Research Report

Global Research on Tokenised Bank Deposits

The technology, market forces, regulatory direction and emerging models shaping the development of tokenised bank deposits

November 2026

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Foreword

Payments are part of everyday life, but the systems behind them must also be ready for what comes next. At Payments NZ, our vision is world class payments for Aotearoa New Zealand. We lead, govern and connect the payments ecosystem, taking a long-term view of payments system developments and change, ensuring our payments system in Aotearoa remains trusted, resilient and able to serve people and businesses as new technologies and challenges emerge.

Tokenised bank deposits – digital representations of commercial bank deposits – are one example of this change. Around the world, banks, payment organisations and public institutions are exploring how tokenised deposits could add new capabilities to commercial bank money, including supporting payments alongside new digital services and assets. The potential applications are significant, but so are the considerations involved in enabling tokenised deposits to operate safely across institutions and at scale.

This report brings together global research and practical development in tokenised bank deposits, providing a picture of where things stand internationally. It is intended to provide industry participants, policymakers and others interested in this area with a clear and credible evidence base for considering the opportunities, risks and choices ahead. It does not prescribe a solution.

The research shows tokenised deposits are moving from experimentation towards implementation. Developments reported at Sibos 2026 reinforce that momentum, with broader use cases and live transactions now taking place across institutions and currencies. The opportunities, risks and choices ahead extend beyond the technology itself. They include how different systems work together, what they need to have in common, how risks are managed and where accountability sits. No single organisation can address these issues alone.

We are pleased to share this research and hope that it is a useful industry tool to support informed conversation about what tokenised bank deposits could mean for the future of payments in Aotearoa.

Ko te pae tawhiti, whāia kia tata; ko te pae tata, whakamaua kia tina
– Seek out distant horizons whilst sustaining what's already here.

Ngā mihi



Chad Haighmark
GM Strategy, Payments NZ



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Executive summary

The takeaway

Tokenised deposits are moving from experimentation towards implementation, with live transactions now taking place across banks, currencies and use cases. Widespread adoption will depend on much more than technology. International evidence shows that interoperability, common rules, trusted settlement and clear governance are needed for tokenised deposits to work safely across institutions and at scale.

What tokenised deposits are

A tokenised deposit is a digital representation of a customer's bank deposit on programmable infrastructure.

Importantly, it remains commercial bank money. The deposit stays on the bank's balance sheet, typically within the existing regulatory framework. What changes is how it can be digitally represented and used, allowing money to be locked, released or transferred when agreed conditions are met.

This distinguishes tokenised deposits from stablecoins. A stablecoin is a separately issued private claim backed by reserve assets, while a tokenised deposit remains an existing claim on a regulated bank.

Why they matter now

International activity is accelerating for four main reasons:

- preserving the deposit relationship and the role deposits play in funding credit
- adding programmability and automation to commercial bank money
- improving efficiency and reducing fraud and settlement risk
- banks responding to competition from stablecoins and other forms of digital money.

The potential is not simply to move money faster. Tokenised deposits could allow the payment itself to become part of a wider digital transaction, coordinating money with assets, data, contractual obligations or external events.

What has already happened

The evidence has moved beyond theory:

- United Kingdom: live customer transactions using tokenised sterling deposits
- Singapore: live domestic interbank tokenised-deposit transactions
- Switzerland: a legally binding cross-bank payment and tokenised asset exchange
- Australia: tokenised deposits tested in real-value wholesale transactions
- Germany: proof of concept completed, with pre-production work under way
- Canada: six-bank consortium under development
- United States: multi-bank consortia and The Clearing House initiative
- Swift: live 24/7 activity across five currencies and multiple use cases
- Project Agorá: real-value testing across 28 institutions and six currencies
- Single-bank activity already operating at commercial scale, e.g. J.P. Morgan and Citi.

This demonstrates growing technical and institutional maturity. The report finds increasing strategic and institutional interest, with demand appearing strongest where payments are part of a complex workflow and programmability can address material cost, delay, fraud or settlement risk.

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Where the potential value lies

Our research identified potential applications across both retail and wholesale payments, including:

- consumer marketplace and property transactions
- trade and supply-chain payments
- corporate treasury and liquidity management
- automated compliance and controlled payments
- machine-to-machine and usage-based payments
- securities, collateral and tokenised asset settlement.

The potential value is greatest where payment is only one part of a wider transaction. Programmability can connect payment with agreed conditions and other actions, potentially reducing manual intervention, reconciliation, fraud and settlement exposure.

The critical finding: this is a network proposition

A bank can tokenise deposits within its own network and improve its own services. The wider opportunity depends on tokenised deposits being able to work reliably across institutions.

That is why many leading initiatives involve groups of banks and shared arrangements. The research increasingly points towards models where banks retain control of their own deposits and technology, while shared orchestration, interoperability, standards and rules allow those separate systems to work together.

Conditions for safe and scalable development

International experience is also building a clearer picture of the conditions needed for tokenised deposits to operate safely across institutions and at scale.

These include:

- the importance of interoperability and common standards
- legal and settlement certainty
- clear governance
- appropriate liquidity and settlement arrangements
- privacy and financial-crime controls
- operational resilience
- maintaining the singleness of money across institutions.

What this means for Aotearoa New Zealand

This report does not recommend a tokenised-deposit model for Aotearoa.

Its purpose is to establish a credible global evidence base on what tokenised deposits are, what has been demonstrated internationally, where potential value is emerging and what conditions would be required for safe and scalable operation.

Aotearoa-specific analysis has intentionally been kept outside the scope of this research and will be considered separately.

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About this report

Purpose

This report summarises global research on tokenised bank deposits as at November 2026. It is intended for payments industry participants, policymakers and other readers who need a clear working understanding of what tokenised deposits are, why they are being explored, how they are being developed and governed, and what has been demonstrated.

Scope of research

The research focuses on *domestic tokenised bank deposits* and the arrangements required for their use across institutions.

The following adjacent subjects are outside the main scope of research conducted:

- *Stablecoins* and other private digital money, except where they create competitive or policy pressure on bank deposits or need to be distinguished from tokenised bank deposits.
- *Central bank digital currency*, except where it affects tokenised bank deposit design or settlement.
- *Cross-border and multi-currency settlement*, except where it provides design insights relevant to domestic arrangements.
- *Tokenised assets*, except where they interact with tokenised bank deposits as part of a transaction.

This report provides a global view only. Material focused on Aotearoa has been intentionally excluded from our research and will be addressed separately.

Main sources of research

Citations are provided wherever possible in brackets, with references in Appendix B. The research draws on four principal sources:

- *Industry and consortium publications* documenting tokenised deposit initiatives, pilots and implementation programmes.
- *Professional and advisory research* analysing market developments, use cases, opportunities and challenges.
- *Official publications and policy statements* from central banks, regulators and international institutions.
- *Academic and research literature* examining the legal, economic, technical and policy implications of tokenisation.

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Part I: Foundations

1. Money, deposits and the two-tier system

Understanding tokenised bank deposits begins with the monetary system they operate within, because it determines what the deposit legally represents, the relationship between the bank and customer, and how value is settled between banks. Modern monetary systems operate in two tiers:

- Tier 1: Central banks issue *central bank money*, comprising reserves held by commercial banks and physical cash held by the public.
- Tier 2: Commercial banks accept deposits from customers and record them as a liability on their balance sheets. These deposits are known as *commercial bank money*. Banks use these deposits, together with their capital and other funding sources, to provide mortgages, business loans and other forms of credit throughout the economy.

Central banks therefore anchor trust and final settlement, while commercial banks use deposited money to create and allocate credit (Bank for International Settlements (BIS), November 2025). Most money in circulation in an economy is 'commercial bank money' that has been created by private banks.

Two properties of money deposited at a commercial bank are particularly important.

- First, a bank deposit is money that the bank owes to its customer, rather than something physically stored or set aside for them. When a payment moves between customers of different banks, one bank reduces the liability it owes its customer, the other increases the liability it owes the recipient, and the resulting interbank obligation is settled in central bank money.
- Second, deposits issued by different banks are treated as equivalent and exchanged at par, meaning a dollar is a dollar and it is treated the same everywhere. The BIS describes this property as singleness and identifies it, together with elasticity and integrity, as a core requirement of the monetary system (BIS, 2025, 2026).

Tokenisation does not, by itself, alter this structure. A tokenised deposit typically remains a regulated bank liability, stays on the bank's balance sheet and continues to support the bank's credit creation role in the economy. What changes is how the deposit's claim is recorded or represented, how it can be transferred, and the instructions or conditions that can be attached to the use of that deposit (BIS, November 2025; The Clearing House, June and August 2026). A key benefit of tokenised deposits is that they aim to combine the trust and familiarity of bank deposits with the flexibility of programmable infrastructure.

UK Finance describes tokenised deposits as digital representations of commercial bank money that retain the trust and regulatory protections of conventional deposits while adding capabilities such as enhanced speed and fraud protection (UK Finance, 2025, 2026). The BIS similarly frames tokenisation as a way of carrying the institutional strengths of the two-tier monetary system into programmable environments (BIS, November 2025).

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2. Forms of money and how they are distinguished

The legal and prudential treatment of a digital monetary instrument depends primarily on the nature of the claim and its issuer, rather than on the technology used to record it.

The Bech and Garratt money flower (Bech and Garratt, 2017) provides a widely used taxonomy, classifying forms of money according to issuer, physical or electronic form, access and whether the system is account-based or token-based. The categories most relevant to tokenised deposits, and the distinctions carrying legal or prudential significance, are set out below.

Table 1. Forms of money in current use, by issuer and legal character

Instrument	Issuer and legal character	What distinguishes it
Central bank money	Central bank liability. Reserves held by banks, cash held by the public.	The settlement asset. Carries no credit risk and is used to provide final settlement between banks.
Commercial bank money	Created through lending by leveraging customer deposits.	Carries bank credit risk, sits on the bank's balance sheet, supports credit creation, and can be protected by deposit protection schemes.
Tokenised commercial bank deposit	Remains commercial bank money, as above. The recording technology does not change the legal nature.	Same legal character as a conventional deposit. The customer's liability claim (deposit) is recorded or represented on programmable infrastructure and can be locked, released or conditioned.
Regulated stablecoin	A regulated private issuer's liability backed by a reserve portfolio of assets.	The owner's redemption depends on the issuer and the assets held. If a stablecoin happens to be issued by a bank, the liability typically sits outside the bank's deposit base.
Unregulated or partially regulated stablecoin	Private issuer liability, with varied reserve and governance arrangements.	Subject to uneven or absent prudential requirements. The category the international standard-setters treat as posing the greatest integrity and stability risk.
E-money token	Claim on funds held with an issuer for payment purposes.	Not a bank deposit and not a reserve-backed stablecoin. Supervisory frameworks typically treat this as a separate form of money with different regulatory frameworks.

Tokenised deposits and stablecoins are often discussed together because both can support programmable payments. Their legal character, balance-sheet position and prudential treatment are fundamentally different. A tokenised deposit remains an existing claim on a regulated bank, while a stablecoin is a separately issued private claim supported by its own reserve and redemption arrangements.

The European Banking Authority (EBA) and Canada's Office of the Superintendent of Financial Institutions (OSFI) have both applied a technology neutral approach. A bank recording a deposit claim using distributed ledger or other digital technology does not, by itself, change its underlying legal character or regulatory classification of the deposit (EBA, December 2024; OSFI, September 2026). Existing legal, prudential and risk management obligations continue to apply (OSFI, September 2026). This provides a clearer pathway for innovation within the existing banking framework. Where a tokenised deposit retains the legal character of a deposit, there is no regulatory reclassification problem to overcome because existing regulatory frameworks covering conventional deposits can be extended to tokenised deposits. The central challenge then shifts towards establishing the infrastructure, interoperability, settlement, governance and business arrangements needed to make tokenised bank deposits work safely and at scale across institutions.

