Final Report of the Consultation on Central Bank Digital Currency for Uganda

NATIONAL PAYMENT SYSTEMS DEPARTMENT, BANK OF UGANDA

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LIST OF ABBREVIATIONS

ACH	Automated Clearing House
AML	Anti-Money Laundering
BOU	Bank of Uganda
CBDC	Central Bank Digital Currency
COMESA	Common Market for the East and Southern Africa
CSD	Central Securities Depository
DLT	Distributed ledger technology
EAC	East African Community
EFT	Electronic Funds Transfer
EAPS	East African Payment Systems
GDP	Gross Domestic Product
MDAs	Ministries, Departments and Agencies
MMSPs	Mobile money service providers
MNOs	Mobile network operators
NFTs	non-fungible tokens
NGOs	Non-governmental Organisations
POS	Point of sale
PSOs	Payment System Operators
PSPs	Payment Service Providers
REPSS	Regional Payments and Settlement Systems
SFI	Supervised Financial Institutions
UNISS	Uganda National Interbank Settlement System

EXECUTIVE SUMMARY

Purpose of the Consultation

The purpose of the consultation was to assess stakeholder views on the potential issuance of a Central Bank Digital Currency (CBDC) in Uganda. The issuance of a CBDC would aid in modernizing Uganda's payment systems, fostering financial inclusion, and supporting the digital economy.

Methodology and Respondents

The methodology employed for the 2024 stakeholder consultation on CBDC for Uganda included the design of the questionnaire, sample selection, data collection, editing, analysis and report writing. The respondents were government Ministries, Departments and Agencies (MDAs), financial institutions, non-government organisations and non-resident entities.

Key Findings

The findings of the consultation were validated by stakeholders in a workshop held on March 04, 2025.

The key findings indicated that **83.4%** of respondents trust a CBDC as a safe and reliable digital payment method, **78.8%** would prefer using a CBDC over cash, **88.7%** agree that a CBDC would have a positive impact on the economy, **70.9%** believe it would reduce currency-related costs and **60.3%** think Uganda's decision should be influenced by other countries, particularly East African Community (EAC) partner states.

Opportunities Identified

The opportunities identified with the issuance of a CBDC include the following:

a) Cost reduction in managing and distributing physical currency.
b) Increased financial inclusion by reaching underserved populations.
c) Enhanced payment efficiency, innovation, and security.
d) Improved cross-border trade and regional financial integration.

Challenges Highlighted

The challenges highlighted with the issuance of a CBDC include the following:

a) Inadequate infrastructure: unreliable internet, electricity issues, and low smartphone penetration.
b) Cybersecurity concerns and risks to data privacy.
c) Potential negative impact on commercial banks and the informal sector.
d) Limited public awareness and digital literacy.

Stakeholder Preferences

Support for a **general purpose (retail) CBDC** as the preferred model to promote inclusive and streamline payments.

Mixed opinions on the design where 52.3% preferred token-based as opposed to 47.7% that preferred account-based. Some respondents suggested a hybrid model.

Regional and Global Context

Respondents cited the importance of aligning with regional developments in the EAC for interoperability and regulatory harmonization and monitoring international best practices and lessons from other countries issuing CBDCs.

Policy Considerations

a) Need for a robust legal and regulatory framework to guide CBDC issuance and usage.
b) Importance of balancing privacy with compliance, particularly in combating financial crimes.

Recommendations

Our overall assessment is that the potential issuance of a CBDC in Uganda warrants consideration and further study. We recommend a phased approach that would include the following key activities.

a) Conduct a detailed feasibility study to assess the costs and benefits.
b) Contingent on (c) above, undertake a pilot program to be tested under the regulatory sandbox. This will involve further stakeholder consultations to refine the design principles and raise public awareness.

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

The concept of a Central Bank Digital Currency (CBDC) was first proposed more than three decades ago by Nobel laureate James Tobin. The idea was that central banks should create a public payment "medium with the convenience of deposits and the safety of currency" (Tobin, 1987). However, viewpoints of whether central banks should issue CBDCs increased markedly with the digital transformation across the different sectors including financial sector. Financial technology companies ("FinTech") and large digital platforms ("BigTechs") are increasingly pushing into a market traditionally dominated by banks. At the same time, the development of distributed ledger technology (DLT) has spurred the creation of digital assets including cryptocurrencies and non-fungible tokens (NFTs). In consonance with these technological developments and the need to preserve access to public money, while maintaining currency sovereignty, safety and resilience of the payments and financial systems, Central Banks all over the world are exploring the use of technology to fast-track the development of the digital versions of their official national currencies.

As of March 2025, 134 countries had either launched, piloted or are exploring CBDC[1]. In Africa, the Central Bank of Nigeria launched the *"e-Naira",* in 2021 while the Bank of Ghana piloted the "e-Cedi" in the same year (Kiff, 2024). In the East African Community (EAC), Rwanda and Tanzania are exploring CBDCs while Kenya issued a CBDC discussion paper and deferred its implementation noting that a CBDC it may not be priority for the country in the short to medium term (CBK, 2022). The Bank of Uganda (BOU) acknowledges that introducing a CBDC may represent a significant advancement in payment systems. However, it recognizes potential risks and challenges with this innovation. BOU understands that adopting a CBDC is complex and multidisciplinary, requiring active engagement from all stakeholders, including the private sector. While payment innovations have often been driven by private sector, operating and ensuring payment systems' safety and efficiency has long been a key mandate of central banks. It is against this background that the Bank of Uganda issued a *"Consultation Paper"* to bring to the fore the pertinent issues relating to the development of CBDC.

[1] https://www.atlanticcouncil.org/cbdctracker/

1.2 Objective of CBDC Consultation

The main objective of the consultation was to seek stakeholder views and opinions on the readiness, implications, and potential benefits of issuing a CBDC in Uganda.

1.4 Background

The payment systems ecosystem in Uganda comprises a network of stakeholders both from the public and private sector, infrastructure and the associated technologies, processes, rules and regulations that facilitate transactions. The stakeholders include Bank of Uganda, Government, Commercial Banks, other Financial Institutions, Payment Service Providers (PSPs), Payment System Operators (PSOs) and other FinTech's.
On the other hand, the infrastructure is comprised of the Uganda National Interbank Settlement System (UNISS), the Automated Clearing House (ACH), Central Securities Depository (CSD), and related infrastructure operated by the private sector.

1.4.1 Large Value Payments

Large value payments are mainly processed through UNISS, an interbank electronic payment system which was implemented in February 2005 to facilitate safe, secure and real-time transmission of funds between participating financial institutions. It is a real time gross settlement system, where transactions are settled on a continuous basis during the working hours. As of December 2024, there were twenty-seven (27) registered participants in the UNISS.

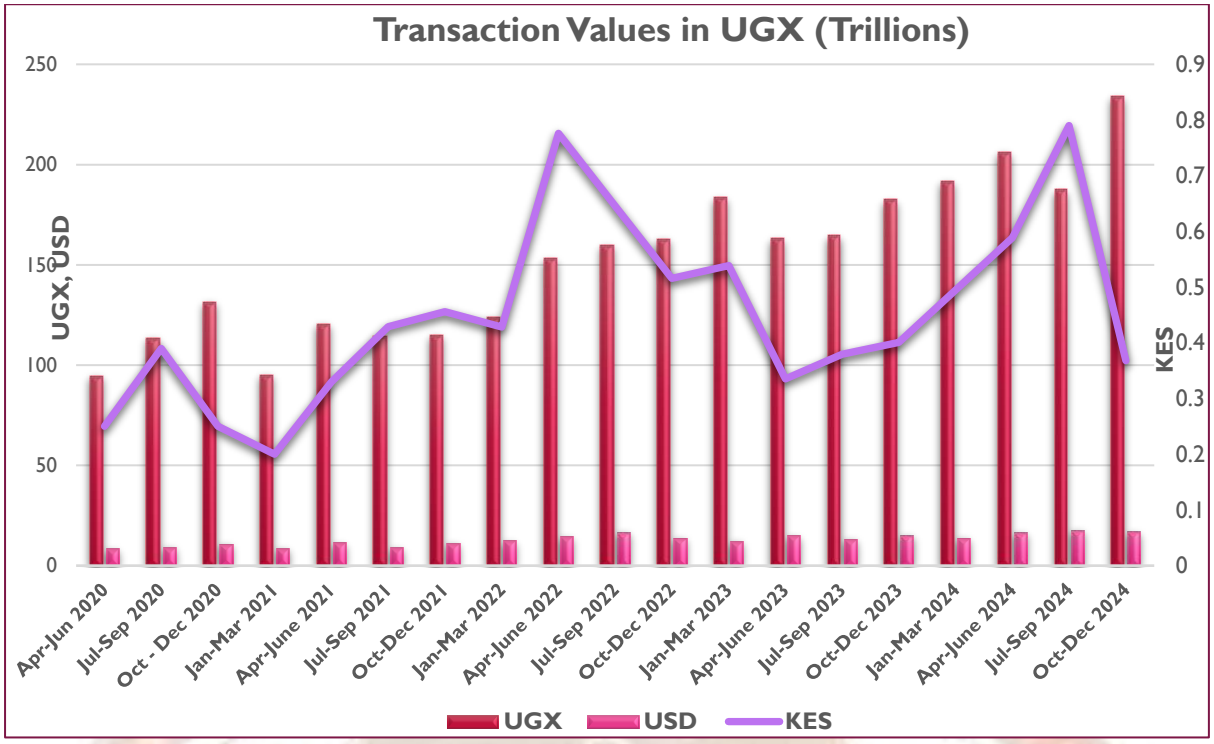
UNISS also supports the East African Payment Systems (EAPS) and the Regional Payments and Settlement Systems (REPSS) which are cross border payments. The EAPS and the facilitate transactions across the East African Community (EAC) and allows transfer of value in the various EAC currencies while REPSS supports the transfer of value across the Common Market for the East and Southern Africa (COMESA), respectively. The settlement of REPSS is currently done in United States Dollars and the Euro.

Over the past four years, there has been a significant increase in the transaction activity on the UNISS perhaps attributed to COVID-19 in 2020. Transaction activity on the UNISS increased notably, posting 22.6% growth in volume from 1.9 million transactions reported in the year ended December 2023 to 2.3 million transactions in the year ending December 2024. Similarly, the quarter-on-quarter comparison reflected a marginal 1.8%

increment in transaction volume from 0.62 million in September 2024 to 0.63 million in December 2024.

The quarterly trend of transactions in UNISS during the past three years is reflected in Figure 1 .

Figure 1: Quarterly Transaction Values on UNISS (UGX. Trillion)

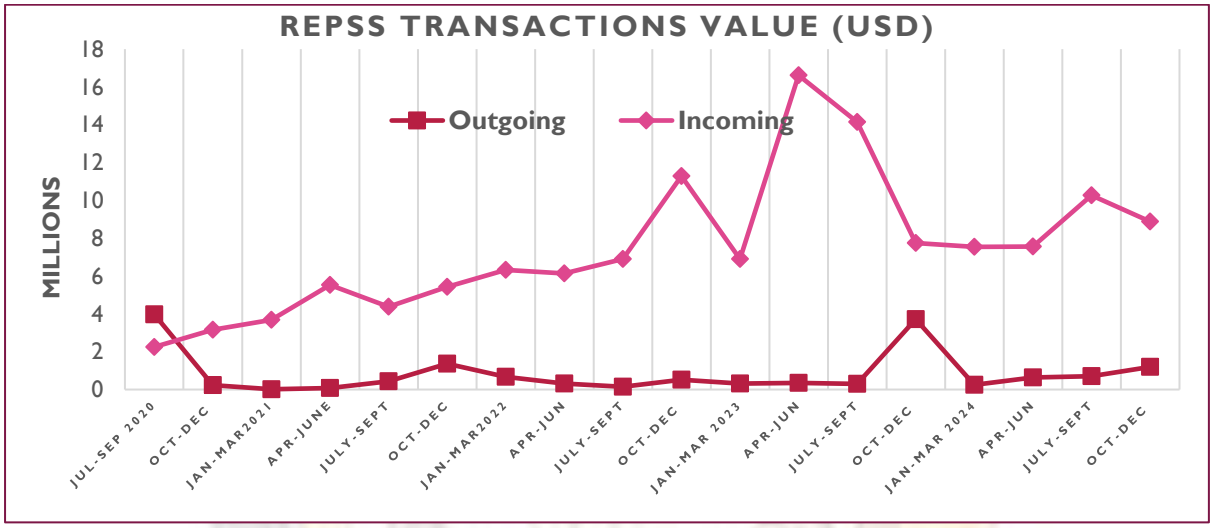


Source: *Bank of Uganda*

East African Payment System (EAPS) is a system that links existing RTGS systems of the participating Central Banks under the East African Community (EAC). The statistics show a 30% increase in inbound EAPS transaction values from UGX 1.01 trillion posted in the year ending December 2023 to UGX 1.31 trillion in the year to December 2024.

As at end December 2024, nine (9) countries were live on REPSS namely: Democratic Republic of Congo, Egypt, Kenya, Mauritius, Malawi, Rwanda, Swaziland, Uganda and Zambia however transaction value remains low compared to other systems. The overall transaction value on REPSS remains low compared to other systems. Figure 2 below depicts quarterly trends in in/out bound transactions values on REPSS.

Figure 2: Quarterly Transactions Values on REPSS (US$)



Source: *Bank of Uganda*

During the reporting period, the transaction volume on REPSS decreased by 9.3% from 964 transactions in the year ending December 2023 to 874 transactions in the twelve months ending December 2024 while the transaction values decreased by 18.2% from USD 51.1 million to USD 41.8 million over the same period.

