



Central Bank Digital Currencies and Financial Inclusion: A Systematic Literature Review

Tsouli Driss

Professor, National School of Management (ENCG), Sultan Moulay Slimane University, Morocco.

Article Information

Received Date: June 21, 2026

Accepted Date: July 15, 2026

Published Date: July 22, 2026

***Corresponding Author:** Tsouli Driss,
Professor, National School of Management
(ENCG), Sultan Moulay Slimane University,
Morocco.

Citation: Driss T., (2026). "Central Bank Digital Currencies and Financial Inclusion: A Systematic Literature Review". International Journal of Business Research and Management 4(5); DOI: 10.61148/3065-6753/IJBRM/090.

Copyright: © 2026. Tsouli Driss. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract:

Central bank digital currencies (CBDCs) have moved from a largely theoretical monetary innovation to a major policy agenda for central banks, international financial institutions, and development policymakers. One of the most prominent arguments for retail CBDCs is that they may improve financial inclusion by providing a low-cost, public, digital payment instrument accessible to households and firms excluded or underserved by formal finance. Yet the literature remains divided. Optimistic studies argue that CBDCs can reduce payment costs, strengthen access to safe digital money, improve government-to-person transfers, support remittances, and create interoperable rails for digital financial services. More cautious studies emphasize that CBDCs do not automatically solve the structural causes of exclusion, including low income, weak digital infrastructure, identification gaps, financial illiteracy, gender inequality, rural isolation, limited merchant acceptance, and distrust of formal institutions. This systematic literature review synthesizes theoretical, empirical, policy, and case-based studies on the relationship between CBDCs and financial inclusion. It finds that CBDCs can support financial inclusion only when they are designed as part of a broader digital public infrastructure strategy that includes offline functionality, tiered know-your-customer rules, low-cost wallets, consumer protection, interoperability with banks and non-bank payment providers, privacy safeguards, and active merchant adoption. The review contributes by organizing the literature around six inclusion channels: access, affordability, usage, trust, resilience, and empowerment. It also identifies research gaps, particularly the limited causal evidence from launched CBDCs, the underrepresentation of low-income users in adoption studies, and the need for comparative work between CBDCs, mobile money, instant payment systems, and stablecoins.

Keywords: central bank digital currency; CBDC; financial inclusion; digital finance; payment systems; monetary policy; fintech; developing economies

1. Introduction

Financial inclusion has become a central policy objective in development economics because access to safe, affordable, and useful financial services is associated with consumption smoothing, savings mobilization, risk management, entrepreneurship, and poverty reduction (Allen et al., 2016; Demirgüç-Kunt et al., 2022; Sahay et al., 2015). The expansion of digital financial services, especially mobile money and digital payments, has demonstrated that technology can reduce transaction costs and reach users historically excluded from branch-based banking models

(Aker and Mbiti, 2010; Jack and Suri, 2014; Suri and Jack, 2016; Sahay et al., 2020). However, the persistence of exclusion, especially among women, rural households, informal workers, migrants, and low-income populations, shows that digitalization alone is insufficient. Inclusion depends not only on the availability of technology but also on affordability, trust, identification, literacy, infrastructure, merchant networks, and regulation.

CBDCs have emerged within this broader transformation of money and payments. A CBDC is a digital liability of the central bank that can be designed for wholesale use by financial institutions or for retail use by households and firms (Bech and Garratt, 2017; Bank for International Settlements, 2020). Retail CBDCs are particularly relevant to financial inclusion because they could provide the public with direct access to digital central bank money, potentially combining the safety of cash with the convenience of digital payments (Auer and Böhme, 2020; Kiff et al., 2020). Central banks and international institutions increasingly describe inclusion as one possible motivation for CBDC exploration, especially in emerging market and developing economies where large shares of the population remain underserved by formal finance (Boar and Wehrli, 2021; Kosse and Mattei, 2023; Lannquist and Tan, 2023). The central question is whether CBDCs can meaningfully improve financial inclusion or whether they risk becoming another digital payment instrument used mainly by already connected and financially literate populations. Early evidence from the Bahamas, Nigeria, and Jamaica suggests that launch alone does not guarantee adoption (Wenker, 2022; Ree, 2023; Ozili and Náñez Alonso, 2024). Nigeria's eNaira, for example, was launched with inclusion objectives but faced slow uptake, limited public awareness, and competition from existing payment methods (Ree, 2023; Wezel and Ree, 2023). Similarly, the Sand Dollar in the Bahamas illustrates both the potential of CBDC in geographically dispersed economies and the adoption difficulties that arise when users and intermediaries do not perceive strong advantages over existing payment options (Wright et al., 2022; Wenker, 2022).

