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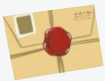

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Introduction

The Bullion is an independent, peer-reviewed journal that is available in traditional hard-copies as well as in pdf formats from the Bank's website. It is designed to provide an avenue for the production of scholarly works of both qualitative and quantitative inclinations.

The BULLION is committed to the dissemination of research findings and information about its research interests.

The ancillary purpose of this journal is to encourage discourse among persons working in various sectors and disciplines, as well as in other contexts. Consequently, our editorial policy promotes the submission of non-technical papers from diverse disciplinary perspectives. Our preference is for papers that are not loaded with econometrical tools and terminologies or complex economic models that would require specialized knowledge to decode and understand.

Consequently, we welcome manuscripts with potent managerial and policy implications that could serve as novel and credible policy alternatives for policy makers in the economic and financial sectors.

GUIDELINES

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Areas of emphasis should be on topics within the following broad themes:

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The essence of this guideline is to help focus on areas we want covered. Note, this is not exhaustive. Please feel free to address all other issues you consider pertinent to the mandate of the Central Bank of Nigeria.

2. The article should not be more than twenty-five (25) pages of 4000 – 7000 words in length. It should be typed with 1.15 line spacing option, with a margin of 1.25 and 1.13 inches on the left and right sides, respectively. The font type to be used is "Arial" with font size "14" for headings and size "12" for the body of the article.
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8. The author's institutional affiliation and necessary background information on the article should appear at the foot of the first page. Footnote to the text should be listed at the end, followed by the list of references.
9. The honorarium for authors of accepted papers in the Bullion is ₦400,000 per paper and for reviewers ₦200,000 per manuscript.

10. References for quotations or statements should be in parentheses in the text, not as notes. e.g. Mordi (2010:20) or Mu'azu (2014). Where more than two authors are involved, cite senior author and use et al., for example, Johnson et al. (1988).
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    Adenuga, A. O. and O. Evbuomwan (2011). "Understanding the Bretton Woods Institutions (BWIs) with Particular Reference to the International Monetary Fund (IMF)" CBN Bullion. Vol. 35 No. 4, October – December, pp. 10-15.
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We look forward to receiving your submissions.

THE NEED FOR DIGITAL ASSETS AND CRYPTOCURRENCY REGULATION IN NIGERIA: OPPORTUNITIES, CHALLENGES AND RECOMMENDATIONS

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Abstract:

This research aims to analyse the need for regulation of digital assets and currencies by the Central Bank of Nigeria. It explores the challenges, opportunities, and recommendations associated with this regulation. The research highlights the growing importance of digital assets, and the potential risks they pose, including anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activity. Furthermore, it emphasizes the reasons why regulation is necessary to protect investors, businesses, consumers, and for national security. The research also includes an examination of the implications of digital assets on financial stability and economic diversification, and the need for a domestic and global alliance. The study's methodology employs a mix of quantitative and qualitative research methods, incorporating data analysis and case studies, with primary data from surveys and secondary data from government reports and academic literature. It reveals that confidence in the Central Bank's regulatory abilities significantly influences certain perspectives on digital assets and crypto currencies, particularly in terms of their potential to drive business growth, enhance consumer confidence, fortify national security, and address regulatory complexities. The study concludes with recommendations for effective regulation, including the importance of a digital assets and cryptocurrencies legislation, cybercrime and cybersecurity laws and the creation of an enabling environment for innovation and growth.

Keywords: *Digital Assets, Cryptocurrency, Regulation, Central Bank of Nigeria, Securities Exchange Commission, Cybersecurity and Cybercrime*

1.0 Introduction

The cryptocurrency market has grown exponentially since the launch of Bitcoin (BTC) in 2009. Governments across the world continually strive to enact rules, policies, and regulations to curb fraudulent activities while fostering blockchain and digital asset innovation. For example, Africa's most populous country, Nigeria, has been active in defining its cryptocurrency regulation for the country's tech-savvy and pro-blockchain youth, who are eager to adopt digital assets.

The emergence of digital assets and cryptocurrencies has changed the financial market, creating a need for regulation by central banks, governments, and policymakers.

Digital assets comprise a wide range of electronic representations of value, including cryptocurrencies, digital tokens, and virtual goods. Cryptocurrencies, in particular, have gained significant popularity in recent years, providing decentralized and secure financial transactions.

However, along with their advantages, these digital assets present several risks related to anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activity.

The recent demand for effective legislation and regulation is as a result of a number of high-profile catastrophes in the cryptocurrency industry, including the so-called stablecoins Terra and FTX, which went out of business and left 80,000 UK investors and many others worldwide out of pocket. Regulators from throughout the world demanded action in response to this, claiming that regulations were necessary to stop conflicts of interest and restrict cryptocurrency businesses from operating without protecting the rights of their customers (CoinGecko, 2022).

A set of international rules for digital tokens and crypto assets has been developed by the International Organization of Securities Commissions (IOSCO, 2023). Since the FTX exchange collapsed last year amid fraud claims, there have been increasing calls for a unified approach to regulating digital assets and cryptocurrencies like Bitcoin. Digital assets and

cryptocurrencies have been allowed to thrive and flourish on a defective and improper basis. And effective legislation and regulation cannot be overemphasized at this point in Nigeria (IOSCO, 2023).

1.1 Statement of the Problem

The rising popularity and adoption of digital assets and cryptocurrencies in Nigeria have presented a pressing need for a well-defined regulatory framework. The absence of effective regulation poses significant challenges for the Central Bank of Nigeria, including increased risks of anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activities.

Furthermore, the lack of clear guidelines hampers investor protection, inhibits business growth, and undermines consumer confidence in the digital asset market. Thus, there is an urgent need to address these issues by proposing a comprehensive regulatory framework that fosters innovation, while safeguarding the country's financial stability, economic diversification, and national security.

1.2 Research Objectives

1. To assess the current state of digital assets and cryptocurrencies in Nigeria, including their prevalence, adoption, and usage patterns.
2. To identify the challenges faced by the Central Bank of Nigeria in regulating digital assets and cryptocurrencies, with a specific focus on anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activity risks.
3. To explore the potential opportunities that arise from effective regulation of digital assets and cryptocurrencies, including their positive impact on investor protection, business growth, consumer confidence, and national security.
4. To examine the implications of digital assets and cryptocurrencies on Nigeria's financial stability and economic diversification, and to understand their role in shaping the country's economic landscape.
5. To propose recommendations for a comprehensive regulatory framework for digital assets and cryptocurrencies, including the development of appropriate legislation, cybercrime and cybersecurity laws, and the creation of an enabling environment that fosters innovation and sustainable growth in the digital asset space.

1.3 Research Questions

a. What is the current prevalence of digital assets and cryptocurrencies in Nigeria, and what are the adoption and usage patterns among various demographics?
b. What are the specific challenges faced by the Central Bank of Nigeria in regulating digital assets and cryptocurrencies, focusing on risks related to anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activities?
c. What potential opportunities arise from effective regulation of digital assets and cryptocurrencies, and how can they positively impact investor protection, business growth, consumer confidence, and national security?
d. How do digital assets and cryptocurrencies impact Nigeria's financial stability and economic diversification, and what is their role in shaping the country's economic landscape?

1.4 Research Hypothesis

a. Hypothesis 1: Effective regulation of digital assets and cryptocurrencies will positively influence investor protection, fostering increased business growth, enhanced consumer confidence, and improved national security.
b. Hypothesis 2: The absence of a comprehensive regulatory framework for digital assets and cryptocurrencies contributes to challenges related to anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activities.

2.0 The Review of Literature

Research shows that the population of youths in Nigeria between the ages of 15 and 64 is about 55%, while those between the ages of 0 and 14 years are 33.7%, and those who are aged 65 and above are 3.3%. And from these statistics, those aged between 15 and 64 years have a higher population, and the majority are tech-savvy and have digital assets and cryptocurrency accounts, so banning digital assets and cryptocurrencies in Nigeria will greatly impact the Nigerian economy negatively. Therefore, there is a need to regulate cryptocurrency and digital assets in Nigeria to

ensure a more economically and financially stable society.

Crypto assets have the potential to generate efficiencies in financial services, but they also give rise to risks that authorities would need to address. Initially, cryptocurrency was designed to democratize payments. Certain crypto assets, and particularly the underlying distributed ledger technology (DLT), have been used in areas such as payments, the issuance of debt and equity, trade financing, and post-trade processes. Small-scale experiments conducted by public and private entities have shown the potential of some crypto assets to generate efficiencies in financial services through disintermediation, lowering costs, and speeding up processes.

However, crypto assets are diverse, and individual risks and benefits must be considered. Although some crypto assets might develop into tools for investment or decentralizing functions such as storage, lending, or payments, many can pose substantial risks to market integrity, consumer protection, financial integrity, and, increasingly, financial stability. Numerous studies have highlighted the risks associated with unregulated digital assets. The anonymity offered by cryptocurrencies makes them attractive to criminals and facilitates illicit financial transactions.

Research by Auer and Claessens (2018) shows that cryptocurrencies can be used to evade financial regulations, enabling money laundering and terrorism financing. Similarly, Engels et al. (2019) argue that the lack of proper regulation leads to a surge in corruption and illicit financial activities. The potential impact of unregulated digital assets on financial stability and systemic risk is also a significant concern.

The unchecked growth of cryptocurrencies poses threats to the traditional financial system, as pointed out by Böhme et al. (2015). As digital assets become more widely dispersed, central banks, governments, and policymakers face challenges in maintaining financial stability and protecting the broader economy.

To safeguard investors, businesses, and consumers, as well as national security, it is crucial for central banks, governments, and policymakers to establish comprehensive regulatory frameworks. Regulation would enhance transparency, limit illicit activities, and protect market participants.

Nigeria's growing interest in cryptocurrencies was noticeable, but it became prominent during the crypto market crash in April 2022, when a Google Trends data analysis by CoinGecko indicated Nigeria to be one of the most crypto-curious nations. The search histories of various nations were analyzed, and the results emphasized the prevalence of cryptocurrencies in Nigeria even amid a crypto dip.

Another report by Chainalysis put Nigeria among the top countries showing a high Global Crypto Adoption Index, especially in peer-to-peer (P2P) trading. KuCoin and Paxful are among the leading cryptocurrency exchanges in Nigeria for P2P trading and investment.

Such growth in Nigeria is fueled by inadequate financial services, high inflation, the depreciation of Nigeria's fiat currency, the naira, and a young demographic (55% of Nigeria's population is aged 15–65). Tech-savvy Nigerian youths are eager for new opportunities for work, investment, and financial independence. Digital assets and cryptocurrencies became handy, opened doors, and presented new growth avenues. Increasing adoption of digital assets led the Securities Exchange Commission in May 2022 to publish a set of guidelines for digital assets, signalling that the country is trying to find a leeway between an outright ban on digital assets and their potential usage. This study examines the responses of Switzerland and the U.K. to the digital asset and cryptocurrency phenomena in their countries in contrast to Nigeria.

2.1 Comparative Analysis of the Adoption of Digital Assets and Cryptocurrencies in Switzerland and the United Kingdom in Contrast to Nigeria

A. Switzerland:

Switzerland has been at the forefront of embracing cryptocurrencies and digital assets. It has developed a regulatory framework that

provides clarity and guidelines for both individuals and businesses operating in the cryptocurrency sector. The country treats cryptocurrencies as assets, subjecting them to the same regulations as traditional financial instruments. Switzerland's legislation aims to foster innovation and growth in the industry, making it a global hub for blockchain technology and cryptocurrency companies. This has drastically reduced the rate of cybercrime and money laundering in the country while ensuring a more stable economy.

B. United Kingdom

Initially, the United Kingdom took a relatively cautious approach to regulating cryptocurrencies. The country does not consider cryptocurrency legal tender but views it as property, subject to capital gains tax. The Financial Conduct Authority (FCA) regulates digital assets, requiring cryptocurrency businesses to comply with anti-money laundering (AML) and know-your-customer (KYC) regulations. The UK has also established a task force to explore the benefits and risks of cryptocurrencies and promote responsible innovation in the sector. According to a statement from the U.K. government, the Financial Services and Markets Act 2023, a U.K. reform bill that recognizes digital assets and cryptocurrency trading as regulated financial activities, obtained royal assent to become law. The U.K. government has not hidden its ambition to become a global financial hub for the next digital and financial revolution. The U.K. has world-class research universities, an overwhelming innovation infrastructure, and impressive investment in Artificial Intelligence and Fintech.

C. Nigeria:

Nigeria has seen a surge in the adoption of digital assets and cryptocurrencies, driven by factors such as a young population and limited access to traditional banking services. Initially, the Central Bank of Nigeria issued warnings about the use of cryptocurrencies and banned them in the financial space. But recently, the country's Securities and Exchange Commission (SEC) has developed a guideline within its purview for dealing in digital assets and cryptocurrencies in the securities market. This development indicates a growing recognition of the potential economic benefits that emanate from the use of digital assets and cryptocurrencies in Nigeria. Nigeria has the potential to become a digital and financial hub in Africa if we could replicate and adapt to the Nigerian context what was done in Switzerland and the U.K. by enacting formidable legislation, investing in infrastructure, and providing the enabling environment for Fintech, digital assets, and cryptocurrency start-ups to thrive (CoinGecko: 2022).

2.2 Digital Assets and Cryptocurrencies in Nigeria

In Nigeria, the most popular digital assets and cryptocurrencies include Bitcoin (BTC), Ethereum (ETH), Ripple (XRP), and Litecoin (LTC). However, it is important to note that the cryptocurrency market is constantly evolving, and new assets may emerge in the future.

2.3 The Future of Cryptocurrency in Nigeria

While Nigeria has shown extensive grassroots adoption of P2P crypto markets and a high social acceptance of cryptocurrencies, it still lacks in other areas, such as on-off crypto ramps, crypto retail trading, decentralized finance (DeFi), and institutional adoption of cryptocurrency and blockchain-based ledger technologies.

The Future of Cryptocurrency in Nigeria will be driven by these trends that one should look out for:

a. Cryptocurrency as a medium of payment: Cryptocurrency in Nigeria will be explored as a medium of payment not just for retail trade but also to serve as a dominant means of cross-border payments and quicker remittances compared to the existing slow and tedious fiat remittance challenges. Since Nigerians are crypto-friendly, many online marketplaces and corporations will accept cryptocurrencies as a form of payment for their services.

b. Cryptocurrency as a medium of investment: Amid the ever-growing inflation and continuing naira depreciation, Nigerians already see cryptocurrencies as a store of wealth and a means of preserving their investments. The naira has depreciated in value for a decade now and has failed to establish confidence in the young

population. As a result, many Nigerians have turned to Bitcoin and other cryptocurrencies for investments (CoinGecko: 2022)

2.4 Why Digital Assets and Cryptocurrencies were Banned from Nigeria's Financial space

There is an intersection between digital assets, cryptocurrencies, and cybercrime. There were serious concerns that the digital asset and cryptocurrency bandwagon could serve as a conduit for all forms of financial misdemeanors and criminality in the following ways:

1. Money laundering: Since cryptocurrencies are anonymous when they are created, the placement stage of the money laundering process is frequently missing.

The process of opening an account is simple and cost-free, taking only a few seconds. Each account may only be utilized twice: once to accept funds and once to move them to another location.

2. Illicit financial activity: On the "Silk Road" darknet marketplace, digital assets and cryptocurrencies play a well-known part in the acquisition of illicit and dangerous substances, child pornography, and other criminal vices.

3. Terrorism financing: In recent investigations, it has also been shown that digital assets and cryptocurrencies have been used to finance terror plans, further tarnishing their reputation as a reliable form of payment.

4. Corruption: Criminals can move significant sums of money using cryptocurrencies, avoiding the formal banking system, which includes a possibly lower chance of getting caught by law enforcement or the traditional financial institutions, which are mandated to report suspicious transactions.

5. Cyberterrorism: Cryptocurrencies like Bitcoin have become an almost perfect option for ransomware hackers in recent years. It moves quickly. It is simple. The best part is that it is mostly anonymous and difficult to track. In the most recent instance, JBS, the biggest meat processor in the world, disclosed that it recently paid $11 million in Bitcoin following a cyber-assault that resulted in the closure of its facilities in the United States, Canada, and Australia. Money laundering, or the act of moving money from one state to another in a method that is essentially untraceable and uncontrollable, is an extremely potent instrument in the hands of criminals. Cyber terrorists now have the ability to demand significant ransom payments from big businesses, hospitals, and governments, which was made possible by bitcoin and other cryptocurrencies.

6. Cross-border crime: Digital assets and cryptocurrencies facilitate transnational crimes. Organized crime organizations are using cryptocurrency more frequently to carry out illegal activities. OCGs can use the decentralized and inherent pseudonyms of cryptocurrencies to commit money laundering and other corruption-related crimes.

7. Proliferation financing: Digital assets and cryptocurrencies have been used by dissidents in authoritarian nations to raise money and get around government restrictions. Rogue regimes, such as Iran and North Korea, are meanwhile employing cryptocurrencies more frequently to get around American sanctions and overcome their limited access to cash to invest in nuclear weapons and weapons of mass destruction. Even terrorist organizations like the self-declared Islamic State, al-Qaeda, and the armed wing of the Palestinian group Hamas use bitcoins to raise money to fund their networks.

Regulation is a preventive measure; strengthening law enforcement agencies' capacity is a proactive measure to dismantle criminal networks. We must not allow criminal gangs to exploit this industry to undermine the integrity of our financial system if left unchecked. Legislation, regulation, and international collaboration should be in place to detect, prevent, and prosecute such criminals (CGMF: 2018).

CGMF's report in 2018 opines that certain risks are associated with the adoption and trading of digital assets and cryptocurrencies in Nigeria, here are a few key points to consider:

a. Volatility: Cryptocurrencies are known for their price volatility, which can result in significant price fluctuations. This volatility can lead to substantial gains, but also substantial losses.

b. Regulatory uncertainties: The regulatory

framework surrounding cryptocurrencies in Nigeria is still evolving. Uncertainties can lead to potential regulatory changes or restrictions, affecting the usability and acceptance of digital assets.

c. Security threats: The digital nature of cryptocurrencies makes them vulnerable to hacking, fraud, and scams. Investors need to exercise caution while choosing the platforms or wallets they use to store and trade their digital assets.

d. Lack of consumer protection: Unlike traditional financial systems, cryptocurrencies are not regulated by the central bank or protected by government insurance schemes. This lack of consumer protection can pose a risk to investors in the event of losses, theft, or disputes.

e. Market manipulation and scams: The cryptocurrency market has seen instances of price manipulation and fraudulent activities, including pump and dump schemes, Ponzi schemes, and fake ICOs (Initial Coin Offerings). Investors must stay vigilant to avoid falling victim to such scams.

f. Limited acceptance: Despite growing adoption, cryptocurrencies still have limited acceptance as a medium of exchange. The acceptance of digital assets as a form of payment for goods and services is not yet widespread in Nigeria. Unlike, other countries.

It is crucial for individuals interested in investing in digital assets and cryptocurrencies to conduct thorough research, understand the risks involved, and consider seeking professional advice before making any investment decisions.

2.5 The Economic Implications of the Ban on Digital Assets and Cryptocurrencies in Nigeria While It may be Intended to Address Concerns Such as Fraud, Money Laundering, or Consumer Protection Concerns, a Ban Could also Lead to Certain Negative Impacts, Like:

a. Loss of Investment: A ban may prevent individuals and businesses from participating in the growing cryptocurrency market, leading to missed investment opportunities. This could hamper economic growth and innovation.

b. Fostering the Informal Economy: A ban may push cryptocurrency activities into the informal economy, where it becomes difficult to regulate and monitor transactions. This could result in lost tax revenues for the government.

c. Stifling Technological Innovation: Digital assets and cryptocurrencies are built on blockchain technology, which has the potential to transform various sectors. A ban could hinder the development and adoption of this technology, slowing down innovation and limiting the associated economic benefits.

d. Hampers economic growth and development: The ban might lead to the death of some fintech companies and tech startups. In addition, Fintech companies may be forced to lay off their staff as a result of poor capital inflow, which will increase unemployment in the country Aderonke & Eustace, 2021).

2.6 A Case for the Unbanning of the Digital Assets and Cryptocurrencies Dealings in Nigeria

In 2021 the Central Bank of Nigeria banned all banks, financial and other financial institutions from dealing with cryptocurrency exchanges and other related entities. However, despite this ban, cryptocurrencies are still being traded in Nigeria through peer- to-peer transactions and offshore exchanges. This unregulated market poses a significant risk to Nigeria's financial stability, as it can be used to circumvent financial controls and facilitate illegal activities. This demonstrates how digital assets and cryptocurrencies can be exploited for fraudulent gains which might cause loss of good will in the financial system and deter foreign direct investment. A lot of advantages accrue if this system is regulated which are thus:

a. Financial Inclusion: Digital assets and cryptocurrencies can provide financial services to the unbanked population, allowing them to participate in the digital economy and access financial services. Legalizing the industry can mainstream the unbanked and underbanked into the formal financial system through mobile and online applications. Anyone with a mobile device can access digital assets and cryptocurrencies and conduct transactions with them.

b. Reduced Transaction Costs: By eliminating intermediaries and enabling peer-to-peer

transactions, cryptocurrencies can lower transaction costs, especially for cross-border remittances. This can lead to increased economic efficiency and improved financial access.

c. Investment and Job Creation: Encouraging the adoption of digital assets can attract investment and stimulate the growth of blockchain-related businesses. This can create employment opportunities and boost economic activities.

d. Increased Transparency and Efficiency: Blockchain technology underlying cryptocurrencies can enhance transparency, reduce corruption, and streamline processes in various sectors, such as supply chain management and government services.

e. Cross border remittances: Since cryptocurrencies are not subject to any country's exchange rates, interest rates, transaction fees, or other fees, they can be utilized internationally without encountering any issues. This, in turn, saves any business a significant amount of time and money that would otherwise be required to transfer money from one country to another. Because it operates on a global scale, cryptocurrency makes transactions incredibly simple.

f. Anti-inflation: Scarcity is one of the elements that helps an asset resist inflation. Its scarcity ensures that its value will hold over time because Bitcoin has a finite quantity, which is why it is referred to as "digital gold".

g. Boosts the value of the domestic currency: Digital assets and cryptocurrencies have the potential to revitalize economies in nations where the national currency consistently underperforms. Cryptocurrencies can be used to deal with situations where it may be difficult to maintain one's standard of living because of changes in the value of the local currency.

h. Portfolio diversification: According to a global poll conducted by Laser Digital, the cryptocurrency division of the Japanese bank Nomura, the vast majority of professional investors in the Middle East view digital assets as an important component of the financial landscape.

Nearly 93% of respondents from the Middle East saw digital assets as a way to diversify investments in addition to more conventional asset classes including fixed income, cash, equities, and commodities.

According to Jez Mohideen, CEO of Laser Digital, the survey "shows that the majority of institutional investors surveyed saw a clear role for digital assets in the investment management landscape, and the benefits they can bring, such as greater portfolio diversification and an optimally performing financial markets.

i. Economic diversification: Digital assets and cryptocurrencies, fintech start ups and other innovation infrastructure are viable tools to diversify the Nigerian economy that has been plagued by import dependence and over – dependence by oil revenue. The digital economy would diversify the economy with the eye – staggering revenue that accrues from it. An opportunity has presented itself and we need to courageously buy into it

j. Financial Stability: Over time, people's trust in traditional financial institutions like banks has been eroding progressively. Digital assets and cryptocurrencies are a powerful instrument for financial inclusion. You may effortlessly access financial services without the need for banks as the intermediary. It can help streamline the economy by bringing better ease of access to financial services (Aderonke & Eustace, 2021).

2.7 Why There is a Need for Regulation of Digital Assets and Cryptocurrencies Dealings by the Central Bank of Nigeria (CBN)

a. Consumer Protection: Regulation helps to safeguard the interests of consumers by establishing rules and standards that protect them from fraud, scams, and unfair practices. This includes measures to ensure that consumers have access to reliable and secure digital asset services.

b. Financial Stability: Regulation can help safeguard the stability of the financial system by addressing risks related to money laundering, terrorist financing, and illicit activities. Regulation is critical to maintaining a stable financial system.

By overseeing digital assets and cryptocurrencies, the CBN can mitigate risks associated with volatility, market manipulation, and potential disruptions to the financial sector.

c. AML/CFT Compliance: Regulation can ensure compliance with international Anti- Money Laundering (AML) and Countering the Financing of Terrorism (CFT) standards, which are vital for maintaining Nigeria's reputation in the global financial system. Anti- Money Laundering (AML) and Combating the Financing of Terrorism (CFT) regulations are crucial for preventing illicit activities and safeguarding the integrity of the financial system. Regulating digital assets helps to ensure compliance with these regulations, reducing the potential use of cryptocurrencies for money laundering or funding terrorist organizations.

d. Investor Confidence: Regulation instills confidence in investors, both domestic and international. Clear rules and oversight signal that the market operates in a transparent and accountable manner. This can attract more investors who may have been sceptical of participating in unregulated or opaque digital asset markets.

e. Market integrity: Without regulation, digital asset markets can be prone to manipulation, insider trading, and other fraudulent activities. Regulating the digital asset market promotes fairness, transparency, and integrity. It helps prevent market manipulation, fraudulent activities, and insider trading. This creates a level playing field for all participants and fosters trust in the overall market ecosystem.

f. Disclosure rules and governance: Access to traditional financial institutions is necessary for digital assets and crypto-based business platforms to demonstrate their legitimacy and increase their market share. Crypto-based firms must adhere to the same compliance regulations as other financial institutions and enterprises in order for traditional banks and other institutions to feel secure doing business with them. That requires, at the very least, that you follow the same consumer due diligence (CDD) and know-your-customer (KYC) guidelines as any other company.

The fundamental issue is that several major digital asset and crypto exchanges still do not require clients to supply at least some basic personal information (name, address, and date of birth), despite the fact that the majority of them do so presently.

Additionally, there is no accepted protocol for providing law enforcement or government agencies with information about digital assets and crypto customers.

g. Transparency and trust issues: However, until recently, the notion of regulating the cryptocurrency market was viewed as being in direct opposition to the anonymity and decentralization that initially attracted people to digital currencies. The entire purpose of creating bitcoin in 2009 was to develop a form of money that worked independently of the established economic system dominated by large banks and regulators (IOSCO, 2023).

However, a sizable portion of the cryptocurrency sector as well as the conventional banking sector now perceive stronger government regulation as advantageous and necessary. The theory holds that the only way to build an economic infrastructure in which digital currencies and conventional fiat currencies may coexist is through a stronger public policy framework. And this will contribute to building the confidence necessary for the long-term survival of the digital asset and cryptocurrency markets.

Overall, the regulation of digital assets and cryptocurrencies by the CBN aims to protect consumers, ensure financial stability, foster compliance with AML/CFT regulations, enhance investor confidence, and maintain market integrity.

2.8 Regulatory Challenges posed by Digital Assets and Cryptocurrencies

a. Technological complexity: Digital assets and currencies operate on decentralized and technologically advanced platforms, making it challenging for regulators to keep up with the evolving technology.

b. Cross-border nature: Digital assets typically operate across national borders, making it difficult for individual countries to regulate them

effectively. International coordination is necessary to tackle this challenge.

c. Balancing innovation and regulation: Policymakers and regulators must strike a balance between promoting innovation and protecting consumers. Overregulation could stifle innovation, while underregulation could lead to increased risks (IOSCO:2023).