1.4.2 Retail Payments

Automated Clearing House

The Automated Clearing House (ACH) is a batch processing system which processes both debit and credit Electronic Funds Transfers (EFTs) and cheques in five (5) currencies namely Uganda Shilling, US dollar, Euro, Pound Sterling, and the Kenya Shilling. The EFT system provides fast, convenient, reliable and secure domestic payment and collection of funds.

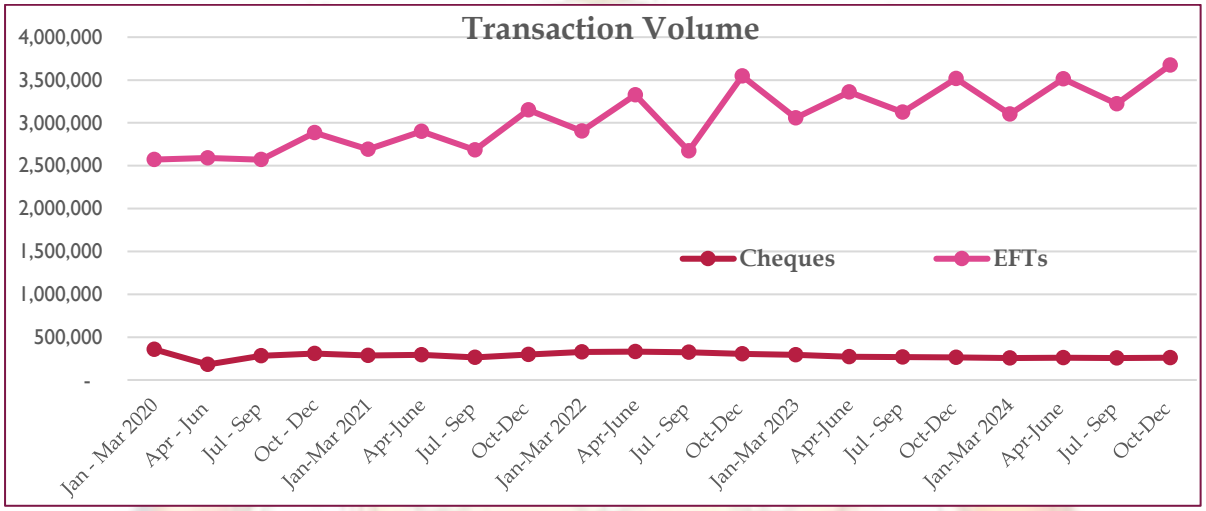
EFTs are predominantly used by government and companies to transfer salary payments to their employees/beneficiary accounts. Payment using this channel has picked up both in volumes and values, especially after capping cheque limits at UGX. 10 million in January 2022 to support growth in electronic payments.

The EFTs posted a 2.3% increment in transaction value from UGX 59.4 trillion in the preceding year to UGX 60.8 trillion in the year ending December 2024. Similarly, the volume increased by 3.4% from 13.1 million to 13.5 million over the same period. On a quarterly basis, the EFT values were relatively stable at UGX 15.4 trillion in the quarter

ended December 2024 compared to UGX 15.3 trillion in the quarter ended September 2024.

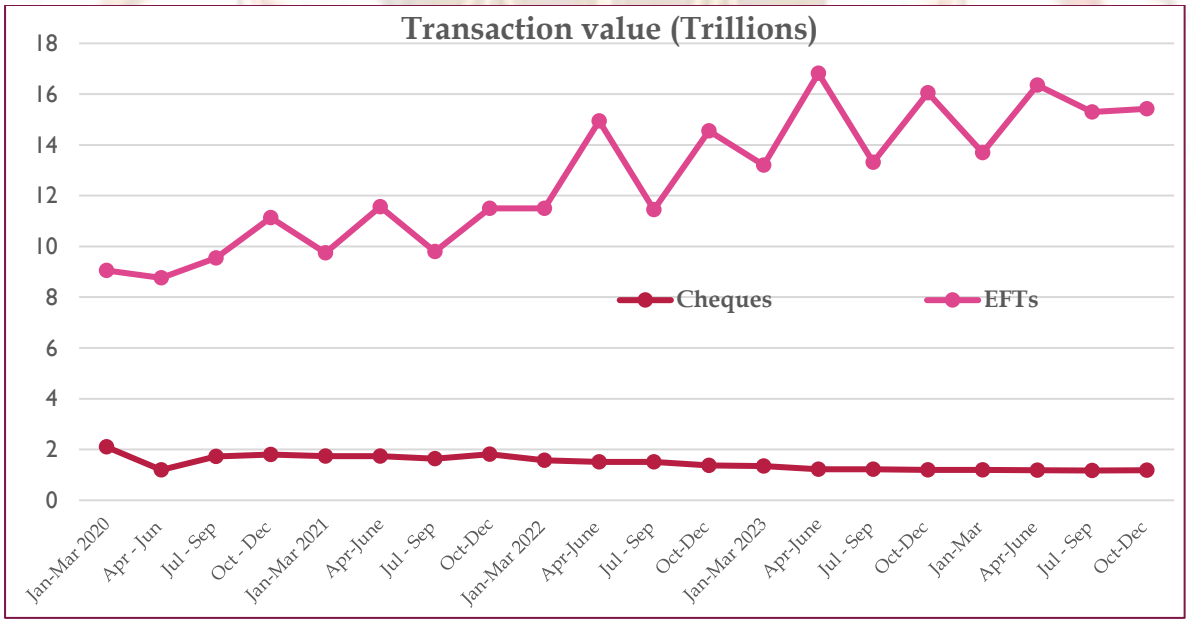
Overall, the cheques accounted for only 6.6% of the transaction volume and 7.1% of the transaction values in the quarter under review compared to 7% and 7% respectively, in December 2023. This decline in use reflects increased public adoption of EFTs and other digital payment channels. The transaction trends in EFTs and ACH are shown in Figures 3 and 4 below.

Figure 3: Quarterly Trends in Cheque and EFT Transaction



Source: *Bank of Uganda*

Figure 4: Quarterly Trends in Cheque and EFT Transaction Value (UGX. Trillion)

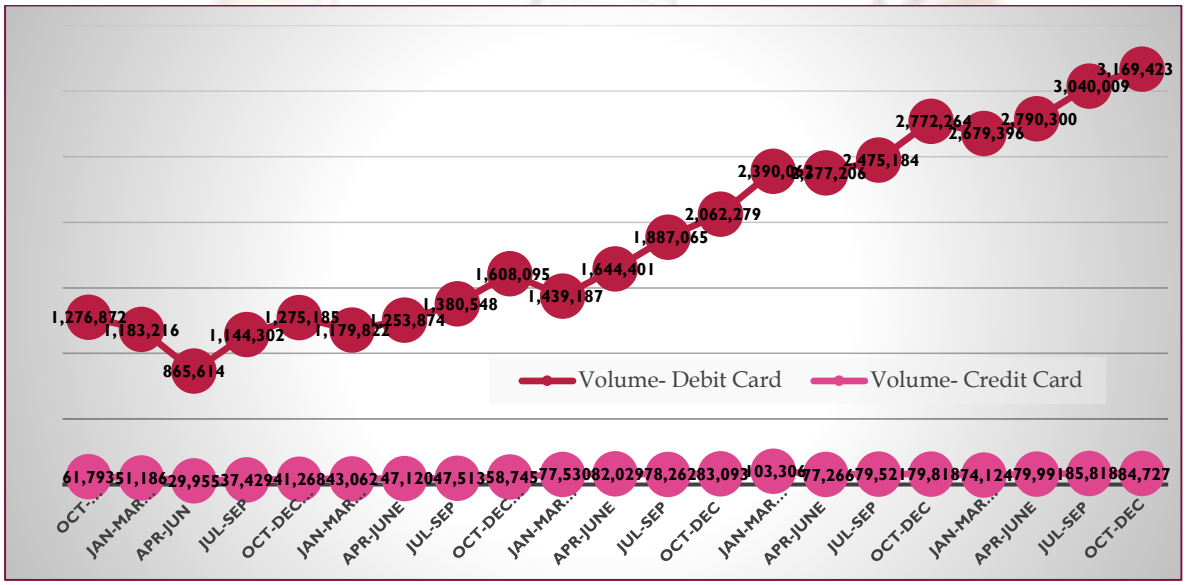


Source: *Bank of Uganda*

Payment Cards

Payment cards are issued by financial institutions and can be categorised in three forms: credit cards; debit cards; and prepaid or stored-value cards, which are loaded with value before the purchase of goods or services occurs. Financial institutions issue and distribute these cards, clear and settle the associated payments, and act as, or sponsor merchant acquirers. Since the onset of the covid pandemic, a significant upturn in card transactions has been noted, with debit cards particularly increasing in popularity and usage as indicated in Figure 5 below.

Figure 5: Trends in Quarterly Volume of Debit and Credit



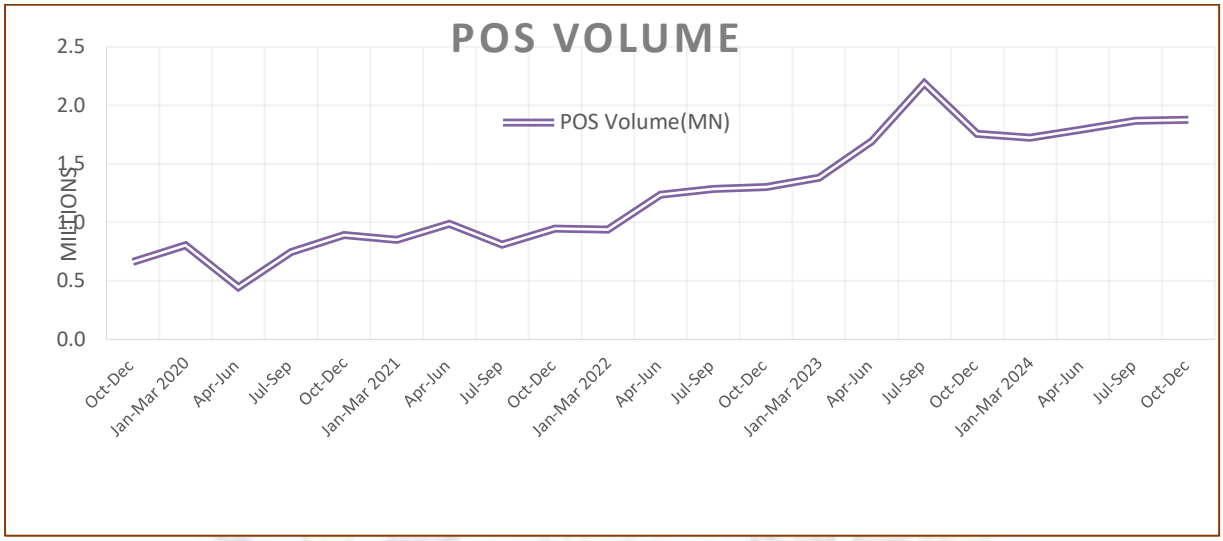
Source: *Bank of Uganda*

The number of active debit cards decreased by 3.8% from 3.8 million cards reported in December 2023 to 3.6 million cards in December 2024. Similarly, the number of active credit cards decreased by 1.6% from 10,061 to 9,903 over the same period. Debit card transaction volumes increased by 15.7% from 10.1 million transactions in the year ending December 2023 to 11.7 million in the year ending December 2024.

Point of sale (POS)

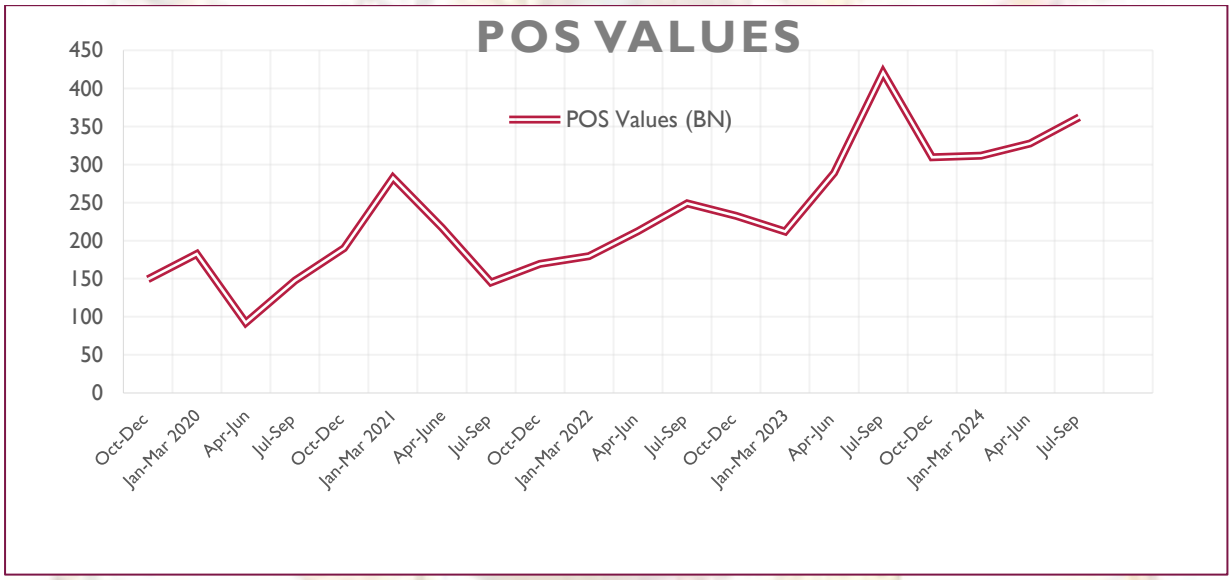
The POS transaction volumes increased by 3.5% from 7 million in the year ending December 2023 to 7.3 million in the year ending December 2024. Similarly, the transaction values increased by 9.9% from UGX 1.2 trillion to UGX 1.35 trillion over the same period as reflected in figures 6 and 7 below.

