
Reserve Bank of New Zealand
Te Pūtea Matua
Consultation on Digital Cash
Moni-matihiko

Payments NZ Limited submission

26 July 2024

Introduction

This submission is made by Payments NZ Limited (Payments NZ). It is presented in response to the Digital Cash consultation by the Reserve Bank of New Zealand Te Pūtea Matua (Reserve Bank).

Payments NZ supports the Reserve Bank continuing with and completing its Stage 2 exploration of the case for Digital Cash and the role it might play in Aotearoa New Zealand's digital, money and payments ecosystem.

Theoretically, Digital Cash could align with one of Payments NZ's primary constitutional objectives, which is "to promote interoperable, innovative, safe, open, and efficient payments systems". Whether Digital Cash aligns with this objective in practice would depend on its design and approach, and critically, how it would integrate with Aotearoa's other payment systems and digital infrastructure (existing and in the future).

We acknowledge the considerable work that has been done by the Reserve Bank in support of this consultation. There are, however, still a significant number of issues and unknowns that need to be addressed. We believe these must be resolved to make a balanced and informed decision about progressing to Stage 3, and our submission aims to constructively highlight these to help inform the Reserve Bank's considerations through the remainder of Stage 2 and beyond.

Since it is unclear whether there will be any further consultation prior to the conclusion of Stage 2, or on the business case to be used to proceed to Stage 3, we have also taken the opportunity to provide feedback on issues and opportunities that we consider relevant to business casing.

The Reserve Bank's consultation papers on Digital Cash include macro-economic issues such as monetary sovereignty, value anchor and financial stability impacts. Our submission does not give particular consideration to these macro-economic aspects. Instead, our submission primarily focuses on payments issues and their related design and business casing considerations.

Our preference is to provide the majority of our feedback in a general response format, with the appendix containing responses to the 12 consultation questions.

Our submission is broken into sections that:

1. offer general observations on the consultation papers;
2. consider the relationship of Digital Cash with payment systems; and
3. set out short-form responses to the Reserve Bank's 12 consultation questions in the appendix.

For ease of reference, we have summarised our key points and suggestions at the top of each main section. Subheadings within the text reflect these key points and suggestions.

Finally, we acknowledge and appreciate the extended consultation period (from 17 April to 26 July 2024). This has allowed Payments NZ to consider the extensive set of Digital Cash consultation documents more carefully, and to properly consult our various stakeholders for the purposes of preparing this submission.

1. General observations on the consultation papers

Summary of Payments NZ's key points and suggestions on the consultation papers

- At this early stage, the strategic case for Digital Cash can only be made generically. Many key issues and questions remain open.
- The task of delivering Digital Cash is significant and should not be underestimated.
- Payments NZ endorses the Reserve Bank's preferred design models "support the market" and "digital economy".
- The case for Digital Cash is disconnected from adjacent regulatory and private sector initiatives.
- There is an opportunity for a joined-up national strategy across all digital infrastructure, money, and payment systems.
- There is a notable lack of consideration given to Digital Cash's potential risks and challenges, leaving the impression of a one-sided view.
- While Digital Cash has some strong features and capabilities, the Reserve Bank's research confirmed they may not be compellingly differentiated from other current and emerging offerings to drive end user adoption.
- Digital Cash's uptake and usage needs to strike the right level - not too low and not too high. We believe that low user uptake and usage is the more likely scenario and, as such, it should receive priority focus.
- The rationale for Digital Cash, or the 'why', is not yet clear-cut and is open to challenge.
- There is a mismatch between stated macro-economic objectives and user needs.
- The role that seigniorage plays in the case for Digital Cash, if any, was not mentioned. We believe this should be canvassed.
- We support the Reserve Bank viewing digital identity as a key enabler of safe and efficient Digital Cash payments. In due course, understanding how Digital Cash relates to digital identity in practice will be important.
- While market participants would be responsible for AML/CFT compliance, the Reserve Bank should include in its design scope considerations how the Digital Cash platform and ecosystem can support efficient AML/CFT compliance and feature preventative functionality that minimises end user financial harm from financial crime and scams.
- More consideration will need to be given to end user protections and safeguards.
- Further information on next steps and the Reserve Bank's forward work programme to progress Digital Cash would be beneficial, including what the expected role of industry is to be.
- Digital Cash would not exist in a silo. Interoperability with other existing payment systems, payments acceptance environments and digital infrastructures is critical to its feasibility. We would advocate for further clarity regarding how Digital Cash might interoperate, and what a joined-up payments roadmap might look like.

Introduction

At this early stage, the strategic case for Digital Cash can only be made generically. Many key issues and questions remain open. Some of these key issues and questions are covered in the consultation paper's discussion questions. In this section of the submission, we cover a range of additional issues that we also consider important.

Initial observation

The task of delivering Digital Cash is significant and should not be underestimated. Introducing a new form of money, a new means of making payments, and making it widely available for use by New Zealanders will require significant resource investment in the public and private sectors.

Proposed design models

Payments NZ endorses the Reserve Bank's preferred design models "support the market" and "digital economy". It is our view that this is the only viable approach if Digital Cash is issued.

We acknowledge and support that the Reserve Bank positions Digital Cash as being aligned to the "support the market" model. If Digital Cash is to be distributed via a two-tier model (i.e. not by the Reserve Bank directly to end users), by extension the market must be served with enabling and supporting capabilities and with sufficient flexibility to let innovation flourish – potentially in ways that are difficult to predict now. If the Reserve Bank creates a highly controlled and prescriptive ecosystem, it will be less likely to achieve its stated objectives and outcomes on a sustained basis.