2.9 Opportunities for regulation of Digital Assets and Cryptocurrencies

a. Investor confidence: A well-regulated environment can boost investor confidence in digital assets and currencies, leading to increased adoption and market growth.

b. Economic growth: Regulating digital assets can contribute to economic growth by attracting investments, fostering innovation, and creating new job opportunities in the fintech sector.

c. Financial inclusion: Proper regulation can ensure that digital currencies are accessible to all, especially the unbanked population, promoting financial inclusion.

d. Enhanced monitoring: Regulators can gain better insights into digital asset transactions, which can aid in monitoring systemic risks and illicit activities (IOSCO, 2023).

3.0 Methodology

This research article, titled "The need for digital assets and cryptocurrency regulation in Nigeria: challenges, opportunities, and recommendations," employs a comparative analysis approach to achieve its objectives. The methodology involves a combination of quantitative and qualitative research methods, including data analysis and case studies. The research will utilise primary data from surveys, as well as secondary data from government reports, academic publications, and relevant databases. Descriptive measures (Frequencies, percentages and graphs) and inferential technique (Regression Analysis) will be employed to statistically analyse the data.

The comparative analysis involves examining and comparing the experiences and practices of Nigeria with other countries that have successfully utilised digital assets and cryptocurrency regulation in Nigeria. This will provide insights into best practices, lessons learned, and potential policy recommendations for Nigeria's context.

4.0 Data Analysis and Interpretation

This section discussed the results analysis of the data collected for this study. The analyses included both descriptive and inferential statistics in order to address the research objectives and hypotheses.

4.1 Hypothesis Testing

This section contains information about the research hypotheses formulated for the purpose of addressing the research questions and objectives of this study. Simple linear regression analysis and multiple linear regression analysis was employed to test the different hypotheses which help to explain the relationships among the variables and also descriptive analysis was employed to the first section of the survey questionnaire (age, gender, highest level of education, and the state of residence).

4.1.1 Hypothesis One (H01)

H01: Effective regulation of digital assets and cryptocurrencies will positively influence investor protection, fostering increased business growth, enhanced consumer confidence, and improved national security.

Independent Variable Question:
How confident are you in the Central Bank of Nigeria's ability to effectively regulate digital assets and cryptocurrencies?

Dependent Variable Questions:

How might effective regulation of digital assets and cryptocurrencies impact investor protection in Nigeria?

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.158a	.025	.017	1.028	.025	1	1	127

Table 4.13 The Model Summary

The R-squared value in the model adequacy table indicates that the model is statistically significant. Approximately 25% of the variation in the dependent variable, related to investor protection in Nigeria, is explained by the independent variable, reflecting confidence in the Central Bank's regulatory capabilities.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.446	1	3.446	3.264	.073[b]
	Residual	134.089	127	1.056		
	Total	137.535	128			

Since the p-value (0.73) is greater than the alpha (0.05), we conclude that the impact of confidence in the Central Bank's regulatory abilities on the effectiveness of regulating digital assets and cryptocurrencies in terms of investor protection is not statistically significant.

4.1.2 Hypothesis Two (H02)

H02: The absence of a comprehensive regulatory framework for digital assets and cryptocurrencies contributes to challenges related to anti-money laundering, terrorism financing, proliferation financing, corruption, and illicit financial activities.

Independent Variable Question:

How confident are you in the Central Bank of Nigeria's ability to effectively regulate digital assets and cryptocurrencies?

Dependent Variable Questions:

Which of the following challenges do you believe are faced by the Central Bank of Nigeria in regulating digital assets and cryptocurrencies?

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.021a	.000	-.007	.907	.000	.055	1	127

The R-squared value is negligible, indicating that the model lacks significance in explaining the variation in respondents' perceptions of challenges. This variation appears to be minimally influenced by confidence in the Central Bank's regulatory abilities.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.046	1	.046	.055	.814[b]
	Residual	104.435	127	.822		
	Total	104.481	128			

Since the p-value (0.814) is greater than the alpha (0.05), we conclude that there is no statistically significant relationship between confidence in the Central Bank's regulatory abilities and the perceived challenges faced by the institution in regulating digital assets and cryptocurrencies.

4.2 Discussion of Result

The model summary indicates that the relationship between effective regulation of digital assets and cryptocurrencies and investor protection is not statistically significant ($p = 0.73$). Therefore, we cannot conclude that confidence in the Central Bank's regulatory abilities significantly impacts the perception of how such regulation affects investor protection in Nigeria. This suggests that other factors might play a more influential role in shaping these perceptions.

Regulation of Digital Assets and Cryptocurrencies for Business Growth:

The ANOVA result reveals a significant relationship between confidence in the Central Bank's regulatory abilities and the perception that regulation of digital assets and cryptocurrencies fosters business growth in Nigeria ($p < 0.05$). This suggests that individuals who have higher confidence in the Central Bank's regulatory capabilities are more likely to believe that such regulation positively impacts business growth in the country.

Enhancing Consumer Confidence through Digital Asset Regulation:

The ANOVA result indicates a statistically significant relationship between confidence in the Central Bank's regulatory effectiveness and the perception that effective regulation of digital assets and cryptocurrencies enhances consumer confidence ($p < 0.05$). This underscores the importance of regulatory confidence in shaping perceptions about the positive impact of digital asset regulation on consumer confidence.

Positive Impact of Digital Asset Regulation on National Security:

The ANOVA result reveals a significant association between confidence in the Central Bank's regulatory abilities and the belief that regulating digital assets and cryptocurrencies can positively impact national security ($p < 0.05$). This suggests that higher confidence in regulatory capabilities correlates with the perception of greater positive impact on national security through such regulation.

Challenges Faced by the Central Bank in Regulating Digital Assets:

The ANOVA result indicates that confidence in the Central Bank's regulatory effectiveness does not significantly impact the perception of challenges faced by the institution in regulating digital assets and cryptocurrencies ($p > 0.05$). This implies that confidence levels do not strongly influence how respondents perceive the challenges faced by the Central Bank in this context.

Primary Challenge to Regulating Digital Assets and Cryptocurrencies:

The ANOVA result reveals that confidence in the Central Bank's regulatory abilities does not significantly impact the perception of the primary challenge to regulating digital assets and cryptocurrencies in Nigeria ($p > 0.05$). This suggests that this particular perception is not closely linked to confidence levels in regulatory capabilities.

Effectiveness of Regulatory Measures for Digital Asset Regulation:

The ANOVA result shows a significant relationship between confidence in the Central Bank's regulatory abilities and the perception about the effectiveness of regulatory measures for addressing challenges in digital asset and cryptocurrency regulation ($p < 0.05$). This underscores the role of confidence in influencing perceptions of regulatory measures' effectiveness.

Stricter Regulations and Deterrence of Illicit Financial Activities:

The ANOVA result indicates a slightly non-significant relationship ($p = 0.058$) between confidence in the Central Bank's regulatory capabilities and the belief that stricter regulations would deter illicit financial activities. This suggests that while there might be a potential link, further investigation is needed to determine the significance of this relationship.

5.0 Conclusion

In conclusion, the findings from this study provide insights into the perceptions and beliefs surrounding the regulation of digital assets and cryptocurrencies in Nigeria. It is evident that

confidence in the Central Bank of Nigeria's ability to effectively regulate these technologies plays a significant role in shaping various perspectives related to their impact on different aspects of the economy and society.

The analysis of the results reveals that while confidence in regulatory abilities does not uniformly impact all perceptions, it does have a significant influence on certain viewpoints. For instance, individuals who exhibit higher confidence in the Central Bank's regulatory capabilities are more likely to believe that effective regulation of digital assets and cryptocurrencies can foster business growth, enhance consumer confidence, positively impact national security, and effectively address regulatory challenges. However, the relationship between confidence and other perceptions, such as the primary challenge to regulation and the deterrence of illicit financial activities, is less clear and requires further exploration.

The revolution in digital assets and cryptocurrencies is here to stay. The Central Bank of Nigeria is strategically positioned and has the capacity to lead this revolution. It is not late for us to maximize the opportunities this industry affords us. As it is now, the United States government has become one of the biggest bitcoin holders. Due to asset forfeitures from cases like Silk Road, the U.S. hold regular auctions to exchange bitcoin for dollars. Regulation of digital assets and currencies in Nigeria is no longer a thing of choice but a necessity to ensure consumer protection, maintain financial stability, address anti-money laundering, counter terrorism financing and proliferation financing concerns, corruption, and illicit financial activity and foster market integrity.

While challenges exist, effective regulation can mitigate these challenges and bring opportunities such as investor confidence, economic growth, financial inclusion, and enhanced monitoring. It is important for regulators and policymakers to develop comprehensive frameworks, foster international cooperation, build technological expertise, and embrace innovation to create a balanced and efficient regulatory environment. The creation of an enabling environment for innovation and growth in the digital asset space is possible through effective regulation. Moreover, cybercrime and cybersecurity laws in Nigeria should be strengthened and implemented to address the evolving challenges associated with digital assets and cryptocurrencies usage. Collaboration with stakeholders such as the EFCC, NFIU and the SEC, is paramount and being a member of the Law Enforcement and Government Alliance (LEGA), the Bank would scale through these hurdles.

6.0 Recommendations:

Collaboration between the Central Bank of Nigeria (CBN), the Nigerian Financial Intelligence Unit (NFIU), the Securities and Exchange Commission (SEC), and the Economic and Financial Crimes Commission (EFCC) is crucial to effectively tackling the potential exploitation of digital assets and cryptocurrencies for money laundering and other criminal activities. Here are a few measures that could be undertaken by the Bank:

a. Innovation Sandbox: Establishing regulatory sandboxes in a live-simulation testing environment and developing innovative digital asset solutions while ensuring regulatory compliance and security checks for digital assets and cryptocurrency works.

b. Awareness and Education: The collaboration should focus on raising awareness among the public, financial institutions, and law enforcement agencies about the risks associated with digital assets and cryptocurrencies and their potential for criminal abuse. Educational campaigns can help promote responsible use and also emphasize the importance of reporting suspicious activities.

c. Regulatory Framework: The CBN, SEC, and other relevant agencies can work together to create and enforce regulations specific to digital assets and cryptocurrencies. This can help establish a legal framework that sets clear guidelines for businesses engaged in these transactions, requiring them to implement anti-money laundering (AML), customer due diligence (CDD), and Know Your Customer measures (KYC).

d. Enhanced Monitoring and Reporting: The

NFIU can play a crucial role in monitoring transactions involving digital assets and cryptocurrencies, identifying suspicious activities, and exchanging information with other agencies. This can help identify potential cases of money laundering or other criminality and enable swift action.

e. Collaboration with International Agencies: Given the global nature of cryptocurrencies, collaboration with international agencies and international regulatory bodies can be beneficial. Sharing information and best practices can help in fighting cross-border crimes and tracking illicit funds.

f. Technological Solutions/Expertise: Investing in technological solutions that provide enhanced surveillance and monitoring capabilities for digital assets and cryptocurrencies can be helpful. This can include utilizing blockchain analytics tools to track and trace transactions, identify illicit activities, and detect patterns associated with money laundering or other criminal behavior.

g. Advocacy Efforts: The Central Bank of Nigeria should engage and collaborate with Policy Makers for policy solutions to address digital assets and cryptocurrencies concerns and enact effective legislation in Nigeria.

h. Establish a Dedicated Team: The Bank should establish a dedicated team or expand other existing teams to monitor digital assets and cryptocurrencies dealings in the

financial space, to keep up with trends in the market and to collaborate and coordinate activities with other relevant stakeholders and security agencies.

I. Capacity Development: The Bank should strengthen the capacity of Staff to comfortably keep up with the evolving innovation and trends in the market and also invest in infrastructure. It could also assist in strengthening the capacity of other collaborating agencies. This is a dire industry that deserves intervention.

j. Cyber Insurance: It is also called cyber risk insurance or cyber security insurance. The Central Bank of Nigeria and the National Insurance Commission should ensure this insurance product is designed for banks and financial institutions to hedge against the potentially devastating effects of cybercrime. In case a breach is recorded, this would ensure recuperation and that such attacks do not cripple the business. This is essential to promoting investor confidence and a stable financial system.

By effectively coordinating their efforts, the collaboration between CBN, NFIU, SEC, and EFCC can improve the overall resilience of the financial system against criminal exploitation of digital assets and cryptocurrency transactions.

Furthermore, these findings underline the importance of continuous efforts to build and maintain public trust in regulatory institutions. Strengthening transparency,communication, and stakeholder engagement can play a pivotal role in enhancing confidence in regulatory mechanisms and ultimately shaping positive perceptions about the impact of digital asset and cryptocurrency regulation on various aspects of the economy and society.

In light of these findings, future research endeavours could delve deeper into the factors that contribute to individuals' confidence in regulatory institutions, the role of public awareness campaigns in shaping perceptions, and the potential links between confidence and broader socio-economic indicators. By gaining a more comprehensive understanding of these dynamics, policymakers and stakeholders can develop more effective strategies for promoting responsible and beneficial digital assets and cryptocurrency regulation in Nigeria.

This study highlights the intricate interplay between regulatory confidence and perceptions about the impact of digital assets and cryptocurrency regulation. It emphasizes the need for a multifaceted approach that takes into account confidence- building measures, contextual factors, and collaborative efforts to create a regulatory environment that fosters economic growth, consumer protection, and national security while addressing the challenges posed by emerging digital technologies.

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BALANCING THE RISKS AND BENEFITS OF CBDC IN NIGERIA[1]

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Abstract

This paper examines the implications of Central Bank Digital Currency (CBDC) for financial system stability in Nigeria, focusing on the eNaira. We argued that the eNaira, in its present design and extent of usage, poses limited risks to financial stability, while its benefits are not yet fully optimized. The paper submits that the extent of the risks and benefits will depend on its adoption scale and additional features. As eNaira adoption grows, continuous vigilance and reappraisal of emerging risks by the Central Bank are necessary to fully optimize the benefits, alongside implementing appropriate risk mitigation strategies.

Keywords: *Central Bank Digital Currency, eNaira, Risks and benefits*
JEL Codes: E52, E58, E42.

1.0 Introduction

Rapid digitalisation of the economy has raised critical questions and debates about the potential of fiat money in satisfying the current and emerging needs of economic agents in the years ahead. The advent and heightened usage of cryptocurrencies, stable-coins as well as other digital innovations, particularly during the peak of the COVID-19 pandemic, has further magnified this debate. More broadly, the widespread adoption of cryptocurrencies which uses the distributed ledger technologies, have brought profound changes to traditional payment systems, with a gradual shift from an account-based system to a token or value-based payment system (He, *et al,* 2017).

These developments, especially the threats posed by cryptocurrencies to monetary policy effectiveness and overall financial system stability, have fuelled an intense debate and enormous research interest on whether central banks should issue cash in digital forms – the central bank digital currency (CBDC). This is even more compelling in the face of declining cash usage in many countries across the world and the need to still fulfil the mandates of central banking in the new digital age.

However, as the world continued to ponder on the idea of issuing CBDC, significant concerns have been raised with regards to the potential risks and benefits it could bring to the financial system. For many analysts, issuing a digital currency is like travelling to a new and unknown destination – a path with uncertain outcomes and consequences for the monetary and financial system. Hence, there are restraints on the part of some central banks to "hold the breaks" on the CBDC projects, while studying or observing the progress of "the early adopters". Others have also moved cautiously to "test the waters" by embarking on pilot schemes; some are still conducting extensive research to weigh the pros and cons of issuing the digital currency, while only a few countries have fully launched the CBDC.

[1] **Disclaimer**: The views expressed in this paper are entirely those of the authors and do not in any way represent the position of the Central Bank of Nigeria
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Regardless of the slow adoption of CBDC globally, all indications suggest one fact - significant changes are underway for the global financial and monetary system, as interest in CBDC continues to deepen. In particular, as of May 2022, available statistics by the CBDC[3] tracker indicate that 11 countries (Nigeria, the Bahamas, Jamaica and 8 countries in the Eastern Caribean) have fully launched the CBDC; while 105 countries, representing 95 per cent of the world GDP, were still exploring a CBDC in one form or the other.

This shows significant interest across the world when compared with only 35 countries contemplating a CBDC as at May 2020. Today, many central banks, especially in Europe, are equally accelerating the exploration of alternative international payment systems, following waves of economic and financial sanctions on Russia over its invasion of Ukraine – a pointer that the future of money is largely digital.

Although Nigeria currently has one of the most robust payment systems in the world, and a resilient financial system, the issuance of CBDC could have significant consequences for the implementation of monetary policy and financial system stability, depending on its specific design and extent of adoption (Raskin & Yermack, 2016; Neipelt, 2018; Barrdear & Kumhof, 2016; Kahn, *et al,* 2018). More so, every new payment systems or products equally bring new layers of challenges and opportunities.

In this paper, we examine the implications of CBDC for financial system stability in Nigeria. In particular, we place the discussion within the context of balancing the risks and benefits associated with issuing the eNaira. Given the novelty of CBDC, most studies on the topic are understandably hypothetical and exploratory (BIS, 2018; Mancini-Griffoli et al., 2018; Beniak, 2019). Thus, our discussion is primarily conceptual and exploratory, using some basic economic assumptions. The key research issue here is to critically re-examine the potential benefits and risks associated with the introduction of the eNaira. This endeavour is particularly significant for Nigeria, being one of the few countries globally, after the Bahamas, to launch a CBDC that is fully accessible to the public. To the best of our knowledge, studies on Nigeria's CBDC are still limited. Lessons from this paper are expected to help Nigeria further improve the eNaira's design framework and implementation, and provide useful insights for other countries considering a similar path.

The rest of this paper is organised as follows. The next section discusses some conceptual issues on CBDC, including its definition and operating models; the third section examines the risks and benefits of CBDC, with special reference to the eNaira. Some concluding remarks are offered in the last section.

2.0 Understanding Central Bank Digital Currencies

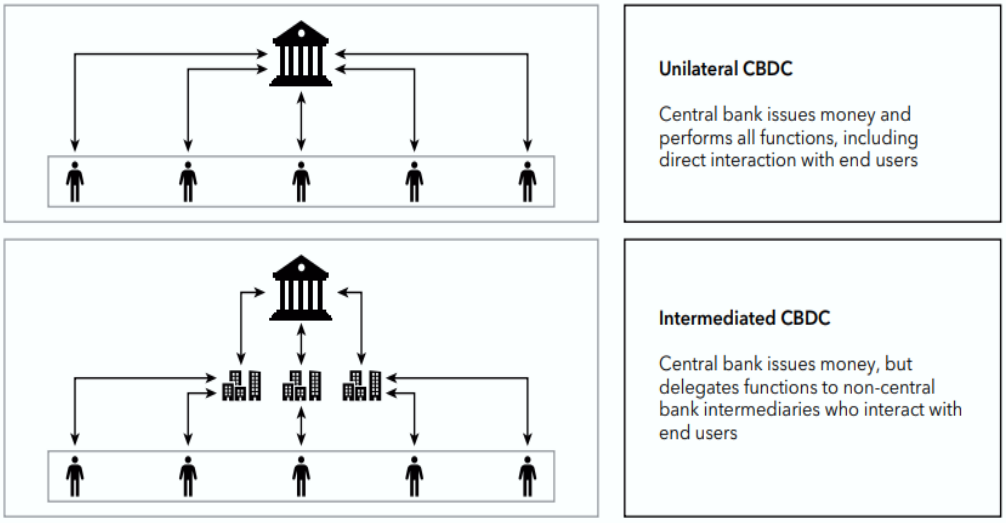
It is important to first provide an understanding of what the CBDC is and what it is not. In its simplest form, the CBDC, as the name suggests, is an electronic form of money, characterised as a central bank's liability that can be exchanged in a decentralised manner - without the need for a central intermediary (Bech and Garratt, 2017). It is the digital version of a country's fiat money backed by the full faith and credit of the government, and exchangeable at par with physical cash.

In terms of operating models, CBDC can be retail or wholesale (see Figure 1). For the retail CBDC, also known as *unilateral CBDC*, the central bank issues the money and performs all functions, including direct interaction with end users. An example of this includes Nigeria's eNaira. The second one, the wholesale CBDC, also referred to as *intermediated CBDC,* facilitates peer-to-peer transactions through non-central bank intermediaries that interact with end-users.

Globally, wholesale CBDCs have received lesser appeal compared with the retail CBDC, especially when it comes to fostering financial inclusion, except for the purpose of cross-border payments efficiency (Boar and Wehrli, 2021). The *CADcoin* is an example of wholesale CBDC[4]

[3] http://www.atlanticcouncil.org/cbdctracker/
[4] The CADcoin is the original name used in Bank of Canada's CBDC proof of concept

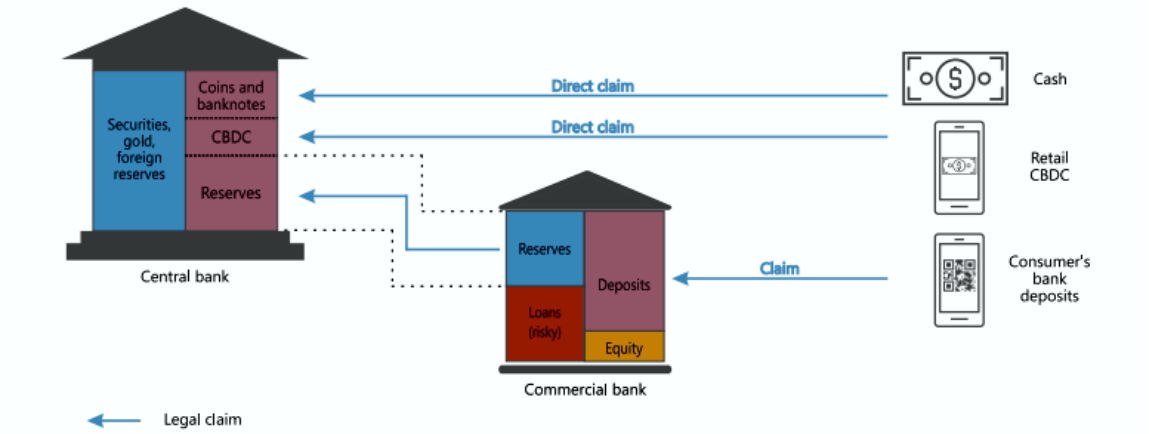
Figure 1: CBDC Operating Models



Source: IMF Staff culled from Soderberg (2022).

The CBDC is different from existing forms of cashless payments and e-money instruments such as credit cards, e-banking and direct debits, as the CBDC represents a direct claim on the central bank rather than a liability of commercial banks (see Figure 2). This specific feature of the CBDC (i.e. riskless claims) also differentiates it from cryptocurrencies (like Bitcoin) and other private digital tokens (like stablecoins). With the CBDC, the central bank money is now broken into three major components – reserves, coins and banknotes, and CBDC. Table 1, adapted from Engert and Fung (2018), summarize the key attributes of these three forms of central bank money.

Figure 2: The New Monetary System with Retail CBDC



Source: Auer and Böhme (2021).

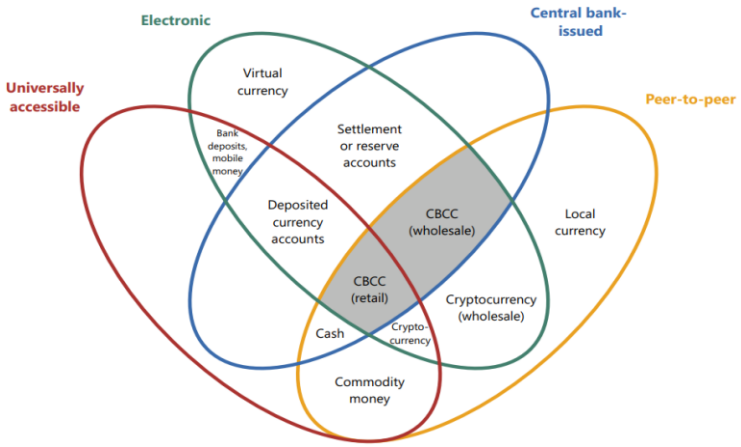
Bech and Garratt (2017), following the properties espoused by CPMI (2015) and Bjerg (2017), summarize the different taxonomy of money in the digital age using a simple Venn diagram, which is commonly referred to as the "money flower" in the extant literature (Figure 3). The Venn diagram distinguishes the various forms of "money" based on the issuer (central bank or others), the form (electronic or physical), accessibility (either universal or limited), and transfer mechanism (whether centralized or peer-to-peer). Based on this, the retail CBDC has the attributes of being universally accessible, electronic, peer-to-peer, and central bank-issued.

Table 1: Attributes of Central Bank Money

Attributes	Reserves	Coins and Bank notes	CBDC
Convertibility: exchange between reserves, coins & bank notes and CBDC	Par	Par	Par
Access	Only financial institutions (FIs) that are direct clearers in large-value payment systems can access reserves	Non-exclusive; anyone can use coins and banknotes. No particular technology required	Non-exclusive; but access to related technology is required
Availability	Subject to operating hours of the large-value payment system	24/7	24/7
Confidentiality	All participating FIs are known to the central bank	Anonymous	Users are known to the central bank or its agents
Distribution channel	Participating FIs have accounts at the central bank	Through regulated FIs that have accounts at the central bank.	Retail or Wholesale
Finality/irrevocability	Final and irrevocable once the risk control tests are satisfied	Immediate, at the time of transaction	Depends on the technological solution
Payment network structure	Centralized, settles on the book of the central bank	Distributed, bilateral; not tiered	Depends on the technological solution

Source: Adapted from Engert and Fung (2018)

Figure 3: Taxonomy of Money in the Digital Era



Source: Bech and Garratt (2017)

These attributes distinguish the CBDC from private virtual currencies. Unlike CBDC, private virtual currencies (VCs) have no intrinsic value in the sense that they are not linked to any sovereign currency, and therefore do not have legal tender status. Transaction using VCs is subject to significant volatilities, and therefore they fail to effectively serve as a store of value. Given that a limited number of merchants, governments and households accept them, their ability to function as means of payment is equally limited (Soderberg, 2018; Bank of Canada, 2014; European Banking Authority, 2014; Yermack, 2013). VCs comes with many disadvantages and risks for users, merchants, financial market regulators and financial system stability, in general. Since they are beyond the control of central banks, the widespread use of private digital currencies can potentially complicate the central bank's monetary management endeavours posing challenges to financial stability.

The European Banking Authority (2014) identified over 70 risks associated with VCs, including money laundering, terrorism financing and other financial crimes, thereby undermining financial market regulators' objectives.

3.0 Central Bank Digital Currency and Financial System Stability: What are the Potential Benefits and Risks?[5]

The intentions or motivations for considering the central bank digital currency have been widely expressed in the literature. For many central banks, including the CBN, the CBDC is considered a means of improving access to payment services for the unbanked public. This is more of a major concern in developing countries with a large percentage of financially excluded population.

