

Digital Currency Issuance by Central Banks: CBDCs and Monetary Policy

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Abstract: *CBDCs are one of the most important developments that has transpired in the future of global financial systems as it reflects a shift to the creation of digital money. CBDCs are the digital form of a sovereign fiat currency owned by and issued, as well as controlled by a nation's central bank. CBDCs are centralized and are anchored on the institutional credibility of the issuing central bank unlike Decentralized cryptocurrencies such as bitcoins. The most obvious reason for CBDC is to replace current structures of payment systems and to address issues of financial exclusion as well as strengthening the mechanisms of monetary policy. The overall benefits of CBDCs include the following; It can help integrate the payment systems of different countries as well as domestic payment systems hence reducing transaction costs and settlement time and ultimately promoting economic growth. It also gives central banks more direct influence over the money stock which in turn enhances the ability of the country to implement its monetary policy and offers extra weapons to fight fluctuations in the Business cycle. During emergencies CBDCs may be used to directly disburse to citizens, thereby enhancing the efficiency of monetary gear shifts – fiscal stimulus. Also, CBDCs can allow the central banks to address the threats posed by private digital currencies and stablecoins that emerged recently and are an attempt to disrupt conventional financial systems. But the use of CBDCs also has its challenges, as will be discussed below. As it will replace traditional currency or integrate into it, it will lead to tension in the financial sector by disintermediating the banking sector which in turn will lead to decreased credit access and heightened risk level. The risks of privacy and cybersecurity also arise because CBDCs are programmable and can hence be attacked by hackers and or suffer data breaches. Further, use of CBDCs as a global financial system can jeopardise international trade and currency competition on a large scale. All in all, there is a prospect for CBDCs to transform the fundamentally current vent with central banks at the forefront. The advantages of CBDCs are huge, however the challenges must be thought of, designed, tested, controlled and its risks must be mitigated to obtain successful outcomes in the banking systems across the world.*

Keywords: Central Bank Digital Currency, monetary policy, financial stability, digital currency issuance, financial inclusion, CBDCs

1. Introduction

The fast-growing use of digital technology is changing the whole image of the Financial System across the world and hence making the central banks globally ponder on CBDCs. CBDC, therefore, is an electronic currency of a particular country that is developed, issued and controlled by the central bank to act as electronic cash or replace the physical money. This development arises due to the enhancement of payments through electronics, besides the existence of private digital monies, which has a positive as well as negative implication on the conventional monies.

Perhaps one of the main drivers of proliferation of CBDCs is the dwindling cash circulation, more so in the developed world. Hence, with the consumers paying through mobile phones and every other digital payment method including the bank transfers and mobile wallet, the central banks are striving to have the national currency relevant in this digital era. CBDCs allow central banks to give their citizens a secured form digital money backed by the state to function as a counterpart to other digital assets and preserve monetary autonomy. Furthermore, CBDCs also present the benefits of speeding up payments' systems through lower cost and time of transactions including cross border payments, which are time-consuming and costly under the existing frameworks.

The other key feature that is pushing the central banks towards the development of the CBDCs is the financial inclusion factor. In many parts of the world today, massive populations still continue to be disfranchised from being able to access simple Banking facilities. CBDC could deliver these unbanked or underbanked people the possibility of getting

digital financial services and, thus, fit the gap and stimulate people's involvement in the economy. For example, in most of the developing nations they do not have access to physical cash or traditional banking system, a CBDC which can be accessed through the mobile device empowers millions of individuals to engage in the digital economy.

From a money supply perspective, CBDCs can potentially greatly strengthen economies' management by central banks. CBDCs would strengthen control over the money supply and enhance the implementation of monetary policy enhancing the number of tools for macroeconomic regulation. For instance, during the periods of the economic downturn, CBDCs can enable governments to directly deliver the stimulus checks to the people and in a timely manner. Furthermore, the flow of transactions using CBDCs could assist central banks in identifying economic activities happening in the economy in real-time hence improving on the policy interventions.

