

Submission by



to

The Reserve Bank of New Zealand

on

The Future of Money: Central Bank Digital Currency Issues Paper

6 December 2021

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The Future of Money: Central Bank Digital Currency Issues Paper

SUMMARY

1. FinTechNZ thanks the Reserve Bank of New Zealand (RBNZ) for the opportunity to submit on The Future of Money – Central Bank Digital Currency issues paper (issues paper).¹ Headings in this submission and their numbering relate to the particular questions raised in the issues paper, and page numbers refer to page numbers of the issues paper.

BACKGROUND

2. FinTechNZ is a member of the New Zealand Tech Alliance (NZTech). NZTech is a group of independent technology associations from across New Zealand that work together with a common purpose to connect, promote and advance technology ecosystems and to help the New Zealand economy grow to create a prosperous digital nation.²
3. FinTechNZ is a part of the NZTechAlliance and has a broad membership base of over 170 financial service providers or financial technology providers in the areas of banking, payments, lending, financial literacy, wealth management, insurance, regulatory technology, industry advisors and cloud infrastructure.
4. FinTechNZ's purpose is to advance, promote and connect the industry to deliver economic benefit to its members and New Zealand, and support the prosperity and financial wellbeing of consumers of financial technology services in New Zealand.
5. Financial services are a key vertical for digital adoption given the socio-economic benefits a well-functioning sector can deliver for both individuals and business.
6. This submission has been developed in consultation with, and incorporate the views of the Leadership of FintechNZ, nominated FinTechNZ members, and aligned group NZ Blockchain Association

Question 1 - *Do you agree with the motivations for the Reserve Bank considering a CBDC, as set out in Section 3? Which motivations are more compelling to you (the declining cash use, innovations in private money or the Reserve Bank's stewardship objective to preserve the fairness and equality afforded by central bank money)? Please rank them in order.*

7. FinTechNZ ranks the motivations as follows:
 - Innovations in private money;
 - Declining cash use and availability;
 - To preserve the fairness and equality afforded by central bank money

¹ <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Policy-development/Banks/Future-of-Money/CBDC-issues-paper.pdf?revision=69fc9f64-5ba2-485e-95ce-83c06c810a44&la=en>.

² <https://nztech.org.nz/about/>.

8. FinTechNZ feels that innovation in money itself can create more equitable access to finance, and boost outcomes by enabling more Kiwis to pursue their aspirations through finance. This can be done in three key ways:
 - 7.1 The monetary system is a public good that permeates people's everyday lives and underpins the economy. As identified in Annex A of the Issues Paper, there are a myriad of frictions to be addressed and opportunities to be unlocked to enhance the monetary system for many of its constituents.
 - 7.2 By removing these frictions new financial solutions could be pursued such as microfinance which could unlock opportunities for groups such as Iwis and SMEs, and financial benefits for microfinance and ESG transformation.
 - 7.3 Removing – or at least modifying the capital constrain barriers that largely play into the hands of mainstream incumbents therefore opening competition, innovation and more diverse services/solutions
9. FinTechNZ considers the rise of other forms of money, including global stablecoins (private stablecoins) issued by technology giants, such as Meta (formerly known as Facebook),³ have the potential to transform payments if adopted widely. Meta has an extremely wide user-base and would have good user functionality, for users and traders, meaning, it is likely that a substantial number of transactions could occur using such a stablecoin. Therefore, it is understandable that the RBNZ is considering releasing a CBDC to address this.

Question 2 - Are there additional motivations that should be considered?

