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THE NEED TO ADDRESS THE BROADER SOCIAL DIMENSIONS IN ANY DECISION TO ISSUE A RETAIL CENTRAL BANK DIGITAL CURRENCY

ROSS P BUCKLEY* AND LUCIEN J VAN ROMBURG**

Central banks, in deciding whether to issue a Central Bank Digital Currency ('CBDC'), tend to focus upon how the new monetary instrument might best support their mandated policy objectives. While central banks typically view themselves as being in the service of society as a whole, the 'need' for a CBDC will typically be assessed in terms of the scope of their primary mandates, traditionally concerned with monetary policy. This is problematic, as grounds for the issue of a CBDC that fall outside this scope may not be considered fully. We suggest that the broader needs of society and the effects of a retail CBDC should be given substantial weight in decisions concerning a potential CBDC. Central banks may well need to consult with, and enlist the support of, other governmental agencies in ensuring public engagement and participation in deciding whether there is an actual need for a CBDC and the design thereof, to ensure that the needs of all members of society are fully considered.

I INTRODUCTION

Contrary to popular belief, the Bahamas and China were not the first countries to issue central bank money in digital form to the public.[1] In 1993, the Bank of Finland launched its 'Avant Smart Card' system, which issued smart cards preloaded with Finnish markka, and functioned much like debit and credit cards. Despite this pioneering vision, Avant was discontinued in 2006 as it became more expensive to use than simple debit cards. Initially, the smart card was offered to customers for free, but fees were later added, which reduced customer appetite. The reason for Avant's discontinuance was ironic, as the Bank of Finland's primary reason for its issue was the potential cost savings. This experience thus serves as a timely cautionary tale of the importance of clarity about the precise reasons for issuing a retail Central Bank Digital Currency ('CBDC').

Accordingly, we analyse the justifications given by central banks for their intentions to issue a retail CBDC, and whether these rationales address societal needs broader than the purely economic. As well put by Luu *et al*, 'despite CBDC gaining in its popularity, our understanding of the reasons why countries decide to adopt CBDC is still in its infancy'.[2] We aim to analyse the policy objectives typically given as

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1 Aleski Grym, 'Lessons Learned from the World's First CBDC' (2020) 8 *BoF Economics Review* 1, 2 ('Lessons Learned').

2 Hiep Ngoc Luu et al, 'Cultural Values and the Adoption of Central Bank Digital Currency' (2023) 30(15) *Applied Economics Letters* <https://doi.org/10.1080/13504851.2022.2089342>.

justifying CBDC projects and explore whether central banks appropriately consider broader societal needs in the process. We ultimately argue that as CBDC issuance will have society-wide effects, decisions concerning a potential CBDC, including whether there is an *actual* need for one, should involve multiple agencies within government, and broad public engagement and participation. It should not be a process driven only by central banks and directed only through the lens of their monetary policy mandates. Our article contributes to the literature examining the role of central banks in social issues.[3]

The arguments for a wholesale CBDC are quite different, with wholesale CBDC potentially offering substantial efficiency gains in cross-border trade transaction payments, and capital market transactions.[4] This article focuses upon retail CBDC, those designed for use by the general population, not major banks and corporations. Whereas a retail CBDC could be used by households and businesses to effect online transactions and transfers of funds to family and friends, a wholesale CBDC would only be accessible to a limited range of market participants, such as commercial banks, and would be used to effect wholesale payments and settlements.[5]

This article has five parts. Part II surveys the broad reasons given by central banks, in both advanced and developing economies, for the issue of a CBDC. Part III sets out our thesis that the 'need' for a CBDC will typically be assessed in terms of the scope of central bank primary mandates and the related policy objectives, traditionally concerned with monetary policy. This is problematic as grounds for issuing a CBDC which fall outside this scope may not be considered fully. Part IV sets out our suggestions for a needs and effects-focussed approach and broad public engagement and participation, facilitated largely by the state and not by central banks alone, in making decisions concerning a potential retail CBDC, including whether there is an *actual* need for one, and settling upon its model and design. Such an approach will ensure that the broader interests of all members of society are properly taken into account. Part V concludes.

II CENTRAL BANK DIGITAL CURRENCIES

While the technology that typically underpins CBDCs has existed for some time,[6] the term itself is relatively recent, with reports indicating it was coined by Bank of

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3 See, eg, Raffaele Felicetti, 'A Study on Central Banks and Social Responsibility: the Case of the ESCB'(2024) 10(1) *Journal of Financial Regulation* 65, which examines whether the European Central Bank (ECB) should use its mandate to address economic inequality even though it would not be necessary in its pursuit of price stability <https://doi.org/10.1093/jfr/fjad010> ('Central Banks and Social Responsibility').

4 See Ross P Buckley and Mia Trzecinski, 'Central Bank Digital Currencies and the Global Financial System: The Dollar Dethroned?' (2023) 18(2) *Capital Markets Law Journal* 137 < https://doi.org/10.1093/cmlj/kmad007>. See also Emilios Avgouleas and William Blair, 'A Critical Evaluation of Central Bank Digital Currencies (CBDCs): Payments' Final Frontier?' (2024) 19(2) *Capital Markets Law Journal* 103 <https://doi.org/10.1093/cmlj/kmae002> ('Final Frontier').

5 Reserve Bank of Australia, *Central Bank Digital Currency and the Future of Digital Money in Australia* (Report, September 2024) <https://www.rba.gov.au/payments-and-infrastructure/central-bank-digital-currency/pdf/cbdc-and-the-future-of-digital-money-in-australia.pdf> ('*Future of Digital Money*').

6 See Primavera De Filippi and Aaron Wright, 'Blockchains, Bitcoins and Decentralized Computing Platforms' in Primavera De Filippi and Aaron Wright (eds), *Blockchain and the Law* (Harvard University Press, 2018).

England (BoE) research staff in 2015.[7] Since then, CBDCs have garnered sustained government and public interest, and today feature prominently on policy agendas worldwide.

Today's focus upon CBDCs is due, in large part, to the rise of cryptocurrencies, and the systemic risks associated with the digital asset platforms which facilitate their trading.[8] The catalyst for developed nations' focus on CBDCs (at least beyond China, which had been researching them since about 2014) was Meta's Libra Project.[9] The first Libra Association white paper, published in June 2019, set out Meta's plans for a decentralised, blockchain-based, low-volatility, asset-backed cryptocurrency, and a smart contract platform.[10] Governments and regulators globally reacted strongly against these plans for a digital currency issued by a company with billions of users globally, fearing loss of monetary and economic sovereignty. In response, Meta issued an amended white paper 2.0 in April 2020,[11] and rebranded and restructured Libra as 'Diem' in December 2020.[12] Nonetheless, the entire Libra/Diem project was wound down in January 2022.[13] Since then, many policy papers have been published by governments internationally exploring potential reasons for CBDC issuance, which most often tend to be to address existing pain points in, or future-proof, payment systems.[14] The cases presented by central banks in deciding to issue a CBDC overwhelmingly highlight the potential benefits. However, a CBDC may also introduce risks, particularly related to financial stability.[15]

Large transfers of retail deposits by households into CBDC could impact the ability of commercial banks to access low-cost and stable funding from the public. This may

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7 Lessons Learned (n 1) 1.

8 See Douglas W Arner et al, 'The Financialization of Crypto: Designing an International Regulatory Consensus' (2024) 53 *Computer Law & Security Review* 1–18 <https://doi.org/10.1016/j.clsr.2024.105970> and Policy 4.0, *Interdependencies in Crypto Ecosystems: Drivers, Implications, and Policy Responses* (Report, February 2023) <https://policyfourpointo.com/publications/>.

9 See Ross P Buckley et al, 'Sovereign Digital Currencies: Reshaping the Design of Money and Payments Systems' (2021) 15(1) *Journal of Payments Strategy and Systems* for a general discussion.

10 Libra Association, 'An Introduction to Libra' (June 2019), 1 <https://connectio.io/wp-content/uploads/2022/05/LibraWhitePaper_en_US-Rev0723.pdf>. See also Dirk A Zetzsche, Ross P Buckley, and Douglas W Arner, 'Regulating Libra' (2021) 41(1) *Oxford Journal of Legal Studies* 80 <https://doi.org/10.1093/ojls/gqaa036>.

11 Libra Association, 'White Paper 2.0' (April 2020) <https://www.accc.gov.au/system/files/public-registers/documents/54.%20Libra%20Whitepaper%20v2.0%2C%20April%202020.pdf>.

12 Ibid.

13 Diem Association, 'Statement by Diem CEO Stuart Levey on the Sale of the Diem Group's Assets to Silvergate' (Press Release, 31 January 2022) <https://www.diem.com/en-us/updates/stuart-levey-statement-diem-asset-sale/>.

14 Gabriel Soderberg et al, 'How Should Central Banks Explore Central Bank Digital Currency: A Dynamic Decision-Making Framework?', International Monetary Fund, (Fintech Notes, 8 September 2023) 8 <https://www.imf.org/en/Publications/fintech-notes/Issues/2023/09/08/How-Should-Central-Banks-Explore-Central-Bank-Digital-Currency-538504> ('Dynamic Decision-Making Framework').