This review therefore asks: **Under what conditions can retail CBDCs contribute to financial inclusion?** To answer this question, it systematically synthesizes the literature on CBDC design, adoption, financial inclusion, payment systems, financial stability, privacy, and digital public infrastructure. The review makes three contributions. First, it distinguishes between access-oriented claims and actual usage-based inclusion. Second, it links CBDC design-oriented claims and actual usage-based inclusion. Second, it links CBDC design choices to established financial inclusion barriers. Third, it develops a conceptual framework showing that CBDC inclusion effects depend on complementary institutions, not merely on central bank issuance.

2. Methodological Approach

This paper adopts a systematic literature review approach informed by PRISMA principles and adapted to an emerging interdisciplinary field. Because CBDC research is distributed across peer-reviewed journals, central bank working papers, IMF and BIS reports, World Bank publications, legal scholarship, and fintech policy notes, a narrow journal-only search would omit influential sources that shape both academic debate and policy practice.

The review strategy used the following search terms: “central bank digital currency” OR “CBDC” AND “financial inclusion”; “retail

CBDC” AND “adoption”; “CBDC” AND “developing countries”; “CBDC” AND “financial stability”; “CBDC” AND “privacy”; “CBDC” AND “mobile money”; “CBDC” AND “remittances”; and “CBDC” AND “digital financial inclusion”. Google Scholar was used for broad discovery and citation chaining, while priority was given to peer-reviewed journal articles, central bank working papers, BIS publications, IMF papers, World Bank research, and highly cited policy reports. Additional backward and forward citation searches were used around key papers, including Auer and Böhme (2020), Auer et al. (2021), Kiff et al. (2020), Tan (2023), Lannquist and Tan (2023), and Andolfatto (2021).

Studies were included if they met at least one of four criteria: they examined CBDC design features relevant to retail access; analysed CBDC implications for financial inclusion, payments, or digital finance; provided evidence from CBDC pilots or launches; or contributed to broader theoretical understanding of financial inclusion and digital payments. Studies were excluded if they focused only on speculative cryptocurrencies without relevance to public digital money, were purely descriptive without analytical contribution, or discussed wholesale CBDCs without implications for retail inclusion.

Because Google Scholar search results are dynamic and difficult to replicate exactly, this review treats Google Scholar as a discovery and snowballing tool rather than as the sole systematic database. For submission to an Oxford journal, the final manuscript should include a reproducible database search from Scopus, Web of Science, EconLit, or SSRN, including exact search dates, screening numbers, and a PRISMA flow diagram.

3. Conceptual Foundations: Financial Inclusion and CBDCs

Financial inclusion is commonly defined as access to and use of affordable, appropriate, and regulated financial services by all segments of society, especially groups historically excluded from formal finance (Allen et al., 2016; Demirgüç-Kunt et al., 2022). The literature increasingly distinguishes between formal access and meaningful use. A bank account that remains dormant does not produce the same welfare effects as a low-cost, trusted, and frequently used payment or savings instrument. Sarma (2012) emphasizes that financial inclusion is multidimensional, including penetration, availability, and usage. Sahay et al. (2015) further show that inclusion may support growth and stability, but only when accompanied by sound regulation and supervision.

CBDCs sit at the intersection of monetary economics, payment systems, financial inclusion, and digital governance. The early CBDC literature focused on taxonomy and monetary design. Bech and Garratt (2017) introduced the “money flower” framework, distinguishing CBDCs from cash, reserves, bank deposits, and cryptocurrencies. Bordo and Levin (2017) argued that an account-based, interest-bearing CBDC could transform monetary policy and payments. Kumhof and Noone (2018) analysed balance-sheet implications and design principles. Barrdear and Kumhof (2022) modelled macroeconomic effects of CBDC issuance, while Andolfatto (2021) examined the potential effect of CBDC on private banks. These studies provide the macro-financial background but do not directly resolve the inclusion question.