We acknowledge and support that the Reserve Bank positions Digital Cash as being aligned to the "digital economy" model. This would ensure that Digital Cash is connected with other digital and financial infrastructures and systems. Digital Cash should only be considered in the context of playing an enabling role in the digital economy. At this early stage, there is little information given as to how this would look in practice. We observe that Digital Cash is currently framed more as a standalone money and payment system, and it is not yet clear how it would align with the "digital economy" model.

Further, Digital Cash's relative priority and sequencing needs to be compared to other investments in the digital economy for New Zealand.

Overarching strategy

We suggest there would be considerable benefit in developing a view on how Digital Cash could feature and fit into Aotearoa public digital infrastructure and into money and payments plans more generally. This includes understanding the dependencies and inter-relationships with other active digital infrastructures and payments activities that are being progressed concurrently.

Payments NZ has concerns that the case for Digital Cash is disconnected from adjacent regulatory and private sector initiatives. We suggest that the best way to overcome this is via a national level strategic roadmap for Aotearoa money and payment systems, as this drives both public and private sector investment and interventions towards a unified set of national goals. Digital Cash could form one part of this strategic roadmap. This would help harmonise and coordinate the many regulatory, industry and market money and payment initiatives being formed or underway.

As such, we believe there is an opportunity for a joined-up national strategy across all digital infrastructure, money and payment systems.

Risk considerations

The consultation papers put forward a positive case for Digital Cash. However, we observe a notable lack of consideration given to Digital Cash's potential risks and challenges, leaving the impression of a one-sided view.

The paper refers to Digital Cash as "risk free" from credit risk. While this is technically correct in the context of credit risk, we are concerned the phrase "risk free" creates the impression that Digital Cash is risk free in totality. This impression is strengthened by the absence of other risk issues being acknowledged.

We make the following observations regarding risks:

- Being free from credit risk is only of value to the end user if they can easily access and recover their Digital Cash monies from the Reserve Bank in a timely manner if their service provider fails. Presumably some form of recovery model and process would need to be put in place.
- Cyber and security risks, which are major Digital Cash platform design considerations, are only referenced in passing.
- A range of risks to end users are not covered such as whether they could lose their digital cash in the same way they can lose physical cash, losses from scams and fraud, or losing devices with digital cash stored on them. Recourse and protections, if any, that end users would have to safeguard them against these risks are also not covered.
- Digital Cash as a new avenue for laundering money is a key risk that is not referenced (see below for more on this).
- There are delivery risks in relation to delivering a well-designed Digital Cash on time and to scope.
- Digital Cash would likely introduce new operational risks where end users would be relying on Reserve Bank systems for prompt access to, and usage of, their Digital Cash around the clock.
- The risk of Digital Cash being launched and then experiencing low user uptake is a material risk in our view. The Reserve Bank's own user research highlights this risk. The poor return from both public and private sector investments and efforts in this low user uptake scenario introduces a significant cost risk for potential future participants of the system.
- The Reserve Bank's analysis of financial stability (in particular, the risks resulting from Digital Cash being too successful) examines banks and other deposit takers losing destabilising levels of deposits to Digital Cash.

We note the Reserve Bank's modelling and the comment that it does not have "any evidence to suggest that demand for digital cash will reach high levels." However, the scenarios feature holding limits of up to \$2,000 per person and it is said that this would help to manage any stability risk. While we are not commenting on financial stability issues in this submission, we do consider a risk exists where concerns about financial stability lead to Digital Cash being designed with constraints that will unduly limit Digital Cash's utility and usability. This risks creating a self-fulfilling situation where the previously mentioned lower user uptake risk is the likely outcome.

Proposed capabilities and end user adoption

Digital Cash could feature some compelling functional capabilities, particularly with respect to: atomic settlement; conditional fund locking capabilities; programmable payments (i.e. smart contracts); and offline payment capability.

However, in many cases, these functional capabilities can, or could in the future, be met by other payment systems or payment instruments.

While Digital Cash has some strong features and capabilities, the Reserve Bank's own research confirmed they may not be compellingly differentiated from other current and emerging offerings to drive end user adoption. Users identified a functionality problem where "the new offer tested isn't notably better than anything in market" and "Solving a problem that isn't there was the consensus, with the functions shown seemingly replicating what's available currently, or likely soon to be available in the market." These user attitudes may make the risk of low user uptake and usage much more likely.

Digital Cash has a challenge where its uptake and usage needs to strike the right level - not too low and not too high. We believe that low user uptake and usage is the more likely scenario and, as such, it should receive priority focus.

As mentioned above, an overly cautious approach where constraints are put in place to prevent Digital Cash being 'too successful' and becoming a risk to financial stability could end up stifling uptake and usage. Capabilities and interventions to manage financial stability risks should be introduced on an as-needed basis only (or be dormant and ready to activate) should usage patterns make it clear they are necessary.

The macro-economic rationale

We acknowledge that the Reserve Bank's consultation papers make a comprehensive and reasonably positive case for Digital Cash (notwithstanding the points we have identified above). However, we have a fundamental concern that the rationale for Digital Cash, or the 'why', is not yet clear cut and is open to challenge.

We observe that the macro-economic reasons alone are insufficient to make a positive case for Digital Cash and will not have any bearing on user adoption. The Reserve Bank's emphasis on macro-economic policy rationale, such as preserving monetary sovereignty and ensuring the 1:1 value anchor of the NZD, could only be achieved if end users use Digital Cash at sufficient scale. If its user and usage rates are very low, none of the stated macro-economic objectives will be achieved.

The Reserve Bank's own research indicates user disinterest and many current-day user problems will likely be resolved through other means by the time Digital Cash is issued. Accordingly, we have concerns that there is a mismatch between stated macro-economic objectives and user needs. We would advocate for a more future focused lens on user problems and opportunities.

Seigniorage

We note the role that seigniorage plays in the case for Digital Cash, if any, was not mentioned. We believe this should be canvassed.