10. FinTechNZ also considers that in the future people will begin to live more of their lives in the metaverse⁴, which is another motivation to consider. With people spending more time in the metaverse, traditional payments make little sense.
11. FinTechNZ also recommends that other forms of stablecoin, rather than just private stablecoins, should also be considered. There are a range of decentralised stablecoins, including USD Coin,⁵ Binance USD,⁶ Tether⁷ and Dai,⁸ Terra USD⁹ and True USD.¹⁰ Stablecoins are designed to overcome the limitation of the volatility of Bitcoin and other cryptocurrencies.¹¹ Stablecoins are growing rapidly, from a market cap in 2020 of US\$20 billion to US\$139 billion in late 2021.¹²
12. FinTechNZ also recommends RBNZ consider open banking (and broader dimensions of Open Finance – e.g. insurance), which is not explicitly mentioned in the issues paper. Open banking has the potential to benefit people and organisations and will enhance competition and widen the scope of services.¹³ Despite the potential benefits, New Zealanders and organisations are only just now seeing new

³ <https://www.diem.com/en-us/>.

⁴ <https://www.thebigq.org/2021/11/03/what-is-the-metaverse/>.

⁵ <https://www.circle.com/en/usdc>.

⁶ <https://www.binance.com/en/busd>.

⁷ <https://tether.to/>.

⁸ <https://makerdao.com/en/>.

⁹ <https://www.terra.money/>.

¹⁰ <https://www.trueusd.com/>.

¹¹ <https://www.oreilly.com/content/stablecoins-solving-the-cryptocurrency-volatility-crisis/>.

¹² <https://theconversation.com/stablecoins-these-cryptocurrencies-threaten-the-financial-system-but-no-one-is-getting-to-grips-with-them-171690>.

¹³ <https://umbrellarconnect.com/apps-infra/open-banking-is-coming-what-it-means-for-data-driven-businesses/>.

companies able to engage – and make traction in the market place still largely locked out of larger scale engagement and impact by some incumbent banks. We have yet to see many examples of open banking due to the reluctance of commercial banks to embrace it- even resist this challenge. A CBDC would aid in the adoption and use of open banking (and Open Finance) choice and innovation in New Zealand.

13. RBNZ consider that data and meta data should be considered another motivation. As digitisation increases, so too does data and metadata. A New Zealand CBDC will provide extensive and potentially near real-time data and metadata. This data offers substantial insights on all aspects of a CBDC, including money flow. The World Economic Forum stated in a recent paper on digital currencies, “[i]nformation and knowledge-sharing, from low level transaction data that can highlight potentially illicit activity to information about forthcoming policy changes, can be hugely constructive.”¹⁴ This data and its use cases however will have to be balanced against security and privacy issues.¹⁵

10. Not being left behind. There are risks to New Zealand’s monetary sovereignty if New Zealand does not adopt a CBDC.

13.1. There is a risk that private stable coins operated by offshore operators such as Diem could fill a void left by the absence of a CBDC.

13.2. There is a risk that a foreign CBDC (as noted such as the Peoples Bank of China) could get a stronghold in New Zealand over our own currency if we do not act swiftly.

13.3. Adopting its own CBDC would instead strengthen RBNZ’s ability to maintain its role as steward of New Zealand’s money and kaitiaki of our financial system.

13.4. In terms of capitalising on the potential innovations, there is a first mover advantage which we would miss out on if we don’t act quickly and in concert with our main trading partners.

13.5. New Zealand’s money markets are largely analogue and have not been digitised to the extent of other markets such as Forex, Interest rate derivatives and OTC Commodities; a clear motivation is to improve operational efficiencies resulting in lower banking overheads influencing our money supply

14. Removing barriers to issuing finance directly to New Zealand citizens and businesses. A CDDBC would enable a direct relationship between citizens and the state:

14.1. The 2020 Funding for Lending programme made \$28 billion available to commercial banks at lowered cost so they could lend to businesses at very low rates. However, only \$6 billion has been drawn down so far. Similar frustrations were evident in the Business Finance Guarantee Scheme, launched during the first COVID lockdown last year. If a direct distribution model was opted for the CBDC, it would enable the Reserve Bank to issue funds directly to businesses and remove the need for commercial banks to act as gatekeepers, supporting greater uptake of similar initiatives. Although, this direct approach could create issues of counterparty credit for RBNZ, but nonetheless an indirect model could still help streamline the intent of programmes such as the Funding for Lending programme.

