Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets

Final Report

May 2026

RESERVE BANK OF AUSTRALIA

DFCRC DIGITAL FINANCE CRC
THE FUTURE OF FINANCE

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Contents

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1. Executive Summary

Project Acacia was a research project led by the Reserve Bank of Australia (RBA) and the Digital Finance Cooperative Research Centre (DFCRC) that explored how digital money and associated settlement infrastructure could enhance the functioning of Australia's wholesale asset markets through the development of tokenised finance. Overall, the project found strong potential for the tokenisation of assets, alongside digital money and/or enhanced settlement infrastructure, to improve the efficiency, resiliency and functionality of financial markets. However, generating these benefits will require a coordinated effort across industry and the public sector to further facilitate the development of tokenisation innovations. The RBA, together with the DFCRC and other agencies on the Council of Financial Regulators (CFR), have identified various initiatives that will continue to foster the strong public-private collaboration built through Project Acacia, setting out the road ahead for supporting responsible innovation at scale.

Project Acacia was an experimental research project undertaken in collaboration with domestic and international industry participants. It was supported by the partner agencies on the CFR – the Australian Securities and Investments Commission (ASIC), the Australian Prudential Regulation Authority (APRA) and the Australian Treasury. The project reflected the RBA's strategic priority on shaping the future of money in Australia and aligned closely with the Australian Government's ambition to foster an innovative and competitive digital asset industry.

The project involved industry participants developing and testing 20 wholesale tokenised market use cases across multiple asset classes. These included fixed income, managed funds, repos, structured products, private markets, carbon credits and trade payables. Settlement was conducted using a variety of methods and different forms of public and private digital money – including traditional RBA exchange settlement account (ESA) balances, a pilot wholesale central bank digital currency (wCBDC), tokenised forms of commercial bank deposits and stablecoins.

In parallel, the DFCRC chaired a Deposit Token Working Group (DTWG), to examine key legal and regulatory considerations associated with the issuance of bank deposit tokens in Australia. The DTWG included a sub-set of banks involved in use cases and was observed by the regulators.

Conducted amid growing global momentum in tokenised finance, Project Acacia revealed considerable industry interest in tokenisation and demonstrated the potential for tokenisation to materially improve the efficiency and functioning of Australia's wholesale asset markets, both directly and indirectly. This partly reflects the relatively lower level of dynamism in Australia's wholesale financial markets compared with other areas of the financial system, such as retail payments.

The use cases highlighted significant opportunities across the asset lifecycle, from issuance and servicing to trading and settlement. This included improved capital efficiency via reduced settlement frictions and shorter settlement cycles, reduced counterparty risk, enhanced issuer and investor access to 24/7 liquidity pools, and reductions in intermediation costs and operational errors from the automation of key aspects of asset lifecycle management.

The project also showed that opportunities for enhancing the functioning of wholesale markets in Australia do not rely solely on tokenisation. Interim or complementary reforms could also deliver meaningful benefits to issuers and investors. These include more expansive use of existing fast payment

rails and central bank settlement infrastructure, better alignment of infrastructure operating hours with global financial centres, and greater transparency in key funding markets.

The project findings reinforced the continued importance of the two-tier monetary system. Central bank money and associated settlement infrastructure will continue to have a foundational role as an 'anchor and enabler' in the financial system of the future, including in mitigating the build-up of systemic risk in wholesale markets as new forms of money and other technologies scale. Alongside this, the project identified opportunities for innovation in private digital money and infrastructure to catalyse growth in new tokenised forms of issuance, trading and settlement activity. Interest in stablecoin issuance in Australia is growing as a new licensing framework is coming into view, while over the medium term, tokenised forms of bank deposits could have a key role in ensuring Australia is well placed to harness the opportunities that a tokenised financial system presents. A relevant and live discussion internationally is whether stablecoins and tokenised forms of bank deposits could have complementary roles in the future. This reflects differences in scalability, use cases, and trust, and that deposits are supported by a long history of prudential regulation.

Project Acacia raised a set of issues that could benefit from further joint exploration by regulators and industry. For instance, consistent with international experience, the project highlighted the importance of interoperability between digital platforms and in linking up new and existing financial infrastructure. Further work on this issue is important to minimise liquidity fragmentation across multiple trading venues and having liquidity inefficiently tied up in pre-funded trades.

More specific to the domestic context, Project Acacia identified several barriers that will need to be overcome to support the large-scale adoption of tokenised finance in Australia. These include industry coordination challenges involving stakeholders with competing interests, and areas of remaining legal and regulatory uncertainty relating to tokenised assets and new infrastructure arrangements. This is particularly relevant where tokenisation transforms post-trade processes, where entrenched network effects appear to have stymied dynamism in Australian wholesale asset markets to date. This underscores the need for broad industry collaboration to explore how new methods of asset issuance, price discovery, trading and settlement could evolve in ways that support financial stability and meet the evolving needs of market participants. As a significant share of Australian securities are issued abroad – particularly to fixed-income investors who keep the cost of capital for Australian issuers lower and liquidity in markets higher than would otherwise be the case – the scaling of tokenised markets in Australia will also require there to be a safe and seamlessly integrated experience for international investors.

More generally, a key lesson from Project Acacia was that because the barriers to responsible innovation in Australia's financial system are multi-faceted, they transcend the roles and responsibilities of any single institution (public or private) and so require ongoing coordination at multiple levels. Extending and expanding the engagement of industry with agencies involved in the project, alongside Government, will be critical to ensuring Australia's wholesale markets remain efficient, resilient, and attractive to domestic and international issuers and investors far into the future.

In response to these findings, the RBA and DFCRC, with the partner agencies on the CFR, are seeking to build on the industry momentum generated by Project Acacia, through the establishment of a new multi-stream program of work. This will aim at advancing responsible innovation in Australia's financial market ecosystem, including by addressing unnecessary barriers to adoption of tokenised finance and better supporting the ability of industry to safely explore and scale new ideas that could enhance the functioning of wholesale markets. Key elements of the program, which will rely on continued public-private collaboration, include:

- enhanced industry–regulator collaboration, including via an expansion of the existing Industry Advisory Group (IAG) for Project Acacia and the creation of targeted industry working groups to address tokenisation-related issues
- exploration of a digital financial market infrastructure (DFMI) regulatory 'sandbox' to provide industry with a more structured pathway from experimentation to commercialisation and a mechanism for industry and regulators to jointly identify and resolve legal and/or regulatory uncertainties as they arise
- continued industry-led work on interoperable commercial bank deposit tokens, building on the initial work of the DTWG, and recognising the critical role of the banking system as a mobiliser of capital and in providing safe and efficient payment and settlement services within the two-tier monetary system.

As part of the next phase of its strategic focus on the future of money, the RBA will also pursue several complementary initiatives. These will include consulting with industry on potential changes to existing settlement infrastructure and ESA access arrangements, further assessing the potential role of tokenised wCBDC, and examining how innovations in tokenised central bank and private money, alongside enhanced settlement infrastructure, could improve wholesale cross-border payments.

A financial system that is more dynamic and resilient to technological disruption is in the national interest. The overarching insight revealed by Project Acacia was that unleashing more dynamism in Australia's financial economy, enhancing Australia's attractiveness as a destination for capital in the digitalising global economy, and strengthening resilience of the financial sector at the same time, will require sustained commitment and coordination across industry, regulators, and Government. It is in this context that the RBA remains committed to ensuring that Australia's payments, monetary and financial infrastructure arrangements are fit for purpose well into the future – indeed, this continues to be a strategic priority for the RBA and its Payments System Board.

The RBA and DFCRC thank all industry participants for their strong engagement in Project Acacia. The depth and quality of insights generated reflect the open, constructive and collaborative contributions of all involved.

2. Introduction

The Australian Government is advancing a forward-looking vision for financial innovation as supported by announcements in 2026/27 Budget that maintain momentum on recent financial sector initiatives.[1] Complementary to this, shaping the future of money in Australia is a strategic priority for the RBA and its Payments System Board.[2] In this context, the RBA, together with the DFCRC, undertook Project Acacia to explore how the tokenisation of money and assets, alongside innovation in settlement infrastructure, could enhance the efficiency and resilience of wholesale asset markets. This included exploring whether a tokenised form of central bank money (e.g. a wCBDC) is needed to maximise the potential benefits from asset tokenisation. Project Acacia built upon the RBA and DFCRC's 2022–2023 CBDC Pilot Project, which demonstrated emerging industry interest in asset tokenisation and the potential for a wCBDC to support more efficient and safe settlement in wholesale markets.[3]

Global Developments in Tokenisation

Tokenisation refers to the creation and recording of a digital representation of financial and other real-world assets on programmable platforms. These platforms are often built using distributed ledger technology (DLT), which can integrate asset records with rules and logic governing the transfer of the tokens. Once created, tokenised assets can be issued, held, traded and settled directly on these platforms.[4]

Internationally, the tokenisation of money and assets is attracting growing interest from industry and policy makers alike. While issuance remains small, early deployments, coupled with experimental projects by industry and central banks, have highlighted the potential for efficiency gains and risk reductions from enhanced asset issuance, servicing, trading and settlement processes and the streamlined provision of financial products and services. Initiatives from a broad range of market participants are being progressed at different speeds. Issuance of stablecoins (primarily from non-bank issuers and denominated in US dollars) has increased rapidly over recent years, reaching over US$320 billion in May 2026. Commercial banks are also exploring issuance of their own stablecoins and tokenised forms of deposits.[5] At the same time, many central banks have been exploring new ways of providing central bank money in tokenised form.

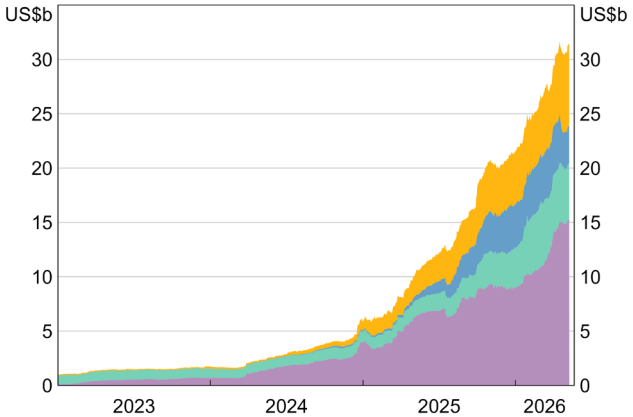
Total global issuance of tokenised real-world assets (excluding tokenised money) exceeded US$30 billion as at early May 2026 (Graph 1).[6] While modest relative to the overall volume of assets in global financial markets, issuance has grown sharply in recent years. Estimates of the potential growth of tokenised asset markets vary widely, with some analysis suggesting that the volume of tokenised

1 This report was prepared prior to the 2026/27 Budget. It should be read in the context of the Government's Budget announcements and its forward-looking vision for financial innovation to maintain momentum from Project Acacia and related reforms; see, Commonwealth of Australia (2026), 'Budget Strategy and Outlook', Budget Paper No. 1, May; Commonwealth of Australia (2026), 'Productivity Package', May.
2 RBA (2025), 'RBA Corporate Plan 2025/26', August.
3 RBA and DFCRC (2023), 'Australian CBDC Pilot for Digital Finance Innovation', Project Report, August.
4 BIS (2024), 'Tokenisation in the Context of Money and Other Assets: Concepts and Implications for Central Banks', Report to the G20, October.
5 JP Morgan (2025), 'First Bank Issues USD Deposit Token on a Public Blockchain', Press Release, 12 November; BNY (2026), 'BNY Extends Digital Cash Capabilities for Institutional Clients', Press Release, 9 January; CaixaBank (2025), 'Qivalis, Joint Venture of a European Banking Consortium to Launch Euro Stablecoin in the Second Half of 2026', Press Release, 2 December.
6 See 'RWA.xyz' Website.

real-world assets could reach up to US$30 trillion by the mid-2030s.[7] Although a broad range of assets has been tokenised, activity to date has been concentrated in fixed-income markets, with more than 80 per cent of tokenised asset value comprised of private credit and US Treasuries (Box A). Notwithstanding the focus on fixed income to date, key stock exchanges are now actively exploring DLT platforms that enable trading and settlement of tokenised equities.[8] Nasdaq, for instance, has announced plans to list and allow trading of tokenised equities within the next year.[9]

Graph 1

Issuance of Tokenised Assets*



* Includes tokenised assets on public networks (those that can be moved to wallets outside the issuing platform, and transferred between wallets), as defined by RWA.xyz.

Sources: DFCRC; RBA; RWA.xyz.

Numerous public sector initiatives have also been launched to better understand the challenges and opportunities presented by tokenised finance, such as the United Kingdom's Digital Gilt project and the European Central Bank's DLT trials and planned long-term implementation through the Appia initiative.[10] Multiple public-private collaborative initiatives have also been established, among them various projects run from the Bank for International Settlements (BIS) Innovation Hub, including Project Agorá, which is testing a unified tokenised platform for cross-border payments. Another is the Monetary Authority of Singapore's (MAS) Project Guardian, which, like Project Acacia, has been aimed at uncovering opportunities to enhance the operation of financial markets through asset tokenisation.

The financial industry in Australia has also been exploring tokenisation. In 2018, Commonwealth Bank of Australia (CBA) collaborated with the World Bank on Project Bond-*i*, the world's first bond issued and managed throughout its lifecycle using DLT.[11] ANZ Bank has also actively explored stablecoin issuance and tokenised markets for several years.[12] Some other in-production tokenisation initiatives in Australia include FinClear's DLT-enabled platform for trading and settlement of tokenised private company securities (FCX), digital gold/silver products (digital tokens backed by allocated gold and silver bullion), and BetaCarbon's platform for trading tokenised carbon credits.[13] In addition, a range of tokenised

7 Standard Chartered and Synpulse (2024), 'Real-World Asset Tokenization: A Game Changer for Global Trade', White Paper, June.

8 DTCC (2005), 'DTCC Authorized to Offer New Tokenization Service: Paving the Way to Tokenized DTC-Custodied Assets', Press Release, 11 December; LSEG (2026), 'LSEG Launches Digital Settlement House', Press Release, 15 January.

9 Nasdaq (2026), 'Nasdaq to Launch Equity Token Design, Putting Issuers at the Center of Tokenization', Press Release, 9 March.

10 See European Central Bank (n.d.), 'Appia', Website, accessed May 2026.

11 CBA (2018), 'CBA Helps World Bank Raise A$110 Million With Launch of 'Bond-i'', Media Release, 24 August.

12 ANZ (2022), 'ANZ Completes Landmark Stablecoin Payment', Media Release, 24 March.

13 FinClear (n.d.), 'About Us – Australia's Wealth Management Infrastructure'; Gold & Silver Standard (n.d.), 'Gold and Silver Standard Tokens', Website; BetaCarbon (n.d.), 'What is an Australian Carbon Token(BCAU)?', Website.

asset use cases were explored as part of the RBA and DFCRC's 2022–2023 CBDC Pilot Project.[14] A number of Australian-dollar denominated stablecoins have also been launched over recent years.

Tokenised asset markets in Australia have yet to develop at scale, for several reasons set out in this report. Project Acacia has, however, provided a catalyst for Australian industry participants and policy makers to collaborate in a more fulsome way to explore the opportunities and challenges associated with developing tokenised money and asset markets in Australia.

Box A: International tokenisation initiatives – focus on fixed income

Fixed income is regarded as one of the major asset classes likely to benefit from tokenisation, particularly where assets are natively (or exclusively) issued 'on-chain'. Across global fixed-income markets, bonds are the most systemically important instruments, with an estimated market size of around US$110 trillion. Government bonds play a crucial role in the financial system, including as a safe asset for investors, as collateral in a range of transactions and as a pricing benchmark for other assets, while corporate bonds are a key channel through which firms raise capital. Reflecting this importance, there has been substantial global interest in the tokenisation of bonds.

Recent examples of public-sector tokenised bond issuance include the Hong Kong Special Administrative Region's HK$10 billion digital green bond program, the European Investment Bank's €100 million digital bond, the Republic of Slovenia's €30 million inaugural sovereign digital bond, the World Bank's CHF200 million digital bond issued in partnership with the Swiss National Bank, and Luxembourg's digital treasury certificates issued via HSBC's Orion platform.[15]

Private-sector tokenised bond issuance has also expanded. Siemens has issued a €300 million digital bond and KfW has completed multiple digital bond issuances across platforms such as Clearstream D7 and SIX Digital Exchange. JP Morgan has arranged a tokenised commercial paper issuance that was executed on a public blockchain (Solana) and settles issuance and redemption proceeds using the USDC stablecoin.

Tokenised money market funds (MMFs) have emerged as another prominent application of asset tokenisation. The first tokenised MMF was launched in 2021 – Franklin Templeton's on-chain US Government Money Fund – but institutional adoption has accelerated since 2024. Several large financial institutions and asset managers, predominantly in the United States, which is home to the world's largest MMF industry, now issue MMF units as digital tokens that maintain a stable net asset value backed by traditional fixed-income securities, primarily US government debt. This interest has reflected the ability of investors to use tokenised MMF holdings as collateral in traditional derivatives and repurchase agreement (repo) transactions, to have ownership changes recorded instantaneously, and to earn intraday interest (calculated to the second) that is distributed at end of day, 7 days a week.[16]

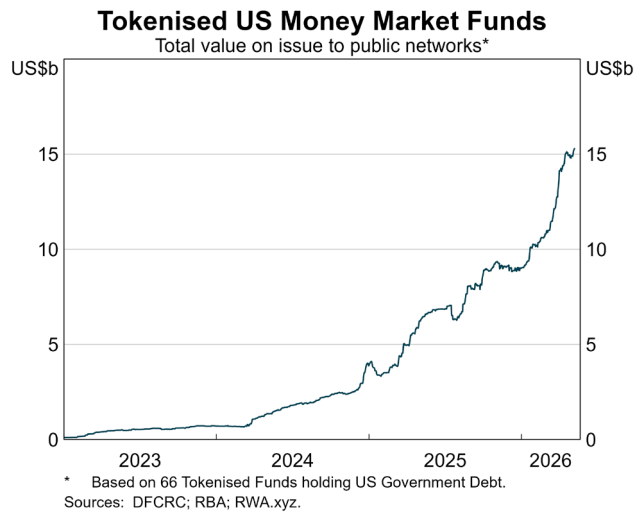
14 RBA and DFCRC (2023), 'Australian CBDC Pilot for Digital Finance Innovation', Project Report, August.

15 Hong Kong Monetary Authority (2025), 'HKSAR Government's Third Digital Green Bonds Offering', Press Release, 11 November; European Investment Bank (2024), 'EIB Launches New Digital Bond as Part of the Eurosystem Exploratory Work', News Release, 15 November; Republic of Slovenia (2024), 'The Republic of Slovenia Issues Its Inaugural Digital Bond', Press Release, 26 July; World Bank Group (2024), 'World Bank Partners with Swiss National Bank and SIX Digital Exchange to Advance Digitalization in Capital Markets', Press Release, 15 May; Luxembourg for Finance (2025), 'Luxembourg Issues First Digital Treasury Certificates', Press Release, 17 June.

16 See Born A, M Grill, C Lambert, V Schöller, D Staunton and A Tskhakaya (2026), 'Tokenised money market funds: new technology, familiar risks?', ECB *Macroprudential Bulletin*, April; Kaul S (2025), 'Tokenized Money Market Funds: The Bridge to a New Financial Infrastructure', Franklin Templeton Article, 9 June.

By the second quarter of 2026, the US tokenised MMF market had climbed to around US$15 billion in outstanding issuance across 66 products, held by more than 62,000 investors (Graph 2). Growth has been driven largely by increased participation from established institutions; Franklin Templeton's BENJI fund has grown to around US$2.2 billion, while the BlackRock USD Institutional Digital Liquidity Fund (BUIDL) has accumulated over US$2.4 billion in assets under management. Interest is also emerging in Europe, with institutions such as BNP Paribas Asset Management actively exploring tokenised MMFs.[17]

Graph 2



Tokenisation is also improving collateral mobility in repo markets, where tokenised fixed-income securities and tokenised units in MMFs serve as collateral. Tokenisation enhances on-chain transparency and verifiability, making collateral easier to mobilise – an attractive feature for institutions managing complex and time-sensitive collateral obligations.

Initiatives such as JP Morgan's Tokenised Collateral Network on the Kinexys platform and Broadridge's Distributed Ledger Repo (DLR) platform illustrate how tokenising collateral and automating manual collateral management processes can materially reduce settlement times. Broadridge's DLR is among the largest platforms globally for settling tokenised real assets, processing an average of US$368 billion in daily repo transactions in April 2026.[18] The platform uses smart contracts to tokenise, lock and transfer securities while they remain held in existing central securities depositories. This design improves collateral velocity (or turnover) and enables intraday repo transactions, reducing reliance on more expensive overnight funding. Although the DLR platform is payment-rail agnostic and typically uses SWIFT messaging, it has also integrated JP Morgan's JPM Coin as a tokenised settlement asset, enabling real-time 'atomic settlement' of both legs of repo transactions.[19]

17 Securitize (n.d.), 'Blackrock USD Institutional Digital Liquidity Fund', Website; Franklin Templeton (n.d.), 'BENJI is the World's First US-registered Money Market Fund', Website; BNP Paribas (2026), 'BNP Paribas Explores Public Blockchain Infrastructure for Money Market Fund Tokenisation', Media Release, 20 February; data on tokenised assets are sourced from RWA.xyz, accessed 14 May 2026.

18 Broadridge (2026), 'Broadridge's Distributed Ledger Repo Achieves 268% Year Over Year Growth in April', Press Release, 4 May.

