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Central Bank Digital Currency and Financial Inclusion

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Summary:

In this paper, we develop a model incorporating the impact of financial inclusion to study the implications of introducing a retail central bank digital currency (CBDC). CBDCs in developing countries (unlike in advanced countries) have the potential to bank large unbanked populations and boost financial inclusion which can increase overall lending and reduce bank disintermediation risks. Our model captures two key channels. First, CBDC issuance can increase bank deposits from the previously unbanked by incentivizing the opening of bank accounts for access to CBDC wallets (offsetting potential flows from deposits to CBDCs among those already banked). Second, data from CBDC usage allows for the building of credit to reduce credit-risk information asymmetry in lending. We find that CBDC can increase overall lending if (1) bank deposit liquidity risk is low, (2) the size and relative wealth of the previously unbanked population is large, and (3) CBDC is valuable to households as a means of payment or for credit-building. CBDC can still be optimal for household welfare even when overall lending decreases as households benefit from the value of using CBDC for payments, CBDC provides an alternative "safe" savings vehicle, and CBDC generates greater surplus in lending by reducing credit-risk information asymmetry. Most countries are considering a "two-tier" CBDC

model, where central banks issue CBDC to commercial banks which in turn distribute them to consumers. If non-bank payment system providers can distribute CBDC, fewer funds will flow into deposit accounts from the unbanked because a bank account is no longer needed to access CBDC. If CBDC data is shareable with banks, those without bank accounts can still build credit and access lower interest rate loans. This design is optimal for welfare if the gains from greater access to CBDC outweigh the contraction in lending.

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