In particular, it will be important to understand whether seigniorage from Digital Cash will play any part in the Reserve Bank's business casing.

Digital identity

Payments NZ views digital identity as increasingly crucial in facilitating secure and seamless digital interactions, particularly in the payments sector. As we navigate this digital frontier, it is essential to ensure that identity systems are inclusive, secure, and privacy-enhancing.

In this context, we support the Reserve Bank viewing digital identity as a key enabler of safe and efficient Digital Cash payments. In due course, understanding how Digital Cash relates to digital identity in practice will be important.

AML/CFT and minimising end user harm from financial crime and scams

While market participants would be responsible for AML/CFT compliance, the Reserve Bank should include in its design scope considerations how the Digital Cash platform and ecosystem can support efficient AML/CFT compliance and feature preventative functionality that minimises end user financial harm from financial crime and scams. We expand on this in the appendix in response to consultation question 10.

End user protections and safeguards

We suggest that more consideration will need to be given to end user protections and safeguards.

We understand that a holder's Digital Cash can be lost in the same way as physical cash. Being inherently digital in nature, this could potentially occur through a wide range of scenarios, including the end user's mismanagement, the compromise of an end user's device, or their Digital Cash service provider's systems being breached.

For any Digital Cash service provider to establish a viable commercial proposition, they would have to have a very clear liability model and financial certainty with respect to how end-user losses are dealt with, including the scenario where their own systems have been breached.

Furthermore, end users should have absolute clarity about any risks that might be involved with the use of Digital Cash, and whether they have remedies or recourse should they suffer loss. These are very important considerations that will have direct relevance to the uptake of Digital Cash.

Clarity on the forward work programme

We note that the Reserve Bank is working towards an Indicative Business Case at the end of its Stage 2. However, further information on next steps and the Reserve Bank's forward work programme to progress Digital Cash would be beneficial, including what the expected role of industry is to be.

We suggest that, in due course, the Reserve Bank publish a more detailed roadmap, including how and when it would like payments industry input. This will provide important information to manage planning, particularly in relation to the intersections between Digital Cash and other payments initiatives.

We consider that the path forward for Digital Cash will need to have some key milestones so as to increase the necessary levels of certainty for its introduction. In particular, as the Government would be required to pass legislation to issue Digital Cash, it would be useful to know as early as possible Government's initial stance and priority regarding the Digital cash initiative.

Interoperability

As noted in the Reserve Bank's papers, Digital Cash will provide a new way of making payments. However, Digital Cash would not exist in a silo. Interoperability with other existing payment systems, payments acceptance environments and digital infrastructures is critical to its feasibility. We would advocate for further clarity regarding how Digital Cash might interoperate, and what a joined-up payments roadmap might look like.

To assist with identifying how Digital Cash might interact within the wider payments ecosystem, the next section focuses in detail on Digital Cash's impact and relationship with payments systems.

2. Digital Cash's relationship with payment systems

Summary of Payments NZ's key points and suggestions on the impact and relationship with payment systems:

- Digital Cash would have a material impact on Aotearoa's payments landscape.
- The development of a new ecosystem to enable Digital Cash, which includes leveraging existing and proposed payment system capabilities, is a substantial task. The magnitude of this task should not be underestimated.
- Digital Cash should not be used to indirectly influence any issues the Reserve Bank has with existing or proposed payment systems.
- The Stage 2 case for Digital Cash should be based on a long-term view and look past any perceived short-term functionality gaps in the payment system.
- The interrelationships between the case for Digital Cash and the case for real time payments and how they impact one another needs joined-up consideration.
- The potential for fraud, scams and laundering by changing the form of money and washing it between different payment ecosystems is a material risk and should be treated as a priority.
- Fraud and scam detection and mitigation capabilities should be a top consideration.
- Payments regulation, access, participation and licencing requirements across New Zealand's payments landscape should avoid fragmentation and inconsistency.
- The widespread acceptance of Digital Cash, including at point of sale, would need to be established to ensure that holders can spend their Digital Cash money.
- Digital Cash devices (e.g. cards, mobile device) and payment initiation methods (e.g. APIs, QR codes, contactless NFC etc) should use existing standards.
- Payment addressing standards and routing processes will need careful consideration, particularly when funding and defunding Digital Cash holdings.
- The Digital Cash platform's APIs should be consistent with the design of open banking standardised APIs.
- Whether or not 'open cash' (similar in concept to 'open banking') is in scope is a key decision.
- Digital Cash's distribution model is tightly linked to payment systems and payments policy, including how open access is to ESAS.
- Implementing payment limits and/or holding limits is an area of significant design complexity and requires seamless interoperability and integration with account-based payment systems.
- We support the Reserve Bank establishing a clear payments policy position regarding the potential for wholesale CBDC.
- We encourage the Reserve Bank to develop a clear vision for the type of payments that Digital Cash intends to support.
- Our view is that delivery of Digital Cash would require significant payments industry effort and resource. There would be an opportunity cost to the payments industry.
- Counterfactuals will need careful consideration to ensure Digital Cash represents the best public policy option for investing in New Zealand's payments capability.

Overall impact of Digital Cash

The Reserve Bank sees Digital Cash as a potential avenue to provide New Zealanders with more choice in payments, and to enable a money and payments system that is innovative, competitive and contributes to the development of the digital economy.

Digital Cash would have a material impact on New Zealand's payments landscape. Digital Cash would be one of the most significant public policy interventions that we have seen in payment systems in New Zealand. As such, it needs to have a compelling net-positive impact and be based on sound cost/benefit analysis.

In this section, we explore a broad range of payment system issues and topics relevant to this, focusing on the relationship between Digital Cash and New Zealand's present and future payment systems.

Ecosystem design

The consultation paper on Designing a Digital Cash Ecosystem notes that issuing Digital Cash requires more than just a technical platform, as it will necessitate the establishment of an entirely new ecosystem.