14.2. Perhaps the best benefit of a direct relationship between citizens and state might be the instant settlement and removal of settlement risk and reduces the “clipping of the cash ticket”

¹⁴ https://www3.weforum.org/docs/WEF_Digital_Currency_Governance_Consortium_White_Paper_Series_2021.pdf at page 33 [4.1].

¹⁵ <https://www.bis.org/publ/othp33.pdf>.

Question 3 - Do you agree that the scope of work should focus on a general-purpose CBDC (Section 3.2) in the first instance?

15. FinTechNZ agrees a general purpose CBDC is the best focus to start with, as it is likely to have the broadest use case. By focusing on one general purpose CBDC rather than multiple special purpose CBDCs, New Zealand would be able to develop and enjoy the benefits of CBDCs faster.
16. Discussion on a wholesale CBDC or any other special purpose CBDC should be given dedicated thought at a later stage and we should be careful about giving too much power/influence a first starter advantage to larger market players with lesser competitive pressure/motivations

Question 4 - Do you agree with the multi-step process for the development and implementation of a CBDC as outlined in Section 3.1 and illustrated in Figure 8?

17. FinTechNZ agrees with the multi-step process proposed – this is broadly the process we also employ in product and fintech development. The stage 2 test and experiment phase is vitally important. A good testing regime could accelerate the move to policy and implementation faster. It is prudent to design and test a CBDC, and then perform the policy cost-benefit analysis and engage in public consultation before any implementation of a CBDC.
18. That said, we do want to signal urgency on its development. There are substantial risks to moving slowly, such as the pace of the proliferation of private, unregulated stable coins. Development and iterations need to be done with pace and tenacity.
19. It may be a (sandbox styled) pilot solution is a sensible pathway to explore

Question 5 - Do you agree with the description of the opportunities presented through the implementation of a CBDC?

20. FinTechNZ considers there a range of opportunities presented through the implementation of a CBDC.
21. A CBDC would support the role of central bank money as a monetary value anchor that provides a digital alternative to privately issued money (money both issued by commercial banks in New Zealand and private stablecoins).
22. A CBDC, like cash, can be seen as a public good. Therefore, it provides a fair and equal way to pay. As part of that, an appropriately designed and implemented CBDC may foster greater inclusion goals by addressing some of the financial and digital inclusion barriers that people face.
23. A CBDC could have 24/7 availability, near instant settlement, and lower fees which would make it much better for consumers than the status quo and modifies the impact of mainstream, market dominating banks who would also then need to improve services/solutions. It would allow consumers to take advantage of the benefits of blockchain and crypto payments without being exposed to the inherent riskiness of crypto assets. It significantly improves settlement risk and also broad financial liquidity. It could help remove monopolistic settlement systems.

Question 6 - Are there any other opportunities that should be considered?

24. FinTechNZ considers the ability to use a CBDC internationally is essential, not just preferable. Whereas, on page 19 the potential of RBNZ taking part in global initiatives that use CBDCs to improve cross border payments is raised. Payments are increasingly being made internationally. If a CBDC could be used only in New Zealand it would have limited utility and people and businesses would seek out other payment forms such as private stablecoins and decentralised stablecoins