In Nigeria, for example, a survey conducted by a development finance organization, Enhancing Financial Innovation and Access (EFInA), shows that as of 2020, a large number of Nigerians were still financially excluded (38.1 million people, representing 36 per cent of the adult population). The intention of government, therefore, is to use the eNaira as a gateway in facilitating the achievement of 95 per cent financial inclusion by the end of 2024. A similar policy goal has been echoed in the Bahamas and the Eastern Caribbean Currency Union (ECCU), where pockets of the population are excluded from financial services on account of their locations in difficult islands that are largely unprofitable for banking services operations (see IMF, 2019; Soderberg, 2022).

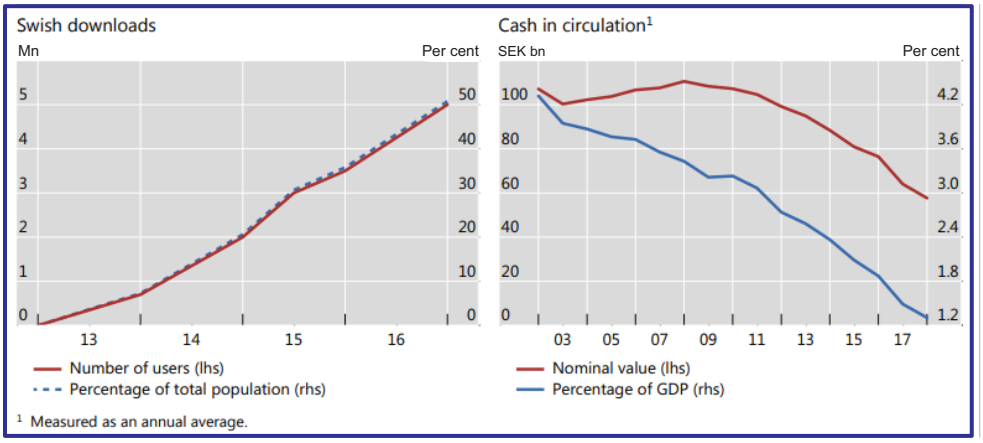
The idea of using CBDC as a means of government-to-person payment, including direct fiscal assistance or stimulus to households and small businesses, is also widely shared especially for disaster-prone nations or during a major economic crisis as the recent COVID-19 pandemic. In the case of the Bahamas and Nigeria, strengthening the fight against money laundering and terrorism financing has been added as another driving factor for the launching of the CBDC. The CBN has also identified facilitating cross-border payments and enhancing remittances and tax collections among other long-term policy goals behind the introduction of the eNaira. With specific reference to the stability of the financial system, it is worth noting that one of the key mandates of the Central Bank of Nigeria (CBN) is to safeguard the soundness and stability of the financial system. So, what then are the likely implications of the eNaira for financial system stability? Ideally, as a new payment platform, the introduction of eNaira may result in a mix of benefits and risks for payment efficiency and resiliency. Some of these include the following:

a) Cost-Effective and a Perfect Alternative in the Face of Declining Use of Cash

First of all, it is important to think about what happens to the stability of the financial system in the likely future scenario where the demand for physical cash falls drastically or becomes obsolete. Will the payment system continue to be safe and efficient? It is probable to argue that under such a scenario, the eNaira may become critical to safeguard financial system stability and the sovereignty of monetary policy by providing public access to legal tender. The eNaira represents a good step to be prepared for a digital future without cash than to be caught in the trap of uncertainty. This is even more compelling as the use of cash in transactions has witnessed a significant decline in many parts of the world, particularly over the last decade. For instance, a report by the US Federal Reserve (2022), indicated that the proportion of cash payments in the US had fallen from 40 per cent in 2012 to 19 per cent in 2020, while it fell from 33 per cent to less than 10 per cent over the same period in Sweden. Figure 4 tells more on this. The left-hand side of the panel underscores the rapid adoption rate of modern payment solutions in Sweden, with over 50 per cent of the Swedes population (about 5 million people) having the Swish mobile phone app installed as of 2016. This leads to a drastic drop in the demand for physical cash as shown in the right-hand side of the panel.

[5] This section draws, in part, from Akpan and Nwanja (2022)

Figure 4: The Demand for Cash in Sweden

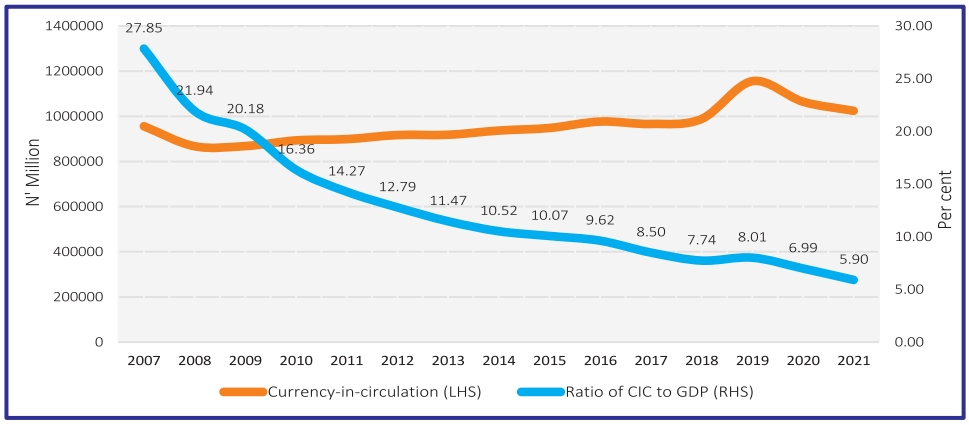


Source: Bech and Garratt (2017)

In China, the report had it that 50 per cent of point-of-sale (POS) transactions were made with a mobile wallet or app, while cash accounted for only 13 per cent. Similarly, in Norway, the idea of CBDC is being contemplated as only 4 per cent of the country's population is leveraging cash for payments, driven by the COVID-19 crisis which raised significant concerns about transmission through personal contact with physical cash, that changes hands frequently (see Bache, 2020).

This is probably the lowest in the world. In the case of Nigeria, a similar declining trend in cash usage is also observed. As a percentage of GDP, currency-in-circulation in Nigeria has fallen from 27.9 per cent in 2007 to about 5.9 per cent in 2021 (Figure 5), a reflection of the sharp increase in preferences for contactless payment solutions (see also CBN, 2022). Hence, a digital currency would ensure public access to legal tender if cash is eventually phased out.

Figure 5: Trend of Currency-in-Circulation in Nigeria



Source: Authors' computation from CBN dataset.

The introduction of eNaira also bears advantages to the monetary authority in terms of reduction in the cost of cash distribution. Cash, as a tangible form of money, must be physically transported from and to central bank branches securely, at a significant cost and associated risks of theft or attack. A digital currency may be less costly and faster to distribute. To the extent that large cash usage can be replaced by CBDC, the cost of printing, transporting, storing and distributing physical cash can be drastically reduced.

b) Prospects for Resolving Inefficiencies in the Electronic Payment Process.

Another clear benefit of a retail CBDC like the eNaira is that it has the potential for faster payment settlement than the current electronic payment channels. Although the existing e-payment channels have been relatively simple and fast to instruct from the sender's perspective, some back-end inefficiencies usually remain. Most often, settlements within the current e-channels are not done at the same time as they are

instructed, as it requires intermediary inter-bank settlement infrastructure to clear it before being settled. Such delay imposes a cost at the receiver's end and the eNaira represents a unique option to improve the payment efficiency. This is because, with the eNaira, payment can be settled quickly as the Central Bank of Nigeria is both the issuer and acquirer of funds and has no need for any interbank coordination.

An additional benefit of this is the potential lower transaction costs than existing payment providers. Given that the central bank is not motivated by profit-taking like other financial service providers, it is plausible to assume that the Bank would charge very minimal or no fees for eNaira-based transactions.

c) Prospects for Improved Monetary Policy Framework, if and if eNaira Bears Interest Rate.

Indeed, the eNaira could be an additional instrument for monetary policy in the future, by offering new channel for monetary policy transmission. However, this possibility depends, largely, on the question of whether the eNaira should be interest bearing (in the long-run) or not (as it is currently), conditional also upon significant demand for it or a high volume of eNaira in circulation, especially if the role of cash significantly diminishes (Niepelt, 2018).

Typically, monetary policy becomes ineffective in providing additional stimulus to the economy once nominal interest rates drop below zero. This is because, at that point, economic agents (households and firms) are presumed to want to hold cash (with a zero-interest rate) rather than hold other financial instruments with a negative interest rate. Given that the eNaira is currently designed as a non-interest-bearing, run by the CBN, and competing with the accounts offered by the deposit money banks (DMBs); hence, as long as the Bank's policy rate is positive, the eNaira may as well be just an autonomous factor for monetary policy.[6]

The dynamics would change, however, if the CBN decides to set its policy rate below zero and the DMBs attempt to pass it on to depositors. Rationality demands that deposit holders with the DMBs would most likely want to switch to their eNaira accounts with the CBN (with zero interest rate). This situation, according to Beniak (2019), implies that the introduction of a non-interest-bearing CBDC like the eNaira may lead to a higher effective lower bound (ELB)[7] and therefore, limiting the effectiveness of monetary policy, akin to Keynes' (1936) liquidity trap scenario.

However, if the eNaira is allowed to bear interest, it could become an additional useful tool for monetary policy.[8] Bordo and Levin (2017) suggest a single monetary policy rate, whereby the central bank directly pays the interest rate on CBDC using the same rate paid on other funds held by the Bank. All things being equal, inflation could be easily stabilised by tinkering with the interest rate, since the impulse of the Bank's action would be directly transmitted to households and firms that hold the eNaira and indirectly to the wider economy through the banking system.

Furthermore, an interest-bearing eNaira could provide additional benefits to the monetary and financial system by providing a competitive alternative to private crypto-currencies. Globally, Nigeria is ranked as the second country, after Thailand, with the highest share of crypto-currency adoption.[9] As long as private cryptocurrencies have limited interaction with the banking system, their activities are not influenced by the Bank's policy rate.

Hence, the growing popularity of crypto-currencies, suggests that a large amount of banking liquidity is shifting away from the influence of monetary policy. Two things may be needed, therefore, to safeguard the banking system stability and maintain monetary policy effectiveness, viz – regulate the use of crypto-currencies or introduce interest on the eNaira to compete with private crypto-currencies.[10]

[6] Essentially, the liability side of the CBN balance sheet can be broadly divided into two parts – the monetary policy instruments and the autonomous factors (i.e. claims on the CBN governed by the creditors' demand and which the Bank has no control). The autonomous factors could include the public's demand for bank notes and coins as well as deposits and withdrawals from the correspondent accounts with the CBN (e.g. foreign central banks, international financial institutions, and other special account holders). On the other hand, the monetary policy instruments all those that can be used to manage liquidity (e.g. deposit facilities, CBN bills, etc).

[7] The fact that physical cash is constrained to a zero nominal return is the foundation of effective lower bound (ELB) on monetary policy. This is because if the deposit rates of the DMBs became too negative, rational depositors can always switch to cash. Agur (2018) pointed out that the ELB played a crucial role during the Global Financial Crisis (GFC), by providing impetus for the deployment of unconventional monetary policies.

[8] However, interest bearing eNaira may lead to other negative consequences like bank disintermediation. It may also raise legal questions and require amendment of relevant sections of the CBN Act.

[9] See https://ceoworld.biz/2022/08/05/top-10-countries-with-the-highest-rate-of-cryptocurrency-possession-in-2022.

[10] However, it has to be argued, that given the unstable feature of crypto-currencies, it may not pose any significant risk to monetary policy effectiveness in Nigeria.

d) Increased Risks of a System-Wide Bank Run in the Event of a Financial Crisis

One of the greatest risks posed by the eNaira, if widely adopted across the country, is the risk of systemic bank runs. This is an area that the Bank must be vigilant to mitigate. Ordinarily, it must be acknowledged that systemic bank runs could still occur in the absence of the eNaira, if there are sufficient factors that warrant massive withdrawal of deposits from one bank to another at the same time (see Tolle, 2016). However, in such an instance, it would not be easy to have a run on the entire banking system, as it would be practically more difficult to convert all bank deposits into cash.[11]

Typically, cash withdrawals during bank runs require depositors to queue up at ATMS or banking halls of deposit money banks. Such a slower process evidently would reduce the speed of deposit withdrawals and provide bank managers and regulators some sort of ample time to react to the development. However, with the eNaira, households and firms may now have an alternative or incentive to quickly convert their deposits into the eNaira (backed up by sovereign credibility) in the event of a systemic crisis or possibly unjustified rumours regarding the insolvency of some banks, except the Central Bank react quickly by freezing these transfers.

Notably, the CBN seems to have pre-empted this scenario by placing a ceiling on the amount of eNaira an individual can hold, except for merchants, where there is no limit. However, this does not completely mitigate this risk, as households may still decide to hold some of their deposits in the form of cash and the balance in eNaira. One other way of mitigating this risk is to allow the eNaira to bear interest, which then expands the scope for monetary policy control as earlier discussed.

Assume the eNaira becomes interest-rate bearing and the CBN decide to set a negative interest rate (for instance, by introducing time-varying conversion fees as argued by Agarwal & Kimball, 2015; Goodfriend, 2016 and Agur, 2018). This would potentially mitigate the risk of bank runs by eliminating the substitution of bank deposits with the eNaira and create the potential to overcome the ELB constraints. However, the legal and operational issues of having an interest on eNaira need to be carefully evaluated, as the CBN may be deviating from its core mandates, as a regulator of financial institutions.

e) Risk of Financial Disintermediation

A related risk to the financial system stability of CBDC is the issue of financial disintermediation. This risk is much stronger if the eNaira eventually become interest-bearing, as earlier discussed. Commercial banks, for instance, may end up losing part of their retail funding base, if interest rates on the eNaira are not carefully calibrated. In an extreme scenario, if the eNaira is widely accepted (without restrictions), banks could have less money to generate risk assets, which will have the unintended consequence of raising interest rates on loans or on deposits to retain customers.

Deposit losses could also have a detrimental impact on banks' funding and liquidity positions, and hence higher interest rates in the interbank market.[12] Furthermore, to the extent that financial disintermediation occurs, the CBN could face an unpalatable choice on the allocation of eNaira resources, which would either tilt credit provision towards the public sector or be reinjected into the financial sector. The latter option represents an explicit credit risk for the Bank and introduces a complex choice on how to allocate funding among the banks without opening doors to political interference or conflict of interest as a financial regulator.

f) Risk to Financial Sector Resilience

Another related threat to financial system stability with the issuance of eNaira is that it could reduce commercial bank's resilience to economic shock due to increased competition and lower profitability (see Wadsworth, 2018). In the event of financial disintermediation, commercial banks would not only have to compete for deposits by raising the deposit interest rate but could also lose

[11] The only exception and possibility for a run on the whole banking sector is if it is possible for all customers to transfer their deposits to foreign banks. This is an extreme case with very limited possibility in the practical sense.
[12] For instance, in the case of Sweden, Sveriges Riksbank (2017) experts the introduction of e-krona to reduce commercial bank's profits and thereby affects their stability.

a significant portion of the revenue they earn from payment charges, especially if eNaira offers cheaper domestic and cross-border transaction fees. Nevertheless, the resulting competition may engender more efficiency in banking operations. However, there may be some adverse consequences for financial system stability if the less profitable banks become weak and less resilient to shocks or seek higher-yielding and more risky assets to mitigate their decline in profitability.

g) Cyber Security Risks and Operational Resilience

While the CBN may have taken necessary steps to ensure that the financial system stability is not affected by the introduction of the eNaira, the fact remains that the eNaira, like every other digital currency, carries potential risks for cyber security, operational resilience, and financial integrity and stability. This risk could become substantial once the eNaira becomes a crucial payment system, both for domestic and international transactions.[13]

As technology continues to advance, activities of modern-day cyber criminals are equally growing at a rapid scale. Any eNaira cybersecurity breach would come with large negative externalities on other activities of the Bank, due to reputational effects.[14] To avoid any reputational damage, the central bank would therefore have to become fully active along several steps in the payment value chain, directly interfacing with end-users, building front-end wallets and substantial infrastructure to mitigate the risk of operational failure and cyber-attacks, thus incurring additional costs.

h) Personal Privacy Concerns

Concerns about personal privacy have been raised on CBDCs, particularly with the account/identity of connected ones like the e-Naira. From a technical perspective, fiat money provides some level of privacy or anonymity that may prove difficult to replicate in its digital version without inheriting the same challenges associated with private cryptocurrencies. Notably, the eNaira's lack of anonymity could bring some additional advantages to the monetary system with respect to the fight against money laundering and financing of illicit activities (see Rogoff, 2016). However, the knowledge that every eNaira-based transaction is not anonymous may work against its general acceptability or adoption and drove further interest in risky cryptocurrencies, with obvious implications for financial system stability (see Raskin & Yermack, 2016; Bech & Garrat, 2017; BIS, 2018).

Additionally, given that non-anonymous payment services often require some forms of identification (e.g. BVN, e-mail, phone number, and account number) which may be difficult or costly to obtain from the unbanked public, located mostly in the rural areas, it could also pose a challenge to financial inclusion objective of the eNaira. Another major concern related to this is the amount of authority that central bank digital currency grants to the government, by creating a 'super-state' capable of full monitoring of all individual transactions (Fung & Halaburda, 2016).

To enhance its usage therefore, the e-Naira would need to strike an appropriate balance between safeguarding the rights of consumers to privacy and affording the transparency necessary to deter criminal activities.

4.0 Concluding Remarks

Rapid growth in technological innovation, heightened usage of private cryptocurrencies, and the declining use of cash in favour of electronic transactions have put the debate on central bank digital currencies (CBDC) in the spotlight in recent times. While the interest in CBDC is expanding across the world, many countries are still contemplating whether they should embrace this new pathway by issuing a CBDC to the public. At the time of this article, only Nigeria, Bahamas, Jamaica and 8 countries in the Eastern Caribbean, have taken the bold step to fully enter this unchartered path of digital currencies.

In this paper, we examine, at the exploratory level, the implications of CBDC for financial system stability in Nigeria. In particular, we evaluate the pros and cons of issuing the eNaira for financial

[13] At the time of this writing this paper, the adoption rate and usage of the eNaira was low. A survey by Akpan and Nwanja (2022) attributed the slow adoption rate of the eNaira to widespread scepticism among Nigerians about the additional benefits it could offer that they are not currently getting from the existing payment platforms.
[14] The reputational risks could also arise from any system failure of the eNaira technology and if, for instance, the eNaira is not considered to be sufficiently user-friendly. The extent to which such public criticism of the Bank would influence the Bank's credibility and reputation is an open question.

system stability. In taking a balanced view of the risks and benefits of eNaira, we arrived at three major conclusions.

First, the eNaira could have both negative and positive impacts on financial system stability, the full extent of which depends on the magnitude of its adoption and additional features (whether interest-bearing or otherwise). It may become critical to safeguard financial system stability and the sovereignty of monetary policy by providing public access to legal tender, in a cashless economy. It may also reduce currency handling and distribution costs, amongst others.

However, these benefits must be carefully weighed against the associated risks of cyber-security, operational resilience and reputational risks of any breakdown of the underlying technology, among other risks.

Second, an interest-bearing eNaira could offer an additional tool for monetary policy transmission, particularly if the use of cash becomes obsolete in the long term. However, a non-interest-bearing retail CBDC like the eNaira could lead to a higher effective lower bound and lower the policy space for monetary policy manoeuvre.

Third, a non-interest-bearing eNaira, with par value with cash, holds very limited threats to Nigeria's financial system stability, with regard to financial disintermediation and resilience of the financial system, except interest rate is eventually paid on the eNaira. There are high prospects in fostering financial inclusion, enabling seamless direct public transfers to vulnerable groups, combating illicit transactions and discouraging tax evasions, amongst others.

However, the eNaira is most likely to be successful in delivering these gains (e.g. financial inclusion), if the eNaira is further re-designed to fulfil unmet users' needs. As a new payment solution, public apathy in the adoption of eNaira should be expected. Additional/new incentives in adopting the new digital currency over existing payment solutions (from the user's point of view, not the central bank's point of view), should therefore be fully recalibrated and effectively communicated.

Charging fees on eNaira transactions tends to have defeated one of the key incentives driving end-users to use the digital currency. Interoperability with other payment systems, ease of use, speed and efficiency of transactions, zero or minimal cost of transactions, and workability within existing technology and infrastructure, are some of the critical factors that could engender a greater buy-in by end-users.

Based on these, we submit that the CBN, as the regulator of financial institutions, the Banker to the banks and the government, must continue to carefully re-appraise the risk and benefits of the eNaira, particularly on financial system stability, under the expectation that the adoption rate of the digital currency continues to scale up in the long-term. This may require developing an appropriate suit of mitigation strategies for each of the risks identified in the paper to fully optimise the highlighted benefits.

Moreover, we submit that scaling down the scope of eNaira into a controlled pilot phase may be considered, to avoid any reputational risk, provide ample room in re-appraising the identified risks and optimising the benefits, learn from experience and make appropriate adjustments.

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ADDRESSING NIGERIA'S INFRASTRUCTURE FUNDING-GAP: LEVERAGING AFRICAN CONTINENTAL FREE TRADE AREA (AfCFTA) FOR ECONOMIC GROWTH[1]

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Abstract

The paper looks at the role of infrastructure development in ensuring growth and development of a country. It observes that Nigeria has made efforts at improving her stock of infrastructure development through increases in her public expenditures on capital. Also, it notes the improvements in the country's fixed capital formation, during the same period. It, however, explains that infrastructure development remains a threat to the achievement of Nigeria's economic growth and development. Nigeria's infrastructure stock is estimated at 30.0 per cent of GDP, an indication that the country still has a significant infrastructure gap and is estimated would require an investment of about US$3.0 trillion to meet the infrastructure demands of her growing population, which is now at over 200 million people. Presently, the Nigeria's financial markets may not be able to raise such humongous funds, owing partly to the level of its development. Thus, the need for external borrowing to bridge the financing-gap. The paper professes the need for the country to leverages its membership of the AfCFTA to bridge the infrastructure funding-gap, given that such would provide for an enabling environment that facilitate free movements of trade, people and capital among member nations.

Section 1
Introduction

Infrastructure development is very crucial for the economic growth and development of any country.[2] It falls within the fiscal authority's function of public expenditure, especially on the capital component. Economics growth literature abounds about the positive impacts of public expenditure on economic growth in both the developed and developing countries, especially the developing countries that are characterised with poor and dearth of infrastructure.[3]

In Nigeria, despite witnessing some improvements in infrastructure development, still faces significant challenges, particularly in sectors such as electricity, transportation, and water facilities. Increased public expenditure on capital reflects the government's commitment to addressing these challenges.

For example, public expenditure on capital increased from N239.50 billion in 2000 to N883.9 billion in 2010 and further to N1,614.90 billion in 2020. By 2021, the capital expenditure has risen to N2,522.50 billion.

Further commitment was shown in the allocation of N5.96 trillion, or 35.0 per cent of her capital expenditure in the 2022 budget, of which the total budget was N17.13 trillion. Similarly, Nigeria witnessed increases in her capital formation.

For example, the fixed capital stock increased from N2,404.82 billion in 2000 to N9,183.06 billion in 2010 and further to N41,253.55 billion in 2020. In 2021, it rose to N58,293.95 billion, indicating a 33.59 per cent of the GDP.[4]

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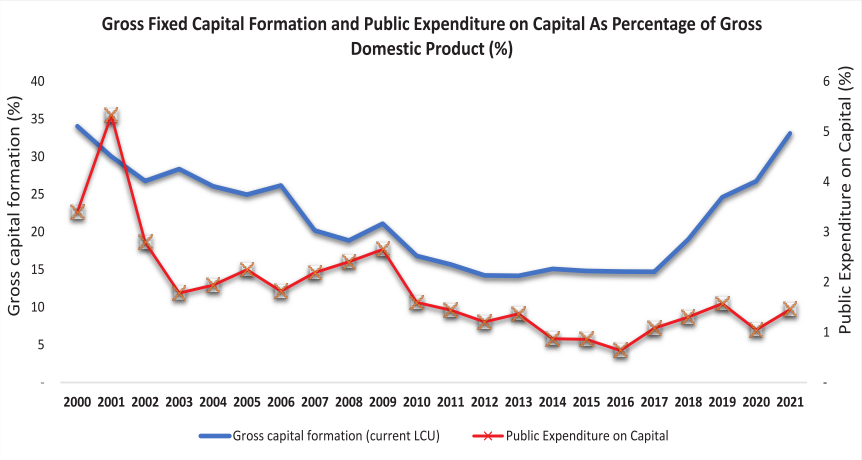
[2] It implies creating and improving the stock and quality of the different components of the infrastructure that support economic activities; water and sanitation, transport system; air, land and sea, power, information, communication, and technology (ICT) and others.
[3] Contributions of public expenditure to economic growth could be classified as productive or non-productive/growth enhancing or non-growth enhancing (Barro and Sala-i-Martin, 1992), and the composition of government outlays may be more relevant than the level (Kneller et al. 1999, p. 173 and Nijkamp and Poot, 2004, p. 107)
[4] Nigeria - Gross fixed capital formation (% of GDP) - actual values, historical data, forecasts and projections were sourced from the World Bank (Accessed on 30th June of 2023).

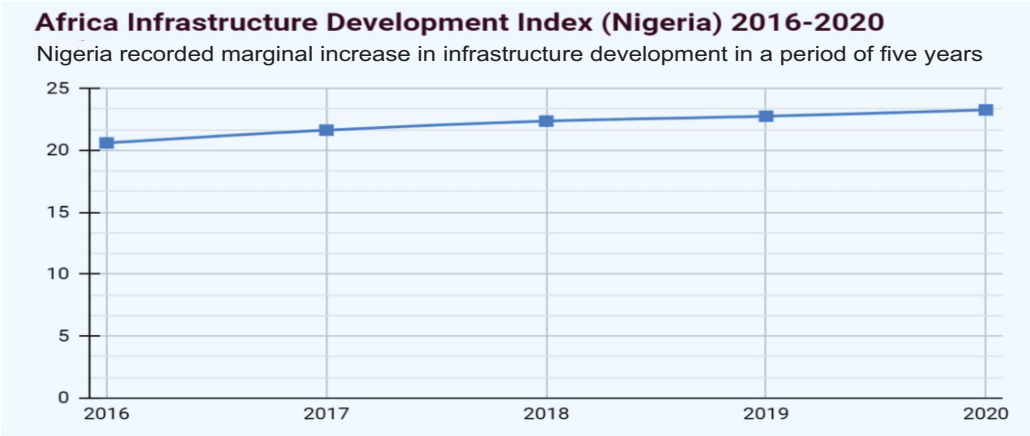
Figure 1: Nigeria Gross Fixed Capital Formation and Public Expenditure As Percentage of Gross Domestic Product (%)



Source: World Bank Database

A cursory look at the African Infrastructure Development Index (AIDI), indicates that during the period, 2016-2020, Nigeria made progress on her infrastructure development. Notwithstanding this improvement, the country still needs to catch-up with some other African countries, Egypt, Libya, etc. Nigeria was ranked 24th out of 54 African countries in the AIDI 2020, with a total score of 23.26. Nigeria was behind Egypt at 2nd place with 88.3 points, and Libya 3rd position with 82.9 points. Also, in the Global Competitive Index Report (GCI)[5], Nigeria ranked 114th in the world, out of 140 countries, and 14th among African countries in the GCI rankings update of 2022. With a score of 48.33 out of 100 total points, Nigeria was reported to have over 50 per cent infrastructure deficit.