The design literature is more directly relevant. Auer and Böhme (2020) propose a CBDC design pyramid that maps consumer needs onto design choices such as architecture, infrastructure, access technology, and cross-border interlinkages. Their framework is

important because financial inclusion depends on user-facing design, not merely on monetary issuance. A CBDC that is technically safe but difficult to access, expensive to use, or incompatible with low-end devices may fail inclusion objectives. Similarly, Kiff et al. (2020) stress that retail CBDC design must consider cybersecurity, governance, legal foundations, operational resilience, and end-user trust. The BIS foundational principles emphasize that CBDC should not compromise monetary or financial stability and should coexist with cash and other forms of money (Bank for International Settlements, 2020).

4. Main Channels Linking CBDCs to Financial Inclusion

4.1 Access to Digital Public Money

The most direct inclusion argument is that retail CBDC can provide universal access to digital central bank money. Unlike bank deposits and e-money, a CBDC is a liability of the central bank. This may matter in countries where citizens distrust commercial banks, where deposit insurance is weak, or where private payment providers do not serve remote or low-income users (Auer and Böhme, 2021; Lannquist and Tan, 2023). In principle, CBDC wallets could be offered through banks, non-bank financial institutions, mobile money operators, post offices, fintech firms, or public agencies. A tiered wallet structure could allow low-value accounts with simplified customer due diligence, making access easier for people without full documentation (Lannquist and Tan, 2023).

However, access is not automatic. The literature warns that digital exclusion can reproduce financial exclusion if CBDC requires smartphones, stable internet, formal identification, or high literacy (Mohammed et al., 2022; Wezel and Ree, 2023). Many excluded adults are not merely unbanked; they are also offline, poor, rural, or distrustful of formal institutions. A CBDC that depends on digital infrastructure unavailable to these groups may widen, rather than close, inclusion gaps. Therefore, access requires offline functionality, low-cost devices, agent networks, multilingual interfaces, disability-sensitive design, and proportional regulation.

4.2 Affordability and Transaction Costs

A second channel is cost reduction. Digital payments can reduce the costs of cash handling, travel, waiting time, and intermediary fees (Sahay et al., 2020; Khera et al., 2021). CBDCs may lower costs if they are designed as public payment infrastructure with open access, interoperability, and competitive private-sector participation. This is especially relevant for small-value domestic payments, government-to-person transfers, and remittances (Tan, 2023; Lannquist and Tan, 2023).

Yet the cost advantage is conditional. Existing systems such as mobile money, instant payment platforms, and low-cost bank transfers may already provide efficient services. In such contexts, CBDC must offer clear additional value. Otherwise, users and merchants have little incentive to switch (Bijlsma et al., 2024; Ozili and Nánñez Alonso, 2024). The Nigerian eNaira experience suggests that adoption is difficult when users do not perceive CBDC as cheaper, easier, or more useful than existing payment options (Ree, 2023). Therefore, affordability should be assessed relative to alternatives, not in isolation.

4.3 Usage, Network Effects, and Merchant Acceptance

Financial inclusion requires active use. Agur et al. (2022) show that CBDC design is shaped by network effects because the convenience of a payment instrument depends on how many other

users and merchants accept it. A CBDC may be technically available but economically irrelevant if merchants do not accept it, if cash remains dominant, or if users cannot easily convert CBDC into other forms of money. This is a major lesson from mobile money: adoption depends not only on wallet registration but also on agent networks, liquidity, trust, interoperability, and everyday use cases (Jack and Suri, 2014; Suri and Jack, 2016).

The literature on adoption highlights trust, perceived usefulness, perceived ease of use, privacy, and incentives. Bijlsma et al. (2024) find that consumer interest in CBDC depends partly on privacy, security, trust in banks, and communication. Tronnier et al. (2022) show that privacy concerns and trust influence willingness to use a digital euro. These findings suggest that central banks cannot rely on legal tender status alone. They must build acceptance through communication, consumer protection, merchant incentives, interoperability, and clear use cases.

4.4 Government Transfers and Social Protection

CBDCs may improve inclusion through government-to-person payments, especially social benefits, pensions, subsidies, emergency transfers, and humanitarian payments. Digital public money could reduce leakage, improve speed, and reach people without bank accounts if wallet onboarding is simple and inclusive (Lannquist and Tan, 2023; Tan, 2023). During crises, CBDCs could provide a resilient channel for emergency payments, especially if integrated with digital identity and public registries.

