13 December 2024

The Reserve Bank of Australia (RBA) and
the Digital Finance Cooperative Research Centre (DFCRC)
SYDNEY
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Dear members of the Project Acacia team,

**Australian Custodial Services Association Submission on "Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets"**

The Australian Custodial Services Association (**ACSA**) is the peak industry body representing members of Australia's custodial and investment administration sector. Our mission is to promote efficiency and international best practice for members, our clients, and the market. Members of ACSA include NAB Asset Servicing, J.P. Morgan, HSBC, State Street, BNP Paribas Securities Services, Citi, Clearstream and The Northern Trust Company.

Collectively, the members of ACSA hold securities and investments in excess of AUD $5 trillion in value in custody and under administration for Australian clients comprising institutional investors such as the trustees of major industry, retail and corporate superannuation fund, life insurance companies and responsible entities and trustees of wholesale and retail investment funds. Those institutional investors are responsible for a sizable proportion of the money invested and held for Australian retail investors. ACSA member services are therefore integral to supporting the investment and retirement savings of a large part of the Australian population.

A key priority for ACSA is ensuring that future regulation allows for efficient and effective market operations that ensure adequate investor protection, particularly for institutional and wholesale investors.

ACSA has formed an industry working group made up of ACSA members with local and global experience relating to digital assets and custody, which enables ACSA to provide consultation inputs to "Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets". We support the RBA and DFCRC's efforts to explore the role of digital money in wholesale tokenised asset markets.

## *DETAILS OF SUBMISSION*

Privately issued forms of digital money, including deposit tokens, reserve-backed digital currencies (RBDCs), and fiat-backed stablecoins, have significant potential to drive the tokenisation of wholesale markets. These instruments can provide critical support for the cash leg of tokenised settlements, improving liquidity management and reducing friction in financial transactions. Their effective use will depend on several factors, including regulatory clarity, interoperability standards, and robust technological infrastructure, which will be essential for fostering adoption and ensuring long-term trust in these innovations.

We also recognise the value of exploring a synchronisation coordinator as a settlement model to facilitate Delivery versus Payment (DvP) across tokenised platforms and the RTGS infrastructure. Global projects such as the Bank of International Settlement and Bank of England's Project Meridian and the Swiss National Bank (SNB)'s Project Helvetia have demonstrated how such coordination models can integrate existing systems with tokenised platforms to ensure

settlement finality while maintaining the “singleness of money.” These case studies provide valuable insights for implementing similar solutions in the Australian market.

While cross-border settlements are not the primary focus of this phase of Project Acacia, there is a clear need to consider settlement models that enable innovation in this space. Multi-CBDC platforms, such as those explored in the BIS’s Project Dunbar, demonstrate the potential for atomic and programmable cross-border settlements, enhancing both efficiency and security. Furthermore, decentralised ledger technologies (DLTs) offer promising opportunities for fostering interoperability across jurisdictions, an essential element for scaling tokenised financial ecosystems globally.

Interoperability remains a critical challenge for tokenised markets, and the case studies cited in our response from Northern Trust offers valuable lessons. Through its collaboration with the Singapore Blockchain Innovation Programme (SBIP) a research lab of the National University of Singapore (NUS), Northern Trust developed a bridge-agnostic framework for cross-chain interoperability. This approach reduces risks by aggregating multiple cross-chain bridges, ensuring secure asset transfers across platforms without reliance on a single provider. Additionally, the framework incorporates governance, regulatory compliance, and robust risk mitigation, and could provide insights into meeting Project Acacia’s needs.

When evaluating settlement options for wholesale tokenised markets, several considerations must be prioritised. First, financial stability must remain the cornerstone of any model, with central bank money serving as the anchor for settlements. Second, interoperability must be a key focus, enabling seamless interaction between tokenised platforms and RTGS infrastructure. Third, regulatory alignment is essential to foster market confidence and ensure scalability. Together, these priorities will help create a secure, resilient, and efficient tokenised ecosystem.

ACSA believes that collaboration between custodians, central banks, and other stakeholders will be critical for achieving the objectives of Project Acacia. By combining our collective expertise, we can address key challenges such as interoperability, regulatory coordination, and technical resilience while fostering innovation in tokenised financial markets.