This ecosystem must cohesively bring together:

- user needs and user safeguards;
- a viable commercial market;
- a technical platform, with functionality that supports both commercial and user needs;
- interoperability and/or integration with other existing and proposed payment systems and digital infrastructures;
- widespread Digital Cash payments acceptance;
- an efficient distribution model;
- very high levels of security and resilience;
- an access and participation framework, including any fees charged by the Reserve Bank;
- a regulatory and compliance framework;
- a balanced and effective governance model capable of overseeing change in a rapidly evolving environment;
- the utilisation of clear operating standards.

The development of a new ecosystem, which includes leveraging existing and proposed payment system capabilities, is a substantial task. The magnitude of this task should not be underestimated. It will demand significant resources and effort from both the public and private sectors to build such an ecosystem. This needs to be considered in any business case.

Existing payments systems

The consultation papers discuss the Reserve Bank's concerns that New Zealand's banking and payments industries have fallen behind internationally. This is a broad claim that understates the current situation and direction of New Zealand's payment systems.

We have an efficient and resilient payments system, with seven-day processing. Our High Value clearing system now uses the ISO 20022 standard. The year 2024 is proving to be a key year for bringing together the open banking ecosystem. Known capability gaps are being actively worked on across a range of work programmes. The anticipated payments vision roadmap (from the Council of Financial Regulators) should hopefully provide clarity on the direction that regulators expect from payments systems.

We are of the view that Digital Cash should not be used or portrayed as a panacea for resolving a range of other payment system issues or concerns. We strongly believe it is not appropriate for the concept of Digital Cash to be used to indirectly influence any issues the Reserve Bank has with the existing or proposed payment systems.

On a similar note, the Reserve Bank's consultation papers discuss the issue of access barriers to New Zealand's payment systems. While Digital Cash could offer an access route to a new and distinct payments ecosystem, it would not, on its own, resolve any of the perceived access barriers that are mentioned in the papers.

In our view, the Reserve Bank could positively impact perceived payment system access barriers in the context of the review that is currently underway in relation to ESAS. Clarity on the outcome of this review, and broadening access to ESAS while having appropriate regard to requirements for integrity and reliability, would promote innovation and competition. This would have the downstream impact of opening existing payment systems to a wider range of payment service provider organisations and to smaller financial institutions.

Digital Cash in a long-term context

The consultation papers on Designing a Digital Cash Ecosystem and the Storyboard present Digital Cash as a long-term proposition – one that could be introduced several years in the future when the digital and payments landscape will have further evolved and matured from its current state. Payments NZ endorses this perspective.

A potential Digital Cash should be considered as a multi-generational, long-term proposition. In the context of this time horizon, current gaps in the payment system, such as real-time payments, should not significantly influence consideration of the need for Digital Cash. Many of these gaps will be filled by the initiatives that are currently underway by the time Digital Cash could be issued and available to the public. Accordingly, the Stage 2 case for Digital Cash should be based on a long-term view and look past any perceived short-term functionality gaps in the payment system.

Digital Cash and real time payments

The interrelationships between the case for Digital Cash and the case for real time payments and how they impact one another needs joined-up consideration. As noted in the Reserve Bank's letter dated 10 July 2023¹, Aotearoa is unique in the world in that it is at the early stages of exploring both real time account-to-account payments and Digital Cash.

While the Reserve Bank "does not see any critical dependency between a potential CBDC and a real time account-to-account payment system", the letter goes on to say that "international evidence suggests that a CBDC has better features if it is highly interoperable with real time account-to-account payments". The

¹ [Letter to Payments NZ on NZs need for real time payments 10 July 2023 \(rbnz.govt.nz\)](https://www.rbnz.govt.nz/letter-to-payments-nz-on-nzs-need-for-real-time-payments-10-july-2023)

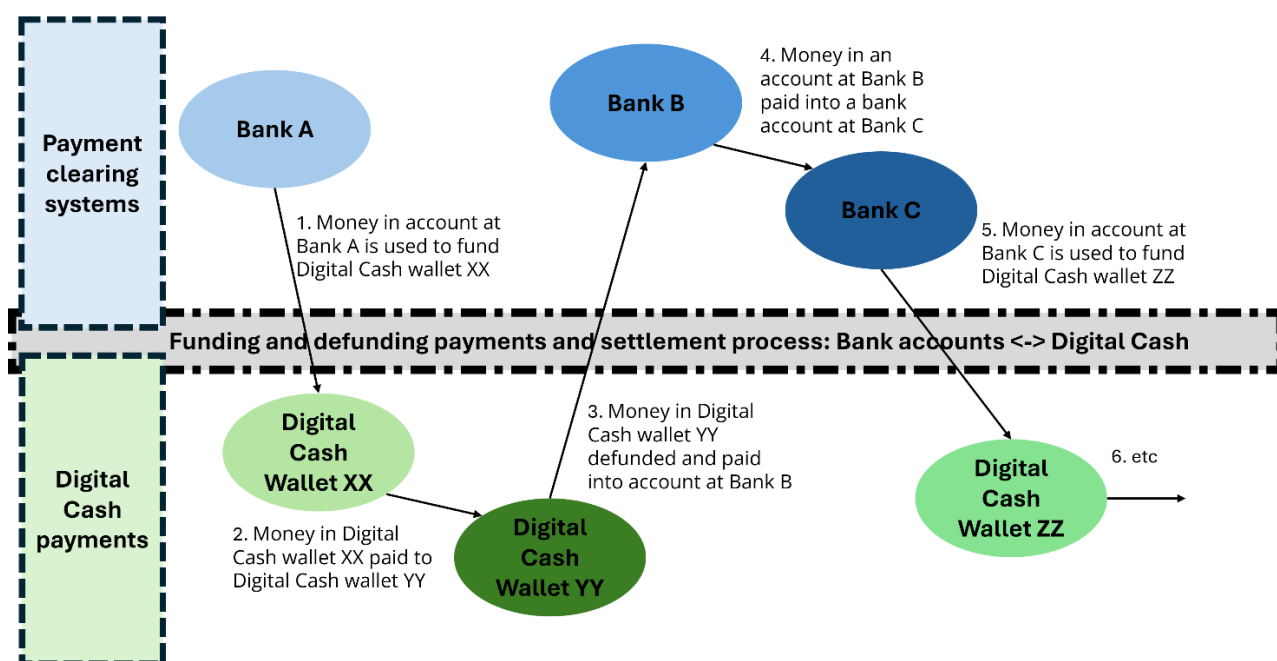
letter also refers to design synergies such as “user’s funding and defunding CBDC holdings from bank accounts; consistent data standards and data models; a potential common approach and systems for user alias/proxies conveniently addressing both CBDC and real time payments; fraud identification and mitigation tools, and other functions”.