15 Corinne Zellweger-Gutknecht, Benjamin Geva, and Seraina N Grunewald, 'Could the ECB Issue an Electronic Equivalent of Paper-Based Euro Banknotes? Under Which Conditions Might Such "Electronic Banknotes" Have Legal Tender Status?' (SSRN, 31 July 2021) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3667057> ('Paper-Based Euro'). For a discussion on the data and privacy risks presented by CBDCs, see Patrick Schueffel, 'CBDCs: Pros and Cons – A comprehensive List and Discussion of the Advantages and Disadvantages of Central Bank Digital Currency' (2023) 1(2) *Journal of Digital Assets* 49 <http://dx.doi.org/10.2139/ssrn.4398748> ('Pros and Cons').

shrink their balance sheets and, in extreme cases, require the central bank to make available through their discount window to the commercial banks the funds otherwise siphoned out of the commercial banking system.[16] Further, during financial crises, bank runs may occur as households suddenly move their commercial bank deposits to the safe harbour of CBDC, as a state-backed risk-free asset.[17] At the moment, bank runs are severely curtailed by the limited access to cash provided by most bank branches. The digital nature of CBDCs, without appropriate holding and withdrawal limits, may facilitate massive, rapid and destabilising withdrawals.[18] Several solutions, however, have been proposed to mitigate the potential financial stability risks posed by CBDCs. These solutions include providing for no or very low interest rates to attach to CBDCs so as to not compete with commercial bank deposits,[19] enforcing routine quantitative limits on deposits and withdrawals of CBDCs, and possibly more restrictive limits at times of stress,[20] and the use of deposit insurance.[21] How these solutions will translate into, and work in, practice, however, is yet to be fully worked through. Some jurisdictions, however, are beginning to voice concerns over the risks associated with the issuance of a CBDC. For example, while acknowledging the political drivers involved, U.S. President Donald Trump recently issued an executive order 'prohibiting the establishment, issuance, circulation, and use of a CBDC within the jurisdiction of the United States' to protect Americans from the risks associated with a CDBC, including those related to its threat to financial system stability, privacy, and the sovereignty of the U.S.[22]

In grappling with these issues and considering the specific uses to which a CBDC could be put, governments will have to determine how a retail CBDC will be designed.[23] This will involve decisions concerning the CBDC's architecture, user base, core technology, and scope of usage.[24] Broadly, there are three architectural choices for CBDC systems.

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16 World Bank Group, *Central Bank Digital Currency: Background Technical Note* (Report, November 2021) 8 <https://documents1.worldbank.org/curated/en/603451638869243764/pdf/Central-Bank-Digital-Currency-Background-Technical-Note.pdf> ('*Background Technical Note*') and Amber Wadsworth, 'The Pros and Cons of Issuing a Central Bank Digital Currency' (2018) 81(7) *Reserve Bank of New Zealand Bulletin* 29 <https://www.rbnz.govt.nz/-/media/4ee8fb7526804ed2924ad2d4c108fe3a.ashx>.

17 Pros and Cons (n 16) 52.

18 *Background Technical Note* (n 17) 8

19 Final Frontier (n 4) 108.

20 *Background Technical Note* (n 17) 8.

21 Pros and Cons (n 16) 30.

22 The White House, 'Executive Order: Strengthening American Leadership in Digital Financial Technology' (Web Page, 23 January 2025) <https://www.whitehouse.gov/presidential-actions/2025/01/strengthening-american-leadership-in-digital-financial-technology/>.

23 For a technical discussion and proposal for CBDC reference architecture, see International Telecommunication Union, 'Central Bank Digital Currency Reference Architecture' (January 2025) <https://www.itu.int/en/ITU-T/extcoop/dcgi/Documents/DCGI%20CBDC%20Reference%20Architecture%20Report-20-01-2025.pdf>.

24 Ross P Buckley et al, 'Sovereign Digital Currencies: Reshaping the Design of Money and Payments Systems' (2021) 15(1) *Journal of Payments Strategy and Systems* 14 ('Sovereign Digital Currencies').

In centralised CBDC systems, central banks manage all payments and can keep a record of all transactions.[25] Users store their units of value and use them for transactions through a central bank account by verifying their identity.[26]

In decentralised systems, on the other hand, validation of payments and recording of transactions occurs on blockchains operating on decentralised ledgers – as with the Bitcoin protocol. The validation process for Bitcoin, known as mining, is highly unlikely to be adopted for a retail CBDC due to speed and energy usage issues, and alternative consensus mechanisms will be adopted. However, transactions are validated and recorded, and a CBDC will operate as a guaranteed direct claim on the central bank.[27]

Finally, in a hybrid CBDC system, users would not necessarily have a central bank account, and intermediaries will instead link users to the central bank through the intermediaries' own systems.[28] The costs of creating a CBDC system will depend largely on its design, and will be significant. In 2024, the European Central Bank (ECB) put out calls for applications for potential digital euro component providers with an aggregate cost ranging from €430 million to €1.2 billion.[29] This range does not include ECB staff expenses and costs related to the private sector's integration of a digital euro into their business practices and systems.

Irrespective of the precise type of system that may be adopted to implement the CBDC, in deciding the threshold issue of whether to issue the CBDC, central banks will almost inevitably start by asking how their mandated policy objectives would be supported by it.[30] This is natural. The policy objectives are, after all, in place for the benefit of the public at large.[31] As the economic and socio-cultural contexts of each jurisdiction vary, there will be a range of justifications for the issue of a CBDC. However, central bank policy objectives capable of achievement through the issue of a CBDC can, as we do below, be grouped into two broad groups: those that fall within the scope of the primary mandates of central banks, traditionally concerned with monetary policy, and those that do not.

A Policy Objectives within the Scope of Primary Central Bank Mandates

In this section, we consider the primary policy objectives of promoting resilient payment systems, providing a monetary anchor, and thereby ensuring the singleness of money and promoting cross-border payments.

1 Promote Resilient Payment Systems

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25 Stefano Leucci, 'Central Bank Digital Currency' (European Data Protection Supervisor) <https://www.edps.europa.eu/press-publications/publications/techsonar/central-bank-digital-currency_en.>.

26 Sovereign Digital Currencies (n 25) 14.

27 Ibid.

28 Sovereign Digital Currencies (n 25) 14–15.

29 European Central Bank, 'Calls for Applications for Digital Euro Component Providers' (Web Page, 3 January 2024) <https://www.ecb.europa.eu/press/intro/news/html/ecb.mipnews240103_1.en.html>.

30 Pros and Cons (n 15) 30.

31 For a discussion on the distributional effects of central bank monetary policy, see Central Banks and Social Responsibility (n 3).

The primary reason given by central banks for choosing to explore issuing a CBDC is to support the policy aim of promoting resilient payment systems.[32] Payment systems need to be reliable, resilient, and safe to support commerce, and robust enough to respond to the risks and challenges that arise from greater levels of digitisation, cyber-attacks, natural disasters, and pandemics.[33] Payment systems must therefore be highly adaptive to respond effectively to future challenges. Governments worldwide have taken steps to modernise their payment systems through legislative and supervisory means to address new risks and challenges, and have turned towards advanced technology as a potential solution.[34]

The Reserve Bank of Australia (RBA) believes a CBDC could increase the resilience of some aspects of the Australian payments system.[35] A report published by the RBA, in collaboration with the Digital Finance Cooperative Research Centre (DFCRC), noted that a CBDC could be used to support increased transparency and resilience in offline environments particularly. A CBDC could thus make it possible for Australians to effect digital payments during electricity and telecommunication disruptions, such as those following natural disasters.[36] This is particularly relevant as Australia is prone to natural disasters, the frequency of which have increased with climate change.[37]

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32 See, eg, Australia: *Reserve Bank Act 1959* (Cth) s 10B(3) in respect to the duties of the Payments System Board; United Kingdom: *Bank of England Act* s 9A in respect to the Bank of England's (BoE) financial stability strategy which includes providing secure and reliable payments infrastructure; and Canada: *Bank of Canada Act*, RSC 1985, c B-2, Preamble in respect to the Bank of Canada's core function to promotes safe, sound and efficient financial systems; Bank of Canada, 'Financial System' (Web page, 2024) <https://www.bankofcanada.ca/core-functions/financial-system/>. See also Alberto Di Iorio, Anneke Kosse, and Ilaria Mattei, *Embracing Diversity, Advancing Together – Results of the 2023 BIS Survey on Central Bank Digital Currencies and Crypto* (Bank for International Settlements Papers No 147, June 2024) 7 <https://www.bis.org/publ/bppdf/bispap147.htm> ('Embracing Diversity'); *Background Technical Note* (n 16) 6; Bank of International Settlements, *Central Banks and Payments in the Digital Era* (Report, 24 June 2020) <https://www.bis.org/publ/arpdf/ar2020e3.htm> ('*Central Banks and Payments*'); Paper-Based Euro (n 16) 57.

33 The Treasury, *A Strategic Plan for the Payments System*'(Consultation Paper, December 2022), 89 <https://treasury.gov.au/sites/default/files/2022-12/c2022-343663-final.pdf>; Tanai Khiaonarong, Harry Leinonen, and Ryan Rizaldy, *Operational Resilience in Digital Payments: Experiences and Issues* (International Monetary Fund Working Paper WP/21/288, 10 December 2021) <https://www.elibrary.imf.org/view/journals/001/2021/288/article-A001-en.xml>. See also *Future of Digital Money* (n 5) 6–7 and 15–17.

34 *Central Banks and Payments* (n 33).

35 Reserve Bank of Australia, 'Central Bank Digital Currency' (Web Page) <https://www.rba.gov.au/payments-and-infrastructure/central-bank-digital-currency/> ('Central Bank Digital Currency').

36 Reserve Bank of Australia and Digital Finance Cooperative Research Centre, *Australian CBDC Pilot for Digital Finance Innovation* (Report, August 2023), 9 <https://www.rba.gov.au/payments-and-infrastructure/central-bank-digital-currency/pdf/australian-cbdc-pilot-for-digital-finance-innovation-project-report.pdf> ('*Australian CBDC Pilot*'). For more information, see Reserve Bank of Australia and Digital Finance Cooperative Research Centre, *Australian CBDC Pilot for Digital Finance Innovation* (Report, 26 September 2022) <https://www.rba.gov.au/payments-and-infrastructure/central-bank-digital-currency/pdf/australian-cbdc-pilot-for-digital-finance-innovation-white-paper.pdf>.