We remain committed to supporting the RBA and DFCRC in advancing this important initiative. Please do not hesitate to contact us should you require further insights or wish to engage in additional discussions.

Yours sincerely

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***About ACSA***

***www.acsa.com.au***

Custodians provide a range of institutional services, with clients typically favouring a bundled approach to custody and investment administration. Solutions may include traditional custody and safekeeping, investment administration, foreign exchange, securities lending, tax and financial reporting, investment analytics (risk, compliance and performance reporting), investment operations middle office outsourcing and ancillary banking services.

These services represent key investment back office functions – often representing the client's asset book of record and essential source data in relation to the investments they hold.

The key sectors supported by ACSA members include large superannuation funds and investment managers, as well as other domestic and international institutions.

ACSA works with peer associations, regulators and other market participants on a pre-competitive basis to encourage standards, promote consistency, market reform and operating efficiency.

Note: The views expressed in this letter are prepared by ACSA for the purposes of consideration by RBA and the DFCRC in response to "Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets" and should not be relied upon for any other purpose. The comments in this letter do not comprise financial, legal or taxation advice and should not be regarded as the views of any particular member of ACSA.

# Appendix.

"Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets" Detailed Response
13 Dec 2024

## Part 1 – Consultation questions

***Questions for industry feedback:***

***Question 1***

What are the key opportunities and challenges of asset tokenisation in wholesale domestic markets? How can the challenges be overcome?

Asset tokenisation can enhance efficiency, reduce costs, and increase transparency in wholesale markets. In Australia, the robust capital market and home to the third-largest bond market in Asia-Pacific, can leverage tokenisation to streamline operations and attract global investors. However, significant challenges exist with interoperability between platforms, regulatory uncertainty, and cybersecurity risks are significant.

We as custodian bank recommends the harmonisation of policies, standardising protocols and adopting robust risk management frameworks to ensure that asset tokenisation can be scaled whenever the market is ready. The below responses expands on our opinions on how this could be achieve.

***Question 2***

What regulatory obstacles exist to an efficient settlement mechanism for wholesale tokenised asset markets, including the development of new forms of money to support this? What solutions do you suggest?

The development of efficient settlement mechanisms for wholesale tokenised asset markets faces several regulatory obstacles, particularly concerning the integration of new forms of money such as central bank digital currencies (CBDCs). Four regulatory obstacles were identified in our response from the various members of the house.

**1. Fragmented Regulatory Frameworks and a Lack of Global Alignment**: In Australia, we observed that there is a lack of a comprehensive framework that creates clarity for digital asset businesses. Issues such as inconsistent application of financial product laws, and insufficient tax clarity can hamper innovation. The US faces similar challenges over the past years with overlapping jurisdictions (SEC vs. CFTC) leading to difficulties in regulatory engagements. However, with the recent change in regime we expect changes in US in the near future. In contrast, regions like the EU, with MiCA, provide a structured framework that allowed businesses to operate within clear boundaries. In addition, despite the global nature of tokenised markets, there is limited regulatory alignment. Countries like Hong Kong and Singapore lead in creating cross-border frameworks, but gaps in supervision and custody standards remain.

**2. Settlement Finality and Legal Certainty**: The definition of finality in blockchain-based transactions remains unclear in many jurisdictions. This poses risks for enforceability in cross-border transactions. Many jurisdictions lack updated legal frameworks defining when a blockchain transaction achieves finality. Automated execution of transactions via smart

contracts adds complexity. Disputes may arise over the interpretation or execution of self-enforcing contract terms, especially in cases of software bugs or unforeseen circumstances. Settlement finality laws can also vary widely across jurisdictions. While the EU's Digital Operational Resilience Act (DORA) addresses some of these concerns, many countries, including Australia, still have room to offer greater clarity.

**3. AML and KYC Compliance**: The interplay between compliance requirements, digital money, and a need for anonymity in digital money introduces significant challenges for the development of these markets. Stringent requirements can impose significant operational burdens. However, this is necessary to prevent illicit activities.

**4. Technological and Operational Challenges**: Integration with existing systems and the need for interoperability between blockchain networks are significant hurdles.

