work with operators and vendors to assess what would be feasible to be implemented that meets the requirements under the framework.</p>
4	Asia Digital Exchange Pte Ltd	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <hr/> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
5	Asia Securities Industry & Financial Markets Association (“ASIFMA”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Members have no comments.</p> <hr/> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p>



		Members have no comments.
6	Association of Crypto Currency Enterprises and Start-ups Singapore (“ACCESS”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>ACCESS notes that various MAS Guidelines already apply to DPTSPs, including the MAS’ Guidance for Effective AML/CFT Transaction Monitoring and Controls.</p> <p>The MAS may wish to consider creating guidance on the regulation of DPT markets incorporating the principles set out in the MAS Guidelines on the Regulation of Markets.</p> <p>In addition, MAS may consider replicating the duties required of:</p> <ol style="list-style-type: none"> 1. CMSL holders in Regulation 13(b) of the Securities and Futures (Licensing and Conduct of Business) Regulations for DPTSPs dealing in DPTs; and 2. Approved exchanges and recognised market operators in Regulation 17 of the Securities and Futures (Organised Markets) Regulations for DPTSPs facilitating the exchange of DPTs. <p>If such conduct regulations went into effect for DPTSPs, the methods of establishing effective systems and procedures can be determined by each DPTSP commensurate with the scope, nature, and complexity of its operations. We anticipate that many of the systems, procedures, and arrangements implemented will be replicated from what is already done by entities regulated under the Securities and Futures Act.</p> <p>ACCESS also notes that the guidance might be expected to include design principles:</p> <ul style="list-style-type: none"> • Systems are designed to: <ul style="list-style-type: none"> ○ incorporate rules and controls for market surveillance, e.g. market manipulation, price dislocation from the wider market, etc. ○ monitor performance of the systems, e.g. the efficient functioning of matching algorithms, ‘settlement’ systems, withdrawals, reconciliations, etc. ○ with the aim of fairness and ethics, e.g. not designing functions that are available to one set of participants at the expense of others, without rational, reasonable, and publicly disclosed motivations ○ recognise and mitigate conflicts of interest, e.g. related group companies should not be directly involved in the design of matching engines that they trade