37 See Tessa Satherley and Daniel May, 'Natural disasters and climate risk' (Parliament of Australia, 20 June 2022) <https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/Research/Briefing_Book/47th_Parliament/NaturalDisastersClimateRisk>.

In Europe, a digital euro is seen as a means to strengthen Europe's resilience against potential cyberattacks and technical disruptions, such as power outages.[38] Similarly, the Central Bank of Nigeria has noted that an eNaira could enhance the resilience of Nigeria's payments system by serving as a central alternative means for digital payments.[39]

Central banks have argued further that CBDCs could promote the resilience of payment systems in the face of the risks presented by the accelerated use of digital payments and the potential for systems to be dominated by a handful of digital payment services providers through economies of scale and network effects.[40] In such an oligopoly environment, dominant payment services providers could set high prices for consumers and disruption of their services could threaten the efficacy of the entire system. A CBDC could further promote the resilience of payment systems by acting as a 'redundancy' system to complement non-CBDC payments.[41]

2 Support Monetary Anchor Role of Central Bank Money

The second case put forward by central banks in favour of CBDC is that it could support the continued role of central bank money as a monetary anchor, which preserves public trust in money generally and commercial bank money in particular.[42] The existence of CBDCs will mean that the public can at any time exchange their commercial bank money (for instance deposits with a commercial bank) for central bank money, just as they can do today for cash. Like cash, CBDCs will be risk-free and convertible, therefore providing a backstop for all other types of money, a monetary anchor role important for maintaining financial stability.[43] In a future where physical cash is used far less than today, CBDC would ensure that the role and function of commercial bank money are preserved.[44] This policy aim is significant considering the steep decline in physical cash use, particularly in advanced economies.[45] According to Zellweger-Gutknecht *et al*, the decline in the use of cash can be explained by the increased use of commercial bank money, public laws that restrict or exclude the use of cash, and the saving and hoarding of cash which keeps it out of circulation.[46] We believe the first factor is the principal one.

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38 European Central Bank, *Opinion of the European Central Bank of 31 October 2023 on the Digital Euro* (Report, Official Journal of the European Union No C/2024/669) 2 <https://www.ecb.europa.eu/pub/pdf/legal/ecb.leg_con_2023_34.en.pdf> ('Opinion on the Digital Euro'). For more on the EU's 'strategic autonomy, see Think Tank European Parliament, *EU Strategic Autonomy 2013–2023: From Concept to Capacity* (Briefing, 8 July 2022) <https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)733589>.

39 Central Bank of Nigeria, *Design Paper for the eNaira* 9 <https://enaira.gov.ng//wp-content/uploads/2023/06/Design-Paper-for-Nigerias-CBDC-02_Oct-2021.pdf> ('Design Paper for the eNaira').

40 Dynamic Decision-Making Framework (n 15).

41 Ibid.

42 Embracing Diversity (n 24) 6; Paper-Based Euro (n 16) 48.

43 Paper-Based Euro (n 16) 48.

44 Dynamic Decision-Making Framework (n 15) 11.

45 See generally Tanai Khiaonarong and David Humphrey, *Measurement and Use of Cash by Half the World's Population* (International Monetary Fund Working Paper No WP/23/62, March 2023) ('Use of Cash').

46 Paper-Based Euro (n 16) 9–13.

The decline in cash usage could also mean a CBDC will be needed to maintain the singleness or uniformity of money.[47] Economic efficiency demands that every dollar or Euro be worth the same as every other dollar or Euro, otherwise merchants negotiating sales would have to negotiate both the price and which commercial bank would issue the money being used to pay the price. This singleness or uniformity of money is primarily ensured by the public being able to exchange digital commercial bank money for central bank money. This is done today by withdrawing cash from their bank account. If usage of cash ceases or declines to minimal levels, this may no longer be possible, and a CBDC would be needed to provide the public with the ability to hold value in central bank money. This function is a particular motivation of the ECB in choosing to issue a digital Euro.[48] The U.S. Federal Reserve has likewise indicated that a digital U.S. dollar could provide the public with wider access to digital money, free from credit and liquidity risk.[49]

A CBDC can also serve as a defence against foreign distortions of a payments system. The BoE and His Majesty's Treasury ('HM Treasury') have indicated that if digital money, denominated in other currencies, becomes broadly available in the UK, a digital pound could potentially play a key role in maintaining sterling as the unit of account.[50]

The continued role of central bank money as a monetary anchor is also crucial for developing economies. The People's Bank of China has noted that their mandate is 'to ensure the public's direct access to cash, and make sure the unit of account is consistent in the era of digital economy by digitalizing cash'.[51] Developing economies are particularly sensitive to currency substitution, where a large share of domestic transactions are settled in a foreign currency other than the official unit of account.[52] In Nigeria, for example, there is strong evidence that currency substitution significantly impacts the demand for Naira.[53] The eNaira is an attempt to respond to this trend, to improve the availability and usability of central bank money.[54]

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47 Bank of England and HM Treasury, *The Digital Pound: A New Form of Money for Households and Businesses?* (Consultation Paper, February 2023), 28 ('*New Form of Money*').

48 Opinion on the Digital Euro (n 39) 2.

49 'Money and Payments: The U.S. Dollar in the Age of Digital Transformation', *Board of the Governors of the Federal Reserve System* (Web Page, 10 June 2022) 14 <https://www.federalreserve.gov/newsevents/pressreleases/other20220120a.htm> ('The U.S. Dollar').

50 See 'The Digital Pound', *Bank of England* (Web page) <https://www.bankofengland.co.uk/the-digital-pound> ('The Digital Pound'). See also Dong He, 'Monetary Policy in the Digital Age' *Finance & Development Magazine* (Web Page, June 2018) <https://www.imf.org/en/Publications/fandd/issues/2018/06/central-bank-monetary-policy-and-cryptocurrencies-he>; Vivien Lee and David Wessel, 'Digital Currencies: Five Big Implications for Central Banks', *Brookings* (Commentary, 21 May 2018) <https://www.brookings.edu/articles/digital-currencies-five-big-implications-for-central-banks/>.

51 People's Bank of China, *Progress of Research & Development of E-CNY in China* (Report, July 2021), 4–5 <http://www.pbc.gov.cn/en/3688110/3688172/4157443/4293696/2021071614584691871.pdf> (*E-CNY in China*).

52 Dynamic Decision-Making Framework (n 15) 11.

53 See, eg, Isaiah O Ajibola et al, 'Currency Substitution and Exchange Rate Volatility in Nigeria: An Autoregressive Distributed Lag Approach' (2021) 12(1) *CBN Journal of Applied Statistics* 1; Sani I Doguwa, 'Currency Substitution: Evidence from Nigeria' (2014) 5(2) *CBN Journal of Applied Statistics* 1.

54 Design Paper for the eNaira (n 40).

3 Improve Cross-border Payments

A third argument advanced by central banks in favour of CBDC is that it could improve cross-border payments.[55] Cross-border payments are essential for every economy as they facilitate international trade, and thereby contribute to economic growth and prosperity.[56] Global cross-border payments are projected to grow significantly from USD 190 trillion in 2023 to USD 290 trillion by 2030.[57] Cross-border payments are central to global economic well-being. Despite this importance, such payment systems today are generally slow and costly,[58] and are particularly so for migrant workers from developing economies who incur disproportionately more expenses in effecting these payments.[59]

One potential solution to this problem is to make nations' fast payment systems interoperable so that users can transact with each other seamlessly across different systems.[60] The other leading possible solution is CBDCs. CBDC systems for cross-border payments can be designed to exist with other cross-border payment systems or to share a common system with other forms of non-CBDC.[61] Domestic CBDC systems can also be interlinked, or a common platform can be created for multiple CBDCs, to ensure interoperability amongst several national CBDC systems for effecting cross-border payments.[62] It has been argued that the use of CBDC cross-border systems can ensure instant settlement of both domestic and international cross-border payments, which lowers the cost of international remittances and reduces risk to users.[63] As such, CBDC cross-border systems may likely increase capital flows, thereby stimulating economic growth and increasing integration of markets, which could present new opportunities and challenges.[64]

The RBA and DFCRC's pilot project did not embrace cross-border payments, in an effort to reduce the risks associated with Anti-Money Laundering and Counter-Terrorism Financing. However, industry participants did express their interest in the

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55 *Background Technical Note* (n 16) 6; *Future of Digital Money* (n 5) 21 – 22.

56 See Kieran Murphy, 'How Training and Advice Can Speed Cross-Border Payments and Cut Costs' *IMF Blog*, (Blog Post, 3 January 2024) <https://www.imf.org/en/Blogs/Articles/2024/01/03/how-training-and-advice-can-speed-cross-border-payments-and-cut-costs>.

57 FXC Intelligence, 'Cross-Border Payments Market Sizing Data' (Web Page) <https://www.fxcintel.com/cross-border-payments-market-sizing-data>, cited in Fabio Panetta, 'Extending the Benefits of Digital Technologies to Cross-Border Payments' *The ECB Blog* (Blog Post, 31 October 2023) <https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog231031~85a4bcdee0.en.html> ('Cross-Border Payments').

58 Douglas W Arner et al, 'Building Regional Payment Areas: The Single Rule Book Approach' (Bank for International Settlements Working Paper No 1016, May 2022) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4115851>.

59 Cross-Border Payments (n 49).

60 Codruta Boar et al, *Interoperability between Payment Systems across Borders* (BIS Bulletin No 49, 10 December 2021) 1 <https://www.bis.org/publ/bisbull49.htm>.