**Suggested solutions to help resolve the above challenges**

1. Harmonised Regulatory Frameworks

- Australia could benefit from adopting a MiCA-style framework, focusing on harmonising domestic regulations with international standards
- Cross-border treaties, with more progressive markets like Hong Kong and Singapore, could help resolve jurisdictional ambiguities

2. Further Developing Regulatory Sandboxes

- Expanding the scope of Australia's regulatory sandbox to include blockchain-based settlement solutions could encourage innovation while maintaining compliance. Project Acacia is a great start, on-boarding the major financial institution and central banks could provide us with a platform for frequent exchanges

3. Defining Legal Finality

- Updating legal definitions to align with blockchain technologies can improve certainty and trust in tokenised markets.

4. Public-Private Collaboration

- Initiatives like Hong Kong's Task Force on Promoting Web3 Development demonstrate the value of collaboration between regulators and industry. Australia could establish a similar body to shape its digital asset strategy

5. Technology Standards and Interoperability

- Investing in infrastructure that ensures interoperability between blockchain networks and traditional systems is critical. Lessons from Japan's structured stablecoin regulations and the EU's DLT Pilot Regime could guide Australia

For Australia to support efficient settlement mechanisms in tokenised markets, it must address regulatory gaps, establish clear legal definitions, and foster innovation through public-private collaboration. By partnering and learning from more advanced markets such as the EU, Singapore, and Switzerland, Australia can position itself as a leader in digital asset markets.

***Question 3***

Should efforts to support tokenised markets be focused on large existing asset classes or newer ones, and why?

ACSA recognises the distinct advantages of supporting both large existing assets and newer asset classes through tokenisation.

- **Tokenising Large Existing Assets**

We have already seen how financial institutions in Australia tried to explore the tokenisation of substantial assets, such as **bonds and money market instruments**. These initiatives aim to enhance **efficiency and transparency** in wholesale markets. Given the significant value and relative illiquidity of these assets, even **unlocking a small percentage can deliver tremendous value**. However, the complexity and scale of these assets necessitate robust infrastructure and regulatory frameworks to ensure secure and compliant tokenisation processes.

In February 2024, HSBC Orion facilitated the Hong Kong government's issuance of a digitally native green bond totalling approximately HKD 6 billion (USD 756 million). By integrating HSBC Orion with Hong Kong's Central Moneymarkets Unit (CMU), the platform enabled direct issuance onto a private blockchain, **streamlining the process and reducing settlement times from the conventional five days to just one day**. This integration also **facilitated broader investor participation** through existing market infrastructures and international linkages with Euroclear and Clearstream, thereby **enhancing liquidity**. The digital nature of the bond allowed **for real-time tracking and increased transparency**, setting a new standard for future digital bond issuances.

- **Tokenising Newer Asset Classes**

Conversely, newer asset classes, such as carbon credits, present unique opportunities for tokenisation. Northern Trust's experience with the Northern Trust Carbon Ecosystem™—a blockchain-based platform enabling institutional buyers to digitally access carbon credits—demonstrates the potential for rapid development and deployment in this sector. The relative novelty of these assets means existing infrastructure may be limited, allowing for innovative approaches that can leapfrog traditional systems and expedite the creation of commercially relevant solutions. However, the unique structures of these assets can pose custody challenges, requiring specialised solutions to ensure secure management.

Ultimately, the decision to focus on tokenising large existing assets or newer asset classes **depends on specific use cases** and the **problems being addressed**. For large assets, the emphasis should be on developing comprehensive infrastructure and ensuring regulatory compliance to manage the complexities involved. For newer assets, the focus can be on leveraging technological advancements to create agile and scalable solutions that meet emerging market demands.

In conclusion, ACSA believes that both large existing assets and newer asset classes offer valuable opportunities for tokenisation. By tailoring strategies to the unique characteristics and requirements of each asset type, we can effectively support the growth and evolution of tokenised markets in Australia.

***Question 4***

What role could central bank money play to best support the development of tokenised asset markets, and what policy and operational questions would such a role pose?

From the perspective of custodian banks in Australia, central banks could play a crucial role in supporting the development of tokenised asset markets in the 4 following ways:

**1. Regulatory Clarity and Standardisation**

Help establish clear legal and regulatory frameworks for tokenised assets, reducing uncertainty for market participants and promoting investor confidence. Harmonise domestic and international regulations to ensure seamless cross-border trading and settlement.