Figure 6: Quarterly Trends in Transaction Volume at Point of Sale



***Source**: Bank of Uganda*

Figure 7: Quarterly Trends in Transaction Values at Point of Sale



***Source**: Bank of Uganda*

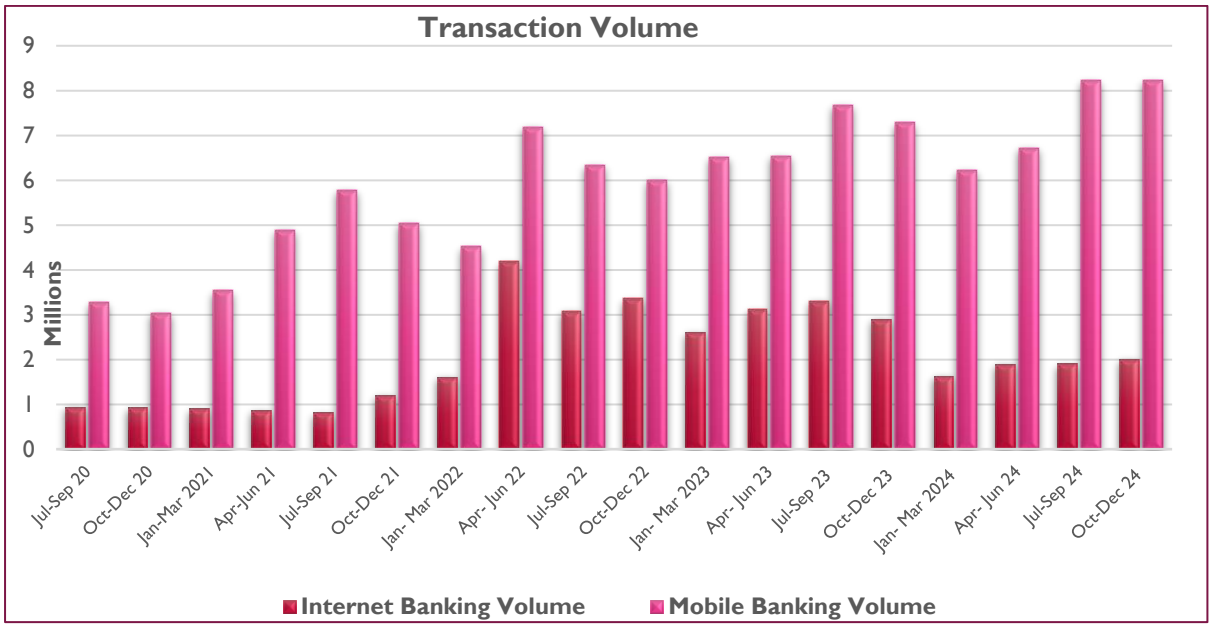
Internet and Mobile Banking

The number of active Internet Banking users decreased by 36% from 1.4 million in December 2023 to 0.9 million in December 2024. Similarly, the transaction volumes decreased by 37.4% from 11.9 million transactions to 7.4 million transactions over the same period.

The number of active users on mobile banking decreased by 17% from 2.4 million users in December 2023 to 2 million users in December 2024. The transaction volume

increased by 5% from 28 million transactions in the year ending December 2023 to 29.4 million transactions in the year to December 2024 indicating increased usage of digital banking channels as depicted in Figure 8 below.

Figure 8: Quarterly Trends in Transaction Volumes for Internet and Mobile Banking



***Source**: Bank of Uganda*

Mobile Money

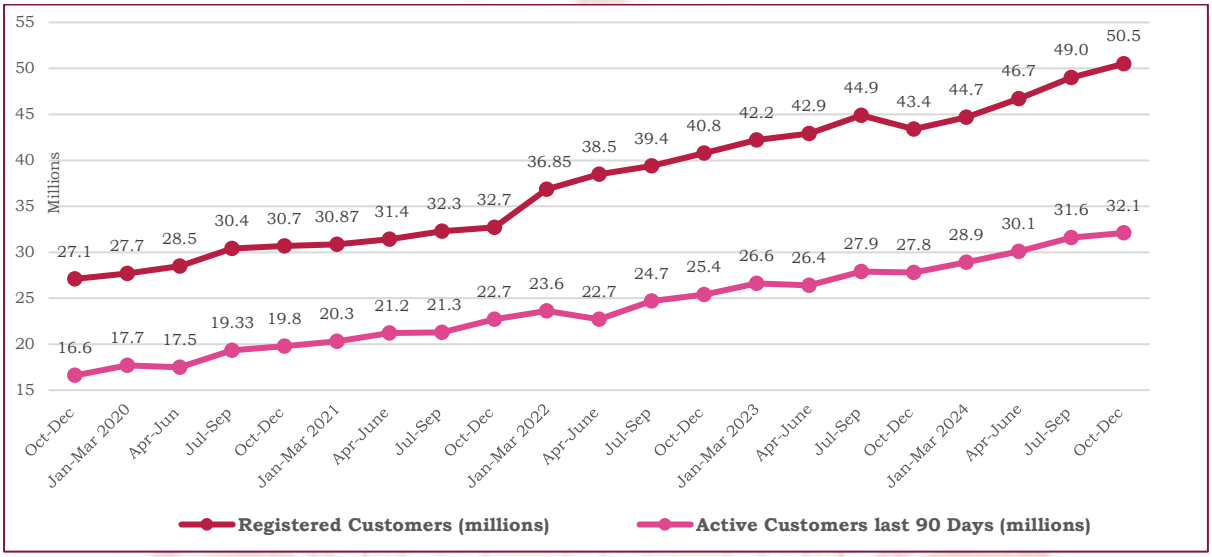
As at end December 2024, there were thirteen (13) issuers of electronic money that had enlisted the services of 914,556 agents representing a considerable increase of 31.2% compared to 697,337 agents reported in December 2023. As at reporting date, the cumulative number of registered customers stood at 50.5 million in December 2024 reflecting a 16.4% increase from 43.4 million in December 2023. The

Electronic money transaction values increased significantly by 24.7% during the year from UGX 229.1 trillion in the twelve months ending December 2023 to UGX 285.83 trillion in the year to December 2024. Similarly, the volumes notably increased by 22.1% from 6.4 billion transactions to 7.8 billion during the same period.

Figure 9 depicts the trends in mobile money registered customers.

As of the reporting date, the cumulative number of registered customers stood at 50.5 million in December 2024, reflecting a 16.4% increase from 43.4 million in December 2023. The number of active customers (who had transacted at least once in the preceding three months) increased from 27.8 million to 32.1 million over the same period. The analysis further shows that as of the end of December 2024, 31.6 million active e-money accounts were held by a total of 24.58 million NIN holders.

Figure 9: Trends in Mobile Money Registered Customers



Source: *Bank of Uganda*

2 METHODOLOGY

The methodology employed for the 2024 stakeholder consultation on CBDC for Uganda included the design of the questionnaire, sample selection, data collection, editing, analysis and report writing. Each aspect of the consultation activity is detailed below.

2.1 Scope and coverage

In terms of coverage, the data were collected mainly from government Ministries, Departments, and Agencies (MDAs), financial institutions, non-governmental organisations, consultancy firms, private companies, and non-resident entities. The choice of sampling frame was driven by the belief that the institutions and individuals contacted would be more informed to provide views as regards the possibility of Bank of Uganda issuing a CBDC.

2.2 Sample Selection and Response

The respondents were selected using purposive sampling techniques. Purposive sampling was utilized to identify and select participants who met specific criteria relevant to the study objectives. This sampling technique allowed for targeting of respondents who were most likely to provide insightful and relevant information for the consultation.

2.3 Survey Instrument

The semi-structured questionnaire was designed using Microsoft form to collect quantitative and qualitative data. In addition, an extensive peer review of the instrument was conducted. The survey instrument was accompanied by a detailed consultation paper and a set of Frequently Ask Questions (FAQs) on the CBDC to give a broader perspective and background to guide respondents while answering the questionnaire.

2.4 Data collection and processing

The survey remained accessible online for two months. Responses were automatically recorded and securely stored through Microsoft forms. The BOU survey team facilitated the data capturing, editing, analysis, and preparation of the final survey report.

3. FINDINGS

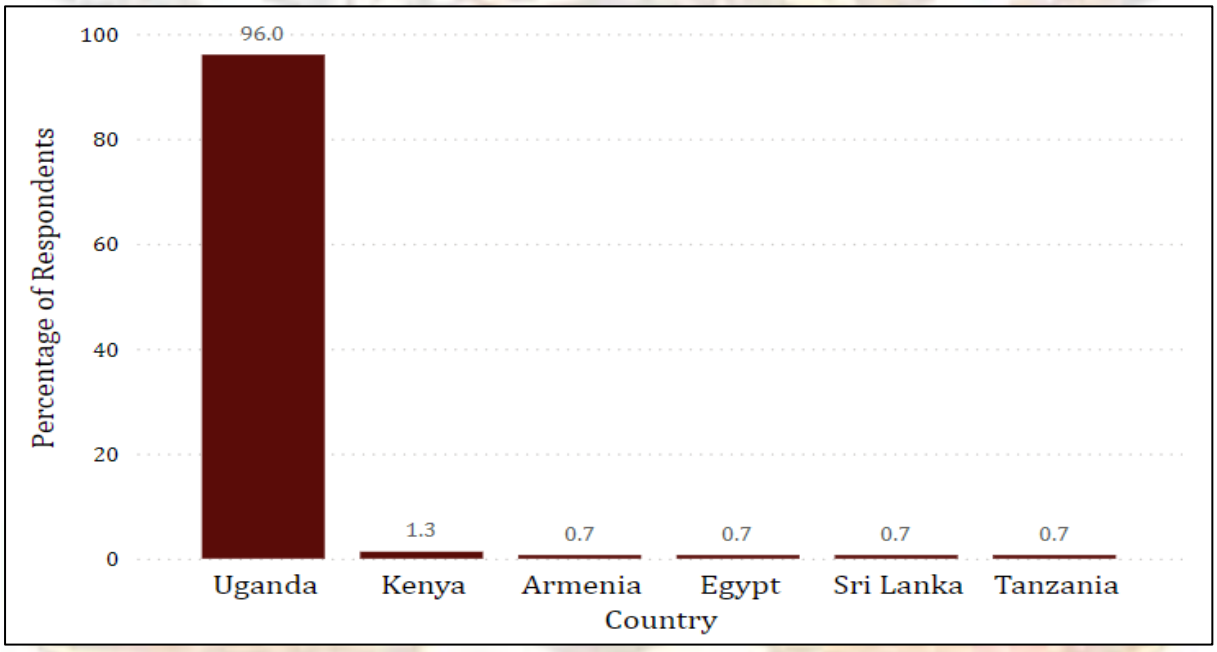
The survey yielded responses from a total of one hundred fifty-one (151) respondents. The specific findings and their implications are discussed below. These findings were validated by stakeholders in a workshop convened by the Bank of Uganda on March 04, 2025. The excerpt of the workshop deliberations is in appendix I.

3.1 Respondents Profile

3.1.1 Location of Respondents

Majority of the respondents (96.0 percent) were based in Uganda, while only 4.0 percent of the respondents were from other countries specifically Kenya, Armenia, Egypt, Sri Lanka and Tanzania as depicted in figure 10 below.

Figure 10: Location of Respondents

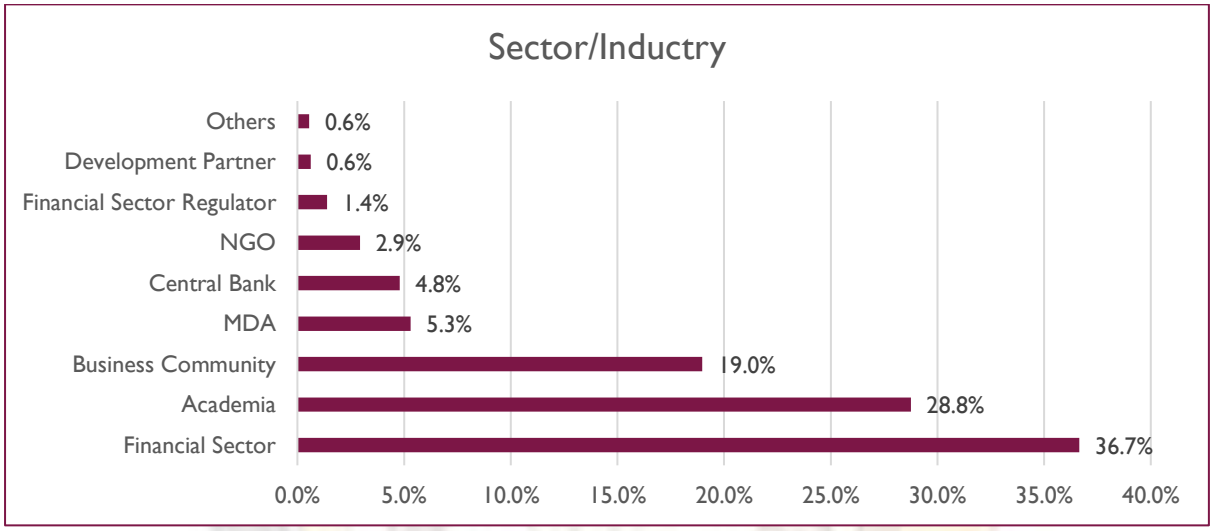


Source: *Bank of Uganda*

3.1.2 Respondents' sector

The respondents were mainly from the financial Sector (36.7%), followed by Academia at 28.8% and the Business Community at 19%. Government representation is evident through the Ministry/Department/Agency at 5.3% and other Central Banks at 4.8%. Non-governmental Organizations, Financial Sector Regulators, and Development Partners constitute smaller portions, with 2.9%, 1.4%, and 0.6% respectively. Details are in figure 11 below.