61 Dynamic Decision-Making Framework (n 15).

62 Bank for International Settlements, *Central Bank Digital Currencies for Cross-Border Payments: Report to the G20* (Report, July 2021) 13 <https://www.bis.org/publ/othp38.pdf> ('*Report to the G20*').

63 Anthony Ralphs, 'Simplifying Cross-Border Payments through CBDC Technology' *Official Monetary and Financial Institutions Forum* (Web Page, 18 December 2023) <https://www.omfif.org/2023/12/simplifying-cross-border-payments-through-cbdc-technology/>.

64 *Report to the G20* (n 54) 12 n 9.

potential of CBDCs to improve cross-border payments.[65] In the U.S. it has been noted that a digital U.S. dollar could potentially streamline cross-border payments through the use of new technologies and create further opportunities for inter-jurisdictional interoperability and collaboration.[66] The People's Bank of China has also noted that its e-CNY would provide opportunities to explore how cross-border payments could be improved through pilot programs.[67] Finally, Nigeria has stated that the eNaira could decrease costs and improve cross-border transaction efficiency by real-time cross-border foreign exchange payments.[68]

B Policy Objectives outside the Scope of Primary Central Bank Mandates

We next consider the broader, yet typical, central bank policy objectives of fostering innovation, encouraging competition and enhancing financial inclusion.

1 Foster Innovation

CBDCs could well help achieve the policy aim of fostering innovation.[69] This policy aim does not usually fall squarely within the primary statutory mandates of central banks, concerned traditionally with monetary policy. However, the role of central banks in fostering innovation has received increased attention with rapid technological development and greater digitisation, and many central banks have begun to focus upon creating enabling environments for technology development, so society can enjoy the advantages of innovation.[70] In turn, central banks are impacted by innovation, as novel technologies introduce new products, services and unregulated market entrants.[71] This means central banks have to balance their secondary role in creating enabling environments for innovation with their primary role of safeguarding financial stability.[72]

The role of central banks in fostering innovation has become more readily accepted, despite central bank mandates not traditionally incorporating concerns of this kind.[73] In particular, many central banks have said that fostering innovation could support them in their duty to ensure financial stability. In Australia, the RBA believes that the issue of a CBDC could support its policy aim of promoting innovation in payment systems and financial market infrastructures,[74] particularly through facilitating atomic

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65 *Australian CBDC Pilot* (n 28) 9.
66 The U.S. Dollar (n 41) 14
67 E-CNY in China (n 43) 4–5.
68 Design Paper for the eNaira (n 40) 7–8.
69 See more broadly 'The Bank of England's Approach to Innovation in Money and Payments' *Bank of England* (Discussion Paper, 30 July 2024) <https://www.bankofengland.co.uk/paper/2024/dp/the-boes-approach-to-innovation-in-money-and-payments>; Embracing Diversity (n 24) 7.
70 Dorothee Delort and Jose Antonio Garcia, 'Central Banks and Innovation' *World Bank Blogs* (Blog Post, 19 April 2023) <https://blogs.worldbank.org/en/psd/central-banks-and-innovation> ('Central Banks and Innovation'.
71 See Signe Krogstrup, 'Perspectives on Central Bank Mandates, Instruments and Policy Trade-Offs' (Speech, National Bank of Belgium Policy Seminar, 31 March 2022) 9 <https://www.bis.org/review/r220426g.pdf>\ ('Perspectives on Central Bank Mandates').
72 Central Banks and Innovation (n 62).
73 Ibid; Agustín Carstens, 'Innovation and the Future of the Monetary System' (Speech, Monetary Authority of Singapore, 22 February 2022) <https://www.bis.org/speeches/sp230222.htm>.
74 Central Bank Digital Currency (n 27).

settlement[75] and programmable payments.[76] Other central banks have noted that the issue of a CBDC supports choice and innovation[77] and could provide a safe platform for private-sector innovations which may mitigate the risks associated with private digital money.[78]

2 Encourage Competition

A further case made by central banks for the issue of a CBDC is that it could encourage competition in payments, a policy aim not ordinarily considered a primary part of a central bank's mandate. This goal, however, is closely related to the traditional central bank mandate of ensuring safe, resilient, and efficient payment systems and maintaining financial stability. Central banks are faced with a myriad of challenges in executing this mandate. For example, while access to modern payment services has increased over time, universal access is yet to be achieved.[79] Payment services are also highly susceptible to network effects which can result in the creation of established platforms with large user bases. This can result in the existence of a handful of dominant payment services firms which present a significant barrier to diversifying competition and lowering costs for consumers.[80]

Central banks believe that a CBDC could encourage competition among private sector intermediaries and thereby address concentration in domestic payment services and lower the high barriers to entry.[81] In Australia, the RBA has shared its vision for a payments system which is, among other things, competitive.[82] It has reported that a CBDC could promote competition in payments as a complement to private digital currencies, rather than as a direct competitor.[83] Other central banks have stated that a CBDC could support competition through interoperable payments that diversify available payment instruments,[84] allowing firms to offer competing CBDC-related payment services,[85] and facilitating a competitive market for firms providing such services.[86]

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75 See generally George Iddenden, 'Atomic Settlements: The Next Regulatory Challenge?' *Payments Association* (Web Page, 12 September 2023) <https://thepaymentsassociation.org/article/atomic-settlements-the-next-regulatory-challenge/#:~:text=Atomic%20settlements%20allow%20simultaneous%20and,of%20partial%20or%20incomplete%20transactions.>.

76 *Australian CBDC Pilot* (n 28) 9, 11.

77 The Digital Pound (n 42) 28.

78 The U.S. Dollar (n 41) 14;Design Paper for the eNaira (n 40) 9.

79 *Central Banks and Payments* (n 33) 72.

80 Ibid 75.

81 Ibid 67. See also Tony Richards and Andreas Furche, *Central Bank Digital Currencies: An Update on Rationales for Issuance and Systemic Design Considerations* (Report, December 2022) 4 <https://dfcrc.com.au/wp-content/uploads/2022/12/Central-Bank-Digital-Currencies-CBDCs-An-update-on-rationales-for-issuance-and-systemic-design-considerations.pdf>.

82 Philip Lowe, 'An Efficient, Competitive and Safe Payments System' (Speech, Australian Payments Network Summit 2022, 14 December 2022) <https://www.rba.gov.au/speeches/2022/sp-gov-2022-12-14.html>.

83 *Australian CBDC Pilot* (n 28) 9, 11.

84 *E-CNY in China* (n 43).

85 Bank of England, *Central Bank Digital Currency: Opportunities, Challenges, and Design* (Discussion Paper, 12 March 2020), 13, 17 <https://www.bankofengland.co.uk/paper/2020/central-bank-digital-currency-opportunities-challenges-and-design-discussion-paper> ('Opportunities, Challenges, and Design').

86 Design Paper for the eNaira (n 40) 9.

3 Enhance Financial Inclusion

Finally, central banks argue that CBDC could enhance financial inclusion by bringing more people into the formal financial system.[87] While financial inclusion is more prominently an issue in developing economies, research has suggested that it is also relevant for developed economies.[88] Faced with this challenge, central banks have argued that a CBDC could lower the entry barriers to financial inclusion, such as expensive banking costs, reduced risk appetites of financial institutions, and a lack of trust in financial service providers.[89] CBDC systems could be used to make welfare payments to households far more efficiently, with the use of digital identification systems,[90] and could facilitate payments to government, such as tax payments.[91]

Accordingly, central banks around the world believe that CBDCs could serve to advance financial inclusion, and thereby promote economic growth.[92] The RBA believes a CBDC has the potential to provide value-adding payment and settlement services to Australian businesses and households,[93] and support greater access to financial services. Other central banks have noted that a fit-for-purpose CBDC system could potentially enhance financial inclusion through its accessibility to a wider range of people, in comparison to the narrower scope of private sector payment systems.[94] Finally, it has also been argued that a CBDC could boost financial inclusion by supplementing existing forms of payment services through its intrinsic nature as legal tender which can be transferred without the use of a bank account.[95] Given that there is yet to be a CBDC in a developed economy which can be analysed, precisely how a CBDC will contribute to eradicating financial exclusion is not entirely clear, and more research is needed.[96]

III CENTRAL BANK MANDATES: A BRAVE NEW WORLD?

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87 Central Banks and Social Responsibility (n 3) 79–82; Embracing Diversity (n 24) 7. For more on how FinTech can support the policy goal of financial inclusion, see Douglas W Arner et al, *Sustainability, FinTech and Financial Inclusion* (2019) (University of Luxembourg Law Working Paper No 006-2019, 16 May 2019) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3387359>. See also *Future of Digital Money* (n 5) 17–18.

88 See, eg, Vijay Kumar, Sujani Thrikawala and Sanjeev Acharya, 'Financial Inclusion and Bank Profitability: Evidence from a Developed Market' (2022) 53 *Global Finance Journal* < https://doi.org/10.1016/j.gfj.2021.100609>.

89 Dynamic Decision-Making Framework (n 15). See also Raphael Auer et al, *Central Bank Digital Currencies: A New Tool in the Financial Inclusion Toolkit?* (FSI Insights No 41, 12 April 2022) <https://www.bis.org/fsi/publ/insights41.htm>.

90 Ashley Lannquist and Brandon Tan, 'Central Bank Digital Currency's Role in Promoting Financial Inclusion' 2023 (011) *International Monetary Fund* < https://doi.org/10.5089/9798400253331.063>.

91 Brandon Joel Tan, *Central Bank Digital Currency and Financial Inclusion* (International Monetary Fund Working Paper No 23/69, March 2023) 3 <https://www.imf.org/-/media/Files/Publications/WP/2023/English/wpiea2023069-print-pdf.ashx>.

92 Design Paper for the eNaira (n 40) 6.

93 *Australian CBDC Pilot* (n 28) 4–6.