Figure 2: Trend in Africa Infrastructure Development Index for Nigeria (2016-2020)



Source: Africa Development Bank (AFDB) IAnalysis: Dataphyte Research

Presently, Nigeria's infrastructure stock is estimated at 30.0 per cent of GDP, an indication that the country still has a significant infrastructure-gap and is estimated would require an investment of about US$3.0 trillion to meet the infrastructure demands of her growing population, which is now at over 200 million people.[6] In fact, the International Trade Office of the US Department of Commerce notes that, with the infrastructure deficit of 30 per cent of its gross domestic product (GDP), Nigeria falls short of the international benchmark of 70.0 per cent set by the World Bank.

Furthermore, with the population growing at a rate of over 2.5 per cent per annum, it is expected that the population would be 400 million people

[5] World Economic Forum (Insight Report) - the index is an annual yardstick for policymakers to look beyond short-term and reactionary measures and to instead assess their progress against the full set of factors that determine productivity. These are organised into 12 pillars: Institutions; Infrastructure; ICT adoption; Macroeconomic stability; Health; Skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation capability.
[6] The Politeia Institute (2021) Why Nigeria Needs a National Transport Policy (Accessed on June 30, 2023)

by 2050.[7] The implication being that the fast-growing population would exert enormous pressure on the existing infrastructure facilities, coupled with its attendant social challenges.

Nigeria's poor state of infrastructure has led to the continued interest at evaluating public expenditure on capital vis-a-vis infrastructure development over time. Also, it has led to the questioning or otherwise of the availability and affordability of finances required to bridge the funding-gap of the infrastructure deficits in the country. What are really the roles of the regional corporations/institutions, especially the African Continental Free Trade Area (AfCFTA) in bridging this financing-gap, given that it requires huge amount of funds that may not be readily accessible and affordable from the domestic economy.

This paper aims to explore the role of the African Continental Free Trade Area (AfCFTA) in bridging Nigeria's infrastructure funding-gap. Specifically, it will examine recent infrastructure developments in Nigeria and the benefits of AfCFTA membership in addressing infrastructure deficits. The paper is, however, divided into five sections. Section 1 is the introduction, while section 2 is the idea of infrastructure development and economic growth. Sections 3 and 4 are stylised facts on recent infrastructure developments in Nigeria and benefits of the AfCFTA membership in providing the funding-gap, required for infrastructure development in Nigeria. Section 5 concludes the paper.

Section 2

Infrastructure Development and Economic Growth

Infrastructures are essential for economic growth and development, encompassing the transport system, communication networks, educational system institutions, etc. Infrastructure facilities could be categorised as hard or soft. Under the hard component, we have the physical system required to run and ensure a modern and industrialised society. In this category, we have roads, railway, trains, highways, power generation, bridges etc. Conversely, soft infrastructure includes human capital and institutions necessary to maintain and ensure economic growth and development. Under this categorisation, we have law enforcement agencies, financial institutions, government offices, healthcare, education, etc.

In the economics growth literature, infrastructure is part of public expenditure on capital, and could be classified as both human and physical. Human capital is the engine of growth because its accumulation raises the productivity of both labour and physical capital (Lucas,1988). Thus, positive changes in the human capital are catalyst for technological progress. For example, a higher level of human capital would engender technological diffusion in the economy, thereby, increase productivity and economic growth (Romer, 1990). Investments in physical capital, include infrastructure facilities that are hard and usually capital-intensive, though growth-inducing. It is typical to notice the financing of infrastructure facilities, control, supervision, or regulation being undertaken by government or its agencies. Also, such financing could be done either by private enterprises or public-private partnership.

Infrastructure facilities carried out by government falls within the context of public goods, natural monopolies, merit goods and externalities (Musgrave and Musgrave, 1989). Most public goods have unique features that once provided becomes available to all (non-rivalry in consumption), whether payments are made for the services, example, law and order, defence, etc.

Unfortunately, most developing countries are often challenged by infrastructure deficits, and these affect their levels of productivity, growth and social wellbeing. UN-Habitat (2011) notes that lack of modern infrastructure is an impediment to economic development and a major constraint not only to achieving poverty reduction, but also, the attainment of the Millennium Development Goals (MDGs) in the Sub-Saharan African countries.

[7] International Trade Office of the US Department of Commerce, Nigeria-Country Commercial Guide Available at: https://www.trade.gov/nigeria-country-commercial-guide (Online) (Accessed on June 30, 2023)

In Nigeria, economic growth has been seriously hampered by the poor and inadequate infrastructure facilities. Infrastructure inadequacy adds to the cost of doing business in Nigeria and this affects productivity and economic growth. Ondiege, *et al.* (2013) attributed the rise in the transaction costs of business in most African countries to inadequate infrastructure development.

For example, the electricity consumption in Nigeria is affected by frequent power outage and this has resulted in the manufacturing sector less dependent on the electricity supply through the national grid, which is cheaper and affordable.

According to the World Bank (1988, p. 144) "…frequent power outages and fluctuations in voltage affect almost every industrial enterprise in the country.

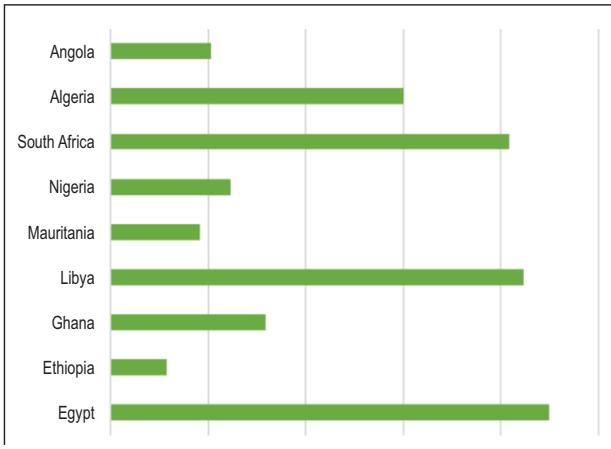
To avoid production losses as well as damages to machinery and equipment, firms invest in generators…. One large textile manufacturing enterprise estimates the depreciated capital value of its electricity supply investment as US$400 per worker…. Typically, as much as 20 per cent of the initial capital investment for new plants financed by the NIDB is spent on electric generators and boreholes".

Infrastructure development is critical to Nigeria's economic ambitions, as outlined in Vision 20:2020, which aims to make Nigeria one of the world's top 20 economies by 2020 (Olaseni and Alade, 2012; Sanusi, 2012). Improved infrastructure is expected to enhance competitiveness, productivity, and foreign direct investment while creating employment opportunities and spreading the benefits of growth (African Development Bank, 2012).

Section 3
Stylised Facts on Recent Infrastructure Developments in Nigeria.

A major challenge faced by developing countries, like Nigeria, is the dearth of infrastructure development. Ever since independence in 1960, Nigeria has witnessed the formulation and implementation of several national development plans aimed at bridging infrastructure deficits in the country.

Figure 3: Africa Infrastructure Development Index



Year	Egypt	Ethiopia	Ghana	Libya	Mauritania	Nigeria	South Africa	Algeria	Angola
2005	45.08	1.12	10.87	50.86	6.39	9.24	46.78	28.55	7.96
2006	45.90	1.56	11.29	51.64	6.69	9.17	48.58	28.96	8.17
2007	46.82	1.96	12.22	52.54	7.34	9.78	50.51	30.43	8.54
2008	51.19	2.43	12.96	54.95	7.83	10.55	51.70	32.73	9.41
2009	53.14	2.99	14.20	57.51	8.76	11.25	53.84	34.31	10.41
2010	56.57	3.55	14.70	58.63	9.76	11.96	55.15	36.29	11.50
2011	61.78	3.91	19.37	64.40	11.35	14.69	55.96	38.57	12.58
2012	70.18	4.62	19.58	68.96	11.61	15.94	59.02	43.69	13.75
2013	77.67	5.37	21.11	71.37	12.53	17.58	78.97	47.78	14.99
2014	81.12	6.44	23.75	73.45	14.44	19.35	73.81	49.91	16.39
2015	85.62	7.38	25.44	77.67	15.23	20.45	75.90	52.99	16.83
2016	85.66	7.56	26.10	77.79	16.20	20.60	75.52	53.39	16.46
2017	85.35	8.56	27.38	79.27	15.52	21.64	79.63	54.04	17.48
2018	85.85	9.70	28.84	81.41	16.05	22.37	78.53	55.79	19.04
2019	87.23	10.13	29.51	81.89	16.25	22.76	78.43	57.08	18.88
2020	88.39	10.49	30.13	82.97	17.41	23.27	79.34	57.87	20.07
2021	88.74	10.62	30.68	83.62	17.89	23.73	80.19	58.91	20.20
2022	89.91	11.45	31.81	84.72	18.37	24.53	81.67	60.00	20.65

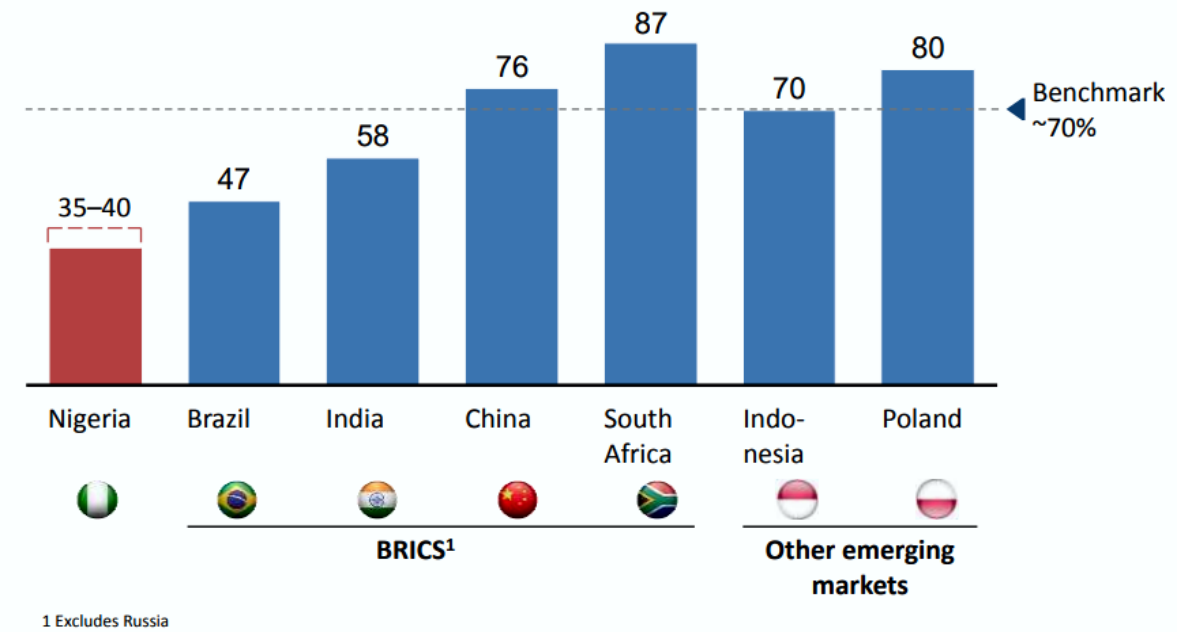
Source: African Development Bank (2022)

Recently, it's various development plans, such as National Vision 20:2020 (NV 20:2020) and the Economic Recovery and Growth Plan (ERGP) 2017-2020, consistently pointed to weak infrastructure facilities as one of the factors that has unswervingly undermined the country's economic performance over the years.[8] Though, progress has been made in certain areas, Nigeria still lacks behind many developing countries, South Africa, Egypt etc, as many businesses and investors have continued to harp on the daunting challenges.

[8] Federal Ministry of Finance, Budget and National Planning (2020) Reviewed National Integrated Infrastructure Master Plan (RNIIMP)

Various governments in Nigeria have made efforts at trying to ameliorate the challenges of infrastructure development. Part of these is the formulation of the national strategic plan, titled the National Integrated Infrastructure Master Plan (NIIMP) in 2014, and the National Development Plan (2021-2025). The NIIMP had been reviewed to provide an integrated view of infrastructure development in Nigeria, with clear linkages across key sectors. The master plan identifies and elaborates on enablers for successful implementation in line with the current economic realities

Figure 4: Core infrastructure stock as Percentage of GDP: Nigeria and Comparator Countries



Source: ITF; GWI; IHS Global Insight; McKinsey Global Institute Analysis, National Planning Commission (NPC)

Prior to these developments, Nigeria's core infrastructure stock was estimated at 35-40 per cent of the GDP (1990 base year) – which was inadequate for the desired growth and socio-economic development. Infrastructure development policies in the country were incoherent, inconsistent, lacks continuity and coordination.[9] For example, Nigeria's infrastructure status was low, compared with the BRICs and other emerging economies in the global south.

With the National Integrated Infrastructure Master Plan,[10] which commenced in 2014, Nigeria plans for estimated capital allocation framework for 30 years (2014-2043). The plan spreads infrastructure investment across the six geopolitical zones in the Federation and intends to increase Nigeria's core infrastructure stock as percentage of GDP from 35 to 40 per cent, and further to 70 per cent by the year 2043. It identifies investments requirements necessary to bridge the existing infrastructure-gap.

In addition, the infrastructure expenditure is expected to improve significantly from the current 3-5 per cent of GDP to an average of 9.0 per cent over the 30-year period, while about 2.0 per cent of the GDP would be spent on maintenance of infrastructure.

[9] Dogara, M. Shehu (2014) Turning the National Integrated Infrastructure Master Plan into Reality: Opportunities for Inclusive Growth, paper presented at the Joint Planning Board Meeting/National Council on Development Planning, April 23, 2014, Zaranda Hotel, Bauchi (National Planning Commission).

[10] FEC on November 21, 2012, approved Framework for the crafting of the NIIMP (2014- 2043)

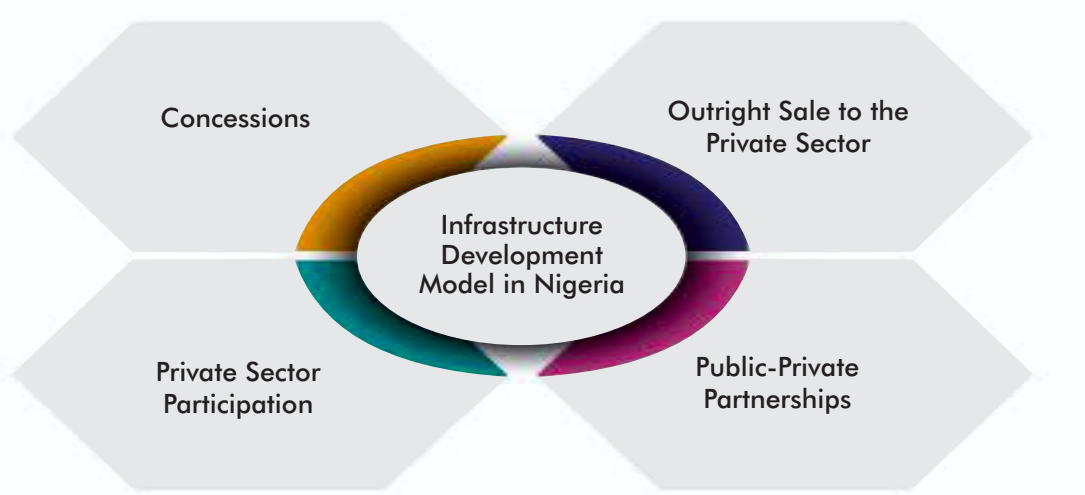
Figure 5: Core infrastructure Stock Requirement by Sector (US$'Billion)

Sector	Allocation (USD)	% of Total	Priorities
Energy	900 billion	31%	•Continued growth of generation capacity •Growth in transmission infrastructure •Construction of supporting gas infrastructure •Increased refining capacity.
Transport	850 billion	29%	•Refurbish cross-national highways •Expand regional road network and linkages to other modes of transportation •Construction and rehabilitation of major rail links •Renovation and upgrading of main airports •Inland waterways •Urban transportation in major cities
Agric, Water & Mining	350 billion	12%	•Water supply and irrigation •Development of staple crop processing zones, agro-industrial parks, as well as agricultural processing facilities, •Reviving the basic mining infrastructure.
ICT	300 billion	10.5%	•Expansion of mobile network capacity •Expansion of broadband fiber optic network
Housing & Regional Development	300 billion	10.5%	•Increasing the number of housing units to close the current and projected housing deficit
Social Infrastructure	150 billion	5%	•Construction of facilities for education, hospitals, women and youth development and sports
Vital Registration & Security	50 billion	2%	•Establish a national vital registration system •Construct ion and rehabilitation of facilities for all security institutions
	2,900	**100%**	

Source: National Planning Commission, Nigeria

To achieve the foregoing, certain sectors of the economy would receive priority attention; energy, transport, agriculture, water & mining, ICT, housing & regional development, social infrastructure and vital registration, and security.[11] An estimated US$127.5 billion was to be spent in energy, transport, social infrastructure, and housing & regional development with the first five years (2014-2018). The plan made provisions for both public and private partnership participations (PPPs) sector investment funding.

Figure 6: Nigeria's Infrastructure Development Model



Source: Adopted from Augsto &Co. (2021) Rethinking Nigeria's Models for Infrastructure Development Newsletter, May 26

Public funding of infrastructure facilities has suffered setbacks, owing to some domestic and global economic challenges. For example, in May 2015, crude oil price in the international market crashed to about US$30 per barrel from US$115, it was sold in August 2014, and affected the Federal Government's revenue, of which oil revenue account for 75.0 per cent.[12] Government adopted a combination of budgetary financing architecture, whereby its revenue is being augmented by both foreign and domestic loans to fund her recurrent and capital expenditure. Thus, the increase in Nigeria's debt profile, affecting its public debt/gross domestic product (GDP) ratio.

[11] The total cost of the NIIMP is US$3.0 trillion.
[12] PWC (2016) Infrastructure Development in Nigeria: Better Late than Never

For example, the total public debt to GDP ratio in 2010 was 9.6 per cent, compared with 21.6 per cent, a decade later. Furthermore, it rose from 22.8 per cent in 2021 to 23.2 per cent in 2022.

Though, the ratio of 23.2 per cent falls within the 40.0 per cent threshold, imposed by Nigeria and the 55.0 per cent limit recommended by the World Bank/International Monetary Fund, as well as within the 70.0 per cent limit recommended by the Economic Community of West African States for countries within the sub-region.[13]

Figure 7: Trend in Nigeria's Public Debt Stock and Total Federally Collected Revenue (N'Million)

Year	External Debt (FGN & States)	Domestic Debt (FGN Only)	Domestic Debt (States & FCT)	Domestic Debt (FGN, States & FCT)	Total Public Debt	Total Federally Collected Revenue	Nominal Gross Domestic Product (GDP)	Debt/GDP Ratio (%)
2010	683,015.12	4,551,822.39	n. a.	4,551,822.39	5,234,837.51	7,303,671.55	54,612,264.18	9.59
2011	887,953.09	5,622,843.71	1,233,294.65	6,856,138.36	7,744,091.45	11,116,846.96	62,980,397.22	12.30
2012	1,016,721.69	6,537,536.31	1,551,650.00	8,089,186.31	9,105,908.00	10,654,747.19	71,713,935.06	12.70
2013	1,373,569.83	7,118,978.85	1,551,650.00	8,670,628.85	10,044,198.68	9,759,793.82	80,092,563.38	12.54
2014	1,631,523.60	7,904,025.47	1,707,571.14	9,611,596.61	11,243,120.21	10,068,852.00	89,043,615.26	12.63
2015	2,111,530.71	8,836,995.86	1,655,178.71	10,492,174.57	12,603,705.28	6,912,501.55	94,144,960.45	13.39
2016	3,478,915.40	11,058,210.00	2,822,889.88	13,881,099.88	17,360,015.28	5,616,400.00	101,489,492.20	17.11
2017	5,787,512.64	12,589,486.13	3,348,774.26	15,938,260.39	21,725,773.03	7,444,822.45	113,711,634.61	19.11
2018	7,759,229.99	12,774,405.70	3,853,436.05	16,627,841.75	24,387,071.74	9,544,317.41	127,736,827.81	19.09
2019	9,022,421.64	14,272,644.79	4,106,314.86	18,378,959.65	27,401,381.29	9,819,844.43	144,210,492.07	19.00
2020	12,705,618.48	16,023,885.38	4,186,010.99	20,209,896.37	32,915,514.85	8,569,223.09	152,324,070.59	21.61
2021	15,855,231.25	19,242,557.11	4,458,244.14	23,700,801.25	39,556,032.50	10,342,981.99	173,527,662.34	22.80
2022	18,702,251.88	22,210,364.60	5,337,751.46	27,548,116.60	46,250,367.94	12,586,528.08	199,336,043.78	23.20

Source: Computed from CBN Data

In view of this development and other challenging financial issues, the Federal Government agreed to sell or concession no fewer than 36 of its assets to raise funds to finance its 2021 and 2022 budgets, as well as drive infrastructure development across the country.[14] Under the concessioning programme, Federal Government intends to concession several road projects - the highway development and management initiative.

The initiative, which would be through the Federal Ministry of Works and Housing and the Infrastructure Concession Regulatory Commission (ICRC) is aimed at ensuring raising infrastructure development funds through private sector engagements and collaborations.

Several other initiatives were introduced by the Federal Government to bridge the financing-gap. These includes, issuing of the sovereign Green and Sukuk bonds to channel domestic private investment; encourage private sector investment through public-private partnerships; and creating a more business-friendly economic environment.

Also, infrastructure development financing requirements could involve an appropriate financing policy, such that would be driven by the Security and Exchange Commission (SEC).

For example, securitisation of financing, which include pension and sovereign funding sources, and the Central Bank of Nigeria development financing policy, through the special intervention funds.

The Central Bank of Nigeria provides access to affordable finance to priority sectors and segments of the economy; manufacturing/ industries, energy/infrastructure, MSMEs, healthcare, exports and agriculture. To support infrastructure development in the country, the Infrastructure Corporation of Nigeria was established in collaboration with the Africa

[13] Debt Management Office, 2023 (DMO)
[14] Nigeria's Finance Minister, Hajia Zainab Ahmed presentation, titled, 'Public Presentation of 2021 FGN Approved Budget – Breakdown and Highlights' was dated January 12, [Online] Available at https://www.premiumtimesng.com/business/business-news/436687-nigeria-confirms-plans-to-sell-government-properties-to-fund-2021-budget.html?tztc=1(Accessed on Dec. 21, 2023).
According to the document, another means by which the government intends to fund the budget is by selling and concessioning government-owned properties and non-oil assets. "Sales of government property" and "non-oil asset sales" were listed under the "additional financing" section of the document.

Finance Corporation (AFC) and Nigeria Sovereign Investment Authority (NSIA), with a N15.0 trillion take-off fund to drive Public-Private Partnership (PPP) investments. The Corporation was established as a game changer for Nigeria's decrepit infrastructure. Furthermore, there was the Nigerian Senate's approval of the President Buhari administration request for a US$22.0 billion loan for infrastructure – construction of roads and housing projects across the country. Also, the projects include the rehabilitation of approximately 300 road projects estimated at more than 13,000 Kilometres across the 36 states of the federation, as included in the 2022 budget.

Section 4

Role of the AfCFTA in Providing the Funding-gap Required for Infrastructure Development in Nigeria.

The African Continental Free Trade Area is a group of 55 countries of the African Union (AU) and eight Regional Economic Communities (RECs)[15] . It is the world's largest free trade area. The Association provides free movements of trade, people and capital opportunities among member countries. Though, member countries have commenced trading, under the AfCFTA on January 1, 2021, certain negotiations and agreements have not been fully finalised. For example, negotiations on the Rules of Origin (RoO), fundamental to improving local production, are about 87.7 per cent complete, whereas the remaining 10.0 per and 2.0 per cent are on textiles and automobiles, respectively.

Trading among member countries, has however, not been very exciting, considering the trade statistics from some members. For example, Nigeria's trade with Africa, compared with the rest of the world fell from 13.9 per cent in 2019 to 7.5 per cent in 2021. Some of the Nigeria's biggest trading partners in 2021 were India, Spain, and France, and they bought a third (34.5%) of total Nigerian export products, expressed in the US dollars. Also, three Nigeria's biggest trading partners, India, Spain and the Netherlands bought a third (34.2%) of its total export products, measured in the US dollars in 2022.

Disaggregation of Nigeria's export trade by geographical region, indicates that 44.0 per cent of the Nigeria's exports by value was delivered to European countries, while 31.1 per cent was sold to importers in Asia. Nigeria shipped 10.1 per cent worth of goods to North America, and another 10.0 per cent was bought by buyers in the Africa, 4.7 per cent by buyers in Latin America, excluding Mexico bit, including the Caribbean and Oceania (0.1 per cent) Australia only 2022.[16] The United Nations Conference on Trade and Development (UNCTAD) notes that the total removal of tariffs pursuant to the establishment of AfCFTA could boost the GDP of every African country by 3.0 per cent, and in addition, a well-structured RoO could greatly impact intra-African trade .[17]

Nigeria has made substantial progress in the above direction by ensuring that the AfCFTA is operationalised in the country. This was made manifest in one of the Presidential Policy Dialogue sessions, organised by the Lagos State Chamber of Commerce and Industry [LCCI]. During the session, Vice President, Prof. Yemi Osinbajo ascertained the level of progress made, thus far. He notes that the National Action Committee on AfCFTA was inaugurated to coordinate the implementation. Furthermore, he opines that the Committee has developed a national implementation strategy with interventions to propel the mission and strategic objectives of AfCFTA.[18]

Nigeria's infrastructure challenges could pose a threat to the realisation of its membership benefits, if urgent measures are not taken to address them. Though, not peculiar to Nigeria, as many developing countries are faced with infrastructure investment-gaps. Bourcet (2020) attributed these gaps to several factors relating to

[15] The AfCFTA came into force on May 30, 2019, after 24 Member States deposited their Instruments of Ratification, following a series of continuous continental engagements spanning since 2012.
[16] Workman, D. (2022). *Nigeria's Top Trading Partners*. https://www.worldstopexports.com/nigerias-top-trading-partners/(Accessed on July 4, 2023)
[17] *UNCTAD (2022) AfCFTA support programme to eliminate non-tariff barriers, increase regulatory transparency and promote industrial diversification*. https://unctad.org/project/afcfta-supoort-programme-eliminate-non-tariff-barries-increase-rgulatory-transparency-and, *(Accessed on July 4, 2023)*
[18] Ekanem, I. (2020) *Osibanjo, Others for LCCI's Presidential Policy Dialogue – THISDAYLIVE* August 5).https://www.thisdaylive.com/index.php/2020/08/05/osibanjo-others-for-iccis-presidential-policy-dialogue/ (Accessed on 5 July, 2023).

policies and technological development. Also, there is the challenge of financing-gap, which most developing countries must contend with. That is, raising the required finances for such capital-intensive investments appears very challenging for developing countries (Anton and Afloarei Nucu, 2020; Lin and Omoju 2017; Best 2017).

