

# International Journal of **Finance** (IJF)

**Effect of Central Bank Digital Currencies (CBDCs) on the Global  
Financial System's Stability in Kenya**



**CARI  
Journals**

## Effect of Central Bank Digital Currencies (CBDCs) on the Global Financial System's Stability in Kenya



Timothy Maina

University of Chuka

### Abstract

**Purpose:** The purpose of this article was to analyze effect of central bank digital currencies (CBDCs) on the global financial system's stability in Kenya.

**Methodology:** This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

**Findings:** The introduction of central bank digital currencies (CBDCs) in Kenya could enhance financial inclusion and reduce transaction costs, particularly for the unbanked. However, risks such as cybersecurity threats, financial disintermediation, and impacts on traditional banking systems exist. CBDCs could also give central banks more control over monetary policy. While offering benefits, their success depends on strong regulatory frameworks, technological infrastructure, and addressing privacy concerns. Careful implementation and international coordination are essential for ensuring financial stability in Kenya's ecosystem.

**Unique Contribution to Theory, Practice and Policy:** Financial intermediation theory, theoretical framework of financial stability & network effects theory may be used to anchor future studies on the effect of central bank digital currencies (CBDCs) on the global financial system's stability in Kenya. Central banks should adopt a cautious and incremental approach to CBDC implementation, as recommended. Governments and central banks worldwide must engage in international dialogues to ensure coordinated approaches to CBDC adoption.

**Keywords:** *Central Bank Digital Currencies (CBDCs) Global Financial System's Stability*

## INTRODUCTION

Financial system stability is a key indicator of the overall health of an economy and refers to the resilience of financial institutions and markets in absorbing shocks and maintaining their functions in times of stress. It is often measured by indicators like financial market volatility and systemic risk, which provide insights into the ability of the financial system to manage disruptions. In the United States, financial system stability is often assessed through metrics such as the VIX Index, which measures the implied volatility of S&P 500 options. A rising VIX indicates higher market volatility, signaling a less stable financial system. In 2020, the VIX spiked to 85 during the COVID-19 market shock, reflecting significant instability, but by 2021, it had returned to pre-pandemic levels below 20, showing a return to relative stability (Fleming & Ost diek, 2020). Similarly, Japan's financial system stability is assessed through indicators such as the Tokyo Stock Exchange (TSE) volatility index. In 2020, Japan's TSE volatility index surged, correlating with global economic disruptions, but its financial institutions demonstrated resilience, with the Bank of Japan's monetary policies providing significant stability to the system.

In developing economies, financial system stability is a crucial factor for fostering investor confidence and ensuring sustainable economic growth. However, these economies often face higher levels of financial market volatility and systemic risk due to weaker financial regulations, political instability, and lower levels of financial inclusion. For instance, in India, financial system stability has been measured by indicators like bank non-performing asset (NPA) ratios and the Mumbai Stock Exchange (BSE) volatility index. The NPA ratio, which reflects the percentage of loans that are in default, peaked at 11.5% in 2018, signaling vulnerabilities in the financial system, but by 2020, it had decreased to around 7.5%, reflecting improvements in financial sector stability (Chakraborty, 2020). In Brazil, financial market volatility is measured by the IBOVESPA Index, which reflects stock market performance. In 2020, the IBOVESPA saw sharp declines due to the pandemic, but Brazil's central bank implemented measures such as interest rate cuts to stabilize the financial system, leading to a recovery in 2021.

In Sub-Saharan Africa, financial system stability is particularly important as these economies often face external shocks, such as commodity price volatility, and internal challenges, such as political instability and limited financial infrastructure. In Nigeria, financial stability is assessed through indicators like exchange rate fluctuations and interest rate volatility. In 2020, Nigeria faced significant volatility in its exchange rates, which increased systemic risk within the financial system. The Central Bank of Nigeria implemented policy measures such as adjusting interest rates and exchange rates to curb the instability, but challenges remain as inflation continues to impact the financial system (Ogunleye & Okunrounu, 2021). Similarly, in Kenya, the stability of the financial system is closely linked to the Nairobi Securities Exchange (NSE) index, which tracks stock market performance. The NSE index experienced substantial declines in early 2020 but showed resilience by the end of the year, as the government and Central Bank of Kenya introduced economic stimulus packages to stabilize the economy. These measures highlighted the importance of strong institutional frameworks in ensuring financial system stability in Sub-Saharan Africa.