Figure 11: Respondents' sector

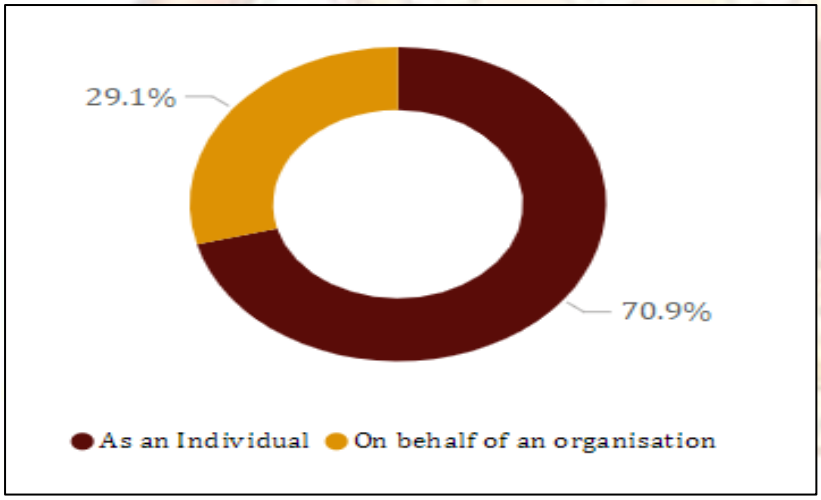


Source: *Bank of Uganda*

3.1.3 Respondent Category

The results from the consultation revealed that 70.9 percent of the respondents participated in the exercise on their own, while the remaining 29.1 percent responded on behalf of their organizations. This is illustrated in figure 12 below.

Figure 12: Respondent Category

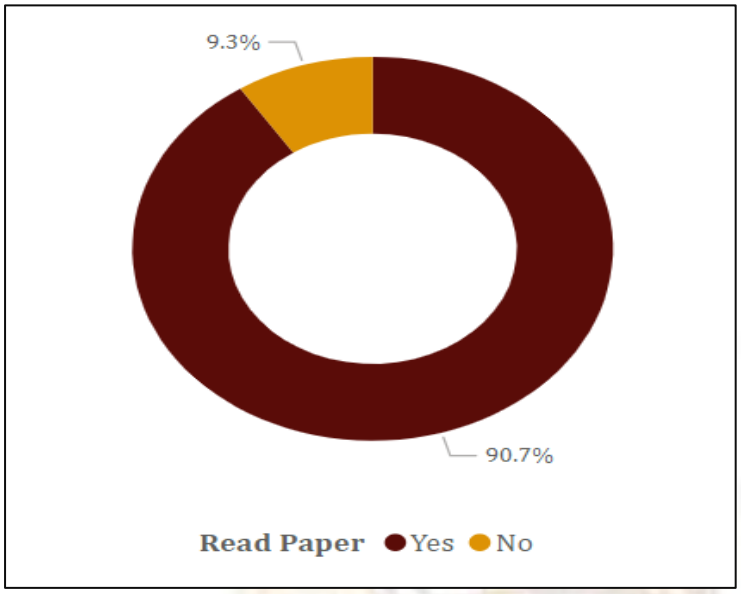


Source: *Bank of Uganda*

3.1.4 CBDC Consultation paper review prior to survey response

To improve the quality of the responses, respondents were urged to read the consultation paper and FAQs prior to completing the questions. The survey results revealed that 90.7 percent read the CBDC consultation paper prior to completing the questionnaire.

Figure 13: CBDC Consultation paper review prior to survey response



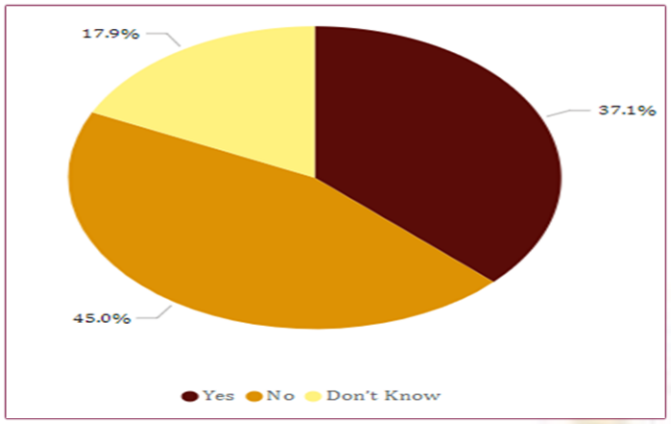
Source: *Bank of Uganda*

3.2 Infrastructure

Implementation of a CBDC would require the creation of the necessary infrastructure, which would likely comprise similar elements and underlying functions as traditional payment systems, with central banks facing many of the practical policy questions around access, services, and structure of the system. The core system would comprise an operator and participants as well as the instruments, procedures, and rules for transferring funds and risk management procedures. The broader ecosystem would also include end-users and technical processing and supporting infrastructure providers, as well as appropriate legal, supervisory and contractual arrangements.

BOU sought views from the stakeholders on whether there exists the requisite infrastructure for issuance of a CBDC in Uganda. The survey highlighted diverse perspectives on adequacy of infrastructure to support a Central Bank Digital Currency (CBDC). 45.0 percent of the respondents indicated that the current infrastructure is inadequate for CBDC issuance and utilization, while 37.1 percent felt it was sufficient, and 17.9 percent were uncertain about the infrastructure's adequacy as illustrated in the figure 14 below.

Figure 14: Adequacy of Infrastructure to Support Issuance of CBDC in Uganda



***Source**: Bank of Uganda*

Several respondents pointed to some of the challenges that could hinder CBDC implementation including:

a) Unreliable internet connection and limited network coverage in rural areas.
b) Inconsistent electricity supply, particularly in underserved regions.
c) Low smartphone penetration and the high cost of digital devices, especially for rural populations.
d) Weak cyber security and insufficient measures to combat cybercrime.

Conversely, respondents pointed the following areas that demonstrate Uganda's readiness for CBDC adoption:

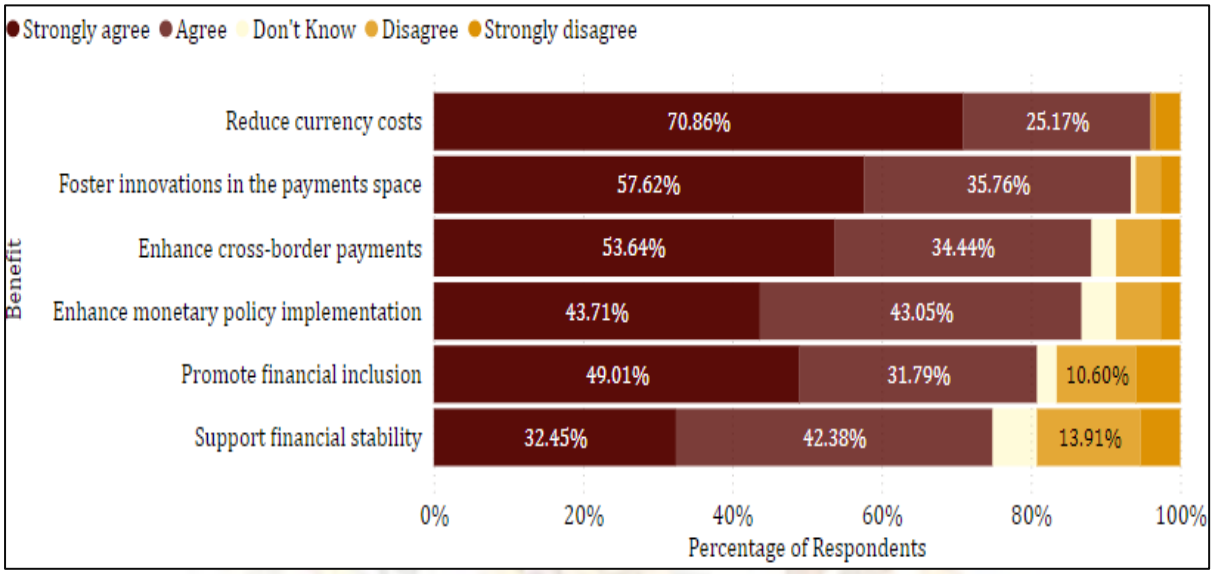
a) The widespread adoption of mobile money in Uganda laying a strong foundation for transitioning to CBDCs.
b) The growing use of smartphones, especially among younger populations.
c) Platforms like the Uganda National Interbank Settlement System (UNISS) and partnerships with fintech players.

3.3 Motivation and challenges

3.3.1 Benefits and Motivations for issuance of a CBDC in Uganda

Respondents were asked for their opinion on the benefits and motivations for CBDC issuance in Uganda. The findings revealed that 70.9 percent of respondents think that the introduction of a CBDC would reduce currency-related costs. Additionally, 57.6 percent and 53.6 percent perceived a CBDC as having the potential to foster innovation in the payment systems sector and enhance cross-border payment processes respectively.

Figure 15: Benefits and Motivations for CBDC Issuance in Uganda



Source: *Bank of Uganda*

Furthermore, 49.0 percent of respondents indicated that CBDC issuance could promote financial inclusion. However, fewer respondents recognized the potential macroeconomic benefits, with only 43.7 percent suggesting that CBDCs could improve monetary policy implementation and 32.5 percent believing they could support financial stability. This is illustrated in the figure 15 above.

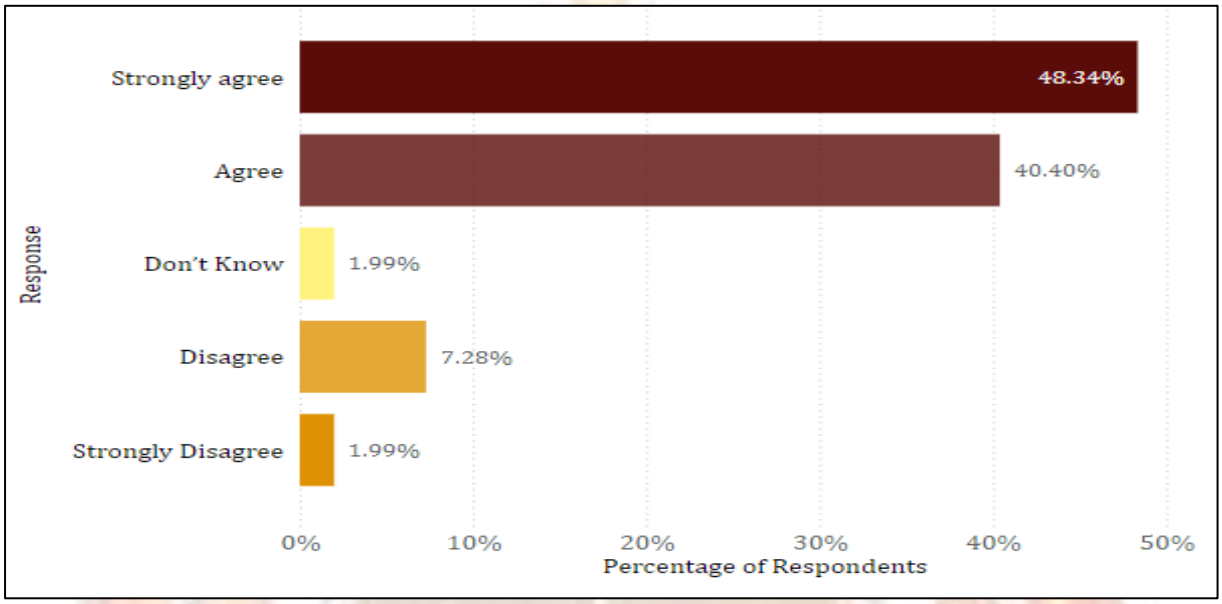
The survey also sought from respondents if there were other benefits of issuing a CBDC in Uganda other than those highlighted above. 62.9 percent of respondents indicated the following additional benefits of issuing a CBDC in Uganda:

a) Deepening the digital economy across various sectors by fostering innovation and efficiency in financial services.
b) Making financial transactions more transparent by recording all transactions. This could reduce opportunities for corruption, money laundering, and tax evasion.
c) Improving transaction speed, reliability, and reduced operational risks compared to traditional financial systems.
d) Incentivizing digital payments and bringing more transactions into the formal sector, leading to enhanced effectiveness of fiscal policies and increasing the tax base.

3.3.2 Impact of CBDC issuance on the financial sector in Uganda

The respondents were asked for their opinion on the impact of CBDC issuance on the financial sector in Uganda. The survey results indicated that 88.7 percent of respondents either strongly agree or agree that the issuance of a CBDC would have a positive impact on the economy. Conversely, 9.3 percent expressed skepticism, with responses ranging from disagree to strongly disagree, questioning its potential economic benefits. See Figure 16 below.

Figure 16: Impact of CBDC Issuance on Uganda's Financial Sector



Source: *Bank of Uganda*

The respondents provided the following insights on the potential positive impact of issuing a CBDC on Uganda's economy:

a) Promotion of Innovation and Inclusion:
   - Issuing a CBDC on blockchain technology could spur related applications like land title tracking and asset traceability.
   - It would enhance inclusion by utilising existing mobile money networks and digital platforms to reach unbanked populations, particularly in rural areas.
   - Fostering innovation in payment systems and enabling economic participation for previously excluded individuals.

b) Efficiency and Cost Reduction:
   - CBDC would reduce reliance on physical cash, decreasing costs associated with printing, distributing, and safeguarding money.

- Digital payments through CBDC are perceived as faster, more secure, and reliable, reducing transaction costs for users.

c) Improved Financial Discipline and Transparency:
   - It provides the opportunity to track expenditure and could encourage responsible financial practices.

