NATIONAL DIGITAL CURRENCIES: WILL THEY CASH IN?

Central banks are assessing the costs and benefits of issuing digital currencies. A debate is in train over whether they threaten financial stability, strengthen or weaken control of monetary policy, whether there is demand for them, and if they can be bifurcated between wholesale and retail users. MI Forum discussed central bank digital currencies with Don Weinland, Asia financial correspondent for the Financial Times and moderator of a Sibos panel on the subject.

No central bank digital currency (CBDC) yet exists. Even the Petro, the asset-backed crypto-currency issued by the government of Venezuela in February this year alongside the Bolivar fiat currency, was not conceived as a CBDC of the kind less troubled regimes would envisage. It certainly does not function as one.

"CBDCs are all very theoretical at the moment," says Don Weiland, Hong Kong-based Asia financial correspondent for the Financial Times, and moderator of the Sibos session on the likely development of CBDCs. "So it is difficult to be definitive about them. On the other hand, the fact we must speculate makes for a more interesting discussion."

Central banks are leading the discussion about digital currencies

Central banks are already leading just such a discussion. The most enthusiastic are those running monetary policy in countries where usage of physical cash is in rapid decline. They include the Swedish Riksbank, which is continuing to research the issue of an "E-krona"[1], and the Norges Bank.[2] The Bank of England has published a paper on how to design a CBDC[3] and a list of four questions about the impact of a CBDC on the financial markets.[4]

Both the Hong Kong Monetary Authority (HKMA) and the Monetary Authority of Singapore (MAS) have worked with the R3 consortium on feasibility studies of CBDCs as part of wider research into the applicability of distributed ledger technology (DLT) to financial market infrastructures. The Reserve Bank of Australia has explored what its governor called "an eAuD."[5]

Some central banks have decided against issuing a CBDC. The Bank of Korea, for example, conducted a feasibility study of CBDCs, which concluded the risks outweighed the benefits. The Swiss National Bank did much the same, voicing concerns about the impact on financial stability of central banks competing with private banks for digital currency deposits.

A CBDC might displace private sector credit and increase financial instability

Mario Draghi, president of the European Central Bank (ECB), shares this worry. He says the ECB has "no plans to issue a central bank digital currency,"[6] chiefly because it might compete with private sector banks for deposits. Lael Brainard, a governor of the Federal Reserve, has also expressed concern that a CBDC could constrain the ability of banks to on-lend retail deposits.[7]

In fact, all central bank statements on CBDCs are careful to stipulate that they have no intention to displace private banks as the source of credit, not least because their lending decisions would be worse even than those of the private banks.

A further concern of the central banks is the likely impact of a CBDC on financial stability, especially if it was available to retail consumers. In stressed markets, in which there was a flight to cash, a digital currency is likely to accelerate the speed and scale of a run on a bank. Banks would lose retail customers as a source of funding much more quickly than they

1. *https://www.riksbank.se/en-gb/financial-stability/payments/e-krona/the-e-krona-projects-first-interim-report*
2. Norges Bank, *Central bank digital currencies*, Norges Bank Papers, No 1, 2018.
3. Michael Kumhof and Clare Noone, *Central bank digital currencies – design principles and balance sheet implications*, Staff Working Paper No. 725, Bank of England, May 2018.
4. Bank of England, *Why might some central banks issue their own digital currencies?* at *https://www.bankofengland.co.uk/research/digital-currencies*
5. Tony Richards, *Cryptocurrencies and Distributed Ledger Technology*, Speech to Australian Business Economists Briefing, Sydney, 26 June 2018, Reserve Bank of Australia.
6. Mario Draghi, letter to Jonás Fernández MEP, 12 September 2018.
7. Governor Lael Brainard, *Cryptocurrencies, Digital Currencies, and Distributed Ledger Technologies: What Are We Learning?*, speech to the Decoding Digital Currency Conference, 15 May 2018. See also Michael D. Bordo and Andrew T. Levin, *Central Bank Digital Currency and the Future of Monetary Policy*, NBER Working Paper No. 23711, August 2017.

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> **- Don Weinland, Asia financial correspondent for the Financial Times**

would today, leading to total dependence on central bank funding.

Paradoxically, however, Don Weinland thinks concerns about the impact of a CBDC on financial stability increases the strength of the case for introducing one. "One argument for central banks to get involved in this area is actually to retain and extend control of monetary policy," he says. "At some point, we might have lots of blockchain-based crypto-currencies being traded by retail users and large corporations, creating financial instability by draining private banks of deposits and making it hard for central banks to control rates of interest and exchange. By issuing fiat currency as a CBDC, they would retain control."