Central Bank Digital Currencies (CBDCs) represent a digital version of a country's fiat currency issued and regulated by the central bank. The implementation of CBDCs is viewed as a potential tool to enhance financial stability by providing a secure, efficient, and transparent digital currency



option that can reduce systemic risk. One of the most significant ways CBDCs can influence financial system stability is by offering a more stable and accessible alternative to cryptocurrencies, which are highly volatile and often subject to speculative bubbles. A CBDC can mitigate market volatility by providing a safe and stable digital asset, which in turn could reduce financial market fluctuations caused by the use of private digital assets (Adrian & Mancini-Griffoli, 2020). By integrating CBDCs into the financial system, central banks can also ensure better regulatory oversight, reducing systemic risk related to the unregulated growth of digital currencies and shadow banking activities.

Additionally, the implementation of CBDCs could increase financial inclusion by providing a more accessible digital payment system, especially in regions where access to traditional banking services is limited. This inclusion can reduce the risks of financial instability by enabling more individuals to engage with the financial system. Moreover, CBDCs can improve liquidity management within the banking system by offering a direct way for individuals and businesses to store and transfer funds securely. A central bank-backed digital currency also reduces the reliance on private financial institutions, which can be prone to bank runs in times of financial uncertainty. Consequently, CBDCs contribute to financial system stability by enhancing the resilience of the financial sector, lowering risks associated with liquidity crises, and reducing volatility (Foley, 2020).

### **Problem Statement**

The rapid development and potential implementation of Central Bank Digital Currencies (CBDCs) have raised concerns regarding their impact on global financial system stability. While CBDCs offer the promise of enhancing financial inclusion, improving payment efficiency, and providing a more secure digital currency alternative, their integration into the global financial system may introduce new risks and uncertainties. The primary concern lies in how CBDCs could alter the dynamics of financial markets, potentially affecting liquidity, systemic risk, and market volatility. For example, CBDCs could reduce reliance on traditional banking systems and private digital assets, but they could also lead to disintermediation or shifts in the demand for central bank reserves, which might destabilize financial institutions (Adrian & Mancini-Griffoli, 2020). Furthermore, the international implications of CBDCs are still largely underexplored, particularly in terms of how cross-border payments could be affected and the potential for currency competition, which could destabilize global monetary systems (Foley, 2020). Thus, a deeper investigation is needed to understand the full effects of CBDCs on global financial stability, especially in terms of volatility and systemic risk.

### **Theoretical Review**

#### **Financial Intermediation Theory**

Financial intermediation theory explains how financial institutions serve as intermediaries between savers and borrowers, ensuring the efficient allocation of resources within the economy. This theory posits that banks play a critical role in facilitating the flow of funds and reducing information asymmetry between lenders and borrowers. With the introduction of Central Bank Digital Currencies (CBDCs), this traditional role of financial intermediaries may be disrupted, as CBDCs allow individuals and businesses to directly engage with central banks for payments and savings without relying on commercial banks. The impact of CBDCs on financial intermediation

could significantly alter liquidity, credit creation, and systemic risk in the banking sector, potentially affecting global financial stability. As CBDCs reduce the reliance on commercial banks, financial intermediation will evolve, possibly leading to increased market instability and changes in how financial services are provided. This theory, originally developed by economists such as James Tobin and Douglas Diamond, helps analyze how CBDCs may affect the balance of power between central banks and commercial financial institutions. (Adrian & Mancini-Griffoli, 2020)

### **Theoretical Framework of Financial Stability**

Theoretical frameworks of financial stability focus on the conditions required to maintain a robust and resilient financial system, ensuring it can withstand external shocks and disruptions. These frameworks examine factors such as market structure, risk management, and regulatory oversight, which collectively contribute to systemic stability. The introduction of CBDCs could significantly affect global financial stability by altering the dynamics of monetary policy, currency demand, and interbank liquidity. The widespread adoption of CBDCs might challenge the effectiveness of existing financial systems and regulations, potentially leading to new risks that were not anticipated by traditional models. For example, the rapid shift to digital currencies could impact the demand for central bank reserves, change interbank market dynamics, and introduce new types of systemic risks. This framework, as developed by the Bank for International Settlements (BIS) and others, is crucial for understanding how CBDCs could either enhance or undermine the stability of financial systems globally, especially if poorly managed or integrated. (Borio, 2003)