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Bank implementation models for tokenised deposits

Research identifies two broad approaches for how banks implement tokenised deposits – programmable representation and the digitally native token.

In the *programmable representation* model, a tokenised deposit is a digital representation of an existing account-based deposit, with the bank's core systems remaining the authoritative record. This approach acts as a smart digital layer wrapped around existing core banking systems. Tokens are issued and destroyed to reflect actions in the bank's existing core system. Banks can use this model to unlock programmable payments and other benefits without changing their core architecture, although it does bring reconciliation, synchronisation and interconnectivity challenges.

In the *digitally native token* model, which is commonly referred to as a "deposit token", the customer's deposit is represented and recorded only by a digitally native token operating on programmable infrastructure. In this model, the token itself is the money, existing only on a distributed ledger which serves as the bank's primary system to record the liability. Value transfer happens directly through ledger updates, removing the need for reconciliation with other systems, which enables true atomic settlement between different institutions. However, this model requires a greater overhaul of bank systems and requires the management of new risks.

For clarity, the terminology used for these models can overlap. "Tokenised deposits" is generally used as the broad term for commercial bank deposits operating on programmable infrastructure, but it is also commonly used to describe the *programmable representation model*. By contrast, "deposit token" is one type of tokenised deposit that refers only to the *digitally native model*, in which the token itself is the primary record of the bank's liability.

Both approaches typically preserve the underlying legal character of the deposit as commercial bank money. The distinction is primarily architectural and operational rather than monetary or prudential.

Emerging interoperability and orchestration models suggest that a shared network can support different bank implementation approaches and models simultaneously, provided participants can consistently interpret obligations and settle (Reserve Bank of Australia (RBA) Digital Finance Cooperative Research Centre (DFCRC), May 2026; Quant, July 2026; UK Finance, 2026; Swift, March and July 2026).

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Part II: Why tokenised deposits are being explored

3. Stablecoins and competitive pressures

Stablecoins are the pressure that is most frequently cited as to why banks and their consortiums began work on tokenised deposits. Stablecoin market capitalisation exceeded US$300 billion by May 2026 and is overwhelmingly US dollar-denominated. (European Central Bank (ECB), November 2025; ECB, May 2026; International Monetary Fund (IMF), December 2025). While still small relative to global bank deposits and payment flows, their growth trajectory and growing regulatory recognition have led banks and policymakers to treat them as a credible future competitive force. Their programmability, 24/7 operation and growing integration into payment workflows and digital asset ecosystems have increased their utility. Unlike bank deposits, stablecoins sit outside the banking deposit base, creating the possibility that transaction balances could migrate away from commercial banks and affect banks' funding models and the two-tier monetary system that supports credit creation.

Central bank research identifies a deposit-substitution channel through which stablecoin growth could affect bank funding, lending and the speed of deposit outflows during stress. Part VI of this report examines these macro-financial channels and the safeguards adopted in response. Work by the BIS, IMF and the Financial Stability Board (FSB) presents tokenised commercial bank money as one way of bringing the functional benefits of tokenisation into the existing regulated monetary system. Concurrently, public institutions have identified risks associated with current stablecoin arrangements and have developed regulatory frameworks to address them. The policy direction favours innovation within the existing two-tier monetary system via tokenised bank deposits, subject to singleness, integrity and financial-stability safeguards (BIS, 2025, 2026; IMF, December 2025; FSB, October 2025).

New statutory and regulatory frameworks have increased the prospect of stablecoins moving beyond crypto markets. The US enacted the GENIUS Act in July 2025, while the FSB continued to report uneven implementation of its global recommendations (US Congress, July 2025; FSB, October 2025).

4. Motivations of banks and their coalitions

The main motivations held by banks and their industry bodies for pursuing tokenised deposits programmes consistently fall into the following categories.

- **Preserving the deposit relationship and the balance sheet role.** The Clearing House states that tokenised deposits combine programmability and interoperability with the balance sheet benefits of commercial bank money, while preserving banks' role in extending credit and supporting economic growth (The Clearing House, June and August 2026).
- **Responding to competition from new forms of digital money**. Tokenised deposits allow banks to add digital capabilities while retaining customer balances within the regulated banking system as competition from stablecoins and other forms of digital money develop (BIS, 2025, 2026; IMF, December 2025; The Clearing House, June and August 2026).
- **Programmability and process automation**

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- UK Finance links their work to the National Payments Vision and describes tokenised deposits as a means of applying new technology to the form of money most widely used by households and businesses. They identify conditional payments, locked funds and automated release on specified events (UK Finance, 2025, 2026).
- Germany's Commercial Bank Money Token work identifies smart contracts, delivery versus payment, pay-per-use, microtransactions and continuous automated payments (German Banking Industry Committee).
- The Swiss work identifies automation of complex transactions and reduction of manual sequencing (Swiss Bankers Association (SBA), September 2025).

- **Fraud reduction and customer control.** This is most prominent in the UK, where the stated objectives for the marketplace use case are reduced fraud, reduced counterparty risk and greater buyer and seller confidence, and for the remortgage use case reduced conveyancing fraud and manual checking.
- **Faster and more efficient processes, digital-asset settlement, innovation and competitiveness.** These appear across programmes, together with broader participation, referring to tokenisation-as-a-service arrangements intended to allow organisations without their own tokenised deposit capability to take part (UK Finance, 2026).
- **Reducing operational friction and settlement risk**. Tokenised deposits can automate payment conditions, reconciliation and collateral movements, while atomic or synchronised settlement can reduce counterparty exposure (RBA and DFCRC, May 2026; UK Finance, 2026; BIS, November 2025).

BIS and the Committee on Payments and Market Infrastructures (CPMI) work on network effects describe how a tokenised deposit deployed by one bank can improve internal processes, but its wider payment value remains limited until customers can transact across banks and services, making collective action rational for otherwise competing institutions (BIS/CPMI, October 2024). Parts III and IV of this report further explore these motivations and approaches.

5. Policy and regulatory drivers

Official institutions have converged on a broadly consistent direction. Across major jurisdictions, the policy objective is to preserve the existing two-tier monetary system while enabling new benefits from programmable money and settlement infrastructure.

The BIS has set out this direction across three Annual Economic Reports. Its 2023 blueprint proposed a unified ledger combining central bank money, tokenised deposits and tokenised assets on programmable infrastructure, while allowing for multiple specialised ledgers connected through APIs. In its 2025 report, tokenised central bank reserves, tokenised commercial bank money and tokenised government bonds were placed at the centre of a next generation payment system, with central bank reserves providing settlement and liquidity, commercial bank money preserving deposit creation and credit, and government securities providing collateral and a safe asset. In 2026 the BIS called for weaknesses in stablecoin arrangements to be addressed while the technological gains of tokenisation are brought into the regulated two-tier system (BIS, 2023, 2025, 2026).

The BIS/CPMI report of October 2024 sets out the analytical framework most directly relevant to tokenised deposits. It identifies network effects as a central adoption question and notes that tokenisation initiatives have often developed in silos. The report also cautions that familiar financial market infrastructure risks remain and may appear in different forms, with governance, legal certainty, operational resilience, cyber controls, liquidity arrangements, auditability and fallback processes all identified as important prerequisites (BIS/CPMI, October 2024).

The Bank of England (BoE) describes the future UK environment as a multi-money system containing traditional and tokenised bank deposits, regulated stablecoins, cash and potentially a digital pound (i.e. CBDC). All forms are intended to function as sterling money, maintain stable nominal value and exchange at par, with central bank money continuing to anchor the multi-money system. Its domestic interoperability work puts the singleness of money centre of the design

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of its modernisation efforts (BoE, July 2025, September 2025). The BoE has made no decision to issue a digital pound, and its work treats a digital pound as a possible public-money component rather than a prerequisite for tokenised commercial bank money (BoE, October 2025).

The ECB treats central bank money as the settlement anchor for a tokenised financial system, identifying platform fragmentation and the absence of a common trusted settlement asset as barriers to scale. It also distinguishes the technological functions associated with stablecoins from the monetary instrument used to provide them (ECB, November 2025, March 2026, May 2026).

Taken together, these positions point towards a tokenised financial system that remains anchored by central bank money, preserves the role of commercial bank money, and relies on interoperability, governance and legal certainty rather than any specific technology choice.

6. Bank funding and credit provision

As discussed above, tokenised deposits preserve funds within the banking system by retaining them as bank liabilities. This allows banks to offer programmable forms of money, without separating payments from the deposit funding that supports banks providing credit into the economy.

The specific design of tokenised deposits may still affect liquidity and balance sheet treatment, particularly where greater transferability changes assumptions about deposit stability, demand for high-quality liquid assets or the timing of interbank settlement and netting (Federal Reserve Bank of Dallas, July and August 2026).

The ability of tokenised deposits to preserve transaction balances within the banking system becomes more strategically important if those balances might otherwise migrate into stablecoins or other forms of digital money outside the banking system. At sufficient scale, deposit substitution could increase banks' reliance on wholesale funding, raise the cost or reduce the availability of credit, and accelerate deposit outflows during stress. The effect depends on the scale and speed of migration, remuneration, holding limits, reserve composition and where the funds are ultimately held (ECB working paper 3199; BoE, November 2025, June 2026).

7. Monetary policy and monetary sovereignty

Tokenised deposits retain money within the domestic banking system and preserve the role of commercial bank deposits in credit creation and monetary policy transmission. Because they remain denominated in the domestic unit of account and anchored to central bank money, they also provide a route for introducing programmability without disrupting that transmission of monetary policy and without displacing domestic bank money with privately issued foreign currency instruments (BIS 2025, 2026; ECB working paper 3111).

Their strategic significance increases where the alternative is migration into stablecoins, particularly US dollar-denominated instruments. At sufficient scale, that migration could raise bank funding costs, weaken the transmission of official cash rates through lending conditions and increase the risk of US dollarisation. Tokenised deposits therefore offer a way to add digital functionality while retaining the monetary relationships that support domestic credit provision and monetary sovereignty (ECB working paper 3199; IMF, December 2025; ECB, May 2026).

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Part III: Capabilities, use cases and value proposition

8. Smart contracts

A smart contract provides the underlying technical architecture that enables a contracted set of arrangements, or rules, to be embedded into a broader business process. Smart contracts can enable both payments and non-payment related scenarios.

In a payments context, rather than treating the payment as a separate step that must be manually initiated and verified afterward, smart contracts run automated "if/then" code on a shared ledger. This logic can coordinate actions between multiple parties and guarantee that money cannot move until pre-agreed digital triggers are met.

The IMF describes this shift as moving execution, settlement and parts of risk management towards shared infrastructure with programmable logic (IMF, April 2026).

Smart contracts can strengthen the auditability of tokenised deposit transactions by turning programmed checks into verifiable records of execution. BIS Innovation Hub's Project Mandala, whose architecture can be applied to tokenised bank deposits, records smart contract proof verification in the transaction receipt and gives visibility of the status including whether it succeeded or failed (BIS Innovation Hub, October 2024).

Smart contracts act as the programmable framework. The BIS describes this as a structural opportunity to merge transactions, data, and business logic into a single ledger, enabling workflows that are impracticable today because payment messaging, settlement, compliance, and business processes are separated (BIS, 2023).

9. Programmable payment capabilities

While smart contracts provide broad technical logic capabilities to support a workflow, programmable payments are focused specifically on the payments part of the workflow, including the practical payment capabilities and financial features that are delivered to the end user. Programmable payments are the capability most consistently identified in the research as a key value proposition of tokenised deposits. The following table compares the two.