19 Broadridge (n.d.), 'Broadridge – Distributed Ledger Repo Solutions', Website, accessed May 2026. Atomic settlement is a mechanism where multiple transaction legs (e.g. payment and asset transfer) are linked and executed simultaneously as a single, indivisible 'all-or-nothing' event, typically using smart contracts. It guarantees that if one part fails, the entire transaction reverts.

Key Findings of Project Acacia

The original research objectives of Project Acacia were largely centred around the role of different forms of digital money in supporting the development of tokenised asset markets. However, the findings that resulted from the use cases and industry engagement were considerably broader, covering asset tokenisation, different forms of money, industry co-ordination challenges, and a range of legal and regulatory issues associated with innovation in Australia's financial system.

Asset tokenisation in Australia

The industry engagement in Project Acacia demonstrated that there is considerable and growing interest in exploring the potential for asset tokenisation to improve the functioning of wholesale asset markets. The use cases showed that asset tokenisation could offer efficiency, liquidity, resiliency and transparency benefits. Different asset classes, forms of tokenised money, and settlement models, all entail different combinations of benefits and challenges. Enhancements to lifecycle processes (issuance, servicing, trading and settlement) were particularly evident for fixed-income markets, with tokenisation being leveraged to automate and streamline processes that have been highly manual to date. Easing frictions such as those related to manual processes enabled shorter settlement cycles, which improved capital efficiency, lowered settlement and counterparty risk, and reduced processing errors. Some use cases also demonstrated how tokenisation has the potential to create assets that appeal to new investor profiles, opening new channels for funding and liquidity.

Despite the interest in exploring asset tokenisation, many participants noted that industry investment in Australia has been constrained by a range of factors to date:

1. Participants viewed aspects of the legal and regulatory environment for tokenised assets to be uncertain and/or not particularly conducive to encouraging long-term private investment.
2. Industry has struggled to explore feasible commercial pathways in greenfield tokenisation activities beyond the limited experimentation facilitated by Project Acacia, reflecting constraints with existing innovation experimentation vehicles.
3. More enduring mechanisms for coordination across a wide range of participants – including asset issuers, buy-side firms and custodians – were deemed essential for tokenised markets to scale. New forms of financial infrastructure will need to interact with each other as well as with traditional infrastructures, raising interoperability challenges that require coordination.
4. Large incumbents had been seen as somewhat disengaged from (or a potential barrier to) the development of some new forms of financial infrastructure and private digital money that is occurring apace internationally.
5. Industry viewed the intensive engagement with public agencies during Project Acacia as providing a unique forum in which it could safely experiment. Consequently, the consensus view was that clear and coordinated long-term commitments across Government and regulators – possibly along the lines of those in the United Kingdom, Singapore and Hong Kong – could catalyse considerable industry investment in financial innovation like tokenisation.

Forms of money to facilitate tokenised wholesale markets

Alongside the tokenisation of assets, Project Acacia also demonstrated interest in exploring tokenised money in private and public form. Use cases highlighted that a key benefit of having tokenised money co-located with tokenised assets (i.e. on the same DLT platform) is that it can enable programmable, automated and continuously available settlement. Industry participants particularly focused on the benefits of 'atomic' (conditional) settlement, which can reduce operational frictions, and counterparty

and settlement risks by ensuring that the transfer of assets and payment occurs simultaneously and conditionally, eliminating timing gaps and partial settlement.

Several use cases explored the role that stablecoins and tokenised forms of commercial bank deposits could play in facilitating the growth of tokenised asset markets.[20] The project highlighted that the coexistence of different types of private tokenised money would require efficient interchange mechanisms to facilitate seamless conversion between them, at par, with several models explored in the project.

Alongside private forms of tokenised money being used to facilitate settlement in tokenised asset transactions, central bank money also featured. Use cases experimented with central bank money in the form of pilot wCBDC as well as traditional RBA ESA balances (i.e. deposits held by financial institutions at the RBA). Experiments highlighted that wCBDC and tokenised assets existing on the same ledger could help to maximise the benefits of asset tokenisation, including by facilitating instantaneous atomic settlement in central bank money. However, a synchronisation mechanism to orchestrate delivery-vs-payment (DvP) settlement between traditional central bank settlement systems and tokenised asset platforms was also shown to deliver many of the same benefits, with minimal loss of efficiency.

Legal and regulatory considerations

Industry participants emphasised that legal and regulatory clarity is an important prerequisite for wholesale tokenised asset market development in Australia. The project highlighted several legal issues that would benefit from further consideration, including the structuring of on-chain records to provide enforceable evidence of asset ownership and terms, and how legal settlement finality is achieved in DLT environments. Areas of actual or perceived uncertainty regarding the regulatory environment included the treatment of financial products and services, the alignment of emerging digital financial market infrastructures with existing licensing frameworks, and the way prudential standards apply to banks' digital asset exposures.

Industry participants also noted some fatigue with short-term experimental initiatives (where regulatory relief is tightly time bound). Instead, they saw merit in more permanent and structured environments where industry participants can safely experiment, such as regulatory and/or innovation sandboxes. These kinds of arrangements were viewed as better able to support the transition from ideation to commercialisation, which would be particularly important for tokenised markets to develop and scale. New sandbox arrangements could also allow regulators to better understand the opportunities and challenges for the financial system that new innovations present, including whether any regulatory adjustments might need to be considered.

Post Acacia: The Road Ahead

In response to the findings of Project Acacia and with the objective of supporting further responsible innovation in Australia's wholesale markets relating (but not strictly limited) to tokenisation, the RBA will be pursuing, with the DFCRC and its partner agencies on the CFR, a new multi-stream, multi-agency program of work. This program will comprise various initiatives organised under three broad workstreams led by the regulators, industry and RBA respectively (Table 1). These are outlined in detail in Chapter 7.

20 In Project Acacia, deposit tokens were defined as digitally native tokens representing liabilities of the issuing bank. This differs from a tokenised deposit, which is used to refer to a digital representation (digital twin) of a traditional account-based deposit.

Table 1: Future Work Program

Regulatory workstream	
Inter-agency Regulator Working Group	Establish a forum for regulators to identify, analyse and facilitate resolution of any unnecessary innovation barriers relating to wholesale markets.
Exploration of a digital financial market infrastructure (DFMI) sandbox	The RBA, ASIC and DFCRC will explore ways to provide a safe environment for industry to progress tokenisation initiatives from experimentation to commercialisation, and for regulators to determine whether adjustments to regulatory settings might be appropriate.
Tokenised government bond initiative	Explore the opportunities and challenges associated with the issuance, trading, settlement and lifecycle management of tokenised government bonds.
C-suite roundtable on the future of tokenised finance in Australia	Initiate executive engagement to ensure key opportunities and challenges associated with uplifting the functioning of wholesale markets in Australia are widely understood, including the international context.
Industry workstream	
Joint Regulator-Industry Tokenisation Advisory Group	The IAG from Project Acacia will be reconstituted and expanded, and act as a dedicated advisory forum and coordination body for industry priorities on tokenisation.
Extension of the DTWG	Continue and expand the DTWG to deepen exploration into the potential form, functioning and interoperability of deposit tokens, in a risk-controlled environment.
Other industry working groups (as required)	Support industry in establishing dedicated industry working groups to develop common frameworks or approaches that could support the development of tokenised asset markets, tokenised money and associated infrastructure enhancements.
RBA workstream	
Industry consultation on tokenised money and RITS settlement infrastructure	Consult with industry on how the RBA's settlement infrastructure could be upgraded to support the responsible development of tokenised asset markets and tokenised money.
Review of ESA policy	Assess whether the RBA's current ESA policy and account structures remain fit for purpose, following passage of the Government's payment service provider licensing reforms that will establish a new prudential regime.
Further applied research on wCBDC	Continue RBA exploration of the policy and operational issues associated with wCBDC issuance, including through its potential provision in a DFMI sandbox for appropriate use cases.
Exploration of how innovations in digital money and associated infrastructure could enhance wholesale cross-border payments	Explore with international and domestic partners the ways in which private and/or public tokenised money, or new uses of the RBA's existing settlement infrastructure, could enhance the speed and safety of cross-border payments.

3. Project Overview

Research questions in Project Acacia were identified in Phase 1, and largely focused on the merits of different forms of tokenised money and settlement models in supporting wholesale tokenised asset markets. These questions were initially explored in conceptual terms.[21] As the project then moved into Phase 2, the scope of enquiry expanded to include a broader set of policy, operational, legal and regulatory questions:

- What benefits – demonstrated or potential – does tokenisation offer for different asset markets in Australia?
- What role could different forms of tokenised money play in supporting activity in tokenised asset markets, and how can they be exchanged safely and efficiently in a way that supports financial stability and the singleness of money?
- What are the key legal and regulatory uncertainties affecting the development of tokenised money and assets in Australia, and what measures could address them?

This section describes the design and delivery of Phase 2 and provides an overview of the industry use cases explored.

Design of Phase 2

Use case selection

Phase 2 involved industry participants developing and testing use cases for settlement in wholesale tokenised asset markets. The objective was to test and extend the conceptual findings from Phase 1 by incorporating commercial considerations and technical implementation choices.

As part of the Phase 1 consultation paper, industry participants were invited to submit expressions of interest and propose use cases for experimentation in the second phase. Around 50 proposals were received, of which around 40 were selected for further elaboration via a request-for-information process. From these, 24 use cases were conditionally selected by the RBA and DFCRC for Phase 2 experimentation. Selection was guided by considerations such as alignment with the project's research objectives; the potential economic impact of the proposed use case; and the industry participants' capacity to develop and test the use case within project timeframes. Ultimately, 20 use cases completed experimentation between August 2025 and February 2026, comprising:[22]

- 12 *pilot* use cases, which involved real money and real asset transactions
- 8 *proof-of-concept* use cases, involving simulated transactions.

21 The first phase of Project Acacia, which was completed in August 2024, examined selected potential models for settling transactions in tokenised assets. Phase 1 provided a framework of settlement models and an analysis of the spectrum of approaches that were ultimately explored by industry participants in Phase 2 of Project Acacia – the experimental phase. The results of Phase 1 were published in a consultation paper that also called for expressions of interest from industry to participate in Phase 2. See RBA (2024), 'Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets', Consultation Paper, November.

22 Over the course of experimentation, some use cases merged, and one proof-of-concept use case was withdrawn by the lead use case participant to focus resources on their other pilot use cases. In addition, some lead use case participants that had initially intended to conduct pilot experiments, decided to progress with proofs of concept.

Throughout the experimentation phase, the project team held workshops with use case participants, and each lead participant provided written submissions to a set of research questions.

Use cases and industry participants

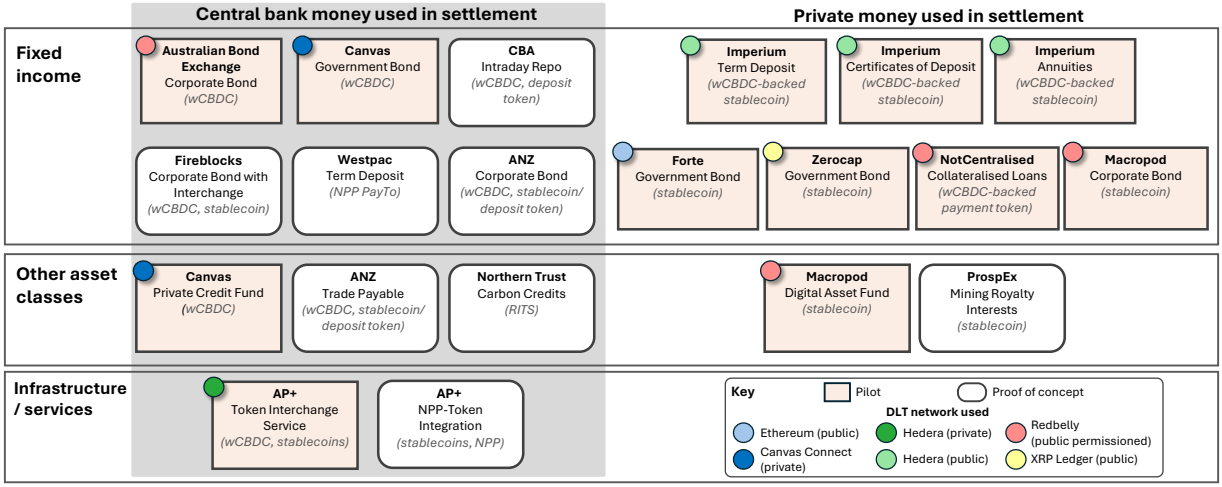
The use cases were led and supported by a diverse group of organisations, including domestic and international banks, fintechs, custodians, a payment system operator, fund managers and other buy-side institutions, financial market infrastructures (FMIs), exchanges, stablecoin issuers and technology providers (Appendix 1).

Pilot use cases were conducted on a range of public and private DLT platforms, including Canvas Connect (private), Ethereum (public), Hedera (both public and private instances), Redbelly Network (public) and XRP Ledger (public).

The use cases explored tokenisation across a range of asset classes, including government and corporate bonds, managed investment schemes, private credit, asset-backed securities, repos, structured products, carbon credits, mining royalties and various types of tokenised receivables.

The forms of money ('settlement assets') used in the settlement of the tokenised asset transactions included stablecoins, commercial bank deposit tokens, pilot wCBDC and new applications of ESA balances at the RBA. Figure 1 classifies all use cases by their key characteristics.

Figure 1: Project Acacia Use Case Landscape



** Italicised text in brackets beneath each use case refers to the types of digital money/settlement infrastructure experimented with in each use case*

Sources: DFCRC; RBA.

Wholesale CBDC

Eight use cases experimented with the use of a pilot wCBDC for settlement. The pilot wCBDC was created specifically for Project Acacia and was not intended to be indicative of any possible future production design. The pilot wCBDC:

- represented a real legal claim on the RBA, issued under a deed poll requiring the RBA to redeem the pilot wCBDC at par in Australian dollars at the end of the project
- was denominated in Australian dollars and did not pay interest
- could be held only by Australian residents and corporations incorporated in Australia, which qualified as wholesale investors, as defined in contractual arrangements with each lead participant's entity.

For each use case, the RBA and the lead participant agreed on a maximum issuance amount, which was specified in the relevant contractual documentation.

A distinguishing feature of Project Acacia compared with the 2022–2023 CBDC Pilot Project and many similar international projects, was the decision to issue pilot wCBDC onto external third-party DLT platforms, including a public-permissioned network, rather than limiting issuance to a single RBA-operated platform. This enabled exploration of a broader range of issues associated with central bank money co-existing on the same platform as other forms of tokenised money or tokenised assets. This included analysis of the types of legal, operational and technical controls in the pilot wCBDC smart contract and underlying third-party platforms that were required to appropriately manage risks and maintain the RBA's control over the pilot wCBDC.[23]

The use cases that utilised pilot wCBDC were all implemented on EVM-compatible platforms, and so the same implementation was used across those platforms.[24] The implementation used the ERC-20 token standard with additional embedded controls enabling the RBA to mint/burn, pause transfers, and to allow or block addresses that could hold the pilot wCBDC.[25]

Use cases used three of the short-listed DLT platforms for their experimentation with pilot wCBDC: Australian Payments Plus's (AP+) HashSphere instance (a private Hedera-based ledger), Canvas Connect (a purpose built blockchain for tokenised finance), and Redbelly Network (a public-permissioned blockchain).[26] Where use cases did not wish to use pilot wCBDC, they were free to use their preferred platforms. Chapter 5 sets out further detail on the controls that were implemented and the learnings from issuing pilot wCBDC onto private and public third-party platforms.

The distribution model for pilot wCBDC was achieved through ESA holders playing the role of 'distributor' and assisting in the process of issuing the pilot wCBDC onto the use cases' approved platforms after performing know your customer (KYC) checks against the participants they transacted with. In essence, distributors would receive payments from use case participants and forward these payments to the RBA with instructions about pilot wCBDC to be received on the required DLT platforms. The entities that volunteered to act as distributors within Project Acacia were ANZ, Banking Circle Australia and Cuscal.

The total value of pilot wCBDC issuance over the project was $4.4 million with individual transaction values of up to $250,000 seen in use cases.

Deposit Token Working Group

In parallel with the experimentation phase, several major Australian banks established a DTWG to collaboratively explore commercial bank deposit tokens.[27] The DTWG was chaired by the DFCRC and had the RBA, ASIC, APRA, AUSTRAC and Treasury participating as observers. Over a period of four months, the DTWG focused on legal and regulatory issues associated with deposit tokens, supported by an external law firm. Two potential deposit token models were explored, differing primarily in their assumptions regarding the transferability of tokens when payments are made between customers of

23 Smart contracts are programs stored on a ledger system that can self-execute when pre-defined conditions are met and produce outputs on that ledger. They are sometimes used to automatically implement actions related to the terms of a contract or an agreement without relying on third-party intermediaries.

24 The EVM defines how instructions in smart contract programs are executed on the Ethereum blockchain. There are now many other blockchains and DLT systems that provide smart contract capabilities that are compatible with EVM.

25 The Ethereum implementation was provided by Kaleido as a cloud-based managed service. Enterprise key management for secure minting, issuance and redemption of pilot wCBDC by the RBA was implemented via a managed service provided by Fireblocks.

26 The issuance of pilot wCBDC on external platforms involved a platform selection process considering a range of factors, including the ability to conduct due diligence and put in place appropriate controls and security for issuing and redeeming pilot wCBDC, within the timeline and resources of the project.

27 While the scope of the DTWG's work did not venture into matters raising any competition law issues, all meetings of the group (and also the project's Industry Advisory Group) occurred subject to a Terms of Reference that included the RBA's standard competition law guidance for industry meetings.

different banks. The DTWG's work provided a solid foundation for banks and regulators to continue exploring the potential role and design of deposit tokens in a tokenised ecosystem.

Project Governance

A Steering Committee was established to oversee the project, consisting of senior representatives of the RBA, DFCRC, ASIC, APRA and the Treasury. Participation by all regulators and the Treasury, working alongside industry, helped to draw out learnings pertinent to the ongoing development of Australia's regulatory framework for digital assets in the context of broader opportunities for responsible financial innovation.

The regulatory authorities also supported Project Acacia by granting regulatory relief. ASIC supported responsible testing of tokenised asset transactions via opt-in exemptions from Australian financial services, financial markets and clearing and settlement facility licensing requirements for project participants and their collaborators. AUSTRAC also supported pilot transactions by granting exemptions from certain provisions in the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* (AML/CTF Act) for participants that applied for an exemption.

An IAG supported Phase 2 of Project Acacia by providing advice to the Steering Committee and project team on the project pathway, findings and future research opportunities. The IAG was chaired by a senior representative of the DFCRC and was comprised of experts from different fields (e.g. technology, operations, strategy and regulation). The IAG benefited from the diverse perspectives drawn from participants across the financial system, including product issuers, platform operators, banks, custodians and investors.

A list of the individuals and organisations that contributed to Project Acacia is in Appendix 2.

4. Asset Tokenisation in Australia

This chapter discusses the potential benefits and current appetite for asset tokenisation in Australia, drawing on the results from Project Acacia.

Key findings – Asset tokenisation in Australia

- ***Tokenisation is still in early stages in Australia, but there is growing industry interest in tokenising assets and in related enhancements to issuance, trading and settlement processes.*** While Project Acacia was a time-bound research project, participants were prepared to expend significant resources in the experiments, and industry feedback highlighted several opportunities to enhance the functioning of wholesale asset markets in Australia. Industry recognises there are several features of Australia's wholesale markets, such as the way that banks raise funding in term deposit markets, that have changed little in a generation and rely on antiquated technology like phone calls and emails.
- ***The tokenisation of assets in wholesale markets brings several areas for potential efficiency gains.*** While the project explored opportunities across a range of assets, there was considerable interest in tokenising fixed-income assets (13 of the 20 use cases), as has been the case internationally. Industry identified several ways in which issuance, price discovery, and settlement processes could be enhanced in fixed-income markets, aided by the automation of processes that have generally remained highly manual to date. This included compressing the time between trade execution and settlement to reduce settlement counterparty risk and free up collateral, increase price transparency and investor access to liquidity on 24/7 platforms, and automate the trade lifecycle to reduce costs and reduce operational errors.
- ***Challenges to broader adoption take several forms.*** More effective coordination and collaboration across Australian industry is required to address the network effects and inertia in market conventions that have slowed innovation in wholesale issuance and settlement practices. Deeper engagement from banks and incumbent infrastructure providers will be particularly important in this regard given their central role in the financial system. Remaining legal and regulatory uncertainty will need to be addressed to unlock private investment and facilitate commercial pathways to adoption. Interoperability mechanisms between new and existing forms of infrastructure, including payment rails, settlement infrastructure and registries, will also be essential for tokenised markets to scale.