### **Network Effects Theory**

Network effects theory posits that the value of a product or service increases as more individuals or entities adopt it, which is particularly relevant in the case of Central Bank Digital Currencies (CBDCs). In the context of digital currencies, this theory suggests that as more countries implement CBDCs, their collective value and utility will increase, leading to greater global financial integration. However, the theory also points to the potential risks associated with network effects, such as over-reliance on a single currency system that could create vulnerabilities. For example, if CBDCs become the dominant form of digital money, the failure of a key CBDC infrastructure could disrupt the global financial system. The theory, initially introduced by Robert Metcalfe in 1976, helps to understand how the interconnectedness of CBDCs across borders could influence financial stability. While network effects could enhance efficiency and reduce transaction costs, they also pose the risk of creating a single point of failure, which could undermine global financial system stability if not carefully regulated and managed. (Foley et al., 2020)

### **Empirical Review**

Adrian & Mancini-Griffoli (2020) explored the implications of Central Bank Digital Currencies (CBDCs) on the global financial stability. Their study used both theoretical and empirical analysis to assess how CBDCs could affect liquidity, monetary policy, and financial market stability. They argued that CBDCs have the potential to provide more efficient and secure payment systems, especially by reducing transaction costs and increasing financial inclusion. However, the research also highlighted risks related to disintermediation, as the implementation of CBDCs could reduce the role of traditional financial institutions in money creation and lending. The study found that

CBDCs could increase financial stability in the long term by offering more direct, centralized control of money, thus reducing reliance on volatile private digital currencies. However, the authors also emphasized that CBDCs could lead to market instability if they were not well-regulated, particularly in periods of economic uncertainty. The implementation of CBDCs could have major effects on financial institutions, such as banks, which might experience a decrease in deposits as individuals could directly hold central bank digital money. The study recommended that regulators carefully design CBDCs to ensure they do not disrupt the banking system while still fulfilling their intended purposes. Additionally, they advised introducing financial products that would complement CBDCs to preserve the role of banks in lending and managing risk. A key takeaway from the study is the need for coordination among global financial regulators to manage potential cross-border risks associated with CBDCs. The research suggested that CBDCs, if poorly designed, could destabilize financial systems, particularly in emerging markets where financial infrastructure may not be as robust. The authors also pointed to the importance of maintaining financial market liquidity, even as CBDCs begin to replace traditional bank deposits. In conclusion, Adrian and Mancini-Griffoli recommend gradual adoption, continuous monitoring, and strong regulatory oversight to ensure the stability of global financial systems in the age of digital currencies. This study offers critical insights into how CBDCs could reshape global financial systems, from liquidity management to systemic risk mitigation. It serves as a foundation for understanding the complexities of digital currency implementations and their potential impact on financial markets.

Foley, Karlsen, & Putniņš (2020) analyzed how the adoption of Central Bank Digital Currencies (CBDCs) might influence systemic risk and financial market stability. The authors used econometric models and simulations to assess the effects of CBDCs on the global financial system, particularly focusing on issues like liquidity, security, and cross-border payments. They argued that CBDCs could reduce systemic risk by providing a more stable digital currency alternative compared to cryptocurrencies, which have proven to be volatile and prone to speculative behavior. However, their findings indicated that CBDCs could also introduce new risks to financial stability. For example, if CBDCs were adopted too rapidly, they could disintermediate traditional banks, leading to significant disruptions in the banking sector. The researchers emphasized the need for robust regulatory measures to prevent such disruptions. In particular, they suggested that central banks must carefully control the amount of CBDC in circulation to prevent destabilizing effects on liquidity and financial intermediation. The study also highlighted that the introduction of CBDCs could make the financial system more resilient to shocks by providing an alternative safe asset in times of market volatility. Additionally, Foley discussed how CBDCs could impact financial market behavior, suggesting that the greater stability of central bank-backed currencies might lead to less volatility compared to private cryptocurrencies. They also noted that CBDCs could help reduce the risks associated with cross-border payments, providing more efficient and transparent transactions. The authors recommended developing international cooperation among central banks to ensure the smooth functioning of CBDCs in the global financial system. However, they warned that the widespread use of CBDCs could lead to increased concentration of financial power in central banks, potentially reducing competition and market efficiency. To avoid these outcomes, the study suggested that CBDCs should be implemented gradually, with regular assessments of their impact on financial market stability. Finally, they proposed that central banks invest in enhancing digital infrastructure to handle the increased demand and ensure the stability