Table 2. Smart contracts vs programmable payments

Feature	Smart contract	Programmable payment
Scope	Broad application logic, state management, and rules engine supporting a business process or workflow.	A specific, goal-oriented transfer of funds, driven by specific defined conditions and possible actions.
Function	Can run continuous services (e.g. lending, investments, governance, supply chain management, billing).	Executes a movement of money (e.g., escrow release, subscription split).
Relationship	The engine or container holding the code and logic.	The output or action resulting from that logic.

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Today's payment systems efficiently move money from one account to another. Programmability allows the payment itself to become part of a wider transaction or business process. Instead of simply transferring funds, a programmable payment can reserve money, link a payment to an external event, coordinate multiple actions, or ensure that money and an associated asset, obligation or business outcome occur together. This creates the potential to reduce reconciliation, manual intervention, fraud and settlement risk in workflows where the payment depends on conditions being satisfied (UK Finance, 2026; BIS, November 2025).

A common proposition across the UK, German and Swiss programmes is the conditional payment, where money is committed to a transaction before it is transferred. Funds are reserved as locked funds, a condition is verified, and payment occurs only when that condition has been met. In the UK, a retail marketplace use case (e.g. Facebook marketplace) was recently tested in production, where a buyer's funds are locked in order to provide certainty to the seller, and the funds are released only once goods have been exchanged. In the UK's mortgage use case, funds are locked and released at completion, with interest continuing to accrue to the customer while the funds are held (UK Finance, 2026). In German industrial work, a payment can be linked to measured consumption, delivery milestones or machine-generated events. The BIS describes the underlying opportunity as integrating transactions and enabling arrangements that are impracticable where messaging, settlement and business processes are separated (BIS, 2023).

By automatically executing agreed conditions, it can reduce manual intervention, coordinate activity between multiple parties to the transaction, and lower the risk that money moves before the associated obligation has been met.

The BIS describes tokenisation as enabling workflow logic, compliance requirements and conditional payment triggers to be embedded directly in transactions, and identifies reduced reconciliation, manual intervention, delay, cost and payment failure as potential gains (BIS, November 2025).

Two further capability benefits appear in the UK and Swiss programmes and in the BIS blueprint:

- **atomic or synchronised exchange**, in which the payment and the transfer of an asset are coordinated so that both complete together or neither does. This removes the risk that one party delivers the money or asset while the other side of the transaction remains incomplete, and
- the use of a **shared transaction state**, in which authorised parties can all observe the status of a multi-party workflow rather than reconciling separate records.

10. Relationship with real-time payments

Current tokenised bank deposit programmes build on the reach and speed of existing real-time payment systems. Their strategic value lies in extending payments into wider business processes, allowing funds to be locked or released conditionally, transactions to be coordinated across several parties, and money to move in step with an asset or other obligation.

The distinction between tokenised deposits and real-time payment systems is more about transaction coordination than payment speed. Real-time payment systems are designed to move money quickly between accounts. Tokenised deposits seek to embed money within a wider transaction or business activity, allowing payment, assets, contractual obligations, compliance requirements and business processes to be coordinated through a shared workflow.

Tokenised deposits can support near real-time movement of funds and continuous 24/7 availability. Live implementations and pilots have demonstrated 24/7 payments, real-time transaction processing and cross-bank transfers across domestic and international use cases (UK Finance, 2026; Swift, July, September and October 2026; DBS Bank, Oversea-Chinese Banking Corporation (OCBC) and United Overseas Bank (UOB), September 2026).

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The speed achieved depends on the operating model and the relationship between the token transfer and final interbank settlement (Swift, March and July 2026; The Clearing House, August 2026).

The Clearing House, UK Finance, BoE, and the Swiss and German programmes all describe tokenised deposits as complementary to existing payment infrastructure rather than a replacement for it. Their focus is on interoperability with current payment systems and on adding new coordination and automation capabilities around the payment itself.

The Clearing House describes tokenised deposits as an evolution of commercial bank money and proposes connecting them to real-time payments and Clearing House Interbank Payments System (CHIPS). UK Finance has examined their overlap with account-to-account payments, open banking, existing infrastructure and overlay services. Switzerland's proof-of-concept retained Swiss Interbank Clearing, while Germany's model connects programmable commercial bank money with industrial distributed ledger environments. The BoE similarly describes a future based on interoperability among different forms of money and payment infrastructure (The Clearing House, 2026; UK Finance, 2025; SBA, September 2025; German Banking Industry Committee; BoE, July and September 2025).

Current tokenised deposit programmes generally retain existing payment and settlement infrastructure while testing whether programmable coordination, conditional use of funds and synchronised asset exchange provide capabilities that are difficult to achieve through existing payment arrangements and infrastructures.

The following table provides a summary comparison of what research shows tokenised bank deposits may add over and above real-time payment systems.

Table 3. Established real-time payment capabilities and the additional functions tokenised bank deposits may provide

Transaction requirement	Established real-time payment systems	What tokenised deposits may add
Move money	Immediate or near-immediate account-to-account transfer.	Immediate transfer of tokenised deposits, with funds also able to be committed, reserved or released automatically when specified and programmed conditions are met.
Coordinate the wider transaction	Payments are initiated and confirmed separately from much of the surrounding business process.	Payment conditions and related business process actions can be coordinated within a programmable workflow.
Give parties a common view	Participants rely on messages, confirmations and records held across separate systems.	Authorised parties can share visibility of transaction states and whether conditions have been met.
Respond to external events	Overlay services can request or initiate a payment when an external event occurs.	A verified event can govern the automatic commitment, sequencing or release of funds within the transaction.
Exchange money and an asset	The payment and asset transfer are ordinarily coordinated across separate systems.	The cash and asset legs can complete synchronously or atomically, reducing the interval in which one party has performed and the other has not.
Complete multi-party workflows	Wider processes depend on overlays, bilateral integrations and reconciliation between multiple participants.	Multiple actions and participants can be coordinated through common transaction logic and state.
Settle between banks	Established clearing and central bank money arrangements provide interbank settlement.	The transfer of tokenised deposits can be linked to the underlying settlement between banks.
Key implementation challenge	Extending overlays and integrating them with wider business processes and sustainable economics.	Establishing legal effect, interoperability, governance, liquidity arrangements and viable production economics.

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11. Use cases identified in the research

The research shows that tokenised bank deposits have potential applications across both retail and wholesale payments. The table covers consumer, corporate, industrial, public-sector and financial market use cases, and distinguishes live transactions from proofs of concept and prospective applications.

Table 4. Principal tokenised-deposit use cases and the evidence supporting them

Use case area	What tokenised deposits may enable	Evidence to date
Person-to-person payments	Customers can transfer commercial bank money directly between accounts at different banks through programmable infrastructure. Payments may operate 24/7 and can be linked to conditions or other actions where the transaction requires more than a straightforward transfer.	A legally binding payment between customers of different banks was completed in the Swiss proof of concept (SBA, September 2025).
Consumer marketplace and escrow-style payments	A buyer's funds can be locked (i.e. reserved in escrow for a specific purpose in their account when a purchase is agreed and released to the beneficiary only when the goods are exchanged or another agreed condition is met, reducing transaction risk while providing certainty that funds have been committed).	A live consumer marketplace transaction between two consumers was completed in the UK using tokenised sterling deposits. The buyer's money was locked and released when the goods were exchanged (UK Finance, 2026).
Property, mortgage and other high value consumer transactions	Funds can remain in the customer's deposit account until completion and then be released automatically when contractual, conveyancing, title or other conditions are satisfied. Linked actions or transactions could be coordinated in the same workflow.	Two live UK remortgage completions locked deposit funds and released them automatically at completion, with interest continuing to accrue in the customer's account. The pilot also explored potential connection with land registration data (UK Finance, 2026).
Retail payments embedded in wider services	A payment can be incorporated into a digital service rather than initiated separately. Funds could be reserved or released in response to delivery, verified use, eligibility, service completion or another external event.	Automated rent and utility payments have been explored through Japan's DeCurret DCP work. Swiss programme material identifies automated insurance claims and machine-to-machine transactions as prospective applications (DeCurret DCP, November 2025; SBA, September 2025).
Trade and supply chain transactions	A payment can be linked to shipment, delivery, inspection, documentation or contractual milestones, with committed funds released when trusted data confirms that the commercial obligation has been met.	Delivery-linked and milestone-based applications appear in Germany's work with its industrial sector and the wider tokenised money literature to a proof-of-concept stage (German Banking Industry Committee, 2024; Cambridge Centre for Alternative Finance, February 2026).
Industrial, machine-to-machine and usage-based payments	Payments can respond automatically to measured consumption, production output or machine-generated events, supporting pay-per-use, microtransactions and continuous payments for services or equipment.	Germany's work has examined pay-per-use, microtransactions and continuous automated payments (German Banking Industry Committee, 2024).

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Use case area	What tokenised deposits may enable	Evidence to date
Corporate treasury and liquidity management	Businesses could gain real-time cash visibility, automate transfers and liquidity movements, commit funds to specified purposes and link payments to contractual or operational events while retaining interest-bearing balances.	Treasury research identifies liquidity management, cash visibility, shorter settlement exposure and automated conditional payments as areas of interest (Association of Corporate Treasurers, February 2026; Cambridge Centre for Alternative Finance, February 2026).
Wholesale trade payables and receivables	Trade invoices and independent payment undertakings can be represented on programmable infrastructure, allowing a payment to be linked to supply-chain events and supporting automated working-capital and supplier-payment processes.	Australia's Project Acacia included trade-payables use cases led by ANZ and by Netwealth with MessageXchange, examining tokenised invoices, payment undertakings and programmable settlement workflows (RBA and DFCRC, May 2026).
Tokenised fixed income and managed funds	Debt securities, managed fund units and other financial assets can be issued, traded and serviced on programmable infrastructure. Tokenised commercial bank money can provide a settlement asset for primary issuance, secondary trading, distributions and collateral movements.	Australia's Project Acacia tested use cases spanning government and corporate fixed income, private credit and managed funds across several programmable platforms, including issuance, secondary trading, distributions and collateral-related workflows (RBA and DFCRC, May 2026).
Securities and tokenised asset settlement	Tokenised deposits can provide the cash leg for bonds, securities, funds and other tokenised assets. Money and the asset can move together through atomic or synchronised settlement, reducing principal risk.	Switzerland executed an escrow-style exchange involving a tokenised asset. Digital bond settlement is a next stage use case to be tested in production in the UK. Related central bank projects provide adjacent settlement evidence (SBA, September 2025; UK Finance, 2026; BIS, 2026).
Collateral, repo and margin management	Collateral movements, margin calls, substitutions and releases could be coordinated with a payment, shortening settlement exposure and reducing manual sequencing.	Related tokenisation projects and single bank platforms report collateral and intraday repo applications. (BIS 2026; J.P. Morgan, 2026).
Intraday wholesale repurchase markets	Cash and collateral legs can be coordinated through delivery-versus-payment settlement, shortening the interval between performance of each leg and supporting more automated intraday funding and collateral workflows.	A Project Acacia use case led by the Commonwealth Bank of Australia (CBA) with J.P. Morgan, the Australian Securities Exchange and HQLAX examined a tokenised repo involving tokenised Australian Government Bonds and settlement using a commercial bank deposit token and pilot wholesale central bank digital currency (RBA and DFCRC, May 2026; J.P. Morgan and CBA, May 2026).
Bank-to-bank and high value settlement	Separately issued tokenised deposits can move across institutional boundaries, with the resulting interbank obligation discharged through central bank money or another agreed mechanism. 24/7 or synchronised settlement may reduce exposure.	Switzerland completed a legally binding cross-bank payment and the UK has reported live customer transactions across participating banks. Canadian, German and US initiatives remain announced, or in pilot or pre-production stages (SBA, September 2025; UK Finance, 2026; The Clearing House, 2026).