	<ul style="list-style-type: none">• Systems are designed with appropriate access controls; for example, system administrators not given design / change rights, developers not given trading rights, any user not given ‘god’ rights. Those rights would be documented and reviewed on a periodic basis. <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>ACCESS agrees that additional measures, including market surveillance mechanisms, can be put in place to better detect and deter unfair trading practices. Operationally, market surveillance is a subset of transaction monitoring, which also includes monitoring for AML/CFT in compliance with MAS Notice PSN02. In practice, many DPTSPs already cover both aspects as part of a comprehensive transaction monitoring programme. ACCESS welcomes further guidance and support from MAS to strengthen market surveillance practices in the digital asset industry.</p> <p>Market surveillance practices and systems should be implemented on a scale commensurate with the level and type of activity performed by the DPTSP. As a best practice, large-scale activity would indicate that market surveillance mechanisms should be automated, with a periodic manual review of exceptions and tolerances to ensure appropriate calibration of surveillance models. This is similar to best practices for overall transaction monitoring.</p> <p>DPTSPs should be given adequate time to design and implement market surveillance systems appropriate to the level and type of activity on their platform.</p> <p>In terms of the scope of surveillance, DPTSPs should have mechanisms in place to detect and deter their platforms’ involvement in unfair trading practices. While DPTSPs should be primarily responsible for monitoring transactions on their own platform, some members of ACCESS suggest that DPTSPs also perform analysis of assets onboarded to the DPTSP as well as on-chain wallets that interact with the DPTSP, in order to better inform surveillance of activity off-chain on the DPTSP.</p> <p>ACCESS also notes that DPTSPs may carry on either (or both) of the following types of activities:</p> <ol style="list-style-type: none">1. dealing in DPTs (e.g. OTC trading desks); and/or2. facilitating the exchange of DPTs (e.g. crypto exchanges). <p>There were differing views among ACCESS members as to whether the standards for market surveillance should apply similarly to both categories of DPTSPs. Some members were of the view that DPTSPs that only deal in DPTs are fundamentally less risk, as they do not hold customer assets. They also drew the parallel to the different treatment accorded to OTC desks vs market operators in the securities space. On the other hand, some members were of the view that both types of</p>
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	<p>business models were susceptible to market abuse, and that any guidance or requirements on market surveillance should apply equally. Otherwise, it would create an opportunity for bad actors to arbitrage the systems by carrying on their activities via OTC desks which have lower standards of surveillance.</p> <p>In terms of tools, there exist market surveillance mechanisms, which DPTSP may utilise, with capabilities to detect unfair trading practices both on-chain and off-chain. Again, the adoption of systems and methodology should be appropriate to the scale and type of activity being surveilled ACCESS notes that the activities to be monitored are similar to those conducted in traditional finance. Examples include:</p> <ol style="list-style-type: none">1. <u>Price manipulation</u>, such as “spoofing”, “layering”, “order flashing”, and “momentum ignition”.2. <u>Wash trading</u>, which is conducted either to distort volume figures for the exchange, or to obscure economic ownership of assets traded on the exchange. <p>In addition, Transactions Monitoring should be conducted when assets move from “on-chain” to “off-chain” environments; the purpose of which is to detect money laundering activity. Examples include:</p> <ol style="list-style-type: none">1. <u>Unusual account / trading activity and deviations from expected behaviour</u>, such as:<ol style="list-style-type: none">a) “chain hopping”, transfers between different types of DPTs to obfuscate the source of funds;b) “layering”, transfers between related accounts;c) “money-pass” transactions, showing collusive trading patterns between accounts or groups of accounts; andd) trading activity between a group of accounts, where losses in one account is often / consistently reflected as profits in another account (and vice versa).2. <u>Transfers to and from the DPTSP involving high risk countries or suspicious wallets</u>. <p>Ideally, the above Surveillance and Trade Monitoring practices for off-chain activity should be informed by monitoring on-chain wallets associated with off-chain accounts on the DPTSP, so that suspicious activity can be correlated and tracked from on-chain to off-chain environments.</p> <p>In terms of standards, MAS and DPTSPs could also take reference from the MASSGX Practice Guide on Trade Surveillance in enhancing market surveillance practices in the digital asset space. The principles set out in the Guide are broadly applicable to virtual asset exchanges:</p>
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		<ol style="list-style-type: none"> 1. Strong senior management oversight: Regular and escalation processes for senior management to maintain timely, robust oversight of trading activities on the exchange 2. Sound detection mechanisms and assessment framework: Documentation of client instructions and communication, trade surveillance policies and processes, including a trade surveillance programme commensurate with the scale and nature of business that includes automated measures and is reviewed regularly 3. Sufficient resources: An adequately resourced, dedicated team for trade surveillance, and a clear reporting line that does not present conflicts of interest; sufficient budget for trade surveillance programmes 4. Proper recordkeeping and quality assurance: Documented escalation carried out in according with set policies and procedures; proper, centralised recordkeeping; Chinese walls on trade surveillance parameters; periodic quality assurance audits. To this end, ACCESS welcomes additional guidance as to the specific areas for periodic audits on compliance with procedures and the possibility of periodic audit report submissions to MAS <p>The above would serve as a good base for industry guidelines / code of conduct on market surveillance.</p> <p>On this note, ACCESS also agrees with MAS that global consensus and standards are required to effectively address market integrity concerns, and stands ready to support such international efforts as well.</p>
7	Binance	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>DPTSPs should have comprehensive "market misconduct" regimes in respect of DPTs. This is fundamental to consumer protection and market integrity. In addition to the market surveillance and transparent trading measures referred to in Q16, this should include policies and procedures specific to insider trading and (DPT) token listings.</p> <p>For DPT listings this should include:</p> <p>information submitted by a DPT issuer for admission to trading e.g. "whitepaper",</p> <p>suitability for admission to trading with regard to due diligence undertaken by the exchange in respect of key risks such as the background of the issuer of the DPT, product roadmap, tokenomics, finances, code design and infrastructure security; and</p> <p>processes for the orderly delisting of a DPT.</p>



		<p>Licensed virtual asset exchanges should be primarily responsible for determining whether a DPT is admitted to trading. It is also important to ensure appropriate regulatory oversight of the admission process to trading DPTs on exchanges and this could be achieved in different ways, e.g:</p> <p>Self-certification: Under this route, the exchange would, prior to admitting a new DPT to trading, self-certify to the relevant competent regulator that the virtual asset it intends to list is a DPT within the relevant definition, and that the DPT has met the exchange’s requirements for listing. The regulator would then have an opportunity to stay the listing within a prescribed time period.</p> <p>Review and approval: Under this route, an exchange may instead request the relevant regulator review and approve a particular DPT for admission to trading rather than the exchange undertaking a self-certification process.</p> <p>Regulators could also publish a list of all DPTs submitted to it under either route. The publication of such a list would provide certainty to the industry as to which products are DPTs. This would be of particular assistance to new or developing exchanges and would provide users with additional comfort that the DPTs they are buying or selling are regulated products.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Binance agrees that DPTSPs should implement effective systems, procedures and arrangements to facilitate fair, orderly and transparent trading. This will reduce the probability of users engaging in unfair trading practices as the MAS has described.</p> <p>Binance agrees that there must be implementation of market surveillance mechanisms to detect and deter unfair trading practices. Unfair trading typology investigations usually involve analysis of user trading patterns, which is typically post-trade in nature. Due to the fast moving nature of crypto markets, Binance also agrees that real time market surveillance by DPTSPs, where practical and possible, could help.</p>
8	Blockchain Association Singapore (“BAS”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We agree with this measure, which is consistent with international standards for traditional financial products.</p> <p>We look forward to having a separate consultation to discuss.</p> <p>Question 16.</p>