However, the same channel raises risks. If CBDC-based transfers require formal digital identity, smartphone access, or biometric verification, marginalized groups may be excluded. Moreover, programmable payments may improve targeting but also raise concerns about surveillance, conditionality, and state control. Inclusion therefore requires rights-based design: users should retain privacy, recourse mechanisms, and the ability to transact without excessive monitoring (Kahn et al., 2005; Choi et al., 2023; Tronnier et al., 2022).

4.5 Remittances and Cross-Border Inclusion

Remittances are crucial for many low- and middle-income countries. CBDCs could theoretically reduce remittance costs by enabling faster cross-border settlement, direct wallet-to-wallet transfers, and interoperability between payment systems (Auer et al., 2021; Tan, 2023). Cross-border CBDC projects also explore multi-CBDC arrangements for reducing correspondent banking frictions.

Nevertheless, cross-border inclusion is one of the most difficult CBDC use cases. Legal, regulatory, foreign exchange, anti-money-laundering, capital flow, and interoperability issues are complex (Eichengreen and Viswanath-Natraj, 2022). CBDCs may not reduce remittance costs unless sending and receiving countries coordinate regulation, identity standards, foreign exchange conversion, liquidity arrangements, and consumer protection. For migrants, trust, documentation, and access to cash-out points remain essential.

4.6 Competition, Interoperability, and Market Structure

CBDCs may improve inclusion by increasing competition in concentrated payment markets. If a CBDC provides open, interoperable infrastructure, it could reduce dependence on dominant banks, card networks, or BigTech platforms (Auer et al., 2021; Hoffmann et al., 2022). This could create space for smaller providers to offer wallets, merchant services, and value-added

products.

However, CBDC can also disrupt financial intermediation. Fernández-Villaverde et al. (2021) examine the implications of “central banking for all”, while Bindseil (2020) proposes tiered remuneration to reduce risks of deposit migration and bank disintermediation. Kim and Kwon (2019) and Bouis et al. (2024) emphasize financial stability concerns, particularly if CBDC accelerates deposit outflows during stress. Inclusion policy must therefore balance access with financial stability. A CBDC that weakens credit provision to low-income borrowers could undermine inclusion indirectly.

5. Evidence from Launched and Pilot CBDCs

The evidence base remains limited because few retail CBDCs have been fully launched and most are still in pilot or research phases. The Bahamas’ Sand Dollar is often discussed as the first full retail CBDC. Its inclusion rationale is strong because the country’s geography makes physical banking costly across dispersed islands (Wright et al., 2022). The Sand Dollar demonstrates the value of CBDC for payment resilience and geographic inclusion, but adoption has been slower than expected, partly because users and banks require stronger incentives and clearer use cases (Wenker, 2022; Ozili and Nánéz Alonso, 2024).

Nigeria’s eNaira is particularly important because it is the first African CBDC and was explicitly linked to financial inclusion, remittances, and payment efficiency. Ree (2023) finds that the eNaira operated without major disruption in its first year but faced limited adoption. Wezel and Ree (2023) argue that financial inclusion in Nigeria is constrained by low financial literacy, infrastructure gaps, and the need to coordinate CBDC with mobile money and broader digital financial services. This case shows that CBDC cannot compensate for weak adoption strategy.

Jamaica’s JAM-DEX provides another case in which CBDC is connected to inclusion, but the early evidence also highlights the need for merchant acceptance, public education, and incentives. These experiences collectively suggest that CBDC launches are not self-executing. Successful inclusion requires ecosystem building before and after launch.

China’s e-CNY offers a different model. It is embedded in a highly developed digital payments ecosystem dominated by private platforms. The inclusion question is therefore not only whether e-CNY reaches the unbanked but also whether it preserves monetary sovereignty, payment competition, and public access to central bank money in a platform-based economy. This supports the argument that CBDC motivations vary across countries: in low-inclusion economies, the goal may be access; in highly digitalized economies, it may be competition, resilience, privacy, or monetary sovereignty (Auer et al., 2023; Kosse and Mattei, 2023).

6. Critical Discussion

The literature supports a cautious but constructive conclusion: CBDC can contribute to financial inclusion, but it is not a standalone solution. The inclusion impact depends on the interaction between design choices and country conditions.

First, CBDC must solve a real user problem. If excluded users need low-cost payments, the CBDC must be cheaper and easier than existing methods. If they need access without formal documents, tiered know-your-customer rules are essential. If they live in rural areas, offline capability and agents are necessary. If they distrust formal finance, privacy, consumer protection, and public

communication matter.