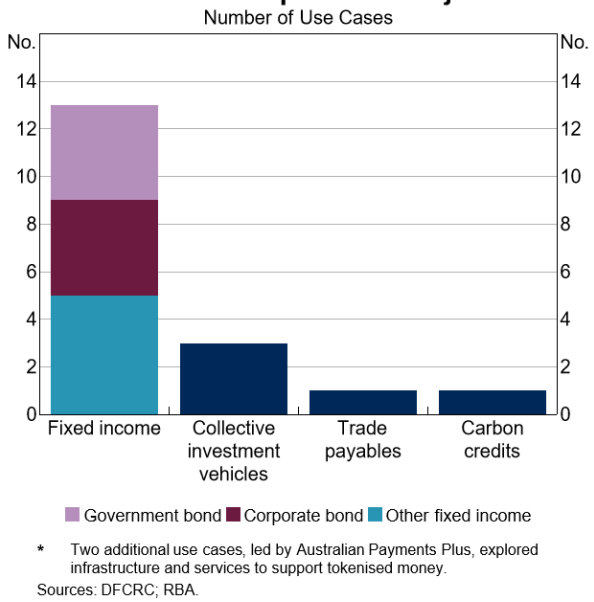
Appetite for Tokenisation in Project Acacia

Project Acacia attracted significant participation from Australian industry. The pilots and proofs of concept explored a broad range of wholesale finance functions, including issuance, servicing and distributions, redemption, trading, settlement, collateralisation and repo transactions. Participants' willingness to commit time and resources to the project, despite its time-bound and exploratory nature, suggests appetite to explore how new business models could arise from the economic benefits flowing from tokenised finance. The use cases explored a range of asset classes, including fixed income,

managed investment schemes, interbank repos, structured products, carbon credits, mining royalties and receivables (Graph 3). Fixed income was the most prevalent asset class, consistent with international experience.

Graph 3

Tokenised Assets Explored in Project Acacia



* Two additional use cases, led by Australian Payments Plus, explored infrastructure and services to support tokenised money.

Sources: DFCRC; RBA.

The use cases explored both 'digital native' and 'digital twin' token structures. These structures differ in how tokens represent assets, including how they are created, their legal character and their relationship to other ledgers:[28]

- **Digital twin** tokenisation treats the DLT token record as information about (or potentially an indirect claim on) an underlying asset that is recorded on a traditional asset registry. This token structure builds on existing legal constructs and custody arrangements but generally requires ongoing synchronisation between traditional and DLT records. Most Project Acacia use cases adopted a digital twin structure. An intermediary would normally be required to manage the relationship between existing records in the traditional asset registry and the DLT token records.
- **Digital native** tokenisation treats the DLT token record as the primary record of asset ownership, removing the need for reconciliation with a traditional asset registry record. This model assumes legal recognition of ledger-based ownership and settlement finality. Two use cases adopted this structure: the Fireblocks Corporate Bond and the Macropod Digital Asset Fund use cases.

Participants in Project Acacia generally viewed digital native structures as the preferred target state, citing lower operational complexity (e.g. fewer coordination steps across parties and infrastructures, and elimination of reconciliation risks), streamlined custody arrangements, and greater opportunities for programmability. However, most participants expected digital twin structures to remain dominant in the near term as legal, operational and market practices evolve.

Potential Benefits of Tokenisation – Insights from Project Acacia

Participants in Project Acacia explored how tokenisation could deliver meaningful benefits to issuers and investors. While some of these benefits are achievable using traditional technologies in more advanced ways, tokenisation can make achieving them simpler, faster and more scalable.

28 More detail on the different token structures/arrangements is available in Gmeiner F and TJ Putniņš (2026), 'Toward a comprehensive and unifying taxonomy of digital assets', DFCRC and University of Technology Sydney Research Paper, May.

It is important to note that Project Acacia participants were primarily focused on demonstrating the feasibility and potential benefits of tokenisation in their specific use cases or asset classes. The exploratory nature, small-scale and use-case specific focus of the project design meant that insights about the risks and challenges associated with tokenisation were more limited. Adoption at scale would bring additional risks to be managed.

The key capabilities and associated benefits demonstrated in Project Acacia, include:

1. Programmability and composability

- **Lower cost and more efficient issuance.** The ability to program asset tokens and associated functions using the smart contract capabilities of DLT can be leveraged to automate legal, compliance and operational tasks associated with asset issuance. This can reduce issuance costs by cutting through layers of intermediary costs and allowing for greater economies of scale through enhanced standardisation. It can also enable capital raising to occur more flexibly and dynamically, which could particularly benefit smaller and first-time issuers, as noted by ABE in their tokenised bond use case.
- **More efficient settlement and reduced risk.** Automating settlement activities (including authorisation, matching and reconciliation) supports end-to-end straight-through processing and shorter, more predictable settlement cycles. Shorter settlement cycles were demonstrated across multiple use cases, regardless of whether cash settlement occurred on-chain (e.g. the CBA and Imperium Markets use cases) or via traditional fast payment rails such as the New Payments Platform (e.g. the Westpac use case). Compressing the window between trade execution and settlement can reduce counterparty risk, improve collateral efficiency by reducing the time assets remain encumbered and enable investors and issuers to have faster access to their funds. Where tokenised assets and money are on the same ledger, atomic settlement can further enhance the efficiency and resilience of the settlement process by completely compressing the gap between trade execution and settlement in an automated fashion, with exchange occurring instantly on a 24/7/365 basis rather than only during the operating hours of a traditional settlement system.[29] This makes assets and funds immediately available for reuse, and is how automated market makers (AMMs) or on-chain limit order books operate as decentralised exchanges on DLT systems – as demonstrated in the Zerocap use case.[30]
- **Automated lifecycle management.** The operation and administration of financial products and services across their lifecycles currently requires numerous manual tasks, and in some cases, complex interorganisational workflows. Tokenisation and smart contracts can provide a common foundation for automating this work. Examples for tokenised bonds include automated bond coupon calculation and payment, and digital bondholder voting. This has the potential to reduce servicing costs for issuers while increasing investor participation and strengthening governance over the life of the bond. These features were demonstrated in several use cases, including those led by ABE, Canvas and Forte Securities.
- **Automated compliance and market integrity.** Embedding KYC/AML and sanctions checks directly into token logic can enable real-time compliance enforcement, lowering compliance costs across trading and settlement, therefore reducing non-compliant activity and the potential for misconduct. Several use cases in Project Acacia explored this. For example, the Canvas use cases implemented controls to ensure transactions met eligibility requirements for compliance and for

29 See Chapter 5 for further detail on atomic settlement.

30 An AMM is a smart contract that facilitates trading of digital tokens via liquidity pools using algorithmic pricing. On-chain limit order books facilitate trading by matching buy and sell orders for digital tokens through a protocol or a smart-contract.

the rights to transfer assets. CBA's Intraday Repo use case explored how KYC and customer due diligence obligations could be codified using on-chain registries.

2. Transferability and fractionalisation

- **Streamlined asset transfers.** Increasing the transferability of assets can increase secondary market liquidity by removing friction. Representing asset ownership rights as tokens can reduce the legal, operational and settlement frictions associated with the transfer of these rights. This is particularly the case for digital native tokens where there is a sole record of ownership that can be updated instantaneously at the time of trade (and corresponding settlement) execution. Digital twin tokens can offer similar benefits where on- and off-chain ownership records are efficiently synchronised. Increased informational transparency over encumbrances on assets, combined with atomic settlement, might also increase secondary market liquidity by increasing the velocity with which assets can be exchanged. This could be particularly beneficial in markets where assets have historically seen limited turnover, including for private market assets and segments of the fixed-income market in Australia. Greater transparency over price discovery and liquidity across the yield curve could also increase the scope for issuers to opportunistically tap markets for funding when conditions are most advantageous. The related Imperium Markets use case demonstrated how tokenisation can foster increased liquidity and more competitive pricing dynamics in the negotiable certificates of deposit market.
- **Broader investor participation from smaller minimum investment sizes.** Tokenisation can be used to facilitate fractionalisation, where tokenised real-world assets are divided into smaller tradeable units that can trade 24/7, allowing for smaller minimum investment sizes that might appeal to a broader range of investors. This may be particularly advantageous for historically illiquid asset classes such as real estate, units in unlisted private equity and credit funds, and some commodities. Broader investor bases tend to contribute to better market depth. For issuers, reducing reliance on a small number of institutional investors could lower their concentration risk and cost of funding. The fractionalisation involved in the ProspEx Mining Royalty Interests and ANZ Trade Payable use cases illustrated how tokenisation could help expand access to new types of investors.

3. Transparency and immutability

- **A single, shared source of truth for multiple assets.** DLT systems can record ownership and transaction histories for multiple assets and payment instruments. This can reduce the cost of reconciliation across multiple separate systems, although reconciliation may still be required between digital twin tokens with off-chain counterparts. DLT systems that provide an integrated single ledger view of multiple assets can facilitate asset composition, collateralisation, and provide a simpler technical basis for issuance of new types of assets that are linked to existing assets on the same ledger. The composition of assets and collateral was explored in the NotCentralised use case, and is covered in more detail in Box C.
- **Timely, verifiable information for investors.** A rich set of timely information relating to tokenised assets can be directly visible to investors on a DLT network. This was demonstrated in the use cases of Imperium Markets, Canvas and AP+, where tokenisation enabled a single, authoritative on-chain record of the asset, improving visibility for investors in relation to ownership, transaction history and asset status. As participants in the Northern Trust tokenised Carbon Credit use case noted, increased transparency and real-time information symmetry could support market integrity and investors' ability to make informed investment decisions including over risk management. This may be particularly relevant for greenfield asset markets, including nature-based assets, and other private markets where informational asymmetries are most acute.

- **Immutable on-chain transaction histories.** On-chain activity can facilitate continuous compliance monitoring, tamper-resistant records and independent auditability in a manner that may be more difficult to achieve with traditional infrastructure. Immutable event histories allow for independent reconstruction and review, which could enable new ways for regulators to monitor market abuse or other risks such as AML/CTF or sanctions evasion.

4. Decentralised ecosystems

- **Increased resilience by avoiding single points of operational failure.** Decentralised networks have the potential to reduce the operational risks stemming from a dominant single system or operator. However, reaping the resilience benefits from decentralised networks requires them to be securely configured and operated. A range of public and private networks were used by participants in Project Acacia. In the case of public networks, the degree of decentralisation varied: Ethereum (used by ProspEx and Forte) has thousands of nodes and XRP Ledger (used by Zerocap) has hundreds while Hedera (Imperium Markets and AP+) and Redbelly (used by ABE, Macropod, Fireblocks and NotCentralised) were less decentralised. The private chains (ANZ, Canvas, HashSphere) utilised a few nodes for redundancy, but some private chains (ANZ, Canvas) also used public blockchains (Ethereum) to record auditable attestations about the integrity of the private ledger.

- **Decentralised control.** DLT networks often have multiple operators with shared responsibility for the operation and integrity of an underlying ledger. Compared to a conventional centralised system, this can reduce users' dependence on the actions of any single entity. Governing rules that are embedded directly into individual assets or transactions (e.g. via the use of smart contracts or consensus mechanisms) can be enforced by the network or ledger infrastructure, reducing the discretion of any single FMI or financial service provider. At the same time, it can obscure accountabilities, slow down crisis response (where consensus is required for remediation), and increase the risk that inappropriate actors interfere with the integrity of transaction authorisation. For FMIs operating critical infrastructure, the design of rules governing the eligibility of operators and mechanisms by which consensus is formed (including incentives) is essential to supporting confidence in the reliability, availability, integrity, and fairness of transaction processing.

5. Direct control of tokenised assets

- **Only the owner or someone acting with their authorisation can use or transfer a token.** Cryptographic signatures from asset owners or custodians are checked by the ledger system to ensure that all token transactions are authorised, and these signatures cannot be faked. In combination with fair transaction processing by ledger operators, this enables asset owners and custodians to manage assets directly, and define their own delegated access controls. This is unlike traditional ledgers, where ledger operators control record creation and updates. Across the use cases, the pilot wCBDC was directly controlled by transacting parties and the RBA. This meant only the transacting party and the RBA were able to control updates to wCBDC ownership, not the third-party platform operators (see Box F for more details about the controls the RBA retained). Both the Imperium Markets and NotCentralised use cases relied on holders delegating control of their tokens to multiple independent parties. Other use cases, such as the ProspEx Mining Royalty Interests use case, managed tokens on behalf of investors but indicated they wanted to offer investors the option to directly control assets in future.

Box B: DFCRC estimates of the economic gains from asset tokenisation

Estimates of the economic gains from tokenisation are still emerging, and only a few studies have attempted to quantify them. However, the studies that do exist suggest the net benefits could be substantial in a fully tokenised ecosystem. For Australia specifically, research by the DFCRC estimates that the adoption of tokenisation could deliver approximately A$24 billion per annum in economic gains across three broad channels: 'better markets' (A$10 billion per annum), 'better payments' (A$8 billion per annum), and 'better assets' (A$6 billion per annum).[31] These estimates do not include potential downstream economic benefits such as a lower cost of capital for issuers, which might stimulate higher levels of investment and add further to economic benefits. However, on the current trajectory, under which only 4 per cent of real-world assets are expected to be tokenised by 2030, the DFCRC estimates that the economic impact would only be around A$1 billion per annum of the A$24 billion potential in Australia.

Of the channels of potential benefits cited by the DFCRC, 'better markets' and 'better assets' are most relevant to Project Acacia.[32] 'Better assets' refers to improvements in the functionality of real-world assets when issued or represented in tokenised form.

Potential benefits in markets arise from both pre-trade and post-trade processes:

- In pre-trade, new market designs can improve market liquidity through lower transaction and intermediation costs, enhanced access to markets, and more effective price discovery.
- In post-trade, the largest benefits may stem not from tokenisation per se, but from new DFMIs that could emerge to support tokenisation. New DFMIs enable real-time atomic settlement, reduce counterparty risk, unlock capital currently trapped in settlement cycles, and eliminate costly reconciliation and settlement failures.[33]

The size of the potential benefits varies by market. The DFCRC's work shows that asset classes with relatively inefficient market structures and large volume stand to generate the largest benefits from tokenisation. These include fixed-income markets and investment funds, both key asset classes explored in Project Acacia. The DFCRC estimated that the potential economic gains in fixed-income markets amount to A$2 billion per annum, driven by more efficient post-trade processing and asset servicing, improved collateral utilisation and reduced costs associated with mitigating settlement failures.

Market Readiness for Tokenisation and Barriers to Adoption

Despite the considerable industry interest in exploring tokenised asset markets under Project Acacia, the experience during the project revealed three main challenges that will likely need to be addressed for tokenised asset markets in Australia to develop at scale:

31 DFCRC (2026), 'Unlocking Australia's $24b Digital Finance Opportunity: The Economic Impact Potential of Digital Finance Innovation in Australia Report', 3 March.

32 While better payments account for a significant share of the potential economic impact of digital finance innovation, much of this value is driven by cross-border payments, which have not been the focus of Project Acacia.

33 A classification of DFMIs is provided in Gmeiner F, TJ Putniņš and D Weiss (2026), 'Digital Financial Market Infrastructures', DFCRC and University of Technology Sydney Research Paper.

- **Conducive legal and regulatory environment.** Some participants in the project raised legal and regulatory issues that they assessed as requiring clarification or modernising prior to undertaking further significant investment. This recognises that tokenisation, smart contracts and atomic settlement can give rise to issues that were not envisaged when current frameworks for issuance, trading, clearing, and settlement were established (see Chapter 6). The different nature of some post-trade processes in a tokenised environment is perhaps the most prominent example.
- **Need for more open and enduring coordination mechanisms to promote responsible innovation.** While participants had welcomed the opportunity to engage with regulators and industry counterparts in initiatives like Project Acacia, some noted the limitations with today's innovation sandbox arrangements (that sit outside Project Acacia) and pointed to reticence to invest in further research projects without more enduring coordination mechanisms (across private and public sectors) and more dedicated pathways to support the transition from ideation to commercialisation. Ongoing coordination across industry, and between industry, regulators and Government, will be particularly critical to enhancing the functioning of wholesale markets as many key issues transcend the responsibilities of any single institution. At the industry level, some participants queried whether large incumbents had an incentive to actively engage on tokenisation and other innovations in financial markets, including tokenised money, if they were perceived to have the potential to disrupt existing business models. This assessment extended beyond infrastructure provision to include institutions that dominate existing forms of payment activity and market-making businesses (particularly in fixed income) that benefited from less rather than more price transparency. Network effects inevitably mean that large incumbents are likely to have a key role in catalysing further innovation in tokenised assets and money in Australia. Industry participants also emphasised that the innovation ecosystem in wholesale markets would benefit from inter-agency forums that facilitated broader engagement (such as those the DFCRC had supported), including among institutions that were not able to participate in Project Acacia.

  On engagement between industry and the public sector, many participants in Project Acacia's IAG noted the benefits of having all regulators and Treasury 'in the same room' to address a broad range of issues – technical, regulatory and commercial. This included strategic level discussions relevant to the wider innovation ecosystem. It also afforded public sector agencies an opportunity to hear a diverse set of perspectives, as many participants approached these issues from different vantage points. However, it was recognised that after Project Acacia, more enduring mechanisms for industry-official sector engagement were needed given the range of issues still to be resolved and that would require engagement with large incumbents and newer 'disruptors' alike. Singapore's Project Guardian, Hong Kong's Project Ensemble, and the UK's digital securities sandbox and digital gilt project, were cited as international examples of industry and the public sector working in a collaborative, coordinated manner that could, like Project Acacia, inform how future engagement mechanisms could work.[34]
- **Delivering effective interoperability in a tokenised ecosystem.** A key learning of Project Acacia was that a future tokenised ecosystem will most likely consist of a range of traditional and DLT networks and other infrastructure enhancements. Regulators and industry expressed a strong commitment to forestalling the emergence of 'walled gardens'. Use cases confirmed that the evolution of tokenised finance in Australia will involve more than one DLT network. To operate efficiently, interoperability solutions linking new and traditional infrastructures will be critical, and common standards (e.g. for platform operators) will be needed to support the safe growth of

34 See Monetary Authority of Singapore, (2025), 'Project Guardian', Website; Hong Kong Monetary Authority (n.d.), 'Central Bank Digital Currency (CBDC)'; BoE (n.d.), 'Digital Securities Sandbox (DSS)', Website; and UK Government (2026), 'Update on the Procurement for Digital Gilt Instrument (DIGIT) Pilot', News Story, 12 February.

tokenised asset markets in Australia. It is possible that each network will need to support multiple asset and payment tokens and interoperate with other networks, traditional payment rails and infrastructures, and a broad set of users. As noted elsewhere in this report, some use cases demonstrated interoperability between DLT platforms or between a DLT platform and traditional settlement infrastructure via the use of a 'synchronisation operator'; these included the Northern Trust Carbon Credits use case and the Westpac Term Deposit use case (see Chapter 5 for more details). The application of synchronisation mechanisms between new and existing asset platforms and settlement infrastructures is also attracting close attention among industry and policy makers in other jurisdictions such as the United Kingdom and Europe.[35]

35 For example, the BoE's Synchronisation Lab and the ECB's Project Pontes.

5. Forms of Money to Facilitate Tokenised Wholesale Markets

Project Acacia examined how different forms of private and public money could facilitate more efficient and safer settlement practices in wholesale tokenised asset markets. This enabled exploration of the complementary and mutually supporting roles of public and private money and how a two-tier monetary system could be maintained in a tokenised ecosystem.

In a two-tier monetary system, private money is used for most transactions but carries credit risk. Electronic central bank money (which in Australia currently exists in the form of ESA balances) provides for a risk-free asset to settle obligations between financial institutions. The guaranteed ability to convert private money into central bank money at par preserves the 'singleness of money' and underpins trust in private money. History has shown these to be foundational features for money to best serve the needs of the economy.[36]

The results of Project Acacia showed how tokenised private money, in the form of stablecoins and bank deposit tokens, could co-exist with traditional and tokenised forms of central bank money to support the growth of tokenised wholesale asset markets in a manner that is consistent with financial stability. This chapter sets out the basis for this finding, including the benefits and challenges associated with integrating new forms of money in enhanced settlement arrangements.

Key findings – Forms of money

- ***Tokenised forms of money could help to maximise the benefits of asset tokenisation.*** Tokenised money can perform functions not currently possible with existing representations of money, including by facilitating instantaneous atomic (conditional) settlement and supporting programmability and composability in tokenised asset transactions. These functions have the potential to reduce settlement and operational risk while supporting new forms of market-based activity.
- ***The project demonstrated industry interest in the role that tokenised private money, such as stablecoins and deposit tokens, could play in the settlement of tokenised asset transactions.*** Stablecoin issuance in Australia is small but growing, and proposed licensing reforms aimed at creating a new prudential regulatory regime could support further issuance. However, there are several features of bank deposit tokens that may make them more suitable for supporting the settlement of high transaction volumes. The DTWG identified a range of legal and regulatory issues relevant to the potential design and issuance of bank deposit tokens in Australia. Expanding this group after Project Acacia, and broadening its focus to interoperability and other issues, could help in addressing common challenges across the banking industry.

36 For a discussion on the singleness of money, see, for example, Committee on Payment and Settlement Systems (2003), 'The role of central bank money in payment systems', August.

- ***The co-existence of private tokenised money issued by different issuers will require safe and efficient interchange mechanisms to facilitate seamless conversion between them, at par.*** Several token interchange models were explored in the project. It was shown that these arrangements would be an important element of the infrastructure in supporting tokenised asset settlement.
- ***As the ultimate form of safe money, central bank money is likely to continue to play an important role in the settlement of wholesale tokenised assets, particularly if these markets became systemically important.*** The project showed how wCBDC, as a form of tokenised central bank money, could perform the role of a safe on-chain settlement asset. There was also strong interest from industry in the role that central bank money, in tokenised or existing forms, could play as a safe backing asset for private forms of tokenised money, such as stablecoins, and to support safe and efficient interchange between different forms of tokenised private money. These features could support trust and the singleness of money in the next generation of the two-tier monetary system comprising private and public money.
- ***Further work to explore the benefits and challenges of wCBDC for wholesale tokenised asset settlement is warranted. In the meantime, existing central bank money, in the form of ESA balances, could support tokenised settlement in a number of ways.*** While ESA balances may lack some of the capabilities of a tokenised form of central bank money (such as enabling true atomic settlement and the programmability and composability offered by smart contracts and DLT), use cases demonstrated how ESAs could nonetheless be used to support the direct settlement of tokenised asset transactions, as well as the interchange and backing of tokenised forms of private money. Mechanisms that synchronise DLT-based asset and/or money ledgers with ESA accounts are one way to leverage existing central bank account infrastructure as an alternative or complement to any possible issuance of wCBDC.

