



**SEMINAR NOTE ON CBDCs AND  
VIRTUAL ASSETS**

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**Bank of Namibia**

**Daisy Mbazima-Lando**

**Research and Financial Sector Development Department**

# OUTLINE



- ❖ **Introduction**
- ❖ **Defining CBDCs vs Virtual assets**
- ❖ **Distinction between CBDCs and Virtual assets**
- ❖ **Types of CBDCs- Retail vs Wholesale**
- ❖ **Benefits of CBDCs**
- ❖ **Regulation of CBDCs and Cryptocurrencies**
- ❖ **Key considerations – implementation of CBDCs**
- ❖ **Namibia's Journey so far and the way forward...**
- ❖ **Conclusion**



The evolution of Financial innovation and Financial technology has informed:



## The case of CBDCs and Virtual Assets

*“Improve efficiency and inclusivity in the financial system”- (Alnasaa et al, 2022).*

*“Facilitate cryptofinance ecosystems”- (Brainard, 2022).*

*“Implications for a Central Bank’s monetary policy and operations”- (Kahn et al, 2022).*

*“Modernising payment systems or increasing financial inclusion”- (Cihak, 2022).*





## Digital currency:

- ❖ *Broad concept of all monetary assets that are in digital form.*
- ❖ *Can be regulated or unregulated.*
- ❖ *Centralised or decentralised*
- ❖ *Can be account-based or token-based*
  
- ❖ **Central Bank Digital Currency (CBDC):** *digital currency that is issued by a Central Bank.*
  
- ❖ **Virtual asset:** *digital representation of value that can be digitally traded, or transferred, and can be used for payment or investment purposes. Cryptocurrencies are examples*



## CBDCs:

- ✓ Digital currency
- ✓ Electronic fiat liability of the Central Bank
- ✓ Issued and controlled by a central bank
- ✓ Centralised and regulated
- ✓ Serves as legal tender
- ✓ Can run on blockchain technology- not Cryptocurrencies due to private ledgers

## Cryptocurrencies:

- ✓ Digital currency
- ✓ Issued and controlled by a private issuer
- ✓ Decentralised
- ✓ Can be regulated or unregulated
- ✓ Run on a public blockchain technology

# CBDCs vs Cryptocurrencies

## CBDCs:

- ✓ not cryptocurrencies
- ✓ 100% backed by a reserve currency/asset
- ✓ e.g. *E-Naira, Sand Dollar*

## Cryptocurrencies:

- ✓ Highly volatile
- ✓ Not backed/secured
- ✓ driven by market sentiments
- ✓ e.g. *Bitcoin*

Examples of cryptocurrencies



Bitcoin (BTC)



Litecoin (LTC)



Ethereum (ETH)



Ripple (XRP)



Monero (XMR)



Stellar (XLM)



NEO (NEO)



Cardano (ADA)



Bitcoin Cash (BCH)



NEM (XEM)

## Stablecoins:

- ✓ are cryptocurrencies
- ✓ normally fixed to a reserve asset/commodity
- ✓ can maintain a fixed value over time
- ✓ e.g. *Tether (USDT), USD coin (USDC), Binance USD (BUSD), Paxos Gold (Paxos)*



## Retail CBDCs

- ✓ Electronic money issued by the central bank
- ✓ acts as a settlement medium for *retail transactions*
- ✓ aimed at the public (consumers and businesses)
- ✓ the public could hold CBDC accounts with the central bank
- ✓ similar to having bank deposits
- ✓ Promotes financial inclusion

## Wholesale CBDCs

- ✓ Electronic money issued by the central bank to financial institutions
- ✓ acts as a settlement medium for interbank transfers and wholesale transactions
- ✓ settlement process similar to current approach to debits and credits of transactions.
- ✓ Allows for large transactions between financial institutions and entities with Central Bank accounts