94 Opportunities, Challenges, and Design (n 77) 19.

95 E-CNY in China (n 43).

96 Central Banks and Social Responsibility (n 3) 81–2.

Early central banks tended to be private entities that funded governments as well as conducted private banking activities.[97] Gradually, central banks began providing credit to other banks, facilitating interbank transactions, and acting as lenders of last resort.[98] In the wake of the economic uncertainty caused by the world wars, central banks shifted their focus to ensuring financial stability.[99] This shift underpinned contemporary central bank mandates, which tend to focus primarily on ensuring financial and price stability, and safe and efficient payments.[100] A typical central bank mandate today tends to focus on monetary policy, a field in which today's central banks have developed deep expertise over many decades. In recent times, however, central bank objectives have been extended beyond monetary policy to areas in which central banks are not traditionally experts, including the promotion of sustainability and financial inclusion.[101] Bearing this in mind, it is reasonable that central banks tend to consider the decision to issue a CBDC largely through a monetary policy prism. As such, whether full and proper consideration is given to factors that fall outside this prism is an important question to ponder.

In most instances, for example, enhancing financial inclusion will not be an express element of a typical central bank statutory mandate; however, it is arguable that as financial inclusion promotes economic growth, this objective is adjacent to the central bank mandate of ensuring financial stability.[102] Some central banks, including the BoE, have acknowledged that enhancing financial inclusion falls outside the scope of their mandates. Nonetheless, the BoE has stipulated that financial inclusion should be considered when deciding whether to issue a CBDC, bearing in mind its significance for society as a whole.[103] Importantly, the National Bank of Denmark stated that the opportunities presented by distributed ledger technology bring with it both opportunities and challenges, some of which fall outside central bank mandates, and thus require wider societal conversations.[104]

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97 Andrew Dahdal, *Digital Currencies and Public Law: History, Constitutionalism and the Revolutionary Nature of Money* (Routledge, 2025) 60 ('*Digital Currencies and Public Law*'). See also David Blaazer, *Forging Nations: Currency, Power, and Nationality in Britain and Ireland since 1603* (Oxford University Press, 2023).

98 Ibid. See also Michael D Bordo, 'The Evolution of Central Banks' *Hoover Institution* (Web Page, 14 November 2022) <https://www.hoover.org/research/evolution-central-banks>.

99 Michael D Bordo, 'A Brief History of Central Banks' *Federal Reserve Bank of Cleveland* (Commentary, 12 January 2007) <https://www.clevelandfed.org/publications/economic-commentary/2007/ec-20071201-a-brief-history-of-central-banks>.

100 For a study setting out the primary, and other, objectives of central bank mandates, see Simon Dikau and Ulrich Volz, 'Central Bank Mandates, Sustainability Objectives and the Promotion of Green Finance' (2021) 184(C) *Ecological Economics Elsevier* <https://doi.org/10.1016/j.ecolecon.2021.107022>.

101 See Alliance for Financial Inclusion, 'How are Central Bank Mandates Evolving?' (Web Page, 7 November 2023) <https://www.afi-global.org/newsroom/news/how-are-central-bank-mandates-evolving/> ('Mandates Evolving'); Jerome H Powell, 'Panel on "Central Bank Independence and the Mandate" – Evolving Views' (Speech, Symposium on Central Bank Independence Sveriges Riksbank, 10 January 2023) <https://www.bis.org/review/r230111a.pdf>.

102 John D Conroy, Julius Caesar Parreñas, and Worapot Manupipatpong (eds), *Promoting Financial Inclusion Through Innovative Policies* (Report of a workshop jointly organised by the Advisory Group on APEC Financial System Capacity-Building, the APEC Business Advisory Council, the Asian Development Bank Institute, and the Alliance for Financial Inclusion, 2010) 60.

103 Opportunities, Challenges, and Design (n 77).

104 See Perspectives on Central Bank Mandates (n 63).

The debate in both advanced and developing economies regarding the role that central banks should play in promoting social issues more broadly is quite lively.[105] Some have argued, for example, that central bank mandates are evolving based on new risks presented by technological developments and climate change, and the threats they pose to financial stability.[106] At an Intergovernmental Group of 24 roundtable in 2023, the governors of the central banks of several developing economies highlighted central banks' role in responding to social and environmental issues. This includes enhancing financial inclusion, promoting gender equity, and advancing green finance.[107] The Executive Director of the Alliance for Financial Inclusion noted that central banks' policy responses to social and environmental issues are aligned with their monetary mandates, and that such responses should therefore not be viewed as 'mission creep'.[108] Governments around the world, including Australia, are now acting to strengthen and modernise central bank mandates.[109]

While we acknowledge that central bank mandates are evolving as new risks and challenges arise, central banks are not necessarily well-equipped with the requisite expertise and experience to holistically consider the significance of the broad range of factors that will bear upon the decision on whether to issue a CBDC.[110] Bearing this in mind, decisions concerning a potential CBDC–including whether there is an *actual* need for one–should be treated as a society-wide matter, not as a process driven solely or principally by central banks, which almost inevitably tend to view the issue of a CBDC through the prism of their primary mandate, traditionally concerned with monetary policy.

IV WHERE TO FROM HERE?

If the decision to issue a CBDC is taken solely or principally by a central bank, the grounds for, and consequences of, the issue of a CBDC that fall outside the narrow primary mandate of that central bank may not be considered fully or at all. In an effort to counter this challenge, we suggest: (i) adopting a needs and effects-focused approach be taken to answer the question of whether to issue a CBDC, including a rigorous assessment of all the consequences of issuing a CBDC, in particular its impact upon the poor, elderly, vulnerable and remote; and (ii) ensuring broad public engagement and participation, facilitated by the state possibly, in deciding whether there is an *actual* need for a CBDC and more broadly in the design of the CBDC, and that a traditional widespread consultation and other well-suited mechanisms may well be used to achieve this engagement.

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105 Banks and Social Responsibility (n 3) 70.

106 See Charles Goodhart and Rosa M Lastra, 'The Changing and Growing Roles of Independent Central Banks Now Do Require a Reconsideration of Their Mandate' (2023) 14(4) *Journal of Accounting, Economics, and Law: A Convivium* <https://doi.org/10.1515/ael-2022-0097>.

107 Mandates Evolving (n 93).

108 Ibid.

109 See, eg, Jim Chalmers, 'Strengthening and Modernising the Reserve Bank' *Ministers: Treasury Portfolio* (Web Page, 27 November 2024) <https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/media-releases/strengthening-and-modernising-reserve-bank#:~:text=The%20Treasury%20Laws%20Amendment%20(Reserve,current%20and%20future%20economic%20challenges.>.

110 See Ross P Buckley, Douglas W Arner, and Dirk A Zetzsche, *FinTech: Finance, Technology and Regulation* (Cambridge University Press, 2024); Ross P Buckley et al, 'Building Fintech and Innovation Ecosystems' (2024) 59 *Journal of Financial Transformation*.

A A Needs and Effects-Focused Approach

As already mentioned, most analyses of the grounds for issuing a CBDC focus on the furtherance of the traditional policy aims of central banks, as reflected in their primary mandates. These grounds tend to be based on how existing payment systems can be enhanced or improved through the use of a CBDC.[111] This approach tends to neglect the full potential impacts of a CBDC on diverse members of society. The need for a CBDC will vary among jurisdictions based on their different societal needs. The *actual* need for a CBDC should be based on addressing an existing problem or likely future problem, rather than seeking solutions that the technology may provide but that may not actually be needed.[112] As discussed further below, only a handful of central banks appear to be giving priority to this specific line of thought. Policymakers need to resist the bright shiny nature, and accompanying allure, of powerful new technology, lest they fall into the trap that the Australian Stock Exchange did in 2016, when it apparently first decided that distributed ledgers and blockchain would be at the heart of the project to replace the ageing CHESS clearing and settlement system, rather than starting with the problem that needed to be solved and with a rigorous enquiry into how best to solve it.[113]

For example, the need for a retail CBDC may well be less in advanced economies whose payment systems have few existing pain points. In Australia, the RBA has stated that there is presently no clear public interest case for a retail CBDC, particularly as it believes that Australians are well-served by an existing retail payments system that is efficient, innovative, and safe, by international standards.[114] They have however stated that there may well, in the near future, be a case for the issuance of a wholesale CBDC, particularly to support tokenised asset markets .[115] The U.S. Federal Reserve considers the existing U.S. domestic payments system to be safe and efficient, although one senses that many Americans, especially those with experience of payment systems in Australia or Europe, might disagree with respect to the ease of use of the U.S. system.[116] The Federal Reserve has said that improvements that could be achieved by a CBDC could be effected using existing payment systems.[117] Similar sentiments have been echoed in Japan, where the central bank has

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111 Dynamic Decision-Making Framework (n 15) 8.

112 See Christopher J Waller, 'CBDC – A Solution in Search of a Problem?' (Speech, American Enterprise Institute, 5 August 2021) <https://www.bis.org/review/r210806a.htm>.

113 See 'Chapter 7– The ASX CHESS Replacement Project – ASX Governance', *Parliament of Australia* (Web Page, April 2024) <https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Corporations_and_Financial_Services/OversightofASIC/Competition_in_clearing_and_settlement_and_the_ASX_CHESS_Replacement_Project/Chapter_7_-_The_ASX_CHESS_Replacement_Project_-_ASX_Governance>; Reserve Bank of Australia, *Assessment of ASX Clearing and Settlement Facilities* (Report, September 2022) <https://www.rba.gov.au/payments-and-infrastructure/financial-market-infrastructure/clearing-and-settlement-facilities/assessments/2021-2022/pdf/report-2021-2022.pdf>. See also Lucas Baird, 'ASX Ignored Warnings, Made Unworkable Demands on CHESS, Inquiry Hears', *Financial Review* (Web Page, 8 June 2023) <https://www.afr.com/companies/financial-services/asx-ignored-warnings-made-unworkable-demands-on-chess-inquiry-hears-20230608-p5dezh>.