**2. Infrastructure Framework and Standards**

Develop frameworks and unified standards for the adoption of tokenised assets – instead of establishing the actual blockchain or distributed ledger infrastructure for tokenised asset markets. Provide guidance on how that interacts with the Real-Time Gross Settlement (RTGS) system that supports tokenised transactions.

**3. Supervisory and Risk Oversight**

Establish oversight mechanisms for tokenised markets to prevent systemic risks and ensure the sound functioning of the financial ecosystem.

**4. Market Participant Coordination**

Through the creation of projects such as Project Acacia, act as a neutral coordinator among financial institutions, technology providers, and regulators to foster collaboration and innovation.

**Some policy and operational questions would include:**

- On ownership and legal rights of assets: How will the legal definitions of ownership and transfer of tokenised assets be defined and enforced in a court of law?
- On jurisdictional scope: How will conflicts of law be resolved for tokenised assets traded across jurisdictions?
- On systemic risk management: How will central banks mitigate risks such as market manipulation, fraud, or technology failure in tokenised markets?
- On custody and safeguarding of assets: What standards will be required for custodian banks handling tokenised assets?
- On infrastructure: Should the central bank build its own blockchain infrastructure, or rely on private-sector platforms? (ideally not – but could explore building a layer to integrate banks to work with other networks. E.g. Australian and NZ market aggregator layer that connects with other global networks such as Singapore's Global Layer One Wholesale Payment Network)
- On interoperability: How can tokenised systems integrate with existing financial infrastructure and ensure compatibility between various platforms?

- On settlement: What settlement models (e.g., Delivery versus Payment - DvP) will central banks adopt to support tokenised asset markets?
- On confidentiality: How will central banks balance transparency in tokenised markets with data privacy regulations?
- On global integration: How will the central bank collaborate with international organisations (e.g., BIS) to set global standards for tokenisation? Can banks participate with RBA on such initiatives?
- On custody: What specific guidelines will govern the custody of tokenised assets by banks in Australia?
- On service models: How will the central bank define roles and responsibilities for custodian banks providing tokenised asset services?

Central banks can significantly influence the development of tokenised asset markets by providing regulatory clarity, infrastructure, and supervisory oversight. However, this role involves addressing complex policy and operational questions around regulation, technology, risk management, and collaboration. For custodian banks in Australia, clarity on these aspects is essential to design compliant and efficient digital asset services while contributing to the broader growth of tokenised markets.

***Question 5***

What are the most important capabilities or attributes that central bank money would need to have, to realise the potential of tokenisation in wholesale markets? This could include, for example, that central bank money is deployed in a tokenised form directly on tokenised asset ledgers; that it is directly accessible (irrespective of its form) by a wider range of institutions than those who are currently eligible for an ESA; or that it can be transacted outside of normal business hours. Please be specific and rank the capabilities by their relative importance.

To realise the potential of tokenisation in wholesale markets, central bank money must have specific capabilities to address the needs of key participants, including the network of custodian banks. Below are the most important capabilities ranked by their relative importance:

**1. 24/7 Operability (Importance: High)**

Tokenised markets operate around the clock, unlike traditional markets. Central bank money must be accessible outside normal business hours to support real-time settlements and global trading activities.

Custodian banks would benefit from enhanced flexibility and reduced settlement delays, improving client satisfaction and operational efficiency.

**2. Programmability (Importance: High)**

Programmable central bank money enables smart contract integration for automated settlements, compliance checks, and other functions, aligning with the operational needs of tokenised markets. Custodian banks can streamline compliance and settlement processes, reducing operational risks and costs. This will be a “key value” for us as custodians.

**3. Direct Deployment in Tokenised Form on Tokenised Asset Ledgers (Importance: High)**

Central bank money deployed natively on tokenised asset ledgers (e.g., as a wholesale CBDC) enables atomic settlement (simultaneous delivery of assets and payment). This reduces counterparty risk and enhances efficiency, which is important

for custodian banks managing high-value transactions. This ensures seamless integration with distributed ledger technology (DLT) platforms, which custodian banks rely on for managing tokenised securities and settlements.