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Use case area	What tokenised deposits may enable	Evidence to date
Automated compliance and controlled payments	Identity, sanctions, anti-money-laundering, eligibility or purpose conditions could be verified before funds move, with the transaction retaining a record of the checks performed and parties authorised to act.	The EBA, BIS/CPMI and German programmes identify embedded compliance and traceable controls as potential capabilities. (EBA, December 2024; BIS/CPMI, October 2024; German Banking Industry Committee, 2024).
Insurance and claims settlement	Claim payments could be triggered or released when a covered event and entitlement are verified, coordinating payment with insurers, assessors, repair providers and other parties.	Insurance applications appear in programme material as prospective uses (SBA, September 2025).
Tokenisation-as-a-service and embedded financial services	Banks or shared providers could give organisations access to programmable commercial bank money without requiring each user to build its own token infrastructure, extending participation across applications and services.	The UK identifies tokenisation-as-a-service as a route for organisations without their own capability to participate. Commercial models, uptake and allocation of responsibilities remain undeveloped in published evidence (UK Finance, 2026).
Cross-border and foreign exchange transactions	Tokenised deposits may support coordinated settlement across currencies, jurisdictions and operating hours, potentially reducing delay, reconciliation and principal risk where issuers, legal frameworks and settlement arrangements interoperate.	Cross-border payments are prominent in the wider literature and Project Agorá examined tokenised commercial bank deposits with wholesale central bank money (Cambridge Centre for Alternative Finance, February 2026; BIS Innovation Hub, May 2026).

12. Demand and the business case

Evidence of demand

Interest in tokenised deposits is broadening beyond technical feasibility towards potential commercial applications. Banks, corporates and industry coalitions are exploring how programmable commercial bank money could improve liquidity management, automate complex transactions, reduce settlement exposure and preserve the deposit relationship as competition from new forms of digital money grows. Demand appears strongest where payments form part of a complex workflow and programmability can address a material source of cost, delay, fraud or settlement risk.

Survey evidence and industry analysis point to growing institutional interest in tokenised deposits. Capgemini's 2027 World Payments Report (September 2026), based on surveys of 1,110 large corporates and 300 banking executives across nine markets, reports tokenised deposits as banks' top near-term priority for retaining deposits and preserving liquidity. Capgemini also views tokenised deposits as a response to corporate demand for visibility, predictability, liquidity control, embedded compliance and reconciliation across the payment lifecycle. Deloitte identifies applications in corporate liquidity movement, interest-bearing balances, regulated risk management and tokenised securities settlement. McKinsey and Boston Consulting Group (BCG) describe a payments market becoming more contested as real-time networks, private rails, programmable systems and embedded platforms develop alongside one another (Capgemini, 2025, 2026, 2027; Deloitte, 2026; McKinsey, 2025, 2026; BCG, 2025, 2026).

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Participation in pilots provides a further signal of institutional interest. Marketplace users, mortgage and conveyancing participants, industrial firms, financial market institutions and corporate cash management users have taken part in programmes in Canada, Germany, Switzerland and the UK.

Announcements at Sibos in September 2026 provided further evidence of demand, delivery readiness and strategic interest. Swift reported that most of its 17 first mover banks had conducted live transactions using its blockchain based ledger. The Clearing House announced it had appointed a delivery partner and implementation providers were developing connections between tokenised deposit infrastructure and established payment processing (Swift, September and October 2026; The Clearing House, September 2026).

The Association of Corporate Treasurers reports growing treasury interest in tokenised deposits, stablecoins and distributed ledger technology (DLT), including requests from executive teams for information. The areas attracting attention include shorter settlement exposure, real-time cash visibility, liquidity management, payment speed, operational resilience and automated conditional payments linked to supply chain milestones or contractual obligations (Association of Corporate Treasurers, 2025).

Taken together, the evidence points to strengthening strategic and institutional interest rather than established commercial demand at scale. Demand appears strongest where a payment forms part of a complex workflow and programmability can address a material source of cost, delay, fraud or settlement risk.

High level summary of sources of value and cost

Tokenised deposits may create economic value through:

- **Process compression**, by coordinating execution, clearing, settlement and reconciliation and reducing sequential hand-offs
- **Lower operational friction**, through automated payment conditions, compliance checks and collateral movements
- **Reduced settlement risk**, through atomic or synchronised exchange
- **Lower fraud and loss**, as validated by the UK use cases
- **Better liquidity and treasury management**, through real-time cash visibility and shorter exposure periods
- **Deposit and customer relationship retention** as competing forms of digital money develop
- **New services and revenue**, including programmable escrow, automated treasury, tokenisation-as-a-service, delivery versus payment services, and settlement for tokenised assets.

Realising that value depends on investment in:

- **Core banking and ledger integration**
- **New operating capabilities for compliance**, custody, identity, cyber security and round-the-clock service
- **Shared arrangements**, including any shared-platform build, testing, certification and scheme governance
- **Continued operation of conventional payment channels** during coexistence
- **Additional liquidity** where customer movement and interbank settlement are not simultaneous
- **Smart-contract controls**, including assurance, monitoring, change control and incident response
- **Customer and participant onboarding**
- **Network scale**, because value increases with the number of reachable banks, customers and services.

(IMF, April 2026; BIS, 2023; EBA, December 2024; UK Finance, 2025; The Clearing House, 2026; Association of Corporate Treasurers, 2025)

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Part IV: International developments

13. Overview of the jurisdictional research

The programmes described in this Part reflect a range of approaches to tokenised commercial bank money. They differ in who convenes them, how many institutions participate, the settlement asset they use, whether they operate across multiple banks or within a single institution, and the extent to which their design and results have been published.

Several recent bank consortium programmes have moved towards models based on separate bank ledgers connected through shared interoperability or orchestration layers (as opposed to a shared central ledger). Governance, legal and commercial arrangements remain at an earlier stage of development in most jurisdictions.

Table 5. Principal initiatives and programmes researched

Programme	Participants and stage	Settlement asset	Published results
Great British Tokenised Deposit (UK)	Barclays, HSBC UK, Lloyds, Monzo, Nationwide, NatWest, Santander, convened by UK Finance, shared layer built by Quant with EY (project management) and Linklaters (legal). Live customer transactions.	Sterling commercial bank money across separate bank ledgers. Interbank settlement through agreed arrangements in central bank money.	First live customer transactions reported September 2026: two remortgage completions and one marketplace payment, with conditional locking and release.
Canadian bank coalition	BMO, CIBC, National Bank of Canada, RBC, Scotiabank, Toronto-Dominion Bank. Announced exploration, September 2026.	Canadian-dollar tokenised deposits, domestic interbank in phase one.	None (underway, just announced).
Bank-Led On-Chain Money (US)	Major US banks and The Clearing House, which operates RTP and CHIPS. Announced June 2026.	Tokenised commercial bank money, designed to connect to RTP and CHIPS.	None (underway).
Regulated Liability Network proof of concept (US)	Federal Reserve Bank of New York Innovation Center with Citi, HSBC, BNY Mellon, Mastercard, PNC, RBC, Swift, TD, Truist, US Bank, Wells Fargo and others. Completed July 2023.	Regulated liabilities including central bank money on a shared ledger.	Feasibility findings published. Not continued into production.
Commercial Bank Money Token (Germany)	German Banking Industry Committee with Commerzbank, DZ Bank, Helaba, UniCredit and industrial corporates. Proof of concept completed 2024. Sandbox and pre-production work under way.	Commercial bank money, connected to industry ledgers through an interoperability bridge.	Proof of concept concluded and use cases demonstrated. Regulatory treatment at European level remains material to progression.
Deposit Token (Switzerland)	Swiss Bankers Association with PostFinance, Sygnum Bank and UBS. Proof of concept reported September 2025.	Commercial bank money; deposit transfer off chain, with settlement finality provided by Swiss Interbank Clearing.	Legally binding payment between customers of different banks and an escrow-style exchange of a tokenised asset executed. Broader participation identified as the next focus.

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Programme	Participants and stage	Settlement asset	Published results
DeCurret JPY (Japan)	GMO Aozora Net Bank as first issuer and Japan Post Bank preparing to use the platform. Platform in development.	Individual bank deposits issued through a common platform.	Domestic use cases including automated rent and utility-related payments identified. Broad interbank production operation not yet demonstrated.
Project Ensemble (Hong Kong)	Hong Kong Monetary Authority with participating institutions. Launched March 2024, new phase announced November 2025.	Tokenised central bank money on a 24/7 basis alongside tokenised deposits.	Pilot environment described, results of the real-value phase not yet published.
Project Guardian (Singapore)	Monetary Authority of Singapore with financial institutions. Pilots since 2022, expanded 2024.	Various, with shared ledger infrastructure under development.	Playbooks published, including for launching tokenised funds. Global Layer One whitepaper and market infrastructure toolkit published.
RITS consultation (Australia)	Reserve Bank of Australia. Consultation paper September 2026. Consultation closed 30 October 2026.	Existing settlement services in a tokenised ecosystem.	Consultation complete, responses not yet available.
Kinexys and JPM Coin (single-bank)	J.P. Morgan. In production.	US dollar commercial bank deposits, transferable among the bank's own clients.	More than US$3 trillion cumulative transaction volume and an average above US$5 billion daily. Confined to the issuing bank's network.

14. United Kingdom

The UK programme is an advanced multi-bank model that has reported live customer transactions across multiple institutions.

UK Finance's earlier work on the Regulated Liability Network proposed a single central network on which each participating bank held a partition and tokenised its assets, with all participants interacting on one ledger. During late 2025, the programme changed direction towards a model in which each bank operates its own ledger and technology stack, with a thin shared orchestration and rules layer providing interoperability and settlement. That architecture is now the premise of the Great British Tokenised Deposit initiative (UK Finance, 2025, 2026).

Delivery

The initiative brings together Barclays, HSBC UK, Lloyds Banking Group, Monzo, Nationwide, NatWest and Santander. UK Finance convenes the initiative. Quant developed the shared infrastructure with support from EY (project management) and Linklaters (legal) (UK Finance, 2026). The pilot used a steering committee and member funded participation, and the banks plan to establish a company and governing rulebook for the move towards production (UK Finance 2026; Euronews, September 2026).

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Use cases

Three use cases were explored in depth, deliberately spanning retail and wholesale payments. The use cases included a marketplace payment between two consumers in which the buyer's funds are locked and released once goods have exchanged, a property settlement case in which title and money are exchanged in one motion, with the potential to align chains of linked settlements in a single automated sequence, and a securities case settling a bond on the trade-date basis (UK Finance, September 2026, November 2025). A key innovation is that the Great British Tokenised Deposit initiative collapses the differentiation between wholesale and retail payments, as it is built to provide the same capabilities to cover both wholesale and retail customers.

Results

In September 2026, the participating banks completed the first live customer transactions using tokenised sterling deposits. Two remortgage transactions locked deposit funds and released them automatically at completion, and a consumer marketplace transaction locked the buyer's money and released it when the goods were exchanged (UK Finance, 2026; Euronews, September 2026).

Architecture and mechanics

The model retains separate bank ledgers connected through a thin shared orchestration and rules layer. Interbank value transfer is coordinated by extinguishing or locking value at the sending bank and creating or releasing corresponding value at the receiving bank. The orchestration layer coordinates linked actions and maintains the transaction state, interbank settlement occurs through agreed settlement arrangements, and common interfaces provide a consistent entry point into orchestration and smart-contract functions. The programme describes itself as ledger-agnostic and as supporting freedom of technology choice among participants (Quant, July 2026; UK Finance, 2026).