		<p>MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Market surveillance mechanisms</p> <p>We note that real time surveillance systems are expensive and invite MAS to tailor the measures to account for the resources required by smaller exchanges to implement such systems. We are of the view that as long as there is an established policy and process for market surveillance, DPTSPs should be allowed to choose the right tool to implement them. Depending on the size and nature of operation, flexibility should be given to DPTSPs to choose to either adopt real-time automated tools (inhouse or third-party solution), or to manually review transaction records (deposit, withdrawal, order submission, order cancellation, settlement).</p> <p>Other suggested effective measures</p> <p>While surveillance is necessary, we are of the view that preventive measures are equally important. Some preventive measures that we would propose are as follows:</p> <ul style="list-style-type: none"> • transparency in fee structure will prevent wash trading and pump-and-dump practices. Most of the wash trading and pump-and-dump happens because service providers offer zero-trading fee or even minus trading fee for the purpose of having bigger trading volume. Applying a uniform trading fee will make these practices commercially unattractive; • listing criteria for DPTs should include certain standards on global liquidity of a DPT so that the price of DPTs will not be swayed by a small number of traders, to reduce the risk of cornering; • trade spoofing can be prevented by imposing limitations on API calls per given time; and • implementing a personal account dealing policy can prevent insider trading.
9	CFA Society Singapore (“CFA Singapore”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We are supportive of proposals to enhance market integrity for DPTs. Similar to equity trading, market integrity is paramount to the growth of markets. Market manipulation, use of nonpublic material information and other illicit activities should not be tolerated.</p> <p>Question 16.</p>



		<p>MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>As per response to Question 15.</p>
10	CHP Law LLC	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We are supportive of the good industry practices suggested by MAS. Given the global nature of market integrity risks, we look forward to guidance from applicable international standards and MAS’ proposals on the appropriate measures to be adopted for the local context.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We are supportive of the good industry practices suggested by MAS.</p>
11	CMC Markets Singapore Pte. Ltd. (“CMC Markets”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
12	Derek Teo	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>



13	DigiFT Tech (Singapore) Pte. Ltd.	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
14	Duane Morris & Selvam LLP	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
15	Dylan Loh	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
16	Ethics Ambassadors Pte. Ltd. (“EA”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>In addition to generally recommended good practices by MAS, certain activities can be listed as prohibited to make it more specific, e.g., market-making resulting</p>



		<p>in unfair pricing, preferential treatment, and manipulative and deceptive trading activities (IOSCO, 2020).</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>EA is in alignment with MAS that the availability of technological solutions for DPT surveillance may be limited, and therefore the regulation can be only recommendatory.</p>
17	Fireblocks Pte. Ltd.	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
18	Flint & Battery LLC	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We considered whether DPTSPs should be regulated under an existing regulatory regime, e.g., Banks, SFA, etc.</p> <p>On the external, it may seem persuasive that DPTs may resemble commodities, and by parity, its treatment and regulation should be based on that applicable to commodities. However, it is felt that DPTs are dissimilar to commodities for the reason that the property and nature of a traded commodity, like crude oil, or silver, or else, is known and trite. In contrast, the property of a DPT is comparatively complex and obscure. The complex nature of DPTs suggests that the disclosure-heavy regime of securities should be preferred, as are shares of traded companies. However, it is not feasible to enforce this disclosure obligation upon a DPT’s issuer.</p>



		<p>We considered whether DPT exchanges should be regulated under the same regime as “organized markets” under the SFA. We note that the present prohibition for operating as an “organized market” as defined in the SFA does not expressly include exchanges for DPTs. It is our opinion that MAS’s concern in respect of the regulation of such entities includes whether the inevitable eventual failure or malfunction of an apparatus resembling an organized market for DPTs will create a contagion to the wider financial system that would adversely disrupt the Singapore financial system, and whether the participation of retail customers in such a malfunction is an issue.</p> <p>We further opine that irrespective of whether DPTs are endorsed by MAS, considered “currency” or else, that its trading be subject to the laws of market manipulation, insider trading, and other crime. A purposive application of such offences mandates that they should apply uniformly to any tradable digital token to address issues relating to the conflict of interest and disclosure.</p> <p>We propose MAS amends the SFA to achieve the following:</p> <ol style="list-style-type: none"> a. To include DPTs as a class of instruments regulated under the organized markets regime. b. To expressly bring DPTs under the regulation of market manipulation, insider trading, and related white-collar crimes. c. We propose that the legislation extending the reach of regulation as stated above expressly clarifies that it makes no statement on whether DPTs are assets.
19	GBBC Digital Finance (“GDF”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Market Abuse is a clear risk in DPT trading. In order to have effective systems, procedures and arrangements to prohibit and detect market abuse and related behaviours, first and foremost, market abuse needs to be defined in detail.</p> <p>Market abuse can be defined as a behaviour, whether by one trader or collusion of traders (here in referred to as “Traders”) which gives undue advantage to Traders as they attempt to make profits for themselves or loss to regular market participants or indulge in illicit transactions.</p> <p>Market abuse further consists of following types of abusive behaviours.</p> <p>* Money laundering on the Trading Platform / accommodation trades - Accommodation trading is a type of trading in which one Trader accommodates another by entering into a non-competitive purchase or sale order. The instance of accommodation trades often happens when two Traders are participating in illegal trading e.g. pre-arranged trades, wash trades</p>