# TYPES OF CBDCs

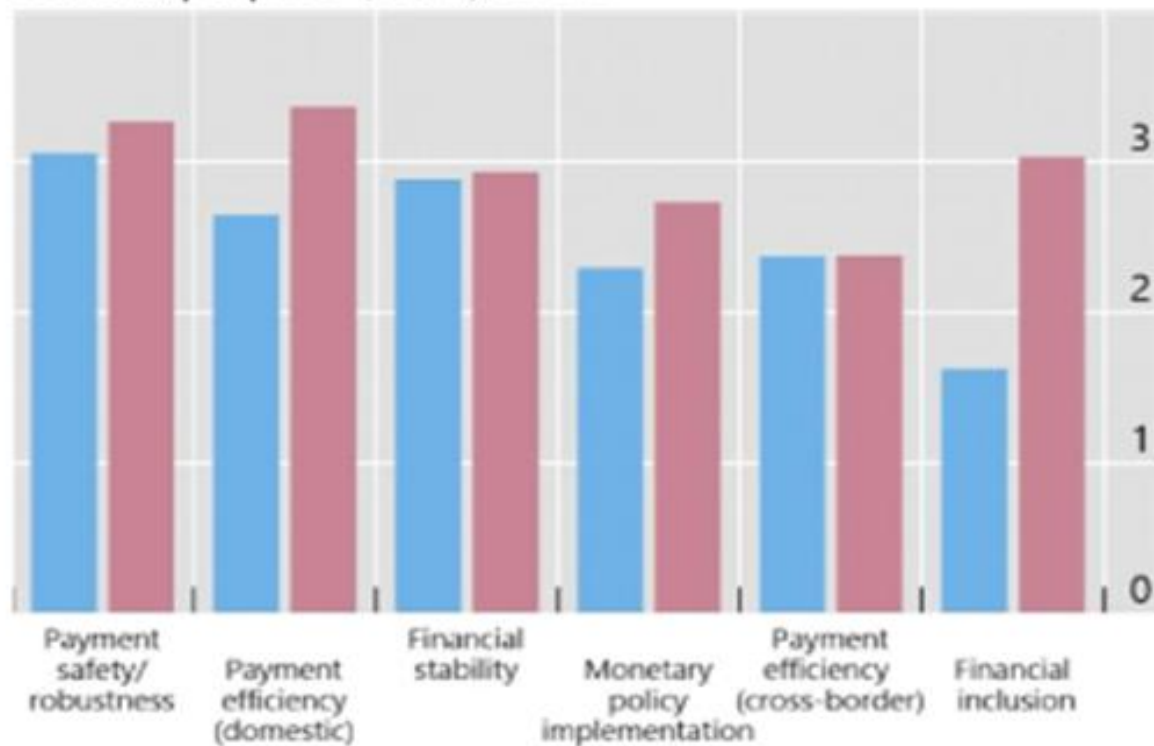


## Motivations for issuing a CBDC

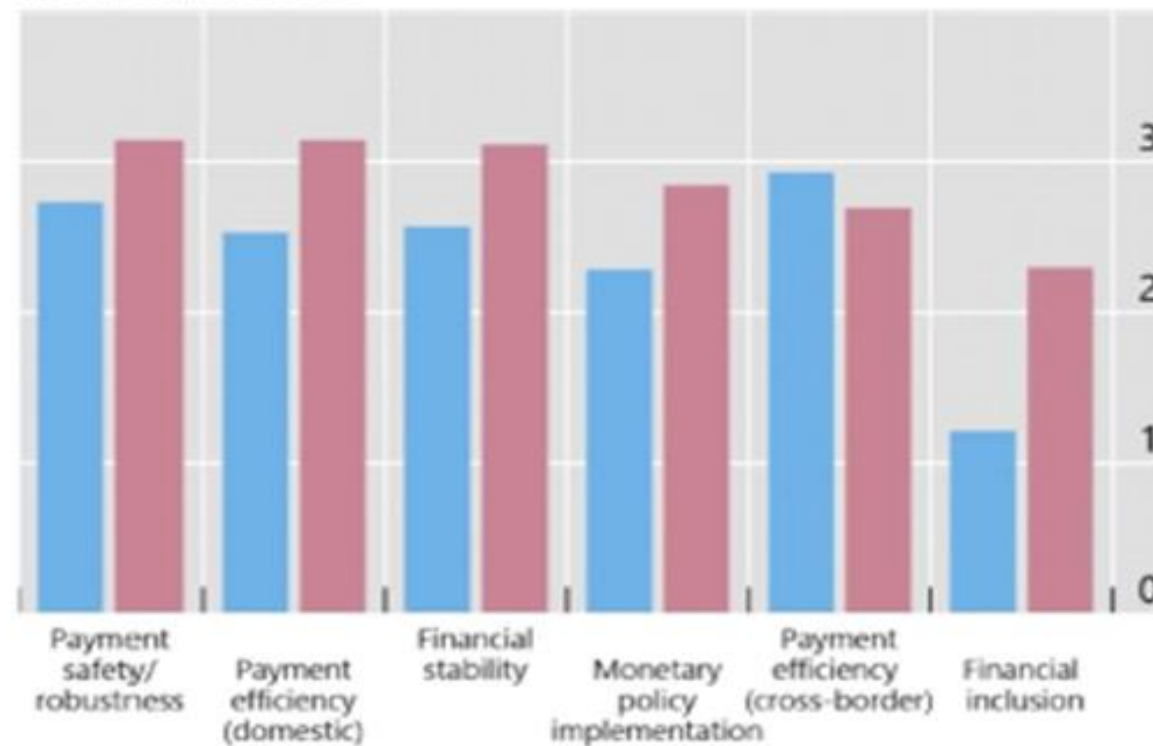
Average importance

Graph 5

### General purpose (retail) CBDC



### Wholesale CBDC



Average importance: ■ AEs ■ EMEs

1 = not so important; 2 = somewhat important; 3 = important; and 4 = very important.

Sources: CPMI survey of central banks; Boar et al (2020).





## According to the IMF (2022):

“Central banks are considering a CBDC due to the *declining use of cash in advanced economies and financial inclusion in emerging market and developing economies*” .

### Benefits:

- Increased financial inclusion
- Cost efficient solution to managing physical cash
- Efficient retail payments
- Better management of illicit flows

**Adjustments to the Central Bank's regulatory framework is vital to maintain financial stability and maintain the Central Bank's credibility**

- Amendments to the **legal framework** within the Central Bank's Act.
- Amendments to any **other financial regulatory documents** or laws. e.g the Fintech regulatory framework
- Above **revisions are essential** to integrate and enact the operation of virtual currencies into key operational legal documents as they pertain to a country.
- **Key considerations:** sole mandate of issuing the digital currency and legal status of digital

currency



## Insights from the Deloitte 2022 paper on “*Central Bank Digital Currencies: Building Block of the Future of Value Transfer*”

- *Choice of CBDC- Retail vs Wholesale*
- *Underlying technologies and access*
- *Issuance and circulation of CBDCs*
- *CBDC use cases*
- Implications for monetary policy, financial stability, and other operations within the financial system
- Potential risks associated with the CBDC
- Communications and stakeholder engagement