**4. Legal and Regulatory Certainty (Importance: High)**

Clear legal frameworks for the use of tokenised central bank money are essential to ensure enforceability in courts and alignment with existing regulations. Custodian banks gain greater confidence in offering tokenised asset services without fearing regulatory non-compliance.

**5. Interoperability Across Platforms (Importance: Medium for a start)**

Central bank money must seamlessly integrate with various blockchain protocols and tokenised platforms to avoid market fragmentation. Interoperability allows custodian banks to manage tokenised assets across multiple systems efficiently and ensures market stability.

**6. Accessibility to a Broader Range of Institutions (Importance: Medium)**

Expanding eligibility beyond those with Exchange Settlement Accounts (ESAs) would allow non-bank financial institutions and fintechs to directly participate in wholesale markets. This broadens the market ecosystem and improves liquidity. Custodian banks could leverage the direct participation to streamline operations for institutional clients and diversify services, reducing reliance on intermediaries.

**7. Legal and Regulatory Certainty (Importance: Medium)**

Clear legal frameworks for the use of tokenised central bank money are essential to ensure enforceability in courts and alignment with existing regulations. Custodian banks gain greater confidence in offering tokenised asset services without fearing regulatory non-compliance.

**8. Support for Cross-Border Transactions (Importance: Low – Given the domestic focus)**

While less critical for domestic markets, central bank money's ability to facilitate cross-border tokenised transactions would be advantageous for globally active custodian banks. Cross-border functionality could enhance custodian banks' competitiveness in international financial ecosystems.

These capabilities directly address operational efficiency, market accessibility, and settlement speed, ensuring that custodian banks can effectively serve institutional clients in a tokenised asset ecosystem.

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***Question 6***

Are there any settlement models that are **not** encompassed in the 'design space' diagram (Figure 1) above and should be considered in relation to wholesale tokenised asset markets? If so, please outline the models and explain why they are relevant.

**No answer**

***Question 7***

Do you see a role for privately issued forms of digital money in enabling tokenisation in wholesale markets? If so, what types of privately-issued digital money – for example, deposit tokens, RBDCs or fiat-backed stablecoins – are best suited to play this role, and why? What are the market characteristics that will enable privately issued forms of digital money to be utilised and the design features of such forms to be effective and efficient?

Privately issued forms of digital money, such as regulated deposit tokens, tokenised bank liabilities, and fiat-backed stablecoins, **can play a pivotal role in enabling tokenisation in wholesale markets**. Their ability to facilitate the cash leg of tokenised asset settlements ensures smoother, faster, and more secure transactions, addressing inefficiencies within traditional payment infrastructures. These types of regulated privately issued forms of digital money would accelerate the adoption of asset tokenisation as there is **currently a need to facilitate the cash leg of tokenised asset settlements**. The critical issue here will be who gets to own the privately issued form of digital money, why would other bank use another bank's privately issued digital money and the potential risk it brings. The regulator could help to bring the industry together so that we can have consensus and define an "Australian standard" / wholesale payment network that is interoperable with other major networks in the world.

In the Australian market, where tokenisation is gaining traction, **regulated deposit tokens** are particularly well-suited due to their strong alignment with existing financial regulations and trust frameworks. Banks already play a central role in facilitating payments and managing liquidity, and deposit tokens issued by regulated institutions provide the stability and interoperability necessary for seamless integration with tokenised asset platforms. For example, J.P. Morgan's deposit tokens (the JPM Coin) serve as digital representations of customers' deposits, enabling seamless transactions on their blockchain platforms. JP Morgan was able to be successful with their deposit token as they had a broad range of clients that would benefit from trading internally within JP Morgan. However, for other custodians if they primarily trade outside of their own architecture, allowing the token and travel and be transferred would be important.