Infrastructure financing-gap could be bridged through various sources, both public and private. Public financing through the raising of revenues and taxes may not be sufficient. Thus, mobilising of private sector financial resources, such as bonds, treasury bills or promissory notes, becomes crucial for meeting the enormous cost of the investment requirements of government. Furthermore, raising of such funds could depend on the depth of financial sector development of a country, and this may elude developing countries.[19]

Nigeria's financial development index may fall short of the requirement for the huge funding-gap required for infrastructure development to be achieved. Nigeria may have to rely on foreign borrowing.[20] By so doing, it could determine the rate of change in investment, required to achieve the targeted rate of economic growth.

The AfCFTA would provide such financing-gap for the infrastructure development in Nigeria, through the free movement of capital among member countries. Such capital movements would enhance resources availability and affordability among member countries.

Section 5
Conclusion

Nigeria is faced with infrastructure challenges, and these have continued to affect the level of economic activities in the country. It contributes to the increase in the country's cost of doing business, thereby making the production of goods and services relatively costly and less competitive in the international market. No doubt, Nigeria requires enormous funding in the infrastructure space to address this dearth. Presently, the Nigeria financial markets may not be able to raise such humongous funds, owing to the level of its development.

Thus, the need for external borrowing to bridge the financing-gap as the country would require US$150.0 billion annually over the next 10 years to bridge the country's current infrastructure-gap, estimated to be about US$1.5 trillion.[21] The AfCFTA would facilitate trade, people and capital movements among member countries. Such capital movements would enhance resources availability and affordability among member countries. Nigeria could leverage her membership of the AfCFTA to bridge the infrastructure financing-gap in the country.

[19] The International Monetary Fund (IMF)'s financial development index combines financial access, market efficiency and financial depth.
[20] The two-gap model professes the use of foreign aid or foreign borrowings of capital by countries to bridge the funding-gap.
[21] Oluwatoyin Ayoade Nigeria's Infrastructure Gap: The Way out, published in Businessday Newspaper, (2021) [Online] Available at; https://businessday.ng/opinion/article/nigerias-infrastructure-gap-the-way-out/ (Accessed on December 5, 2023)

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BUDGET DEFICIT FINANCING IN NIGERIA: PRAXIS OR PRAGMATISM

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Abstract

No nation, however rich, can meet all developmental requirements from available resources, due to paucity. Paucity is more acute among less developed countries (LDCs), because of poverty. In haste to achieve rapid development however, LDCs have resorted to budgetary "overtrading" resulting in creation of huge deficits which are, more often, financed largely from external debt. Doubtless, literature and empirical studies are replete with evidence of debilitating effect of between deficit financing via on economic growth in Nigeria and some LDCs. Regardless of experience and policy advice, successive governmental administrations in Nigeria have remained defiant to the advocacy for improved budgetary discipline, without which the country's economy is ineluctably headed for the abyss. This study was instituted to reinforce the waning intellectual advocacy for attitudinal and policy change in budgetary management, so as to minimise the overburdening effect on economic growth. Underpinned by 'Big-Push' theory, the study period spanned 2014-2022; and adopted quantitative research design, anchored on regression analysis. Salient among the findings was the diverse strong impact on economic growth when budget deficits is covered through external borrowing much of which has been deployed to finance consumption expenditure, evident in the high skewness of annual budgets in favour of recurrent expenditure. It was therefore, concluded that the desire to spend more than is available had been more instrumental than sound economic and fiscal judgment in budgeting, particularly during the study period. Such policy temperament was tantamount to political rascality. Accordingly, it was recommended that government should review the existing 'policy' on deficit budgeting, in order to reduce increasing external debt and other macro-economic antigens.

Keywords: Deficit Financing, Economic Growth, External Debt, Fiscal Management and Public Budget

1.0 Introduction

An important aspect of fiscal policy as a tool of macroeconomic management is the problem which arises from public sector fiscal deficit. In simple terms, "fiscal deficit refers to the excess of public sector spending over revenue" (Akpa, 2013, p22). Due to the severity of the problem, many countries, particularly less developed (LDCs), have embarked on macroeconomic adjustments since the 1980's. Very critical among the fiscal deficit-driven macroeconomic problems are high inflation rates, poor investment and growth, severe external debt crisis, interest rate volatility and shortage of foreign exchange. By 1992, the problems had virtually engulfed the entire world, developed and developing, as noted by Easterly and Schmidt-Hebbel (1992).

In Nigeria, opinion that lack of fiscal discipline has contributed significantly to the emergent and growing era of budget deficit, necessitating deficit financing, is widely held (Anyanwu, 1995; 1997). Even when revenues are equal or higher than projected, extrabudgetary expenditures were deliberately created, particularly during military administrations, resulting in escalated fiscal deficits. Thus, the overall deficit which was as low as 2 percent of the nominal gross domestic product (GDP) in 1975 rose to 12.2 percent in 1992, 15.4 percent in 1993 (CBN, 1994) and much higher deficit in 2022.

The trajectory of deficit budgeting exhibited exacerbation because governmental administrations has sustained the extra-budgetary indiscipline in fiscal management (Anyanwu, 1994; 1997). Expectedly, deficit financing became unsustainable, because of the unfavourable impact on the national debt profile, with the dip in oil revenue. As the debt stock increased over time, debt service became a major challenge and source of worry.

As a corollary, debt unsustainability, and the attendant crisis, became characteristic of Nigeria's fiscal management. The general view was that overspending, which characterized the political economy of Nigeria, particularly in the military - type budgetary approach, could only have aggravated the situation of the inexorable

regression in fiscal management.

Initial major sources of deficit financing in Nigeria were internal and included the banking system and non-banking system; while the insignificant external sources were mostly debts from multilateral and private lenders. As the multilateral sources dried out, recourse to private lenders, notably the Paris and London Clubs became inevitable.

Unfortunately, huge interest expense worsened the already bad situation. It therefore, became clear that if the widening budget gaps were to be closed, tax increases, expenditure cuts, or a combination of the alternatives must be considered; otherwise, recourse to public borrowing, particularly from external lenders, would plant a clear harbinger of debt crisis for Nigeria. In any case, financing fiscal deficit via the banking system, with particular reference to the CBN, only increased the systematic liquidity, without the matching increase in the productive sector, thereby pressurising the general price level, interest rate and exchange rate.

Anyanwu (1997) reported that between 1988 and 1991,77 percent of Nigeria's overall deficit was financed, on the average, through the banking system (CBN). In 1992 and 1993, the percentage had increased to 88, on the average. Given the macroeconomic problems associated with CBN's money creation by 'way and means method ', the emphasis in deficit financing shifted to over-reliance on external borrowing.

For one reason, raising taxation in a weak tax culture, as Nigeria's, was inefficacious; and for another reason, growing revenues through the non-oil export sources had been inadequate in financing the huge deficits. External borrowing therefore, provided the 'most pragmatic ' short-term alternative. However, over-relying on external debt, in face of dwindling foreign exchange earnings, and depletion in the reserves, ascribable to the soaring import band debt service bills, resulted in appreciation in real exchange rates, widening and the likelihood that crisis would crystathise.

On the other hand, heavy reliance on domestic borrowing fueled the hikes in real interest rates and decline in investment (Anyanwu, 1997). To be sure, the options or outcomes were undesirable. The scenario described indicated that Nigeria's economy had been trapped in deficit financing, with little or no prospects of exiting the vicious circle of extra-budgetary quagmire. In the circumstance, Nigeria's fiscal viability and macro-economic stability has remained challenged.

The situation of deficit financing, without doubt, has characterized the political economy of public external borrowing in Nigeria. In more recent times, particularly in the post-military period, 2015-2022, budget deficit and deficit financing had assumed the centre-stage of fiscal management in Nigeria, with external borrowing as the major source of closing the budgetary gaps.

Against the backdrop of opposing theoretical perspectives or paradigms, and in the light of experience in public budgeting, this study was conducted, to examine the economic sagacity, vis-a-vis, the presumed rapacity and rascality of government, in fiscal management, with particular reference to public budgeting in Nigeria, during the period, 2014-2022, because of the high inclination to the deficit budget policy during the period.

1.1 Statement of the Problem

The economic, social and political problems which can emanate from poor discretion with regard to inordinate budget deficit policy have been identified in literature and empirical studies. The convergence of opinions however, is that in Less Developed Countries (LDCs), budget deficit financing can trigger a myriad of macro - economic problems manifested in high inflationary pressures, adverse exchange rate and mounting external debt crisis, particularly when deficits are closed with external borrowing.

Nevertheless, the policy and practice of deficit budgeting and the concomitant external financing technique have continued to characterize these preferred options in most LDCs in Sub-Saharan Africa, as variously reported in studies conducted by scholars and reviewed in this study.

In consequence, Nigerian Government, during

the period, resorted, inexorably, to deficit budgeting and the complementary huge borrowing, both domestically and externally, against all caution offered by analysts and scholars, informed by the unfavourable experience of sister LDCs: Liberia, Venuezela, Peru, etc.

The major question in this study therefore is, whether budget deficit, deficit financing and the inevitable concomitant huge external borrowing, are driven by well-informed practice and experience; or whether the policy is tantamount to rapacity or political rascality of the ruling elite?

1.2 Objectives of the Study

The major objective of this study is to examine the economic justification for public deficit financing policy as sustained by Nigeria many years, particularly during the period of the study. Other objectives however are, to: examine the implications of deficit-financing option, with particular reference to the mounting external debt, which the policy has precipitated and sustained inexorably; and, to proffer policy panacea for existing the trap forthwith.

2.0 Review of Literature

For focus and elucidation, a clarification of the major concepts employed in the study is undertaken.

2.1 Budget and Budget Deficit

In a simple connotation, a government budget "is a financial plan which describes its intentions and policies that it would like to pursue in the coming period, along with other cost implications" (Akpa, 2013, p.55). Omopariola, 2003 view budget is a plan for financing the activities of the government during a fixed future period, usually one year, prepared and submitted by the Executive to the Legislature whose approval is absolutely essential before the plan can be executed.

Budgeting thus connotes the allocation of public revenue and expenditure to their various uses as proposed and approved in the budget. Accordingly, the major purposes of government budgeting include to: promote economic objectives, namely: growth, stability and employment; provide a basis for legislative control and accountability; and provide a platform for Executive public financial management across and departments (Tanzi, 1985).

As a corollary to the purpose of budgeting, several advantages accrue from the practice: guided fiscal action; establishment of policies and inter-related programmes of activities; resource control; balanced development; coordination of operations and efforts; waste minimisation; and identification of organisational weaknesses for early remediation, among others (Omopariola, 2003).

With respect to the kind, a public budget may be balanced or surplus deficit. When the amount of the planned expenditure is equal to the projected revenue for the budget-year, the budget is balanced; otherwise, it is deficit, when the amount of planned expenditure is higher than the projected revenue. The budget is surplus, when the projected revenue is higher than planned expenditure.

2.2 Methods of Financing Public Budget Deficit

Deficit financing has a common fiscal connotation, although the usage has different implications depending on whether reference is made to developed countries (DCs) or LDCs. In LDCs, the term "refers to the financing of a gap deliberately created between public revenue and public expenditure (budgetary deficit). The method of financing in this case involves the type which results in a net addition to national outlay or net expenditure" (Jhingan, 2006).

Several alternative sources are available to government for financing a deficit budget. Drawing down on current account balances, public sale of bonds and stocks to public commercial banks and central banks, also referred to as domestic borrowing, are common methods; while external borrowing, which bears severe implications, is also important and frequently used (Mahmud, 2019).

With regard to LDCs however, public deficit financing excludes expenditure financed through borrowing from the public. Notwithstanding the generally low-income levels in LDCs, the propensity to consume is relatively high.

Investment planning indexed to the level of voluntary savings will therefore, result in retarded growth in real income. To break the investment-saving quagmire, a mechanism involving deficit financing is employed. Implicitly, a budget deficit financed through public borrowing diverts existing resources for savings or capital formation.

However, deficit financing relates to expenditure that is financed only through such methods that raise the total outlay in a country.

The major functions of deficit financing as a potent method of promoting economic development in LDCs have been widely recognised in literature and in practice: augmenting the desired rate of huge investment in economic and social overheads, in the face of deficiency in the income of the entrepreneurial group with the high propensity to save; accelerating the rate of investment in an economy; and as a potent instrument for capital formation.

The usefulness of deficit financing notwithstanding, several demerits diminish the ultimate advantage that accrues from the budgeting approach: high potential for inflationary pressure, (Rao, 1973 in Jingan, 2006, p.366); market imperfections, uncertainty in future expectations, high social costs and balance of payments difficulties, all of which are rooted in inflationary pressure often associated with the mode of financing.

Doubtless however, deficit financing may be instrumental as a developmental method when it is within the 'safe limit', that is, when it is moderate; the inflationary pressure (price increase) is gentle; and when appropriate measures are applied to check the price increase.

As to what the defined 'safe limit' in public deficit financing is, the probable answer is that it is the adoption of a policy which avoids inflationary pressure, while leading to capital formation (Higgins,1976). Such a policy will normally be underpinned by several factors, salient of which include: aligning the level of deficit with the extent of the economic growth; ensuring that when the non- monetised sector of the economy is monetised, the additional supply of money is non-inflationary; the extent to which government controls wages and taxes in the economy; the amount of increase in the supply of goods; and the extent of sacrifice that the citizens are willing to make for the achievement of economic growth, among others.

Trend in Deficit Financing in Nigeria, 2014-2022

Table 1 presents Nigeria's budgetary estimates during the period, highlighting the distribution of the total to the components of capital and recurrent expenditure; and the deficit or surplus created, provided for illustrative purposes.

Year	Total Budget Size (₦Trillion)	Capital (%) (₦Billion)	Recurrent (%) (₦Billion)	Budget Deficit (₦Trillion)	Debt Service (₦Billion)
2014	4.64tn	1.55tn	2.46tn	365.35bn	712bn
2015	4.4tr	634bn	2.61tn	841.48bn	943bn
2016	6.06tn	1.59tn	2.65tn	2.20tn	1.48tn
2017	7.44tn	2.17tn	2.64tn	2.35tn	1.66tn
2018	9.12tn	2.87tn	3.52tn	1.95tn	2.20tn
2019	8.83tn	2.03tn	4.04tn	1.86tn	2.26tn
2020	10.81tn	2.49tn	4.94tn	4.98tn	2.95tn
2021	13.08tn	3.85tn	5.65tn	5.20tn	3.34tn
2022	16.39tn	4.89tn	6.82tn	6.26tn	3.60tn

Source: Budget Office of the Federation

From Table 1, the increasing tread of budget deficit through the years is discernable.

2.3 Review of Empirical Studies

The impact of public deficit financing on economic development has been argued from diverse perspectives by scholars and researchers. Okah, Chukwu and Ananwude (2019)'s study examined the effect of deficit financing on the economic growth of Nigeria during the period 1987-2017, using Auto Regressive Distributed Lag Model (ARDL) method for estimating the model. The result indicated the presence of a positive but insignificant impact of deficit financing. The study recommended diversification of revenue base by government, in order to reduce the level of debt financing.

Ifeanyi and Umeh (2019) conducted a similar study, employing secondary data for the period 1981- 2016. Regression tests including Augmented Dickey Fuller (ADF) (unit root), Johansen Co-Integration and Normality were conducted. The findings suggested that external borrowing to finance budget deficit had adverse effect on economic growth; while domestic debt had a positive effect on economic growth. However, debt repayment had no significant impact on growth. The study recommended that proper deployment of external loans should always guide government's fiscal operations, to minimise corruption and waste.

In a study covering the period 1981-2016, conducted by Binta and Alhaji (2018), using ARDL method, it was found that deficit financing exacted a significant impact the growth of economy in Nigeria. Similarly, Nwanna and Umeh (2019) examined a similar relationship during the period, 1981-2016, OLS. The result indicated a significant negative impact on economic growth, when external debt was used to finance deficit; while to the contrary, domestic borrowing had a positive impact; with debt repayment having no significant impact on growth.

Ali, Mandara and Ibrahim (2018) employed published data obtained from the CBN, analysed using Augmented Dickey Fuller and ARDL techniques in establishing the properties of the time series variables. The results of (0) and (1), and the ARDL regression estimates, suggested that deficit financing had a significant impact on long term output growth. The study therefore, recommended that deficit financing should be increased; while government should step up fiscal management and discipline with regard to public expenditure.

Overseas, Hussain and Haque (2017)'s study on the relationship in Bangladesh, employed Vector Error Correction Model (VECM) in the analysis of the secondary data. The findings reported a positive and significant relationship between deficit financing and economic growth of the country. Rana and Wahid (2020) also conducted a study in Bangladesh using time series data, analysed with OLS estimation, VECM and Granger Casualty tests. The results revealed that a statistically significant negative relationship existed between deficit financing and economic growth.

In Kenya, the effect of budget deficit financing on economic growth was investigated in a study by Ondongo (2018). The study employed time series data for the period 1970-2014, obtained from Economic Survey, published by Kenyan National Bureau of Statistics (KNBS). Using OLS method, the study found a positive significant effect of budget deficit financing on economic growth. Ramu and Gayithri (2016) in Abubakar (2021) investigated the long and short run relationships between budget deficit financing and economic growth in India, for the periods 1970-1971 and 2011-2012 using VECM.

The findings reported that budget deficit financing inversely affected GDP; while it directly enhanced capital formation; but indirectly enhanced capital formation, and inducing private sector investment. This study was conducted to retest the divergent results of the relationship between budget deficit financing, using external debt and economic growth in Nigeria, to capture the dynamics of time effect and governmental administration.

2.4 Theoretical Framework

Given the huge infrastructural deficit in emerging countries, Nigeria inclusive, the search for a suitable theoretical paradigm in the underdevelopment problem has found expression in "Big Push" theory, associated with Professor Paul N. Rosenstein-Roda (1943). The cardinal thesis of

the theory is that LDCs needed to leapfrog over their underdevelopment doldrums, by making huge investments in infrastructure. Implicitly, the theory stated that proceeding bit by bit will not launch the economy of an emerging country successfully on the path of development.

Instead, it necessitated obtaining external economies that arise from the simultaneous establishment of technically independent industries. Industries and external economies which flow from a minimum quantum of investment are therefore, prerequisites for a successful launching of economic development, particularly in LDCs. As a policy prescription, the theory posits that a minimum investment is required to leapfrog LDCs from underdevelopment doldrums (Umoru & Onimawo, 2018).

The crux of 'Big Push' therefore, is that only a huge and wide-ranging investment package stimulates economic development. Unfortunately, however, low national income has militated against high savings in LDCs, resulting in low capital formation. Since LDCs lack the internal capacity for generating sufficient economic resources to prosecute the required humongous developmental programmes, recourse to external sources is often considered inevitable, to meet the desired goal achievement.

More often, therefore, "external borrowing has provided a ready source for LDCs" (Mahmud, Aliegba & Ibrahim, 2020, p.184). As a benchmark prescription, LDCs are required to invest a minimum of about 30-40 percent of their total expenditure in social overhead capital (Collier 2004; Graham &Temple, 2004).

The usefulness of 'Big-Push' theory to this study is the clear insight it provides in understanding the importance of mobilizing and investing sizable amount of financial resources for economic development in Nigeria, against the prevailing attitude and practice of derisory public investment. Besides, the theory is useful in advancing the argument for government's procurement of external finance to augment the insufficient internal resources, in order to meet the huge quantum of finance, to 'push' economic development, on the condition that judicial deployment of the external loans are strictly observed.

3.0 Methodology

Autoregressive Distributed Lag (ADRL) Model techniques of analysis was adopted, in preference to OLS, given the results of the properties of the unit root (Augmented Dickey Fuller, ADF) and Phillips-Perron (PP) tests, as highlighted in the preceding section. With the insignificant differences in the ADF and PP tests, the latter was preferred. Hence, the dependent variable was treated as a first difference variable.

4.0 Data Analysis and Findings

4.1 Descriptive Analysis

Table 1 presents the descriptive statistics or summary statistics of the underlying variables

Table 1: Descriptive Statistics

	RGDP	EXDEBT	BD
Mean	45424974	19413.50	-4720.370
Median	43385877	25274.36	-2356.000
Maximum	71387827	35944.66	19514.00
Minimum	21660487	3544.490	-24288.00
Std. Dev.	18694469	11817.71	12165.95
Skewness	0.085951	-0.227557	0.170382
Kurtosis	1.430463	1.365073	2.145025
Jarque-Bera	2.804622	3.240129	0.952989
Probability	0.246028	0.197886	0.620956
Sum	1.23E+09	524164.6	-127450.0
Sum Sq. Dev.	9.09E+15	3.63E+09	3.85E+09
Observations	27	27	27

Source: Author's Computation

The macroeconomic variables of interest are Real Gross Domestic Product (RGDP), External Debt (EXDEBT) and Budget Deficit (BD). Each series is characterized by twenty-seven (27) observations which spanned the period 1996-2022. RGDP had the highest mean value of 45424974, followed by EXDEBT and BD, with mean values of 19413.50 and -4720.370 respectively. The result of the skewness revealed that all the variables were symmetrical, since the values were between -0.5 and 0.5. The Kurtosis results showed that the variables were platykurtic, given the values of less than 3.

Furthermore, the probability values of each series as provided by the Jarque Bera (JB) test revealed that all the variables were normally distributed because their JB probability values appeared insignificant at 5% level.

4.2 Results of Unit Root (Augmented Dickey-Fuller, ADF) and Philips Perron Tests

In time series analysis, it is imperative to ensure that the underlying variables are stationary, to avoid spurious or misleading results (Koutsoyiannis, 2003). Hence, all the variables of interest were subjected to tests using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) techniques. For the tests, the null hypothesis is that each of the series exhibited unit-roots. The decision rule was that the null hypothesis is not rejected, if the test statistic is insignificant at 5% level for each series.

The results, presented in Table 2 however, showed that the properties of the study sample were a mix of, and; and importantly, the response variable. Specifically, the ADF result indicated that RGDPGR and BD were stationary at level, while LEXDEBT was stationary at first difference. On the contrary, the PP result depicted that RGDPGR and LEXDEBT were stationary at first difference, while BD was stationary at level. With little difference in the results presented by ADF and PP test, the PP test was preferred to ADF. Hence, the dependent variable was treated as a first difference variable. This result, therefore, justified the application of the adopted technique of analysis, Autoregressive Distributed Lag (ARDL) Model, as specified in the preceding section.

Table 2: Augmented Dickey-Fuller (ADF) and Philip Perron Tests

Variable	ADF			PP		Stationary Property
	1ST Diff.	2nd Diff.	Status	1ST Diff.	2nd Diff.	
RGDPGR	-4.0312**	-8.0204**	I(0)	-3.3420	-3.3750*	I(1)
LEXDEBT	7.3688	-4.8948***	I(1)	8.0920	-3.6136***	I(1)
BD	-6.1178***	-12.3846**	I(0)	-10.5880***	-13.9314	I(0)

Source: Author's Computation

4.3 ARDL Bounds Testing for Co-integration

There were two assumptions under the bounds test. The first was based on the calculation that all the variables were integrated of order zero while the second was that the underlying variables were integrated of order one. Having satisfied the required conditions, that the variables were integrated of different orders and they were a mix of and as presented in Table 2, it was proceeded to explore if there was any cointegration or co-movement among the variables, by employing the bounds test approach, as developed by Pesaran, Shin and Smith (2001).

As revealed in Table 3, the value of the F-statistic is 6.021519, which is greater than the upper bound critical values at 10%, 5%, and 1% respectively. This result suggested the rejection of the null hypothesis that there was no cointegration; hence it was concluded that the underlying variables had a long-run relationship, or that they were cointegrated.

Table 3: ARDL Bounds Technique for Cointegration Test

Bounds Testing for Cointegration					
F-statistic	Freedom	Level of Significance	Pesaran et al., (1999) a		Remark
			I(0) Bound	I(1) Bound	
6.021519	2	10%	2.63	3.35	Cointegrated
		5%	3.1	3.87	
		2.5%	3.55	4.38	
		1%	4.13	5	

Source: Authors' Computation

Optimum Lag Structure Analysis

The Akaike Information Criteria (AIC) (Appendix 'C') were applied in determining the optimum lags of each variable in the ARDL model. Subsequently, various specifications of the model were estimated at varying maximum lags; and in each case, each model was tested for serial correlation, heteroskedasticity and normality in their residual. The study found the ARDL (2, 0, 0), as depicted in figure 1, to have the best fit in describing the relationship between real gross domestic product growth rate, budget deficit and external debt indicators used in the study.

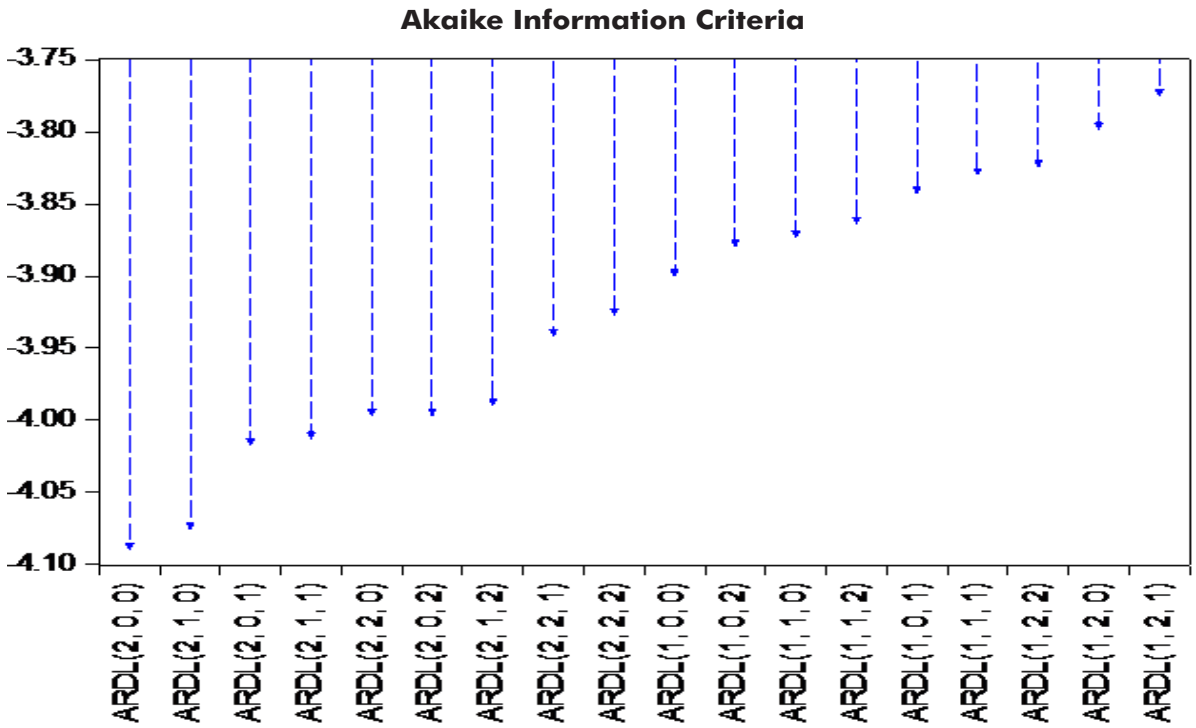


Figure 1: Optimum Lag Structure

4.4 ARDL Short-Run and Long-Run Estimations

The short run and long run results of the estimated model indicated that from the long run result, it was revealed that the one-period and two-period lags of LRGDP had positive and negative significant impacts of its current value respectively. It meant that last year's growth in RGDP led to 1.44 increase in the current value of RGDP, while one percent increase in the last two years' growth in RGDP will lead to 0.47 reduction in the current year's RGDP. For the external debt variable, the result showed a negative and significant impact on

the dependent variable. This implies that a percentage increase in external debt will bring about 0.02 decrease in growth of RGDP. Similarly, budget deficit showed a negative but insignificant impact on RGDP for the period of study. The negative sign alone showed an ominous signal for the use of budget deficit in facilitating economic growth in Nigeria.