	<p>* Insider dealing - is a common form of Market Abuse and, if not detected and prevented, could have a damaging effect on the Trading Platform. Another term for Insider Dealing is Material Nonpublic Information (“MNPI”) Insider dealing can be further drilled down to:-</p> <p>* Insider trading - Traders may look to profit illegally from dealing on inside information. The strategy is to take a large position or positions ahead of news being made public. A Trader can then profit in a risk-free manner from the impact of a news announcement by gaining a first mover advantage on the rest of the market. Conversely, a Trader can make use of inside information to close an existing position and thus avert losses. Insider information refers to facts including firm intentions, as yet unrealised plans and prospects.</p> <p>* Frontrunning - Front-running is defined as the behaviour of a Trader trading in a particular asset based on inside information which is generally identified when proprietary trading accounts or employee accounts send orders in the moments before customer orders in the same assets. The recent scandal of fall out of a big exchange clearly involved front running where in the trading arm of the exchange was front running native tokens</p> <p>* Surveillance of native tokens - A big risk of native tokens is that the issuing DPTSP is in possession of the tokens before the tokens are rolled out for trading. This may lead the DPTSP to keep a big portion with itself or its trading desk. This can easily lead to abusive behaviour such as front running or pump and dump. Impetus needs to be there to report to regulators the top five Traders trading on native tokens.</p> <p>* Market manipulation - Any act that is a deliberate attempt to interfere with the fair and orderly operation of a marketplace and create a false or misleading appearance of trading activity. Traders undertake orders or trades in order to:</p> <p>(a) Give, or likely to give, false impression about demand or supply of an asset</p> <p>(b) Secure prices of an asset which are artificially high or low</p> <p>Market Manipulation consists of (but not limited to) the following types of behaviours:-</p> <ol style="list-style-type: none"> 1 Concentration / cornering 2 Duplicate orders / trades 3 Large orders / trades 4 Marking the close / open 5 Painting the tape 6 Pinging orders 7 Quote stuffing
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	<p>8 Spoofing and layering</p> <p>9 Price move / unlikely priced orders</p> <p>10 Wash trades</p> <p>11 Manipulation of funding rates (perpetual contracts)</p> <p>12 Manipulation of insurance fund (derivatives)</p> <p>* Dissemination of false and misleading information - This behaviour is an extension of Market Manipulation. In traditional markets, this is considered part of market manipulation. However, in crypto assets trading, its advisable to keep this as another form of Market Abuse, since the prices of crypto assets are susceptible to big price movements due to any news on electronic or traditional media. The act consists of the dissemination of information by any means which gives, or is likely to give, a false or misleading impression as to the supply of, demand for, or price or value of a Relevant Product by a Trader who knew or ought to have known that the information was false or misleading.</p> <p>Typical behaviours are:</p> <p>1 Pump and Dump / Trash and Cash</p> <p>2 Momentum Ignition</p> <p>-----</p> <p>In building a robust response to the above, a DPTSP needs to consider:</p> <p>Surveillance Systems - A critical part of Market Surveillance is having a robust surveillance system. There are several vendors that offer sophisticated surveillance tools. It is advisable to select a third party vendor rather than develop a tool inhouse. These third party tools are developed keeping the volume and volatility of crypto assets in mind. These tools provide both real time as well as T+1 data.</p> <p>Surveillance Professionals - DPTSPs should invest in hiring personnel who have considerable experience in market surveillance in crypto assets. These are specialised roles and availability of professionals with crypto experience is limited.</p> <p>Procedures - Once the above are fulfilled, development of clear procedures for market surveillance become a critical component. Each DPTSP should have their own procedures, however, special attention needs to be given to the escalation process i.e. once an abusive behaviour is established, what the escalation process should be. Surveillance process should be independent so that escalations can be addressed relatively quickly.</p> <p>Fines and Penalties- If any DPTSP fails to have an effective surveillance system or does not maintain an effective surveillance system (post licensing), MAS should impose appropriate fines and penalties to deter poor practices within the sector..</p>
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		<p>GDF highlights, although MAS will be aware, that some customers on DPTSP are unaware of behaviours that constitute market abuse. The efficacy of any system may also therefore warrant educational courses for customers on the prohibited behaviours that go beyond simple disclosures and rules.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>As mentioned earlier, the major prerequisites for effective implementation are:</p> <ol style="list-style-type: none"> 1 Definition of Market Abuse 2 Surveillance tools 3 Surveillance professionals 4 Procedures 5 Fines / penalties <p>MAS should have clear sight of how market surveillance has been implemented by the DPTSP. A few suggested measures include:</p> <ol style="list-style-type: none"> 1 Demo of the end to end surveillance system and procedures 2 Reviewing the surveillance professionals qualifications based on their skills and knowledge 3 Reviewing internal and customer training practices on acceptable / unacceptable behaviours. 4 Regular reporting to MAS on positive cases of market abuse identified, and / or STR’s filed in relation to such activities
20	Hashkey Group	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We agree that trading platform operators should be required to implement policies and controls to ensure that any market manipulative or abusive trading activities are properly identified, reported, and prevented. In our experience, this is similar to requirements imposed in our jurisdictions that we operate in. Trading platform operators should also be required to notify the Authority if such activity is detected.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p>