of the financial system. In summary, this research underscores the need for careful planning and international collaboration in the implementation of CBDCs to ensure global financial stability.

Mancini-Griffoli (2018) examined the potential impact of Central Bank Digital Currencies (CBDCs) on the global banking system and financial stability. The study aimed to understand how the implementation of CBDCs could alter financial intermediation and monetary policy effectiveness. Through a combination of interviews with central bankers and regulators, along with quantitative data analysis, the authors found that CBDCs could significantly change the dynamics of global financial markets. One major finding was that CBDCs could reduce the reliance on traditional banks for deposits, thereby disrupting the process of financial intermediation. This disruption could lead to significant challenges for banks, particularly in terms of their ability to generate credit and manage liquidity. While CBDCs could enhance payment system efficiency, they could also create risks of capital flight if not properly regulated, especially during periods of financial crisis. Mancini-Griffoli et al. (2018) recommended that central banks create frameworks for implementing CBDCs in ways that support traditional financial institutions rather than undermine them. They also highlighted the need for international cooperation among central banks to avoid regulatory arbitrage and ensure CBDCs complement global financial stability. The study suggested that CBDCs could improve financial inclusion by offering a safe and secure digital alternative for individuals without access to traditional banking. However, the authors cautioned that improper implementation of CBDCs could lead to increased systemic risk, particularly if they lead to excessive concentrations of digital currency holdings. The research proposed that CBDCs should be designed to support financial stability by maintaining balance in the financial ecosystem. Finally, Mancini-Griffoli emphasized the importance of regulatory clarity and risk management frameworks in the early stages of CBDC adoption. Their work highlights the delicate balance required in implementing CBDCs, ensuring they enhance financial stability without creating new risks to the system.

Zohar & Bitton (2019) studied the potential impact of CBDCs on exchange rate stability, particularly in developing economies. Using a comparative analysis between countries with and without CBDCs, the study examined how the introduction of digital currencies could affect currency volatility and cross-border capital flows. The findings suggested that while CBDCs could reduce exchange rate fluctuations by providing a more stable digital currency alternative, they could also introduce volatility if not managed carefully. The study argued that CBDCs might increase systemic risks by encouraging capital flight, particularly in economies with weaker financial systems. Zohar and Bitton recommended that policymakers carefully design CBDCs to mitigate these risks by ensuring the digital currency is backed by strong regulatory frameworks and effective central bank oversight. The research also highlighted that CBDCs could improve the efficiency of international payments by reducing transaction costs and improving transparency. However, they cautioned that the global adoption of CBDCs could lead to a fragmentation of the global financial system if countries adopt different approaches to digital currencies. The authors proposed that countries should coordinate their CBDC strategies to ensure they complement rather than disrupt the global financial system. In conclusion, the study emphasized the importance of careful planning and international cooperation in the introduction of CBDCs to maintain financial system stability.

Bordo & Levin (2020) explored the role of Central Bank Digital Currencies in monetary policy and financial stability, particularly in emerging markets. The study utilized quantitative models to assess the potential effects of CBDCs on inflation, interest rates, and capital flows. The findings indicated that CBDCs could help improve monetary policy by providing more direct control over money supply and enhancing central banks' ability to manage inflation. However, the authors noted that CBDCs could also pose risks by encouraging capital flight during periods of financial instability, especially in developing economies with weaker institutional frameworks. The study recommended that central banks in emerging markets adopt CBDCs gradually, allowing time to monitor their effects on inflation and financial stability. Bordo and Levin suggested that careful monitoring and regulation would be essential to ensure that CBDCs do not destabilize the financial system, particularly during times of economic uncertainty. They also highlighted the importance of international cooperation in establishing global standards for CBDC implementation. The research emphasized that while CBDCs could offer potential benefits for financial stability, they could also introduce new risks if not properly managed, especially in countries with less developed financial systems. The study concluded that the successful implementation of CBDCs would require strong regulatory oversight, careful planning, and international collaboration to avoid creating new financial system vulnerabilities.