Related work

The BoE's Digital Securities Sandbox, opened on 30 September 2024, provides a regulated live environment for testing the use of developing technologies in the issuance, trading and settlement of digital securities (BoE; FCA 2024). The BoE's Project Meridian series, conducted with the BIS Innovation Hub, tested synchronised settlement, and its successor work extended the approach to securities and to foreign exchange through Project Meridian FX with the Eurosystem (BoE, November 2025; BIS April 2025; ECB, April 2025). The Bank's DLT Innovation Challenge, reported in May 2026, tested settlement finality, scalability, network and asset control and interoperability for wholesale central bank money on external programmable ledgers, concluding that such technology must deliver the same operational resilience, accountable governance and settlement finality expected of regulated conventional infrastructure while scaling to high transaction volumes (BoE, May 2026).

15. Canada

Canada provides a clear example of regulatory clarification preceding industry mobilisation.

Regulatory position

On 10 September 2026, the OSFI stated that the underlying technology does not determine a product's legal nature and that tokenised deposits are not legally distinct from traditional deposits. Banks remain responsible for meeting existing legal, technology, cyber and third-party risk obligations and are expected to engage supervisors before launch (OSFI, September 2026).

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The six-bank coalition

On 22 September 2026, Canada's largest banks Bank of Montreal, Canadian Imperial Bank of Commerce, National Bank of Canada, Royal Bank of Canada, Scotiabank and The Toronto-Dominion Bank (TD) announced they were jointly exploring a Canadian dollar tokenised deposit solution, with a first phase that is explicitly domestic and interbank, aimed at moving tokenised deposits efficiently across Canadian financial institutions while preserving safety, stability and regulatory oversight. The group anticipates opening participation to other deposit-taking institutions at an appropriate time (TD Bank Group, September 2026).

Research findings

The Bank of Canada analysis frames tokenisation as a record keeping and system design choice and recommends assessing where assets sit, who validates legal claims, how smart contracts operate, and which governance and risk arrangements are required (Bank of Canada, June 2026). Project Samara, a live domestic bond experiment conducted with the Bank of Canada, Export Development Canada, Royal Bank of Canada and TD Bank Group, found technical feasibility and reduced settlement risk alongside new governance, integration, audit and fallback requirements (Bank of Canada, March 2026).

16. United States

Activity in the US combines an industry infrastructure initiative, an early proof of concept, a statutory framework for stablecoins and Federal Reserve research on balance-sheet effects.

Regulated liability network proof of concept

In July 2023, the New York Innovation Center at the Federal Reserve Bank of New York published findings from a proof of concept exploring shared ledger technology for regulated liabilities including central bank money, commercial bank money and other regulated assets. Participants included Citi, HSBC, BNY Mellon, Mastercard, PNC, RBC, Swift, TD, Truist, US Bank and Wells Fargo, among others. The experiment examined the use of a shared ledger to support wholesale digital asset settlement (Federal Reserve Bank of New York, July 2023).

Bank led on-chain money

In June 2026, The Clearing House announced an initiative supported by major US banks with the intention to be open to financial institutions of all sizes. The proposed service would clear and settle tokenised commercial bank money between banks, support programmable workflows and 24/7 settlement and connect activity on programmable infrastructure with the existing RTP and CHIPS networks. In September 2026, The Clearing House selected Quant to provide the interoperability, orchestration and transaction management layer, with targeted implementation for the first half of 2027. Its design reinforces the emerging model in which shared orchestration connects bank-controlled infrastructures with established payment and settlement systems (The Clearing House, June, August and September 2026; Quant, September 2026).

BankChain alliance

In 2026, 39 US state bankers associations formed BankChain Alliance to develop an industry owned and governed blockchain network. Tokenised deposits are among the intended capabilities. The alliance is selecting a technology partner and targeting 2027, with membership open to individual banks and governance proposed through boards and working groups covering products, technology and standards (BankChain Alliance, 2026).

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Statutory framework

The GENIUS Act was enacted on 18 July 2025, establishing federal regulation of payment stablecoin issuers, and takes effect on 18 January 2027 (US Congress, S.1582, 119th Congress; US Department of the Treasury).

Analytical work

The Federal Reserve Bank of Dallas has published analysis of tokenised deposits within the traditional banking framework, finding that deposit tokens remain bank liabilities and may preserve deposit insurance and banking law protections, while widespread transferability can affect liquidity treatment. It identifies possible blurring between operational and non-operational wholesale deposits, changes in assumptions about deposit stickiness, increased demand for liquid assets and effects on maturity transformation, and notes that organisational design and the timing of interbank netting affect banks' credit exposures and external liquidity needs (Federal Reserve Bank of Dallas, July, August 2026).

17. Germany

Germany's Commercial Bank Money Token initiative originated through the German Banking Industry Committee, which represents the main German banking associations, and brings banks and industrial firms together around programmable commercial bank money.

Its 2024 proof of concept tested real business use cases and concluded that tokenised deposits could connect payment and industrial processes while preserving the characteristics of commercial bank money.

Stated objectives include support for Industry 4.0, the integration of money flows and business processes in the same environment, automated commercial activity through smart contracts, delivery versus payment, pay-per-use, microtransactions and continuous automated payments, and the supply of a commercial-bank-money settlement leg for tokenised assets (German Banking Industry Committee, July 2024).

The initiative has progressed into sandbox and pre-production work. Participating institutions include Commerzbank, DZ Bank, Helaba, UniCredit and several other European banks alongside major corporates. The emerging architecture uses an interoperability bridge to connect banks' separate tokenised deposit systems with industry ledgers, resembling the UK's approach.

Common design principles cover issuance, transfer, participant addresses, compliance and multi-bank fungibility. The initiative remains in pre-production, and regulatory treatment at European level remains material to its path forward (German Banking Industry Committee, July 2023, July 2024).

18. Japan

Japan's DCJPY platform is developing a multi-issuer tokenised deposit model within the existing banking framework. GMO Aozora Net Bank was the first issuing bank, and Japan Post Bank is preparing to use the platform for tokenised deposits for individuals and businesses. Issuance remains linked to the individual bank rather than to a single consortium liability. Work with participating businesses has included domestic use cases such as automated rent and utility-related payments (DeCurret DCP, November 2025).

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The sources describe Japan as an adjacent collective platform rather than a broad bank consortium, demonstrating a pathway in which multiple banks can issue their own deposit liabilities through a common programmable platform. Public evidence does not yet demonstrate broad interbank operation at production scale.

19. Switzerland

Switzerland's Deposit Token proof of concept was conducted under the Swiss Bankers Association with PostFinance, Sygnum Bank and UBS, and reported in September 2025.

The proof of concept executed a legally binding payment between customers of different banks and an escrow-style exchange involving a tokenised asset. Settlement used the Swiss Interbank Clearing system. Payment instructions were represented on-chain, deposit transfer occurred off-chain, and Swiss Interbank Clearing provided settlement finality (SBA, September 2025).

Its distinguishing design feature is its legal form where the token is structured as a standardised digital payment instruction rather than a new form of money or a transfer of the underlying deposit claim. Each bank remains responsible for issuance and custody, participants agreed a shared token standard and common minimum design requirements, and defined roles are enforced through permissioned access and smart contracts. Stated objectives include addressing limits in programmability, 24/7 availability for larger values and integration with blockchain ecosystems, automating complex transactions, reducing risk and creating standardised multi-bank infrastructure. The findings identify the next constraint as additional design work and broader cooperation among banks, infrastructure providers and authorities (SBA, September 2025). Related Swiss work on central bank money for wholesale settlement is described at section 24.

20. Hong Kong

The Hong Kong Monetary Authority (HKMA) launched Project Ensemble in March 2024 as a tokenisation initiative and subsequently moved from sandbox to pilot. In November 2025, the Authority announced a new phase designed to support real-value transactions in tokenised deposits and digital assets, with the pilot environment progressively upgraded to support settlement in tokenised central bank money on a 24/7 basis (HKMA, November 2025).

The e-HKD Pilot Programme runs in parallel, with its second phase covering use cases involving an e-HKD and tokenised deposits. The two programmes together constitute the closest structural analogue outside the UK to a broad, authority-led arrangement combining tokenised commercial bank liabilities with tokenised public money (HKMA, November 2025).

21. Singapore

The Monetary Authority of Singapore's (MAS) Project Guardian worked with financial institutions since 2022 to pilot asset tokenisation use cases. Its published work includes a playbook for launching tokenised funds developed with legal and operational grounding, and analysis of the conditions required to scale tokenisation in financial services (MAS, 2024).

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The Global Layer One initiative's 2024 whitepaper explores the development of a multi-purpose shared ledger infrastructure on which tokenised assets can be hosted and transactions executed, with a focus on open and interoperable infrastructure and on the governance and standards questions such infrastructure raises. A subsequent market infrastructure toolkit has been published as a blueprint for implementation (MAS, 2024; Global Layer One).

In July 2025, an industry group led by the International Swaps and Derivatives Association (ISDA) and Ant International under Project Guardian published a framework for using tokenised bank liabilities and shared ledgers in foreign exchange settlement and cross-border transaction banking. The work covered design principles intended to support interoperability, common FX data specifications, risk-management frameworks and use cases for real-time multi-currency clearing and settlement. Singapore's work broadened further in October 2025 with the launch of Project BLOOM, which extended the focus towards settlement infrastructure for programmable, multi-currency financial services (MAS, ISDA and Ant International, July 2025; MAS, October 2025).

On 9 September 2026, DBS Bank, OCBC and UOB completed the first live domestic Singapore-dollar interbank transactions among the three banks using tokenised deposits on Swift's blockchain-based ledger. The banks retained their own tokenised-deposit infrastructures, while Swift's ledger acted as a shared orchestration layer through which payment messages were exchanged and the resulting obligations were matched and netted before final settlement through existing systems. The transactions demonstrated live interoperability between separately operated bank infrastructures and the use of shared orchestration for domestic interbank tokenised-deposit payments (DBS, OCBC and UOB, September 2026; Swift, July 2026).

22. Australia

Australia has been actively exploring wholesale uses of tokenised deposits and continues to test potential capabilities and supporting infrastructure.

Project Acacia

The RBA and the DFCRC concluded Project Acacia in May 2026. The project examined how digital money and settlement infrastructure could support wholesale tokenised asset markets, testing 20 use cases across fixed income, managed funds, repurchase agreements, structured products, private markets, carbon credits and trade payables. It distinguished digitally native deposit tokens from tokenised representations of existing account-based deposits and found that both could carry the characteristics of commercial bank money into programmable environments, subject to appropriate legal, regulatory and operational arrangements.

The report recommended further practical work on deposit tokens, including a new working group intended to build and test infrastructure for tokenised money (RBA and DFCRC, May 2026).

Project Acacia also tested real-value transactions involving tokenised assets and different settlement assets. A use case led by the CBA, with J.P. Morgan, the Australian Securities Exchange and HQLAX, examined a tokenised repurchase agreement involving tokenised Australian Government Bonds and settlement using commercial bank deposit tokens or pilot wholesale central bank digital currency. The testing demonstrated delivery-versus-payment settlement across programmable platforms and showed how commercial bank money could provide the cash leg for tokenised securities and collateral transactions. The findings also identified further work required on interoperability, legal certainty, liquidity, governance and operating arrangements before tokenised wholesale markets could function at scale (RBA and DFCRC, May 2026; J.P. Morgan and CBA, May 2026).

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RBA settlement infrastructure to support tokenisation

In September 2026, the RBA sought views on how the Reserve Bank Information and Transfer System (RITS) and the Fast Settlement Service could support tokenised asset markets. The consultation covers emerging use cases, requirements and design choices and closed on 30 October 2026 (RBA, September 2026). The consultation addresses the settlement infrastructure question directly rather than examining tokenised deposits in isolation.

Alongside the consultation, the RBA and Australian Treasury reaffirmed that there is currently no clear public-interest case for issuing a retail central bank digital currency in Australia. Their assessment found that the existing retail payment system continues to serve households and businesses well, while the RBA's immediate tokenisation work remains focused on wholesale markets and the settlement infrastructure needed to support tokenised private money and assets (RBA and Australian Treasury, September 2026; RBA, September 2026).