Going further, the R-Squared and its adjusted version were 0.696106 and 0.595328 respectively. It meant that 69.6% of the variation in the dependent variable was explained by the response variables; while after due consideration for the degrees of freedom, 59.5% of the variation in the target variable was explained by the explanatory variables, implying that the model had a good fit. The F-stat (prob.) was 1279.186 (0.000000), which showed that the explanatory variables in the model were jointly significant in explaining changes in the dependent variable.

Also, for the short-run result, the one-period lag of RGDP was positive and significantly impacted on its current value. This meant that one percent increase in the last year RGDP will lead to 0.47 increase in the current value. However, the impact of the explanatory variables on the dependent variable is contemporaneously embedded in the one-period lag of the dependent variable. This further explained why the lags were zeros in the optimum lag selection criteria previously explained. However, the ECT coefficient which determines the speed of adjustment shows how disequilibrium is restored to equilibrium among the variables of interest. The ECT coefficient was -0.027019, which showed that the speed of adjustment was 2% annually; or 2% of disequilibrium in the previous period's shocks were corrected and adjusted to the long-run equilibrium in the current period. The negative status of the ECT coefficient depicted its reliability for economic policy formulation.

Residual-Based Diagnostic Tests

Having examined the ARDL long-run and short-run estimations with error correction mechanism, it became imperative to explore the residual-based diagnostic and stability tests.

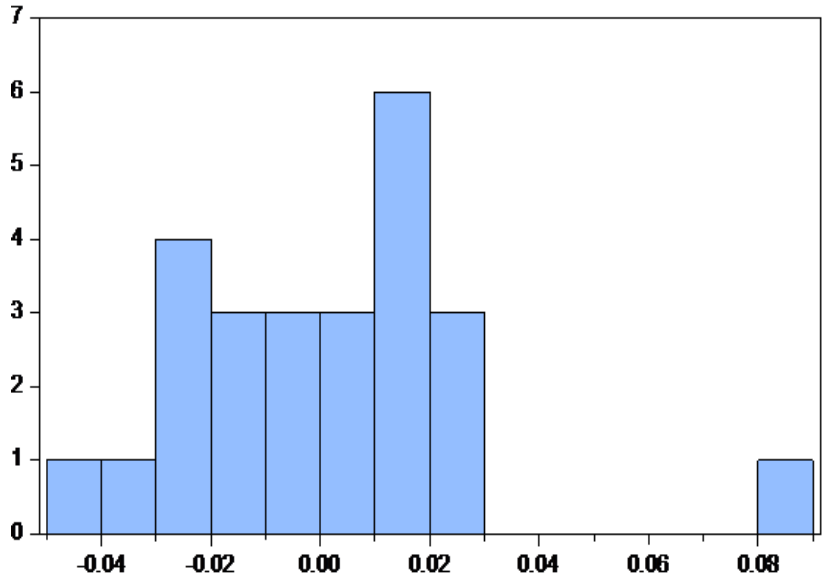
As reported in Table 5, the tests include Reusch-Godfrey Serial Correlation LM, Heteroskedasticity, Breusch-Pagan-Godfrey, Ramsey RESET and Jarque-Bera, for Normality of Residual.

Accordingly, the results confirmed that the residual was free of serial correlation, heteroscedasticity, and model misspecification; except the non-normality problems. The implication of these is that the estimation is robust enough and reliable for inferences.

Table 5: Residual-Based Diagnostic Tests

Breusch-Godfrey Serial Correlation LM Test	
F-statistic	0.594926
p-values	0.6704
Heteroskedasticity Test: Breusch-Pagan-Godfrey	
F-statistic	0.542859
p-values	0.7920
Ramsey RESET Test	
F-statistic	4.500484
p-values	0.4473
Jarque-Bera Test for Normality of Residual	
Jarque-Bera	10.49675
p-values	0.005256

Source: Authors' Computation



Bera Normality Test

Stability Test

Figures 3 and 4 report, the plots of CUSUM and CUSUM of Squares respectively. The plot of CUSUM revealed that the points fluctuate around zero and lies within the upper and lower bounds, which is desirable. The points of the CUSUM of Squares as revealed in Figure 4 also formed a trend that layed within the critical bounds (upper and lower). These results of the Recursive tests showed that the model is stable at a 5% level of significance. Equation: UNTITLED

Specification: LRGDP LRGDP(-1) LRGDP(-2) LEXDEBT BD C

Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	2.121435	19	0.4473
F-statistic	4.500484	(1, 19)	0.4473

F-test summary:

	Sum of Sq.	Df	Mean Squares
Test SSR	0.003154	1	0.003154
Restricted SSR	0.016468	20	0.000823
Unrestricted SSR	0.013315	19	0.000701

Unrestricted Test Equation:

Dependent Variable: LRGDP

Method: ARDL

Date: 06/05/22 Time: 21:44

Sample: 1996 2020

Included observations: 25

Maximum dependent lags: 2 (Automatic selection)

Model selection method: Akaike info criterion (AIC)

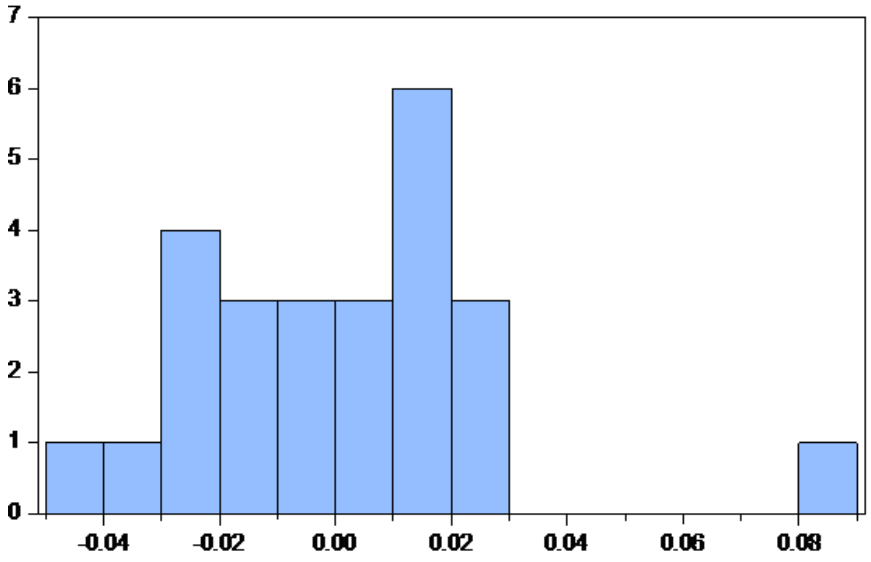
Dynamic regressors (2 lags, automatic):

Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LRGDP(-1)	10.42651	4.236769	2.460957	0.0236
LRGDP(-2)	-3.171843	1.284075	-2.470138	0.0232
LEXDEBT	-0.050031	0.021524	-2.324442	0.0313
BD	1.03E-06	7.67E-07	1.347557	0.1937
C	-52.32054	24.93636	-2.098163	0.0495
FITTED ^ 2	-0.184210	0.086833	-2.121435	0.0473

R-squared	0.996852	Mean dependent var	17.59309
Adjusted R-squared	0.996024	S.D. dependent var	0.419807
S.E. of regression	0.026472	Akaike info criterion	-4.219891
Sum squared resid	0.013315	Schwarz criterion	-3.927361
Log likelihood	58.74864	Hannan-Quinn criter.	-4.138755
F-statistic	1203.359	Durbin-Watson stat	1.964015
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.



Series: Residuals
Sample 1996 2020
Observations 25

Mean	-1.62e-15
Median	0.000176
Maximum	0.083903
Minimum	-0.041089
Std. Dev.	0.026195
Skewness	1.068136
Kurtosis	5.348024
Jarque-Bera	10.49675
Probability	0.005256

5.0 Conclusion

The preponderance of the views expressed by the reviewed literature and empirical studies is indicative of significant but negative relationship between economic growth and the response variables (deficit financing and external debt) employed in the study. This position is in tandem with the cardinal findings of this study. Accordingly, policy recommendations have been proffered, to guide governmental authorities whose remit it is to conduct the fiscal management of Nigeria efficiently.

6.0 Recommendations

The following are put forward, in the light of the analysis and conclusion:

- Government should down play the excessive tendency for rapacity and

should, instead, draw budgets that are sustainable within the limits of available resources. While it is inevitable to invest massively, in response to the policy prescription of Big-Push theory, such action should be seldomly considered.

- The use or recourse to external borrowing should be checked, so as to prune the need and amount of borrowing, in contradistinction to the excuse of benchmarking borrowing against GDP, instead of revenues, from which debt service is affected. Hence, fiscal responsibility Act 2007 should be review to set ceilings, in order to curb the rapacity of the political class. All external borrowings should be invested only in clearly self-repaying public projects.

- As a complementary but very fundamental condition, Government should fight corruption, particularly in the public sector, with the vigour officer's brashness it deserved.

  The orchestral or musical concert-approach, in which public offers steal humongous sums of public funds, only to return to offer plea bargaining has been ridiculous and smacks of indulgence by Government.

  Unless and until corruption is addressed, every step taken to improve public finances, particularly through taxation would tantamount to groping in the dark (Mahmud, Shehu & Salisu, 2020).

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INCREASING INFLATION RATE IN NIGERIA: THE ROLE OF EXCHANGE RATE AND IMPORT DEPENDENCY

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Abstract:

The study ascertained how inflation rate in Nigeria is impacted by importation and exchange rate. The study employed data from the World Bank data indicator of 2022, focusing on 1990 to 2022. Vector error correction model served as the main estimation techniques. The findings showed that import has an increasing influence on the inflation rate in Nigeria, similarly, the exchange rate has an increasing impact on the inflation rate in Nigeria. The study concludes that the increasing inflation is partly attributed to import dependency in Nigeria. It is recommended that the government should strive to encourage the production of goods within the economy.

Keywords: Imports; Inflation Rate; Exchange rate.
JEL Classification: E31; F40; F13.

1.0 Introduction

In recent years, the rate of inflation that has been affecting Nigeria has been rising steadily. The surging inflation rate has become a serious concern for all stakeholders in the economy.

According to Bada et al. (2018), a high inflation rate is a sign of an economy that is failing since it causes an increase in the cost of living, causes firms in the economy to perform below expectations, and even more worrying is the declining quality of living that leads to an increase in the poverty rate in the nation. According to the figures provided by the World Bank, the consumer price index (CPI) of the economy has climbed at a fast pace over the last few years. In 2013, the CPI in Nigeria was at 8.5 per cent, but by the year 2022, it had jumped to 18.8 per cent, showing a growth of 120 per cent during the previous decade (World Bank, 2022). It is thus not unexpected that the country's poverty rate has also increased, going from 33.1 per cent in 2013 to 63.1 per cent in 2022 (Oputah, 2014; National Bureau of Statistics, 2022). This would imply that Nigerians are now experiencing the full effects of the nation's growing inflation rate.

According to Umar and Umar (2022), the goal of every government and policymaker throughout the world should be to bring the rate of inflation in the economy under control as soon as possible. In an effort to satisfy this wish, the Central Bank of Nigeria has adopted a number of new policies in an effort to address the problem of steadily increasing inflation in the nation. Raising the monetary policy rate, often known as the MPR, is a major instrument of policy that is employed with the intention of increasing the cost of borrowing money. This particular policy instrument has seen many rate increases over the course of the last few years, with the most recent one being set at 18 per cent (Azeez, 2023).

However, it seems that this strategy is ineffective since the inflation rate continues to rise despite there being a constant increase in the rate. Therefore, it is necessary to investigate additional factors that lead to the increasing rate of inflation and recommend ways to address such issues. This research focuses on the dependence on imports

and the potential impact that it plays on the current soaring rate of inflation in the country.

According to Umar and Umar (2022), Nigeria is an import-dependent country, meaning that it relies heavily on international trade to fulfil the requirements of its population. The country's total importation in 2003 was valued at 23.65 billion US dollars, and it skyrocketed to 56.61 billion US dollars in 2022, which is an increase of 139.36 per cent within the last two decades (World Bank, 2022). This leads to a serious balance of payment problem due to the economy's inability to export goods of corresponding value (Nwogwugwu et al., 2015). According to Zhou et al. (2020) and Islam (2013), a country's degree of economic dependence on importation may be inferred from the diversity of its imports, which span from fundamental food products to industrial components.

This pattern has had an effect on the consumption patterns of the country's population. Because the country has a considerable propensity towards buying things that are produced in other countries, over 80 per cent of the money that the government spends goes towards the purchase of foreign currency so that it may pay for imports. This, in turn, has an effect on the exchange rate of the nation's currency (Zhou et al., 2020).

Studies have recognised the pass-through influence of international prices on local inflation, also known as imported inflation owing to excessive dependence on importation (Oyinlola et al., 2021; Salisu et al., 2018; Lagoa, 2014; McCarthy, 2007). This effect is known as imported inflation. According to Munepapa and Sheefeni (2017), huge dependency on foreign goods will increase the cost of these goods in their host countries, which will also be passed on to the importing country resulting in inflationary burdens. In a similar vein, Dexter et al. (2005) came to the conclusion that imports have the potential to have a direct bearing on internal inflation through the prices of imported items that are accounted for in the nation's price index.

As a result, the economy of Nigeria is susceptible to inflation on a global scale, since such inflationary increases would have an effect on the cost of goods in the nation. Given the relationship that exists between importation, exchange rate and inflation, it becomes imperative to ascertain the role played by importation and exchange rate in the increasing inflation rate in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Import

Citizens import products and services manufactured in a foreign nation when they purchase them. Lacking a predilection regarding the type of merchandise or delivery method, Import generates a monetary outflow; therefore, its anticipated value is negative. For economic growth and the balance of payments to be positive, imports must be less than exports (Agbo et al., 2018). Importers, as stated by Kartikasari (2017), "introduce" merchandise into the customs area of a nation. Importing products manufactured in a foreign country for the purpose of selling them is classified as such (Susilo, 2008).

Imports consist of merchandise and services obtained from suppliers located in a foreign nation. When a nation expends its currency on the importation of products and services, that currency exits the nation. Increasing imports could be indicative of economic growth, despite the fact that the majority of nations attempt to increase GDP by increasing exports at the expense of imports.

2.1.2 Inflation Rate

The rate of inflation is quantified as the depreciation of the purchasing power of an economy's currency (Singh & Sharma, 2016). Alternately, inflation can be described as a progressive escalation in prices that gradually depreciates a currency. Certain economists attribute inflation to a rise in the money supply. Numerous contradictory hypotheses were advanced regarding the genesis of inflation, inciting vehement debate. According to a study conducted by Friedman and Schwarts (1982), the rate of currency production is directly proportional to inflation.

Deflationary fluctuations transpire when the growth in aggregate purchasing power within the economy surpasses the expansion in the supply of

products and services, according to Leftwich (1984). A gradual and pervasive escalation in the cost of products and services is referred to as inflation.

2.1.3 Exchange Rate

According to Oriavwote and Oyovwi (2012), exchange rate is the valuation of one currency relative to another. Due to its significance in a free market economy, it is among the most essential factors to consider. Other macroeconomic indicators, including the trade deficit and inflation, are also substantially affected. As a result, economic administrators must carefully select and closely monitor a secure currency exchange system. Potential benefits of this strategy include economic growth, stability, and productivity. No nation can function economically independently due to differences in resource endowment and other comparable factors; therefore, exchange rates are crucial to all international economic transactions (Falana, 2019).

A multitude of economic indicators are influenced by variations in the exchange rates, such as the money supply, economic growth, interest and inflation rates, unemployment and the unemployment rate, and the balance of payments. The significance of a stable exchange rate to an economy that engages in global commerce is illustrated by these numbers. Governments must have a strategy for managing currency exchange rates if they are to achieve their macroeconomic objectives of promoting sustainable economic growth on both the domestic and international levels.

2.1.4 Imported Inflation

Imported inflation is defined as a surge in consumer prices resulting from an escalation in the expense of products and services obtained internationally or from an escalation in the cost of income earned overseas (Bilal et al., 2020; Kolodko, 1987). A prolonged surge in the prices of imported commodities could result in a general price soar, which would be an instance of imported inflation. The cost of all imported services and goods, including basic materials, utilised by businesses in a nation has increased. Import price inflation directly influences expenditure-based programmes of inflation as the inflation of imported liquified, materials, and machineries contributes to the escalation in costs of domestic production and imported final products. Domestic inflation could potentially be instigated by foreign price increases or a depreciation of the domestic currency.

2.2 Theoretical Review

Theories such as the structuralist theory, the monetarist model, and the Keynesian approach are among the many that attempt to explain the origins of inflation. An analysis was conducted on the demand-pull and cost-push causes of inflation in order to gain insights into them.

According to Friedman's monetarist theory, domestic inflation results from an excessive issuance of currency by a nation. Inflation cannot arise from fluctuations in the cost of providing products and services within a nation, as posited by monetarists. In contrast, an expansion of the money supply stimulates commerce and ultimately results in a surplus of demand over supply (Likukela, 2007). As noted by the monetarists, government budget deficit is an additional significant factor in inflation. In order to fulfil its expenditure obligations, a government with a budget deficit must either increase taxation or the supply of money. Ogbokor and Sunde (2011) discovered that prices increase in tandem with the money supply.

On the grounds of its constrained capacity to regulate the rate of money creation, Keynesians contend that fiscal discipline cannot be enforced through stable monetary policy. The rate at which money is expended is equally as significant as the overall amount of money entering an economy (Ogbokor & Sunde, 2011). In contrast, monetarists attribute inflation to fluctuations in interest rates as opposed to a growth in the money supply. As an increased number of individuals strive to amass substantial wealth or as capital flows into the market, low-interest rates inevitably result in elevated prices.

Structuralists attribute inflation to cost pressure and fundamental economic structures. Wages and the cost of living could potentially be affected. The impact of wage rigidity on price increases has been acknowledged by Likukela (2007) and

Ogbokor and Sunde (2011). Moreover, structuralists contend that alterations in the structure of the economy are the source of relative price increases. There is an affiliation between the money supply expansion and currency value.

Cost-push inflation arises when an adjustment to the supply curve requires an increase in price levels in order to preserve output levels at the pre-adjustment level (Hiller, 1997). There is speculation that variables such as the demand for substantial financial compensation and the increase in the price markup beyond the cost incurred by businesses could potentially influence the overall supply in the market. Frequently, price increases are attributable to escalating wages and basic material costs.

According to Hiller's (1997) demand-pull inflation theory, inflation is conceivable at any price if real aggregate demand increases. A situation in which economic demand surpasses economic supply is known as inflation. Hiller (1997) posits that a rise in gross domestic product (GDP) exerts a multiplicative influence on the economy, resulting in increased consumer expenditure and reduced unemployment. As a result of increased money supply and decreased availability of products and services, prices will increase. However, as demand increases so will supply, it is not anticipated that prices will rise.

2.3 Empirical Review

Wang (2023) investigated the reasons for the rise in import costs and the extent to which they contributed to the current high inflation in Canada to gain a clearer incite of the issue. According to the findings, import prices began to exert a greater influence on final domestic demand (FDD) inflation in the second quarter of 2021. By the end of 2022, import prices accounted for 50% of FDD inflation.

It would appear that import expenses have increased due to intensifying demand and the substantial devaluation of the Canadian dollar relative to the U.S. dollar. Additionally, geopolitical concerns and other external factors impacted import prices. The cost of imported energy has increased as a result. The irregular influence of currency rate on food inflation in Nigeria were examined by Umar and Umar (2022) using data on quarterly basis spanning from Q1 of 2008 to Q4 of 2020 the study adopted the Non-Linear ARDL model. The correlation between the exchange rate and long-term indicators of GDP and food price inflation is positive, as determined by cointegration bounds tests. Furthermore, the exchange rate exhibits a favourable association with food inflation in the long-run and short-run. There exists a statistically significant inverse correlation between food price inflation and GDP growth.

Kamel and Mhamed (2021) investigate the impact of global price increases on Algerian consumers. Auto-regressive distributed latency was utilised to perform the calculations for this investigation. The study encompasses the time period between 1990 to 2019. The findings demonstrated that foreign inflation causes both temporary and persistent increases in domestic prices.

The study carried out by Oyinlola et al. (2021) ascertained the correlation amongst inflation rates and import prices to ascertain the presence of the ratchet effect in high-income and low-income nations. We conducted an evaluation of the performance of asymmetric models utilising dummy variables in capturing the ratchet effect, in comparison to Nonlinear Autoregressive Distributed Lag (NARDL) models, using monthly data spanning from January of 1980 to July of 2019. The findings indicated that the connection between the import price, inflation and GDP per capita is influenced by the ratchet effect in both high-income and low-income nations.

In their study, Zhou et al. (2020) examined the exchange rate, gross domestic product (GDP), and foreign reserves as controls for the import demand function in Nigeria in order to determine how imports react to changes in the price of domestically produced goods. Auto-regressive distributed latency and Granger causality were utilised in the study. In the same way that the inelasticity of income and EXR was established, the inelasticity of import demand was also demonstrated. A Granger non-causation test demonstrates the unidirectional nature of the link between import demand and domestic inflation. Hence, the estimation of forthcoming aggregate import demand can be facilitated by examining

historical levels of domestic inflation.

Ahmed et al. (2018) studied the influence of inflation on the imports and exports of Pakistan. Monthly pricing, import, and export data collected between July 2001 and June 2017 are utilised in the study. A combination of three statistical methods was employed in their study: error correction, the Johansen cointegration model, and the gravity model. The research indicates that an increase in international trade (including imports and exports) leads to a corresponding rise in the CPI. In conclusion, the Granger causality results pertaining to the Pakistani economy do not establish a causal relationship between monthly fluctuations in imports and exports and the monthly change in inflation.

Liu and Chen (2017) assessed the influence of exchange rate levels on the local prices in China spanning the years 2003 to 2012. CPI, IPI, and PPI of China were compared by the study utilising a time series vector error correction methodology. Exchange rate pass-through has had and will continue to have a marginal but expanding impact on local price levels, based on a key finding of the study.

The effect of imports on the Namibian inflation rate was investigated by Munepapa and Sheefeni (2017) utilising quarterly data spanning from quarter one of 1991 to quarter four 2013. The target variable was inflation, while the explanatory variables included GDP, M2, imports, lending rate, and exchange rate. The double log functional form was subjected to error correction modelling to ascertain the significant causes and effects of inflation in Namibia. The findings posit that in the long run imports exert an increasing impact on inflation while remaining inconsequential in the short term.

From 1995Q1 to 2015Q1, Bada et al. (2016) determined the impact of Nigeria's exchange rate on import and consumer prices. Johansen cointegration method and a vector error correction technique were used to determine that the pass-through between the exchange rate and CPI in Nigeria was minimal. The research revealed that the pass-through had a less pronounced effect on the wholesale sector compared to the consumer sector.

Islam (2013) ascertained how imports is impacted by inflation. Inflation rates for the period from 2008 to 2012 were calculated by examining publications, office records, and the quantity and value of letters of credit opened at the Prime Bank Limited branch in Khulna, and office records. Additionally, the varied tendencies of the variables were contrasted in the study. A meticulous examination of the patterns unveiled that the correlation between import trade and inflation was negligible, if not non-existent.

3.0 Methodology

This study draws data from the World Bank Data Indicators of 2022. The scope of the study ranges between 1990 to 2022 (a 33-years scope). Johansen cointegration and Vector Error Correction Model (VECM) were utilised as the main estimation techniques for the study, which assisted in determining the long and short-run relationship that exists between inflation, imports, and exchange rate in Nigeria. The Augmented-Dickey Fuller test was employed to determine the stationarity level of the variables.

The model used for the study was adapted from the study of Ahmed et al. (2018); the adopted model is presented in equation 1.

CPIt = f(M, X) ----------(1)

Where CPI = Consumer Price Index; M = Imports; X = Exports.

The adapted model used for this study is presented in equation 2.

CPIt = f(IMP, EXR) ----------(2)

The statistical model for the study is in equation 3.

$$\Delta lnCPI_t = \beta_0 + \sum_{i=1}^{p} \beta_{1i} \Delta lnCPI_{t-i} + \sum_{i=1}^{q} \beta_{2i} \Delta lnIMP_{t-i} + \sum_{i=1}^{q} \beta_{3i} \Delta lnEXR_{t-i} + \lambda ECM_{t-1} + \mu_t \text{----(3)}$$

Where CPI = Consumer price index (measure for inflation); IMP = Imports; EXR = Exchange rate; β_0 = Intercept $\beta_1 - \beta_2$ = Coefficients of the estimates; ECM = residual adjustment; μ = Stochastic error term.

The study also performed summary statistics, correlation matrix, serial correlation test, multicollinearity test, heteroscedasticity test, and stability test.

4.0 Results

Table 1: Summary Statistics

	CPI	IMP	EXR
Mean	18.08467	68474165	146.5512
Median	12.87658	59541365	129.2224
Std. Dev.	16.10793	33706305	116.6380
Skewness	2.198991	1.142593	0.841832
Kurtosis	6.826438	3.716436	2.938160
Jarque-Bera	46.72782	7.886117	3.903008
Probability	0.000000	0.019389	0.142060
Observations	33	33	33

Source: Author's Computation, 2023.

Table 1 presents the summary statistics of the variables used for the study. CPI has an average value of 18.08467 and a median of 12.87658, this thus suggests that CPI has a tendency to increase; it has a standard deviation value of 16.10793; it is positively skewed and leptokurtic in nature; the Jarque-Bera probability indicates that it is not normally distributed. IMP has an average value of 68474165 and a median of 59541365, signifying that IMP has a tendency to increase; it has a standard deviation of 59541365; it is positively skewed and leptokurtic in nature; the Jarque-Bera probability indicates that it is not normally distributed. EXR has an average value of 146.5512 and a median of 129.2224, signifying that EXR has a tendency to increase; it has a standard deviation value of 116.6380; it is positively skewed and platykurtic; the Jarque-Bera probability indicates that it is normally distributed.

Table 2: Correlation Matrix

	LNIMP	LNEXR
LNIMP	1	
LNEXR	0.45	1

Source: Author's Computation, 2023.

The association between the exogenous variable is presented in Table 2. IMP and EXR share a moderate and positive association. This moderate association between the regressors suggests the absence of dependency between the variables.

