Monetary Policy in an Era of Digital Money: New Insights for Nigerian Policymakers

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Introduction

In today's globalised world, cross-border payments are essential for seamless trade and financial integration, particularly in regional trade agreements such as the African Continental Free Trade Area (AfCFTA). However, the high cost and limited accessibility of cross-border payments remain significant obstacles. For instance, remittance fees can consume up to 7% of the transaction amount, twice the Sustainable Development Goals (SDGs) target, disproportionately affecting countries with large unbanked populations, greater reliance on remittances and less liquid forex markets. The current trend of digital infrastructures and platforms such as blockchain technology, artificial intelligence (AI), machine learning, deep learning, e-commerce and the Internet of Things (IoT) have the potential to revolutionise cross-border payments and global financial integration. However, there are concerns about the impact of these technologies on monetary policy formulation. The question remains whether digital money can address the issues of financial integration and cross-border payments without disrupting the effectiveness of monetary policy. Thus, this brief provides insights into the future of monetary policy in Nigeria in the era of digital money. It explores the potential impacts of digitalisation on monetary policy formulation and offers recommendations on how policymakers can leverage the benefits of digital money to promote financial inclusion and price stability while mitigating potential risks.

Dynamics of Money and the Role of the Central Bank

One of the central bank's responsibilities is to ensure a payment system that is robust, safe, efficient and inclusive. This is crucial for maintaining monetary and financial stability, as the core target of monetary policy is price stability. Money is intrinsically linked to inflation, and the central bank alters the stock of money to achieve price stability through banks' deposits and credit intermediation.

Digital money's emergence may exclude certain components of the money stock in the economy outside the monetary authority's influence. This may affect the central bank's ability to implement monetary policy effectively. For instance, in a cashless economy, the central bank can monitor agent’s transactions and balance sheets, but there are higher costs associated with adopting and operating digital applications, which may limit their widespread use.

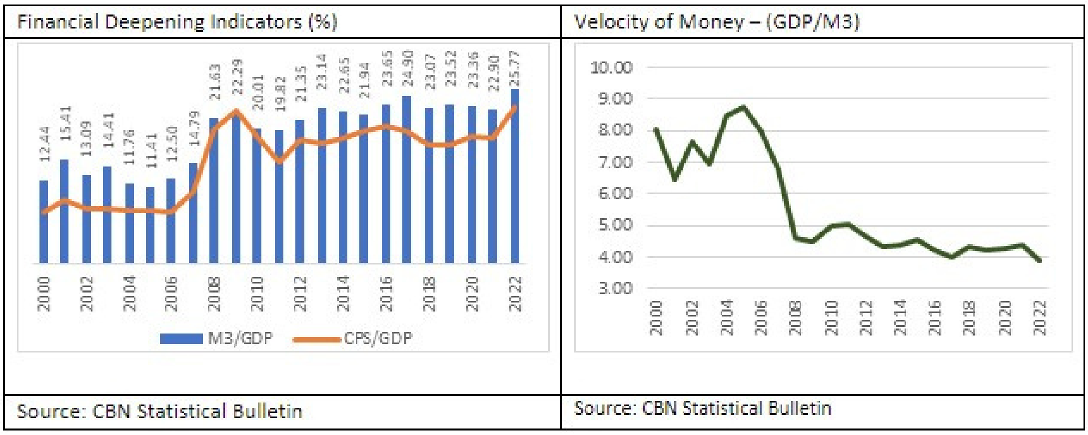
Therefore, policymakers need to consider the impact of digital money on monetary policy formulation and ensure that it complements, rather than undermines, their efforts.

Digital Money and Monetary Policy: Some Stylised Facts

Financial deepening indicators (ratio of money supply to GDP and credit to private sector to GDP) have shown improvement over the years. The money supply to GDP ratio increased from 12.44% in 2000 to 25.77% in 2022, indicating an increase in the level of financial deepening in the economy.

Similarly, credit to the private sector to GDP also increased during the period under review. The velocity of money, which measures the rate at which money is exchanged in an economy, peaked at 8.77% in 2005 but declined to 4.49% in 2009. However, the rate has been relatively stable, averaging 4.41% between 2010 and 2022.

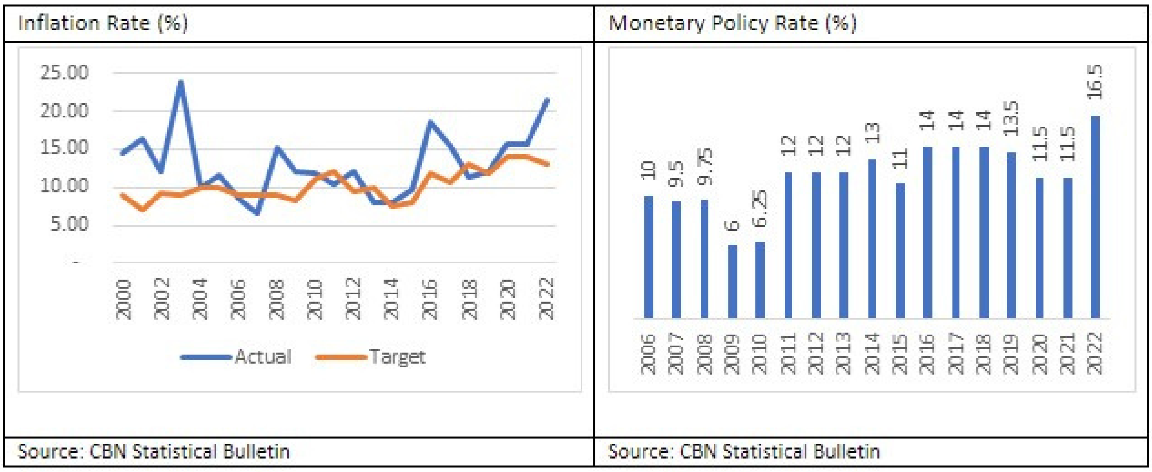
FIGURE 1: FINANCIAL DEEPENING INDICATORS AND VELOCITY OF MONEY



The inflation rate has remained a significant concern for the country's monetary policy, as it has consistently exceeded the Central Bank of Nigeria's target range of 6% – 9%. As of March 2023, the inflation rate stood at 22.04%. The Monetary Policy Rate (MPR), the benchmark interest rate in Nigeria, has been gradually increased from 11.5% in 2021 to 16.55% as of December 2022 and currently at 18%.