23. BIS Innovation Hub projects

BIS Innovation Hub projects relevant to tokenised deposits test how commercial bank money, central bank settlement and tokenised assets can interact on programmable infrastructure.

Project Agorá combined tokenised commercial bank deposits with tokenised wholesale central bank money on a shared programmable platform. Its May 2026 report established the technical design and prototype findings. Subsequent real value testing involved 28 institutions, six currencies and 17 scenarios. Lloyds completed three tokenised deposit transactions across sterling, euro and Swiss franc scenarios, including a linked foreign exchange, payment and settlement flow. The Toronto-Dominion Bank completed a real US dollar transaction using tokenised commercial bank money and atomic settlement, with BNY acting as intermediary. The testing provides evidence that tokenised commercial bank money and central bank settlement can be coordinated across currencies and institutions (BIS Innovation Hub, May 2026; Lloyds Banking Group, 2026; TD, 2026; CaixaBank, 2026).

Project Agorá tested tokenised commercial bank deposits with tokenised wholesale central bank money through prototype and real-value transactions. Project Meridian tested synchronised settlement between existing real-time gross settlement infrastructure and external programmable platforms. Project Helvetia tested wholesale central bank money issued directly onto distributed ledger infrastructure. Together, they inform the settlement anchor, finality and interoperability choices that domestic tokenised deposit arrangements must address. Other Innovation Hub work on privacy, central bank operations and cross currency settlement provides adjacent design evidence rather than direct evidence of domestic tokenised deposit delivery (BIS Innovation Hub, 2024 to 2026).

24. Eurosystem and central bank settlement arrangements

The Eurosystem has developed two related workstreams. Pontes, launched in September 2026, is a DLT solution linking market distributed ledger platforms with TARGET Services to settle the cash leg of tokenised asset transactions in central bank money. Appia is the longer-term workstream examining the design of a Eurosystem settlement solution for tokenised markets (ECB, September 2026).

The EU DLT Pilot Regime, established by the EU Regulation (EU) 2022/858, provides a temporary framework permitting market infrastructures to operate distributed ledger-based trading and settlement systems under modified regulatory requirements.

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The Swiss National Bank's Project Helvetia conducted by the BIS Innovation Hub and SIX has progressed through several phases. Phase II's joint report connected wholesale central bank money and existing systems in an operationally and legally realistic setting. Phase III extended the work by making wholesale central bank digital currency available on the SIX Digital Exchange for the settlement of real bond transactions. The Swiss National Bank has since expanded the work (BIS Innovation Hub and Swiss National Bank, May 2024; Swiss National Bank, June 2025).

25. Swift's tokenised orchestration initiative

At Sibos 2025, Swift announced plans to add a blockchain-based shared ledger to its infrastructure, working initially with more than 30 financial institutions and Consensys. The first intended use case was real-time, 24/7 cross-border payments. The ledger was designed to support regulated tokenised value issued by commercial and central banks and to connect existing payment systems with emerging public and private networks (Swift, September 2025; Swift, March 2026).

By March 2026, Swift had completed the design phase and begun building a minimum viable product using an Ethereum Virtual Machine-compatible architecture based on Hyperledger Besu. The ledger acts as a shared orchestration layer. It records and validates interbank payment commitments, coordinates transaction workflows and provides participants with a synchronised view of their obligations. Banks retain control of their keys, assets, funding and tokenised-deposit infrastructure, while final settlement takes place through existing settlement systems or another agreed mechanism (Swift, March, July 2026).

In July 2026, Swift reported that its ledger was ready for controlled use and that 17 banks across six continents were preparing to pilot live transactions.

At Sibos 2026, Swift reported that most of those banks had used the ledger for 24/7 real-time payments in euros, sterling, Hong Kong dollars, Singapore dollars and US dollars. Activity included institution settlement, corporate treasury and interbank funding. Participating banks retain their own tokenised deposit infrastructures and use Swift's ledger to coordinate payment commitments and transaction state, including outside conventional operating hours. This allows separately developed bank infrastructures to interoperate without requiring each institution to use the same underlying ledger or transfer control of its deposit liabilities (Swift, March, July, September and October 2026).

Live transactions during August and September 2026 demonstrated the model in domestic and cross-border payments. On 19 August 2026, HSBC and Standard Chartered completed the first live cross-border transaction on the ledger. Payment messages were exchanged through Swift, corresponding obligations were recorded on the banks' tokenised-deposit infrastructures, and those obligations were matched and netted before final settlement through existing systems. On 5 September 2026, DBS and Citi completed a US dollar payment between Singapore and the US over a weekend, reporting completion within minutes. On 9 September 2026, DBS Bank, OCBC Bank and UOB completed live domestic Singapore dollar interbank transactions using the same orchestration model (Standard Chartered and HSBC, August 2026; DBS Bank and Citi, September 2026; DBS Bank, OCBC Bank and UOB, September 2026).

A delivery ecosystem is also forming around the Swift model. IBM released a beta ISO 20022 adapter and reported successful testing of Swift ledger transactions through IBM Digital Asset Haven. ACI Worldwide announced that ACI Connetic would process Swift ledger flows alongside traditional payments. Oracle announced an integration connecting bank-controlled tokenised deposit infrastructures with existing ISO 20022 payment processing. Taurus reported completion of its Swift connectivity and smart contract integration. These developments indicate that implementation tools for messaging, payment hub integration, wallet services and bank ledger connectivity are emerging (IBM, September, October 2026; ACI Worldwide, September 2026; Oracle, September, October 2026; Taurus, 2026).

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Swift's initiative addresses the need for tokenised deposits issued through separate bank infrastructures to operate across institutional boundaries. The evidence presented at Sibos demonstrates practical multibank interoperability and supports orchestration as an alternative to requiring every bank to issue on one common ledger. Further work is anticipated on scale, operating rules, governance, liquidity and settlement integration (Swift, March, July, September and October 2026).

26. Proprietary and single-bank deployments

Single bank tokenised deposit systems allow customers of the same bank to transfer deposits within its network. Some are more established and operate at greater scale than the multibank programmes.

J.P. Morgan's Kinexys platform, operating JPM Coin as a bank-backed deposit token, reports more than US$3 trillion in cumulative transaction volume since inception and averages exceeding US$5 billion daily, with material volumes in intraday repurchase and cross-border payment use. Its published material describes deposit token projects generally as being in early pilot phases and distinguishes its own operational service from the wider field (J.P. Morgan, 2026). Comparable single institution systems include Citi Token Services and HSBC's tokenised deposit work.

Wells Fargo announced a tokenised deposit service for corporate and commercial clients, with a limited US dollar to sterling rollout planned for late 2026 and wider expansion intended in 2027. Eligible payments would be routed through tokenised deposits using the bank's existing client interface (Wells Fargo, 2026).

27. What the research shows

The research records a field moving from concept to implementation. Across jurisdictions, tokenised deposits have progressed beyond theory into proofs of concept, real value testing, controlled live use and, in some cases, live customer transactions. The common objective is to combine the programmability of tokenised infrastructure with the trust, stability and regulatory foundations of commercial bank money.

Interoperability has emerged as a defining theme. Swift's broader controlled live use, the Great British Tokenised Deposit initiative, The Clearing House, the Canadian coalition and BankChain use different architectures, but each addresses reach and interoperability through shared arrangements. The strongest emerging pattern connects separate bank infrastructures through orchestration or interoperability layers. This allows banks to retain control of their deposits and technology choices while participating in a coherent network (Swift, September, October 2026; UK Finance, September 2026).

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Part V: Models, infrastructure and interoperability

28. Arrangement patterns

The technology, business and legal architecture of a tokenised deposit arrangement determines how money moves between institutions, where interoperability is achieved, how settlement occurs and where governance responsibilities sit. The research identified six broad patterns, each with different design and governance implications.

Table 6. Architecture patterns and the programme in which each appears

Pattern	How it works	Where it appears
Single shared ledger	Participants issue or represent liabilities on one common programmable platform, which simplifies common state and transaction logic but concentrates technical and governance choices in the shared platform. Can be partitioned (logically or physically separated areas for each institution) or shared.	The original UK Regulated Liability Network concept used a partitioned ledger (since moved away from); BIS unified ledger blueprint.
Separate bank ledgers with shared orchestration	Each bank operates its own ledger and a common layer coordinates messages, conditions, state changes and interbank settlement.	Great British Tokenised Deposit; Swift's blockchain shared ledger including live Singapore transactions between banks.
Interoperability bridge	A connecting service links bank token systems to industrial or asset ledgers.	German Commercial Bank Money Token.
On-chain instruction, off-chain transfer	A token or smart contract represents and triggers a payment instruction while bank accounts and established interbank infrastructure complete the transfer.	Swiss Deposit Token proof of concept.
Existing payment infrastructure extended on-chain	A payment-system operator adds tokenised deposit clearing and settlement while connecting to established rails.	The Clearing House Bank-Led On-Chain Money proposal.
Common multi-issuer platform	Several banks issue their own liabilities using a common technology platform.	DeCurret JPY; Project Ensemble.

29. Distributed ledger technology as the basis

DLT is the predominant technology basis for tokenised bank deposit initiatives. It provides a shared record of ownership and transaction state that multiple authorised parties can read and update. In financial infrastructure, it is generally deployed in permissioned form, with participation, validation and access governed by defined rules.

Although DLT is the predominant technology used in tokenised bank deposit initiatives, it is not strictly necessary for a deposit to be tokenised. The BIS explicitly allows that a unified ledger may or may not use the technology (BIS, 2023). The UK programme describes itself as ledger-agnostic and not restricted to a single ledger technology. During 2025, it moved away from an earlier centralised shared-ledger model towards an interoperability model in which

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each bank operates its own ledger and technology stack, while a shared orchestration and rules layer coordinates interoperability and settlement (UK Finance, November 2025).

Germany's Commercial Bank Money Token work similarly relies on an interoperability bridge between token systems and industrial ledgers. Switzerland's Deposit Token proof of concept represented payment instructions on a distributed ledger but settled deposits through existing account infrastructure (German Banking Industry Committee, 2023, 2024; Swiss Bankers Association, September 2025). Swift's model provides a further example. Participating banks retain their own tokenised bank deposit infrastructure, while its blockchain-based shared ledger coordinates transaction workflows and provides a synchronised view of interbank obligations before final settlement through existing systems (Swift, March and July 2026).

Together, these programmes indicate that interoperability and coordination between systems are becoming more important than the adoption of any particular shared ledger architecture (Swift, September and October 2026; UK Finance, 2026).

30. Interoperability

Research shows that interoperability is central to the wider value proposition of tokenised deposits. A bank can tokenise deposits within its own network, as J.P. Morgan has done through Kinexys and JPM Coin, but broader value depends on tokenised deposits being recognised, exchanged and settled across institutions. The research identifies ten distinct but interdependent dimensions of interoperability.

Table 7. Dimensions of interoperability

Dimension	What interoperability requires	Why interoperability matters
Technical	Systems connect and exchange messages through agreed interfaces.	The precondition for any cross-institution arrangement.
Semantic	Participants interpret data and transaction states consistently.	Without it, two systems can exchange messages and still disagree about what occurred.
Asset	Bank issued tokenised deposits are recognised and exchanged across institutional boundaries.	Determines whether money retains its fungibility between banks.
Settlement	The corresponding interbank obligation is discharged through an agreed mechanism.	Determines how and when the corresponding interbank obligation is discharged and becomes final.
Legal	The same transaction has an enforceable and consistent effect for all parties.	Determines the rights of the parties and of third parties such as courts and insolvency practitioners.
Operational	Common procedures for incidents, reversals, disputes, upgrades and fallback.	Determines whether a multi-bank service remains available under stress.
Identity and access	Agreed arrangements for identifying participants, customers and wallets.	Determines reach, and whether compliance obligations can be discharged.
Compliance	Consistent handling of anti-money-laundering, sanctions, transaction monitoring and recordkeeping.	Determines whether participants can rely on one another's controls.
Data	Agreed data models, identifiers, transaction records and audit evidence.	Determines whether records can be reconciled and reported across institutions.
Business	Common participation, service and liability rules permitting repeatable multi-party use.	Determines whether the arrangement scales beyond one-off bilateral connections.