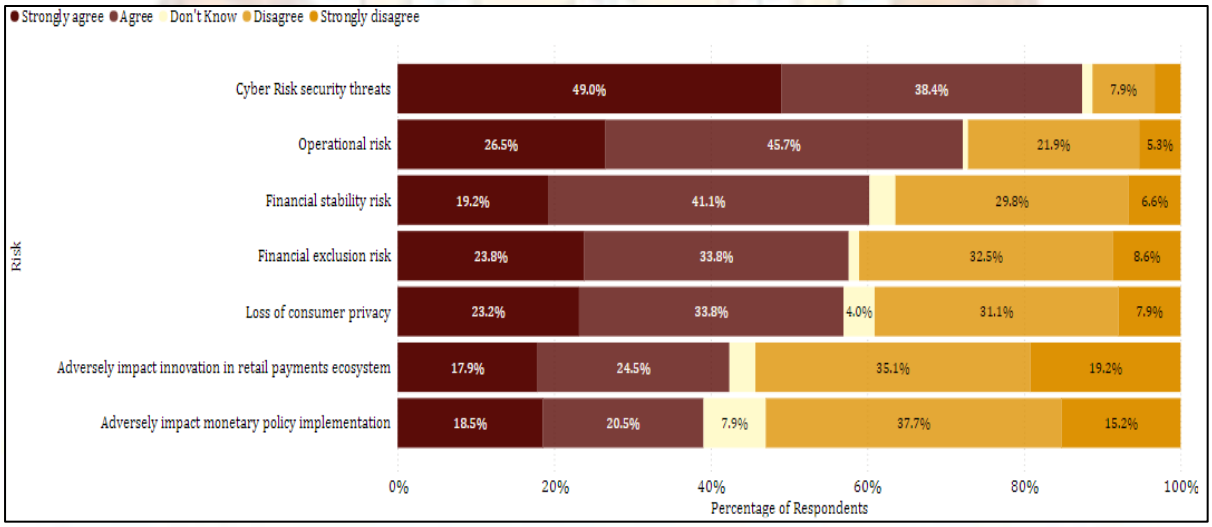
d) Economic Growth and Competitiveness:
   - CBDC could bolster international trade by expediting cross-border payments and fostering economic growth through improved value chain efficiencies.

e) Enhanced Monetary Policy Implementation:
   - Provides the central bank with tools to manage money supply better.
   - complement other digital payment systems, like mobile money and promoting diverse financial options.

3.3.3 Challenges and risks posed by the issuance of a CBDC

Respondents were asked to rate their agreement or disagreement on the potential challenges arising from CBDC issuance. The results are illustrated in figure 18 below.

Figure 17: Perceived Challenges and Risks Associated with CBDC Issuance



Source: *Bank of Uganda*

a) **Cyber Risk Security Threats**: This was the most acknowledged risk from CBDC implementation, with 87.4 percent agreeing or strongly agreeing. Respondent's comments indicated that Uganda's technological gaps, the low levels of cyber security awareness, and the volume and velocity of transactions could make CBDC a prime target for cybercriminals. Respondents stressed the importance of user education to address gaps in cyber security awareness. Several comments highlighted that while

cyber risks are inevitable with advancing technology, they can be mitigated through the cyber security management frameworks including regular risk assessments and use of appropriate technologies.

b) **Operational Risk**: A combined 72.2 percent agree that operational risks are a key concern arising from CBDC implementation. Respondents highlighted challenges such as power instability, system downtime, and the need for adequate infrastructure to ensure smooth operations. Some comments suggested the use of dedicated servers and distributed ledger systems to reduce risks. Additionally, respondents stressed the need for well-designed operational frameworks to minimize disruptions, especially in a developing market like Uganda. Overall, operational risks were seen as significant but manageable with the right investments in infrastructure and technology.

c) **Financial Stability Risk**: A significant majority (60.3%) of respondents expressed concern about the potential for destabilization of the financial system, with 19.2% strongly agreeing and 41.1% agreeing. However, a sizable minority (36.4%) disagreed. This divergence of opinions highlights the importance of considering multiple perspectives when designing relevant policies. Respondents highlighted the potential for financial stability risks if deposits shift from commercial banks to the central bank, leading to a reduction in SFI's lending capacity. Some also argued that CBDCs might enhance financial stability by providing better control and monitoring of the money supply if implemented correctly.

On the other hand, respondents indicated that the introduction of CBDC would not have an adverse impact mainly on monetary policy (52.9 percent) and innovation (54.3 percent). The reasons cited for these ratings were to enhance monetary policy by providing better control over the money supply and enabling more adaptive policy measures and foster innovation by improving digital infrastructure and creating opportunities for new payment solutions

Respondents were asked to provide additional CBDC challenges/risks that could be considered. The key concerns highlighted included Uganda's inadequate technological infrastructure, such as poor internet connectivity and unstable power supply, and the high costs of developing and maintaining CBDC infrastructure, digital literacy gaps and inadequate legal frameworks. Concerns about geopolitical implications, environmental

impacts of CBDC-supporting technology, and the risk of economic displacement for cash-reliant informal businesses were also raised. Additionally, potential disruptions to existing payment systems and resistance from stakeholders, including mobile money operators, were identified.

3.3.4 Impact of CBDC on Uganda's Economy

The consultation paper sought views from the public on whether the introduction of a CBDC would have an impact on Uganda's economy. 88.1 percent of the respondents indicated that the introduction of a CBDC would have a positive impact on Uganda's economy while 9.9 percent stated that the impact would be negative.

The main reasons cited for the positive impact were:

a) Enhanced Financial Inclusion particularly for the unbanked and underbanked populations by allowing more people to participate in the formal economy.
b) lower the costs of transferring money, improve payment efficiency, and streamline transactions both domestically and internationally.
c) provide the central bank with more tools to implement monetary policy, such as influencing inflation, controlling the money supply, and better financial transparency.
d) reduce the costs associated with printing, transporting, and securing physical currency. This would not only save money but could also reduce opportunities for corruption and fraud.
e) Enhance trust and security in the financial system, providing a safer alternative to cash and mobile money.

The respondents that indicated that introduction of a CBDC would have a negative impact on Uganda's economy mentioned factors such as cybersecurity and privacy risks, disintermediation of commercial banks, challenges in digital literacy, internet penetration, and access to necessary devices, particularly in rural areas among others.

3.3.5 Stance of other countries issuance of a CBDC on Uganda's decision to issue a CBDC

The respondents were asked whether the stance of other countries, particularly the EAC Partner States, issuance of a CBDC should influence Uganda's decision to issue a CBDC. About 60.3 percent of respondents believe Uganda's decision to issue a CBDC should be

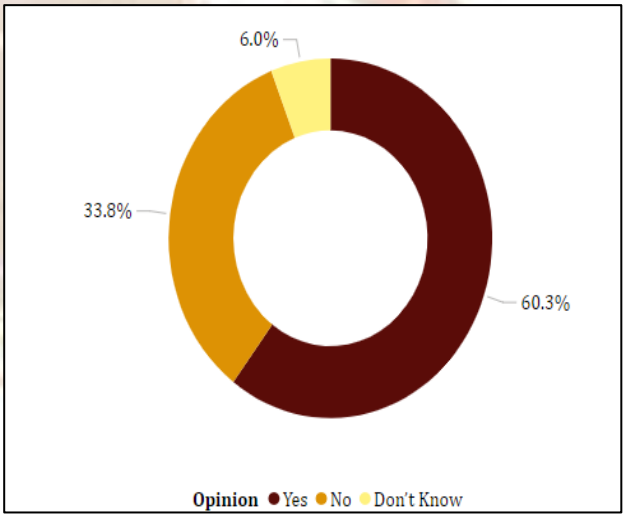
influenced by the stance of EAC Partner States. In contrast, 33.8 percent did not view the positions of other nations as critical to Uganda's decision-making on this issue.

Respondents who supported considering the stance of other countries highlighted Uganda's reliance on its neighbors for trade, exports, and imports. Regional collaboration in adopting a CBDC could simplify cross-border transactions, making them faster, more efficient, and less costly. This aligns with Uganda's participation in the EAC's integration goals, such as the single market and customs union, which aim to promote seamless trade within the region.

Collaboration was seen as essential for the success of a CBDC. Harmonizing financial regulations, ensuring interoperability, and aligning policies across borders were identified as steps that could foster economic growth and inclusion. A CBDC would reduce transaction costs, encourage bilateral trade, and contribute to a more efficient regional financial ecosystem. Moreover, it could enhance transparency, traceability, and the fight against financial crimes, such as money laundering and terrorist financing, while building international confidence in Uganda's financial system.

While Uganda could lead CBDC innovation in the region, respondents noted the importance of learning from other countries' experiences. Coordinating early and building shared infrastructure with EAC Partner States would ensure the widespread acceptance and functionality of digital currencies. A well-executed regional strategy would foster inclusion and expand the benefits of a CBDC to cross-border trade and payments. See figure 18 below.

Figure 18: Stance of other countries in Uganda's CBDC Decision



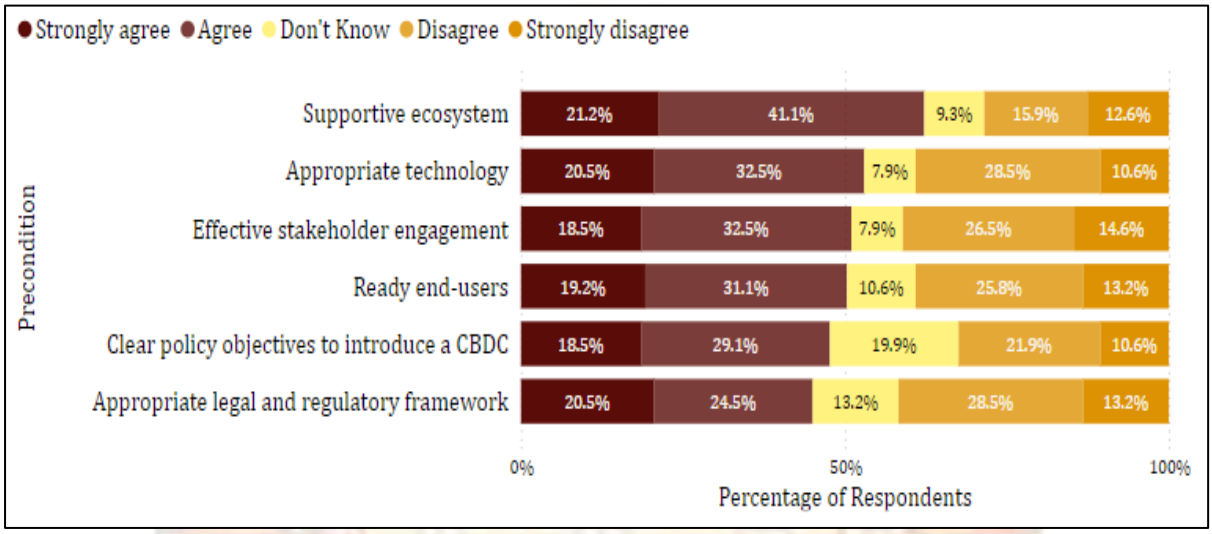
Source: *Bank of Uganda*

3.4 Preconditions for the issuance of a CBDC

3.4.1 Preconditions for issuance of a CBDC in Uganda

Respondents were asked to assess whether there are preconditions for the issuance of a CBDC. The responses are visualized in figure 19 below.

Figure 19: Perceptions on Preconditions for CBDC Issuance in Uganda



Source: *Bank of Uganda*

The three top-most-mentioned conditions were supportive eco system, appropriate technology and effective stakeholder engagement. Respondents noted that Uganda has a strong foundation with mobile money services, electronic platforms, and digital payment infrastructure and Bank of Uganda's proactive and inclusive stakeholder engagements. The survey also sought comments on whether there are other CBDC preconditions that could be considered. Some of the responses were:

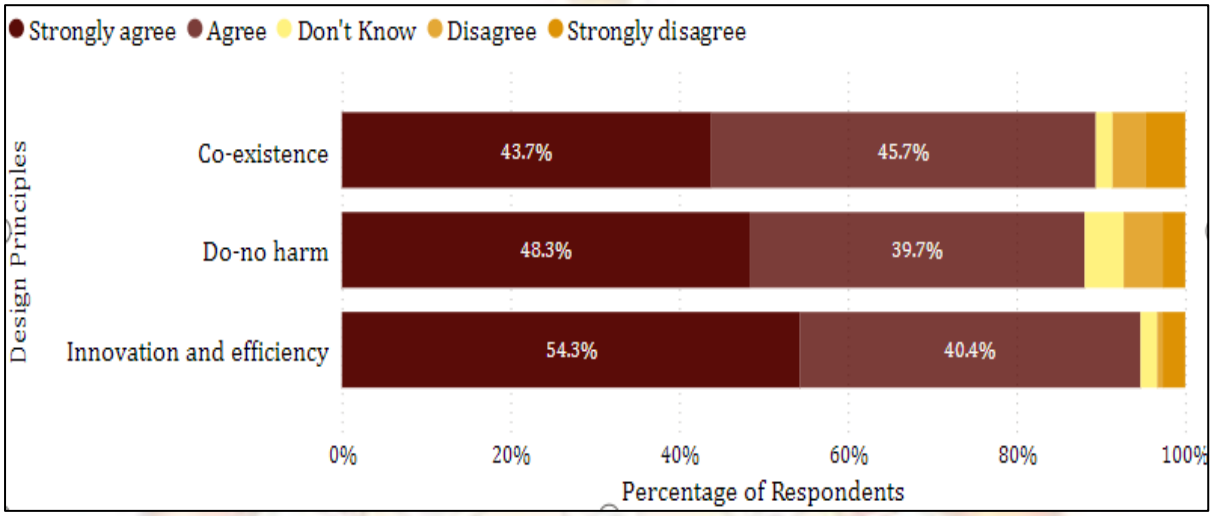
a) Supportive infrastructure, including widespread internet access, stable power, and interoperable systems,
b) Public awareness and education to address gaps in digital literacy and inform citizens about the benefits and risks of CBDCs, especially among marginalized groups.
c) The involvement of fintech companies and other stakeholders in planning and implementation, as well as pilot programs to refine strategies.
d) Strong cybersecurity measures to protect against fraud and data breaches, alongside clear frameworks for privacy and data governance.
e) Economic considerations, including potential impacts on inflation, exchange rates, and financial stability
f) Environmental and energy implications, as well as the scalability and adaptability of the CBDC system to address future needs.