		<p>We agree that in the medium term, trading platform operators should be required to adopt a market surveillance system provided by a reputable, independent provider. As with Q15 above, this is similar to requirements imposed in our other jurisdictions of operation. Trading platform operators should be required to review the effectiveness of such systems on a regular basis (similar to material outsourcing arrangements).</p>
21	Holland & Marie Pte. Ltd. (“HM”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>MAS should consider applying Section 6 of the Guidelines on the Regulation of Markets to the regulated activity of facilitating the exchange of digital payment tokens, including such other guidance as may be applicable.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>HM cautions that any expectation to detect unfair trading practices outside the DPTSP’s platform may be difficult and costly to implement. HM suggests that each DPTSP be permitted to determine what level of market surveillance (if any) of unfair trading practices is appropriate given the scale, nature and complexity of its business. HM is primarily concerned about whether DPTSPs would be able to select meaningful parameters to detect unfair trading practices occurring outside their own platform.</p>
22	Independent Reserve Singapore Pte. Ltd. (“Independent Reserve”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Not all DPTSPs provide markets the same way. Some DPTSPs offer a true customer-driven price discovery model, others are a shop where they determine the buy and sell price (marking up their customers’ actual price), and/or enforcing a minimum spread and the operator takes the spread.</p> <p>As IRSG operates a true customer-driven price discovery model (we do not participate or artificially manipulate the market in any way), we should employ measures to ensure this access to price discovery is fair, equal and orderly. Most markets globally operate on a price-time priority basis, so for IR SG we should be scrutinised to ensure the price-time priority is maintained.</p>



		<p>DPTSPs who operate a different model must disclose clearly to their customers how the price they receive is “determined”, and from there how the customers are provided with fair access to the price.</p> <p>With respect to ‘wash trading’, ‘front-running’ and ‘ghost accounts’, the rules currently in place for licence holders adequately protects against this behaviour.</p> <p>Namely:</p> <ul style="list-style-type: none"> a) Record-keeping Every DPTSP must have adequate records of all orders placed, trades executed and the name of the account holder providing the orders b) Customer ID and Onboarding Checks All accounts held with the DPTSP must have a genuine person/entity behind them and the person/entity must be screened by the DPTSP. <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>DPT markets trade similar to currency markets, in that the underlying DPT is available on, theoretically, thousands of different markets around the world and independent price discovery is found on each market independently and simultaneously. Aside from an exclusive token listing (where a single DPTSP would be the only venue offering a token for listing), many of the traditional concerns around ‘market manipulation’, ‘wash trading’ and ‘insider trading’ simply do not arise because of the availability of independent pricing, cross-market arbitrage and that for many of the tokens, there are no centralised “managers” who have access to market sensitive information (Note: DPT issued tokens do have this issue).</p> <p>The critical surveillance mechanisms for a DPTSP to protect customers is surveillance and monitoring of market price movements on the DPT’s markets, e.g. the employment of ‘circuit-breakers’ that prevent single orders from moving market prices by more than a certain percentage. Noting the recommendations made above in Question 15 regarding the fair and orderly operation of the market are also in place, the combination of fair and orderly access to markets and circuit breakers to prevent single players from moving markets, there are sufficient protection mechanisms in place.</p>
23	Ivan Ferrari, Elevandi	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Agree.</p> <p>Question 16.</p>