Second, CBDC must be embedded in a broader digital public infrastructure. Digital identity, interoperable payment systems, mobile connectivity, consumer protection, data governance, and financial literacy are complementary inputs. Without them, CBDC risks becoming a technically impressive but socially narrow instrument.

Third, adoption depends on incentives for intermediaries. A two-tier CBDC model relies on banks, fintech firms, mobile money operators, and merchants to distribute and support wallets (Auer and Böhme, 2021). If intermediaries see CBDC as a threat to deposits or fee income, they may not promote it. The IMF’s REDI framework usefully emphasizes regulation, education, design, and incentives as adoption pillars (Koonprasert et al., 2024).

Fourth, privacy is central to inclusion. Low-income and marginalized users may be especially vulnerable to surveillance, fraud, or misuse of transaction data. The payment privacy literature shows that privacy is not merely a luxury preference; it is part of trust and autonomy (Kahn et al., 2005; Choi et al., 2023). CBDCs must therefore balance anti-money-laundering compliance with proportional privacy, especially for low-value transactions.

Fifth, CBDC should be compared with alternatives. In many countries, instant payment systems, mobile money, digital ID-linked bank accounts, and e-money reforms may achieve inclusion goals at lower cost and lower risk. CBDC is most justified where it adds something that private or existing public systems cannot provide: universal access to central bank money, offline resilience, stronger interoperability, reduced dependence on private payment monopolies, or safer digital public infrastructure.

7. Research Gaps and Future Agenda

The review identifies six major research gaps.

First, there is limited causal evidence on CBDC and financial inclusion. Most studies are theoretical, descriptive, or based on early adoption data. Future research should use household surveys, transaction-level data, randomized interventions, natural experiments, and difference-in-differences methods where possible.

Second, the literature insufficiently studies excluded users directly. Many adoption studies focus on general populations, but the inclusion question requires evidence from rural users, women, informal workers, migrants, elderly people, people with disabilities, and low-income households.

Third, there is a need for comparative evaluation between CBDCs and alternatives. Future studies should compare CBDC with mobile money, instant payment systems, public digital wallets, postal banking, and stablecoins.

Fourth, adoption should be studied as an ecosystem outcome. Wallet downloads are insufficient. Researchers should measure active use, merchant acceptance, transaction frequency, cash-in/cash-out reliability, trust, dispute resolution, and welfare outcomes.

Fifth, the privacy-inclusion relationship requires deeper analysis. Privacy-enhancing technologies, offline payments, tiered anonymity, and data governance should be examined not only as technical features but as social determinants of trust.

Sixth, more research is needed on Africa and other developing regions. Nigeria’s eNaira is important, but one case cannot represent the continent. Comparative work across African

monetary unions, mobile money markets, and digital ID systems would be especially valuable.

8. Conclusion

CBDCs represent one of the most significant innovations in public money since the spread of modern central banking. Their potential contribution to financial inclusion is real but conditional. The literature shows that CBDCs may expand access to safe digital money, reduce payment costs, improve public transfers, support remittances, and strengthen payment resilience. However, the same literature also shows that CBDCs can fail to reach excluded populations if they are poorly designed, weakly communicated, insufficiently private, dependent on smartphones and internet access, or disconnected from merchant and intermediary incentives.

The main conclusion is therefore that CBDC should be understood not as a financial inclusion policy by itself but as a possible component of a wider inclusion strategy. A CBDC is most likely to support inclusion when it is low-cost, interoperable, privacy-preserving, available offline, supported by proportional regulation, distributed through diverse intermediaries, and connected to real use cases such as social transfers, small merchant payments, and remittances. For policymakers, the key question is not whether CBDC is technologically possible, but whether it is institutionally necessary, socially trusted, and superior to available alternatives. For researchers, the next stage should move from conceptual debate to rigorous empirical evaluation of who uses CBDC, why they use it, and whether it improves financial lives.