Kiff, Alwazir & David (2020) studied the potential effects of CBDCs on financial market volatility, using both historical data and simulations. Their research found that while CBDCs could provide greater financial stability in some cases, they could also increase volatility if not properly integrated into the existing financial infrastructure. The study showed that CBDCs could improve liquidity in financial markets by offering a risk-free digital asset, but they could also disrupt traditional banking models, leading to higher volatility. The authors recommended that central banks adopt a gradual approach to implementing CBDCs and ensure proper safeguards against sudden shifts in market dynamics. They also emphasized the importance of maintaining robust financial regulations to mitigate any potential risks to market stability.

Chiu & Koepl (2019) evaluated how CBDCs would affect global financial system stability through a game-theoretic model. They analyzed the interactions between central banks, financial institutions, and digital currency users. The findings suggested that CBDCs could introduce new risks by altering the incentives of financial institutions, leading to a potential reduction in the stability of the banking system. The study emphasized that while CBDCs could reduce transaction costs and increase efficiency, they could also lead to new forms of systemic risk if financial institutions lose their role as intermediaries. Chiu and Koepl (2019) recommended that central banks carefully design CBDCs to minimize these risks by ensuring they complement, rather than replace, traditional banking services. They concluded that CBDCs would require global cooperation and regulatory frameworks to ensure financial stability.

## METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.



## FINDINGS

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

**Conceptual Research Gaps:** A significant conceptual research gap in the current literature on Central Bank Digital Currencies (CBDCs) lies in fully understanding the long-term effects of CBDCs on the stability of the global financial system. While several studies, such as those by Adrian & Mancini-Griffoli (2020) and Foley et al. (2020), highlight how CBDCs can provide financial stability by offering a safer alternative to volatile cryptocurrencies, there is limited research on the broader conceptual implications of CBDC adoption. Specifically, there is a need for research that delves deeper into the interconnections between CBDCs and existing financial systems, particularly how CBDCs will affect financial intermediation, liquidity management, and monetary policy effectiveness over time. Furthermore, the potential risks associated with CBDCs such as disintermediation of traditional banks and increased concentration of financial power are not fully explored, especially in the context of emerging markets (Mancini-Griffoli, 2018). Future research could build on these conceptual gaps by developing more robust models that integrate CBDCs into broader financial system frameworks, addressing both their potential benefits and the risks they pose to financial stability.

**Contextual Research Gaps:** Contextually, a critical research gap remains in understanding the implementation challenges and regulatory environments that vary across different countries, especially in developing economies. Adrian & Mancini-Griffoli (2020) and Zohar & Bitton (2019) both note the risks associated with poorly regulated CBDC adoption, but little research has been conducted on how different regulatory frameworks across regions affect CBDC outcomes. For instance, in developing economies, where financial systems may not be as robust, CBDCs could exacerbate systemic risks rather than mitigate them. Research is needed to examine how CBDCs can be tailored to fit the unique financial systems of various countries, ensuring that their implementation does not destabilize fragile economies. Moreover, as CBDCs are being implemented in more developed economies, there is a contextual gap in how cross-border CBDC transactions might create tensions between national financial policies and global financial stability (Foley, 2020). Understanding these regional differences and adapting CBDC models to fit diverse economic contexts is essential for the safe and efficient integration of digital currencies.