114 *Future of Digital Money* (n 5) 3.

115 Ibid.

116 'Central Bank Digital Currency', *Board of Governors of the Federal Reserve System* (Web page, 20 April 2023) <https://www.federalreserve.gov/central-bank-digital-currency.htm>.

117 Jean Flemming and Ruth Judson, 'Implications of a U.S. CBDC for International Payments and the Role of the Dollar', *Board of Governors of the Federal Reserve System* (Web Page, 16

indicated no plans to issue a CBDC on the ground that it is not needed to enhance the efficiency and stability of its payment and settlement systems.[118] While no decision has been taken yet to issue a CBDC in Japan, since 2021 the Bank of Japan has carried out CBDC technical experiments through proof-of-concepts and a pilot programme.[119] Additional work has also been undertaken by the Japanese government and the Bank of Japan on the potential design for a CBDC.[120] The National Bank of Denmark has also said it is not clear how a digital Danish kroner could provide safer and more efficient payments than Denmark's existing well-functioning financial infrastructure, or otherwise create better solutions for society.[121] More broadly, questions have been raised as to whether the decline in cash usage in advanced economies necessarily warrants the issue of a CBDC to maintain the public's trust in central bank money.[122]

However, these arguments around efficiency tend to neglect the vital monetary anchor role performed by central bank money. The ability of people to convert their commercial bank digital money into central bank money ensures the singleness of money: the vital characteristic that every unit of money is worth the same as every other unit.[123] Cash currently serves as this monetary anchor. The decline in cash usage thus threatens the holding power of the anchor, especially, one is tempted to muse, upon a dark and stormy night.[124] Of course, cash withdrawals are strictly limited in amount at most bank branches, so it is perhaps more the prospect of being able to convert one's digital commercial bank money into cash, by withdrawing the cash from the bank, rather than the reality of being able to do so in sizable amounts. Nonetheless, economists are broadly in agreement that the singleness of money is vital to system-wide economic efficiency, for without it, parties to transactions would not only be specifying a price, but also specifying the specific commercial banks that will be acceptable in providing the means of paying the price.[125]

February 2024) <https://www.federalreserve.gov/econres/notes/feds-notes/implications-of-a-u-s-cbdc-for-international-payments-and-the-role-of-the-dollar-20240216.html>.

118 Bank of Japan, 'The Bank of Japan's Approach to Central Bank Digital Currency' (9 October 2020), 1 <https://www.boj.or.jp/en/about/release_2020/data/rel201009e1.pdf>.

119 Relevant Ministries and Bank of Japan, 'Relevant Ministries and the Bank of Japan Liaison Meeting on Central Bank Digital Currency (CBDC) (Interim Report, 17 April 2024), 2 <https://www.mof.go.jp/english/about_mof/councils/meeting_of_cbdcli/20240612chuukanseirien.pdf>.

120 Ibid.

121 National Bank of Denmark, *New Types of Digital Money* (Report, 23 June 2022), 3 <https://www.nationalbanken.dk/media/z12aimyo/analysis-no-8-new-types-of-digital-money.pdf> ('*New Types of Digital Money*').

122 Perspectives on Central Bank Mandates (n 63) 5.

123 See Brad Jones, 'The Economics of a Central Bank Digital Currency in Australia' (Speech, 17th Central Bank Conference on the Microstructure of Financial Markets, 8 December 2022), 2 <https://www.rba.gov.au/speeches/2022/pdf/sp-ag-2022-12-08.pdf>; Markus K Brunnermeier, Harold James and Jean-Pierre Landau, *The Digitisation of Money* (Bank for International Settlements Working Paper No 941, May 2021), 3 <https://www.bis.org/publ/work941.pdf>; Jon Cunliffe, 'Do We Need "Public Money"?' (Speech, OMFIF Digital Money Institute, 13 May 2021) <https://www.bankofengland.co.uk/speech/2021/may/jon-cunliffe-omfif-digital-monetary-institute-meeting>.

124 For a discussion on the decline of cash usage, see Use of Cash (n 37)

125 Francisco Rivadeneyra, Scott Hendry, and Alejandro García, 'The Role of Public Money in the Digital Age' (Bank of Canada Staff Discussion Paper No 2024–11, 10 July 2024) 8 <https://www.bankofcanada.ca/wp-content/uploads/2024/07/sdp2024-11.pdf>; Hanna Armelius, Carl Andreas and Scott Hendry, 'Is Central Bank Digital Currency Fundamental to the Monetary System?' (2020) 2 *Sveriges Riksbank Economic Review* 7.

On efficiency grounds, there is typically a much stronger case for retail CBDC in developing economies, where payment infrastructure is often patchy and inefficient. Some jurisdictions have developed innovative and pioneering mobile money payment systems, such as Kenya, where the 'need' for a CBDC to improve existing systems is thus less compelling. Kenya has noted that the issue of a CBDC 'should not be a race to be first',[126] and that the issue of digital Kenyan shilling is not a priority in the short-to-medium term.[127] Indeed, in general terms, the issuance of a retail CBDC is such a fundamental change in the nature of money that many jurisdictions are positioning themselves to be 'fast followers' and are not seeking to be the first to make the change.[128] The exception in this regard is China, which has forged far ahead with issuing a CBDC,[129] motivated by its government's rather unique desires to diminish the dominance of some private sector payments platforms such as Alipay, and to have even more oversight, and potential control, over the spending habits of its citizens.

In most developing countries the need for an improved payments system is pressing. Whether a CBDC is the best solution for this challenge remains up for debate, and the answer will likely vary across countries.

There have been attempts by central banks to place the people at the centre of their decisions to issue a CBDC, at least in principle. These attempts also consider the potential effects of a CBDC on society as a whole. One pressing issue is the potential for a CBDC to effectively make access to cash more expensive or difficult, particularly for communities that remain reliant on cash. This is highly relevant in Australia, where real challenges exist around the distribution of cash from the subsidiary of the RBA that prints it, to the bank branches, major retailers and other outlets that disburse and collect it.[130] As cash usage falls, the cost of distributing each bundle increases as efficiencies of scale diminish. A CBDC could worsen these challenges as it further diminishes the demand for cash. Faced with declining levels of cash usage and the emergence of new payment instruments, the RBA has indicated that a core policy question is how Australia's monetary and payment arrangements should adapt to the changes in preferences and technology to best serve the Australian economy.[131] The Central Bank of Kenya, in adopting its 'people centricity' approach, has noted this potential of CBDC to deepen financial exclusion as digital funds are

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126 Central Bank of Kenya, 'Discussion Paper on Central Bank Digital Currency: Comments from the Public' (Discussion Paper, May 2023), 2 <https://www.centralbank.go.ke/wp-content/uploads/2023/06/Discussion-Paper-on-Central-Bank-Digital-Currency-Comments-from-the-Public.pdf> ('Discussion Paper').

127 Ibid.

128 See Tony Richards, 'Retail Central Bank Digital Currency: Design Considerations and Rationales' (Speech, UWA Blockchain, Cryptocurrency and Fintech Conference, 14 October 2020) <https://www.rba.gov.au/speeches/2020/sp-so-2020-10-14.html>. For a survey on the likely timing of central banks issuing a CBDC, see Embracing Diversity (n 24) 8.

129 Heng Wang and Ross P Buckley, 'The Coming Central Bank Digital Currency Revolution and the e-CNY' (2023) *Singapore Journal of Legal Studies* 145, 150.

130 See Tom McIlroy and James Eyers, 'Chalmers Reassures on Cash Supplies after Armaguard Meeting', *Financial Review* (Web Page, 5 April 2024) <https://www.afr.com/companies/financial-services/chalmers-reassures-on-cash-supplies-after-armaguard-meeting-20240405-p5fhpw>; Lucas Baird, 'Why It Is So Hard to Keep Cash Alive in Australia', *Financial Review* (Web Page, 26 March 2024) <https://www.afr.com/companies/financial-services/aba-says-australia-s-geography-makes-keep-cash-alive-particularly-hard-20240326-p5ffb2>; James Eyers, 'Last-Minute Lifeline to Keep Cash Afloat' *Financial Review* (Web Page, 25 March 2024) <https://www.afr.com/companies/financial-services/banks-retailers-offer-last-minute-lifeline-to-keep-cash-afloat-20240319-p5fdgr>.

131 *Future of Digital Money* (n 5).

less accessible and less inclusive than cash.[132] Similar sentiments have been echoed by the UK Parliament that has warned that a digital pound should not worsen financial exclusion for those who rely on cash, and that the 'digitisation of money can't, in any way, leave those people behind'.[133]

To ensure that everyone has continued access to cash, the issue of any CBDC must consider its impact on the elderly, poor, and vulnerable in particular. To this end, the Bank for International Settlements has noted that CBDC should be user-friendly for school children, seniors, and every age group.[134] CBDC should have the same ease of use and accessibility as banknotes and coins. The RBA has designed Australian dollar bank notes specifically with the visually impaired in mind, through tactile features and different lengths.[135] In deciding to issue a CBDC, central banks should take into account how those affected by the reduced use and access to cash will be affected, which will require a range of government departments' collaboration and deep public engagement.

The skill set required to assess these broader societal impacts of a CBDC is substantially broader than that typically held by central bank staff, and may well require the skills of sociologists, historians, psychologists and a whole range of social scientists. A central bank can, of course, hire such people–and possibly should. Another way to tap into these skill sets, short of hiring the holders of them, is to engage with university academics in structured settings which allow them the opportunity to share their expertise. At least in Australia, such calls are rarely made upon members of the academy and are likely to meet with an enthusiastic response.