How Tokenised Money Could Support Tokenised Asset Markets

The project use cases demonstrated several ways in which tokenised money, particularly when located on the same platform as tokenised assets, can help realise the benefits of tokenisation in wholesale asset markets:

- **Atomic settlement.** Co-locating assets and money on the same platform enables atomic settlement of a transaction – where the exchange of assets and money occurs simultaneously, irreversibly and within a single system, such that it is technologically infeasible for one leg of the transaction to settle while the other fails.[37] This can extend to the entire end-to-end settlement process, unlike traditional settlement mechanisms where interbank settlement typically occurs on a DvP basis, but posting to end-user accounts happens separately and outside of the DvP workflow. Settlement on DLT platforms can also occur on a 24/7/365 basis rather than being limited by the operating hours of some traditional settlement systems. However, a key question is whether these efficiency benefits are partly offset by the need to pre-fund trades across multiple platforms, particularly if they are not interoperable.

37 It should be noted that the term 'atomic settlement' is sometimes used to refer to instantaneous settlement in DvP and payment-versus-payment (PvP) contexts. The focus in this report is on a mechanism that can eliminate the possibility of partial settlement.

- **Programmability and composability.** Project Acacia showed how tokenised money could unlock efficiency benefits from programmability and composability via end-to-end automation of processes through smart contracts. Project participants noted that the ability to program workflows involving tokenised money via smart contracts could, for example, reduce operational complexity and manual errors through automated reconciliations and disbursements. State-contingent settlement instructions were examined with tokenised money, including in the ProspEx use case, which showed how mining royalty token settlements could be programmed to proceed conditional on subscription thresholds being met. More complex scenarios, involving multiple transaction legs, multiple assets and/or multiple counterparties, could also be composed to settle simultaneously, and on an all-or-nothing basis. Such scenarios would be difficult to achieve using traditional settlement processes because they would require a complex orchestration across multiple parties and systems. Box C discusses some examples of composability demonstrated in Project Acacia use cases.
- **Resilience.** Some participants explored the operational resilience benefits of co-locating tokenised assets and money. By integrating settlement, asset transfer and reconciliation functions on a single platform, opportunities to enforce consistent security protocols and minimise vulnerabilities that typically arise from cross-platform interactions were identified. However, co-location of money and assets also changes the location of points of failure, and it is an open question whether this changes the likelihood or impact of potential failures within an ecosystem. Beyond security, combining money and assets on platforms could reduce operational risk by simplifying troubleshooting, system upgrades, testing, validation, and ongoing monitoring; however, these benefits would have to be weighed against issues like creating single points of failure and the possibility that new anti-competitive 'walled gardens' emerge.

The Project Acacia use cases generally focused on scenarios where tokenised assets and money could exist on the same platform. However, the platforms chosen varied across use cases and it was recognised that, in practice, multiple tokenised asset and money platforms are likely to coexist in the future. To capture the benefits of co-location, one possibility is that asset and money issuers agree to issue their tokens on multiple platforms. For example, in Project Acacia the RBA issued pilot wCBDC on multiple third-party asset platforms to support the experimentation preferences of different asset issuers.

Platform interoperability was highlighted as critical in forestalling the fragmentation of liquidity. Interoperability solutions that allow different networks to communicate and settle obligations across systems — while preserving finality, security and compliance requirements — will need to emerge. One approach involved the use of cross-platform bridges. Bridges can be implemented in several ways – for example, by locking assets or funds on their native platforms and issuing corresponding digital representations on a shared platform, or by burning the tokens on the original platform and re-issuing them on the common platform. The former method was explored in the AP+ Token Interchange use case to enable interchange across private money issued on different platforms. Common standards and frameworks across platforms would assist in making bridging seamless. However, the bridging model also introduces risk, with additional integration points creating more potential attack surfaces, increasing cyber and operational risks. Careful consideration would need to be given to how operational resilience and cyber security can be maximised in these new infrastructures.

Box C: Composability

Composability is the ability to take existing financial products and services, such as money, payments, or interests in assets, and combine them to create new, integrated and more complex products and services. In traditional financial systems, composability is usually achieved by using workflows to coordinate actions provided by different institutions and systems. The workflows are often complex and can require expensive manual coordination, reconciliation, and corrective steps, because each institution's actions can fail in different ways, at different times, and for reasons that can be outside the visibility and control of other institutions.

However, if all the required actions can be performed on a single platform, they can be composed as a single all-or-nothing operation. This 'atomic composition' relies on technological guarantees from the system, rather than institutional guarantees about each of the financial actions. Because partial failures cannot occur in atomic composition, complex reconciliation processes and manual corrective actions may be significantly reduced.

A common example of composability is atomic settlement that combines a payment action with an asset transfer action, to settle the transaction as a single indivisible action. In traditional markets, the settlement of an asset transaction typically involves multiple discrete steps to achieve DvP settlement. For example, settling a transaction for a fixed-income security held in a financial market infrastructure (FMI) could require the following actions (Figure 2):

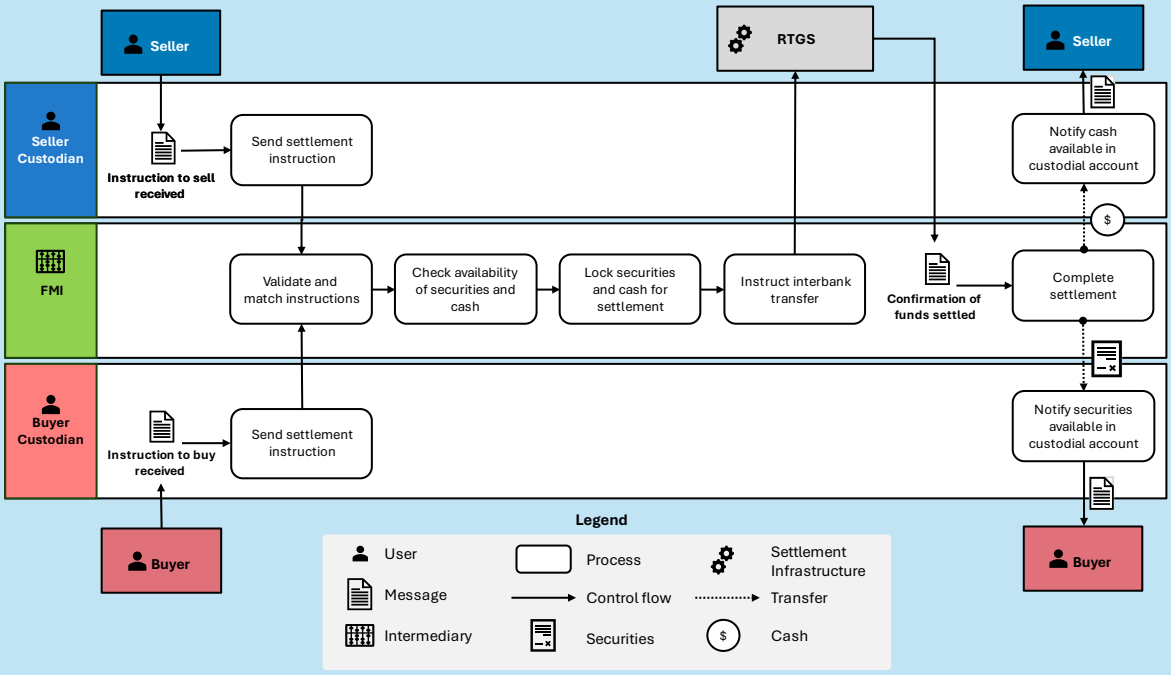
- The buyer and seller inform their respective custodian banks that they wish to trade. Once the trade is executed, the buyer's and seller's custodian banks submit settlement instructions to the FMI, on behalf of their respective clients.
- The FMI validates and matches the settlement instructions, confirming that the trade details are identical and eligible for settlement.
- On the settlement date, the FMI checks that the seller has sufficient securities available in its securities account at the FMI and that the buyer has sufficient cash available in the relevant cash or settlement account linked to the FMI. If both are available, the FMI places temporary settlement holds (locks) on the securities and the cash, making them unavailable for other transactions.
- The FMI initiates settlement and instructs the central bank interbank settlement system to transfer the cash in central bank money from the buyer's bank to the seller's bank. The central bank real-time gross settlement (RTGS) system completes interbank settlement and sends the FMI confirmation of completion.
- Once the FMI has received confirmation of settlement from the interbank settlement system, it transfers the securities from the seller's to the buyer's securities account and moves the cash from the buyer's to the seller's cash account.
- The buyer's and seller's custodian banks reflect the movement of cash and securities in their internal client accounts.

This workflow involves multiple intermediaries and systems, and several distinct steps. Even though many of these steps may be automated in an FMI, their sequential nature introduces the possibility of error or failure, which may trigger the need for corrective or manual intervention.

By contrast, in a tokenised environment where both the asset and money are represented on the same platform, these processes can be composed and executed as a single atomic settlement transaction

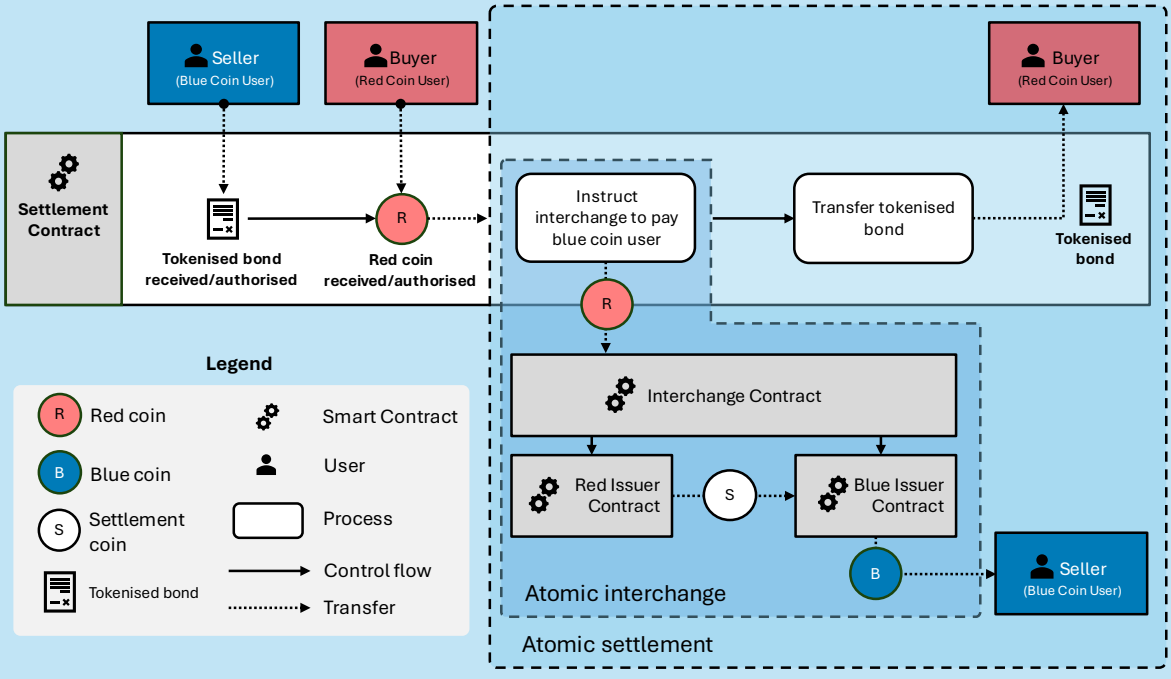
through a trusted smart contract that orchestrates atomic settlement (Figure 3). Unlike the traditional settlement process, in which DvP is achieved through a series of linked but separate steps, atomic settlement ensures that both legs of the transaction complete simultaneously on an all-or-nothing basis. Furthermore, where the buyer and seller use different forms of tokenised money, interchange between them can occur concurrently and within the same atomic settlement transaction, coordinated by the same smart contract (see the section on 'Interoperability of Different Forms of Private Money' below for further discussion of interchange mechanisms). Composing otherwise separate processes into a single atomic transaction in this way has the potential to reduce operational complexity and settlement risk, while also enabling improved traceability and independent verification.

Figure 2: DvP Settlement of a Fixed-income Security with an FMI



Source: RBA.

Figure 3: Composed Atomic Settlement in a Tokenised Environment



Source: RBA.

Many of the Project Acacia use cases demonstrated atomic settlement in a tokenised environment with the asset and the money in tokenised form. The Fireblocks and ANZ use cases also showcased simultaneous atomic interchange of private tokenised money. Other examples of composability included:

- **Collateralised loans.** The NotCentralised use case demonstrated on-chain composability of a collateralised loan. In traditional finance, the lender records the loan in its loan system, and the collateral in its collateral management system. When the customer repays the loan (in full) the following steps occur sequentially:
    - The customer makes a loan payment (e.g. via direct debit or account transfer). The payments processing system posts repayment to the loan system.
    - The loan system closes the loan.
    - The collateral management system then returns collateral to the customer.

  In the NotCentralised use case, all these steps were completed on a single platform, using separate tokens representing the loan, collateral, and the payment instrument (tokenised money). By leveraging the tokens, the loan repayment, loan discharge and collateral release functions were composed into a single atomic transaction. As a result, collateral could be released instantly and made immediately available for reuse, eliminating the sort of lengthy delays that are commonplace currently.
- **Coupon payments.** Canvas explored the creation of tokenised bonds, with units recorded on-chain for unit holders, composed with functions provided by a money token. For coupon payments, Canvas examined calculation and distribution on-chain, governed by the bond token (with the coupon paid in the money token). With the tokenised bond and tokenised money on the same ledger, the coupon payments could be executed as a single atomic transaction.

Tokenised Private Money

Project Acacia demonstrated industry interest in use cases involving (fiat-denominated) stablecoins and bank deposit tokens to achieve atomic on-chain settlement of tokenised asset transactions.

Stablecoins

Stablecoins were the predominant form of tokenised private money explored in Project Acacia. Stablecoins are private tokens that are intended to maintain a stable value relative to a specified asset, such as a fiat currency. Stability is often supported through 1:1 backing by assets denominated in the reference currency. Several use cases experimented with stablecoins that are currently in circulation (AUDM, AUDF, AUDD or RLUSD) and with those created or simulated for the project.

Stablecoins can be issued by banks or non-bank entities, and their ability to be used on public platforms makes them readily accessible to a wide customer base. Project Acacia highlighted a range of considerations relevant to the adoption and scaling of stablecoins as a settlement asset in tokenised wholesale asset markets:

- **Regulatory and prudential frameworks are still evolving.** Stablecoins currently operate within existing financial services and payments laws that were not designed with tokenised forms of money in mind. To provide certainty for issuers and prospective users, the Australian Government is progressing the introduction of a dedicated regulatory regime for stablecoins to provide a comprehensive framework covering issuance standards, reserve management and redemption arrangements. The prudential treatment of stablecoin holdings by banks is also evolving and could be relevant to their potential use in wholesale tokenised settlement.
- **Credit risk.** Although stablecoins are designed to maintain a constant value against the reference fiat currency, the stability ultimately depends on the issuer's ability to maintain adequate high-quality liquid reserves and honour redemption requests on demand. This reliance introduces credit risk, particularly if reserves are not sufficiently liquid or if the issuer is not subject to sufficient regulatory oversight. The credit risk inherent in stablecoins could undermine how widely they are used in the settlement of wholesale market transactions where safety is paramount.
- **Lack of remuneration.** Several participants observed that holding stablecoins for wholesale settlement purposes would be more attractive if these instruments provided returns commensurate with those available on commercial bank deposits or ESA balances. However, many jurisdictions restrict the payment of interest or other remuneration on stablecoin holdings, and similar restrictions are likely to apply under Australia's proposed regulatory regime for stablecoins.[38] This could create a disincentive for institutions to hold large balances of stablecoins.

Some industry participants indicated greater comfort with using stablecoins as a settlement asset for wholesale transactions if they were partly or wholly backed by central bank money. This approach was explored in the Imperium Markets pilot use cases, where the stablecoin used for settlement was issued by Cuscal (an ADI) and was fully backed by Cuscal's holdings of pilot wCBDC.[39] Similarly, the NotCentralised proof-of-concept use case demonstrated a payment token fully backed by pilot wCBDC. Forte also explored an arrangement in which its AUDF stablecoin would be partly backed by central bank reserves (in the form of ESA balances) held by its banker.

Tokenised forms of bank deposits

Tokenised forms of bank deposits can leverage the trust, regulatory oversight and protections associated with traditional deposits. This could make them more appealing than stablecoins for supporting settlement in wholesale asset markets, depending on the ultimate regulation and features of stablecoins (including their asset-backing requirements). Internationally, there is increasing interest from large global banks in issuing their own deposit tokens (digitally native deposits) or tokenised deposits (digital twins of account-based deposits). To date, these have not been used for interbank payments but have been used to streamline cross-border payments and liquidity management for the banks' own customers.

As part of Project Acacia, CBA completed a proof-of-concept use case that explored the use of a CBA-issued deposit token to settle client trades in the repo market. ANZ similarly experimented with a proof-of-concept token (which, depending on its structuring, could be either a deposit token or a stablecoin). The DTWG examined two potential high-level design structures for deposit tokens, alongside their legal and regulatory implications. The legal advice obtained by the DTWG found that deposit tokens may be compatible with existing legal and regulatory frameworks in Australia, though further clarification of

38 These restrictions are designed to preserve the treatment of stablecoins as payment instruments and to prevent them from operating as de-facto bank deposits without being subject to the same level of prudential regulation as banks, or as money market funds or other debt instruments which have different additional regulatory obligations under the *Corporations Act 2001*.

39 Even where a stablecoin was backed by central bank money, this does not equate to backing by the central bank. A stablecoin is issued by a private-sector entity and would therefore remain exposed to the risk of that entity in some way.

treatment was needed in some areas (see Chapter 6). The DTWG also commenced work on issues related to interbank settlement of deposit tokens; this also remains an area requiring further investigation. Establishing a mechanism that allows for deposit tokens to be used in payments between customers of different banks will require coordinated effort across the industry on standards, rules and interbank settlement arrangements. Continuing the DTWG's work beyond the conclusion of the project would help progress these issues. The work and findings of the DTWG during Project Acacia are detailed further in Box D.

Box D: Deposit Token Working Group

As part of Project Acacia, the DFCRC and a number of the commercial banks involved in the project formed a working group to explore legal and regulatory considerations associated with interoperable deposit tokens.

Participating banks noted that further clarity with respect to the legal characterisation and regulatory treatment of deposit tokens would be a key enabler to the development and growth of deposit tokens in Australia. Accordingly, the DTWG prioritised a systematic analysis of the extent to which current legal and regulatory frameworks in Australia could support the design and deployment of deposit tokens by ADIs. A legal firm was commissioned by the DTWG to provide legal analysis on these issues.

The analysis was framed around two hypothetical models of digitally native deposit tokens. In both models, each ADI would issue its own deposit tokens to its customers, subject to industry operational and technical standards designed to support the interoperability of deposit tokens of different ADIs (i.e. to enable customers of different ADIs to use deposit tokens to make payments to each other). The key point of difference between the models related to the transferability of deposit tokens between customers of different ADIs:

- **Model 1: A core model that is closer to how payments occur today between customers of two different ADIs.** A deposit token would not be transferable to a payee who was not a customer of the issuing ADI. Instead, the instruction to pay using a deposit token would trigger an interbank payment by the payer's ADI to the payee's ADI, and the corresponding destruction of the payer ADI's deposit tokens and issuance of new deposit tokens by the payee's ADI to the payee.
- **Model 2: A 'stretch' model that is novel and partly resembles the way that stablecoins are used for payments.** Deposit tokens would be transferable or assignable between customers of ADIs that are participants in a central platform or coordinated system. Under this model, the payee would be able to receive a deposit token from the payer's ADI as payment and interact with the token in a wallet provided by their own ADI.

Key findings

The legal analysis obtained by the DTWG found that a deposit liability could be tokenised, and that, under either model, the underlying arrangement giving rise to a claim on an ADI could most likely continue to be characterised as a deposit product under existing Australian law. Model 1 appears to be consistent with existing commercial bank deposit arrangements and is likely to be more feasible as a near-term solution. Model 2's assignability feature could create legal and regulatory challenges because it manifests a bank's liability as a transferable bearer instrument, with similar features to some existing non-bank issued stablecoins.

The legal analysis identified a few areas where policy changes might be considered so that existing legal and regulatory constructs for deposits would apply for deposit tokens:

- clarification that issuance of deposit tokens falls within the scope of 'banking business' in the *Banking Act 1959*
- the Government including deposit tokens as 'covered financial products' under the Banking Act, which would ensure they are covered under the Financial Claims Scheme, an Australian Government-backed safety net for deposits
- exempting a platform for deposit tokens from being a 'financial product' under the *Corporations Act 2001* (consistent with existing policy for payment systems, financial markets and clearing and settlement facilities)
- prescribing deposit tokens as not being 'virtual assets' for the purposes of the AML/CTF Act.

Accordingly, if banks did decide to pursue either (or both) of the proposed models for deposit tokens in the future, engagement with relevant regulators would be required.