25. CBDCs enable money and data to connect, allowing for the creation of financial instruments to literally connect payments with measured environmental outcomes. New Zealand has made a commitment to reach net zero carbon by 2050, and introduced sustainability reporting requirements for the financial sector. The ability to innovate further with financial products that automatically offset the carbon of purchases or activities, or providing reporting for example will accelerate New Zealand's just transition and support compliance with sustainability reporting standards (such as is being explored with the Climate Disclosures amendment Bill) and aligns us with other countries.
26. A CBDC would keep the NZD in a constant real time "alive" state enabling better productivity compared to cash which can hibernate under mattresses (depreciates in value) and indeed be physically lost without RBNZ knowledge.
27. CBDCs could contribute to the development of faster, cheaper, more inclusive, safer, convenient and efficient payment solutions including in support of wider trends and innovations such as open finance and Distributed Finance (DeFi).
28. CBDCs could be a platform for facilitating smart contracts that could develop new financial products and improve other areas of sector efficiency e.g. international payment remittances, reporting, insurance and more.
29. As identified in the issues paper, "a New Zealand CBDC could be a powerful national vehicle for providing or supporting services that make it easier for people to prove their identities."¹⁶ AML compliance and identity identification impose significant costs on New Zealand businesses and slow the speed of commerce. For instance, the costs of Phase 2 were estimated to be \$1 billion.¹⁷ They also inhibit inclusiveness within the financial system, creating barriers in particular for vulnerable groups or for solutions targeted to their needs (for example, micro finance). Digitisation can also help to resolve coordination issues and improve transparency and reporting. This should be identified as its own opportunity. It has the potential to reduce compliance costs on businesses and reduce barriers to inclusion while also being more effective and stopping financial crime.

Question 7 - Do you agree with the design principles that have been developed to capture the opportunities described in Section 4?

30. FinTechNZ considers the design principles of uniform, universal, cash-like, innovative, integrity, managed issuance are sound. In particular, the design principle of universal is vital as all households and businesses would be able to hold and use the CBDC. Currently not everyone has a bank account and a number of businesses in a range of industries are unable to secure bank accounts, or if they do have bank accounts they are debanked.¹⁸ Providing businesses with stable CBDC accounts would be beneficial. For unbanked individuals (or those who have limited-service offerings by nature of credit risk – or other challenges such as bankruptcy) their lives may be made easier and cheaper with access to a CBDC: it is precarious and expensive to live without a bank account.¹⁹
31. If the indirect model of distribution is used, where intermediaries pass on CBDCs to end users, it is unlikely that the banks would provide all businesses and individuals with accounts. To ensure that

¹⁶ RBNZ CBDC Issues Paper at 22.

¹⁷ <https://www.justice.govt.nz/justice-sector-policy/key-initiatives/aml-cft/costs-and-benefits/analysis/>

¹⁸ <https://www.nzherald.co.nz/business/businesses-denied-banking-services-as-banks-tighten-up-who-can-have-an-account/BB2NGQXAXQ62RMVVRQ67YBBEXDM/>.

¹⁹ <https://www.moneyunder30.com/what-does-life-look-like-without-a-bank-account>.

banks provide businesses and individuals with accounts will require a law change, and access to a transaction bank account would need to become a right of people and organisations.²⁰

Question 8 - Are there other design principles to capture the opportunities that should be considered?

32. FinTechNZ considers it would be prudent for the CBDC not to pay interest and should be left to secondary markets. At a more micro level, this would avoid the possibility of a flight of money from deposits in private banks to a CBDC.
33. One of the main benefits that CBDCs offer is enhanced cross border functionality/ **International Compatibility**. There are lots of benefits to be gained by having international interoperability. Currently, users can transact in different fiat currencies internationally and cross border, although this is limited by inefficiencies, incompatible settlement systems and procedures, lost time value, and high costs. International interoperability could help reduce the frictions in international payments.²¹ For these reasons, we would want to recommend a design of a CBDC that is aligned with other CBDCs among our key trading partners. We do not want to build a CBDC that does not fit into the growing international landscape of CBDCs. If not, the New Zealand CBDC would not be as effective and miss out on a big opportunity.
34. Adaptability is key. A CBDC needs to be able to be updated as new innovations happen over time, a feature that is inherently more achievable within a digital landscape. This can maximise its innovative potential and help keep pace with international developments.

Question 9 - Do you agree with the description of the challenges and risks in Section 5?