Nevertheless, similar to any other digital currency with the potential of becoming the global adopted currency, the advancement of the CBDCs come with disadvantages as well. A risk that has been identified with the carrying out of CBDCs is that it might disrupt the banking sector. Whereas, if the people and companies want to hold CBDCs instead of depositing in commercial banks, it will also lead to disintermediation and decrease in credit facilities and thereby pose threats to the stability of the financial structure. Also, being digital currencies, CBDCs create problems such as privacy or cybersecurity concerns. Central banks will require implementing measures to solve problems related to the

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vulnerability of CBDC systems to cyber threats and the proper protection of users' financial data.

Therefore, the development of CBDCs is the manifestation of the central banks' need to modernize in the face of declining cash circulation, emergence of private digital currencies, and growing demand for financial inclusion. CBDCs for their part hold considerable promise that must be set against potential risks and challenges that will shape the design and operationalization of these instruments with reference to the stability of the global banking system, consumer privacy, and other pertinent issues. As these central banks advance in their experiments with CBDCs, they seek to balance the society's thirst for technology advancements in finance with the need for prudential regulation of the financial system.

2. Literature Review

The idea of Central Bank Digital Currencies (CBDCs) has recently gained much popularity because of the increasing automation of various sectors including finances and using cryptocurrencies and Blockchain technology as nontraditional forms of payment. Many economists and policymakers have devoted their time to understanding the effects of CBDC on, monetary policy, financial stability, and efficient payments.

The authors Bordo & Levin opine that CBDCs might make monetary policy better because they would offer central banks the directly effective instrument for regulating the money stock and, therefore, inflation. Some of them argue that, by keeping immediate control over account balances, individuals may use CBDCs to make decisions freed from intermediaries' influence (1). Also, according to Barrdear and Kumhof, the CBDCs can enhance the effectiveness of transmitting monetary policy by enabling central banks to charge negative interest rates without the hitches of cash (2).

In regards with the financial stability, some scholars have voiced their concerns towards the certain risks of CBDCs. Carstens also points out that many CBDCs' adoption may result in a disruption of a bank – A disruption that sees customers leaving the commercial banks and go directly to accessing digital currency from the central bank. It could decrease the flow of credit to the economy and might lead to the fragility within the overall financial structure of the country (3). Likewise, Engert and Fung also pointed that there is merit in how CBDCs will be designed in order to lessen risks to the financial stability (4).

CBDCs also hold a broad area of impact across efficiency in payment systems and in the aspects of the financial inclusion. The Bank for International Settlements report indicates that CBDCs may improve payment systems by lowering the cost of transactions while at the same time speeding up cross-border transactions (p5). In addition, Auer et al, indicate that CBDCs enable the provision of access to efficient digital financial sectors for those who currently do not have an account in a financial institution especially in the developing world (6).

From the literature points out that there are substantial benefits associated with CBDCs; however, its design and

implementation must be done in a controlled manner because of the risks it bears in regard to financial stability and achieving the objectives of monetary policy.

3. Problem Statement

Central Bank Digital Currencies (CBDCs) offer benefits and risks to the specific central banks which issue them. CBDCs on the other hand presents a new and strong weapon for gaining more control over the effectiveness of monetary policy, increasing the efficiency of payment system as well as promoting financial inclusion. Still, there are also crucial challenges associated with the use of CBDCs including the financial stability and privacy challenges. This shows that the primary challenge is in developing the CBDC framework in a way that will address most of the possibilities it offers while at the same time reducing the risks associated with it. For instance, this means that use of CBDCs can potentially disintermediate the banking sector and cause shift of consumers' deposits from commercial banks to central banks, which may disrupt credit creation for the economy (3). Furthermore, there are issues of cybersecurity and privacy since CBDCs are digital currencies and central banks will need to design efficient cybersecurity measures as well as protect users' financial data (4). Hence, central banks ought to factor in the design and use of CBDCs so as to manage these challenges.