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Achieving interoperability through orchestration

Swift's controlled live use, the Great British Tokenised Deposit initiative, The Clearing House and the German Commercial Bank Money Token programme all provide evidence that separate bank infrastructures can be connected through shared orchestration and interoperability layers.

Evidence from Sibos 2026 strengthens this trend further by showing that a common orchestration layer can coordinate obligations across bank-controlled infrastructures and multiple currencies while final settlement remains in existing systems. The orchestration layer can remain agnostic about whether a bank uses a programmable representation of an existing deposit or a digitally native token, provided participants apply common interfaces, transact and discharge interbank obligations through agreed settlement arrangements (Swift, September, October 2026).

31. Settlement and finality

Finality is the point at which a payment obligation becomes irrevocable. A central design question is how finality on the token platform relates to finality in the underlying interbank settlement system. Research highlights different approaches to achieving and evidencing finality in tokenised deposit arrangements.

In the UK model, the orchestration layer coordinates the transfer while the resulting interbank obligation is settled through agreed arrangements in central bank money. In the Swiss proof of concept, payment instructions were represented on-chain while Swiss Interbank Clearing provided settlement finality. The Clearing House model is designed to synchronise the movement of tokenised deposits with the underlying US dollar through established banking payment infrastructure. Project Helvetia issued central bank money directly onto a distributed ledger for wholesale settlement (Quant, July 2026; SBA, September 2025; The Clearing House, 2026; Swiss National Bank; BIS, May 2024).

The Swift evidence reinforces the distinction between orchestration and settlement. Swift's ledger records and coordinates payment commitments and transaction state, while the resulting interbank obligations are matched, netted and settled through existing systems or another agreed mechanism. Scheme rules must define when a beneficiary can use received funds, how liquidity is managed when settlement systems are closed and how obligations are treated if final settlement is delayed or fails.

The BoE's Innovation Challenge concluded that distributed ledger infrastructure must meet conventional requirements for finality, resilience and governance (BoE, May 2026). The approaches under consideration differ in their settlement model, including the use of continuous central bank settlement, synchronised settlement, deferred settlement and net settlement, and in how finality on the token platform is related to finality in the underlying settlement system (The Clearing House; BoE, July 2025).

In the UK model, a cross-bank transfer is achieved by extinguishing or locking the relevant representation at the sending bank and creating or releasing an equivalent representation at the receiving bank, with the agreed settlement arrangement discharging the resulting interbank obligation (Quant, July 2026; UK Finance, 2026).

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32. Open standards and data

Tokenised deposits issued by different banks can operate together only if participants apply common standards to the functions, data and transaction states involved. These include issuance, transfer, locking, release, redemption and cancellation, together with conversion between conventional and tokenised representations of a deposit. Common standards are also required for transaction states and exceptions; participant, customer, account, wallet and asset identifiers; conditions and external events; interbank settlement and finality; compliance and audit data; interfaces and service levels; and testing, certification and version management (Cambridge Centre for Alternative Finance, February 2026; Quant, July 2026).

CPMI's work on ISO 20022 shows that adopting a common standard does not by itself guarantee interoperability. Implementations, code sets and data requirements can still differ between participants. CPMI therefore specifies a core message set, general requirements and a minimum data model, supported by continuing maintenance and market-practice governance (CPMI, February 2026). Applied to tokenised deposits, this indicates the need for consistent mappings between a lock or release and payment status, between a token event and the underlying account movement, and for ultimate-party, purpose and end-to-end identifier data.

The integration announcements made around Swift at Sibos 2026 illustrate how these standards may be applied in practice. IBM, ACI Worldwide and Oracle are developing connections between ISO 20022 payment processing and tokenised deposit infrastructure, while Taurus has integrated wallet and smart contract functions with Swift. These tools may reduce the need for each bank to build bespoke connections between its ledger, wallet and payment operations. They also increase the importance of common message definitions, consistent transaction states and conformance testing across vendors and participating institutions (IBM, September, October 2026; Oracle, September, October 2026; ACI Worldwide, September 2026; Taurus, 2026).

ISO 24165 provides a common identification scheme for digital tokens, assigning each token a unique, random and fixed-length digital token identifier. This can support consistent identification across regulatory reporting and operational processes (ISO 24165-1:2025; ISO 24165-2:2025).

Standards governance requires clear responsibility for maintaining common data models and business rules, transparent change and release processes, participant input, consistent implementation and conformance testing. These arrangements must support controlled updates as standards and use cases evolve without allowing their meaning or implementation to diverge across participants (CPMI, February 2026; BIS/CPMI, October 2024).

33. Cryptography, key management and long-term resilience

A tokenised claim is controlled through cryptographic keys, which makes key management part of the actual money's security rather than an adjacent information-technology system concern.

The sources identify key custody, separation of duties, rotation, recovery, and the treatment of lost or compromised keys as core production requirements rather than features of any particular design (BoE, May 2026; BIS/CPMI, October 2024; EBA, December 2024). Keys are a 'proof of possession' form of identity, and can be used to identify actors to each other, and be used as proof of ownership to establish provenance. This makes them a fundamental component to establish trusted operation of tokenised deposit solutions.

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Infrastructure intended for long-term operation also requires cryptographic agility, meaning the ability to migrate keys and algorithms as security standards evolve over time (National Institute of Standards and Technology (NIST), August 2024).

34. Privacy and data protection

Privacy in tokenised deposit arrangements has several dimensions, including the confidentiality, integrity and availability of information shared between participants, and the management of personal data held on infrastructure where records may be replicated and difficult to remove. Relevant controls may include access restrictions, encryption, masking, selective disclosure, retention and secure deletion. One of the potential advantages of programmable infrastructure is the ability to determine precisely which participants can see specific information and under what conditions. Privacy architecture therefore becomes a core design decision rather than an implementation detail, influencing what information is shared, who can access it, and where transaction data is held and how it is managed through its lifecycle.

For tokenised deposit arrangements, the relevant privacy controls include permissioned access, selective disclosure to parties with a legitimate interest, and cryptographic methods that verify a condition without revealing the underlying data. Related BIS Innovation Hub experiments illustrate possible privacy architectures, but do not determine the design of a domestic tokenised deposit scheme.

A shared transaction state, which is one of the principal benefits of tokenisation, is in tension with commercial confidentiality and with data-protection requirements that include, in several jurisdictions, rights of access, correction and erasure. The CPMI framework on money and other assets records data access as an explicit design question (BIS/CPMI, October 2024), and the Cambridge Centre for Alternative Finance treats privacy and data governance as among the regulatory trends shaping adoption (Cambridge Centre for Alternative Finance, February 2026).

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Part VI: Conditions for safe and scalable operation

35. Legal character of the claim and prudential treatment

Several jurisdictions have addressed the legal character of tokenised deposits directly. The EBA concludes that recording a depositor's claim on distributed ledger technology rather than a traditional ledger does not, by itself, alter the fundamental nature or regulatory classification of the deposit, and distinguishes genuine, tokenised deposits from e-money tokens and other crypto-assets (EBA, December 2024). The OSFI in Canada applies the same principle, stating that the recording technology does not determine the product's legal nature and that existing legal, prudential, technology, cyber and third-party risk obligations continue to apply (OSFI, September 2026). The Prudential Regulation Authority (PRA) in the UK has similarly treated tokenised deposits within the existing regulatory framework for deposits, rather than as a separate form of money, while recognising the potential efficiency and functionality gains of tokenised bank deposits (BoE and PRA, November 2023, May 2026).

The main legal questions are:

- whether customers keep the same deposit claim when funds are locked or represented on another ledger
- which record legally determines who owns the money
- when a conditional payment becomes final and cannot be reversed.

Further questions concern what happens when smart-contract code conflicts with the contractual terms, or when insolvency, fraud, sanctions, court orders, incorrect external data or system failures affect the parties' rights, responsibilities, deposit protection or access to redress (EBA, December 2024; SBA, September 2025; Cambridge Centre for Alternative Finance, February 2026).

The tokenisation of a bank deposit typically does not remove it from the prudential framework. Its capital and liquidity treatment depends on how the instrument is classified and whether its design changes the deposit's behaviour. The Basel Committee on Banking Supervision's (BCBS) standard covers tokenised traditional assets, stablecoins and other cryptoassets, and sets out the classification framework that determines their capital treatment (BCBS, December 2022). Liquidity treatment may also depend on whether greater transferability changes the stability of the deposit, the speed of potential outflows or the timing of interbank settlement.

36. Private law instruments

Once the deposit's legal character is established, separate private law questions arise from how it is controlled and used. These include enforceability, collateral, smart-contract execution and conflicts between code and contractual intent.

English law recognises that smart-contract code, and by extension programmable payments, can form part of a legally binding arrangement and that certain digital assets can be objects of personal property rights. These propositions do not determine the legal character of a bank deposit token; they provide a basis for analysing control, property,

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enforceability and remedies where code and contractual intent diverge (Law Commission, 2021, 2024; Property (Digital Assets etc) Act, 2025).

Comparable frameworks address controllable electronic records and electronic transferable records. They are relevant where tokenised deposits are locked, pledged, used as collateral or linked to transferable documents, but they do not classify the underlying bank liability (Uniform Commercial Code, Article 12; UNCITRAL Model Law on Electronic Transferable Records).

37. Deposit protection, resolution and consumer protection

Consumer protection considerations include clear customer disclosure, financial literacy, accessibility and inclusion. Because a tokenised deposit remains a bank deposit, existing deposit-protection arrangements provide the starting point. Implementation will need to ensure that this protection continues to apply clearly when the deposit is locked, mirrored or represented on another ledger. The EBA also identifies consumer protection, operational risk, liquidity management and anti-money-laundering requirements as necessary considerations for production deployment (EBA, December 2024).

Existing bank-resolution frameworks similarly provide the starting point because the tokenised deposit remains a bank liability. The additional design work concerns how those frameworks operate where records are held by a platform operator, technology provider or shared orchestration service, including continued access to legally effective records during resolution. The BIS/CPMI framework identifies participant default, exit and fallback arrangements as prerequisites, while the BoE emphasises accountable governance and settlement finality (BIS/CPMI, October 2024; BoE, May 2026).

38. Financial crime and integrity

Tokenised deposits create the potential to build financial-crime controls into the payment itself. Anti-money laundering, counter-terrorist financing and sanctions requirements continue to apply, together with transaction monitoring, record retention and information-sharing obligations. Programmable controls could verify requirements before funds move, restrict transactions that do not meet defined conditions and create a consistent record of the checks performed. This could make compliance more immediate and traceable across the transaction chain, rather than relying solely on checks performed around a separate payment instruction (EBA, December 2024; BIS/CPMI, October 2024; German Banking Industry Committee, July 2024).

Realising this potential requires participating institutions to agree which information is shared, who may access it and how responsibility is allocated. Shared transaction data must also be handled consistently with customer and counterparty confidentiality, linking financial-crime controls directly to the interoperability and privacy considerations in sections 7 and 27 (BIS/CPMI, October 2024; Cambridge Centre for Alternative Finance, February 2026).

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39. Operational resilience and third-party risk

Existing operational-resilience and third-party risk frameworks provide the regulatory foundation for tokenised deposit arrangements. The EU's Digital Operational Resilience Act provides a framework for overseeing important technology providers and outsourced services (European Supervisory Authorities, November 2025).