# NAMIBIA'S JOURNEY SO FAR..



**Before 2020..**

**In 2017: the Bank of Namibia issued a position on Distributed Ledger Technology and Virtual Currencies**

**In 2018: the Bank of Namibia updated its position on Cryptocurrencies**

**CBDC Journey – Started off by trying to answer key questions as a Bank:**

- Q1: What problems are we trying to solve with a CBDC with reference to the Namibian context?
- Q2: What are some of the current challenges that a CBDC would address and what are some of the opportunities it would present?
- Q3: What are some of the high-level considerations that should be considered in determining the desirability of a CBDC for Namibia?
- Q4: Based on the above, what position and recommendations should Bank of Namibia work and contribute towards in terms of the CMA position?





# THE WAY FORWARD WITH NAMIBIA'S JOURNEY.....

## Roadmap

- **Share the Bank's CBDC Consultation Paper** for public input
- **Partner with a technical consultant** that will help us commission a deep-dive exploration phase that aims to further interrogate the *problem statement, legal implications, CBDC models, feasibility assessments, national infrastructure needs related to CBDC, associated risks, architecture and design of appropriate CBDC, innovating around CBDCs.*
- **Continue engaging at a CMA level** to ensure harmonisation;
- In considering CBDC, ***zero tolerance for cybersecurity and privacy risks*** are of paramount importance.

## CONCLUSION



*Its important for the Bank of Namibia to keep abreast of all CBDC research just as most Central Banks are currently doing and this means; to continue engaging, exploring, learning, consulting and establishing the feasibility of a CBDC for Namibia. However, it is also equally important to note that, while digital currencies will work to compliment the existing fiat currency and maintain monetary and financial stability, the ultimate decision to launch a CBDC by a Central Bank will remain driven by its purpose, the objective and the impact it will have on the macroeconomy. Therefore, extensive groundwork is of paramount importance.*



**Bank of Namibia**

**THANK YOU**