3.5 Design principles and core features

3.5.1 CBDC design principles

Respondents were asked to rate the level of agreement with the assertion that the following principles (co-existence[2], do no harm[3] and innovation & efficiency[4]) were relevant to the design of a CBDC as illustrated in figure 20 below.

Figure 20: Respondents' Agreement with CBDC Design Principles



Source: *Bank of Uganda*

The innovation and efficiency principle were the most strongly supported with 94.7 percent, followed by co-existence with 89.4 percent and do-no-harm garnering 88.0 percent of the respondents. The reasons cited for the ratings of the CBDC design principles were:

a) Technological advancement, foster competition and improve the efficiency of payment systems.
b) Integration with existing payment systems, such as cash, mobile money, and bank transfers.
c) Gradual adoption to allow end-users to adapt at their own pace.
d) It must not harm financial stability, undermine public trust in the financial system, protect privacy and ensure that it does not lead to financial exclusion.

[2] Different types of central bank money, i.e., existing (cash and bank reserves) and new (CBDC), should complement one another and co-exist with robust private money (i.e., commercial bank accounts) to support public policy objectives.

[3] New forms of money supplied by the Central Bank should continue supporting the fulfilment of public policy objectives and should not interfere with or impede a Central Bank's ability to carry out its mandate for monetary and financial stability.

[4] The system should provide for continued innovation and competition which should help drive efficiency.

Cautious implementation is crucial to mitigate potential unintended consequences. Respondents also suggested design principles to optimize CBDC implementation in Uganda.

a) Inclusivity, ensuring accessibility for rural and underserved communities through low-cost, simple technologies compatible with basic mobile phones.
b) Privacy and security, with calls for robust encryption, secure data storage, and clear privacy policies to protect users.
c) Scalability and flexibility to ensure that the CBDC system can handle growing transaction volumes and future technological advancements.
d) Sustainability to advocate for energy-efficient systems and minimize environmental impact.
e) Interoperability with existing payment systems.

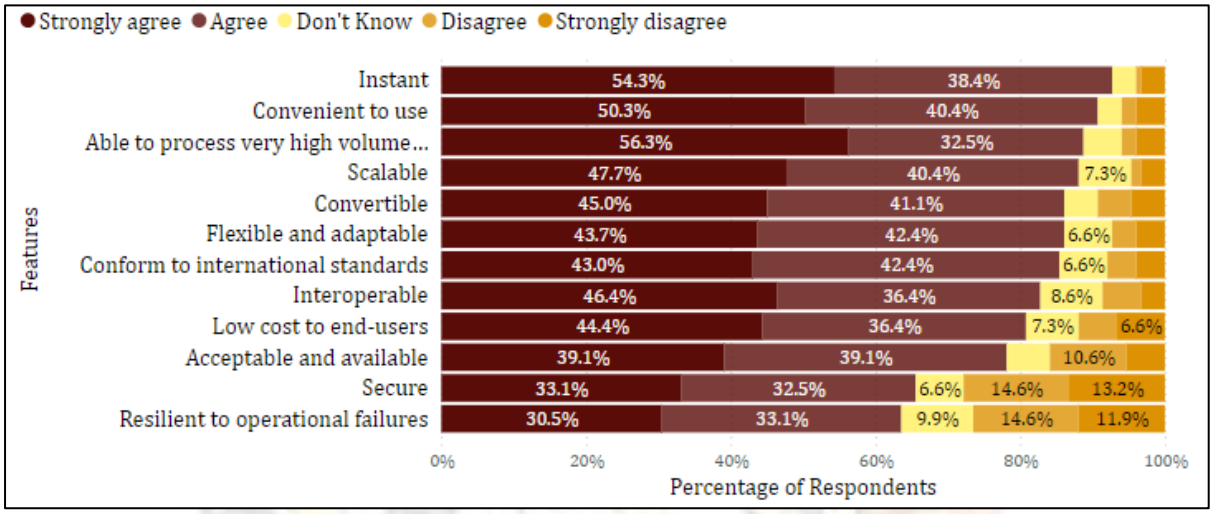
3.5.2 CBDC features

Respondents were asked to rate the level of agreement with the assessment of key features of the CBDC as illustrated in figure 21. Most respondents agreed with the statement on the features of the CBDC but at varying levels.

A total of 92.7 percent agreed that CBDC is instant, followed by convenience of use (90.7%), ability to process very high volumes of transactions (88.8%), scalability (88.1%), convertibility (86.1%), flexibility and adoptability (86.1%), conformity with international standards (82.8%) and low cost to end users (80.8%). However, an average of 6.3 percent of the respondents do not know about each of the features of CBDC.

On the other hand, respondents were not a confident with the features of security and resilience to operational failures.

Figure 21: Assessment of features of the CBDC.



***Source**: Bank of Uganda*

The likelihood that the risk to CBDC using the set of features identified would be minimal. The experience of using mobile money in the last 15 years and trust in Uganda's monetary policy could provide a basis for seamless transition to CBDC. The respondents emphasized the importance of designing a CBDC that is scalable, user-friendly, interoperable, and secure.

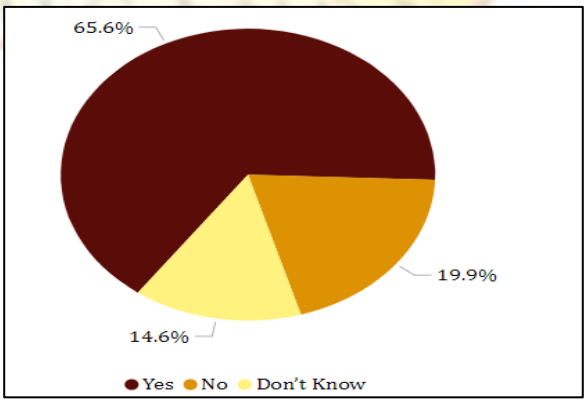
3.6 Models and Design Considerations.

3.6.1 Programmable CBDC

Programmable CBDC enables the currency to be coded with specific rules, restrictions, or conditions on how it can be used, transferred, or stored. Respondents were asked to provide their opinion on whether Uganda should issue of a programmable CBDC.

Figure 22 showed that 65.6 percent of respondents supported issuing a programmable CBDC in Uganda, while 19.9 percent disagreed. However, 14.6 percent of the respondents could not make a choice of whether Uganda should or should not issue a programmable CBDC.

Figure 22: Considerations for issuance of programmable CBDC in Uganda



***Source:** Bank of Uganda*

Respondents that agreed with issuing a programmable CBDC cited the following benefits:

a) Achieving control over conditional payments for specific goods or targeted transfers, smart contracts for more efficient payments.
b) The traceability and transparency to improve measures that combat fraud and money laundering.
c) Implementation of more nuanced monetary policy.
d) Creation of products suitable for the unbanked CBDC which would support financial inclusion,
e) Facilitation of cross border payments through inbuilt features that enhance currency conversion and provide privacy, efficiency and security given the ability to impose restrictions.

The limitations relating to the issuance of a programmable CBDC were identified as follows.

a) Loss of privacy and autonomy due to restrictions on how entities spend their money.
b) Vulnerability to cyberattacks, fraud and manipulation that may erode public confidence and destabilize the monetary system.

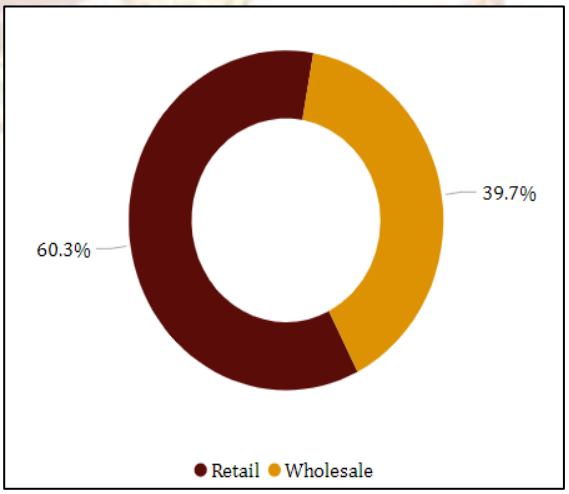
Respondents noted that while there are huge benefits of programmability, there is need to weigh the risks against benefits. The choice will depend on the whether the central bank chooses the wholesale CBDC (more suitable for programmability) or the retail option that prioritizes user autonomy.

3.6.2 Issuance of a general purpose (retail) versus wholesale CBDC

Respondents were asked to provide their views on the preference between the issuance of a general purpose and wholesale CBDC (Figure 23).

Most respondents, 60.3 percent, preferred the general purpose (retail) CBDC, which is usable by the public for day-to-day payment transactions. The remaining 39.7 percent preferred the wholesale form of CBDC, which operates through financial institutions and wholesale transactions.

Figure 23: Preference for general purpose Vs wholesale CBDC



Source: *Bank of Uganda*

Those in support of the general purpose (retail) CBDC argued that.

a) It can directly improve access to financial services for the unbanked, especially in remote rural areas.
b) It can streamline day-to-day transactions directly through the central bank.
c) It can boost digital payment ecosystem and directly benefit the economy through real-time monitoring.

On the other hand, those that preferred wholesale CBDC cited its ability to.

a) enhance efficiency of interbank transfers.
b) reduce counterparty risks.
c) mitigate the risk of disruption from the traditional role of commercial banks while maintaining their intermediary role.

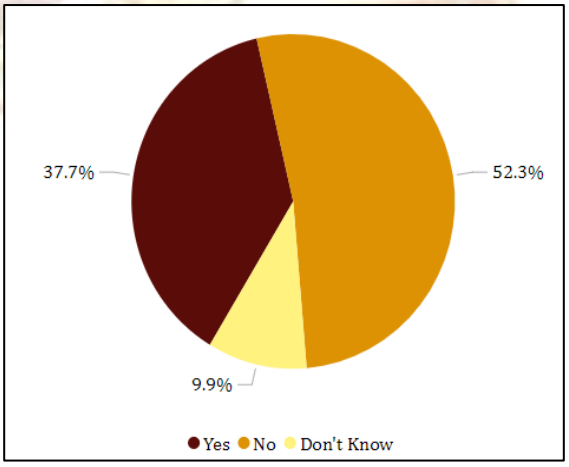
Some of the respondents suggested the issuance of both CBDCs such that the wholesale focuses on the interbank settlement, while the general purpose (retail) would drive digital transactions and inclusion.

3.6.3 Holding of CBDC WITH quantity limits

Only 37.7 percent agree that the central bank should impose a limit on the CBDC holding, a useful approach for preventing systemic risks and ensuring financial stability (Figure 24). However, 52.3 percent did not agree on setting the limits on the CBDC due to operational complexity that could reduce flexibility for users and create public resistance.

The related comments reflect a range of perspectives on the imposition of CBDC quantity limits for end-users. Those in support of limiting the quantity of CBDC accessible to users postulate that by preventing large scale withdrawals, it reduces the risk of bank runs, provides useful tool for monetary policy, deter money laundering, tax evasion, and encourages circulation. Some respondents opposed to limiting the quantity indicated that it would restrict financial freedom and autonomy which may deter adoption due to public mistrust that limits the achievement of financial inclusion and economic stimulation goals.

Figure 24: CBDC with quantity limits



***Source**: Bank of Uganda*

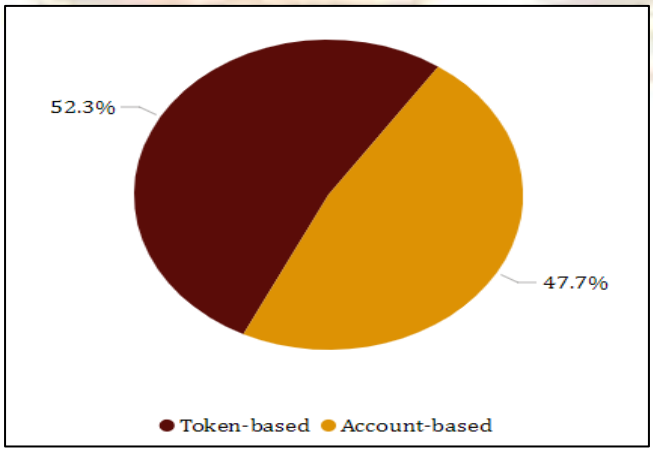
In view of the challenges with restriction of quantity accessible, some respondents suggested that the central bank could adopt a blended strategy starting with temporary limits that could be lifted as the CBDC adoption gains traction. Moreover, there is a need to consider special cases such as high value businesses and those involved in international trade. Alternatively, the BoU could enhance transaction monitoring and regulatory oversight instead of imposing quantity limits.

3.6.4 Account-based or Token-based CBDC

The choice between accounts and token based CBDC is crucial for the design, development, and deployment of the digital currency. Around 52.3 percent of respondents preferred the token-based CBDC system given its benefits in terms of lower centralized control, efficiency in terms of transaction costs, more privacy, and financial inclusion. The other 47.7 percent preferred the digital currency in accounts model that is managed by the central bank or its licensed financial intermediaries.