35. FinTechNZ considers the potential impact of a CBDC on commercial bank transaction accounts to be a potential risk. As the issues paper identifies on page 27, there may be a run on the banks as commercial banks may lose deposits as households transfer deposits from the commercial banks to the CBDC. Second, because the CBDC would act as a competitor to commercial banks in terms of deposits and transactions (and thus the fees that banks generate from these transactions), this may reduce commercial banks' profitability and therefore reduce the resiliency of commercial banks to economic downturns.²²
36. The potential impacts of a CBDC can be mitigated by the CBDC accounts not providing interest. Alternatively, as noted on page 29 of the issues paper, the RBNZ could impose negative interest rates on large holdings of CBDC, thus replicating the storage costs of cash as well as inflation effects. In addition, the introduction of a CBDC should act as a spur to commercial banks to improve their offerings.
37. Even without the introduction of a CBDC the large established commercial banks are likely to see a continued move away from money being held in deposit accounts. New Zealand is likely to see the growth of challenger or neo banks that has been seen in the UK²³ and Australia.²⁴
38. FinTechNZ question whether the goals of inclusion will be met with a CBDC, especially with the unbanked. FinTechNZ question how a person would obtain a CBDC without providing requisite

²⁰ <https://www.stuff.co.nz/business/money/107691077/christchurch-woman-lobbies-to-make-it-a-human-right-to-have-a-bank-account>

²¹ <https://www.ukfinance.org.uk/system/files/CBDC-report-FINAL.pdf>

²² <https://www.rbnz.govt.nz/-/media/reservebank/files/publications/bulletins/2018/2018jun81-07.pdf> at pages 15-16.

²³ <https://www.cityam.com/how-challenger-banks-are-revolutionising-the-sector/>

²⁴ <https://www.acuitymag.com/finance/the-digital-neobanks-ripe-for-new-money>.

documentation, The lack of documentation is currently one reason why people do not have bank accounts. The effect of a lack of documentation is being seen currently with the roll out of vaccine certificates in New Zealand. Thousands if not hundreds of thousands are struggling to obtain their certificates. One way to achieve more inclusion would be to use a card with a chip that could be purchased with no registration.

39. The design challenges of creating a CBDC cannot be underestimated. To design a CBDC from scratch, which would be interoperable with other CBDCs, would be extremely complicated and time consuming. The RBNZ should consider an existing product/service or partnering with an existing provider. Potential collaboration with international aligned partners eg Australia and the UK offers a multitude of benefits
40. Impacts on the banking system are likely to take place regardless of whether a CBDC is implemented, as a result of the rise of stable coins already taking place. The question is: do we want to have these impacts brought on by the actions of offshore central banks or private operators or from our own RBNZ's design and control. We would argue NZ needs to work to maintain and control our own sovereignty
41. The threat to the banking system and commercial bank transaction accounts is potentially overstated, especially in light of the other benefits it brings. The central bank of Sweden, which has made significant progress on its own CBDC, estimates that an increase in bank funding costs will be limited to around 25 basis points.²⁵ Such concerns also need to be considered in light of the benefits of CBDCs. While the cost of bank funding might go up, innovation potential unlocked by programmable CBDCs could unleash cost effective efficiencies elsewhere, and the cost of international business will decrease.
42. Further, New Zealand's money markets are predominantly analogue, especially the term deposit market (both retail and wholesale). The TD market represents the majority our money supply, yet it is inefficient, clunky, dangerous and expensive. A CBDC could effectively digitise this important component of our money supply and enhance financial stability. Instant payments will bring immense benefits for example

Question 10 - Are there other challenges and risks that should be considered?