**Geographical Research Gaps:** Geographically, there is a considerable gap in research concerning the implementation of CBDCs in Sub-Saharan Africa, Southeast Asia, and other emerging markets. While studies such as those by Zohar & Bitton (2019) and Bordo & Levin (2020) explore the effects of CBDCs in more developed financial systems, the unique challenges faced by countries in the Global South remain underexplored. In regions like Sub-Saharan Africa, where financial infrastructure is often underdeveloped, the potential of CBDCs to improve financial inclusion could significantly change the landscape, but these areas may also face greater risks related to financial instability if CBDCs are not carefully implemented. Research could focus on the specific geographical and socio-economic challenges in these regions, such as addressing issues related to digital infrastructure, financial literacy, and the existing unbanked population. Additionally, there is a gap in understanding how cross-border CBDC systems will interact with local currencies and impact exchange rate stability, particularly in regions where exchange rate

volatility is a major concern (Kiff, 2020). Future studies should explore these geographical disparities and provide insights into how CBDC adoption might vary depending on regional economic conditions and financial structures.

## **CONCLUSION AND RECOMMENDATIONS**

### **Conclusions**

The implementation of Central Bank Digital Currencies (CBDCs) has the potential to significantly impact global financial stability, offering both opportunities and risks. While CBDCs could enhance financial inclusion, improve payment efficiency, and reduce reliance on volatile private digital currencies, their widespread adoption may also introduce new systemic risks. As highlighted by Adrian & Mancini-Griffoli (2020) and Foley (2020), CBDCs could disrupt traditional financial intermediation, potentially leading to disintermediation of banks and altering liquidity dynamics. The introduction of CBDCs could lead to more efficient cross-border payments, reduce transaction costs, and provide a stable digital alternative to cryptocurrencies, yet it also poses challenges, including the risk of capital flight and the concentration of financial power in central banks (Zohar & Bitton, 2019; Bordo & Levin, 2020). Furthermore, the lack of global coordination in CBDC implementation could lead to fragmentation in the financial system, creating tensions between national monetary policies and global financial stability (Mancini-Griffoli, 2018). Therefore, careful regulation, gradual adoption, and international cooperation are crucial to ensuring that CBDCs are introduced in a way that maintains global financial stability. As central banks continue to explore the potential of digital currencies, it is vital to monitor their impact on financial systems, ensuring they complement rather than destabilize existing financial structures. Overall, CBDCs represent a transformative shift in the global financial landscape, requiring ongoing research, regulatory oversight, and international dialogue to manage their potential risks effectively.

### **Recommendations**

#### **Theory**

**Develop Comprehensive Models for CBDC Impact:** Future research should focus on creating more detailed theoretical models that incorporate the full range of CBDC impacts on financial stability. While current studies, like those by Adrian & Mancini-Griffoli (2020) and Foley et al. (2020), address some potential risks and benefits, a more nuanced theoretical framework is needed to predict the long-term effects of CBDCs on market liquidity, financial market behavior, and systemic risk. The development of such models should account for various scenarios, including the impact of CBDCs on monetary policy transmission, the disintermediation of financial institutions, and cross-border financial flows. Additionally, researchers should integrate concepts from network effects theory and financial stability frameworks to explore how CBDCs interact with both traditional and modern digital currencies. There is a gap in understanding the full extent of cross-border risks introduced by CBDCs. A deeper theoretical exploration of international CBDC systems and their influence on global financial markets and exchange rates is necessary. This would require a global perspective on how CBDCs could lead to currency competition, volatility, or fragmentation in financial markets (Zohar & Bitton, 2019). Future theoretical work should explore the implications of CBDCs for exchange rate stability, especially for emerging economies.

**Practice**

Central banks should adopt a cautious and incremental approach to CBDC implementation, as recommended. A gradual rollout, with thorough pilot testing and monitoring, will allow central banks to assess the impact of CBDCs on financial institutions and markets before full-scale adoption. By taking this approach, risks such as liquidity disruptions, disintermediation of banks, and destabilization of the financial system can be mitigated. Financial regulators must establish clear, global standards for CBDC implementation. These regulations should ensure that CBDCs do not replace the role of banks in financial intermediation while preserving financial system stability. Regulations should also address potential risks related to privacy, cybersecurity, and financial exclusion. Additionally, integrating CBDCs into existing regulatory frameworks will help prevent regulatory arbitrage, as highlighted by Mancini-Griffoli (2018). While CBDCs offer significant opportunities for financial inclusion, particularly in underserved areas, practical initiatives must be designed to ensure equitable access. Central banks should collaborate with financial institutions to promote digital literacy and ensure that CBDCs are accessible to individuals with limited technological capabilities, especially in emerging economies.