Given the earlier comments of the Reserve Bank, the mutual relationship between real time payments and Digital Cash should always be kept in mind.

Fraud and scam considerations

An important consideration is the potential for Digital Cash to become a new vector for fraud and scams. Building user trust from the outset will be important for the viability and success of Digital Cash. Ensuring users have the benefit of appropriate preventative safeguards and protections will be key to nurturing that trust.

Of particular concern is a scenario where it becomes easier to launder money because of the ability to change the form of money from Digital Cash to commercial bank deposits, and to do so repeatedly across different financial institutions and Digital Cash providers. This money laundering scenario is illustrated conceptually in the following diagram:



The detection and traceability of fraudulent payment flows and patterns becomes significantly more difficult and complex if funds can flow seamlessly between the banking and payments ecosystem and between the Digital Cash and payments ecosystem, as illustrated above.

Accordingly, the potential for fraud, scams and money laundering by changing the form of money and washing it between different payment ecosystems is a material risk and should be treated as a priority. In these circumstances, fraud and scam detection and mitigation capabilities should be a top consideration.

Access and participation regulatory considerations

There is a risk that payments regulation may become overly complicated, particularly given the size of our market. Overlapping regulation and different requirements for access creates a risk of uncertainty and inefficiency, and the introduction of Digital Cash could further compound this risk if it is not addressed early.

Relevant developments on this include:

- A Digital Cash ecosystem will require its own access and participation framework, which FinTech's, payment service providers and financial institutions will use to access that ecosystem in order to develop their Digital Cash products and services.
- The regime under the Customer and Product Data Bill will have its own access and accreditation framework, including for payments initiation. It will also have a significant overlap with the market actors involved in Digital Cash.
- The Commerce Commission is proposing to authorise the API Centre to develop an open banking accreditation and partnering regime.
- Access to the ESAS system is currently under review and it is likely to have its own access and participation framework.
- Payments NZ's clearing systems have their own access and participation requirements (which have dependency on ESAS).
- Both the Reserve Bank (under the Financial Market Infrastructures Act) and the Commerce Commission (under the Retail Payment System Act) appear to be considering designating different, but potentially overlapping, parts of the account to account payments network.

As an overarching and very fundamental goal, payments regulation, access, participation and licencing requirements across New Zealand's payments landscape should avoid fragmentation and inconsistency. This becomes even more pertinent in the context of the possibility of a new and separate payments ecosystem, such as would be introduced by Digital Cash.

Payments acceptance

For Digital Cash users to make everyday payments and purchase goods and services from merchants, the widespread acceptance of Digital Cash, including at point of sale, would need to be established to ensure that holders can spend their Digital Cash money.

New Zealand's cards industry has invested heavily in ensuring POS terminals meet international standards in terms of safety and security, and the market manages the lifecycles of the terminals. In this regard, Payments NZ plays a key governance role by setting applicable terminal standards and in overseeing the device register².

The costs and incentives on industry participants to achieve the ubiquitous acceptance of Digital Cash as a means of payment should be recognised and factored into any business casing.

We also consider that public facing Government departments would need to accept Digital Cash payments to drive necessary adoption.

² <https://www.paymentsnz.co.nz/resources/industry-registers/device-register/>

Digital payments and standardisation

Digital payments are now very much a mature market, and a wide range of standards exist. Digital Cash devices (e.g. cards, mobile device) and payment initiation methods (e.g. APIs, QR codes, contactless NFC etc) should use existing standards.

The role of establishing Digital Cash standards, engaging with standards users, governing the standards, and keeping those standards up to date will be a key function and responsibility in the ecosystem. It will be important to consider skillsets, incentives and required resourcing as part of the ecosystem design.

Payment addressing standards and routing processes will need careful consideration, particularly when funding and defunding Digital Cash holdings with bank accounts. Correct addressing and directing of Digital Cash payments will be a key component of the success of any Digital Cash initiative. This will require careful consideration in collaboration with industry.

It is likely that any Digital Cash ecosystem will use application programming interfaces, or APIs. The Digital Cash platform's APIs should be consistent with the design of open banking standardised APIs. Financial institutions, payment service providers and FinTech's can and do use the current open banking APIs. It is logical that any Digital Cash APIs leverage what is already in place in terms of established market practice.

Open cash

Whether or not 'open cash' (similar in concept to 'open banking') is in scope is a key decision. This describes a scenario where Digital Cash end users want to:

- consent to share their digital cash information (such as their Digital Cash balance or transaction history) with another party;
- consent to a third party payment service provider initiating a digital cash payment from their digital cash wallet (where the payments initiating party is different to the party that is the user's Digital Cash service provider).