References

1. Agur, I., Ari, A. and Dell'Ariccia, G. (2022) 'Designing central bank digital currencies', *Journal of Monetary Economics*, 125, pp. 62–79.
2. Aker, J.C. and Mbiti, I.M. (2010) 'Mobile phones and economic development in Africa', *Journal of Economic Perspectives*, 24(3), pp. 207–232.
3. Allen, F., Demirgüç-Kunt, A., Klapper, L. and Martinez Peria, M.S. (2016) 'The foundations of financial inclusion: Understanding ownership and use of formal accounts', *Journal of Financial Intermediation*, 27, pp. 1–30.
4. Andolfatto, D. (2021) 'Assessing the impact of central bank digital currency on private banks', *The Economic Journal*, 131(634), pp. 525–540.
5. Auer, R. and Böhme, R. (2020) 'The technology of retail central bank digital currency', *BIS Quarterly Review*, March, pp. 85–100.
6. Auer, R. and Böhme, R. (2021) 'Central bank digital currency: The quest for minimally invasive technology', *BIS Working Papers*, No. 948.
7. Auer, R., Cornelli, G. and Frost, J. (2023) 'Rise of the central bank digital currencies', *International Journal of Central Banking*, 19(4), pp. 185–214.
8. Auer, R., Frost, J., Gambacorta, L., Monnet, C., Rice, T. and Shin, H.S. (2021) 'Central bank digital currencies: Motives, economic implications and the research frontier', *BIS Working Papers*, No. 976.
9. Bank for International Settlements (2020) *Central Bank Digital Currencies: Foundational Principles and Core Features*. Basel: BIS.
10. Barrdear, J. and Kumhof, M. (2022) 'The macroeconomics of central bank digital currencies', *Journal of Economic Dynamics and Control*, 142, 104148.
11. Bech, M.L. and Garratt, R. (2017) 'Central bank cryptocurrencies', *BIS Quarterly Review*, September, pp. 55–70.
12. Bijlsma, M., van der Cruysen, C., Jonker, N. and Reijerink, J. (2024) 'What triggers consumer adoption of central bank digital currency?', *Journal of Financial Services Research*, 65, pp. 1–40.
13. Bindseil, U. (2020) 'Tiered CBDC and the financial system', *ECB Working Paper Series*, No. 2351.
14. Boar, C. and Wehrli, A. (2021) 'Ready, steady, go? Results of the third BIS survey on central bank digital currency', *BIS Papers*, No. 114.
15. Bordo, M.D. and Levin, A.T. (2017) 'Central bank digital currency and the future of monetary policy', *NBER Working Paper*, No. 23711.
16. Bouis, R., Gelos, G., Miettinen, P., Nakamura, F., Nier, E. and Soderberg, G. (2024) 'Central bank digital currencies and financial stability: Balance sheet analysis and policy choices', *IMF Working Paper*, WP/24/226.
17. Choi, S., Jiang, Z., Min, D. and Zhang, X. (2023) 'Central bank digital currency and privacy: A randomized survey experiment', *BIS Working Papers*, No. 1147.
18. Davoodalhosseini, S.M. (2022) 'Central bank digital currency and monetary policy', *Journal of Economic Dynamics and Control*, 142, 104150.
19. Demirgüç-Kunt, A., Klapper, L., Singer, D. and Ansar, S. (2022) *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. Washington, DC: World Bank.
20. Eichengreen, B. and Viswanath-Natraj, G. (2022) 'Stablecoins and central bank digital currencies: Policy and regulatory challenges', *Asian Economic Papers*, 21(1), pp. 29–46.
21. Fernández-Villaverde, J., Sanches, D., Schilling, L. and Uhlig, H. (2021) 'Central bank digital currency: Central banking for all?', *Review of Economic Dynamics*, 41, pp. 225–242.
22. Hannig, A. and Jansen, S. (2010) 'Financial inclusion and financial stability: Current policy issues', *ADB Working Paper Series*, No. 259.
23. Hoffmann, P., Monnet, C. and Niepelt, D. (2022) 'The economics of central bank digital currency', *ECB Working Paper Series*, No. 2713.
24. Jack, W. and Suri, T. (2014) 'Risk sharing and transactions costs: Evidence from Kenya's mobile money revolution', *American Economic Review*, 104(1), pp. 183–223.
25. Kahn, C.M., McAndrews, J. and Roberds, W. (2005) 'Money is privacy', *International Economic Review*, 46(2), pp. 377–399.
26. Khera, P., Ng, S.Y., Ogawa, S. and Sahay, R. (2021) 'Is digital financial inclusion unlocking growth?', *IMF Working Paper*, WP/21/167.
27. Kiff, J., Alwazir, J., Davidovic, S., Farias, A., Khan, A.,