Key market characteristics that will enable privately issued digital money to be effectively utilised include:

**Regulatory Clarity**: Australia's regulatory environment must continue fostering innovation while ensuring sufficient oversight to mitigate risks like money laundering and systemic instability

**Interoperability Standards**: Key issue with privately issued stablecoin is that it stays within private network and is unable to operate outside of its native environment. Standardising the protocols to enable these tokens to operate seamlessly across different networks and with both traditional and decentralised systems will be key

**Market Demand**: We've observed a growing appetite for tokenised bonds, funds, and other assets in key APAC markets such as Singapore and Hong Kong. The market demand will drive adoption of privately issued digital money to meet settlement needs

**Liquidity and Redemption Assurances**: Digital money can offer near-instant convertibility to fiat currencies and real-time settlement, addressing key operational requirements of wholesale markets. Dealing with bank-issued deposit token also

minimises counterparty risk for those who holds those coins as the banks would have a robust risk and compliance framework in place to ensure proper handling and asset segregation

To ensure effectiveness and efficiency, the design features of privately issued digital money must include (1) Programmability - Enabling conditional payments and automation for more complex settlement use cases, (2) Transparency - Leveraging distributed ledger technologies (DLT) to provide real-time transaction data while maintaining data privacy and (3) Counterparty Risk Mitigation – similar to the redemption assurance point made earlier, to ensure that funds are fully backed and segregated in secure environments, reducing exposure to issuer default.

From a custodian bank's perspective, these developments not only streamline settlement processes but also open new opportunities to provide value-added services, such as safekeeping digital assets, facilitating cross-border payments, and enhancing liquidity management. Supporting regulated privately issued digital money aligns with a broader strategy of adapting to the evolving financial ecosystem while safeguarding institutional trust.

***Question 8***

While cross-border settlements are not the focus of the current phase of Project Acacia, the RBA and DFCRC are interested in stakeholders' views on which settlement models may be particularly suited for cross-border settlements. Are any of the models better-suited than others to facilitate innovation in cross-border transactions?

**No answer**

***Question 9***

Are there any additional considerations that you believe are relevant to the evaluation of options for settlement in wholesale tokenised asset markets? Which (if any) of the considerations should be prioritised (weighted more heavily)?

The evaluation of settlement models for wholesale tokenised asset markets must encompass several critical factors to ensure robustness, efficiency, and alignment with industry goals. From the list of considerations that were listed on the paper, a set of factors have been called-out by the various members for considerations:

How can we maintaining the 'singleness of money'? (High importance) We need to ensuring that different forms of money (e.g., central bank-issued and privately issued) are convertible at par is vital for maintaining transactional efficiency. This consideration is particularly relevant when integrating new forms of digital money such as tokenised deposits or stablecoins.

How can optimise technical performance and resiliency? (High importance) Settlement models must ensure high throughput, scalability, and resilience while maintaining data confidentiality and security**.** This is the core of what custodians seeks to achieve.

How can we minimising complexity and cost for participating banks in Australia and beyond? (Mid importance) Using existing infrastructure (e.g., RTGS systems) where possible reduces the cost and complexity of transitioning to tokenised settlements. Models that build on current infrastructure, such as those employing synchronisation coordinators, are particularly appealing for near-term adoption.

***Question 10***

Are there particular trade-offs associated with different tokenised settlement models that you wish to highlight?

**No answer**

***Question 11***

Could asset tokenisation in wholesale markets be effectively supported by a settlement model that uses a 'synchronisation coordinator' to coordinate delivery versus payment across tokenised asset platforms and existing RTGS infrastructure? Do you support the further exploration of a synchronisation coordination function for a potential tokenised economy? If so, what should be the focus of that exploration in the short term? For example, the role, functions and governance of the synchronisation coordinator, the technical channels for interaction between the synchronisation coordinator and the RBA's infrastructure, or the viability of this model for tokenised asset platforms.

Yes, we do support the further exploration of a synchronisation function for tokenised economy. A settlement model employing a central "synchronisation coordinator" to align delivery versus payment (DvP) across tokenised asset platforms and existing Real-Time Gross Settlement (RTGS) systems offers a robust solution to the complexities inherent in asset tokenisation within wholesale markets. This model ensures consistency, operational resilience, and efficiency by integrating tokenised and traditional financial systems.

We recognise the importance of harmonised governance and technical frameworks in tokenised markets. A synchronisation coordinator can serve as a centralised authority, ensuring unified standards for the settlement process and enhancing trust among participants.