The comments on ratings reveal varied perspectives on the rationale and challenges of adopting each module. Those preferring token-based CBDC argue it provides convenient transactions that enhance privacy, facilitates adoption, offers cash-like experience and ownership without formal accounts promoting inclusivity, and supports offline transactions that reduce infrastructure investments. While those that support for account-based models attribute it to regulatory tracking and secure authentication, features for consumer protection, ease of integration with the current banking and mobile money systems, implementation of monetary policy and financial stability assessments and option for provision of a range of financial services.

Figure 25: Preference between accounts and token based CBDC



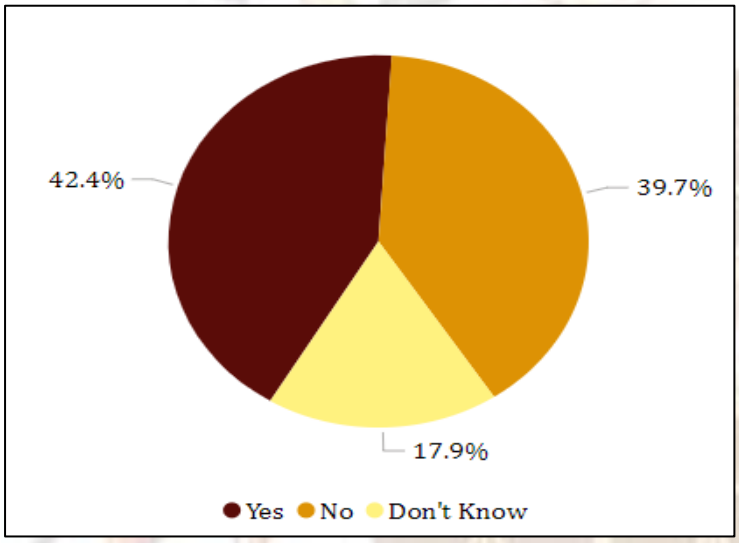
***Source**: Bank of Uganda*

Some respondents suggested combining the two systems, starting with account-based CBDCs for better control and later introducing token-based features for greater accessibility and cash-like functionality. They, however, identified key challenges for the two models. Token-based systems could be exposed to theft or loss of tokens and secure token management. The account-based systems have higher limitations due to the strict KYC requirements and infrastructure needs.

3.6.5 Interest Bearing CBDC

A total of 42.4 percent indicated preference for incorporating interest rates on the CBDC while 39.7 percent did not wish for interest bearing CBDC.

Figure 26: Interest Payment on CBDC



Source: *Bank of Uganda*

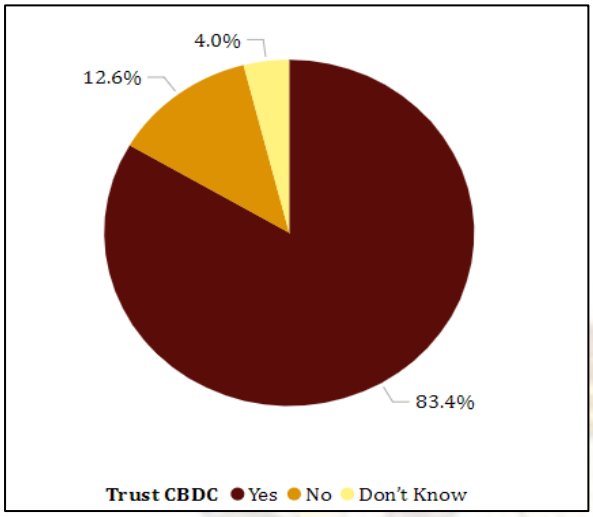
The rationale for the ratings was that interest rates on CBDCs represent a powerful and innovative tool for central banks to directly influence the economy by adjusting the policy interest rates that directly influence aggregate demand.

3.7 Other Issues

3.7.1 Trust in CBDC

Most of the respondents (83.4 percent) indicated that they would trust a CBDC as a safe and reliable form of digital payment while 12.6 percent indicated that they would not, as reflected in figure 27 below.

Figure 27: Trust in CBDC as a Safe and Reliable Digital Payment Method



Source: *Bank of Uganda*

The main reasons mentioned by the respondents for the trust in CBDC include:

a) Bank of Uganda's ability to maintain price and financial stability more especially that CBDCs are like existing digital payment systems like mobile money, which have gained acceptance in Uganda.
b) CBDCs are issued and backed by the central bank.
c) The traceable nature of CBDC transactions ensures that money flows can be monitored, reducing the risk of fraud or corruption.

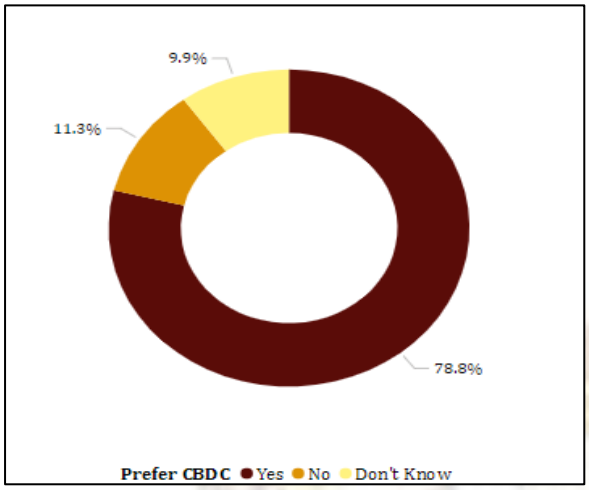
The main reasons mentioned by the respondents for the lack of trust in CBDC were:

a) The risk of cyberattacks, data breaches, and hacking.
b) The lack of privacy fearing that government oversight could lead to excessive surveillance of transactions. This was particularly a concern for individuals wary of potential misuse of data.
c) Potential technical glitches or system failures could disrupt the payment process, especially in regions with unreliable technological infrastructure.

3.7.2 Preference to transact WITH a CBDC over banknotes and coins

78.8 percent of the respondents stated they would prefer transacting using a CBDC over bank notes and coins. 11.3 percent of the respondents stated they preferred transacting using banknotes and coins while 9.9 percent of the respondents were uncertain.

Figure 28: Preference for Transacting with CBDC Over Bank Notes and Coins



Source: *Bank of Uganda*

The key findings for respondents who preferred the CBDC over notes and coins were as follows:

a) CBDCs are less susceptible to theft, counterfeiting, and loss compared to risks associated with handling cash.
b) CBDCs would streamline payments, allowing for faster, more efficient transactions, especially for everyday purchases.
c) Hygiene and public health considerations particularly in the context of the COVID-19 pandemic.
d) Reduction in costs associated with printing, transporting, and securing physical currency allowing government to allocate resources to other vital sectors such as healthcare, education, and infrastructure.

On the other hand, the respondents who preferred notes and coins over the CBDC raised concerns around digital infrastructure and accessibility, privacy and anonymity, resistance to change and psychological attachment to cash, potential for digital fraud and cybersecurity risks

3.7.3 Usage of CBDC

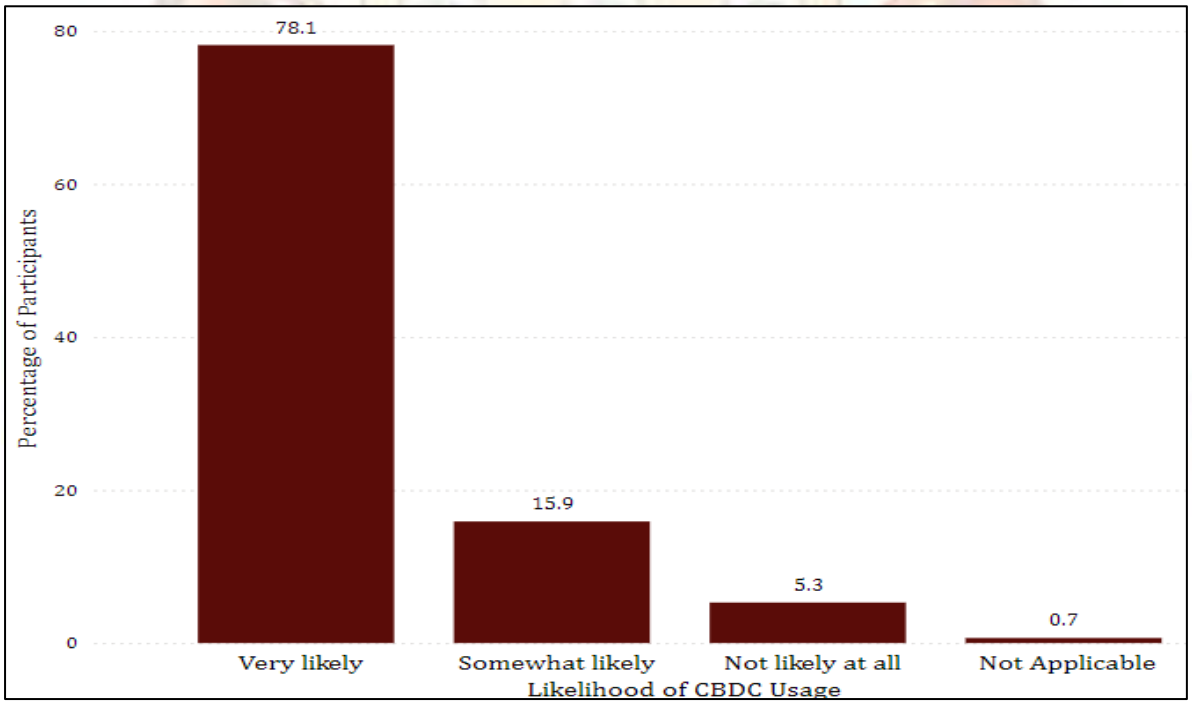
The survey asked respondents on their likelihood to use the CBDC if it was launched by the Bank of Uganda and 78.1 percent of respondents mentioned that they were very likely to use the CBDC on account of the following.

a) The growing digital economy and the increasing use of digital payment systems like mobile money.
b) Ease of use and the potential for faster payments.
c) The security provided by the central bank, noting that CBDC would be safer than cash or other digital payment methods
d) cost-saving, particularly in terms of transaction fees and government expenditure on printing paper currency
e) An avenue for financial inclusion, particularly for the unbanked or those in remote areas

However, 15.9 percent expressed a moderate likelihood of using CBDC noted that the CBDC would not fit into their current transaction patterns, potential privacy issues and the lack of control over the money, limited internet access and technological infrastructure in rural areas

The remaining 5.3 percent of respondents indicated that they are unlikely to adopt a CBDC noting concerns around security risks and the possibility of government control over money. This is illustrated in the figure 29 below.

Figure 29: Likelihood of Using a CBDC Issued by the Bank of Uganda



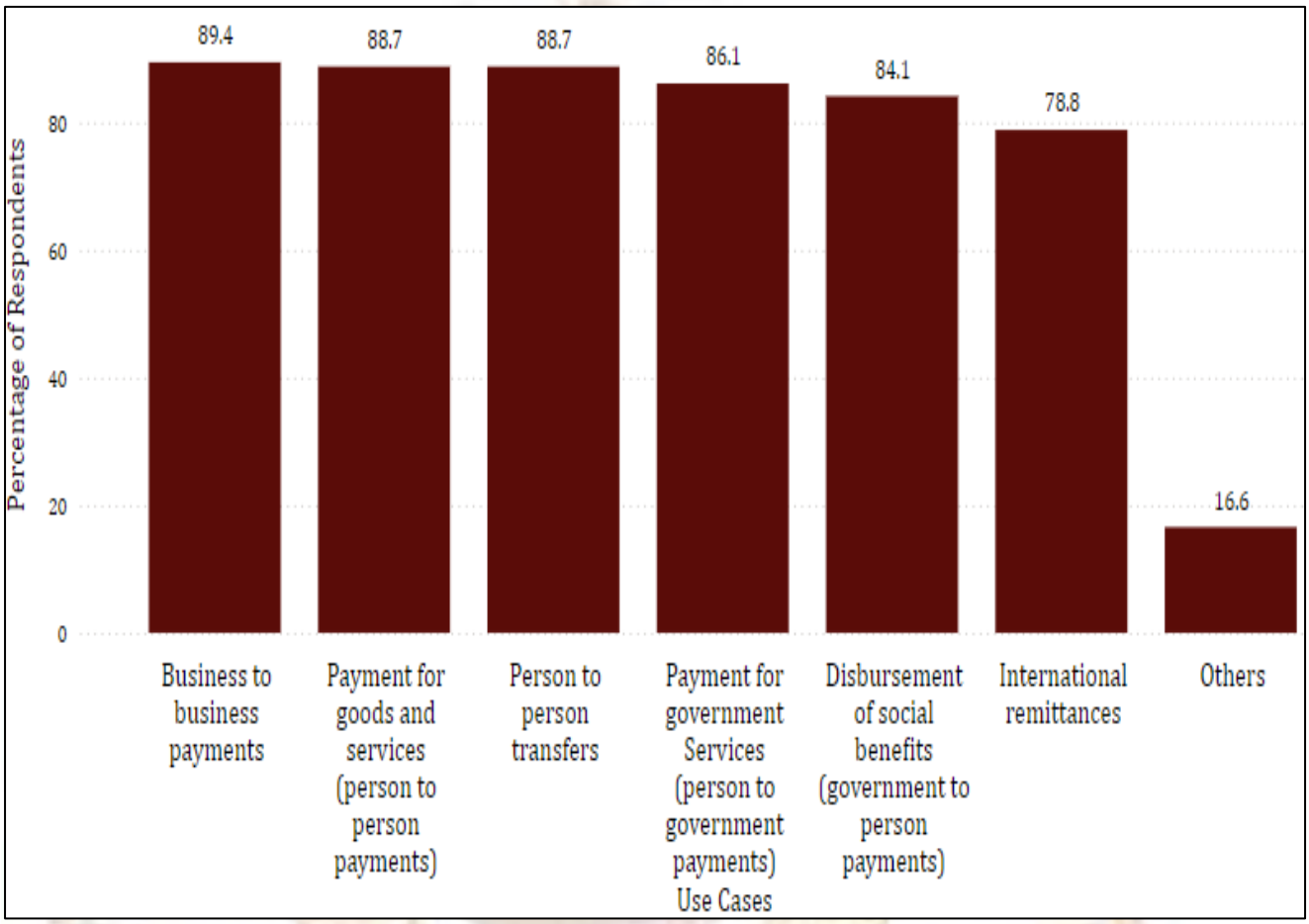
Source: *Bank of Uganda*

3.7.4 CBDC Use Cases

The survey asked respondents to indicate some of the CBDC use cases that would be applicable in the Uganda context.