		<p>MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Agree.</p>
24	James Lee	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>NIL</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>NIL</p>
25	Kwang Jiaying	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Can use credit card to purchase Cryptocurrency and also do not need to do test</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Can use credit card to purchase Cryptocurrency and also do not need to do test</p>
26	Luno Singapore Pte. Ltd. (“Luno”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Luno supports the measures proposed by the MAS under section 6 of the Consultation relating to the promotion of fair, orderly, and transparent trading.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Luno supports mandating DPTSPs which operate DPT trading platforms in Singapore to implement the market surveillance mechanisms proposed by the MAS in section of the Consultation. Luno operates DPT trading platforms in certain markets outside of Singapore, where it implements the market</p>



		surveillance mechanisms discussed. Each of these mechanisms are critical to ensure that unfair trading practices are detected and are commercially feasible to implement.
27	NAGRA, Kudelski Group	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
28	Okcoin Pte. Ltd.	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We agree in principle that effective systems, procedures and arrangements should be in place to allow DPTs to promote fair, orderly and transparent trading of DPTs.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>As MAS has pointed out, this is a global issue. A global consensus is needed to address market integrity concerns in an effective and coordinated way.</p> <p>Law enforcement officials and regulators should, as appropriate, continue to coordinate and combat fraud to deter unlawful behaviour and improve practices in crypto-asset markets.</p>
29	Onchain Custodian Pte. Ltd. (“ONC”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>ONC’s POV: Noting that our main business is not involving trading, it is good and to have such measures to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform. The measures and procedures could be adapted from what has been the current good practices done in capital markets.</p>



		<p>Having good practices and measures to safeguard against unfair trading practices are key and paramount in upholding market integrity and providing a safer platform for customers to trade or be invested in the DPT market. This would also promote the sustainability of the industry and provide some positive light to it.</p> <p>We highly recommend use of third-party independent and regulated custodians to safekeep DPTSPs customer’s assets to not allow them to co-mingle customer funds and to avoid any misuse of customer funds by any of the trading platforms. Also, independent third-party custodians should act as a checkpoint for proof of reserves for exchanges and trading platforms.</p> <p>This also helps in mitigating a bit of operational risk, and enhancing transparency.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Please refer to our response to Question 15.</p>
30	Pragma Pte. Ltd.	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We are of the view that monitoring trading activities that take place on DPT trading platforms, such as employing real-time surveillance systems is essential for risk awareness and mitigation. We think that, as it has done in other contexts, the industry should seek to build collectively technological solutions for real-time DPT surveillance may. In the interim, we think that requiring DPT trading platform operators to conduct market surveillance in a manner that is commensurate with the nature, scale and complexity of their businesses is advisable.</p>
31	R.Y.	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16.</p>



		<p>MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
32	R3	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
33	Revolut Technologies Singapore Pte. Ltd. (“Revolut”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Nil.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We would like to request from MAS for more clarity on the following:</p> <ul style="list-style-type: none"> • Information on any existing market surveillance for market abuse of DPTs. At present, there is no comprehensive system to determine abuse of trades. • If this requirement would only be targeted at exchanges? • Whether there is any differentiation in requirements based on volume / value of the DPTSP’s business given adherence to this requirement may be costly for smaller players?
34	Ripple Labs Singapore Pte. Ltd. (“Ripple Labs”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Ripple has no comments on this question.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p>



		Ripple has no comments on this question.
35	SBI Digital Markets Pte. Ltd. (“SBIDM”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>While SBIDM does not intend to act as a DPT trading platform operator, i.e., an exchange, we believe the Authority's proposals regarding the implementation of good industry practices to detect and deter unfair trading practices will contribute to a more orderly market.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>While SBIDM does not intend to act as a DPT trading platform operator, i.e., an exchange, we believe the Authority's proposals regarding the implementation of good industry practices to detect and deter unfair trading practices will contribute to a more orderly market. Here, the application of existing market surveillance practices, which have already demonstrated their value in ensuring orderly markets, is recommended.</p>
36	Securities & Exchange Commission of Thailand	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
37	Securities Investors Association (Singapore) (“SIAS”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>SIAS agrees with this proposal.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p>



		SIAS agrees with these measures and also to ensure regular internal audits.
38	Simmons & Simmons JWS Pte. Ltd.	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We have no feedback on this.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We have no feedback on this.</p>
39	Singapore FinTech Association (“SFA”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>The Participants would appreciate the Authority’s clarification on which types of DPTs this refers to. If the DPT is utility or payment based and not meant for trading, would the Participants still need to undertake monitoring? The Participants submit that only those DPTs that are used for trading should be subject to monitoring.</p> <p>The Participants note that the proposed systems, procedures, and arrangements are meant to promote fair, orderly, transparent trading of DPTs offered for sale on trading platforms. The Participants seek clarity on what is meant by “offered for sale.” Are the proposed measures meant to be implemented by exchanges only? If not, how would these measures be implemented by DeFi players that have linkups with exchanges to allow users to buy via a link on the DeFi player’s website? Arguably, such DeFi players will not be in a position to implement the proposed measures since they do not control trading in a similar manner to exchanges.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
40	Sparrow Tech Private Limited	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p>