Table 3: Stationarity Test

Variables	Levels		First Diff.		Order of Int.
	t-stat	Prob.	t-stat	Prob.	
lnCPI	-2.1563	0.2253	-4.5921	0.0009	I(1)
lnIMP	-2.3100	0.1751	-6.4205	-6.4205	I(1)
lnEXR	-1.8887	0.3332	-5.2439	0.0002	I(1)

Source: Author's Computation, 2023.

The stationarity test using ADF is presented in Table 3, the result stipulate that all the variables have unit root at level. Conversely, the variables do not suffer from unit root at first difference. Indicating that all the variables are integrated at order I(1). This satisfies the requirement to use a vector error correction model (VECM).

Table 4: Johansen Cointegration and Long Run Coefficients

	Trace Statistics	Prob	Max-Eigen Statistics	Prob
None *	37.48723	0.0054	27.38910	0.0058
At most 1	10.09813	0.2732	8.681691	0.3136
At most 2	1.416442	0.2340	1.416442	0.2340
Normalized cointegrating coefficients (standard error in parentheses) [t-statistics]				
lnCPI	lnIMP		lnEXR	
1.000000	-17.79338		-9.214580	
	(3.56759)		(1.43588)	
	[-4.98750]		[-6.41737]	

Source: Author's Computation, 2023.

Table 4 provides the outcome of the Johansen cointegration and normalised cointegrating equation. The trace statistics show that there is at least one cointegrating equation in the model; the max-eigen statistics also confirmed the presence of at least one cointegrating equation in the model. This conclusion is drawn due to the probability value of both the trace and max-eigen statistics being lesser than 5%; specifically, trace statistics have a probability value of 0.0054 while the max-eigen statistics have a probability value of 0.0058, all lesser than 0.05. This in essence confirms the presence of a long-run association in the model.

The normalised cointegrating equation presents the individual effects of the explanatory variables on the target variable. It indicates that IMP has an increasing and statistically considerable influence on CPI in the long run, thus signifying that a rise in IMP will translate to a growth in the CPI; similarly, EXR has an increasing and statistically considerable influence on CPI in the long run, thus indicating that a growth in EXR will translate to a rise in the CPI in the long run.

Table 5. VECM Result

Variables	Coefficient	Standard Error	T-statistics
D(lnIMP(-1))	0.446614	6.39353	0.06985
D(lnEXR(-1))	-3.524299	7.99012	-0.44108
ECTt-1	-0.521066	0.16391	-3.17890
C	0.512864	2.15073	0.23846
R2 = 0.311821; Adj. R2 = 0.205947.			

Source: Author's Computation, 2023.

The findings of the vector error correction model are shown in Table 5. In the short term, it is observed that IMP has a positive impact; hence, this means that an increase in IMP in the short run would lead to a rise in the CPI; despite this, the influence is statistically insignificant. In contrast, EXR has a decreasing impact on CPI in the short run. Thus, this shows that an increase in EXR will lead to a fall in the CPI, although the influence is statistically insignificant. This provides as evidence that there is a short-run link in the model since the ECT has a coefficient of -0.521066 and a t-stat value of -3.17890. With particular attention paid to the ECT coefficient, the divergence from the period before this one is rectified in the period at hand with a speed of adjustment of 52.10 percent.

Based on the value of the R-square coefficient, which is 0.311821, it can be deduced that IMP and EXR are responsible for or explain 31.18% of the changes in CPI.

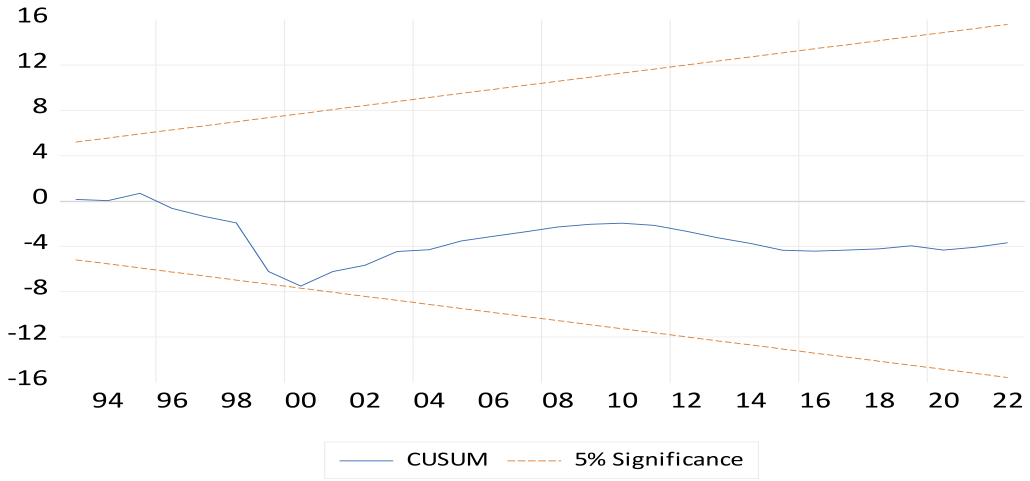
Table 6: Robustness Tests

Tests	Probability Value
Serial Correlation	0.3269
Heteroscedasticity	0.3283
Multicollinearity (Mean VIF)	1.248598

Source: Author's Computation, 2023.

The outcome of the robustness tests that were performed to evaluate the model's viability are shown in Table 6. Given the test for serial correlation has a probability value of 0.326, it concludes that the model does not include any elements that are serially correlated. The homoscedastic nature of the model's residuals is shown by the heteroscedasticity test, which yielded a probability value of 0.3283. According to the results of the multicollinearity test, the variables that were included in the investigation did not suffer from multicollinearity. The mean VIF for these variables was 1.248598.

Figure 1: CUSUM Stability Test



Source: Author's Computation, 2023.

The CUSUM stability test is revealed in Figure 1. Examining the figure, it can be seen that the CUSUM line did not deviate from the line representing the 5% significance level, which indicates that the model is consistent. The results of the robustness tests that were performed led the researchers to the conclusion that the model under consideration is appropriate, and that the regressors can be regressed on the target variable.

4.1 Discussion of Findings

The study's results provide empirical support for the assertion that imports have a positive and statistically considerable bearing on the consumer price index (CPI) in Nigeria. This implies that an escalation in import activities is likely to result in an expansion of the CPI within the Nigerian economy.

This conclusion accords with the findings of Ahmed et al. (2018) who in their investigations showed that imports had a favourable impact on the inflation rate. The effect may be attributed to the upsurge in prices of imported products and an accompanying surge in their importation into the nation.

The excessive purchase of such items within the economy results in a situation where an excess of money is in pursuit of pricey goods, thus leading to an escalation in the inflation rate within the economy.

Similarly, it has been observed that the exchange rate has a noteworthy and positive impact on the consumer price index in Nigeria. This implies that a surge in the exchange rate (resulting in a decrease in the value of the currency) would correspondingly lead to an increase in the consumer price index of the Nigerian economy.

This discovery provides empirical support for the research conducted by Umar and Umar (2022), who found that exchange rates had an increasing impact on the inflation rate.

This finding provides confirmation that a currency depreciation results in more expenditure to acquire the same quantity of products, hence leading to an excess of money in circulation and subsequently contributing to an escalation in the inflation rate within the economy.

5.0 Conclusion and Recommendations

This research investigates the influence of imports and exchange rate in contributing to the rising inflation rate in Nigeria. The research focuses on a span of 33 years, running from 1990 through 2022. The research used the Johansen cointegration and vector error correction model to estimate the variables, taking into account their stationarity level, which was shown to be stationary at first difference.

The research indicates that over an extended period, imports have a notable and statistically significant impact on the inflation rate in Nigeria. Similarly, imports have a positive influence on the inflation rate in the near term, but this effect is not statistically significant. In the long term, the inflation rate was shown to be positively and significantly influenced by the exchange rate. However, in the short term, the exchange rate was found to have a negative and statistically negligible impact on the inflation rate.

The coefficient of determination reveals that about 31.18% of the variations seen in the inflation rate may be attributed to the influence of imports and currency rates. The research further conducted several robustness tests to assess the adequacy of the model. All of the tests undertaken consistently affirmed the fitness of the study's model and the reliability of its findings.

The research findings indicate that the act of importing goods and services is a significant factor contributing to the observed upward trend in the inflation rate inside the Nigerian economy. Based on the aforementioned results, it is recommended that the government should endeavour to stimulate domestic production of products by formulating appropriate regulations aimed at safeguarding local enterprises against overseas competition.

It is imperative for the government to prioritise the refinement of oil, given that a significant portion of Nigeria's imports consists of refined liquefied goods. The enhancement of the exchange rate of the nation's currency necessitates the implementation of meticulous policies.

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THE IMPACT OF THE 'JAPA SYNDROME' ON FOREX REMITTANCES IN THE NIGERIAN ECONOMY

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Abstract

This study investigates the ramifications of the "Japa Syndrome" on Forex remittances within the context of the Nigerian economy. Drawing upon empirical data and theoretical frameworks, the study explores the drivers behind the "Japa Syndrome," its implications for Forex remittances, and the broader economic consequences for NigeriaThe "Japa Syndrome" denotes the pervasive trend of Nigerian citizens seeking opportunities abroad and subsequently remitting foreign exchange back to their homeland. Through a comprehensive analysis of economic indicators and trends, this research elucidate the multifaceted impact of this phenomenon on Nigeria's Forex remittance landscape. By examining the interplay between migration patterns, Forex inflows, and economic development, this research concludes that increased migration under the 'Japa Syndrome' significantly boosts Forex remittances, thereby enhancing Nigeria's economic stability and growth in the era of globalization.

JEL Classification: J15, D04, F24, O24
Keywords: Japa Syndrome, Forex, Remittances, Development, Economy,

1.0 Introduction

Since the year 2020, the phenomenon known colloquially as the "Japa Syndrome" has garnered significant attention within the discourse surrounding migration and economic development in Nigeria. The term "Japa" originates from Nigerian slang, denoting the act of leaving one's home country in pursuit of opportunities abroad. This trend has been fueled by a myriad of factors, including economic hardship, political instability, and the quest for better prospects. As a consequence, a considerable number of Nigerian citizens have opted for emigration, seeking greener pastures in foreign lands (Akeerebari, 2022). Central to the "Japa Syndrome" narrative is the consequential flow of Forex remittances back to Nigeria.

Forex remittances, defined as the transfer of funds from individuals working abroad to their home country, constitute a vital component of Nigeria's external financial inflows (Akhimien & Osifo 2019). These remittances have profound implications for various aspects of the Nigerian economy, including foreign exchange reserves, balance of payments, and poverty alleviation efforts. While the significance of Forex remittances in the Nigerian context is widely acknowledged, the specific impact of the "Japa Syndrome" on these remittances remains underexplored. Existing literature offers insights into the drivers of emigration from Nigeria, as well as the macroeconomic effects of Forex remittances.

However, there is a notable dearth of research examining the nexus between the "Japa Syndrome" and Forex remittances within the Nigerian economic context (Adekunle, Tella, Subair, & Adegboyega 2022). Therefore, this study seeks to address this gap in the literature by conducting a comprehensive analysis of the influence of the "Japa Syndrome" on Forex remittances in the Nigerian economy (Alechenu, 2021). By employing a multidisciplinary approach that integrates insights from migration studies, international economics, development economics, and through empirical investigation and theoretical inquiry, the study endeavors to elucidate the mechanisms through which the "Japa Syndrome" shapes Forex remittance patterns and, by extension, impacts the Nigerian economy.

The historical context of migration patterns in Nigeria is intricately woven into the fabric of the nation's socio-economic landscape, reflecting a complex interplay of internal and external factors. From pre-colonial times to the present day, migration has been a fundamental aspect of Nigerian society, shaping demographic dynamics, cultural exchange, and economic development (Osigwe & Madichie 2015). Pre-colonial Nigeria was characterized by diverse ethno-linguistic groups, each with its own distinct cultural traditions and territorial boundaries. Interactions between these groups often involved movements of people for trade, intermarriage, and social alliances.

Internal migration was common, with people relocating within the region in response to environmental changes, conflicts, or economic opportunities. The advent of European colonialism in the late 19th century introduced new dynamics to migration patterns in Nigeria. Colonial policies such as the imposition of cash-crop agriculture, the construction of transportation infrastructure, and the recruitment of labor for colonial enterprises spurred internal migration from rural to urban areas. Cities like Lagos, Ibadan, and Port Harcourt emerged as hubs of economic activity, attracting migrants in search of employment and better livelihoods (Don-Baridam, 2023).

The period following Nigeria's independence in 1960 witnessed significant shifts in migration patterns, driven by political instability, ethnic tensions, and economic disparities. The Nigerian Civil War (1967-1970) triggered mass displacement and refugee movements, with millions of people fleeing conflict-affected areas in search of safety and refuge. Additionally, government policies aimed at promoting national unity and development led to the resettlement of populations across different regions of the country (Ilu, 2019). The oil boom of the 1970s brought about a new wave of migration in Nigeria, as the oil-rich Niger Delta region became a magnet for job seekers and investors. The rapid urbanization and industrialization fueled by oil revenues attracted migrants from rural areas and other parts of the country, contributing to the growth of cities like Warri, Port Harcourt, and Kaduna. In recent decades, globalization and technological advancements have further transformed migration patterns in Nigeria. The rise of information and communication technologies has facilitated transnational mobility, enabling Nigerians to explore opportunities beyond national borders. The phenomenon known as the "brain drain" has seen a significant number of skilled professionals emigrating to Western countries in search of higher wages, better working conditions, and opportunities for career advancement (Oladipo, 2020).

2.0 Definition and Origin of the "Japa Syndrome"

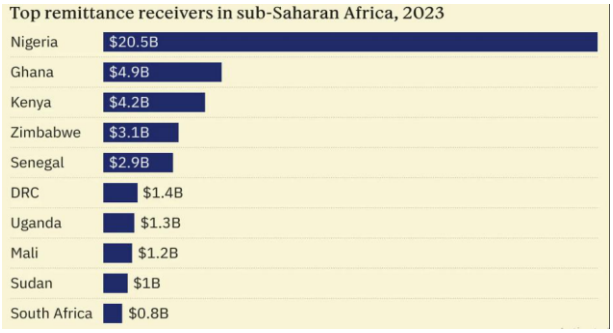
The "Japa Syndrome" refers to a contemporary social phenomenon prevalent in Nigeria, particularly among its younger population, characterized by the widespread desire to seek opportunities abroad and relocate permanently to other countries. The term "Japa" is derived from Nigerian slang and loosely translates to "escape" or "flee" in English (Agu, 2009). It encapsulates the idea of leaving behind one's home country in pursuit of better prospects elsewhere.

The origins of the "Japa Syndrome" can be traced back to a combination of socio-economic, political, and cultural factors shaping the Nigerian context. One primary driver is the perceived lack of opportunities and economic prospects within Nigeria. Persistent challenges such as high unemployment rates, inadequate infrastructure, limited access to quality education and healthcare, and political instability have contributed to a sense of disillusionment among many Nigerians, particularly the youth (Iheke, 2012).

Moreover, the desire to escape social and political unrest, including ethnic and religious tensions, corruption, and insecurity, has fueled the inclination to seek refuge in more stable and prosperous countries. The rise of globalization and increased connectivity through the internet and social media platforms have also played a significant role in amplifying awareness of opportunities abroad and fostering aspirations for a better life elsewhere (Alechenu, 2021).

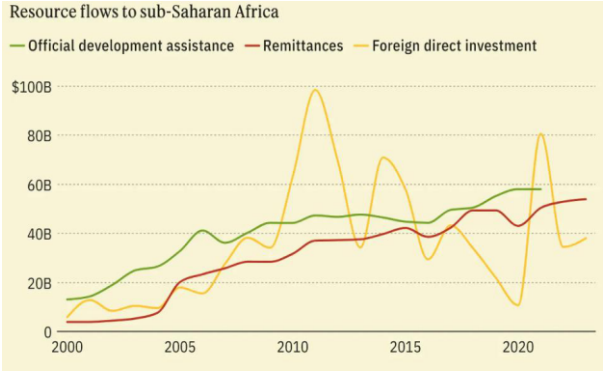
In a London bus stop, a poster displays a young man pointing with an admonishing gesture. Ahim is the four-letter word: "Japa." This term originates from the Yoruba language, commonly used in southwest Nigeria, and it translates to "escape" or "flee." This term has gained widespread usage among Nigerians, referring to the significant migration of young individuals from the West African country to affluent nations (Akwagyiram, 2024).

The "Japa Syndrome" has become a prevalent theme in Nigerian popular culture, with songs, memes, and social media hashtags often referencing the desire to emigrate. It has permeated various facets of society, influencing career choices, educational pursuits, and personal aspirations among Nigerians, particularly the younger generation. Data released by the World Bank revealed that Nigeria received $20.5 billion in remittances in 2023, representing approximately 38% of the total remittance inflows to sub-Saharan Africa. These inflows have shown a steady increase, rising from $20.1 billion in 2022. In contrast, the data from the bank indicated that in 2022, overseas investors withdrew $186.8 million more from Nigeria's economy than they invested. This ongoing trend highlights how remittance flows into Africa's largest economy have surpassed foreign direct investment (Afunugo, 2023).



Source: *World Bank 2024*

For decades, the global remittance market was dominated by industry giants like Western Union and MoneyGram. However, with the rise of technology companies and the widespread adoption of mobile wallets, competition has intensified (Akwagyiram, 2024). This includes smaller fintech players across Africa and Europe, such as Remitly and TransferGo which entered the Nigerian market over eight years ago. The "japa" phenomenon has created an opportunity to tap into the remittance market for individuals sending money to Nigeria, a country with a population exceeding 210 million (Nwodo, Omeje, & Okereke 2023). In 2022, remittance flows to sub-Saharan Africa totaled $53 billion, marking a 6.1% increase from the previous year (Akwagyiram, 2024). Remittances now surpass foreign direct investment and overseas development aid to such an extent that some African governments view them as a vital source of foreign currency (Adejumo & Ikhide 2019). This shift underscores the growing importance of remittances as a lifeline for many households and as a significant contributor to economic stability in the region.



Source: *World Bank 2024*

Remittances serve as a crucial source of foreign currency, especially as the Nigerian government grapples with dollar scarcity, leading to a decline in the value of the naira. However, while remittances play a vital role, they should be viewed as just one element of a broader strategy aimed at diversifying the economy. While remittances undoubtedly provide much-needed support, the primary focus should be on expanding and strengthening the export sector (Odionye & Emerole 2015).

Export-led growth can generate foreign exchange earnings, stimulate economic activity, and reduce dependency on remittances as the sole source of foreign currency inflows. Diversifying the economy through increased exports requires strategic investments in sectors with comparative advantages, such as agriculture, manufacturing, and services. This entails improving infrastructure, enhancing competitiveness, and fostering a conducive business environment to attract foreign investment and facilitate trade. Moreover, prioritizing export-oriented policies can promote economic resilience, create job opportunities, and drive sustainable development, thereby reducing

vulnerabilities associated with overreliance on remittances or volatile commodity prices (Akhimien & Osifo 2019).

2.1 Factors Driving the "Japa Syndrome"

The "Japa Syndrome" phenomenon, marked by the widespread desire among Nigerians to seek opportunities abroad, is driven by a complex interplay of socio-economic, political, and cultural factors. Economic opportunities play a significant role, as persistent challenges in Nigeria's economy, such as high unemployment rates, limited job prospects, and low wages, prompt many individuals to seek better financial prospects overseas (Akeerebari, 2022). The perception of higher earning potential and improved living standards motivates emigration as a means to achieve financial stability and upward mobility.

Moreover, Nigeria has faced recurrent political instability, ethnic tensions, and security challenges, including insurgency, terrorism, and communal violence. The lack of security and stability undermines confidence in the government's ability to provide safety and protect citizens' rights, prompting some Nigerians to seek refuge in countries perceived as more peaceful and politically stable. Education and career aspirations also drive emigration, as many Nigerians aspire to pursue higher education and professional development opportunities not readily available in their home country (Nwiado, Korgbeelo, & Onu 2021). Limited access to quality education, inadequate infrastructure, and bureaucratic hurdles hinder educational and career advancement within Nigeria, prompting individuals to explore options abroad for academic excellence and career growth.

Social and cultural influences, including exposure to global trends through social media and international travel, have broadened Nigerians' horizons and aspirations. Influenced by images of success and prosperity in Western countries, particularly in the entertainment and technology industries, many Nigerians aspire to emulate similar lifestyles and career trajectories abroad, contributing to the allure of emigration. Family and social networks also play a crucial role, as the presence of relatives or acquaintances who have successfully migrated and established themselves abroad serves as a motivating factor for others considering emigration (Ewubare & Okpoi 2018).

Personal networks provide valuable information, support, and encouragement, facilitating the decision-making process and easing the transition to life in a new country. Additionally, the perceived quality of life, including access to better healthcare, education, infrastructure, and social amenities, motivates Nigerians to consider emigration as a means to improve their overall well-being and that of their families. The desire for a safer and more stable environment for raising children and securing a brighter future further fuels the "Japa Syndrome."

2.2 Overview of Emigration from Nigeria

While obtaining comprehensive data on Nigerian emigrants presents challenges due to the informal nature of many migration flows, research and studies offer valuable insights into their demographic profile. Firstly, Nigerian emigrants span a wide age range, from young adults seeking educational opportunities abroad to older individuals pursuing career advancement or retirement plans in other countries (Adekunle, Tella, Subair, & Adegboyega 2022). Notably, there is a growing trend among younger emigrants, particularly skilled professionals and students, attracted by prospects in higher education, employment, and entrepreneurial ventures overseas. Secondly, Nigerian emigrants exhibit diverse educational backgrounds, with many holding tertiary degrees obtained from both Nigerian and foreign institutions. Skilled professionals such as doctors, engineers, IT specialists, and academics are prevalent among emigrants, contributing to the phenomenon of "brain drain." Thirdly, Nigerian emigrants are involved in various occupations and sectors, showcasing the breadth of skills within the Nigerian workforce (Olubiyi, 2015). They work in fields such as healthcare, education, engineering, finance, and business management, while some venture into entrepreneurship and cross-border trade. Fourthly, while male emigrants have traditionally dominated sectors like construction and engineering, there's been a noticeable increase in female emigration, driven by factors like education and employment opportunities. Additionally, Nigerian emigrants represent diverse

ethnic and regional backgrounds, reflecting the country's multiethnic society.

Lastly, migration trajectories vary, with some pursuing temporary educational or employment opportunities abroad, while others opt for permanent settlement (Ewubare & Okpoi 2018). Circular migration, involving movement between Nigeria and other countries, is also common, reflecting transnational lifestyles and livelihood strategies among Nigerian emigrants. These trends underscore the complexity and diversity of Nigerian emigration, highlighting the need for comprehensive research and policy responses to address migration challenges and harness its potential benefits. The motivations for emigration among Nigerians are diverse and multifaceted, stemming from a complex interplay of push and pull factors that influence individuals' decisions to seek opportunities abroad. Firstly, economic challenges such as high unemployment rates, limited job prospects, and low wages drive many Nigerians to explore emigration as a means of accessing better economic opportunities (Okunade & Awosusi 2023). They believe that relocating to countries with stronger economies and more robust job markets will lead to higher incomes, improved living standards, and greater financial stability. Additionally, Nigeria's education system faces significant challenges, including inadequate infrastructure and low educational standards, prompting many Nigerians to pursue higher education and skill enhancement opportunities abroad. Seeking access to world-class universities, research facilities, and training programs not readily available in Nigeria, young Nigerians aspire to obtain degrees and professional qualifications that enhance their career prospects and employability.

Moreover, political instability, ethnic tensions, and security concerns in Nigeria contribute to emigration, as some individuals seek refuge in countries perceived as more peaceful and politically stable (Uchenna, Evans, & Stephen 2015). Social and cultural influences also play a crucial role, with exposure to Western lifestyles, values, and norms through media and international travel fostering aspirations for emigration, particularly among the younger generation. Furthermore, family reunification and migration networks serve as important drivers, as emigrants are motivated by the desire to reunite with family members or join relatives living abroad. Migration networks provide valuable support and assistance, easing the transition to life in a new country. Lastly, environmental pressures, terrorism, and climate change can also influence migration decisions, particularly among displaced populations in vulnerable rural areas, who may seek to migrate to more stable regions or countries with better resilience to environmental challenges. These diverse motivations underscore the complexity of Nigerian emigration and highlight the need for comprehensive research and policy responses to address migration challenges and harness its potential benefits.Emigration can influence various aspects of the labor market, including employment dynamics, wages, skills availability, and productivity.

1. **Brain Drain and Skills Shortages:** One of the most significant economic impacts of emigration is the phenomenon known as the "brain drain," which refers to the loss of skilled professionals, including doctors, engineers, teachers, and IT specialists, to emigration (Utoh-Ezeajugh & Ebekue 2023). The departure of skilled workers reduces the pool of talent available in Nigeria's labor market, leading to skills shortages in critical sectors such as healthcare, education, and technology. This can impede economic development and hinder efforts to build a knowledge-based economy.

2. Labor Market Competition: Emigration can affect labor market dynamics by altering the supply-demand balance for certain occupations and industries. In some cases, the outflow of workers may alleviate competition for jobs and reduce unemployment rates in Nigeria, particularly in sectors with excess labor supply (Akhimien & Osifo 2019). However, in other cases, emigration can exacerbate labor market competition by creating shortages of skilled workers in specific occupations, leading to wage inflation and recruitment difficulties for employers.

3. Remittance Inflows: While emigration may lead to the loss of skilled labor, it can also generate economic benefits through remittance inflows. Nigerian emigrants send billions of dollars in

remittances back home each year, which contribute significantly to household income, poverty alleviation, and economic growth (Oladipo, 2020). Remittances serve as a vital source of foreign exchange, supplementing national income and supporting consumption, investment, and development projects in Nigeria.

4. Entrepreneurship and Innovation: Emigration can foster entrepreneurship and innovation by creating opportunities for Nigerian emigrants to establish businesses and startups abroad or to leverage their skills and networks for cross-border trade and investment. Many Nigerian entrepreneurs and professionals living abroad contribute to the growth of diaspora-driven enterprises and technology startups, promoting economic diversification and innovation in Nigeria's labor market (Lawal et al. 2022).

5. Human Capital Development: Emigration can have mixed effects on human capital development in Nigeria. While the loss of skilled professionals may hinder domestic capacity-building efforts and knowledge transfer, emigration can also facilitate skills acquisition and knowledge diffusion through educational exchange programs, training initiatives, and international collaborations (Orok, John, & Udoka 2020). Moreover, returning emigrants may bring back valuable skills, experiences, and networks that enhance the competitiveness of Nigeria's labor force.

Role of Diaspora Networks in Facilitating Forex Remittances

Diaspora networks play a pivotal role in facilitating Forex remittances, serving as critical channels for transferring funds from migrants living abroad to their families and communities in their home countries. Forex remittances, defined as the transfer of funds from individuals working abroad to their home countries, constitute a vital source of external finance for many developing economies, including Nigeria. According to data from the World Bank, Nigeria consistently ranks among the top recipients of remittances in sub-Saharan Africa, with inflows reaching approximately $23.8 billion in 2020, accounting for over 5% of the country's GDP (Akwagyiram, 2024).