Whether an open banking styled capability should also be a Digital Cash capability will be a key scoping decision. Including it would add significant design complexity. To ensure parity with open banking, Digital Cash should also become a 'designated sector' under the proposed Customer and Product Data regime.

Alternatively, excluding 'open cash' from the scope would simplify any Digital Cash delivery, but it would also render Digital Cash a weaker proposition compared to a fully functioning and mature open banking environment. This is a counterfactual to Digital Cash that would need consideration.

Our view is that there is likely to be a stronger case for user consented data sharing capability being in the scope of Digital Cash. In contrast, there is likely to be a weaker case for Digital Cash third party payments initiation. However, the market demand for 'open cash' capability would need to be fully assessed.

Digital Cash distribution model

The Reserve Bank's Digital Cash's distribution model is tightly linked to payment systems and payments policy, including how open access is to ESAS. The way Digital Cash service providers gain access to purchase and redeem Digital Cash for distribution, and how the settlement of Digital Cash purchases and redemptions takes place, will directly influence the structure of the Digital Cash marketplace.

The Reserve Bank will need to consider the various model options for issuance, redemption, settlement and distribution of Digital Cash. If new Digital Cash can only be purchased or redeemed via settlement in ESAS, then participants with ESAS access will need to play a significant role in Digital Cash distribution. This will determine the concentration and nature of the market for distributing Digital Cash and could potentially create a wholesale distribution market.

Payment and holding limits

We view implementing payment limits and/or holding limits as an area of significant design complexity, requiring seamless interoperability and integration with account-based payment systems in order to properly function. The treatment of inbound payments that would push a Digital Cash account over a holding limit will need careful design consideration.

The Reserve Bank provides analysis about the financial stability risk from banks and other deposit takers losing deposits to Digital Cash. The modelling appears to suggest that demand for Digital Cash will not reach "high levels", noting (in a scenario) that holding limits of up to \$2,000 per person would likely manage any stability risk.

Our submission primarily focuses on the payment system implications of limits, as opposed to any financial stability impacts. However, we do note that there are already a number of policy interventions in place (or being put in place), such as Open Banking Resolution and the Depositor Compensation Scheme that should be able to be relied upon for financial stability, irrespective of the design of Digital Cash.

The effectiveness and broader consequences of limits will need careful consideration beyond just financial stability impacts. Limits are likely to create user experience friction, particularly when inbound payments exceed a limit. Limits will also constrain or inhibit many Digital Cash use cases, making the development of viable products and services more challenging. The effectiveness of limits also needs consideration as end users will inevitably find ways around limits, for example through spreading and manipulating their Digital Cash holdings across multiple Digital Cash accounts with different providers, or by making multiple smaller payments.

It is our view that any constraint put on a money or payment system, such as limits, will adversely impact its utility and usage. Should the Reserve Bank determine that limits are required, the level of those limits should not just be driven by financial stability modelling. The setting of limits will need to align with the overarching vision for what Digital Cash intends to be.

For example, if the vision for Digital Cash included being an alternative system where a user could manage all their regular budget, money and payments needs, then the user would need to be able to receive their wages/salary in Digital Cash and this would necessitate limits to be higher. Alternatively, if the vision for Digital Cash was just to provide an alternative system where the user can conduct just their

day-to-day payments, leaving their main financial management practices with banks, then limits could be lower.

In our view it is likely there is a stronger case for maximum holding and spending limits in offline mode.

Retail and wholesale use cases

The Reserve Bank has referred to Digital Cash as a “general purpose” CBDC. This keeps open the option for use cases that enable larger value transactions to occur, and indeed the Reserve Bank has not discounted Digital Cash being used in wholesale use cases.

We observe that the application of any holding or transactional limits will most likely result in Digital Cash being used only for retail purposes, changing the Reserve Bank’s Digital Cash initiative into a ‘retail CBDC’ (unless some form of tiered market is envisaged to allow higher value transactions to occur in certain circumstances).

Broadly, we support the Reserve Bank establishing a clear payments policy position regarding the potential for wholesale CBDC. We also note that the potential for wholesale CBDC will be closely linked with the future strategic direction of ESAS accessibility.

We encourage the Reserve Bank to develop a clear vision for the type of payments that Digital Cash intends to support. We believe articulating this clear vision and associated policy rationale would provide greater certainty to potential market participants and, importantly, provide a clearer view of what payments use cases need to be supported, including with respect to wholesale CBDC.

For example, what types of payments described in the following illustrative list would a “general purpose” Digital Cash cater for? Further, if there is a delineating cut off that divides the list below, what is the supporting policy rationale for this delineation?

- buying an apple;
- paying for parking;
- buying groceries;
- paying a bill;
- paying / receiving salary;
- GST / tax returns (which can be large transactions);
- buying a car;
- cross-border payments settlement;
- a business paying another business for high value inventory supplies;
- buying a house;
- rebalancing Digital Cash holdings that provide financial backing for a large Stable Coin;
- settling a financial markets trade.

Industry effort and resource

Delivery of Digital Cash would require significant payments industry effort and resource. There would be an opportunity cost to the payments industry.

This is not to imply that the Digital Cash opportunity is not worth pursuing. Rather, we believe it is important to recognise and emphasise that the introduction of Digital Cash would be a major undertaking that would require significant payment’s industry expertise, input and effort.

Anecdotally, Digital Cash issuance to the public by 2030 would be considered 'fast'. This timeline would still require years of design, development, testing, launch, and roll out. The opportunity cost is not only upfront but ongoing, but it would be ongoing as a Digital Cash ecosystem will require ongoing maintenance and enhancement over time.

Consideration of alternatives

Lastly, we note that the Reserve Bank's consultation papers did not give any consideration to the alternative options and initiatives that could address the Reserve Bank's policy goals. Counterfactuals will need careful consideration to ensure Digital Cash represents the best public policy option for investing in New Zealand's payments capability.

