6-2018

Central Bank Digital Currencies: The New Era of Mondern-day Banking

Benjamin Geva
Osgoode Hall Law School of York University, bgeva@osgoode.yorku.ca

Central Bank Digital Currencies: The New Era of Modern-Day Banking

April 23, 2018

Benjamin Geva

An internal report submitted in March to the Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements (BIS), presents an initial analysis of Central Bank Digital Currency (CBDC).[1]

What You Need To Know

- The report poses no immediate legal implications.
- Lawyers and policy makers ought to be prepared to engage in discussions which lead to decision making as to such developments as well as to address the developments as they arise.
- The introduction of a CBDC in one jurisdiction could adversely affect others. Central banks that have introduced or are seeking to introduce a CBDC should consider cross-border issues.
- Central banks and other authorities should continue their broad monitoring of digital innovation, keep reviewing how their own operations could be affected and continue to engage with each other closely.

Context

Money we use primarily consists of banknotes issued by the Bank of Canada and deposit (or credit) balances available to customers in accounts with commercial banks. In principle, such account balances are convertible upon demand to Bank of Canada banknotes. For their part, reserves at the Bank of Canada are available as money for interbank payments. With the advent of Bitcoin, other forms of private digital currencies, and blockchains as innovative digital ledger technologies, central banks around the world—including the Bank of Canada—consider the optior of issuing digital currencies of their own as a new form of money, Central Bank Digital Currency (CBDC).

What is CBDC?

CBDC is potentially a new form of digital central bank money. It is distinguishable from reserves or settlement balances held by commercial banks at central banks as well as from physical banknotes issued by central banks. CBDC is envisaged to be a new form of central bank money, being a central bank liability, denominated in existing unit of account, and serving as a medium of exchange and a store of value. Depending on its particular features, it may be used as a means of payment, substitute for money-market instruments, and even foreign currency banknotes and reserves.

CBDC Variants

There are variants to CBDC and the adoption of each variant will require changes in the law and regulation governing money and payments. Two main CBDC variants are a wholesale (that would limit access to a predefined group of users) and a general purpose one (that would be widely accessible).

Wholesale CBDCs combined with the use of distributed ledger technology, may enhance settlement efficiency for transactions involving securities and derivatives. Some central banks are analyzing a CBDC that could be made widely available to the general public and serve as a safe, robust and convenient alternative payment instrument. However, benefits of widely accessible CBDC may be limited if fast (even instant) and efficient private retail payment products are already in place or in development.

A general purpose CBDC could compete with guaranteed bank deposits with implications for the pricing and composition of banks' funding. It could also give rise to higher instability of commercial bank deposit funding. At the same time, issuance of a CBDC would probably not alter the basic mechanics of monetary policy implementation, but could enrich the options offered by the central bank's monetary policy tool kit.

Concerns

CBDC may be either token or account-based money. Each has a distinctive form of verification when it is exchanged. Token-based money relies on the ability of the payee to verify the validity of the payment object. While with cash the concern is counterfeiting, in the digital world the worry is whether the token or "coin" is genuine or not (electronic counterfeiting) and whether it has already been spent. By contrast, systems based on account money depend fundamentally on the ability to verify the identity of the account holder. A key concern is identity theft, which allows perpetrators to transfer or withdraw money from accounts without permission. Identification is needed to correctly link payers and payees and to ascertain their respective account histories.

A central bank introducing a general purpose CBDC would have to ensure the fulfilment of anti-money laundering and counter terrorism financing (AML/CTF) requirements, as well as satisfy the public policy requirements of other supervisory and tax regimes. Furthermore, in some jurisdictions, central banks may lack the legal authority to issue a CBDC, and ensuring the robust design and operation of such a system could prove to be challenging.

Current State of Play

The Bank of Canada and the Monetary Authority of Singapore have been experimenting in variants of wholesale digital currencies and a concrete proposal for a general purpose digital currency was put forward in the United States. So far, as research and planning are concerned, the Bank of England, the People's Bank of China and the European Central Bank, among others, have reportedly been active in the area. Activity has not been limited to major countries with Ecuador being on record for having offered account-based CBDC to the public for some time.

The Report

The report is comprehensive and thorough and yet two omissions are to be mentioned. First, the report does not address the option of a centralized CBDC. As well it does not discuss potential collaboration models between the central bank and commercial banks in the issue of CBDC or its equivalent.

For an extensive analysis by the author of some of the issues highlighted by the report, see "Banking in the Digital Age – Who is Afraid of Payment Disintermediation?"[2] The paper was presented and written ahead of the release of the report.

---

[1] See https://www.bis.org/cpmi/publ/d174.pdf.

[2] European Banking Institute Working Paper Series 2018 - no. 23, 59 Pages Posted: April 2, 2018, http://ssrn.com/abstract=3153760.

To discuss these issues, please contact the author(s).

For permission to republish this or any other publication, contact Janelle Weed.