We agree with the area of exploration cited above for the short term. To expand on them, we will suggest the following:

1. On Role, Functions, and Governance:

- We need to defining the responsibilities of the coordinator, such as what does it mean by "overseeing" DvP processes, ensuring compliance with regulatory standards, and mitigating systemic risks
- We need to establishing governance structures that promote transparency and accountability while accommodating diverse market participants, including banks, asset managers, and fintech firms. We need to define who holds the liability in the case of errors and have the right process in place to support roll back and minimise asset losses for investors

2. On interaction with RBA's Infrastructure:

- We need to developing secure and efficient interfaces to connect the coordinator with the central bank's RTGS system. We need to better understand the potential risks, such as hacking risk and attacks on those interfaces and the implications it brings
- We need to ensure that it is compatible with a broad spectrum of tokenised platforms to facilitate real-time settlements and reconciliation. However, this is still in growth stage and we do expect the type and function of platform to change over time

3. On viability of tokenised asset platforms:

- We need to assessing the economic and operational feasibility of implementing a synchronisation coordinator within the Australian market. How can we revenue share to make this industry utilise viable, who maintains which part and who gets to benefit from it
- We need further pilot projects to evaluate the model's performance under real-world conditions, including stress testing for transaction volumes and failure scenarios

From our perspective, adopting such a model supports our role in safeguarding assets, ensuring settlement finality, and providing transparency to institutional clients. By participating in or contributing to the development of synchronisation coordination frameworks, we hope to:

- Enhance operational efficiency by reducing friction in cross-platform settlements
- Strengthen their position as trusted intermediaries in the evolving financial ecosystem
- Leverage their expertise in compliance and risk management to shape robust governance structures

Lastly, while the synchronisation coordinator offers a centralised solution to address current gaps in tokenised markets, a hybrid approach that combines centralised oversight with decentralised connectivity options would be the most adaptable and sustainable model for Australia's financial ecosystem. Custodian banks, given their operational and regulatory expertise, are well-positioned to collaborate on and support the exploration of these frameworks.

***Question 12***

If tokenised money – public and/or private – was issued directly onto the same platform as tokenised assets, what types of benefits would you expect to arise from settlement on a common platform, compared with settlement using conventional forms of commercial bank money and ESA balances via a synchronisation coordinator? How significant might those benefits be, and to what stakeholder groups would they accrue (e.g. issuers, investors, platform operators)? If your response relates to a specific asset class or use case, please specify.

**No answer**

***Question 13***

Do you have experience or insights in addressing the challenges of interoperability between asset ledgers that may be relevant to the objectives of Project Acacia?

Yes, our members have extensive experience working with interoperability solutions that could be relevant to Project Acacia. In particular, in a recent research done by Northern Trust, addressed the topic of interoperability between asset ledgers, which could be of interest to Project Acacia. In their whitepaper "Interoperability of Tokenised Assets: Towards a Secured and Unified Future in the Financial Industry" they explored the centralisation risk of depending on one interoperability solution and the potential for a multi-chain future. Some of the insights from the paper include:

Developing a bridge-agnostic interoperability system. In the case of the synchroniser concept, does that mean that we've reintroduced a single point of failure? And can that adverted if we adopt a number of chains to mitigate those risks?

In the paper, Northern Trust and the Singapore Blockchain Innovation Programme (SBIP) led the design and implementation of a bridge aggregator framework, which integrates multiple cross-chain bridges (such as Axelar Network, LayerZero, and Chainlink (CCIP). This ensures that no single bridge becomes a point of failure, significantly reducing risks

associated with interoperability. Their PoC demonstrated the movement of tokenised assets across different blockchain networks, utilising a secure mint-and-burn mechanism to ensure consistency of token supply. This system showcased the feasibility of enabling interoperability without being tied to a specific blockchain or bridge provider. In addition to the interoperability solution, the additional point of how cross-chain communication protocols gets executed could also be of interest. Examples include atomic swaps and notary schemes. The use of multiple validation mechanisms ensures secure and accurate transaction execution across chains. The ability to securely and efficiently transfer assets between private and public blockchains is essential for advancing wholesale tokenised asset markets, making this experience directly applicable to the goals of Project Acacia.

***Question 14***

Are there any additional research questions which should be prioritised in Phase 2 of Project Acacia, over and above those described in Table 2? If so, please describe them.

**No answer**