The DTWG also identified several other legal and regulatory issues that would need to be considered for a platform to be developed to enable deposit token payments between customers of participating banks. These issues include scams prevention, treatment of unclaimed monies, sanctions and customer disclosures.

Interbank settlement arrangements

The DTWG also considered, at a high-level, the interbank settlement arrangements that might support payments using deposit tokens between customers of different ADIs. Two of the ADI participants in Project Acacia (CBA and ANZ) independently experimented with interchange involving commercial bank-issued tokens. Two non-bank use cases (AP+ and Fireblocks) also demonstrated proposed solutions for interbank settlement between the issuers of different forms of privately issued tokenised money, including deposit tokens (see the section on 'Interoperability Between Different Forms of Private Money' below).

Interoperability Between Different Forms of Private Money

Interchange between different forms of tokenised private money

Project use cases explored different ways for tokenised private money to play a role in tokenised asset settlement. In several use cases, the same form of tokenised private money was accepted (and able to be held) by both the buyer and seller (payer and receiver) in a tokenised asset transaction, meaning there was no need for token interchange to complete settlement. For example, Macropod and Forte envisaged that all parties in their respective use cases were willing to hold their respective stablecoins. CBA demonstrated a scenario where the buyer's bank and the seller's bank have in place a bilateral agreement to accept each other's deposit tokens.

However, given the credit and liquidity risks associated with privately issued forms of money, the seller in a tokenised asset transaction may not wish to receive payment in the form of private money used by the buyer. In order to support the singleness of money, the co-existence of multiple forms of tokenised private money requires safe and efficient interchange mechanisms to facilitate seamless conversion between them at par. In the current monetary system, ESAs fulfil this important role: one reason why a payment between customers of two different banks occurs seamlessly for customers is that there is a corresponding transfer between the banks' settlement accounts held at the RBA that enables the payee's bank to credit the payee's account with the relevant amount.

The Project Acacia consultation paper outlined several potential models for achieving interchange between a buyer's and a seller's preferred private money tokens.[40] The use cases showcased interchange mechanisms closely aligned with Model E in the consultation paper, with pilot wCBDC essentially playing the role that ESA balances do in our current system. The Fireblocks, ANZ and CBA use cases demonstrated different ways in which a smart contract could use wCBDC to extinguish obligations between the buyer's and seller's banks. In the ANZ and Fireblocks use cases, the smart contract swapped the buyer's token for pilot wCBDC; the pilot wCBDC was then transferred to the seller's bank and swapped for money tokens issued by the seller's bank. CBA demonstrated a similar scenario, but where one party to a repo transaction held wCBDC instead of privately issued tokens.

The AP+ use case provided another variant, with the payment between the two issuers of the private money tokens occurring via a 'white coin' used to represent wCBDC, rather than the wCBDC itself, as wCBDC was issued on a different platform to the private money (see the section on 'Central Bank Money' below). Participants also noted that, in practice, issuers of tokenised private money are likely to operate across a range of different DLT platforms. As with interoperability between asset and money platforms, further work will be required to explore and design effective solutions for token interchange across diverse platforms. As noted earlier, the AP+ Token Interchange use case explored one possible solution for bridging across different private money platforms.

The use cases demonstrated that interchange mechanisms can either use just-in-time minting and burning of private money tokens and/or wCBDC, or an exchange of pre-funded tokens. It was noted that just-in-time models may be more readily scalable. The use cases also demonstrated that the different ways in which token interchange can be orchestrated has implications for whether the interchange model can be used only bilaterally or more widely as a multilateral solution (see Box E).

Conversion between tokenised private money and traditional commercial bank accounts

Whereas tokenised private money may be used to facilitate the settlement of tokenised asset transactions, traditional commercial bank accounts remain the dominant basis for payments in the broader economy. For example, while the ProspEx Mining Royalty Interests use case used a stablecoin as the settlement asset, it was envisaged that mining companies would prefer not to receive the proceeds from a capital raising in stablecoins and that a process for converting the stablecoin into traditional bank deposits was therefore required. This is just one example of why robust and efficient on- and off-ramp facilities between stablecoins and commercial bank accounts are required to support effective interoperability between private money tokens (particularly stablecoins) and traditional commercial bank accounts.

Conversion between private money tokens and commercial bank accounts was explored in several use cases. A notable example was the AP+ NPP-Token Integration proof of concept, which examined how the purchase of a stablecoin or deposit token could be funded from a bank account and later redeemed back into a bank account using the 24/7, real-time settlement capability of the New Payments Platform (NPP).[41] The design involved two legs: commercial bank account payments via the NPP (settled through the RITS Fast Settlement Service); and token operations (minting, transfer, and burning, as required) on the tokenised platform.[42] A synchronisation coordinator (provided in this use case by SWIFT) was used to orchestrate the exchange on a payment-versus-payment basis, like the Model A approach outlined in the Project Acacia consultation paper.[43] Leveraging existing payments infrastructure such as the NPP

40 See Appendix B in RBA and DFCRC (2024), 'Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets', Consultation Paper, November.
41 The NPP is Australia's fast payments infrastructure. NPP payments settle individually and in real time across ESAs via the RITS Fast Settlement Service, operating continuously on a 24/7 basis.
42 RITS is Australia's interbank settlement system, operated by the RBA.
43 As described in Appendix B of RBA and DFCRC (2024), n 40.

could support broad industry participation, streamline operational and governance arrangements and lower the overall industry cost of implementation.

Box E: Operation of token interchange mechanisms

The Project Acacia use cases explored two broad models for interchanging private money tokens using wCBDC:

- **Bilateral model:** Token issuers establish one-to-one arrangements to interchange their tokens. This could be implemented with bilaterally agreed smart contracts that enable the exchange of the respective money tokens involved in a transaction with the corresponding wCBDC value transfer. While these bilateral models can be implemented relatively simply for defined token pairs and specific use cases, they are likely to be difficult to scale across many bilateral pairs and platforms. This is because each arrangement requires technical connectivity, operating processes, legal agreements, and each issuer's access to wCBDC, which when compiled across multiple bilateral relationships leads to significant complexity. For example, while one of the ANZ use cases explored a bilateral arrangement, it was noted that, outside the constraints of the project, a multilateral solution would be preferable.
- **Multilateral model:** Multiple token issuers connect to a common interchange utility with shared infrastructure and rules that support multi-party, multi-platform token interchange. This arrangement eliminates the need for each issuer to maintain multiple bilateral links, and standardises operational and governance arrangements, resulting in a more streamlined interchange environment. A multilateral model also has the potential to lower whole-of-industry costs over time, although it would likely require greater upfront implementation and ongoing coordination costs. The interchange utility could be provided by individual FMIs or asset market platforms, as demonstrated in the Fireblocks use case; however, if tokenised asset markets are located on a range of different platforms, multiple instances of these arrangements may be required. By contrast, the AP+ Token Interchange use case showcased a single industry-wide interchange utility, operated under an industry scheme with a common set of rules and operational arrangements. This model creates a simpler interchange environment. Scheme rules can also be designed to support public policy objectives, including competition, efficiency, resilience and governance.

Central Bank Money

Notwithstanding the growing interest in private tokenised forms of money, risk-free money issued by central banks will remain a cornerstone of trust and stability in the financial system of the future, including in systemically important markets. Project Acacia highlighted strong interest from participants in having central bank money and infrastructure underpin tokenised settlement, mirroring the benefits of today's two-tier monetary system. Project participants noted that attracting meaningful activity into wholesale tokenised asset markets would be challenging without access to a risk-free settlement asset. In this context, the project explored how tokenised central bank money in the form of a wCBDC, alongside more expansive use of existing ESA balances, could support settlement in wholesale tokenised asset markets.

How wCBDC could support tokenised wholesale asset markets

Project Acacia tested the issuance of pilot wCBDC across several third-party DLT platforms to support exploration of the benefits and challenges of issuing tokenised central bank money onto the same platforms that host private money tokens and/or tokenised assets. This was a relatively unique feature of the project that was designed to build upon prior research on CBDC, including the RBA and DFCRC's 2022–2023 CBDC Pilot Project which primarily focused on CBDC issued on a central-bank-controlled platform.

The role of wCBDC

The project use cases demonstrated how wCBDC issued on third-party platforms could serve as a secure settlement asset for tokenised transactions, back private money tokens, and facilitate interoperability between different forms of tokenised private money — thereby supporting financial stability and the singleness of money in a two-tier tokenised monetary system:

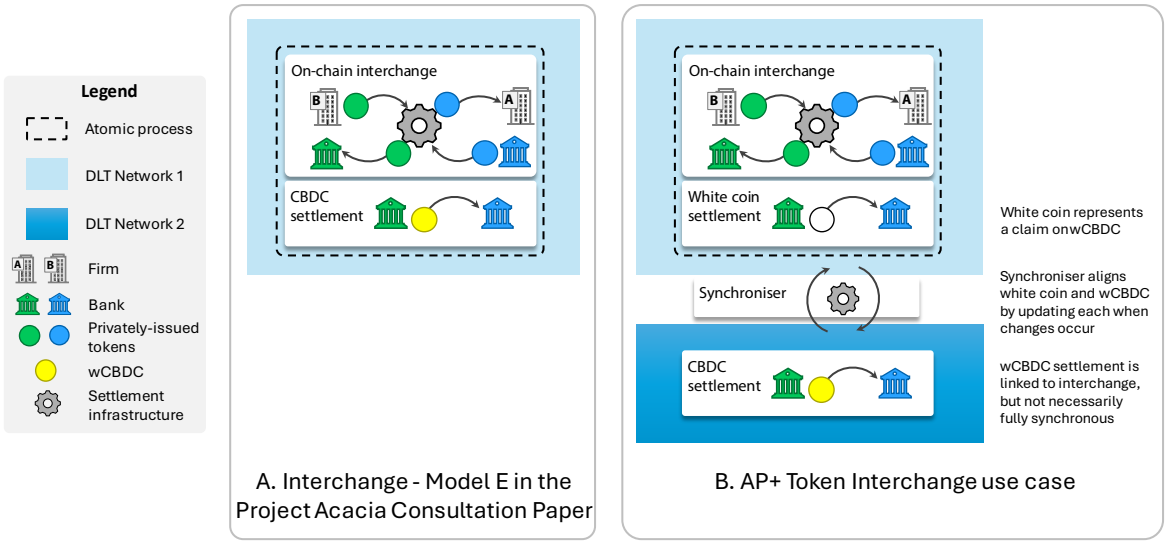
- **Asset settlement.** Several use cases explored the role of wCBDC in directly settling monetary obligations between counterparties in tokenised asset transactions, highlighting the benefits of risk-free central bank money being available in tokenised form on the same platform as tokenised assets. For example, the CBA use case demonstrated atomic settlement of a tokenised repo agreement between banks using wCBDC. This is similar to how banks use their ESAs currently. It also reflects the importance of settling transactions between large financial institutions in systemically important markets using central bank money, in line with the CPMI-IOSCO *Principles for Financial Market Infrastructures*.[44] Other use cases, led by ABE and Canvas, envisaged there being wider access to wCBDC as a settlement asset compared to ESAs today. For example, in the ABE use case, corporate and institutional clients involved in the use case held the pilot wCBDC directly, which was used for atomic settlement of asset transactions and payments between them.
- **Interchange between private money tokens.** Consistent with the existing two-tier monetary system, most use cases assumed that end-users would hold private forms of money rather than have direct access to wCBDC. As discussed earlier, most use cases that explored private money token interchange closely aligned with the consultation paper's Model E, where wCBDC and the private money tokens were issued on the same chain, meaning wCBDC could be used to facilitate interbank settlement between the different private money tokens. This provided a safe asset that could facilitate atomic settlement of different forms of private tokens at par, supporting the singleness of money.

  The AP+ Token Interchange use case explored a variation of the token interchange arrangement using 'white coins' to represent wCBDC. AP+ assumed that wCBDC would be issued on a private chain, separate from the public chain on which private money operates. In the use case, the 'white coins' were issued on the public chain to represent the wCBDC held by each private money issuer and used to facilitate interchange between the different forms of private money. A synchroniser kept the 'white coins' and actual wCBDC holdings aligned by updating each when changes occurred (see Figure 4).

44 See CPMI-IOSCO Principle 9: 'An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.'

- **Backing for tokenised private money.** Another way in which wCBDC was shown to support the singleness and safety of tokenised private money was by serving as a backing asset for stablecoins. As a form of central bank money, wCBDC would be inherently safer than private forms of backing assets, helping to maintain the price stability of private money and providing greater certainty that it can be redeemed at par.[45] Pilot wCBDC was used to back stablecoins in several of the Project Acacia use cases, including those led by Imperium Markets and NotCentralised.

Figure 4: Interchange using wCBDC



Sources: DFCRC; RBA.

Benefits and challenges of issuing wCBDC on third-party platforms

Use cases demonstrated some of the benefits and challenges of making a tokenised form of central bank money available on the same platforms as tokenised private money and tokenised assets.

Embedding wCBDC directly into smart contracts on DLT platforms enabled true end-to-end atomic settlement of tokenised asset transactions on-chain, underpinned by a risk-free settlement asset. Use cases also showed how wCBDC can extend the efficiency and risk-reduction benefits of programmability and composability associated with tokenised money to the parts of a transaction that require settlement in central bank money. With wCBDC available natively on-chain, the central bank money leg can be combined directly with other tokenised payment or settlement actions within a single smart-contract workflow. In the Fireblocks use case, for example, interchange of private money tokens using wCBDC was incorporated into the same atomic settlement process as the asset transaction, demonstrating how wCBDC can enable these components to be composed into one seamless operation rather than handled separately.

However, issuing wCBDC onto one or more third-party platforms also raises significant challenges. These primarily relate to how the central bank can appropriately manage the risks of issuing the wCBDC on external infrastructures, legal settlement finality, and liquidity fragmentation:

- **Risks associated with issuing on third-party platforms.** The project demonstrated that issuing wCBDC on third-party platforms is technologically feasible. However, hosting wCBDC on infrastructure that is not owned and operated by the central bank raises a range of significant operational, security, governance and compliance considerations (see Box F). The selection and management of platform characteristics and controls would be paramount. For the purposes of

45 Other safe assets like government bonds or bills could play a similar role as a low risk backing asset for stablecoins, though the markets for these assets may not be large enough to support considerable growth in stablecoins.

Project Acacia, the RBA implemented controls appropriate to a limited pilot exercise. However, moving from this exploratory setting to a production implementation would demand substantial additional design, assurance, policy and governance work. While an increasing number of central banks are now beginning to explore the issues associated with issuance on third-party platforms, this remains a greenfield area.

- **Legal settlement finality.** Participants noted the importance of having certainty around the legal finality of transactions settled in wCBDC. They noted the need to ensure that, consistent with transactions settled in RITS, wCBDC transactions are legally protected from being rendered void or reversed if a participant enters external administration (see Chapter 6).
- **Liquidity fragmentation.** Fragmentation of liquidity pools could occur if a participant's central bank money holdings are split between its ESA balances and wCBDC, or if wCBDC were issued across multiple platforms. To enable effective liquidity management in these scenarios, an aggregated view of balances across platforms would be essential. The CBA use case demonstrated an example of a consolidated dashboard that could help institutions monitor and manage their liquidity holistically. Bridging mechanisms that enable the efficient movement of wCBDC between platforms, and to and from ESA balances, would also assist with managing different pools of liquidity. However, they could also introduce operational complexity and potential security risks that would need to be appropriately managed.

While Project Acacia demonstrated several advantages of wCBDC in facilitating settlement of tokenised asset transactions, many of the benefits associated with asset tokenisation were also shown to be achievable using tokenised private money in combination with existing forms of central bank money under certain infrastructure arrangements (see the section on 'How ESAs could support tokenised wholesale asset markets' below). The RBA sees a strong case to further explore how different forms of central bank money and associated settlement infrastructure might best support settlement of wholesale tokenised asset markets.

Box F: Issuing wCBDC on DLT platforms

Project Acacia explored how wCBDC could be issued and operated on third-party DLT platforms to support tokenised asset markets. The focus was on understanding the platform characteristics, controls and integration models needed for wCBDC to function reliably as central bank money while enabling innovative settlement designs across diverse market environments.

To support wCBDC issuance and high-value settlement, DLT platforms need to meet the same high levels of safety and efficiency as required of the current RTGS system. Some key considerations from Project Acacia included:

- **Transaction finality and ledger integrity.** The extent to which high levels of safety can be achieved on third-party DLT platforms is influenced by their permission model. Private-permissioned platforms most easily provide deterministic transaction finality; however (like traditional payment systems), the parties need to trust the operator of the platform to ensure appropriate governance and access management, predictable operations and ledger integrity. Public-permissioned platforms can satisfy platform requirements if they are configured to support deterministic finality, have a proven track record of ledger integrity and can provide some certainty over governance. Existing public-permissionless platforms tend to provide only probabilistic finality and, in some cases, have issues with ledger integrity and accountability for the governance of the platform.

- **wCBDC governance and compliance considerations.** A central bank needs to be able to enforce its policies governing access to, and functional operation of, wCBDC, and to meet its AML/CTF, sanctions and other legal or contractual obligations. This requires the central bank to implement and exclusively control key functions such as the minting or burning of wCBDC. It also requires transparency about the parties validating transactions and participating on the platform.

  Access to and functional operation of wCBDC can typically be controlled through whitelisting in the smart contract and/or contractual arrangements, regardless of the platform used. For private-permissioned platforms, the central operator is generally known, and platform participants (including validators who receive fees for processing transactions) can be defined through contractual agreements. In public-permissioned platforms, operation of the platform is often more decentralised than in private platforms, but there are still defined rules around who may operate and participate in the platform. Central banks could use contractual controls to require visibility of the identities of all entities involved in the validation of transactions. Public-permissionless platforms typically have decentralised governance of the platform instead of identifiable legal entities participating in the network. While it is possible to control some of the risks of issuing wCBDC onto a public-permissionless platform with smart contract controls, it is harder to be confident that platform governance issues will be handled in a way that supports public policy objectives. This is reflected in limited central bank appetite to pursue permissionless platforms in work involving real legal claims on the central bank.

- **Integration considerations.** Platforms that standardise smart-contract languages, deployment processes and execution environments are simpler for repeated issuance and support. All Project Acacia use cases were conducted on EVM-compatible platforms. This meant that the same wCBDC token code could be deployed across all platforms. This could also benefit integrators operating across multiple networks. However, even with economies from code reuse, central banks would likely be selective about which platforms they issue to, as each one adds operational burden to reconcile wCBDC balances, ensure consistency in deployed wCBDC behaviour, and monitor platform governance.

In summary, issuing wCBDC across a variety of DLT platforms is technically feasible, but a wide range of considerations for the central bank is likely to preclude the most open platform arrangements. A central bank-operated, private-permissioned platform for wCBDC would most closely align with the operating model that central banks have long pursued to meet their financial stability objectives. While third-party DLT platforms may offer greater benefit and flexibility for wCBDC in many use cases, they would carry heightened governance, compliance and operational complexity for a central bank.

How ESAs could support tokenised wholesale asset markets

Several jurisdictions are exploring models in which traditional central bank money underpins the settlement of transactions in tokenised asset markets. For example, the Bank of England (BoE) is developing an approach in which a synchronisation mechanism coordinates DvP settlement for assets (including tokenised assets) with settlement of the cash leg occurring in the RTGS system.[46] Similarly, the Swiss National Bank (SNB) and Hong Kong Monetary Authority (HKMA) are exploring RTGS synchronisation alongside wCBDC.[47]

46 BoE (n.d.), 'Synchronisation', Website.
47 SNB (n.d.), 'Project Helvetia', Website; HKMA (2025), 'HKMA Announces the New Phase of Project Ensemble to Support Real-value Transactions in Tokenised Deposits and Digital Assets', Press Release, 13 November.

Several use cases in Project Acacia also explored how traditional ESAs could support tokenised wholesale asset markets in Australia.

The role of ESAs

Two use cases demonstrated that existing payment systems and ESAs could support tokenisation activity in wholesale markets, using a synchronisation mechanism to achieve settlement on a DvP basis (see Box G):

- **High Value Clearing System (HVCS).**[48] Northern Trust investigated the settlement of tokenised asset transactions using a series of SWIFT messages to orchestrate DvP, with cash settlement occurring across ESAs via the SWIFT feeder into RITS. The use case leveraged existing SWIFT MT messaging standards with some amendments to accommodate digital asset requirements. Specifically, some message fields were adapted to include transaction identifiers used to pair instructions for DvP coordination, as well as to enable identification of the relevant digital asset tokens and wallet addresses.
- **New Payments Platform (NPP).** Westpac (with participation from Imperium Markets) demonstrated how the NPP's PayTo service could support DvP settlement of tokenised asset trades. PayTo offers 24/7, near-instant, pre-authorised payments with real-time settlement via the RITS Fast Settlement Service. To make the PayTo service suitable for tokenised wholesale asset transactions, industry would need to agree on changes such as extending PayTo functionality to tokenised asset platforms and institutions would likely need to raise the transaction limits they impose. Westpac also noted that the current implementation of PayTo capabilities varies across institutions, and full functionality would need to be widely supported to achieve network effects.

ESAs could also support tokenised asset markets by enhancing the safety and singleness of tokenised forms of private money by facilitating interchange between different private money tokens and providing a form of risk-free asset backing for stablecoins. AP+, for example, noted that the interchange mechanism it explored in Project Acacia could be integrated with ESAs rather than relying on a wCBDC as the source of risk-free central bank money for interbank settlement. Similarly, the DTWG noted that interbank payments associated with deposit token interchange (under the DTWG's Model 1) could occur through existing ESAs. Forte demonstrated how its stablecoin could be backed by balances held in an ESA.