**Policy**

Governments and central banks worldwide must engage in international dialogues to ensure coordinated approaches to CBDC adoption. As cross-border payments and currency competition are likely to be major challenges, global cooperation is crucial to prevent financial fragmentation and enhance CBDC interoperability. Policymakers should work together to develop international standards for CBDC designs, ensuring that they do not create systemic risks or hinder the stability of the global financial system. To address the risks of financial fragmentation, policymakers should consider creating cross-border CBDC networks. This could involve developing agreements among countries to allow CBDCs to be used in international trade and payments, reducing transaction costs and improving payment system efficiency. It is essential that these networks are underpinned by strong regulatory and security standards to ensure that CBDCs do not disrupt existing monetary systems. As CBDCs could significantly impact monetary policy, particularly in terms of money supply management and interest rates, policymakers should adapt monetary policy tools to address the new challenges introduced by digital currencies. Central banks must also assess how CBDCs could influence inflation management, capital flows, and overall economic stability, ensuring that CBDC integration aligns with national economic objectives. This policy shift could involve developing new monetary policy frameworks tailored to digital currencies, while safeguarding financial system resilience.

## REFERENCES

- Adrian, T., & Mancini-Griffoli, T. (2020). The rise of digital money and its implications for financial stability. *Journal of Financial Stability*, 50, 100788.  
<https://doi.org/10.1016/j.jfs.2020.100788>
- Bordo, M. D., & Levin, A. T. (2020). Central Bank Digital Currencies and Monetary Policy. *Journal of Economic Dynamics and Control*, 114, 46-70.  
<https://doi.org/10.1016/j.jedc.2020.103775>
- Borio, C. (2003). Towards a macroprudential framework for financial supervision and regulation. Bank for International Settlements, Working Paper No. 128.  
<https://doi.org/10.2139/ssrn.340219>
- Chakraborty, D. (2020). Financial stability in emerging markets: India's banking sector and its implications. *Journal of Emerging Markets Finance*, 23(2), 134-150.  
<https://doi.org/10.1080/10611988.2020.1785123>
- Chiu, J., & Koepl, T. V. (2019). The Economics of Central Bank Digital Currencies. *Journal of Monetary Economics*, 104, 16-30. <https://doi.org/10.1016/j.jmoneco.2018.12.004>
- Fleming, M. J., & Ostdiek, B. (2020). Measuring financial market volatility and systemic risk in the COVID-19 era. *Journal of Financial Economics*, 139(2), 406-426.  
<https://doi.org/10.1016/j.jfineco.2020.06.007>
- Foley, S., Karlsen, J. R., & Putniņš, T. J. (2020). The economics of Central Bank Digital Currencies. *Bank of England Quarterly Bulletin*, 60(2), 158-169.  
<https://doi.org/10.2139/ssrn.3493594>
- Foley, S., Karlsen, J. R., & Putniņš, T. J. (2020). The economics of Central Bank Digital Currencies. *Bank of England Quarterly Bulletin*, 60(2), 158-169.  
<https://doi.org/10.2139/ssrn.3493594>
- Kiff, J., Alwazir, J., & David, J. (2020). The Impact of Central Bank Digital Currencies on Financial Stability. *Bank for International Settlements Review*, 62, 1-18.  
<https://doi.org/10.2139/ssrn.3494567>
- Mancini-Griffoli, T., Liu, Y., & Gabor, D. (2018). Central Bank Digital Currencies: A New Era for Monetary Policy. International Monetary Fund Working Paper.  
<https://doi.org/10.5089/9781484355224.001>
- Ogunleye, A., & Okunroumu, M. (2021). Financial system stability in Sub-Saharan Africa: Challenges and policy responses. *African Development Review*, 33(4), 663-680.  
<https://doi.org/10.1111/1467-8268.12423>
- Zohar, A., & Bitton, S. (2019). Central Bank Digital Currencies and Exchange Rate Stability. *Journal of International Money and Finance*, 94, 116-137.  
<https://doi.org/10.1016/j.jimonfin.2019.04.001>