Resilience can be supported using open standards, common operating frameworks and portability arrangements. These can reduce concentration risk, support participant substitution and recovery, and help arrangements evolve over time without becoming dependent on proprietary technologies or individual providers.

Tokenised arrangements must support prevention, monitoring, incident response, recovery and fallback. Programmability can create dependencies between smart contracts, data providers, custodians, settlement systems and platforms, allowing failures to spread quickly across connected services. Responsibility for managing these risks must be clearly allocated among participating banks, platform operators, settlement systems and technology providers (FSB, October 2025; BIS/CPMI, October 2024).

40. Governance and market rules

Governance is central to any multi-bank tokenised deposit arrangement because it provides the orchestration needed for separately issued bank money to operate across institutions.

Shared rules must determine who can participate, how deposits issued by different banks are exchanged at par, how common standards are maintained, and who decides on upgrades, incidents and disputes. Where shared infrastructure or software is used, governance must also define its ownership, control, change management and accountability. It must support fair access, competitive neutrality, orderly exit and coordination with central banks, payment-system operators and supervisors (BIS/CPMI, October 2024; Cambridge Centre for Alternative Finance, February 2026).

These arrangements bring competing institutions together to agree common rules for access, pricing and service levels. Effective governance creates confidence among participants, prevents proprietary systems from fragmenting the market and allows network effects to develop without concentrating control in a dominant member, operator or provider (BIS/CPMI, October 2024; Cambridge Centre for Alternative Finance, February 2026).

41. Financial market infrastructure status

A multi-bank tokenised deposit arrangement may constitute a financial market infrastructure if it performs payment, clearing or settlement functions of systemic importance. Its legal structure and functions would determine whether it falls within the CPMI-IOSCO Principles for Financial Market Infrastructures, which cover legal basis, governance, credit and liquidity risk, settlement finality, operational resilience, access, efficiency and transparency (CPMI-IOSCO).

Existing guidance applies the principles to stablecoin arrangements and central bank financial market infrastructures, while IOSCO has examined how established regulatory frameworks apply when tokenised capital-market infrastructure performs several functions.

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These precedents do not determine the status of a tokenised deposit arrangement, but they indicate the regulatory expectations likely to become relevant as an arrangement grows in scale, reach or systemic importance (IOSCO, 2022; IOSCO, FR/17/2025).

42. Liquidity and settlement dynamics

Tokenised arrangements can reduce counterparty and settlement exposure through faster, synchronised or atomic settlement, while increasing the liquidity needed to complete transactions in real time. Continuous or gross settlement can reduce the scope for netting and the time available to mobilise funds, while deferred, net and synchronised models create different liquidity demands (BoE; Federal Reserve Bank of Dallas, July, August 2026; BIS/CPMI, October 2024).

The operating model also determines where liquidity must be held and how efficiently it can be used across the network. Separate ledgers or proprietary bank networks can fragment liquidity, while the timing of customer transfers and interbank settlement can affect banks' credit exposures and external liquidity needs (BoE; Federal Reserve Bank of Dallas, July, August 2026; BIS/CPMI, October 2024).

43. Singleness of money

Singleness means that different forms of money denominated in the same unit of account are accepted and exchanged at par, so that a dollar deposited at one bank, a dollar deposited at another and central bank money are treated as the same dollar rather than trading at different prices.

In the existing two-tier system, singleness is supported by the ability to redeem commercial bank money into central bank money at par, together with regulation, deposit protection, access to central-bank liquidity and settlement in central bank money (BIS, November 2025).

Tokenised deposits retain these institutional foundations, giving them an inherent advantage in preserving singleness. Extending that outcome across participating banks and platforms requires common rules, interoperability and agreed interbank settlement arrangements (BIS, 2026; ECB working paper 3111).

Stablecoins face additional barriers to singleness, including redemption risk, differences in issuer creditworthiness, operation across separate public blockchains and uneven financial-integrity controls. The ECB identifies finality, interoperability and seamless convertibility into central bank money as necessary conditions for privately issued payment instruments to remain fungible (BIS, 2026; ECB working paper 3111).

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Appendix A: Timeline of key developments

This table presents a chronological overview of the principal developments referenced in this research. It covers key publications, regulatory and legal milestones, proofs of concept, pilots and live transactions, showing how tokenised deposits and their supporting infrastructure have developed over time.

Table 8. Timeline of principal developments recorded in the source register of Appendix B

Year	Development	Source
2017	The money flower taxonomy classifies money by issuer, form, access and technology.	Bech and Garratt, September 2017.
2021	The digitalisation of money examines the monetary consequences of new forms of private and public digital money.	Brunnermeier, James and Landau, 2021.
2022	The Basel standard on the prudential treatment of cryptoasset exposures is published. Article 12 of the Uniform Commercial Code is adopted. The EU DLT Pilot Regime is established.	December 2022; Article 12; Regulation (EU) 2022/858.
2023	The BIS blueprint for a unified ledger is published. The Regulated Liability Network proof of concept is completed in the US. In Germany the Commercial Bank Money Token working paper is published. Gorton and Zhang examine stablecoin run risk. Project Meridian demonstrates the synchronised settlement of funds and assets by connecting settlement infrastructure with ledgers.	BIS, 2023; BIS Innovation Hub, April 2023; Federal Reserve Bank of New York, July 2023; German Banking Industry Committee, July 2023; Gorton and Zhang, 2023.
2024	The Law Commission final report on digital assets is published. The UK Digital Securities Sandbox opens. The EBA report on tokenised deposits is published. The CPMI report on tokenisation in the context of money is published. Project Helvetia III reports real bond settlement in wholesale central bank money. The Global Layer One whitepaper is published. Project Guardian is expanded. Project Mandala demonstrates programmable compliance checks and the generation of cryptographic proofs before funds are released.	Law Commission, July 2024; Bank of England, September 2024; EBA, December 2024; BIS/CPMI, October 2024; BIS Innovation Hub, October 2024; BIS, May 2024; MAS, 2024.
2025	The Digital Operational Resilience Act enters into force. The GENIUS Act is enacted in the US. The Swiss Deposit Token proof of concept is reported. UK Finance launches the Great British Tokenised Deposit live pilot, bringing six banks together to test tokenised sterling deposits across marketplace, remortgage and digital-asset settlement use cases. Swift announces plans to add a blockchain-based shared ledger to its infrastructure, working with more than 30 financial institutions on real-time, 24/7 cross-border payments using regulated tokenised value. Project Ensemble enters a real-value phase in Hong Kong. The European Supervisory Authorities designate critical third-party providers. The BIS delivers its speech on deposits and tokenisation. Project Meridian FX demonstrates synchronised foreign exchange settlement across different wholesale payment infrastructures and technologies.	BIS Innovation Hub, 2025; ESA, November 2025; US Congress, July 2025; Swiss Bankers Association, September 2025; UK Finance, September 2025; Swift, September 2025; HKMA, November 2025; European Supervisory Authorities, November 2025; BIS, November 2025.

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Year	Development	Source
2026	Project Samara is completed in Canada. The IMF note on tokenised finance is published. The BoE distributed-ledger Innovation Challenge is reported. The Project Agorá report is published. The Clearing House announces Bank-Led On-Chain Money. The BIS Annual Economic Report is published. Swift reports that its blockchain-based shared ledger is ready for initial use, with 17 banks preparing to pilot live transactions using tokenised deposits. Federal Reserve Bank of Dallas analysis is published. HSBC and Standard Chartered complete the first live cross-border transaction on Swift's ledger. The RBA opens its settlement consultation. DBS Bank and Citi complete a weekend US-dollar payment between Singapore and the US. DBS Bank, Oversea-Chinese Banking Corporation and United Overseas Bank complete the first live domestic Singapore-dollar interbank transactions using tokenised deposits on Swift's ledger. Canada's Office of the Superintendent of Financial Institutions states their legal position on tokenised deposits. Six Canadian banks announce joint exploration. UK banks complete the first live customer transactions using tokenised sterling deposits. The ECB launches Pontes. Project Acacia completes in Australia, demonstrating the use of commercial bank deposit tokens alongside pilot wholesale central bank money in live tokenised repurchase transactions. Swift reports at Sibos 2026 that banks have successfully used its blockchain ledger for live tokenised deposit transactions across multiple currencies and use cases.	Bank of Canada, March 2026; IMF, April 2026; Bank of England, May 2026; BIS, May 2026; The Clearing House, June 2026; BIS, 2026; Swift, July to October 2026; Dallas Fed, July and August 2026; Standard Chartered and HSBC, August 2026; RBA, September 2026; DBS Bank and Citi, September 2026; DBS Bank, OCBC Bank and UOB, September 2026; OSFI, September 2026; TD Bank Group, September 2026; UK Finance, September 2026; ECB, September 2026; RBA and DFCRC, May 2026; J.P. Morgan and CBA, May 2026; Quant, September 2026; The Clearing House, September 2026.

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Appendix B: References

This appendix provides full bibliographic details and links for the sources cited throughout this report. The sources are grouped by subject to help readers locate the evidence underpinning the research.

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Appendix C: Glossary

This glossary defines the principal technical, legal and monetary terms used throughout this report. The definitions reflect how the terms are used in the research and should be read in that context only.

Atomic settlement. A transfer in which all legs of a transaction complete together or none do, removing the interval during which one party has delivered and the other has not.

Commercial bank money. Money issued by a commercial bank as a liability to its customer, as distinct from central bank money.

Controllable electronic record. The concept introduced by Article 12 of the Uniform Commercial Code, describing an electronic record that a person can control in a manner analogous to possession, and on which control may be used to perfect a security interest.

Deposit token. A representation of a bank deposit on programmable infrastructure. Used in some sources synonymously with tokenised deposit, and in others to describe a specific design in which the token is a payment instruction rather than the deposit claim itself.

Distributed ledger technology. A shared record maintained across multiple participants without a single authoritative copy, generally deployed in permissioned form in financial infrastructure.

E-money token. A claim on funds held with an issuer for payment purposes, distinct from a bank deposit and from a stablecoin backed by reserve assets.

Financial market infrastructure. A systemically important payment system, central securities depository, securities settlement system, central counterparty or trade repository, subject to the CPMI-IOSCO Principles.

Interoperability. The capacity for tokenised deposits issued or held by different institutions to be recognised, exchanged and settled across institutional boundaries. Distinguished in the literature into technical, semantic, asset, settlement, legal, operational, identity, compliance, data and business dimensions.

Locked funds. Money that has been committed to a specific transaction and cannot be used for another purpose until predefined conditions are met. The funds remain the customer's deposit and continue to be held by the bank, but are reserved for the transaction and released, transferred or returned automatically according to agreed conditions.

Mirror account model. An arrangement in which the core banking system remains the authoritative record and the token ledger reflects it.

Omnibus model. An arrangement in which a pooled backing account supports tokens that are themselves authoritative for individual positions.

Oracle. An external data source used to confirm that a condition attached to a programmed payment has been met, and a point at which data quality and accountability must be governed.

Programmable payment. A payment whose execution is governed by pre-specified conditions rather than initiated unconditionally by a payer.

Singleness of money. The property by which different forms of money denominated in the same unit of account are accepted and exchanged at par.

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Smart contract. Code that executes automatically when defined conditions are met.

Stablecoin. A privately issued claim designed to maintain a stable value against a reference asset, generally backed by a reserve portfolio.

Synchronised settlement. An arrangement in which two or more obligations are settled in a coordinated way, commonly used where the cash leg and the asset leg sit on different systems.

Tokenised deposit. A regulated bank deposit whose corresponding claim is recorded or represented on programmable infrastructure.

Two-tier monetary system. The arrangement in which central banks provide the settlement asset and commercial banks issue deposit money.

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Contact

+64 4 890 6750
payments.direction@paymentsnz.co.nz
www.paymentsnz.co.nz