		<p>No further comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We agree with MAS’ proposals but would like to highlight that flexibility should be provided for DPTSPs to implement applicable mechanisms that are commensurate with the size of complexity of their operations.</p>
41	Sygnum Pte. Ltd. (“Sygnum”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Sygnum would like to seek clarity from the Authority on what constitutes an “offer” made on a DPT trading platform. Is this in the context of “tradeable” DPTs on a DPT exchange (whether new listings of DPTs or ongoing trading of DPTs), or where an OTC DPT brokerage platform supports the sale/purchase of DPTs through its platform, or where DPT intermediaries facilitate the purchase/sale between third parties through their platform.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Sygnum believes that this is a move in the right direction; however, this should be allowed to be outsourced given the resource constraints inherent in operating such a surveillance unit in-house for most DPTSPs that are not large DPT exchanges.</p> <p>However, Sygnum notes that the costs for such surveillance mechanisms can be quite prohibitive in terms of costs to acquire and/or sign up for such services.</p> <p>Sygnum would propose that the Authority consider whether such surveillance mechanisms will be required only for certain types of DPT activities.</p> <p>With respect to all DPTSPs, Sygnum firmly believes that there should be internal policies mandated to account for misuse of insider information and prevention of market misconduct as a first layers of defence.</p>
42	Tan Kin Lian	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>See my answer to Q18.</p>



		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>I agree with market surveillance measures to detect and deter unfair trading practices. It should be possible for all transactions (perhaps above a certain size) to be reported to a central database so that the authority can run algorithms to detect any unusual transactions. Even if these algorithms are not available initially, the need to report the transactions could deter the fraudulent transactions.</p>
43	TRM Labs	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>The nature of DPTs – cross-border value transfer at the speed of the internet – means that oftentimes risk spans multiple exchanges and jurisdictions. Successful detection hinges on the ability of blockchain intelligence to follow the funds across blockchains and platforms. Ideally, DPTSPs should have compliance programs in place that provide insights beyond their own platforms, in order to successfully combat market abuse. In this regard, DPTSPs are already required under the Travel Rule to conduct due diligence on the source of inflows/outflows to their platforms. Global consensus and standards are required to effectively address jurisdictional arbitrage and other risks in the ecosystem. Blockchain intelligence holds significant potential to combat unfair trading practices, and we increasingly see both public and private sector clients leveraging TRM’s blockchain intelligence capabilities to do so. Our blockchain intelligence tool enables real-time monitoring of on-chain funds flow across 1,000,000+ digital assets and 26 blockchains -- including all ERC-20 tokens, popular stablecoins, DeFi tokens, which our clients can use to identify and take timely action on suspicious transactions.</p> <p>One example is wash trading in NFTs, which is becoming increasingly prevalent and therefore a concern for legitimate investors, collectors, and the general public because of inflated price comparisons and statistical outliers that reduce the integrity of the market. The most effective way to mitigate NFT wash trading is to make it difficult for illicit actors to sell NFTs involved in such schemes to unsuspecting parties. Blockchain intelligence allows buyers to conduct risk</p>



		<p>assessments of NFTs by identifying any outliers or other suspicious activity in the transaction history of the NFT. Using both on and off-chain data, investors can assess the token and creator provenance, as well as current ownership of an NFT. The buyer can look at whether the current owner has an unusually tight transaction network or if the NFT appears to have been traded amongst the owner with discrepancies in the bid, sale and floor price. The same blockchain technology that is being used to manipulate the market can provide a wealth of historical data that can provide unique insight into the integrity of an NFT. This is impossible in the traditional art, antiquities, and collectible markets today in which provenance is often opaque.</p> <p>In addition, we are seeing more and more NFT issuers and marketplaces use blockchain intelligence to monitor transactions and screen wallet addresses to ensure that they are not sending an NFT to an illicit actor and mitigating their risk of sanctions exposure.</p> <p>Last but not least, the public nature of blockchains means that DPTSPs can also collaborate to enable greater information sharing between consumers and the industry, enabling them to act together to protect the ecosystem from scams, hacks, and fraud. Through crypto fraud-reporting tools like Chainabuse.com, which is operated by TRM Labs, members of the public can increase visibility of notable schemes and limit further victims by reporting the scams they come across.</p> <p>Since its launch, the Chainabuse platform has received over 240,000 reports of wallet addresses and URLs that are linked to frauds and scams involving cryptocurrencies. These reports allow Chainabuse to crowdsource a network-community driven reliable multi-chain real-time database of scams in web3 worldwide. In doing so, a resource is created where users can quickly check addresses and entities they interact with to understand whether they might be exposed to illicit activity.</p>
44	Uniswap Labs	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
		<p>Question 15.</p>