Box G: Synchronisation mechanisms

A key foundation of reducing settlement risk in asset markets is facilitating DvP settlement. In a tokenised ecosystem, a synchronisation operator can support DvP settlement by coordinating settlement between a tokenised asset platform and an existing payment system, such as RITS, as an alternative to tokenised assets and money being exchanged on the same ledger. A synchronisation operator could be designed to facilitate DvP settlement in different ways:

- **Lock the asset on the asset platform, execute the payment, then transfer the asset.** This model relies on immobilising the asset involved in a transaction, with delivery only occurring once the associated payment has been received. This approach is used by existing market infrastructures such as Austraclear and CHESS today for settling debt and equity transactions. Within Project Acacia, this model was used in both the Westpac and Northern Trust use cases.

48 The HVCS is Australia's framework for exchanging high-value payments between participants via the SWIFT payment delivery system, with each payment settled individually across ESAs in the RITS RTGS system.

- **Lock the funds first, transfer the asset, then settle the funds.** This model relies on a locking mechanism on the money platform rather than the asset platform. While this approach was not explored in any use cases within Project Acacia, it is used today by PEXA for electronic property settlement, leveraging the current RITS Reservation Batch mechanism to reserve bank funds in ESAs prior to title lodgement.[49]
- **A more advanced design could lock multiple assets and/or funds across various platforms.** This design would require deeper integration between payment and asset systems, though it could support more flexible combinations of transactions. This approach was not explored in Project Acacia but is being considered in some international initiatives such as the BoE's renewed RTGS service.[50]

Under any of these models, the synchronisation operator role could be performed by a range of different entities. In Project Acacia, Westpac's use case assumed that the asset platform would coordinate the asset and money settlement, like the model used by Austraclear and CHESS today. Northern Trust used a third-party settlement coordinator (SWIFT). A third alternative, that was not explored in Project Acacia, would be for the central bank to provide a dedicated orchestration layer that synchronises settlement between external DLT-based asset platforms and money settlement in central bank money.[51]

Benefits and limitations of ESAs

ESAs provide a strong and established foundation for settling interbank obligations in today's (non-tokenised) asset markets, which could potentially be extended to tokenised markets.

It is important to recognise that ESAs cannot deliver the full functionality of an on-chain wCBDC. For example, ESAs do not support atomic settlement, and their programmability and composability features are more limited because settlement in central bank money must still be orchestrated off-chain. This introduces some additional operational complexity and risk. Despite these constraints, many of the benefits of tokenisation could still be achieved using ESAs, particularly when paired with tokenised forms of private money:

- **ESAs support safe DvP settlement in central bank money.** ESAs support robust DvP settlement mechanisms for many existing asset markets, minimising counterparty and settlement risk. Existing RITS capabilities that enable the reservation of ESA funds for settlement of property transactions could be applicable for other settlement use cases to support synchronisation mechanisms that minimise the risk of one leg of a transaction settling while the other fails. As with existing markets, contingency arrangements can help to manage any residual settlement risks that could arise due to operational disruptions.
- **ESAs can support compression of settlement cycles.** Much of the compression of the settlement cycle supported by tokenisation comes from automating and streamlining post-trade processes before settlement occurs, rather than from the settlement process itself. Furthermore, although it

49 Importantly, this functionality allows funds to be reserved in multiple ESAs simultaneously enabling transactions involving multiple parties. PEXA also orchestrates other payments in commercial bank money through trust accounts in addition to the property transfers and ESA settlement.

50 See BoE (n.d.), 'Synchronisation', Website.

51 This model was, for example, explored by the Deutsche Bundesbank in its Trigger Solution pilot. In this pilot, the DLT asset platform locked or reserved the asset and signalled this event to a Trigger Solution operated by the Bundesbank, which conditionally initiated cash settlement in the RTGS system. Once cash settlement was confirmed, the Trigger Solution notified the asset platform to release and transfer the asset. See Deutsche Bundesbank (2025), 'Process Description Document V 2.0', Process Description Document, 24 November.

may not be instantaneous like on-chain settlement using wCBDC, settlement across ESAs through the RITS Fast Settlement Service takes just seconds and is available 24/7.

- **ESAs, together with tokenised forms of private money, can support a degree of programmability and composability.** The extent of programmability and composability may be more limited when using ESAs rather than wCBDC, as any settlement in central bank money would need to occur off-chain. However, some degree of programmability and composability can still be implemented at the tokenised asset level, and payment-related programmability could be delivered through tokenised private money. For example, in an arrangement like the AP+ Token Interchange use case, private money interchange and settlement processes could occur on a tokenised platform, supported by balances held in ESAs.

In short, ESAs, combined with emerging forms of tokenised private money, have the potential to support the initial development of tokenised asset markets and enable many of the associated benefits. Several project participants also noted that building on existing infrastructure could accelerate (or lower the hurdles to) the adoption of tokenisation: the costs to implementation would be lower than developing new infrastructure, and existing infrastructure is already well understood and subject to established and strong oversight. There was industry interest in further exploration of the pathways to existing infrastructure and related capabilities supporting the development of tokenised wholesale assets, including through synchronisation mechanisms.

Access to central bank money (wCBDC or ESAs)

Eligibility to hold and settle in central bank money is currently restricted under the RBA's ESA policy to ADIs; providers of third-party (customer) payment services with a need to settle clearing obligations with other service providers; and Australian-licensed central counterparties or securities settlement facilities with payment arrangements that require Australian dollar settlement. While Project Acacia explored several use cases where pilot wCBDC was held by a broader range of entities, the ESA policy would be the basis for determining eligibility for access to central bank money (whether ESAs or wCBDC) used to support tokenised wholesale asset markets.

The use cases examined did not present a compelling rationale for expanding direct access to central bank money for the purpose of settling end-user obligations arising from tokenised wholesale asset transactions. For most market participants, settlement of end-user obligations can be effectively fulfilled by private money, consistent with the existing two-tier banking system. This was evident in multiple use cases that employed stablecoins or deposit tokens to facilitate settlement of client asset transactions. ABE, whose use case employed wCBDC for settling client transactions in tokenised bonds, noted that any reputable and reliable form of tokenised money (including privately issued) could serve this function. The use cases further demonstrated that indirect access to wCBDC could be used to enable interchange between tokenised private money. For example, in the Fireblocks use case, a non-ADI stablecoin issuer was able to access wCBDC via a bank to facilitate the conversion of stablecoins into another form of private money.

Currently, non-ADI stablecoin issuers do not have access to ESAs and so must hold other assets to back their issuance. As noted earlier, the project revealed a preference among several industry participants for stablecoins to be backed by central bank money. One potential case for expanding access to ESAs (or wCBDC) as a backing asset for prudentially regulated stablecoin issuers is that they could be better placed to meet redemption requests; this could forestall the need to engage in asset fire sales or run down bank deposits. Government debt securities also offer high safety, but are potentially less liquid than central bank money. Commercial bank deposits provide liquidity but introduce credit risk.

In Project Acacia, non-ADI stablecoin issuer, Forte, experimented with a way that attempted to approximate backing of the stablecoin with central bank reserves. In this use case, Forte partnered with

and deposited funds with an ADI, which then backed those funds 1:1 with its ESA balances, using a private agreement. However, this type of arrangement would be unable to achieve clear legal and operational separation of the stablecoin reserves from the rest of the ADI's ESA balances. Effectively, there would be little difference between this backing structure and the stablecoin issuer simply holding its reserves in a bank account with the ADI; holders of the stablecoin would still be exposed to the counterparty risk of the ADI.

Direct access to central bank reserves by stablecoin issuers in Australia is becoming a live policy issue as the Australian Government advances its proposed regulatory framework for tokenised stored value facilities (SVF). Any decision to broaden access to ESAs (or wCBDC) would need to carefully balance the objectives of fostering efficiency and competition with the imperative of safeguarding the stability and integrity of the payments system.

6. Legal and Regulatory Considerations

Legal and regulatory clarity is a pre-requisite for any market to scale; tokenised marketplaces are no exception. Clarity promotes market integrity and financial stability and can give market participants the confidence to make long-term investments. Project Acacia occurred concurrently with a range of policy and regulatory initiatives aimed at updating the regulatory framework for digital assets in Australia.

This chapter sets out some key legal and regulatory considerations that are relevant to the development of wholesale tokenised money and asset markets in Australia based on the findings from Project Acacia. The low-risk transaction environment and the availability of regulatory relief for pilots in Project Acacia meant that exploration of these issues was not exhaustive. Nonetheless, the project identified areas where legal and regulatory arrangements relating to tokenised finance may need to evolve or be clarified to unlock further industry investment. Engagement with use case participants also generated insights into the broader environment for financial innovation development, including how regulatory settings can better support safe experimentation and pathways to commercialisation.

Key findings – Legal and regulatory considerations

- ***Further collaboration between industry, regulators and Government is needed to achieve the desired legal and regulatory state for a tokenised ecosystem.*** Throughout Project Acacia, industry participants emphasised that legal and regulatory clarity is a critical enabler for tokenised finance to develop in Australia. This recognises that tokenisation gives rise to a range of issues that were not envisaged when existing frameworks were established. While flexibility in the implementation of regulatory regimes might be favoured by some participants, including newer entrants, for larger participants with lower regulatory risk appetite, it can also be construed as giving rise to ambiguity, which can disincentivise investment.
- ***The project highlighted several legal and regulatory areas that would benefit from further consideration.*** Legal areas included the structuring of on-chain records, so they provide enforceable evidence of asset ownership and terms, and how legal settlement finality is achieved in DLT environments. Areas of actual or perceived uncertainty regarding the existing regulatory environment included the treatment of tokenised money and assets as financial products and services, the alignment of emerging digital financial market infrastructures with existing licensing frameworks, and the way prudential standards apply to banks' digital asset exposures. The DTWG identified some further areas of law that would likely need to be considered if deposit tokens were to be issued and used as a means of payment.
- ***Longer-term regulatory and/or innovation sandboxes could better support the experimentation pathways required for tokenised markets to scale.*** Industry participants are beginning to turn their attention towards pathways to use case commercialisation. While Project Acacia relied on broad time-bound regulatory relief provided by ASIC to support experimentation, feedback from industry participants has suggested that longer-term sandboxes would provide a superior environment for the safe trialling and scaling of new technology and

allow regulators to adjust settings where appropriate as they became more familiar with the risks that new innovations pose to financial stability and market integrity.

Legal Considerations

Throughout Project Acacia, use case participants raised questions that span various areas of law. These range from foundational legal issues (e.g. whether and how digital tokens constitute 'property') to legal characterisation questions under various taxation frameworks. The global nature of many wholesale asset markets also raised recurring questions about the cross-border enforceability of transactions in tokenised assets and settlement using tokenised money.

This section is not a comprehensive list of legal considerations that arose in the project. Instead, it presents a sample of issues to illustrate where and how legal uncertainty arises, and to help draw attention to areas of potential focus for industry and public agencies in the future.

Legal structure of tokenised money and money-like instruments

Project Acacia explored the use of four forms of money – ESA balances, wCBDC, stablecoins and deposit tokens.

- **ESA balances.** ESAs are accounts with the RBA that can be held by banks and a limited range of other financial institutions. The rights and obligations of the RBA and ESA holders are governed by contractual arrangements, which are set out in the RITS Regulations, RITS Membership Agreements and other relevant membership documents and operational requirements. Although they are contractual claims, ESA balances are free from counterparty risk as they are liabilities of Australia's central bank.
- **wCBDC.** For the purposes of Project Acacia, pilot wCBDC was issued under a deed poll executed by the RBA. While this structure supported the exploration of a wide range of use cases, it does not necessarily reflect the legal form that a wCBDC would take if a decision was ever taken to issue one. A production wCBDC could broadly resemble ESAs, including by involving a contractual arrangement between the RBA and wCBDC users. However, further work would be required to determine the legal framework governing the legal nature and use of wCBDC, alongside other key operational questions. This could include whether it would operate as a digital twin of existing ESA balances or constitute an entirely distinct new form of central bank money, and how issuance on different types of platforms would be governed.
- **Stablecoins.** Fiat-denominated stablecoins can be structured as contractual redemption claims against the issuing entity. The existing and future licensing regimes for stablecoins in Australia require issuers to comply with certain minimum terms and conditions to help ensure that they can meet these contractual claims.[52]
- **Deposit tokens.** Legal analysis undertaken as part of the DTWG suggested that the claims of holders of deposit tokens on an issuing bank could largely mirror those of traditional depositors, governed by general law, and relevant banking and financial legislation. However, the analysis identified that the change in form from account-based to token-based deposits could have implications under existing statutory and regulatory frameworks. For example, the Australian Government's Financial Claims Scheme (FCS), a safety net for deposits (up to a size limit set by

52 A small number of Australian stablecoin issuers currently hold Australian financial services licences and comply with the regulatory obligations applicable to issuers of non-cash payment facilities. However, the proposed new licensing framework for stablecoin issuers (to be known as 'tokenised stored value facilities (SVF) providers') will include additional safeguarding requirements for funds received in return for issuing digital tokens. It will also empower ASIC and APRA to set additional regulatory requirements for tokenised SVF providers; these will be consulted on in 2026. See The Treasury (2026), 'Payments Licensing Reforms', Website, 12 March.

the Government), applies to 'protected accounts' as defined in the *Banking Act 1959*. Deposit tokens are unlikely to be covered by the FCS if they do not involve an 'account'. At the same time, the Government has the authority to declare a deposit token a 'covered financial product' to extend FCS coverage to it, should it so wish.

Legal structure of tokenised assets

Most use cases adopted 'digital twin' (rather than 'digital native') token structures (see Chapter 4). There was perceived uncertainty around what would be required to legally support digitally native asset issuance, including the legal basis and permissible technological forms of asset registers and settlement systems. Most use case participants felt more confident employing familiar instruments, such as deed polls and contractual arrangements, to legally link tokens to underlying assets held in a traditional register and specify the terms of their ownership and transfer.

While digital twin structures have supported early experimentation and adoption, there are also legal uncertainties and complexities associated with these structures. This arises because issuers have considerable discretion in product design, which can result in a lack of standardisation across asset markets. Some of these issues will be addressed by the Australian Government's recent digital asset platform reforms, which regulate operators of platforms that create digital twin token structures.[53] Under these laws, as with all intermediated arrangements, whether transfer of a digital twin involves the transfer of legal or beneficial ownership of the underlying asset will be defined by the legal structure of the token (i.e. the rights that token holders have).

Similarly, domestic implementation of the United Nations Commission on International Trade Law's (UNCITRAL) Model Law on Electronic Transferable Records (MLETR) would give 'digitised' trade records the same legal standing as equivalent paper-based records (the latter of which act as bearer instruments). This could provide a pathway for such records to be issued directly on-chain, avoiding the need for off-chain reconciliation, in ways that support the vision for legally effective native digital asset issuance.[54] The Attorney-General's Department is currently working on reforms to implement the MLETR domestically.[55]

Other enablers, such as standardised contractual documentation and cross-jurisdiction recognition of asset tokenisation approaches, may be required for industry-wide adoption at scale. Relevant precedents include the development of the ISDA Master Agreement and the SIFMA/ICMA Global Master Repurchase Agreement, with standardised contractual terms and document templates reducing the operational risks and costs associated with transacting in global OTC derivative and repo markets, respectively. While developing such international standards would require global collaboration and may be some way into the future, industry coordination on the development of domestic standards could support tokenisation in Australia.

Settlement finality of tokenised asset and money transfers

Settlement finality is a key enabler of all forms of economic exchange. It gives confidence to counterparties that their respective obligations are discharged, and they have the full use and benefit

53 Under the incoming reforms, which will amend the *Corporations Act 2001* and the *Australian Securities and Investment Commission Act 2001*, operators of platforms that create digital twins are referred to as 'tokenised custody platforms' (TCPs). A TCP holds underlying assets and creates tokens to represent these assets, with token owners having the right to redeem, or direct delivery of, the underlying assets. See Corporations Amendment (Digital Assets Framework) Bill 2025.The bill was passed in April 2026, with a commencement date of April 2027.

54 For example, for Project Acacia, ANZ structured the underlying trade payable using a tokenised independent payment undertaking, reflecting a contractual payment obligation rather than a negotiable instrument. By contrast, an internationally recognised and legally effective electronic bill of exchange, supported by an MLETR-aligned framework would be expected to enable more efficient cross-border transfer. ANZ has indicated that enhanced transferability and interoperability are important considerations in developing a scalable version of its use case.

55 Attorney-General's Department (n.d.), 'Model Law on Electronic Transferable Records (MLETR)', Website.

of the money and goods/assets involved. There are two components of settlement finality: legal and technical.

Technical settlement finality in the context of DLT is the point when an on-chain transaction is validated through the network's consensus mechanism and added to the ledger in a way that cannot be altered or reversed technologically. Some use case participants noted that not all DLT consensus mechanisms achieve the same level of certainty and irrevocability; selection of a platform with a consensus mechanism that eliminates ambiguity and possibility of transaction reordering is also important to guarantee technical finality.[56]

Legal settlement finality is the point at which a transaction becomes legally binding and irrevocable as defined by the general law and the operating rules of the settlement system, which are contractually binding on all participants of the system. Several use case participants highlighted the importance of having operating rules that clearly establish the legal framework for recognising ownership records and determining settlement finality in a tokenised environment. For example, for transactions involving digital twins, the rules would need to specify which record – the digital twin record on the tokenised platform or the underlying real-world asset record on the traditional register – constitutes the authoritative source of legal ownership and the point at which ownership transfer is final. The rules would also need to provide legal clarity around ownership and enforceability of claims in scenarios where off-chain and on-chain records do not reconcile.

The question of legal finality protections under the *Payment Systems and Netting Act 1998* (PSNA) was also raised by several participants and considered by the DTWG in the context of deposit tokens. The PSNA protects transactions settled through 'approved RTGS systems' from being rendered void if a system participant involved in those transactions goes into external administration.[57] There are currently three approved RTGS systems: RITS, Austraclear and CHESS RTGS. Tokenised transactions settling on DLT platforms would only be protected if the platforms became approved RTGS systems. For a system to be approved, the RBA must be satisfied that the failure of a participant in the system could result in systemic disruption, and that the system is supported by legally enforceable rules for the irrevocable settlement of transactions in real time. Another factor that needs to be considered by the RBA in determining whether a system is an approved RTGS system is whether it has an administrator with sufficient resources, competency and integrity to administer the system. This may be challenging to establish where smart contracts perform settlement functions without a clearly defined administrator. If a wCBDC circulated on third-party platforms, further consideration may be required to determine the system administrator for the purposes of the PSNA.

Regulatory Considerations

Regulatory treatment of tokenised asset market infrastructures

Several use cases in Project Acacia employed smart contracts to perform a range of tokenised asset trading and settlement functions. These arrangements surfaced questions around the treatment of tokenised financial markets and settlement systems under existing regulatory frameworks. There are two main issues – how these infrastructures are characterised under current frameworks (i.e. are they

56 Platforms using 'deterministic' consensus mechanisms produce instant and absolute agreement once a transaction is committed, and settlement cannot be technically undone. By contrast, 'probabilistic' mechanisms provide increasing probability of agreement rather than immediate finality; this creates the possibility of transactions being reversed through chain reorganisations or forks.

57 Without the protections of the PSNA, if a participant in an approved RTGS system goes into external administration, a court may date the administration to have occurred at the start (midnight) of the day, such that all transactions executed on that day that involve the participant may be rendered void and can be reversed (commonly referred to as the 'zero-hour' rule). Protection from the zero-hour rule supports the stability of the financial system by limiting disruptive reversals of high-value payments and helping to limit spillovers in the case of participant failure.

facilities that are captured by the current regulatory perimeter), and whether the current frameworks are fit for purpose given the different structures, risks and benefits of using DLT to perform trading and settlement functions.

Project participants leveraged several different configurations to try and optimise for a range of business considerations – for example, investors' trading preferences and liquidity needs, and assumptions about how the transition from traditional to tokenised asset trading could occur. These configurations handled regulated trading and settlement processes in different ways, including in some cases by having both functions on-chain. The networks that use case participants selected for their infrastructures also varied, informed by factors such as network privacy features, approaches to technical settlement finality, and the availability of preferred forms of tokenised money on the network.

The range of market settlement infrastructure structures trialled in Project Acacia has helped identify some specific questions for further regulatory exploration. Uncertainty is most evident where no specific entity explicitly stands behind the smart contracts performing trading and settlement functions, or where public DLT ledgers (which are not operated by a single known entity) are used as the registry of asset ownership. In these situations, it may be unclear which components of the technology (e.g. the user-facing application, the smart contract, or the network) would constitute the trading or settlement facility for regulatory purposes, and who is the operator and therefore accountable for the facility. Because the current regulatory framework applies to the operator of a financial market or settlement facility, this raises a question about the regulatory perimeter and how regulatory obligations can be applied to support the financial system safety, efficiency and stability objectives of the current regulatory framework in tokenised models where there is no clear accountable operator.[58] Some Project Acacia use cases anticipated this challenge and explicitly designed their structures so an accountable operator could be clearly identified.[59] The trade-off, however, is a loss of one of the potential benefits of tokenised market infrastructures, which is to facilitate bilateral transactions using jointly agreed mechanisms without the need for an intermediary.