Despite this increase, inflation is yet to decelerate. This alludes to Nigeria’s inflation as not demand-pull but cost-push, as affected by rising energy prices, insecurity and exchange rate pass-through.

FIGURE 2: INFLATION RATE AND MONETARY POLICY RATE



Payment system statistics show an increase in the use of electronic payment channels in Nigeria and a shift towards digital payments in Nigeria, compared to cheques and ATMs, primarily used between 2010 and 2011. However, since 2012, most payments have been anchored on the web and mobile payments as NIBSS emerges as the dominant payment method. This trend is expected to continue as the Central Bank of Nigeria promotes using electronic payment channels to reduce the use of physical cash and enhance financial inclusion.

Overall, the statistics suggest that digital money has the potential to revolutionise the financial system in Nigeria. It can contribute to financial deepening by expanding access to financial services, reducing transaction costs, increasing transaction speed and improving transparency and accountability in financial transactions. However, it is essential for policymakers to carefully manage the risks associated with digital currencies, such as volatility, fraud and illicit financing, while promoting its benefits for financial inclusion and economic growth.

Central Bank Digital Currencies (CBDC) as a Form of Digital Money

Central Bank Digital Currencies (CBDCs) are quickly gaining recognition as a form of digital money alongside Stablecoins, Bitcoins and other cryptocurrencies. Several countries are actively pursuing the development of their digital currencies as they recognise the potential benefits of Central Bank Digital Currencies (CBDCs), including increased financial inclusion, reduced transaction costs and greater control over the money supply.

The Bahamas was the first country to introduce its CBDC, the Sand Dollar, in October 2020. Nigeria followed suit in October 2021 with its eNaira, and India and Russia announced plans for their digital currencies in February 2022. This suggests that CBDCs may become increasingly important in the global financial system in the coming years.

TABLE 1: INTRODUCTION OF CBDCS ACROSS THE WORLD

Country	Name	Date of Announcement
Bahamas	Sand Dollar	Oct. 2020
China	Digital Yuan	Apr. 2020
Nigeria	eNaira	Oct. 2021
India	Digital rupee	Feb. 2022
Russia	Digital ruble	Feb. 2022
Sweden	E-Krona	Being tested

CBDCs have advantages over cryptocurrencies like Bitcoin as they can protect the value of money and ensure monetary sovereignty. On the other hand, Bitcoin has issues with volatility, fraud, illicit financing and security breaches, constraining the volume of transactions and limiting its effectiveness as a medium of exchange and store of value.

TABLE 2: CENTRAL BANK DIGITAL CURRENCIES (CBDC) COMPARED TO OTHERS

CHARACTERISTIC	CBDC	EFT	PRIVATE CRYPTOs	E-MONEY	STABLECOIN
Store of value	✓	*	*	✓	✓
Electronic	✓	✓	✓	✓	✓
Fungible	✓	✓	✓	✓	*
Central-bank regulated	✓	✓	*	✓	*
Instantaneous settlement	✓	*	✓	*	✓
Unit of account	✓	✓	*	*	✓
Programmability	✓	*	✓	*	✓
Sovereign legal tender	✓	*	*	*	*

Digital Money: Implications for Monetary Policy

The future of monetary policy will be affected by the extent and method of adoption of digital currencies. There are three possible methods of adoption - global adoption, regional bloc adoption and multipolar intense competition, particularly regarding central bank digital currencies (CBDCs). For countries experiencing rising and volatile inflation and foreign exchange instability, stablecoins and CBDCs will likely replace domestic currency as a store of value and unit of account, leading to currency substitution. Currency substitution can impede the central bank's control of domestic liquidity since a component of the money stock is now outside its direct influence. Furthermore, the convenience and accessibility of digital currencies will drive currency substitution faster, especially with lower costs, as remittances flow more easily.

Economic agents will have to monitor exchange rates in the case of global or regional bloc adoption, particularly with CBDCs. This may spur price adjustments frequently. For countries with a less developed financial sector relative to the size of the economy, capital outflows can occur more efficiently, affecting the stock of money and monetary policy conduct.

Therefore, adopting digital currencies can have significant implications for the future of monetary policy. Central banks must consider these implications and strategize accordingly to maintain control over domestic liquidity and ensure monetary stability.

Conclusion

To eliminate currency substitution and ensure stability in the forex market, it is essential to prioritize domestic price stability and liquidity. The adoption of the eNaira can be incentivized by exploring blockchain-enabled platforms and lowering transaction costs. However, it is critical to avoid disrupting the intermediating role of commercial banks. Additionally, conducting a study on the implications of cash-only or digital-only and/or a combination of the two can guide policy formulation.

Overall, implementing digital money requires careful consideration of various factors to achieve the desired outcomes. Global or regional adoption of digital money is possible, especially of Central Bank Digital Currency. Thus, it is crucial to strengthen the value of the naira through foreign exchange liquidity and stability to avoid digital substitution.

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