We thank the Reserve Bank for the opportunity to respond on this consultation. We hope you find that our feedback and recommendations constructively contribute to the direction of the Digital Cash initiative, and we would welcome the opportunity to discuss our submission further with your team.

Nāku noa, nā,

A handwritten signature in blue ink, appearing to read 'Steve Wiggins', with a long horizontal flourish extending to the right.

Steve Wiggins
Chief Executive

Appendix 1: Short form responses to the Reserve Bank's Consultation Questions

1. *Do you have any feedback on the objectives for Digital Cash to:*

- i. ensure that central bank money is available to New Zealanders and allow it to be used digitally?*
- ii. contribute to the innovation, efficiency and resilience of New Zealand's money and payments landscape?*

In the context of guiding the Reserve Bank's Digital Cash initiative, Payments NZ supports these objectives, and the corresponding outcomes described in the consultation papers. We do not have any specific comments on their wording or intent. As mentioned in our submission, assessing the counterfactuals with respect to the payments landscape will be key to ascertaining whether Digital Cash is the most efficient public policy intervention and investment in order to achieve these outcomes.

2. *Do you have any feedback on the Digital Cash principles: Uniform, Universal, Private, Innovative, Reliable, and Orderly?*

In the context of guiding the Reserve Bank's Digital Cash initiative, Payments NZ supports these principles. Meeting these principles should be viewed as a minimum requirement, or starting point, when assessing the case for Digital Cash.

We are wary of putting too much analytical weight on the principles when assessing the case for Digital Cash. Key decisions must prioritise fundamental strategic and cost/benefit factors over more academic considerations like the extent to which the case for Digital Cash meets the principles.

3. *What are your biggest concerns with Digital Cash? What design changes, if any, could address your concerns?*

We mention the following concerns, which we have elaborated on in our submission:

- Generally, the significant potential size of investment and effort required to issue and maintain Digital Cash;
- The intersections and dependencies with existing and future payment systems;
- The lack of a connected regulatory and private sector payments roadmap, which could include Digital Cash;
- The level of payments industry resources that would be required to introduce Digital Cash, and the related opportunity cost for industry;
- The lack of consideration given to risks and counterfactuals;
- That Digital Cash becomes a new vector for fraud, scams and laundering;
- The lack of consideration to end-user safeguards;
- The potential low levels of end-user demand/take-up and lack of compelling use cases;
- AML/CFT considerations (see question 10 below); and
- The lack of clarity regarding the Reserve Bank's position on wholesale CBDC.

As the above points are substantive, there is no quick design solution. Each will require in-depth consideration.

Generally, we see the following key design areas as being priority focus areas given the relatively early stage of the Digital Cash initiative. These areas focus on the model, as opposed to functional design choices:

- Access and distribution model: who can participate and how digital cash is issued and distributed via market providers. This includes settlement and the relationship with ESAS;
- The participation model for Digital Cash service providers;
- Rules and governance model: including the level of prescription imposed on market participant activities, products and services;
- Clarity of what types of payment scenarios will and will not be supported by Digital Cash;
- Functionality: what use cases / enabling functionality is offered and by whom (Reserve Bank platform or market systems/actors);
- Constraints: on users and usage, e.g. whether there are user holding or transactional value limits and how they operate;
- Intersections, relationships and dependencies with current and future payment systems; and
- Customer confidence and experience, and ensuring their safety.

Lastly, we consider the 'designing the digital cash ecosystem' paper to be heading in the right direction, even though it remains at a very high level at this early stage. This is particularly in relation to the technical approach guidelines, the non-functional requirements, the discussion on designing an ecosystem, the key judgements, and the building blocks approach. We particularly support aligning Digital Cash with the 'support the market' and 'digital economy' models.

Benefits of Digital Cash

4. Do you think Digital Cash can enable long term innovation for New Zealanders? What innovative features should Digital Cash or its platform have?

It has the theoretical potential to enable long term innovation. However, as it is at such an early stage there are many design and delivery unknowns that will have a significant bearing on whether Digital Cash will indeed enable long term innovation. In addition, as no other major economy has launched a retail focused CBDC, there are few real-world lessons to draw from in terms of whether Digital Cash would enable long term innovation. Therefore, we prefer not to provide any speculative opinion in response to the first part of this question.

As mentioned in our submission, it is our view that the most innovative Digital Cash features are: atomic settlement; conditional fund locking capabilities; programmable payments (i.e. smart contracts); and offline payment capability.

5. Do you think Digital Cash can improve the reliability of payments in New Zealand? What reliability features should Digital Cash or its platform have?

Payments NZ has reservations about the proposition that it will improve the reliability of payments in New Zealand because it provides another payment option should another payment system experience disruptions. In our view, this proposition is about diversification. Aotearoa benefits from a very resilient set of payment systems, and the trend is towards ever-improving resilience metrics.

Perhaps the most significant opportunity for Digital Cash to contribute to Aotearoa's resilience is through its ability to conduct offline payments. This could be particularly beneficial. It is worth considering, however, that over the long term this may become a normal feature of banking and payment services (i.e. the assumption that CBDCs will be the only way to achieve offline payments may not necessarily stand true over the long term).

The reliability characteristics for Digital Cash would need to be extremely high. All end users would rely on the Digital Cash platform's performance (regardless of who their service provider is) if they want to make use of Digital Cash money and conduct payments.