- Khiaonarong, T., Malaika, M., Monroe, H., Sugimoto, N., Tourpe, H. and Zhou, P. (2020) 'A survey of research on retail central bank digital currency', *IMF Working Paper*, WP/20/104.
28. Kim, Y.S. and Kwon, O. (2019) 'Central bank digital currency and financial stability', *Bank of Korea Working Paper*, No. 2019-6.
29. Koonprasert, T.T., Kanada, S., Tsuda, N. and Reshidi, E. (2024) 'Central bank digital currency adoption: Inclusive strategies for intermediaries and users', *IMF FinTech Note*, 2024/005.
30. Kosse, A. and Mattei, I. (2023) 'Making headway: Results of the 2022 BIS survey on central bank digital currencies and crypto', *BIS Papers*, No. 136.
31. Kumhof, M. and Noone, C. (2018) 'Central bank digital currencies: Design principles and balance sheet implications', *Bank of England Staff Working Paper*, No. 725.
32. Lannquist, A. and Tan, B. (2023) 'Central bank digital currency's role in promoting financial inclusion', *IMF FinTech Note*, 2023/011.
33. Meaning, J., Dyson, B., Barker, J. and Clayton, E. (2021) 'Broadening narrow money: Monetary policy with a central bank digital currency', *International Journal of Central Banking*, 17(2), pp. 1–42.
34. Mohammed, N., Pesme, J. and Popovic, A. (2022) 'Is central bank digital currency the right tool to expand financial inclusion?', *World Bank Blog*, 1 December.
35. Ozili, P.K. (2018) 'Impact of digital finance on financial inclusion and stability', *Borsa Istanbul Review*, 18(4), pp. 329–340.
36. Ozili, P.K. (2022) 'Central bank digital currency research around the world: A review of literature', *Journal of Money Laundering Control*, 26(2), pp. 215–226.
37. Ozili, P.K. and Nández Alonso, S.L. (2024) 'Central bank digital currency adoption challenges, solutions, and a sentiment analysis', *Journal of Central Banking Theory and Practice*, 13(1), pp. 133–165.
38. Ree, J. (2023) 'Nigeria's eNaira, one year after', *IMF Working Paper*, WP/23/104.
39. Sahay, R., Cihak, M., N'Diaye, P., Barajas, A., Mitra, S., Kyobe, A., Mooi, Y.N. and Yusefi, S.R. (2015) 'Financial inclusion: Can it meet multiple macroeconomic goals?', *IMF Staff Discussion Note*, SDN/15/17.
40. Sahay, R., von Allmen, U.E., Lahreche, A., Khera, P., Ogawa, S., Bazarbash, M. and Beaton, K. (2020) 'The promise of fintech: Financial inclusion in the post COVID-19 era', *IMF Departmental Paper*, No. 20/09.
41. Sarma, M. (2012) 'Index of financial inclusion: A measure of financial sector inclusiveness', *Berlin Working Papers on Money, Finance, Trade and Development*, No. 07/2012.
42. Suri, T. and Jack, W. (2016) 'The long-run poverty and gender impacts of mobile money', *Science*, 354(6317), pp. 1288–1292.
43. Tan, B.J. (2023) 'Central bank digital currency and financial inclusion', *IMF Working Paper*, WP/23/69.
44. Tan, B.J. (2024) 'Central bank digital currency and financial inclusion', *Journal of Macroeconomics*, 81, 103620.
45. Tronnier, F., Harborth, D. and Hamm, P. (2022) 'Investigating privacy concerns and trust in the digital Euro in Germany', *Electronic Commerce Research and Applications*, 53, 101158.
46. Wenker, K. (2022) 'Retail central bank digital currencies, disintermediation and financial privacy: The case of the Bahamian Sand Dollar', *FinTech*, 1(4), pp. 345–361.
47. Wezel, T. and Ree, J. (2023) 'Nigeria: Fostering financial inclusion through digital financial services', *IMF Selected Issues Paper*, SIP/2023/020.
48. Wright, A., Bahamonde, J. and Pinto, E. (2022) 'Financial inclusion and central bank digital currency in The Bahamas', Central Bank of The Bahamas Research Paper.
49. Zarifis, A. and Cheng, X. (2023) 'The six ways to build trust and reduce privacy concern in a central bank digital currency', working paper.