Are Central Bank Digital Currencies (CBDC) the nemesis of fractional reserve banking?

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A year after their 2019 paper "Understanding Central Bank Digital Currencies" (CBDC), the Cashless Society Working Party is revisiting the topic with a blog series. This time, Sabrina Rochemont investigates the impact of a retail CBDC on the fractional reserve banking system.

A major block stands against all the drivers towards the launch of retail (general purpose) Central Bank Digital Currencies (CBDC): the risk facing the current lending process. In other words, there is a concern that the impact of such CBDC as a new payment instrument on fractional reserve banking is too big a risk for financial stability. Why such a concern?

With fractional reserve banking, only a fraction of bank deposits is backed by actual cash in hand and available for withdrawal. The balance is available for lending. This is the opposite of a full reserve system, also referred to as narrow banking, where banks' deposit accounts are separate from all their other activities, preventing the banks from creating money. Narrow banking attracts many proponents, notably during or just after major economic crises, such as the Great Depression, that led to the Chicago Plan in the 1930s. The plan for banking reforms, including the abolition of the fractional reserve system, was never implemented, but the concepts keep resurfacing. In 2018, the Swiss voted against returning to a full reserve system.

The deployment of a retail CBDC could change this. The plans from the People's Bank of China for their Digital Currency (DC/EP) CBDC, as well as the Bank of England's illustrative model for a Sterling CBDC, both function on a two-tier intermediation model, whereby Payment Interface Providers (PIPs) would keep all CBDC reserves at the Central Bank. These PIPs may be pure payment intermediaries or may be commercial banks processing transactions. But these CBDC deposits would not be used for lending.

This is a major change: a CBDC will compete for commercial bank deposits, depending on other aspects of the design, such as its interest-bearing status. One result of the withdrawal of funding to commercial banks would be the growth of the Central Bank's balance sheet in times of stability, that would increase further at times of crisis. Commercial banks would therefore lose stable low-cost funding and might also have to align their deposit rates above that of an interest-

bearing CBDC to attract deposits. This would grant more power to the Central Bank's monetary policy. Digital-only PIPs would also benefit from lower operating costs, so could compete with commercial banks on interest rates. If PIPs are able to attract savings and use these for lending, they could partially or wholly compete with banks.

The role of commercial banks would also change, if they were able to act on both commercial deposits and CBDCs as a PIP. A working paper from the international Monetary Fund assesses several options: either a bank would generate loans directly nominated in CBDC, or the loans could be originated on the Central Bank's balance sheet. Both would continue to see a role for commercial banks or PIPs to screen, contract, and monitor debtors. An alternative would be for loans to be generated from the depositor's CBDC deposits, and the Central Bank could sell these loans to the commercial banks who carry the risk of borrower default. Otherwise, depositors could convert their CBDC holdings at will, and loans would be generated in commercial bank money only, if money cannot be created from a CBDC.

A century on, does the Chicago Plan for full reserves have potential? While the arguments in favour of a narrow banking system may be appealing after the 2008 banking crisis, and after the recent pandemic-related recession possibly turns into a depression, the assumed benefits to financial stability are not necessarily evident. According to a Bank for International Settlements paper on CBDCs, a narrow banking system could increase risk through banks undertaking riskier lending activity to restore profitability. A change to a full reserve system would be a cliff edge in terms of liquidity during the transition, presumably leading to deflation and a threat to financial stability. Yves Mersch, Vice-Chair of the ECB's Supervisory Board, has remarked that "disintermediation would be economically inefficient and legally untenable" in an open market economy.

The potential for retail CBDCs has opened a Pandora's box of financial intermediation. Beware the unintended consequences.