6. *How can Digital Cash support digital financial inclusion? What design features (technical, governance, or standards) would be required to support digital financial inclusion?*

We view Digital Cash as having the potential to support financial inclusion. However, at such an early stage and, in the absence of targeted financial inclusion strategies, it is difficult to form any view on this beyond being speculative. We do however make two observations:

- If access barriers are kept very low for service providers being able to access the Digital Cash platform and provide products and services, then there is more scope for very specific solutions to be developed that target improving financial inclusion outcomes in particular scenarios;
- Digital Cash service providers would be responsible for AML/CFT compliance in the same way as other financial services. Accordingly, if AML/CFT regulation drives towards the de-risking of current financial services for end users, then these same de-risking outcomes would also likely apply to Digital Cash as well.

We note that in line with our comments in question 5, digital financial inclusion can also be achieved through modernisation efforts across established banking and payment services.

7. *What problem(s) could Digital Cash help you or your organisation address and what benefit(s) could it bring?*

Not applicable

Strategic design

8. *Do you have feedback on the Digital Cash design models and the Reserve Bank's preferred approach set out in section 6?*

As covered in our submission, we support the "support the market" and "digital economy" models. We also discuss the level of market resources and commitment that would be needed to realise Digital Cash, and how there is a need for a unified 'digital economy' strategy right across money and payments.

9. What role might your firm or organisation take in the Digital Cash ecosystem, and what support would you require from the Reserve Bank?

In our submission, we have set out a range of intersections and inter-relationships between Digital Cash and payment systems. While it is too early to provide any firm views, it would be reasonable to expect that Payments NZ would have an important role to play in these areas.

Overall, we would like the Reserve Bank to provide greater information about the path that Digital Cash will follow, and how the payments industry and Payments NZ could be expected to contribute along the way.

i. What products and services would you build off the options? What design functionality would you need to support you?

Not applicable

ii. What core functionality should be provided by the Digital Cash platform and what should be provided by the market?

The answer to this question should be closely linked to what is needed to realise the “support the market” and “digital economy” models. Payments NZ is not in a position to provide a view on what is needed to support market needs with Digital Cash – a more purposeful market information gathering exercise would be required to better understand what is needed to “support the market”.

We suggest that at this early stage, it is more important to focus on the model rather than the functionality. Many key parts of the models remain undefined, such as: access, participation, distribution, settlement, licensing/regulation, the inter-connections with payment systems and digital identity systems, etc.

In our submission we suggest the need for functionality that helps detect fraudulent payment patterns.

iii. What key governance measures would you expect the Reserve Bank to provide in the Digital Cash ecosystem?

An interesting challenge is presented to balance the many roles and high levels of control that the Reserve Bank would play regarding Digital Cash, while ensuring the two-tier distribution model does feature market participants having sufficient incentives and opportunities to develop viable and commercially sustainable Digital Cash products and services for end users.

The Reserve Bank will likely play many different roles in the Digital Cash ecosystem, including:

- Money issuer;
- Provision of a technical platform (that would presumably be a designated Financial Market Infrastructure);
- Supervision of the Digital Cash system (if an FMI);

- Digital Cash scheme operator including: access and participation criteria, rules and standards setting, Digital Cash participant compliance, liability model, Digital Cash service provider failure policies, end user Digital Cash recovery procedures, compliance, enforcement, etc;
- Pricing policy and fee setting for Digital Cash participation and usage;
- Running participant governance groups and forums;
- Ensuring financial stability through the Reserve Bank's policy levers (which may impact Digital Cash design and usage);
- As an AML/CFT regulator, the Reserve Bank would likely regulate Digital Cash service providers for AML/CFT purposes;
- In a rapidly changing environment, continuous market engagement to ensure Digital Cash's work plans and change management align with 'support the market' and 'digital economy' needs;
- Setting strategic direction and work plans for continued improvement of Digital Cash; and
- Continuous monitoring, measuring, reporting and research.

We consider it reasonable to expect that the Reserve Bank would need to play a significant role in each of these areas – even if a more hands-off philosophy were taken. All of the above functions and roles would need to be cohesively managed within the Reserve Bank in order to harmoniously 'support the market' and/or play an enabling role in the 'digital economy'. The Reserve Bank's extensive levels of control across multiple facets of the Digital Cash ecosystem would all need to be geared to serving and 'supporting the market', while ensuring there are sustainable incentives on market participants to invest in products and services.

10. Third party intermediaries will own the customer relationship including managing onboarding and AML/CFT requirements. What support or enabling functionality would you require as a potential third party?

We note that the Reserve Bank puts the onus on Digital Cash service providers to comply with AML/CFT requirements and obligations. From an AML/CFT policy perspective, while the description 'Digital Cash' implies its alignment to physical cash, the nature of Digital Cash is closer to the provision of banking and e-Money services.

Unlike physical cash, Digital Cash will require the onboarding of a customer into a provider's service and this will include the provider meeting all of their AML/CFT obligations. Presumably Digital Cash service provider would also have to monitor for suspicious transactions, noting there is no minimum value limit for what a suspicious transaction could be for digital payments.

It is our view that it would not be appropriate to put all the AML/CFT obligations onto providers without supporting capabilities. While market participants would be responsible for AML/CFT compliance, the Reserve Bank should include in its design scope considerations how the Digital Cash platform and ecosystem can support efficient and effective AML/CFT compliance. It should also feature preventative functionality that minimises end user financial harm from financial crime and scams.

In our submission we separately comment on Digital Cash being used to launder money, which we consider a significant risk.

Lastly, we expect that AML/CFT law and guidance will need specific tailoring for the introduction of Digital Cash.

Managed issuance

11. Do you expect interest to be paid on Digital Cash holdings?

We acknowledge that the Reserve Bank has a major policy design question with respect to whether the price of Digital Cash is the same as physical cash (always at par, effectively priced at 0.0%), or whether Digital Cash has the functional and legal ability to be priced at non-zero (negative or positive). Given this is more of a macro-economic matter, Payments NZ does not take a position on this issue.

12. Do you think there should be holding limits for Digital Cash or any other controls on issuance?

We discuss this more fully in our submission.