The project also highlighted areas of actual or perceived regulatory uncertainty even where there is an identifiable operator of various functions. Many of the benefits demonstrated in Project Acacia – such as settlement efficiencies, reduced counterparty risk, the release of capital otherwise tied up as margin, and the elimination of settlement failures – stem from the tight integration of trading and settlement functions, which involves a structural shift from how financial markets typically operate today. These functions, which tend to be integrated on tokenised platforms, are currently regulated under separate licensing frameworks. During the project, some questioned whether a new single-licence regime could be suitable for arrangements that have a tight integration of trading and settlement functions. However, it was also noted that the current financial markets and clearing and settlement facility frameworks give ASIC significant regulatory flexibility to accommodate different risks and market structures associated with tokenisation. The regulators in Project Acacia are open to further engagement with industry where it could identify remaining areas of uncertainty and will consider whether additional guidance may be beneficial.

58 Adamek C, J Osvald and J Gonzalez (2026), 'From Promise to Protocol: The Evolution of Financial Regulation in the Age of Protocol-enforced Finance', Paper for 28th Melbourne Money and Finance Conference, 9–10 February.

59 For example, the Fireblocks Corporate Bond use case interposed a legal entity (Australian Bond Exchange) in the asset transfer chain to serve as the regulated securities settlement facility, despite a simpler technological implementation being available – namely, for settlement to occur solely through smart contracts that, once called, autonomously execute the DvP swap of money and assets.

Regulatory treatment of tokenised money and assets

Use case participants also raised some specific areas of regulatory uncertainty around the treatment of tokenised money and assets under regulatory frameworks. This section focuses on those issues that were more generally applicable across use cases, rather than those specific to any particular use case.

Financial product and services regulation

The regulatory perimeter of the financial services law begins with the characterisation of facilities for making financial investments, managing financial risk, or making non-cash payments as 'financial products', and services in relation to those financial products as 'financial services'.[60] Given the focus of the use cases chosen by project participants, most tokenised assets featured in use cases were clearly considered financial products of some kind. However, some participants did query the *specific* financial product characterisation (e.g. as derivatives, securities, managed investment schemes or non-cash payments products), given this can mean significant differences in regulatory treatment.

These and related questions were addressed in ASIC's updated guidance in Information Sheet 225, released in October 2025, that set out when digital assets may be considered a financial product.[61] The incoming digital asset reforms will also introduce targeted changes to clarify the regulatory treatment of a digital twin as a financial product (when issued through a tokenised custody platform). The effect of this new exemption means that the right of redemption is disregarded, with the analysis considering the other rights of the digital twin token and the rights of the underlying asset (such as a new exemption that will 'look through' a token to the underlying asset for the purposes of characterising a digital twin as a financial or non-financial product).

Prudential regulation

Bank and superannuation fund participants raised sector-specific questions about the application of prudential obligations relating to their exposures to tokenised assets. This reflects increasing sector-wide interest in the opportunities presented by tokenisation, which has resulted in greater collective focus on understanding how existing prudential risk management practices might be adapted.

Bank participants emphasised that clarity on when and how Australia implements global standards for the prudential treatment of bank exposures to tokenised assets would help to unlock further investment in tokenisation initiatives.[62] In particular, the capital charge and liquidity treatment to be applied to tokenised activity may be an important factor in commercial decisions. Banks also raised uncertainty about the relevance of DLT-specific factors for their risk management obligations – for example, whether stress-testing assumptions need to incorporate DLT-specific risks such as network congestion, and how market risk measures should consider fragmentation between traditional and tokenised asset markets. Bank participants indicated a preparedness to engage on these prudential matters with APRA in due course.

Superannuation fund trustees raised questions around APRA's expectations in relation to whether tokenisation changes the valuation basis to be applied to asset exposures. Other questions centred around operational risk issues that could arise in tokenised marketplaces.

60 In addition to those general definitions, there are specific inclusions and exclusions from the definition of a financial product in the law. For the purposes of this report, 'financial services laws' refers to Chapter 7 of the *Corporations Act 2001*, the *Australian Securities and Investments Commission Act 2001*, and delegated regulations and instruments.

61 ASIC (2025), 'Digital Assets: Financial Products and Services', Information Sheet No 225.

62 Basel Committee on Banking Supervision (2022), 'Prudential Standard on Banks' Exposures to Crypto-Assets', December. The Committee had originally agreed to implement the standard by January 2026 but has since agreed to review targeted elements of the framework. See Basel Committee on Banking Supervision (2025), 'Basel Committee Continues to Prioritise Basel III Implementation, Approves Final Principles Third-party Risks and Agrees to Expedite Targeted Review of Cryptoasset Standard', Press Release, 19 November.

How Regulatory Settings Can Support Financial Innovation

Learnings from the project

Project Acacia was designed to support 'real money' pilots in which industry participants operated their use cases in a live transaction environment. This was informed by previous projects, where this approach incentivised all parties to consider the legal and regulatory environment in which tokenised assets and money are transacted. Given Project Acacia's exploratory focus, short timeframes, and the desire to maximise the range of entities and use cases eligible for inclusion, the project design involved two key elements:

- Time-bound and project-specific regulatory relief for participants undertaking 'real money' transactions. ASIC granted project-level class relief from licensing requirements under the Australian financial services, markets and clearing and settlement facility frameworks, on an opt-in basis.[63] AUSTRAC granted two entity-specific exemptions from certain obligations under the AML/CTF framework.[64]
- Public agency engagement with industry. This enabled agencies to observe how current regulatory settings influenced (or would influence) use case-specific design choices and general decision-making around innovation-based investment.

Feedback from private-sector participants was that these arrangements were instrumental to their participation in the project. ASIC and AUSTRAC regulatory relief eased industry concerns about regulatory risk and compliance overhead that might have restricted use case proposals or prevented participation altogether. The structured fora for dialogue were also valued avenues for collective learning for both industry and the agencies, presenting a model for future engagement in innovation projects and potentially, policy development more generally.

However, use case participants shared different perspectives on the time-limited nature of the project. Advantages included the interest it generated among key market participants, and the imperative it created for participants to progress use case experimentation. On the other hand, some participants – especially larger, more heavily regulated institutions – reported that the project's timeframes were insufficient for them to complete risk and compliance reviews for internal and regulatory obligations not covered by the project relief.[65] In some cases, this meant that projects run by these institutions were not scoped to use real money, or prompted them to shift from real money pilots to proofs of concept during the course of the project. Given the central roles of these institutions in wholesale market activity, this may have constrained some learnings.

Project Acacia was designed at a time when both market practices and the regulatory environment relating to tokenisation was still at an early stage of development in Australia. However, since the project commenced, the domestic policy and regulatory landscape has evolved significantly. The Australian Government initiated an independent review of the Enhanced Regulatory Sandbox (ERS), which also considers how Australia's broader regulatory settings facilitate financial innovation.[66] As part of this work, the ERS review contemplates how regulatory sandboxes used internationally might inform future efforts in Australia aimed at promoting responsible experimentation with emerging financial technologies. Indeed, industry participants expressed strong interest in the development of efficient

63 ASIC Corporations (Project Acacia Participation Exemption) Instrument 2025/425.

64 Anti-Money Laundering and Counter-Terrorism Financing (Exemption—Forte Tech Solutions Pty Ltd) Instrument 2025 (No 25); Anti-Money Laundering and Counter-Terrorism Financing (Exemption—Australian Bond Exchange Pty Ltd) Instrument 2025 (No 28).

65 Internal compliance review processes may have taken participants longer than expected given the RBA made pilot wCBDC available on third-party networks, which likely introduced novel capabilities and risks for participants' compliance and risk management teams to assess.

66 Australian Government, The Treasury (2025), 'Independent Review of the Enhanced Regulatory Sandbox'.

pathways to use case commercialisation. At the same time, several regulatory reform initiatives are approaching implementation (discussed above) and are expected to provide greater regulatory clarity to industry.

Supporting structured pathways from experimentation to commercialisation

Given the need to tailor regulatory models to suit local conditions and advance domestic policy priorities, a range of commercialisation pathways has emerged internationally. These models feature a variety of approaches to the use of regulatory levers (e.g. the use of guidance, deeper supervisory engagement, and regulatory relief), and different views on the roles that should be played by public- and private-sector entities. These different models also have different resourcing implications for relevant stakeholders (see Box H).

While the approaches taken in different jurisdictions differ in key respects, it is possible to identify some common features that can support responsible innovation:

- **Longer timeframes for experimentation.** This includes initiatives that span several years, or which are open-ended, recognising that larger incumbent institutions typically require 'more runway.'
- **Regular, and ideally broad, engagement between industry and regulatory agencies.** This creates opportunities for ongoing and two-way learning, including opportunities for entities to understand what it means to be offering regulated financial products and services, and for regulators to gain experience in overseeing new technologies and business models.
- **Convening market participants to support collaboration.** This can help to address coordination challenges that otherwise prevent opportunities for industry to collaborate on issues covering the entire asset lifecycle and recognises the strong interdependencies throughout.
- **Availability of 'safe assets' (tokenised government bonds and central bank money) for use in industry experiments.** Given the critical role that government bonds play in wholesale markets (including as a pricing benchmark and in serving as collateral for short-term borrowing), experimentation with tokenised government bonds can play a catalytic role in spurring broader innovation in tokenised asset markets. Similarly for central bank money, which serves as the ultimate safe asset in the financial system by virtue of being free of credit and liquidity risk.

Box H: Examples of international regulatory models for supporting wholesale asset tokenisation

Project Guardian (Singapore)

Project Guardian, launched by the MAS in June 2022, is a collaborative public-private initiative to enhance liquidity and efficiency in financial markets through asset tokenisation.[67] Project Guardian has explored a variety of settlement assets – wholesale CBDC (SGD Testnet), tokenised bank liabilities, and regulated stablecoins. Project Guardian brings together financial institutions, industry associations, policy makers and regulators to establish standardised protocols and processes across asset classes, develop regulatory and risk management frameworks, and foster cross-border implementations of key settlement infrastructure.

Among several workstreams within Project Guardian, the project has facilitated the development of frameworks to support adoption. Industry participants have published two industry frameworks – the Guardian Fixed Income Framework and the Guardian Funds Framework – to provide guidance to market participants in navigating legal, operational and technical considerations as they adopt tokenised financial services. Separately, the Policymaker Group has also advanced discussions on standardisation and interoperability of digital assets through common standards and regulatory frameworks.

HKMA Supervisory Incubator for DLT (Hong Kong)

In January 2025, the HKMA launched the Incubator, a new supervisory arrangement designed to help banks maximise the potential benefits of DLT adoption by effectively managing the associated risks.[68] While participating banks are required to adhere to existing regulatory frameworks, the Incubator offers banks access to a dedicated HKMA team that acts as a 'one-stop' supervisory platform for banks to reaffirm the adequacy of their risk management controls prior to the full launch of a DLT-based initiative. This supervisory feedback is iterative, enabling banks to conduct live trials to validate and refine specific aspects of their risk management implementation.

The Incubator has supported commercial bank participation in the HKMA's Project Ensemble.[69] This is consistent with the HKMA's identification of tokenised deposits – which have attracted significant interest from industry – as a core focus upon the Incubator's inception. In Project Ensemble, tokenised deposits have been used for tokenised asset transactions, with interbank settlement initially occurring through RTGS (but designed to evolve to wCBDC over time).

Digital Securities Sandbox (DSS) (United Kingdom)

The UK DSS is a regulated live environment, overseen by the BoE and the UK Financial Conduct Authority, for experimentation with use of DLT in the issuance, trading and settlement of a range of digital securities.[70] All firms legally established in the United Kingdom are eligible to apply to join the DSS, which will be operational until early 2029 (unless extended by the UK Government).

67 MAS (2025), 'Project Guardian', Website.
68 HKMA (2025), 'HKMA Launches Supervisory Incubator to Foster Responsible Adoption of Distributed Ledger Technology', Press Release, 8 January.
69 HKMA (2024), 'HKMA Unveils Project Ensemble to Support the Development of the Hong Kong Tokenisation Market', Press Release, 7 March.
70 BoE (n.d.), 'Digital Securities Sandbox (DSS)', Website.

The DSS framework employs a multi-stage 'glidepath' comprising four 'gates': testing, live operations under initial limits, scaling and then full authorisation to operate outside the DSS. This glidepath has been designed to balance innovation with safeguarding financial stability and market integrity, by progressively scaling activity limits and removing legal barriers as participants pass through each gate. Participant experience and feedback inside the DSS will also inform policy development, including on a potential permanent legal regime for new categories of FMI.

Since the DSS opened for applications in September 2024, 16 applicants have passed through Gate 1 and commenced testing.[71] In addition, the UK Government has also announced it will pilot issuance of a digitally native, short-dated Digital Gilt Instrument (DIGIT) onto a platform operating within the DSS.[72]

71 BoE (n.d.), 'Digital Securities Sandbox Dashboard', Website.
72 UK Government (2025), 'Digital Gilt Instrument (DIGIT) Pilot Update', Policy Paper, 15 July.

7. Supporting the Development of Tokenised Assets and Money in Australia: The Road Ahead

Project Acacia has revealed that there is growing industry interest in further exploring tokenisation as a way to enhance the functioning of Australia's wholesale financial markets. Efficiency, liquidity and risk benefits were highlighted in project use cases. However, the project also surfaced barriers that will need to be overcome to support the large-scale adoption of tokenised finance in Australia. Some of these relate to the general coordination challenges associated with industry initiatives involving competing stakeholders, while others relate to areas of actual or perceived legal and regulatory uncertainty and challenges regarding the broader environment for financial innovation in Australia.

In light of the project's findings, the RBA and DFCRC – alongside ASIC, APRA and the Treasury – consider there to be several avenues to build on recent momentum. Accordingly, a new multi-stream, multi-agency program of work will be developed to promote responsible innovation in Australia's wholesale market ecosystem. The program will seek to achieve this by minimising unnecessary barriers to industry innovation and establishing arrangements that can better support industry in safely progressing tokenisation-related initiatives from ideation to commercialisation.

This new program will sit as part of a larger effort from public agencies to ensure Australia's financial and payments systems are well placed to meet the rapidly evolving needs of issuers and investors. This effort includes the Australian Government's review of Australia's regulatory sandbox arrangements and its forthcoming payments licensing reforms and the recent digital asset platform reforms. It also includes ASIC's analysis of regulatory and legal barriers to asset tokenisation and its broader work program around strengthening Australia's capital markets. Combined, these initiatives seek to foster an environment for industry to safely innovate — at scale.

Successfully delivering on the initiatives set out below will require ongoing collaboration and commitment from both industry and the public sector. Recognising the coordination challenges inherent in promoting system-wide innovation, the RBA for its part is committed to continuing to play an active role. This will include convening public-private forums, working with research partners like the DFCRC, and exploring the role that innovation in central bank money and settlement infrastructure could play in the financial system of the future.

A New Multi-stream, Multi-agency Program

The post-Acacia program will comprise 11 initiatives grouped under three broad workstreams: for regulators, industry and the RBA (Box I). This recognises that it is beyond the scope of any single institution alone (public or private) to substantially enhance the functioning of Australia's wholesale financial markets.

Box I: Summary of initiatives

Regulatory workstream

1. **Inter-agency Regulator Working Group.** Establish a forum for regulators to identify, analyse and facilitate resolution of any unnecessary innovation barriers relating to wholesale markets.
2. **Exploration of a digital financial market infrastructure (DFMI) sandbox.** The RBA, ASIC and DFCRC will explore ways to provide a safe environment for industry to progress tokenisation initiatives from experimentation to commercialisation, and for regulators to determine whether adjustments to regulatory settings might be appropriate.
3. **Tokenised government bond initiative.** Explore the opportunities and challenges associated with the issuance, trading, settlement and lifecycle management of tokenised government bonds.
4. **C-suite roundtable on the future of tokenised finance in Australia.** Initiate executive engagement to ensure key opportunities and challenges associated with uplifting the functioning of wholesale markets in Australia are widely understood, including the international context.

Industry workstream

5. **Joint Regulator-Industry Tokenisation Advisory Group.** The IAG from Project Acacia will be reconstituted and expanded, and act as a dedicated advisory forum and coordination body for industry priorities on tokenisation.
6. **Extension of the DTWG.** Continue and expand the DTWG to deepen exploration into the potential form, functioning and interoperability of deposit tokens, in a risk-controlled environment.
7. **Other industry working groups (as required).** Support industry in establishing dedicated industry working groups to develop common frameworks or approaches that could support the development of tokenised asset markets, tokenised money and associated infrastructure enhancements.

RBA workstream

8. **Industry consultation on tokenised money and RITS settlement infrastructure.** Consult with industry on how the RBA's settlement infrastructure could be upgraded to support the responsible development of tokenised asset markets and tokenised money.
9. **Review of ESA policy.** Assess whether the RBA's current ESA policy and account structures remain fit for purpose, following passage of the Government's payment service provider licensing reforms that will establish a new prudential regime.
10. **Further applied research on wCBDC.** Continue RBA exploration of the policy and operational issues associated with wCBDC issuance, including through its potential provision in a DFMI sandbox for appropriate use cases.
11. **Exploration of how innovations in digital money and associated infrastructure could enhance wholesale cross-border payments.** Explore with international and domestic partners the ways in which private and/or public tokenised money, or new uses of the RBA's existing settlement infrastructure, could enhance the speed and safety of cross-border payments.

Regulatory workstream

The objective of this workstream is to intensify engagement between regulators and industry, including exploration of options that could help to resolve legal and regulatory barriers to responsible innovation relating to tokenisation:

- **Inter-agency Regulator Working Group.** This would be an ongoing forum for regulators to identify, analyse and facilitate resolution of regulatory challenges relating to tokenisation. One of the key benefits of Project Acacia, noted by many industry participants, was the ability to openly discuss challenges with all relevant regulators present. The RBA, APRA, ASIC and the Treasury are committed to establishing a coordinated, cross-agency working group responsible for engaging with industry on regulatory challenges.
- **Exploration of a DFMI sandbox.** There was strong feedback from Project Acacia participants that a longer lasting, risk-controlled regulatory environment is needed where industry participants can safely experiment and begin to scale innovations, within clear guardrails for consumer protection and financial stability. A well-designed sandbox would allow regulators to better understand how new innovations affect the financial system and whether regulatory adjustments might need to be considered. As noted in Chapter 6, one significant regulatory consideration surfaced during the project was the treatment of tokenised financial markets and FMIs under existing regulatory frameworks. A DFMI sandbox could provide a structure through which regulators observe and assess the application and appropriateness of the regulatory framework as new business models emerge.

  For these reasons, the RBA, ASIC and DFCRC are committed to exploring how a new sandbox could better support responsible innovation in wholesale markets. One could be designed with stage gates, allowing participants to safely test the feasibility of new business models (like in Project Acacia) and then scale innovations (through increasing the value and volume of live transactions) as they demonstrate compliance with graduated regulatory requirements. Specific design choices for any potential sandbox would be informed by industry consultation, to ensure it meets its objective. Exploration of any potential sandbox design will incorporate recommendations from the independent review commissioned by the Government into the ERS and Australia's financial innovation settings. It would also be targeted to support the development of tokenised finance and DFMIs, as distinct from the general-purpose ERS currently administered by ASIC.
- **Tokenised government bond initiative.** Project Acacia demonstrated considerable interest in tokenising fixed-income assets, including government bonds. However, the exploration was limited to tokenisation in digital twin form. For the issuance of digitally native tokenised government bonds, the involvement of one or more central borrowing authorities (e.g. federal, state or territory governments) would be required. Project Acacia was not designed to provide evidence on latent demand for natively issued tokenised government bonds, as experimentation focused primarily on demonstrating the technical feasibility and operational benefits of bonds tokenised by private institutions. Assessing the extent of this demand could be an opportunity to extend Project Acacia's exploration of tokenised settlement models in an asset class that is critically important to the wider financial system. It could also enable further exploration of tokenised collateral mobility and repo use cases.

- **C-suite roundtable on the future of tokenised finance in Australia.** The RBA and other public agencies will establish a forum to facilitate executive-level engagement across industry and the public sector on common challenges and opportunities posed by tokenised finance in Australia. This forum will provide an opportunity to align on priority initiatives, share experiences, and consider how international developments might have implications for the functioning of wholesale markets in Australia.

Industry workstream

The industry workstream will facilitate an environment for industry to overcome the type of coordination challenges that have previously forestalled opportunities to unlock improvements in the operation of financial markets, payments and settlement systems. There are three main initiatives under this workstream:

- **Joint Regulator-Industry Tokenisation Advisory Group.** The IAG in Project Acacia proved to be a valuable engagement forum for industry and regulators. It is envisaged that the Joint Regulator-Industry Tokenisation Advisory Group would provide a similar engagement forum going forward. The objective of the group would be to surface key issues relating to the scaling of tokenised finance in Australia, including providing advice on possible priorities for the Inter-agency Regulator Working Group. Expressions of interest will be solicited from industry in due course. Entities not involved in Project Acacia will be eligible to apply.
- **Extension of the DTWG.** Given the level of industry engagement during Acacia and issues yet to be resolved, the DTWG will continue to explore how interoperable deposit tokens could operate in Australia. A renewed call for participation will be issued for the next phase of the DTWG's work, including to allow for participation by banks that were not involved in Project Acacia. It is envisaged the DFCRC would continue to chair the group, with relevant regulators participating as observers.
- **Other industry working groups (as required).** The DFCRC and regulators involved in Project Acacia welcome proposals for new industry-led working groups to conduct deep dives into specific issues relating to tokenised markets, particularly where some form of industry collaboration is needed (e.g. on interoperability mechanisms). The Joint Regulator-Industry Tokenisation Advisory Group would be a natural forum where proposals and results of industry working groups could be discussed and, where appropriate, actioned.