The findings revealed that all the indicated use cases were highly applicable as shown in figure 30 below.

Figure 30: Potential CBDC Use Cases in the Ugandan Context



Source: *Bank of Uganda*

BANK OF UGANDA

4. CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The findings from the public consultation by the Bank of Uganda provide valuable insights into the benefits and challenges of issuing a Central Bank Digital Currency (CBDC) in Uganda. They reflect strong public support and interest, with 78.1% of respondents indicating a high likelihood of using a CBDC. This demonstrates growing acceptance of digital payment systems and a shift toward cashless transactions, underscoring the CBDC's potential to align with the evolving needs of Uganda's increasingly digital economy and population.

4.1.1 Opportunities for CBDC Adoption

The survey highlights several perceived benefits of a CBDC:

a) Financial Inclusion: Respondents recognize its potential to extend financial services to underserved populations.
b) Reduced Transaction Costs: A CBDC could lower the costs of transferring money, particularly for cross-border transactions.
c) Monetary Policy Efficiency: Enhanced tools for implementing monetary policy could improve macroeconomic management.
d) Financial Transparency: By promoting traceable transactions, a CBDC could help combat illicit activities.

4.1.2 Challenges to Implementation

Despite the optimism, respondents identified significant challenges that must be addressed for a successful rollout:

a) Infrastructure Deficiencies: Issues such as unreliable internet connectivity, inconsistent electricity supply, and insufficient smartphone penetration were noted as key obstacles, particularly in rural areas.
b) Cybersecurity Risks: Concerns about system vulnerabilities and the risk of cyberattacks underscore the need for robust digital defenses.
c) Privacy Concerns: The potential for data misuse and reduced transaction anonymity requires a balance between transparency and individual privacy.
d) Impact on Banks and Informal Sector: Respondents worried about potential disruptions to commercial banks' traditional roles and the adverse effects on the informal sector, which heavily relies on cash transactions.

4.1.3 Regional Collaboration and Integration

The survey also underscores the importance of regional collaboration within the East African Community (EAC) for Uganda's CBDC strategy. Coordinating efforts with partner states could facilitate:

a) **Interoperability:** Harmonizing systems to enable seamless cross-border payments.
b) **Policy Alignment:** Ensuring that regulations across the region support CBDC adoption.
c) **Economic Integration:** Strengthening trade ties through efficient and low-cost financial systems.

4.2 Recommendations

Based on the findings from the public consultation, our overall assessment is that the potential issuance of a CBDC in Uganda warrants consideration and further study. Bank of Uganda recommends a phased approach that would include the following key activities:

a) Conduct a detailed feasibility study to assess the costs and benefits. We intend to involve procurement of a technical partner/vendor.
b) Contingent on the findings of the feasibility study, undertake a pilot program to be tested under the regulatory sandbox. This shall involve further stakeholder consultations to refine the design principles and public awareness to create awareness. A final decision on the CBDC shall be made after evaluating the results of the pilot study.

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APPENDIX I: EXCERPTS FROM THE VALIDATION WORKSHOP

1. Preamble

Bank of Uganda convened a stakeholder's validation workshop on March 04, 2025, to review the draft report of Stakeholder consultation of CBDC for Uganda. The stakeholders discussed the potential implications of a CBDC in Uganda. Governor Atingi-Ego emphasised the nascent stage of these discussions and the need for further engagement. Experts, including Paul Busharizi, Rashmi Pillai, Alice Namuli, and Reginald Tumusiime, debated opportunities and challenges, highlighting the need for functionality and public trust.

Discussions covered the potential impacts on commercial banks and the informal sector, infrastructure limitations, cybersecurity risks, public awareness, and implementation costs. The Bank of Uganda's exploration of blockchain technology and its applications within the broader financial sector were also noted. The panellists at the workshop emphasised the importance of feasibility studies, stakeholder collaboration, and public awareness campaigns.

2. Panel Discussion

The key themes discussed by the panel included financial inclusion, infrastructure readiness, regulatory frameworks, cybersecurity, and the roles of existing financial institutions and the private sector.

The moderator opened the discussion, welcoming all participants and emphasising the significance of innovation in the payments sector. She reiterated the increasing interest of central banks worldwide in digital currencies and the importance of a structured and strategic approach in Uganda.

The first panellist highlighted that ordinary Ugandans' primary concern is the system's functionality. He noted the existing familiarity with digital currency through mobile money and a reported high confidence in a future CBDC linked to trust in the Central Bank. He stressed the importance of effective public communication and collaboration beyond the Central Bank, particularly with the telecommunications sector. He noted the challenge of overcoming potential governmental suspicion towards the private sector's profit motives.

Another panellist differentiated between wholesale CBDCs, which she sees as having clear benefits for interbank efficiency and likely to be implemented, and retail CBDCs, which present more intricate design and operational challenges. They raised concerns about potential customer confusion, the low activity rates of some existing retail CBDCs like Nigeria's e-Naira, and the risk of deposit competition impacting commercial banks' lending bases. While acknowledging the theoretical potential for financial inclusion, she suggested a national switch as a potentially more immediate solution and voiced fears about creating a two-tiered financial system.

Additionally, a panellist offered a more optimistic regulatory perspective, asserting that Uganda already possesses sufficient laws in areas like cybersecurity and data protection to support a CBDC project, emphasising the importance of adherence to these existing frameworks. She underscored the need for a trustworthy system to gain public confidence, highlighted the complexities of balancing data collection with privacy concerns, and pointed out the challenges of enforcing regulations in the borderless online space.

Finally, they expressed hope in the Bank of Uganda's approach and drew a parallel between the concept of a CBDC and existing mobile money, suggesting leveraging its infrastructure. They emphasised the importance of cost considerations, private sector participation, and exploring renewable energy solutions for broader reach given the limited access to power especially in rural areas. At the same time, Reginald foresaw potential acceleration of digital currency development in other regions and a rise in USD-backed stablecoins.

Mr. Reginald Tumusiime specifically mentioned that what gives private practitioners hope is the Central Bank's innovative approach while maintaining its traditional nature. He pointed to the progress in financial inclusion driven by private sector innovations like mobile money. He suggested that the concept of a CBDC, in a way, already exists with privately issued mobile money, implying that building upon existing innovative foundations is crucial. He also emphasised leveraging existing sandboxes to "encourage private sector to innovate" in the payment space.

Regarding Uganda's readiness for CBDC implementation, it was noted the familiarity with electronic money due to mobile money, suggesting a readiness for such a transition. On the potential benefits of CBDC implementation, they acknowledged the potential for increased interbank efficiency across wholesale payments and securities with a wholesale CBDC. The panellists had earlier elaborated that current settlement relies on commercial bank money, which carries credit risk, whereas CBDC settlement would be in central bank money, eliminating this risk.

The possibility of supporting innovation in the payment space was also raised. By providing a foundational digital infrastructure, a CBDC might spur the development of new payment services and business models by private sector players.

Furthermore, panellists touched upon monetary policy efficiency, although this was heavily qualified by design choices such as whether the CBDC is account-based and bear's interest. It was theorised that an account-based, potentially remunerated CBDC could allow for more direct and quicker impact on money supply.

From a central bank perspective, maintaining sovereignty in the face of increasing adoption of alternative digital currencies, including cryptocurrencies and stablecoins, was a potential motivation for exploring CBDCs in some jurisdictions.

In the context of costs, it was hoped that a CBDC could offer a free alternative to existing transaction charges associated with mobile money, thereby encouraging more people to enter the formal financial system. However, the practicalities of distribution and infrastructure costs were also acknowledged.

Finally, facilitating cross-border payments was mentioned as a potential future benefit, although this was seen as a more complex issue requiring international collaboration and potentially bridging infrastructures. Mr. Tumusiime highlighted the potential of existing stablecoins for cross-border trade in the interim.

The panellists also raised significant concerns and challenges related to implementation, infrastructure readiness, regulatory frameworks, cybersecurity, privacy, and the possible impact on existing financial institutions. The overall sentiment was that while CBDCs hold promise, a thorough and cautious approach, including detailed feasibility studies and extensive stakeholder consultation, is crucial before any implementation in Uganda.

The panellists collectively raised several key challenges and considerations regarding the potential implementation of a CBDC in Uganda. A significant concern revolved around Uganda's infrastructure limitations, including poor power supply, internet connectivity, bandwidth issues, and the cost and affordability of these services. They questioned the readiness for deployment given these prevalent issues.

Another crucial area of discussion was the regulatory framework. While they felt that current cybersecurity and data protection laws are largely sufficient, she emphasised the importance of regulators complying with these frameworks. Key considerations included balancing data collection with privacy concerns, the challenges of KYC in this new space, and the difficulties in enforcing regulations in a borderless online environment.

The panellists also extensively discussed the potential impact on financial inclusion. They expressed reservations about retail CBDCs, questioning how they would be operationalised and differentiated from existing e-money, potentially causing customer confusion. She also highlighted the low activity rates of some existing retail CBDCs and the risk of deposit competition impacting commercial banks' lending bases. They stressed the need for the CBDC to "just work" for the ordinary Ugandan.

Cybersecurity and privacy were highlighted as critical risks associated with a digital currency. Ensuring the security of the infrastructure and protecting users' data were seen as essential for building public trust. They suggested focusing on "privacy by design" from the outset.

Stakeholder collaboration was consistently emphasised as vital for successful CBDC development and implementation. This includes the need for the Central Bank to work closely with telecommunications companies, the private sector, and other government institutions, overcoming potential silos. They cautioned against a Central Bank-monopolised process and the need to understand and integrate the profit motives of private players.

Another key consideration was the interoperability of a potential CBDC with existing payment systems, particularly mobile money. The panellists discussed how a CBDC could leverage the existing traction of mobile money and the potential role of mobile money operators and commercial banks in the distribution and holding of CBDC. However, concerns were raised about the potential cannibalisation of existing operators and the cost implications.

The global context was also discussed, including the US stance on CBDCs and the rise of stablecoins. Opinions differed on the impact of the US position, but the potential for accelerated digital currency development in other regions and the role of USD-backed stablecoins in cross-border trade were noted. The sovereignty implications of stablecoins were also raised.

A fundamental challenge identified was the need to clearly define the specific problem that a retail CBDC aims to solve in the Ugandan context, especially when existing instruments like mobile money are already widely adopted. The potential high cost of printing and maintaining physical currency was offered as one possible problem.

Finally, the panellists considered the readiness of the Ugandan population to adopt a CBDC, which extends beyond infrastructure to include financial and digital literacy and public awareness campaigns to build trust and understanding.

They mentioned the potential for government overreach and the importance of checks and balances in a digital currency system.

Overall, the panellists underscored the critical need for thorough feasibility studies, stakeholder collaboration, public awareness, and a clear understanding of the specific problems a retail CBDC aims to solve before moving towards implementation.

3. Comments from Workshop Participants

The audience members who participated in the Stakeholders Validation Workshop discussed several key themes, which can be summarised as follows.

i. Impact of CBDC on Mobile Money, Employment, Cybersecurity, and Infrastructure in Rural Areas: Online participants raised concerns about how introducing a CBDC might affect the well-established mobile money ecosystem and its implications for employment, cybersecurity risks, and infrastructure, particularly in underserved rural regions.

ii. Difference Between CBDC and Cryptocurrency: Another question from the online audience sought clarification on the fundamental distinctions between a Central Bank Digital Currency and cryptocurrencies.

iii. Skepticism and the Purpose of a CBDC: A member expressed a cautionary view, questioning whether introducing a CBDC solved a problem. This highlights a concern about the necessity and potential unintended consequences of a CBDC.

iv. Consideration of Stablecoins and National Sovereignty: A point was raised about potentially allowing stablecoins, especially those backed by foreign currencies like the US dollar or the Euro suggesting that this could lead to "dollarisation" or "euroization" and questioned the interplay between stablecoins and CBDCs and the implications for national security and sovereignty.

v. Public Awareness and Engagement: A participant emphasised that the public is already aware of and using digital currencies. They advised the Bank of Uganda to engage with "freelancer crypto holders" for public sensitisation, suggesting that KYC processes are already familiar to some users.

vi. Call for Free Tokens/Incentives: A participant suggested that the Bank of Uganda could issue free tokens to the public to encourage adoption.

vii. Focus on the Customer and Use Cases: A participant stressed that the central focus of the workshop should be the problem being solved by a CBDC, from the customer's perspective. They suggested approaching CBDCs through specific use cases, such as cross-border payments, rather than as an entirely separate currency. This theme underscores the need for a user-centric approach and practical applications.

viii. Inter-African Trade and Payment Systems: The fragmented nature of African currencies suggests that CBDCs, through collaboration, could facilitate cross-border payments, especially within the East African market. However, they cautioned against stablecoins within the same country, suggesting the national switch should suffice. This reflects an interest in using digital currencies to address existing challenges in regional trade.