4. Solution

To achieve success in relation to the issuance of CBDCs the central banks should pursue a multi-faceted approach that is geared towards fully weighing the strengths alongside the weaknesses. When considering the design of a CBDC system, such measures should be adopted to avoid cases of financial disintermediation, cybersecurity issues and invasion of privacy. There is a solution that involves having two types of CBDCs- Tier I and Tier II where the central bank owns the CBDCs directly but does not control the accounts of the customers; this responsibility is delegated to private banks. This approach can go a long way towards avoiding disintermediation because the commercial banks are able to play a very active role in the new structure of the financial market (6). Moreover, central banks can also choose CBDCs to have the characteristic of bearing interest in a similar way that physical cash does not bear interest, this means that CBDCs can be designed to allow central banks set negative interest rates particularly at economically weak periods. Albeit at a different level this feature could boost the communication of the monetary policy and offer central banks a better instrument for influencing the rhythmic of the business cycle (2). Nevertheless, the structure of the interest rate instrument has to be chosen very carefully to prevent such consequences as, for example, the excessive volume of withdrawals from the banking sector.

Due to these limitations central banks should increase on investment on proper and sound digital structures and ensure that they follow some of the most secure protocols and understanding of how cyber criminals operate to prevent being targeted. This involves implementing security measures such as the use of encryption and decryption, security analyses as well as guaranteeing CBDC's vulnerability to

threats (4). Likewise, privacy issues can be properly addressed by ensuring that CBDCs are developed with privacy enhanced characteristics like anonymity of transactions, block chain techniques that guarantee transparency and security without necessarily requiring the users' identification. The CBDC could also be in two tiers with interest-bearing characteristics to go a long way in improving on its use while combating risks that may prevail in digital systems.

5. Conclusion

CBDCs serve as a revolutionary concept introducing to the global financial arena central banks' new effective instrument for the management of the modern world tendencies. With digital payments gradually entering people's lives, it is impossible not to note the potential of CBDCs in updating the monetary system, deepening financial inclusion, and increasing efficiency in payment systems. Governments and central banks across the globe are now acknowledging these changes and CBDCs offer an option for them to adjust to these changes without compiling the sovereignty of their currencies.

CBDCs are established to enhance the communication of the monetary policy at its core. CBDCs provide a better tool for the manipulation of money supply and interest rates for the central banks, compared to paper currency. Further, it opens real-time data collection for economic transactions to central bank so that they can monitor the economy and act accordingly. Most especially, this would be helpful in the course of managing an economic crisis whereby policy direction is required at the earliest time possible.

The last advantage of CBDCs that should be listed here is the potential for enhancing the financial inclusion. Global research shows that a majority of people in developed and developing nations are still financially excluded or under-banked. CBDCs can help fill this void to address the idea of digital financial inclusion closing that gaps which provides easy accessibility to the population group which might not be able to access it before due to geographic or income inequality. This could be especially so in the developing nations where conventional financial institutions services are not easily accessed.

Nevertheless, there are some issues that have been implied by the use of these currencies which are; The use of technology by central banks therefore requires that these institutions consider the likely hood of financial disintermediation risks, cybersecurity, and the privacy issues. CBDCs can threaten the banking industry thus reducing financial credit which in turn intensifies financial insecurity. Also, CBDCs are digital currency and cause security issues, data, and protection of users' financial data. Another important consideration that will be paramount in CBDC implementation is cybersecurity, with the need to protect privacy of individuals also being of uttermost importance.

All in all, this paper concludes that the facet of CBDCs is extremely promising, though the idea's successful realisation in the world economy presupposes rather elaborate work on its construction and the proper management of risks. Thus,

innovation should be coupled with stability, where the central banking conducts its functions of creating, distributing, and maintaining CBDCs in the most efficient and effective ways that will not compromise the security and the stability of the financial system. While central banks keep on experimenting with the idea of CBDCs, the future of digital currencies will be an inevitable part of the world economy.

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