45	UOB Limited (“UOB”)	<p>MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>The Bank is of the view that similar principals and regulations on existing trading platforms should be reviewed and applied to DTPSPs, as most regulations would apply.</p> <p>We also suggest that the trading system / platform should be:</p> <ol style="list-style-type: none"> 1. Resilient 2. Have sufficient capacity to deal with peak order and message volumes; are able to ensure orderly trading under conditions of severe market stress 3. Able to reject orders that exceed pre-determined volume and price thresholds or are clearly erroneous 4. Fully-tested to ensure that conditions under points (a), (b), and (c) are met 5. Subjected to effective business continuity arrangements to ensure continuity of their services if there is any failure of the trading system 6. Able to prevent or detect market abuse 7. Sufficiently robust to prevent their abuse for ML/TF purposes 8. If DPTSPs support algorithms, there should be external controls in place, such as Execution Circuit Breakers, Kill Switches, etc. This is essential especially when there is a bug in the algorithm 9. Algorithm execution audit review should be considered for DPTSPs <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>The Bank is of the view that the market surveillance requirement should be made mandatory, not a good industry practice. DPTSP should follow policies/guidelines similar to the stockbroking industry and existing trading providers (e.g. for FX or equities).</p>
46	US – ASEAN Business Council	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p>



		No comments.
47	Visa Inc. (“Visa”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Visa commends MAS for looking to approach this issue through global consensus and working with international standard setting bodies. We encourage MAS to continue supporting international regulatory efforts and working with the industry to put in place good industry standards.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
48	William Lai	<p>Question 15 MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>Please refer to the responses to Questions 11, 12, 13, and 14.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Without a real clear so-called creditable “centralised exchange/s”, as well as absence of a global regulatory governance frameworks and standards, it would be extremely difficult to properly track, measure to detect and deter unfair trading practices unless MAS is prepared to manually review all such trading activities from SG operators.</p>
49	World Federation of Exchanges (“WFE”)	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>The WFE agrees that it is important to promote fair, orderly and transparent trading. Exchanges have rules in place to ensure this. For example, exchanges have in place business continuity plans that ensured they remained open during the COVID pandemic. Under their successful business continuity plans (including remote working), market infrastructures operated their business robustly as</p>

		<p>usual, with record volumes of trading. As such, DPTSPs and MAS could review exchange rulebooks to understand how the rules operate.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>The WFE agrees that it is important to detect and deter unfair trading practices. Exchanges have rules in place to ensure this. As such, DPTSPs and MAS could review exchange rulebooks to understand how the rules operate. Exchanges also make use of trade surveillance technology in order to detect abusive practices. MAS could encourage DPTSPs to adopt similar technology.</p>
50	Xfers Pte. Ltd. ("Xfers")	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
51	Zhang Wei	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p>
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
52	Respondent A	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>As a proprietary trading firm, we believe that MAS should require adoption of the best practices that have emerged in DPT markets. These include use of on-chain surveillance tools such as TRM and Chainalysis for KYC and other AML/CFT</p>



		<p>purposes, as well as policies and controls to prevent disruptive trading practices (e.g., wash or accommodation trading, spoofing, and violating bids and offers).</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>Please refer to the response to Question 15.</p>
53	Respondent B	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We are generally supportive of these proposed measures, many of which have already been implemented by DPTSPs via their own market trading rules that apply to all conducting DPT transactions on their respective platforms.¹⁰ We appreciate MAS' goal of applying similar standards across the industry.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>We are generally supportive of these proposed measures. Software that monitor and detect the trading activities of DPTSP customers and employees for potential market manipulation, fraud, behavioural patterns, and rule violations can be used as a powerful tool to deter bad actors. The software and any alerts generated can be monitored by a team with regulatory, trading, and surveillance experience.</p>
54	Respondent C	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
		<p>Question 15.</p>

¹⁰ See e.g. Coinbase's *Markets Trading Rules*



55	Respondent D	<p>MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>We agree with these principles and that immediate measures should apply especially on illiquid DPTs. For the most liquid DPTs, we also agree that market integrity concerns should be addressed via a global consensus.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
56	Respondent E	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
57	Respondent F	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>If there are terms and conditions, they should be transparent. The sale on the exchange is usually transparent, maybe the fees involved per trade can be made clearer to customers.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
58	Respondent G	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p>



		No comments.
		<p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
59	Respondent H	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
60	Respondent I	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
61	Respondent J	<p>Question 15. MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
		Question 15.



62	Respondent K	<p>MAS seeks comments on effective systems, procedures and arrangements that DPT trading platform operators should implement, in order to promote fair, orderly, transparent trading of DPTs offered for sale on their trading platform.</p> <p>No comments.</p> <hr/> <p>Question 16. MAS seeks comments on effective measures, including the implementation of market surveillance mechanisms, to detect and deter unfair trading practices.</p> <p>No comments.</p>
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