As can be seen, the need for, and impact of, a CBDC is more nuanced than the broad grounds cited by many central banks which focus largely on payments efficiency and monetary policy. While some central banks have considered the fuller dimensions of the need for a CBDC, they appear to be the exception rather than the rule. As of October 2024, 134 countries and currency unions, which represent 98% of the world's gross domestic product, are exploring a CBDC.[136] Overall, the usefulness of a CBDC will vary depending on where people live. It is important that this usefulness is built into the grounds put forth by central banks for the issue of a CBDC. The focus on grounds related to central banks' primary mandates may steer the analysis away from broader societal needs and the effects of a CBDC, which should ultimately be given considerable weight.

B Broad Public Engagement and Participation

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132 Discussion Paper (n 115) 31.

133 'Development of a Bank of England Retail Digital Pound Should "Proceed with Caution"', MPs Warn' *UK Parliament Committees* (Web Page, 2 December 2023) <https://committees.parliament.uk/committee/158/treasury-committee/news/198770/development-of-a-bank-of-england-retail-digital-pound-should-proceed-with-caution-mps-warn/>.

134 *Central Banks and Payments* (n 33).

135 'Accessibility Features', *Reserve Bank of Australia | Bank Notes* (Web Page) <https://banknotes.rba.gov.au/resources/for-people-with-vision-impairment/accessibility-features/>.

136 'Central Bank Digital Currency Tracker', *Atlantic Council* (Web Page) <https://www.atlanticcouncil.org/cbdctracker/>.

When central banks have decided not to issue a CBDC, this decision appears to have been made without any extensive public consultation.[137] Equally, in many cases, when deciding to issue a CBDC, some central banks have 'jumped the gun' and done so without proper public input. In some cases, the public consultation process is conducted *after* the central bank's decision to issue a CBDC appears to have been made. Even in these cases, it remains important that the full range of needs for, and effects of, a CBDC is considered, as these factors will be built into the CBDC's design, ultimately impacting its utility and rate of adoption. While some central banks have opened up discussion on the possibility of issuing a CBDC, such as through pilot projects and consultations, without a thorough needs and effects assessment, CBDCs may be issued based predominantly on central bank preferences and the views of a narrow set of industry stakeholders. In doing so, the decision may well fail to account for the broader requirements and needs of diverse groups across society. Broadly, the stakeholders which should be consulted in making the decision to issue a CBDC should reflect a wide cross-section of society. They should include: (i) political stakeholders (i.e. government authorities and public institutions);[138] (ii) industry stakeholders (i.e. businesses and other commercial organisations with a vested interest in CBDC issuance); and (iii) the general public, especially including people from vulnerable groups (elderly, less-abled, and low-income households); different cultural communities; and those who are unbanked.[139] Governments will face many practical challenges in managing a large pool of stakeholders, notably the means used to engage with stakeholders and how to process the receipt of feedback. To address these challenges, governments can draw upon aspects of the approach recommended by the IMF in managing CBDC issuance stakeholders. This approach includes identifying and mapping all relevant stakeholders and developing a strategy to engage with them from the inception of the CBDC project until its completion.[140]

Ordinarily, public consultation typically captures wider public sentiment on the likely impact on society of the introduction of new laws, policies and other government decisions. Australia has well settled practices in government for seeking and conducting this consultation. Australian government departments, such as Treasury and Finance, and bodies such as the RBA often conduct public consultations on proposed initiatives, including the Australian Law Reform Commission (ALRC).[141] Government departments typically issue a Consultation or Discussion Paper and provide a time period–ideally up to 60 days, with 30 days considered the minimum–within which interested parties are invited to make submissions on the proposal.[142] As a part of the law reform process, the ALRC typically travels widely and consults with a broad range of stakeholders around Australia, including those with

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137 For example, in Denmark the decision not to issue a CBDC appears to have been made by its central bank without any public debate. See *New Types of Digital Money* (n 120) 3; Signe Krogstrup, 'Check Against Delivery', (Speech, New types of Digital Money at Denmark's Nationalbank, 9 March 2023) <https://www.nationalbanken.dk/media/zh3n2jbu/skro-keynote-cbdc.pdf >.

138 Dynamic Decision-Making Framework (n 15) 16.

139 Ibid.

140 Ibid.

141 'Law Reform Process', *Australian Government: Australian Law Reform Commission* (Web page, 2024) <https://www.alrc.gov.au/about/law-reform-process/#:~:text=The%20ALRC%20makes%20a%20formal,stakeholders%20prior%20to%20finalising%20them.>.

142 'Best Practice Consultation', *The Office of Impact Analysis* (Web Page, 22 May 2023) 7 <https://oia.pmc.gov.au/resources/guidance-oia-procedures/best-practice-consultation>.

the expertise and experience in the laws under review, as well as those likely to be impacted by those laws. The ALRC appoints an advisory committee or panel of experts for each reform project to identify core issues and provide quality assurance in the consultation and research process. At the end of this process, the commission formulates a final report incorporating its key reform recommendations based on submissions, face-to-face consultations, and academic and industry research. Overall, Australia's existing consultation mechanisms are well-established and wide-ranging, forming an integral component of the accepted government decision-making process. As a recent example of consultation in Australia, the RBA and the DFCRC, through their joint Project Acacia, called for industry feedback on how different forms of digital money and relevant infrastructure could be used for settlements of transactions on wholesale tokenised asset markets.[143] Although the project does not relate to the issue of a retail CBDC, which is of wider import for the general public, the call for industry feedback illustrates the traditional willingness of Australian governments to engage in consultation to inform their decision-making.

In a similar manner to our settled practices, some other central banks have elicited the public's view on the possible issue of a CBDC through a consultation process. For example, in February 2023, the BoE and the HM Treasury published their consultation paper seeking the views of the public around the *proposed design* of a digital pound.[144] While this consultation paper represented a concerted effort by the UK government to engage with the public, the focus appeared to be more on how a digital pound could support the BoE's mandate, and its potential design, rather than actual public need. As such, the focus of this consultation was not whether the public believed there was an actual need for a digital pound, but predominantly only on its design. The responses to the consultation paper, however, highlighted the public's concerns and wider societal implications of issuing a retail CBDC in the UK, including those related to the future use of cash, privacy, and the rights of users of a digital pound.[145] As of January 2025, the BoE has stated that it have not made a decision on whether to issue a digital pound, but, with HM Treasury, has entered into a design phase to develop a detailed policy and technology framework for a potential digital pound.[146] In other jurisdictions a similar approach has been taken, where the focus of public consultations appears to have been on gathering the public's view on the design of a CBDC, not whether the central bank should actually issue one.[147]

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143 RBA and Digital Finance Cooperative Research Centre, *Project Acacia – Exploring the Role of Digital Money in Wholesale Tokenised Asset Markets* (Consultation Paper, November 2024) <https://www.rba.gov.au/payments-and-infrastructure/central-bank-digital-currency/pdf/project-acacia-consultation-paper-2024-11.pdf>.

144 *New Form of Money* (n 48) 18.

145 Bank of England, *Response to the Bank of England and HM Treasury Consultation Paper – The Digital Pound: A New Form of Money for Households and Businesses?* (Web Page, 25 January 2024) <https://www.bankofengland.co.uk/paper/2024/responses-to-the-digital-pound-consultation-paper>.

146 Bank of England, 'Progress Update: The Digital Pound and the Payments Landscape' (Web Page, 14 January 2025) <https://www.bankofengland.co.uk/report/2025/digital-pound-progress-update>.

147 See also the European Central Bank, where the consultation process concerned gathering views on the benefits and challenges of issuing a digital euro and its possible design: 'Digital Euro: Listening to the Public', *European Central Bank* (Web Page) <https://www.ecb.europa.eu/euro/digital_euro/html/pubcon.en.html>.

The Bank of Canada, for example, has expressly declared that the decision to issue a CBDC falls solely within the remit of Parliament and the Canadian government.[148] As such, its public consultation was primarily concerned with the potential design features of a digital Canadian dollar. The Bank of Canada has since announced that it will be scaling back its work on issuing a CBDC and will be focusing instead on the broader Canadian payments landscape.[149] A similar approach to public engagement has been taken in other jurisdictions, where no extensive public consultation appears to have been undertaken regarding the decision to issue a CBDC, or even with respect to its potential design. In China, the e-CNY appears to have been developed principally through pilot programmes connected to domestic payment services platforms launched in selected Chinese cities, with the People's Bank of China publishing a e-CNY project white paper seeking public comments.[150] In the Bahamas, while targeted baseline surveys on the levels of digitisation, financial inclusion, and the willingness of the public to use new forms of digital payments were conducted before the Sand dollar's pilot projects, there appears to have been no extensive public consultation specifically concerning the need for a CBDC.[151] The Sand Dollar was launched in October 2020, but low adoption rates have meant that the digital currency represented only 0.013% of the money supply by the end of February 2023.[152] This low adoption can be attributed to several factors, including the impact of COVID-19.[153] However, the public's lack of knowledge concerning the different forms of money and their respective issuers, also appears to have been a significant contributing factor.[154]

Even though non-monetary policy aims such as innovation, financial inclusion, and competition may be aligned with traditional central bank mandates, central banks may not be the best public institution to consider how these factors will be impacted by a CBDC.[155] To this end, in deciding to issue a CBDC, central banks should be supported by multiple arms of government and associated entities that have the

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148 Bank of Canada, 'Bank of Canada Launches Public Consultations on a Digital Dollar' (Press Release, 8 May 2023) <https://www.bankofcanada.ca/2023/05/bank-canada-launches-public-consultations-digital-dollar/>.