43. The issues paper raises the question of people unable to access a CBDC if they do not have internet coverage or do not have a relevant device and/or data plan (page 22). Use of the Covid-19 Tracer app and the vaccine certificates demonstrate that a number of people do not have smart phones or similar devices. In addition, a CBDC must be resilient in the case of internet outages. One possibility for building in resilience is to use tamper-resistant hardware (possibly a card), where the token or account balances are stored in chips.²⁶ The downside of such a system is that the loss of the hardware means the loss of the money.
44. Large Mainstream technology giants – such as Google and Apple bring powerful platform capabilities which are a risk – and opportunity (such as identity, cloud capabilities and transacting) and should always be considered. The emergence of Web 3- i.e. the trust in platforms and code as a network will being significant acceleration in to the non-sovereign backed exchanges of value which may have many impacts not necessarily considered in the wider back ground brief to this document
45. Unencumbered or special supervision or censorship powers by the government in a CBDC environment should be scrutinised and ideally not permitted.

²⁵ OMFIF and IBM, Retail CBDCs: The next payments frontier at 7.

²⁶ <https://www.slideshare.net/15Mb/drivers-for-cbdc-and-implications-for-architecture>.

Question 11 - Do you agree with the design principles that have been developed to harness the opportunities and to address the challenges described in Sections 5 and 6 respectively?

46. CBDCs raise considerable privacy concerns.²⁷ While the issues paper touches on privacy concerns on pages 23 -24, the design principles do not give sufficient indication of how they will be addressed.

Question 12 - Are there other design principles that should be considered in respect of the opportunities and challenges described in Sections 5 and 6 respectively?

47. FinTechNZ has no comment at this stage.

Additional comments on the RBNZ's views expressed in the issues paper, the issues canvased, and the direction of further worked signalled in the issues paper.

48. The benefits are clear, and the concerns will still exist if we do not adopt. CBDCs are an opportunity to be on the leading edge of finance. If we don't seize this opportunity, it will quickly turn into a threat. If we do not act quickly, there is a risk that our monetary sovereignty could be in the hands of private corporations or other central banks rather than our own.
49. Meanwhile, collaborative first adopters will reap rewards in terms of greater competitiveness, control of their monetary destinies and financial innovation. Ultimately, the sooner we adopt our own New Zealand CBDC, the sooner we can address issues around access to finance and money and create more equitable outcomes for all New Zealanders.
50. While NZ does not run a 'sand-box' system, thought should be given to some form of Pilot support (either an initiative by RBNZ/others) that allow 'learning through innovation' and stimulating competition)
51. Other aspects to consider:
- 51.1. Distributed ledger technology is a decentralisation of data which is inherently safer from Cyber-attack than existing banking transactional account data platforms
- 51.2. RBNZ could also add into savings characteristics "High Liquidity Continuity" and put a yes against CBDC and a no on transactional. There should also be more said about "High Liquidity Continuity" as Liquidity is the most impactful catalyst of financial market volatility
- 51.3. Digital transformation of financial markets should be considered a matter of urgency by regulators and central banks. The speed at which cryptocurrency / defi is moving and producing frictionless unregulated marketplaces is concerning and is one of the top issues keeping regulators up at night! Distributed Ledger / Blockchain is the core foundation of the future of money.
- 51.4. Another aspect to consider is that Central Banks are rated by the major rating agencies, and this usually reflects the sovereign rating of a country which is usually the capping rating for private sector ratings within that jurisdiction. Any digital currency or token could be rated for transparency and safety.
52. It is unlikely that a single version of a CBDC can satisfy all the competing requirements for a CBDC, as outlined in the issues paper. It may be prudent to concentrate on doing one or two things and facilitate the use of other payment mechanisms to meet other requirements. For example, the use of a CBDC in a smart contract will likely only be useful where all the parties are located within New Zealand. To

²⁷ <https://lthj.qut.edu.au/article/view/1745>.



achieve full functionality and benefits from the use of smart contracts, a private or decentralised stablecoin would be the better alternative.

Conclusion

53. Thank you for the opportunity to provide feedback. We are happy to engage further to discuss our submission and provide any further assistance.

Yours sincerely,

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