RBA workstream

Shaping the future of money in Australia is a strategic priority of the RBA and its Payments System Board. The RBA is committed to continuing its analysis of ways that new forms of money and settlement infrastructure could crystallise efficiency and resilience benefits from tokenised markets.

- **Industry consultation on tokenised money and RITS settlement infrastructure.** Project Acacia identified several avenues where RITS, including the Fast Settlement Service, could support safe and efficient settlement of tokenised asset markets and tokenised money. These include capabilities for synchronised settlement of tokenised assets, interchange of different money tokens and new uses of existing ESAs. The RBA will consult with industry over the coming year to further explore these capabilities. Results of this consultation will also feed into the RBA's planned broader work on RITS modernisation.

- **Review of ESA policy.** After the passage of the Government's payment service provider licensing reforms, the RBA will undertake a review of its ESA policy. Among other issues, this review will consider some of the potential uses of ESA balances and account structures demonstrated in Project Acacia that could support tokenised asset settlement and innovations in private forms of tokenised money such as stablecoins.
- **Further applied research on wCBDC.** Project Acacia reinforced the continued importance of central bank money in underpinning safe and efficient settlement in wholesale asset markets. Use cases demonstrated that many of the benefits of tokenisation could be achieved using traditional ESA balances in more expansive ways (e.g. if they are connected to tokenised marketplaces); whether the net policy benefits of wCBDC would justify their issuance remains an open line of enquiry internationally and at the RBA. The RBA is committed to ongoing applied research on wCBDC, including consideration of how issuance of pilot wCBDC could facilitate further industry experimentation in a DFMI sandbox.
- **Exploration of how innovations in digital money and associated infrastructure could enhance wholesale cross-border payments.** Enhancing cross-border payments is a key priority for the RBA and the Government. The RBA will undertake further exploration of cross-border use cases involving tokenised forms of money, including potentially with other central banks.

Next Steps

In exploring opportunities to uplift the functioning of wholesale markets in Australia, the RBA and DFCRC look forward to continuing the momentum generated by Project Acacia. Planning and preliminary engagement has already commenced on many of the initiatives outlined above. We are particularly thankful to all use case participants and members of the IAG for their strong engagement and input throughout the project. All comments and feedback on the project and the future initiatives outlined above can be directed to: **ProjectAcacia@rba.gov.au.**

Appendix 1: Project Acacia Use Cases

Lead participant	Use case
Australian Bond Exchange *ABE Corporate Bond (pilot)*	Australian Bond Exchange piloted secondary market transactions involving the purchase of a tokenised corporate bond digital twin using wCBDC as the settlement asset. Both the tokenised bond and the wCBDC were issued on to the same network. The pilot also tested near-instant, direct communication between issuers and investors for managing early redemptions and covenant voting, exploring whether tokenisation might reduce the associated processing times. *DLT network used in use case:* Redbelly Network. *Collaborating parties involved in use case:* Fieldrock Pty Ltd, Fireblocks, Rand Low.
Australia and New Zealand Banking Group *ANZ Corporate Bond (PoC)*	ANZ conducted a proof of concept simulating the life cycle of a tokenised corporate bond, including issuance, coupon payments and redemption. ANZ explored how a private AUD-referenced payment token (e.g. a stablecoin or a deposit token) might be used to arrange a bookbuild. For bond issuance and redemption, wCBDC was used for settlement as well as to facilitate interchange between the buyer and seller's preferred private payment tokens. Coupon payments were made using the private payment token. *DLT network used in use case:* Private-permissioned ZK L2 (Validium). *Collaborating parties involved in use case:* Austraclear, King & Wood Mallesons.
Australia and New Zealand Banking Group *ANZ Trade Payable (PoC)*	ANZ conducted a proof of concept that considered how inefficiencies in trade finance might be addressed using tokenisation. ANZ simulated a tokenised trade invoice that represented a payment obligation and assignment in digital form. The trade payable was exchanged for an AUD-referenced payment token (e.g. a stablecoin or a deposit token). Both the payment token and the tokenised invoice were issued onto ANZ's DLT Network. The use case explored how wCBDC could be used for settlement of the tokenised trade invoice, as well as to facilitate interchange between the buyer and seller's preferred payment tokens.

	DLT network used in use case: Private-permissioned ZK L2 (Validium). *Collaborating parties involved in use case:* Global Packaging Company, Netwealth Group Limited, MessageXchange, RMIT University.
Australian Payments Plus (AP+) *NPP-Token Integration (PoC)*	AP+ conducted research to explore an industry utility and scheme rules that might support value transfers between traditional commercial bank accounts and private money tokens (e.g. deposit tokens and stablecoins). The utility would make use of the NPP and the RITS Fast Settlement Service. A settlement coordination capability might facilitate activities such as funding a stablecoin or deposit token from an NPP-connected bank account and subsequently redeeming the token back into commercial bank money. *DLT network used in use case:* There was no build in this use case, and so not applicable for the purposes of exploratory work. *Collaborating parties involved in use case:* Cuscal Limited, Swift.
Australian Payments Plus (AP+) *Token Interchange (pilot)*	AP+ piloted an interchange service built on a public network which facilitated the exchange of different forms of privately issued tokenised money (e.g. stablecoins or deposit tokens) using rules captured in a smart contract. A digital twin of wCBDC (referred to as a 'white coin') served as the interchange asset on the public network, while the underlying wCBDC resided on a private network. *DLT networks used in use case:* Public-permissioned Hedera, private-permissioned Hedera HashSphere. *Collaborating parties involved in use case*: AUDD Digital, Cuscal Limited, Forte AUD, Macropod.
Canvas (2 use cases) *Canvas Government Bond (pilot)* *Canvas Private Credit Fund (pilot)*	Canvas piloted two use cases. In its primary use case, Canvas tokenised digital twins of Australian Government bonds and explored collateralised lending, repos, secondary trading, and coupon payments. In both use cases, the tokenised instruments were settled using wCBDC, issued to the same blockchain as the assets. Canvas explored two different tokenisation structures for the bond: a TCP-aligned structure where the token was represented direct beneficial ownership of a specific underlying bond held in custody off-chain; and separately a structure where the token represented a debt claim issued by a special purpose vehicle which was backed by underlying government bonds held off-chain. The underlying Australian Government bonds were held with a registered custodian and Austraclear updated.

	In its second use case, Canvas explored primary issuance, secondary trading, distributions, and collateralised lending against tokenised shares issued by a special purpose vehicle that invested in a real estate credit fund. *DLT network used in use cases:* Canvas Connect Layer 2 Blockchain (permissioned, EVM-compatible). *Collaborating parties involved in use cases:* Banking Circle Australia, Zodia Custody Australia, Fireblocks, Sanlam Private Wealth, Alceon Group.
Commonwealth Bank of Australia *CBA Intraday Repo (PoC)*	CBA conducted a proof of concept exploring a multi-platform environment where intraday repurchase agreements were traded and collateralised by Commonwealth and semi-government securities (GC1) whose ownership is represented on a digital registry. Trades were executed and settled using CBA deposit tokens on the Digital Financing application (on JP Morgan's Kinexys Digital Asset platform), with interchange performed using wCBDC. Settlement was orchestrated via smart contracts to facilitate delivery vs payment across ledgers. The proof of concept explored practical interoperability requirements (including technical, operational, legal and regulatory) between the digital registry, the repo execution venue, and central securities depository. *DLT networks used in use case:* CBA's Gravital Digital Asset platform, HQLA^{x}, JP Morgan's Kinexys Digital Asset platform. *Collaborating parties involved in use case:* Australian Securities Exchange (ASX), HQLA^{x}, JP Morgan.
Fireblocks *Fireblocks Corporate Bond with Interchange (PoC)*	Fireblocks conducted a proof of concept to explore the technical components required to support the issuance, trading, settlement, and distribution of a tokenised corporate bond. wCBDC was used for settlement as well as to facilitate interchange between the different stablecoins used by the buyer and seller. Interchange was achieved using 'singleness' smart contracts deployed by each stablecoin issuer, which support the conversion between that stablecoin and wCBDC. The singleness smart contracts were called by a settlement smart contract on the asset platform that hosted the tokenised corporate bonds. The wCBDC was then converted into a different stablecoin and delivered to the seller of the bond. *DLT network used in use case:* Redbelly Network.

	Collaborating parties involved in use case: Australian Bond Exchange, Fasanara Capital, Macropod, Northern Trust, Perpetual Trustee Company Limited.
Forte Tech Solutions *Forte Government Bond (pilot)*	Forte piloted the tokenisation of Australian Government bonds as digital twins on a public blockchain, enabling atomic settlement via its AUDF stablecoin through a purpose built DvP mechanism. Forte also facilitated the tokenisation and settlement of coupon payments to holders of tokenised Australian Government bonds, with payments executed in the AUDF stablecoin. Funds (reserves) backing the Australian stablecoin (AUDF) were held by an ESA holder in a segregated account maintained with that ESA holder, in the name of the issuer Forte Securities Australia. *DLT network used in use case:* Public Ethereum. *Collaborating parties involved in use case:* Cuscal Limited, CoinSpot.
Imperium Markets (3 use cases) *Imperium Term Deposit (pilot)* *Imperium Certificates of Deposit (pilot)* *Imperium Annuities (pilot)*	Imperium Markets piloted three use cases that explored the issuance and trading of different types of tokenised short-term wholesale money market instruments (term deposits, negotiable certificates of deposit and annuities) using the Imperium marketplace. The asset tokens were digital twins of the underlying assets. In each use case, the tokenised instruments were recorded, custodied and exchanged on-chain on a public-permissioned distributed ledger, with settlement executed using a Cuscal-issued pilot stablecoin issued on the same public-permissioned ledger, and backed by wCBDC issued on a private network. A settlement coordinator service developed by Australian Payment Plus for Project Acacia was used to coordinate settlement in each use case. The settlement coordinator used smart contracts to lock the tokenised asset and stablecoin into escrow, before executing a DvP swap where both legs of the transaction were fulfilled. *DLT network used in use case:* Hedera and Hedera HashSphere. *Collaborating parties involved in use case:* AP+, AustralianSuper, Cuscal Limited, Bank of Queensland, Challenger Limited, Colonial First State, National Australia Bank, Westpac Bank.
Macropod (2 use cases) *Macropod Digital Asset Fund (pilot)*	Macropod piloted two use cases. The first use case tested issuance, trading and redemption of tokenised units in a wholesale managed investment scheme, with registration and distribution handled through the Tokeniser platform.

Macropod Corporate Bond (pilot)	The second use case tested a tokenised corporate bond, including issuance, secondary trading, coupon payments, and maturity, with transactions carried out on the Imperium Marketplace. For both pilots, settlement was achieved using Macropod's AUD-denominated stablecoin (AUDM). *DLT network used in use cases:* Redbelly Network. *Collaborating parties involved in use cases:* Tokeniser Pty Ltd, TAF Capital Pty Ltd, Openmarkets Australia Limited, Imperium Markets, Barrenjoey Markets Pty Ltd, Jelly C Pty Ltd.
Northern Trust *Northern Trust Carbon Credits (PoC)*	Northern Trust explored a proof of concept simulating synchronised DvP settlement of tokenised carbon credits on a permissioned network. Settlement occurred using traditional payment rails rather than tokenised money. Swift acted as the settlement synchronisation coordinator, using existing messaging standards with limited adjustments to accommodate digital asset specifics. *DLT network used in use case:* The Northern Trust Carbon Ecosystem™ is powered by Matrix Zenith™, Northern Trust's digital assets platform built on Hyperledger Besu. *Collaborating parties involved in use case:* Commonwealth Superannuation Corporation (CSC), Swift, Westpac, BT Panorama (a wealth management platform owned by Westpac Group).
NotCentralised *NotCentralised Collateralised Loans (pilot)*	NotCentralised piloted the structuring, issuance and management of a tokenised structured finance security backed by loans. The tokenised security was structured, issued and managed on a bond exchange, with settlement of associated payment flows occurring via a private money token backed by wCBDC. *DLT network used in use case:* Redbelly Network. *Collaborating parties involved in use case:* AMAL Trustees Pty Limited, Perpetual Trustees Ltd, Beachhead Venture Capital Pty Ltd, Australian Bond Exchange, Wisr Pty Ltd.
ProspEx Group *ProspEx Mining Royalty Interests (PoC)*	ProspEx Group conducted a proof of concept demonstrating the tokenisation of a mining royalty (known as a digital fractionalised royalty), using ProspEx's proprietary platform and its purchase using the AUDF stablecoin, and involved a minimum-subscription smart contract-based escrow and conditional settlement mechanism that applied upon the minimum subscription amount being met. *DLT network used in use case:* Public Ethereum. *Collaborating parties involved in use case:* Forte Securities Australia Pty Ltd (AUDF issuer).

Westpac Banking Corporation *Westpac Term Deposit (PoC)*	Westpac conducted a proof of concept exploring how its existing implementation of the NPP PayTo Biller service might facilitate the settlement of any tokenised assets, starting with tokenised term deposit transactions. The use case explored how the existing Australian domestic real-time payment infrastructure and emerging tokenised asset trading platforms might be connected to facilitate atomic settlement in near real-time, while splitting the end-to-end DvP process into a tangible first step for the industry to take. *DLT network used in use case:* This use case was a blockchain network agnostic piece of research. *Collaborating parties involved in use case:* Imperium Markets, Chainlink Labs Pte Ltd, Quintessence Labs.
Zerocap *Zerocap Government Bond (pilot)*	Zerocap piloted the end-to-end lifecycle of an Australian Government bond tokenised as a digital twin issued onto a public-permissioned network. The use case explored primary issuance and secondary trading and redemption using a central limit order book combined with an automated marker maker, with settlement in RLUSD stablecoin. *DLT network used in use case:* XRP Ledger. *Collaborating parties involved in use case:* Bano Pty Ltd FX, BGC Brokers LP – the bond was held in custody via the broker at JPMorgan, Chainlink Labs Pte Ltd, Fireblocks Ltd, Ripple Labs Inc, Stormrake Pty Ltd, VBS Exchange Pty Ltd.

Appendix 2: Project Contributors

We would like to extend our appreciation to everyone who submitted use cases, as well as the following individuals and organisations who contributed time and effort to the project.

Group	Name	
Steering Committee	Dr. Brad Jones (*Chair, Reserve Bank of Australia*) Chris Thompson (*Reserve Bank of Australia*) Prof. Tālis Putniņš (*Digital Finance CRC*) Dr. Tony Richards (*Digital Finance CRC*) Dr. Rhys Bollen (*Australian Securities and Investments Commission*) Daniel Chippeck (*Australian Prudential Regulation Authority*) Tony McDonald (*Australian Treasury*)	
Project Team	**Reserve Bank of Australia** Jack Hillier Shirley Huang Sanney Isaac Elizabeth Kandelas John Kenyon Alexander Knott James MacNaughton Kylie Stewart Thomas Walker Nick Wiley	**Digital Finance CRC** Dr. Dilum Bandara Ashley Dunsire Franziska Gmeiner Vincent Jadraque Erik Pinkerton James Sangalli Dr. Mark Staples Dr. Qin Wang Dr. Dustin Weiss
Partner Agencies	Australian Prudential Regulation Authority Australian Securities and Investments Commission Australian Treasury Australian Transaction Reports and Analysis Centre	
Support Partners	Allens EY Fireblocks Kaleido	
Deposit Token Working Group	Digital Finance CRC (*Chair)* Australia and New Zealand Banking Group Commonwealth Bank of Australia National Australia Bank Limited Westpac Banking Corporation Ashurst Australia (*Legal support)*	

Industry Use Case Participants	Alceon Group AMAL Trustees Pty Ltd AUDD Digital Austraclear King & Wood Mallesons Australia and New Zealand Banking Group Australian Bond Exchange Australian Payments Plus Australian Securities Exchange AustralianSuper Bank of Queensland Banking Circle Australia Bano Pty Ltd Barrenjoey Markets Pty Ltd Beachhead Venture Capital Pty Ltd BGC Brokers LP BT Panorama Canvas Digital Pty Ltd CoinSpot Chainlink Labs Challenger Limited Colonial First State Commonwealth Bank of Australia Commonwealth Superannuation Corporation Cuscal Limited Fasanara Capital Ltd Fieldrock Pty Ltd Fireblocks Forte Tech Solutions Pty Ltd	Global Packaging Company Hedera HQLA^{X} Imperium Markets Jelly C Pty Ltd J.P. Morgan Macropod MessageXchange National Australia Bank Limited Netwealth Group Limited Northern Trust NotCentralised Dr Oleksii Konashevych Openmarkets Australia Limited Perpetual Limited ProspEx Group QuintessenceLabs Redbelly Network Dr. Rand Low Ripple Labs Inc. RMIT University Sanlam Private Wealth Stormrake Pty Ltd Swift TAF Capital Pty Ltd Tokeniser Pty Ltd VBS Exchange Pty Ltd Westpac Banking Corporation Wisr Pty Ltd Zerocap Zodia Custody Australia
Industry Advisory Group Members	Dr. Tony Richards *(Chair)* Max Allan (*King & Wood Mallesons*) Bianca Bates (*JP Morgan*) Drew Bradford (*Macropod*) Alvin Chia (*Northern Trust*) Ross Edwards (*Ripple*) Sophie Gilder (*CBA*) Hannah Glass (*Ashurst*) Dennis Hoenig (*Kaleido*) Rajat Jain (*AusPayNet*) Damian Jeffree (*AFMA*) Tim Johnson (*AP+*) Rene Michau (*Standard Chartered*)	Omer Mohammad (*DigitalX*) Matthew Neece (*Perpetual*) Rose Ong (*Swift*) Varun Paul (*Fireblocks Ltd*) Robert Porter (*ANZ*) Arturo Rodriguez (*NotCentralised*) Lucy Stan (*Westpac*) Paul Stonham (*BTC Markets*) Blake Vanderwee (*NAB*) Frederik Van den Weghe (*ASX*) Chris Weeks (*Imperium Markets*) Sharon Yuen *(R3)*

Abbreviations

ABE	Australian Bond Exchange
ADI	Authorised deposit-taking institution
ANZ	Australia and New Zealand Banking Group
AML	Anti-money laundering
AP+	Australian Payments Plus
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investments Commission
AUSTRAC	Australian Transaction Reports and Analysis Centre
BIS	Bank for International Settlements
BoE	Bank of England
CBA	Commonwealth Bank of Australia
CBDC	Central bank digital currency
CFR	Council of Financial Regulators
CHESS	Clearing House Electronic Subregister System
CTF	Counter-terrorism financing
DFCRC	Digital Finance Cooperative Research Centre
DFMI	Digital financial market infrastructure
DLT	Distributed ledger technology
DSS	Digital Securities Sandbox
DTWG	Deposit Token Working Group
DvP	Delivery versus payment
ERS	Enhanced Regulatory Sandbox
ESA	Exchange Settlement Account
EVM	Ethereum Virtual Machine
FCS	Financial Claims Scheme
FMI	Financial market infrastructure
HKMA	Hong Kong Monetary Authority
HVCS	High-value clearing system
IAG	Industry Advisory Group
MAS	Monetary Authority of Singapore

MLETR	Model Law on Electronic Transferable Records
MMF	Money market fund
NPP	New Payments Platform
PSNA	*Payment Systems and Netting Act 1998*
RBA	Reserve Bank of Australia
RITS	Reserve Bank Information and Transfer System
RTGS	Real-time gross settlement
SNB	Swiss National Bank
SVF	Stored-value facility
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TCP	Tokenised custody platform
wCBDC	Wholesale central bank digital currency

Glossary

Atomic settlement	Atomic settlement is a mechanism where multiple transaction legs (e.g. payment and asset transfer) are linked and executed simultaneously as a single, indivisible 'all-or-nothing' event, typically using smart contracts. It guarantees that if one part fails, the entire transaction reverts
Delivery versus payment (DvP)	Settlement mechanism that links an asset transfer and a funds transfer in such a way as to ensure that delivery occurs if and only if the corresponding payment occurs Adapted from: https://www.bis.org/publ/qtrpdf/r_qt2003c.pdf
Deposit token	Digital representation of commercial bank deposits, where the token represents a claim on the bank's balance sheet (a digital native token for commercial bank deposits)
Digital asset	Asset for which the rights or title are represented by digital tokens, including crypto-assets and tokenised real-world assets
Digital token	Unit of digital information that can be exclusively used or controlled by a person, often used to represent rights or title to an asset
Digital native token	Digital token that is the authoritative record of a claim to entitlements, or that is implemented as a cryptocurrency as an integral part of a DLT system
Digital twin token	Digital token representing claims to entitlements but which is not the authoritative record of the claim to those entitlements
Distributed ledger technology (DLT)	Technology that enables the operation and use of ledgers shared across a network of computers (nodes) and synchronised between them using a consensus mechanism
Permissioned distributed ledger system	Distributed ledger system in which authorisations are required to perform particular activities Adapted from: https://www.iso.org/obp/ui#iso:std:iso:22739:ed-2:v1:en:term:3.72
Private distributed ledger system	Distributed ledger system that is accessible for use only to a limited group of users Adapted from: https://www.iso.org/obp/ui#iso:std:iso:22739:ed-2:v1:en:term:3.75
Smart contract	Computer program stored in a distributed ledger system where the outcome of any execution of the program is recorded on the distributed ledger Source: https://www.iso.org/obp/ui#iso:std:iso:22739:ed-2:v1:en:term:3.88
Tokenisation	Process of creating a token to represent ownership, rights, or claims to an asset
Tokenised deposit	Digital representation of commercial bank deposits, where the token represents a claim on a balance that is recorded in another system (a digital twin token for commercial bank deposits)