Diaspora networks play a crucial role in facilitating these remittance flows by providing migrants with access to reliable, affordable, and convenient remittance channels. Through informal social networks, digital platforms, and established money transfer operators, diaspora members are able to send money back home to support their families, invest in businesses, and contribute to community development initiatives.

One of the key advantages of diaspora networks in facilitating Forex remittances is their ability to overcome barriers to financial access and inclusion (Yusuf et al. 2023). In many cases, migrants may lack access to formal banking services or face challenges in conducting cross-border financial transactions. Diaspora networks provide alternative remittance channels, such as cash-based transfers, mobile money services, and informal hawala networks, that enable migrants to send money home quickly and efficiently. Moreover, diaspora networks enhance the efficiency and cost-effectiveness of remittance transfers by leveraging economies of scale, network effects, and competitive pricing mechanisms.

According to the World Bank, the average cost of sending remittances to sub-Saharan Africa stood at 8.2% in 2020, down from 9.4% in 2019 (Akwagyiram, 2024). Beyond their role as remittance facilitators, diaspora networks contribute to economic development and poverty reduction through their investments in productive assets, human capital, and social infrastructure. Studies have shown that remittance-receiving households in Nigeria allocate a significant portion of remittance funds to essential expenses such as education, healthcare, and housing, thereby improving living standards and enhancing human development outcomes.

The magnitude and trends in Forex remittances to Nigeria represent a significant aspect of the country's economy, reflecting the contributions of Nigerians living abroad to their families, communities, and national development (Okunade & Awosusi 2023). Examining the trends in Forex remittances to Nigeria reveals several key dynamics shaping the flow of funds from Nigerians living abroad to their home country. One notable trend is the resilience of remittance inflows, which

have remained relatively stable despite global economic challenges, geopolitical uncertainties, and fluctuations in exchange rates (Ilu, 2019). This resilience reflects the strong ties between Nigerians living abroad and their families and communities in Nigeria, as well as the continued demand for remittance services despite economic downturns. Another trend is the increasing use of digital remittance channels and mobile money services for sending funds to Nigeria. Technological advancements and the proliferation of digital platforms have made it easier and more convenient for Nigerians living abroad to transfer money home to their loved ones. Digital remittance providers offer competitive exchange rates, low transaction fees, and fast processing times, making them attractive alternatives to traditional money transfer operators (Alechenu, 2021).

Furthermore, the COVID-19 pandemic has had a significant impact on remittance flows to Nigeria, with both positive and negative effects. On the one hand, the pandemic disrupted global mobility and economic activity, leading to job losses, income reductions, and travel restrictions that affected remittance senders and recipients. On the other hand, the pandemic prompted many Nigerians living abroad to increase their remittance contributions to support their families during the crisis, leading to a surge in remittance inflows in some periods (Afunugo, 2023). Looking ahead, several factors are likely to shape the future trajectory of Forex remittances to Nigeria.

Economic recovery, political stability, and policy reforms aimed at promoting diaspora engagement and financial inclusion will play crucial roles in sustaining remittance flows and maximizing their developmental impact. Additionally, innovations in fintech, digital banking, and blockchain technology hold promise for further enhancing the efficiency, transparency, and accessibility of remittance services for Nigerians living abroad (Don-Baridam, 2023).

3.0 Impact of Forex Remittances on the Nigerian Economy

Forex remittances, the funds sent by Nigerians living abroad to their families and communities back home, have become a critical component of Nigeria's economy. These remittances influence various aspects of the nation. As the largest recipient of remittances in Sub-Saharan Africa, Nigeria receives billions of dollars annually from its diaspora, which significantly impacts the country's economic well-being.

1. Poverty Alleviation in Nigeria

One of the most direct impacts of remittances is on poverty alleviation and social welfare. Remittances often serve as a lifeline for many Nigerian families, providing essential support for daily living expenses, education, healthcare, and housing. According to the World Bank, Nigeria received approximately $17 billion in remittances in 2021, representing about 4% of the country's GDP (Akwagyiram, 2024. These funds help to reduce poverty levels by supplementing household incomes, enabling families to better withstand economic shocks and uncertainties. Remittances contribute to improved educational outcomes by covering school fees, books, and other educational materials.

This investment in human capital is crucial for the long-term development of the country, as a more educated workforce is better equipped to drive economic growth and innovation. Additionally, remittances improve healthcare access and outcomes, as families can afford better medical care and health services, which are often lacking in many regions of Nigeria (Lawal et al. 2022).
Forex remittances play a significant role in poverty alleviation in Nigeria, contributing to household income, consumption, and welfare, particularly in rural and low-income communities.

i. **Income Support:** Forex remittances provide direct income support to recipient households, lifting many out of poverty or reducing their vulnerability to economic shocks. Remittance inflows enable families to meet basic needs such as food, clothing, and shelter, as well as to invest in income-generating activities, productive assets, and entrepreneurial ventures. Studies have shown that remittance-receiving households in Nigeria allocate a significant portion of remittance funds to consumption expenditures, thereby improving living standards and reducing poverty levels

(Nwaeze, 2024).

ii. **Education and Human Capital Development:** Remittances contribute to investments in education and human capital development, which are essential for breaking the cycle of intergenerational poverty. Many families use remittance funds to pay school fees, purchase educational materials, and support children's schooling expenses, thereby enhancing access to quality education and improving educational outcomes (Orok, John, & Udoka 2020). Increased educational attainment among children from remittance-receiving households can lead to higher earning potential, better employment opportunities, and improved socio-economic mobility in the long run.

iii. **Healthcare and Social Services**: Remittances play a crucial role in improving access to healthcare and social services for recipient households in Nigeria. Families use remittance funds to cover medical expenses, purchase medications, and seek treatment for illnesses and injuries, thereby enhancing health outcomes and reducing the prevalence of preventable diseases (Agu, 2009). Moreover, remittances enable households to access social safety nets, community-based support programs, and emergency assistance mechanisms, providing a buffer against unexpected health shocks and economic hardships.

iv. **Housing and Infrastructure Development:** Remittances contribute to investments in housing and infrastructure development, particularly in rural and peri-urban areas where housing conditions may be inadequate or substandard. Many families use remittance funds to build or renovate homes, improve access to clean water and sanitation facilities, and upgrade community infrastructure such as roads, bridges, and public facilities (Osigwe & Madichie 2015). These investments not only enhance living conditions but also stimulate local economic activity, create employment opportunities, and foster community development initiatives.

v. **Economic Diversification and Entrepreneurship**: Remittances support economic diversification and entrepreneurship by providing seed capital, investment capital, and working capital for small businesses and startups. Many remittance recipients use funds to start or expand businesses in sectors such as agriculture, retail trade, transportation, and services, thereby generating income, creating jobs, and stimulating economic growth at the grassroots level (Ilu, 2019). Moreover, remittances contribute to the resilience and sustainability of rural economies by diversifying sources of income and reducing dependence on volatile sectors such as agriculture and extractive industries.

2 Nigeria's Balance of Payments

Remittances also play a significant role in Nigeria's balance of payments. They provide a steady and substantial source of foreign exchange, which helps to stabilize the national currency, the naira. This influx of foreign currency is critical in a country that frequently experiences volatility in its primary revenue source—oil exports (Okolie, Osam, & Ezeamama 2023). Remittances mitigate the pressures on the balance of payments and reduce Nigeria's reliance on external borrowing by bolstering foreign reserves. This financial inflow is crucial for maintaining economic stability, especially during periods of low oil prices. It helps to manage the country's current account deficit, ensuring that Nigeria can meet its international financial obligations and maintain investor confidence. The stability brought about by remittances is essential for a country heavily dependent on external trade and investment. Forex remittances have a notable impact on Nigeria's balance of payments, influencing the country's current account balance, foreign exchange reserves, and overall external sector dynamics.

i. **Current Account Balance:** Forex remittances contribute to a surplus in Nigeria's current account balance by increasing the inflow of foreign currency into the country. Remittance inflows represent a

form of external income that enhances Nigeria's ability to finance imports of goods and services, thereby reducing the current account deficit or generating a surplus (Adeseye 2021). This surplus helps offset other components of the current account, such as trade deficits, income payments, and transfers, contributing to a more favorable balance of payments position.

ii. **Foreign Exchange Reserves:** Remittance inflows bolster Nigeria's foreign exchange reserves, which serve as a buffer against external vulnerabilities and provide liquidity to support the stability of the national currency, the naira. Accumulation of foreign exchange reserves through remittances enhances Nigeria's capacity to meet external obligations, service foreign debt, and intervene in the foreign exchange market to stabilize exchange rates (Okolie, Osam, & Ezeamama 2023). Higher levels of reserves improve investor confidence, reduce exchange rate volatility, and mitigate the risk of currency depreciation, thereby strengthening Nigeria's balance of payments.

iii. **Exchange Rate Dynamics:** Remittance inflows influence exchange rate dynamics in Nigeria by increasing the supply of foreign currency in the foreign exchange market. The influx of remittances exerts upward pressure on the value of the naira, leading to appreciation or stabilization of the exchange rate vis-à-vis major currencies such as the US dollar, euro, and pound sterling. A stronger exchange rate enhances Nigeria's purchasing power for imported goods and services, reduces the cost of external debt servicing, and promotes macroeconomic stability, contributing to a more favorable balance of payments outlook (Akwagyiram, 2024).

iv. **External Debt Dynamics:** Remittances play a role in shaping Nigeria's external debt dynamics by reducing the reliance on external borrowing to finance current account deficits or capital outflows. The inflow of remittances provides an alternative source of foreign exchange earnings that can be used to finance imports, service external debt obligations, or accumulate foreign exchange reserves. By reducing the need for external borrowing, remittances help mitigate the risk of debt distress, improve debt sustainability, and strengthen Nigeria's external financial position, thereby enhancing the country's balance of payments sustainability (Lawal et al. 2022).

v. **Economic Stability and Resilience:** Remittance inflows contribute to overall economic stability and resilience by diversifying sources of external income, reducing reliance on volatile export revenues, and enhancing the stability of the balance of payments. Remittances serve as a stable source of foreign exchange earnings that is less susceptible to fluctuations in global commodity prices or demand conditions, providing a buffer against external shocks and economic uncertainties (Onyike, Ekeagwu, & Alamba 2020). Moreover, remittances support household consumption, investment, and welfare, thereby contributing to broader socio-economic development and poverty reduction efforts in Nigeria.

3 Financial Inclusion and Sector Development

Remittances have the potential to promote financial inclusion by encouraging the use of formal financial channels. As recipients increasingly utilize banks and other financial institutions to receive funds, they gain access to a broader range of financial services, including savings accounts, credit facilities, and insurance products. This integration into the formal financial system can help to mobilize domestic savings and improve the overall efficiency of the financial sector. Furthermore, the influx of remittances has prompted the development of innovative financial products and services tailored to the needs of migrants and their families. Mobile banking and digital payment platforms, for example, have expanded rapidly in response to the demand for more efficient remittance channels. These advancements contribute to a more inclusive and dynamic financial ecosystem, fostering greater financial literacy and economic participation among the population (SR, Moosivand, & Gilan 2022).

4 Economic Stability and Growth

Forex remittances contribute significantly to Nigeria's economic stability and growth. They provide a steady stream of income that supports household consumption, which is a major driver of economic activity. Increased household spending boosts demand for goods and services, stimulating local business development and creating employment opportunities. This consumption-driven growth creates a multiplier effect, generating income and enhancing productivity across various sectors (Ogunode, Cletus, & Christiana 2024).

Additionally, remittances facilitate investments in small businesses and infrastructure development. Many Nigerians abroad remit funds specifically for entrepreneurial ventures or community projects, which can lead to the establishment of new businesses and the creation of jobs. These investments are particularly vital in rural areas, where access to traditional financial services and economic opportunities is often limited. Infrastructure projects funded by remittances, such as roads, schools, and healthcare facilities, improve the quality of life for local populations and create a more conducive environment for economic activities.

Foreign Exchange Reserve Management and Forex Remittances

Foreign exchange reserve management plays a crucial role in effectively managing Forex remittances in Nigeria, ensuring their optimal utilization for maintaining macroeconomic stability, supporting external sector operations, and safeguarding the country's financial resilience. The management of Forex remittances within the context of foreign exchange reserves involves various strategies, policies, and practices aimed at maximizing the benefits of remittance inflows while mitigating associated risks.

1. Reserve Accumulation: Forex remittances contribute to the accumulation of foreign exchange reserves in Nigeria, bolstering the country's external financial position and enhancing its capacity to meet external obligations. Remittance inflows represent a stable and predictable source of foreign currency earnings that can be used to build up reserves, providing a buffer against external shocks and ensuring liquidity to support the stability of the national currency, the naira (Nwaeze, 2024).

2. Diversification of Reserve Holdings: Effective reserve management involves diversifying reserve holdings across different currencies, asset classes, and investment instruments to mitigate risks and enhance portfolio performance. Remittance inflows add to the pool of foreign exchange reserves, allowing for greater diversification of reserve assets and reducing concentration risks associated with overreliance on a single currency or asset type (Atan & Esu 2018). Diversification of reserve holdings helps optimize returns, preserve capital, and enhance the resilience of Nigeria's external financial position.

3. Reserve Adequacy and Sufficiency: Foreign exchange reserve management aims to ensure the adequacy and sufficiency of reserves to meet the country's external financing needs, including imports, debt service obligations, and capital outflows. Remittance inflows contribute to enhancing reserve adequacy by increasing the overall level of reserves relative to external liabilities and financing requirements. Adequate reserves provide confidence to investors, creditors, and market participants, supporting exchange rate stability, reducing sovereign risk, and promoting macroeconomic stability (Oke, 2011) .

4. Reserve Deployment and Intervention: Foreign exchange reserves can be deployed strategically to intervene in the foreign exchange market, stabilize exchange rates, and manage currency volatility. Remittance inflows provide additional firepower for central banks to conduct market interventions, including buying or selling foreign currency to influence exchange rate movements (Akeerebari, 2022). Interventions supported by remittance inflows help maintain orderly market conditions, enhance investor confidence, and mitigate speculative pressures on the currency, thereby supporting the effectiveness of monetary policy and external sector management.

5. Reserve Management Framework and Governance: Effective reserve management requires the establishment of a robust framework,

governance structure, and risk management practices to ensure transparency, accountability, and prudent stewardship of reserve assets. Remittance inflows should be integrated into the reserve management framework, with clear guidelines on asset allocation, risk tolerance, liquidity management, and performance measurement. Sound governance practices, including regular reporting, external audits, and oversight mechanisms, help safeguard reserve assets and enhance public trust in reserve management operations (Utoh-Ezeajugh & Ebekue 2023) .

4.0 Challenges and Barriers Faced by Nigerian Diaspora in Sending Remittances

The Nigerian diaspora faces various challenges and barriers when sending remittances to their families and communities back home. These challenges can hinder the efficiency, affordability, and accessibility of remittance channels, impacting both remittance senders and recipients in Nigeria.

i. **Exchange Rate Fluctuations and Currency Risk:** Exchange rate fluctuations and currency risk pose risks and uncertainties for remittance senders and recipients in Nigeria. Variations in exchange rates between sending and receiving currencies can affect the value of remittance transfers, leading to fluctuations in the amount of money received by remittance recipients. Currency volatility can erode the purchasing power of remittances, reducing their impact on household consumption, investment, and welfare in Nigeria (Adejumo & Ikhide 2019).

ii. **Regulatory Constraints and Compliance Burdens:** Regulatory constraints and compliance burdens pose significant challenges for the Nigerian diaspora in sending remittances. Anti-money laundering (AML) and know-your-customer (KYC) regulations, imposed by both sending and receiving countries, require remittance senders to provide extensive documentation and verification procedures before initiating remittance transactions. Complex regulatory requirements and bureaucratic procedures can create barriers to entry for remittance senders, particularly those lacking formal identification documents or proof of address (Nwiado, Korgbeelo, & Onu 2021).

iii. **Political and Economic Instability:** Political instability, economic uncertainties, and social unrest in Nigeria can create challenges and uncertainties for remittance senders and recipients. Civil unrest, security threats, and political tensions can disrupt remittance flows, disrupt financial infrastructure, and undermine confidence in formal remittance channels (Atan & Esu 2018). Moreover, economic downturns, currency devaluations, and inflationary pressures can reduce the value of remittances, exacerbating financial vulnerabilities and household hardships for remittance recipients in Nigeria.

Opportunities for Leveraging Forex Remittances for Economic Development

Leveraging Forex remittances presents significant opportunities for promoting economic development in Nigeria. Remittances can serve as a catalyst for inclusive growth, poverty reduction, and sustainable development, contributing to various sectors of the economy and fostering socio-economic empowerment.

1. Investment in Productive Sectors: Forex remittances can be channeled into productive sectors of the economy, such as agriculture, manufacturing, and services, to stimulate economic growth, create employment opportunities, and enhance productivity. Remittance recipients can use funds to start or expand small businesses, invest in agricultural production, or establish micro-enterprises, thereby contributing to income generation, value addition, and wealth creation at the grassroots level (Akeerebari, 2022).

2. Infrastructure Development: Remittances can be mobilized to finance infrastructure development projects, including transportation networks, energy systems, telecommunications facilities, and social infrastructure such as schools, hospitals, and community centres (Yusuf et al. 2023). Investments in infrastructure enhance the quality of public services, improve connectivity,

and foster economic integration, thereby laying the foundation for sustainable development and inclusive growth in Nigeria.

3. Financial Inclusion and Access to Capital: Forex remittances play a crucial role in promoting financial inclusion and expanding access to capital for underserved populations in Nigeria. Remittance recipients can use funds to open bank accounts, access credit facilities, or participate in savings and investment programs, thereby enhancing their financial resilience, entrepreneurial capacity, and income-generating activities (Iheke, 2012). Moreover, remittance-based financial products, such as microfinance loans, savings accounts, and insurance schemes, can be tailored to meet the needs of remittance recipients and promote economic empowerment.

4. Human Capital Development: Remittances can be invested in human capital development initiatives, including education, healthcare, and skills training programs, to enhance human capabilities, improve labor productivity, and promote socio-economic mobility (Uchenna, Evans, & Stephen 2015). Remittance recipients can use funds to pay school fees, purchase educational materials, or enroll in vocational training courses, thereby enhancing their employability, earning potential, and social well-being. Moreover, investments in human capital contribute to building a skilled workforce, fostering innovation, and driving economic diversification in Nigeria.

5. Entrepreneurship and Innovation: Forex remittances can spur entrepreneurship and innovation by providing seed capital, investment funds, and business development support to aspiring entrepreneurs and startups. Remittance recipients can use funds to launch new ventures, develop innovative products or services, or scale up existing businesses, thereby contributing to job creation, economic dynamism, and market competitiveness (Nwodo, Omeje, & Okereke 2023). Moreover, remittance-based entrepreneurship fosters linkages with global markets, facilitates technology transfer, and promotes knowledge exchange, driving economic growth and resilience in Nigeria.

6. Diaspora Engagement and Collaboration: Leveraging the expertise, networks, and resources of the Nigerian diaspora presents opportunities for fostering collaboration, knowledge sharing, and innovation in key sectors of the economy. Diaspora members can contribute to economic development through investments, philanthropy, mentorship, and advocacy, leveraging their skills, experiences, and connections to address development challenges and seize emerging opportunities (Ogunode, Cletus, & Christiana 2024). Moreover, diaspora engagement initiatives, such as diaspora bonds, investment forums, and entrepreneurship programs, can mobilize diaspora resources and expertise for driving sustainable development outcomes in Nigeria.

Future Prospects and Implications of the "Japa Syndrome" on Forex Remittances in Nigeria

The "Japa Syndrome," characterized by the trend of young Nigerians seeking opportunities abroad, particularly in Western countries, has significant implications for Forex remittances in Nigeria, with potential future prospects shaping the dynamics of remittance flows. The "Japa Syndrome" may lead to a shift in remittance patterns, with a potentially higher volume of remittances sent from Nigerian migrants abroad (Loto & Alao 2016) . As more young Nigerians pursue opportunities overseas, they may remit funds to support their families and communities back home, contributing to an increase in remittance inflows (Odionye & Emerole 2015). However, the motivations and circumstances of migrants may influence the frequency, amount, and purpose of remittances, shaping the overall remittance landscape in Nigeria.

Likewise, the "Japa Syndrome" may result in generational differences in remittance behavior, with younger migrants exhibiting distinct preferences, attitudes, and behaviors towards remittance sending compared to older generations. Younger migrants may prioritize investments in education, career development, and personal growth, influencing their remittance behavior and allocation of funds (Orok, John, & Udoka 2020). Understanding these generational differences is essential for designing targeted policies and initiatives to maximize the

developmental impact of remittances in Nigeria. Changes in the British immigration policy, particularly concerning access to work permits for students and the availability of work opportunities, are likely to influence the remittance patterns and behaviors of Nigerian migrants. The UK's introduction of more restrictive immigration policies, including the tightening of work permit regulations for students, may alter the traditional routes Nigerian migrants take for education and employment. Students who previously relied on the possibility of gaining work experience and earning an income during their studies may now face increased challenges in securing work permits. This could lead to a reduction in the funds available for remittances, as students might find it harder to balance academic commitments with the need to earn money (Nwodo, Omeje, & Okereke 2023) .

Additionally, the restriction on work opportunities could push students to prioritize their studies and personal development over immediate financial contributions to their families back home. On the other hand, areas of work availability that remain open to international students and migrants could see a surge in applications, potentially resulting in increased competition and a concentration of Nigerian migrants in specific sectors (Ogunode, Cletus, & Christiana 2024). The UK's focus on sectors facing skill shortages, such as healthcare and technology, may guide the career choices of Nigerian students, influencing their long-term earning potential and subsequent remittance behavior.

5.0 Recommendations

1. **Promote Economic Diversification:** Implement policies aimed at diversifying the Nigerian economy away from overreliance on remittances. This includes prioritizing investments in key sectors such as agriculture, manufacturing, and technology to create employment opportunities and stimulate economic growth.

2. Enhance Financial Inclusion: Improve access to formal financial services for both remittance senders and recipients through the expansion of banking infrastructure, mobile banking, and digital payment platforms. This can help reduce transaction costs, increase transparency, and facilitate the efficient transfer of remittances.

3. Strengthen Regulatory Frameworks: Strengthen regulations governing remittance transactions to enhance transparency, combat money laundering, and ensure the security of remittance flows. This may involve implementing stricter know-your-customer (KYC) requirements and anti-money laundering (AML) measures to safeguard against illicit financial activities.

4. Foster Diaspora Engagement: Develop initiatives to engage the Nigerian diaspora more actively in the country's development agenda, including through diaspora bonds, investment incentives, and entrepreneurship programs. Leveraging the expertise, resources, and networks of the diaspora can help drive sustainable economic development and innovation in Nigeria.

5. Support Small and Medium Enterprises (SMEs): Provide support and incentives for SMEs, which are crucial drivers of economic growth and job creation. This may include access to finance, technical assistance, and capacity-building programs to help SMEs thrive and contribute to the economy.

6. Invest in Education and Skills Development: Prioritize investments in education and skills development to equip the Nigerian workforce with the knowledge and skills needed to compete in the global economy. This can help reduce the brain drain associated with the "Japa Syndrome" by creating opportunities for young Nigerians at home.

7. Foster Public-Private Partnerships: Foster collaboration between the government, private sector, and civil society to address the root causes of the "Japa Syndrome" and promote sustainable economic development. Public-private partnerships can leverage the strengths and resources of each sector to implement effective solutions and drive inclusive growth.

6.0 Conclusion

The "Japa Syndrome" has emerged as a significant phenomenon with far-reaching implications for Forex remittances in the Nigerian economy. This trend, characterized by the mass migration of young Nigerians to wealthier nations, has

reshaped the dynamics of remittance inflows, influencing economic, social, and developmental outcomes in Nigeria. The impact of the "Japa Syndrome" on Forex remittances is evident in the substantial increase in remittance inflows to Nigeria in recent years.

The rise of the "Japa Syndrome" has also reshaped the remittance market landscape, with the proliferation of tech companies and greater adoption of mobile wallets increasing competition from smaller fintech players across Africa and Europe. This increased competition has expanded options for remittance senders, offering more convenient, affordable, and innovative remittance solutions. As a result, remittance flows to Nigeria have continued to grow, contributing to economic stability and household welfare.However, while remittances provide essential support to many Nigerian households and contribute significantly to foreign exchange reserves, they should be viewed as just one element of a broader economic strategy.

The Nigerian government must prioritize efforts to diversify the economy and reduce dependency on remittances as the primary source of foreign exchange earnings. This includes promoting export-oriented policies, enhancing investment in key sectors, improving infrastructure, and fostering a conducive business environment to attract foreign investment and stimulate economic growth. Furthermore, policymakers should address the root causes of the "Japa Syndrome" by creating opportunities for young Nigerians at home, including investments in education, job creation, and entrepreneurship. By addressing the underlying economic and social challenges driving migration, Nigeria can retain its talent pool, harness the potential of its diaspora, and build a more resilient and sustainable economy.

Case Study of Kenya

To achieve Kenya's goal of increasing remittances to $10 billion annually from the current $4 billion, the Kenyan government planned on implementing a targeted policy initiative focused on facilitating job opportunities abroad for Kenyan nationals. This policy aims to create one million jobs overseas annually, with the dual objective of bolstering Kenya's foreign currency reserves and enhancing diaspora remittances. By proactively seeking to secure employment opportunities for Kenyans abroad, the government hopes to tap into the potential of the diaspora to contribute significantly to the country's economic development.

Naturally, this policy initiative would involve collaboration between government agencies, private sector stakeholders, and international partners to identify, promote, and facilitate job placements in key sectors and destinations with high demand for skilled labor. Overall, by prioritizing job creation overseas as a strategic policy objective, the Kenyan government is hoping to leverage the potential of its diaspora to significantly increase remittances, strengthen foreign currency reserves, and drive sustainable economic growth.

Author's Statement: *The objective of this investigation is to assess the impact of the "Japa Syndrome" on Forex Remittances within the Nigerian Economy. Human nature is inclined towards continuous improvement, achievement, and the pursuit of a better quality of life, often involving travel and exposure to diverse cultures. The "Japa Syndrome" represents a phenomenon characterized by the migration of individuals from African nations, particularly Nigeria, to Western countries in search of opportunities. It is evident that the "Japa Syndrome" cannot be entirely halted or prevented, given the ongoing acceptance of foreign skilled labor by Western nations. Consequently, African countries, including Nigeria, must anticipate continued emigration trends.*

As previously indicated, while it may be challenging to curtail these movements, governments across Africa have the opportunity to capitalize on the resulting Forex remittances to bolster their respective economies. Furthermore, the implementation of strategic policies could prove beneficial in managing the outflow of skilled workforce. For instance, regulations could be established to retain certain skilled workers within their home countries for a designated period, particularly during periods of extreme shortages in specific occupational fields. In light of this, policymakers are urged to adopt judicious strategies that not only acknowledge the inevitability of migration but also leverage it as a potential catalyst for economic development.

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