There is a view that a CBDC could even enhance central bank control of monetary policy. Andrew Haldane, chief economist and executive director, monetary analysis and statistics, at the Bank of England, famously proposed a CBDC as a solution to the inability of central banks to set negative rates of interest on currencies in severe economic downturns.[8] Other benefits include denying the untaxed underground (or "black") and criminal economies the cash they need to make payments.[9]

Weinland disagrees. "I am not sure that a CBDC could make the Fed any more powerful than it is already, when it effectively sets the global rate of interest," he says. "I see CBDCs not as an attempt by central banks to expand their sphere of control, but to keep up with changes in the nature of the tools people use to make payments. CBDCs, in themselves, will not make them any more powerful than they are already – but private sector crypto-currencies might make them less powerful."

8 He argued in 2015 that negative interest rates on fiat currencies issued in digital form on to a distributed ledger were a superior tool for reducing real rates of interest than higher inflation or making quantitative easing permanent. See Andrew Haldane, How low can you go?, speech to Portadown Chamber of Commerce, Northern Ireland, 18 September 2015.

9 Kenneth S. Rogoff, *Costs and benefits to phasing out paper currency*, NBER Working Paper No. 20126, May 2014.

Distinction between retail and wholesale CBDCs

That is one reason why central banks monitor developments in the crypto-currency markets. In March this year the central bank for central banks, the Bank for International Settlements (BIS), published a paper on the subject.[10] It distinguished between CBDCs available for wholesale payment and those that could be used in retail payments, and concluded a wholesale variant issued on to a distributed ledger technology (DLT) platform might increase the efficiency of settlement in securities and derivatives markets.

Lael Brainard also distinguished between retail and wholesale CBDCs and did not rule out a "limited central bank digital instrument that serves as a settlement asset for wholesale payment." Weinland sees this distinction – between a general purpose CBDC and one restricted to a pre-defined group of users, in the same way that access to central bank money is restricted to authorised banks while commercial bank money is available in principle to anyone - as crucial to central banks being willing to take the next step and actually issue a CBDC.

"Distinguishing between CBDCs for retail and commercial usage is essential to understanding this area," he says. "Both retail and wholesale payments could be cheaper, quicker and more efficient if fiat currencies were wholly digital, and transactions were processed on a blockchain, but for widespread use of digital currencies you need central bank buy-in – and you are more likely to get it in wholesale than retail payments."

Weinland adds that privately issued crypto-currencies are likely to control the retail market anyway. "Crypto-currency enthusiasts argue that the spirit of the crypto-currency movement is essentially to put an end to fiat currencies, or at least to downplay their importance in payments, and to offer consumers a private alternative

10 Committee on Payments and Market Infrastructures and the Markets Committee, *Central bank digital currencies*, Bank for International Settlements, March 2018.

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to government-controlled currencies," he says. "If they are right, consumers will choose not to use government-controlled crypto-currencies anyway."

Instant payments suppress the retail appetite for CBDCs

A major constraint on existing crypto-currencies, however, is the reluctance of merchants to accept them as a form of payment. Another is their disconnection from the existing payments infrastructure of correspondent banks, automated clearing houses (ACHs) and central bank-operated real-time gross settlement systems (RTGSs). Crypto-currency users that want to turn their tokens into fiat currency cash have to come off the blockchain. This is precisely what central banks want them to do - for now.

Weinland thinks that the status quo could persist for a long time. "In the real world, where most people live, there is not going to be rapid adoption of crypto-currencies," he says. "Even if a CBDC was introduced, the abolition of physical cash would not happen immediately. In fact, it is so far off that new technologies could come in and disrupt the way we are currently thinking about this market even today."

As Weinland points out, central banks have contended that there is no serious consumer demand for a CBDC. This is because retail consumers in developed markets already have access to digital payments and, increasingly, to instantaneous digital payments as well. These services are also offered free of charge, so switching to a digital currency with higher transaction costs currently makes no sense.

A CBDC, however, could encourage the banks to encourage their customers to adopt it. "Private sector crypto-currencies are disrupting the payments flows of the private banks, albeit at the margin, which they cannot address because of the reputational and regulatory risks," says Weinland. "If a digital currency was issued by a central bank, on the other hand, that might make the banks more comfortable about settling payments in it. In fact, bankers might well push central banks to issue CBDCs, because it would give them more room to manoeuvre in the crypto-currency space. It would enable them to regain some of the market share they are losing to private sector crypto-currencies."

A group of banks has of course already joined a project to create a "utility settlement coin" convertible into a variety of fiat currencies. This would allow transactions to settle on blockchains without the need to come off the network to access central or commercial bank money. However, as Don Weinland points out, the "utility settlement coin" would be redundant if central banks chose to issue fiat currencies on to blockchains.

But, as Weinland adds, it is going to take a great deal of work to convince any central bank to take the risk of issuing a CBDC. The current balance between central and commercial bank money works well. There is no unsatisfied demand from a majority of consumers for anything more than instant payments of the kind available already. Negative rates of interest can be created by other means. The threats to commercial bank funding and wider financial stability are perceived, but not predictable. "No central bank is seriously considering issuing a CBDC at this time," concludes Weinland. "In fact, there has been quite a lot of pushback, especially from the Fed and the BIS."

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