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Abstract

This note sparks a debate and a state of play in the age of the digital revolution, on the adoption of central bank digital currencies (CBDCs) for central banks.

Keywords: central bank digital currencies

In the digital age, innovation in payments makes it easier, faster and cheaper for us to interact. But this innovation also comes in new forms, based on private payment systems or using digital currencies, which create new risks and raise important questions of sovereignty. These questions are increasingly central to the mandates of central banks. New questions arise as to whether central banks should take initiatives to issue their own digital currencies (CBDCs). Innovations punctuate the evolution of the financial system and monetary policy and play a major role in economic development. However, they may be in a more questionable situation and given their potential systemic consequences, central banks should be very careful about them.

This analysis sparks a debate in the era of the digital revolution, on the adoption of CBDCs (central bank digital currencies) for central banks. In this perspective, the parallel question concerns the new perimeter of the central bank, that is to say up to what level can banks regulate and control the broad money. Because with crypto-assets and Fintechs, the monetary and payment system seems over time to become independent from the regulation of central banks. We are debating the issues linked to this digital expansion, should central banks redefine their field of intervention and broaden this field?

What are the advantages and disadvantages of crypto-assets?

It is obvious that innovations and crypto-assets broaden the offer of all banking activities, to varying degrees, they also promise to make better use of an increasingly abundant and accessible of big data (Bindseil *et al.,* 2019; Bullmann *et al.,* 2019). In the area of financial services, this improves and expands access to financial services and promotes financial inclusion (Gabor et Brooks, 2017; Guild, 2017).

If Fintech has many advantages and ascending success, it is important to inform the other hidden side of this growth. The entry of finances and currencies into the cyberspace has exposed the financial system to increased cybercrime (Choo, 2011), a form of attack committed via computer networks or information systems, in order to undermine the data. At a certain level, even encrypted data can be attacked (Cash *et al*., 2015). We live in a world where cyber risks have greatly infected our lived daily experience and all our actions in global economic and financial systems.

In addition, digital currencies must be fully implemented by regulation to combat money laundering and terrorist financing, as it is clear that technology is also used for illicit purposes (Tropina, 2016). This involves ensuring that their system of fighting money laundering and that terrorist financing is capable of protecting themselves from any fraudulent use of their innovative solutions.

Should crypto assets be accepted?

As the digital boom continues, it will likely be pointless to want to ignore it or to legislate to thwart it. This implies that we have to deal with it in the way we think about and implement monetary policy. Remember that money and payments are needs based on trust, no one should ignore that every new currency has been associates with mystical qualities, and crypto assets are no exception (James, 2018). This is why Christine Lagarde said: "*We must guard against emerging risks without stifling innovation*"[1]. Thus, instead of fighting hard against these innovations because it would be useless to fight against certain things which are mystical, it is better to seek to understand them and to build a sufficiently solid infrastructure for digital regulation.

Do central banks have to issue the CBDC?

Cash quickly disappears from circulation. Demand for cash has more than halved over the past decade, benefiting from the bank card or an app that allows real-time payments between individuals. More than half of bank branches no longer process cash. Six in ten consumers say they can do without them and one in two merchants think they will no longer accept them by 2025 (Ingves, 2018). As a medium of exchange, crypto assets have certain advantages. While offering much the same as cash, they also allow transactions between very distant operators and the transaction unit is potentially more divisible. These properties make crypto assets particularly attractive for payments made in the new digital economy based on sharing and services.

However, it is too early to adopt a system where regulation is not well established. For now, central banks should continue their efforts to maintain monetary stability. Central banks must maintain public confidence in fiat currencies without lagging behind in technological innovation and decentralized services (He, 2018).

What about the monetary transmission mechanism?

It is often accepted that CBDC is important in promoting the efficiency of monetary policy transmission mechanisms, especially for countries where the interest rate is close to the zero lower bound (Bordo and Levin, 2017; Engert and Fung, 2017). However, these arguments are not strong enough and require refining and deepening the question. In principle, nothing guarantees a certain effectiveness of monetary policy by issuing crypto-assets.

[1] See Lagarde (2018)

Whether you are building a cabin, a house, or a skyscraper, the building will only stand if it has a solid foundation.

Thinking about the future

Digitization is reshaping economic activity, reducing the role of cash and creating new forms of digital payment. This risk must already be integrated by central banks, which must define the IT security policies of financial institutions:

- Strengthening of staff expertise and awareness;
- Participation in regular crisis exercises;
- Strengthening the protection of internal systems with rigorous access control;
- Stronger data encryption;
- Implementation of intrusion detection tools and performance of periodic tests.

The implementation of monetary policies must therefore fully integrate cyber risk and develop IT security policies in line with best practices. Managing these risks requires effective cooperation between competent authorities at national, regional and international levels. The world of financial technology is changing so rapidly that the knowledge gap between technologists, economists and regulators continues to widen. What approach can policymakers take to close this gap? How can central banks deepen their knowledge of digital, crypto assets, or cybersecurity to assess the benefits of digital currencies?

Together with financial institutions, central banks have a role to play in controlling the digital frontier. Banks are on the front line, because they are the ones who settle transactions, provide real liquidity, maintain exchanges and interact with customers.

Today, many believe that, given the small size of crypto assets and their limited interconnection, concerns about them do not reach a systemic level. But if authorities don't act preventively, cryptocurrencies could become more interconnected with the international financial system and become a threat to global financial stability. More importantly, the meteoric rise in crypto assets should not obscure the important role central banks play as guardians of public confidence.

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