149 'Digital Canadian Dollar', *Bank of Canada* (Web Page) <https://www.bankofcanada.ca/digitaldollar/>. See also Kyle Bakx and Meegan Read, 'Bank of Canada Shelves Idea for Digital Loonie', *CBC News* (Web Page, 18 September 2024) <https://www.cbc.ca/news/business/bakx-boc-cbdc-digital-currency-1.7326887>.

150 See generally Huosong Xia, Yangmei Gao, and Justin Zuopeng Zhang, 'Understanding the Adoption Context of China's Digital Currency Electronic Payment' (2023) 9(1) *Financial Innovation* 63 <https://doi.org/10.1186/s40854-023-00467-5>; Working Group on E-CNY Research and Development of the People's Bank of China, 'Progress of Research & Development of E-CNY in China' (July 2021) <http://www.pbc.gov.cn/en/3688110/3688172/4157443/4293696/2021072014364791207.pdf>.

151 See 'History: The Bahamian Payments Systems Modernisation Initiative', *Sanddollar* (Web Page) <https://www.sanddollar.bs/history>; Central Bank of the Bahamas, *Project Sand Dollar: A Bahamas Payments System Modernisation Initiative* (Report, 24 December 2019) 6 <https://www.centralbankbahamas.com/viewPDF/documents/2019-12-25-02-18-11-Project-Sanddollar.pdf>; Dynamic Decision-Making Framework (n 15) 18.

152 'Lessons from the First Implemented CBDC: the Sand Dollar', *Digital Euro Association Blog* (Blog Post, 23 June 2023) <https://blog.digital-euro-association.de/lessons-from-the-sand-dollar?>.

153 Ibid.

154 Ibid.

155 See Andréa M Maechler, 'Technology and Inclusion in Central Banking' (Speech, BIS Innovation Summit 2024 Basel, 7 May 2024) for a discussion on the need for central banks to build diverse teams with the necessary experience <https://www.bis.org/speeches/sp240507.htm>.

necessary subject-matter expertise and resources, such as welfare departments, legal departments, trade organisations, etc. The central bank should collaborate with other government entities in deciding to issue a CBDC to ensure that the broader needs of society and the effects of a CBDC are considered.

Indeed, the ultimate decision as to whether to issue a CBDC, in our view, is rightly one for the state, not the central bank alone. This approach has been echoed by the RBA, which recently expressed that the '[g]overnment, Treasury and RBA would closely consult ahead of any decision to issue a CBDC, should a public policy case for doing so emerge in the years ahead.'[156] It is thus for the people's elected and accountable representatives to decide upon such a fundamental reconfiguring of the form of money. Serving a core sovereign function, the creation of money seems somehow to embody elements of the relationship between the government and its citizens. There are strong emotive and symbolic aspects of money that are society-specific and, as yet, poorly understood. Accordingly, the decision to issue a retail CBDC should be one ultimately for parliament.[157] While governments should take full responsibility for the decision to issue a CBDC, central banks will naturally bear some of the fallout from the decision due, largely, to the powers and functions conferred on central banks by their founding statues, which typically include the sole and exclusive authority to issue currency. Furthermore, central banks will play a significant practical role in the issuance of a CBDC. Where central banks lack specific legal authority to issue a CBDC, legislation conferring such authority will most likely be passed by the relevant parliamentary body. However, central banks should not fulfil the all-encompassing role of 'catalyst, overseer, and operator' of a new CBDC payments system, and the state should play the larger initiating role.[158] Contemporary central banks are provided with broad-sweeping powers to set interest rates, manage the money supply, and regulate the payments system.[159] They are meant to act independently and free from political pressure.[160] It is precisely for this reason that any decision to issue a retail CBDC, which will greatly impact society as a whole, should be made by parliament.

The discourse on CBDCs and their impact on people's lives illustrates how important it is to place public participation at the heart of the decision to issue any digital form of retail central bank money. In the UK, the BoE received over 50,000 responses to its Discussion Paper on New Forms of Digital Money, published in February 2023.[161] The respondents expressed their concerns regarding the impact of a CBDC on access to cash, privacy, and freedom of choice, thus evidencing how significant widespread consultation is for the decision to issue a CBDC. The topics of cash and CBDC elicit a broad range of responses, often emotive, on a topic that few in

156 *Future of Digital Money* (n 5) 2.

157 See Mihai Niţoi and Maria-Miruna Pochea, 'Trust in the Central Bank, Financial Literacy, and Personal Beliefs' (2024) 143 *Journal of International Money and Finance* <https://doi.org/10.1016/j.jimonfin.2024.103066>; Claudio Borio, 'On Money, Debt, Trust and Central Banking' (Speech, Cato Institute 36th Annual Monetary Conference, 15 November 2018) <https://www.bis.org/speeches/sp181115.pdf>; Benjamin Braun, 'Speaking to the People? Money, Trust, and Central Bank Legitimacy in the Age of Quantitative Easing' (2016) 23(6) *Review of International Political Economy* 1064 <https://doi.org/10.1080/09692290.2016.1252415>. See also *Digital Currencies and Public Law* (n 98).

158 *Central Banks and Payments* (n 33).

159 *Digital Currencies and Public Law* (n 98) 159.

160 Ibid 201.

161 A New Form of Money (n 48).

society deeply understand. Although we all think we understand money as we use it every day, many citizens do not understand, for instance, that the money they use is almost exclusively merely the promises of commercial banks, and not in any way minted by their nation's central bank. Accordingly, Australia's traditional methods of consultation, including possibly ALRC consultation, may well be desirable to ensure a broad cross-section of society is heard from before a decision is taken to issue a CBDC–ideally a decision based on actual need and a fuller understanding of its effects and consequences.

In addition to traditional consultation, there are of course, alternative mechanisms exist to engage with the wisdom of the public, and with the diverse expertise and knowledge that resides in our universities, on these matters. Structured assemblies of academics, well-briefed on the matter at hand, and carefully chosen for their relevant expertise, have proven to be fertile sources of new ideas and deeper understandings. In Australia, the RBA has announced its plan to convene regular CBDC advisory forums with academia and industry to draw upon their relevant expertise. These planned advisory forums underscore the RBA's past efforts to engage with experts from academia. This includes, for example, a roundtable meeting held in February 2024, which brought together academics from a diverse range of disciplines to discuss the economic, legal, and social implications of introducing a CBDC in Australia, particularly its impact on vulnerable communities and different cultural groups.[162] The use of traditional consultation to ensure broad public engagement and participation may not, however, be well-suited for all decisions related to the issue of a CBDC. For example, the decision as to which design features should be built into a CBDC may require an approach which solicits more nuanced views, particularly from members of society who may be seriously impacted by its issue. Alternative mechanisms of public engagement targeting these specific members should therefore be used, and could include, for example, citizen juries.[163] This involves a deliberative process where a panel of citizens participates in government decision-making.[164] Panel members may be selected from the general public, or from specific groups drawn from demographics relevant to the issue under consideration. Once a citizen jury is formed, the panel discusses a particular issue for a predetermined number of meetings of set duration. These deliberations are overseen by a skilled facilitator, and information on the issue is typically provided in advance and in real time by independent expert witnesses.[165] The use of citizen juries is not a new concept, and they have been used in Australia, New Zealand, the U.S., and other parts of the world. While more research is required to measure the usefulness of citizen juries, particularly in Australia, they do provide an avenue for public engagement well-suited to capturing the views of specific demographic groups who stand to be significantly affected by government decisions.

It may well be that, on decisions concerning a potential CBDC–including whether there is an *actual* need for a CBDC, and if so its potential design–wise central banks

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162 *Future of Digital Money* (n 5) 32–3.

163 For citizen juries and their role in deliberative democracy, see Graham Smith and Corinne Wales, 'Citizens' Juries and Deliberative Democracy' (2000) 48(1) *Political Studies*, 51–65 <https://doi.org/10.1111/1467-9248.00250>.

164 'What is a Citizen Jury?', *New Democracy* (Web Page) <https://www.newdemocracy.com.au/what-is-a-citizens-jury/>; Kyle Bozentko et al, 'The Wisdom of Small Crowds: The Case for Using Citizens' Juries to Shape Policy', *Brookings* (Web Page, 11 June 2021) <https://www.brookings.edu/articles/the-wisdom-of-small-crowds-the-case-for-using-citizens-juries-to-shape-policy/>.

165 Ibid.

will engage carefully and strategically with these sources of wisdom and expertise, through a process entailing broad public engagement and participation.

V CONCLUSION

We have analysed the grounds cited by central banks in deciding to issue a CBDC and considered whether the cited grounds include factors beyond those that support the primary mandates of central banks. Our analysis reveals that, while central banks serve the public as a whole in carrying out their mandates, their perceptions on the need for a CBDC may be restricted by the scope of their primary mandates, which are traditionally concerned with monetary policy and financial stability. This is problematic, as the grounds for and consequences of a CBDC issuance that fall outside this scope may not be fully considered.

Furthermore, while central banks have amassed considerable expertise and experience in executing their traditional monetary policy mandates, this will not typically be the case for the full breadth of issues raised by the decision to issue a CBDC. On this basis, we suggest: (i) a needs and effects-focused approach is required, as the need for, and likely impact of, a CBDC has many more dimensions than those encompassed by monetary policy; and (ii) the state, in collaboration with the central bank, should facilitate broad engagement with the public and with other diverse sources of expertise–such as those which reside in our universities–in deciding whether there is an *actual* need for a CBDC, and its impact on society. Our analysis has also revealed that, where the public's views on the issuance of a CBDC have been sought, the decision to issue appears to have already been made or CBDC issuance is justified largely on the grounds of how it could support the objectives of central bank mandates. We argue the decision to issue a CBDC should be treated as an undertaking with society-wide implications and one that should therefore involve parliament, and broad public and expert engagement, led by the state.