CENTRAL BANK OF NIGERIA

Macroeconomic Outlook for Nigeria

Price Discovery for Economic Stabilisation

Research Department

March 2024

CENTRAL BANK OF NIGERIA

Disclaimer: The Central Bank of Nigeria Macroeconomic Outlook assesses recent developments and projects short-term prospects for the Nigerian economy. It is produced by the Research Department with technical inputs from the other departments within the Economic Policy Directorate. The Outlook would be published once a year, with updates published in August, using forecasts from in-house macroeconomic models. It incorporates a wide range of possible shocks to the domestic economy, analyses potential risks, and highlights policy priorities needed to strengthen the Nigerian economy. The views and projections contained in this report are based on the understanding of the prevailing economic circumstances, and available data at the time of the publication.

Citation: Central Bank of Nigeria. 2024. Macroeconomic Outlook: *Price Discovery for Economic Stabilisation*. Abuja. March

Contact:
Director Research Department
Central Bank of Nigeria
Corporate Head Office
33, Tafawa Balewa Way
Central Business District
P.M.B. 0187
Garki, Abuja

Website: www.cbn.gov.ng
Tel: +234 (0) 700 225 5226

©2024 Central Bank of Nigeria

Contents

Foreword iv

Preface vi

Executive Summary vii

1.0 Global Economic Outlook and Risks 1

1.1 Overview 1

1.2 Output 1

1.3 Inflation and Monetary Policy 2

1.4 Public Debt 3

1.5 Trade 4

1.6 Commodities Price Developments 4

1.7 Financial Market Conditions 5

1.8 Risks and Vulnerabilities 5

2.0 Developments in the Domestic Economy in 2023 7

2.1 Overview of the Economy 7

2.2 Output and Prices 7

2.2.1 Labour market and Employment 9

2.3 Monetary and Financial Conditions 9

2.4 Fiscal Operations and Public Debt 11

2.5 External Balance and Exchange Rate 12

3.0 Outlook for the Domestic Economy 14

3.1 The Real Sector 14

3.1.1 Output 14

3.1.2 Inflation 14

3.2 The Financial Sector 15

3.2.1 Monetary and Financial Conditions 15

3.3 The Fiscal Sector 19

3.4 The External Sector 24

3.4.1 Balance of Payments 24

3.4.2 External Reserves 26

3.4.3 Exchange Rate 26

4.0 Risks to the Outlook and Vulnerabilities in the Domestic Economy 27
5.0 Policy Priorities 31
6.0 Topical Issues based on Empirical Findings 32
6.1. Energy Prices and Inflation in Nigeria 32
6.2 Macroeconomics of Diaspora Remittances in Nigeria 39
6.3 An Assessment of Nigeria's Monetary Conditions 48

Foreword

I am delighted to present the first edition of the Central Bank of Nigeria (CBN) Macroeconomic Outlook for Nigeria. The outlook assesses recent developments and projects short-term prospects for the Nigerian economy. Hitherto, the narratives on the economic outlook for the Nigerian economy, have been driven, largely, by other institutions and individual efforts. These narratives are, sometimes, encumbered by incomplete information on some critical sectors, socio-political developments, and policy perspectives that shape economic outcomes.

As part of the transformation agenda, and consistent with the Renewed Hope Agenda of the Federal Government and the transition to inflation targeting framework, the CBN has decided to embark on the publication of Macroeconomic Outlook for the Nigerian Economy to anchor expectations and shape economic outturns. The Outlook uses forecasts from in-house macroeconomic models to estimate the future path of key variables. It also highlights potential risks and proffers policy priorities to strengthen the resilience of the Nigerian economy.

An assessment of global parameters indicates that global prospects will remain positive and stable in 2024, as many countries continue to exhibit remarkable resilience. Global growth is projected by the IMF to remain at 3.1 per cent, due to the likely ease of monetary stance (especially in key Advanced Economies), strong fiscal support in China, and improvements in global financial market conditions.

With the continued moderation of global inflation expected in 2024, key central banks are set to halt interest rate hikes, although Emerging Markets and Developing Economies remain vulnerable to capital flow vacillations. Global public debt outlook is uncertain, as limited fiscal space could predicate new borrowings and worsen debt sustainability challenges.

The outlook for the Nigerian economy indicates broad resilience, with continued growth, expected moderation of inflation, and greater exchange rate stability. The outlook is shaped by continued improvements in the domestic production and refining capacity of crude oil, as well as the expected rise in crude oil prices that could prop growth to 3.38 per cent in 2024 from 2.74 per cent in 2023. Inflation, though still elevated, is projected to moderate to 21.40 per cent, within a range of 19.84 and 25.35 per cent, from 28.92 per cent in December 2023, as the transition to an inflation-targeting lite framework and increasingly tight monetary policy stance effectively anchors expectations. Liquidity conditions are expected to be adequately tight, as the yield curve shifts upward and buoys capital inflows.

Improved investors' confidence and higher remittances, following the reforms in the foreign exchange market, would complement the expected rise in crude oil receipts to stabilise the exchange rate. Projections of fiscal parameters indicate a broad expansion in expected revenue and expenditure of the Federal Government over the levels recorded in 2023, accompanied by a rise in fiscal deficit and

public debt, reflecting current efforts to rebalance the economy.

The positive domestic outlook is, however, subject to certain risks, especially, as security challenges, supply-side shocks, and global geoeconomic fragmentation could aggravate inflationary pressures. Elevated inflation, due to long-standing structural imbalances, could extend monetary tightening and depress growth potentials. Oil theft, pipeline vandalism, and an unlikely decline in crude oil price could also constrain fiscal space, hamper foreign exchange receipts, lower accretion to the external reserves, heighten pressure in the foreign exchange market and undermine domestic stability.

To mitigate some of the risks and address existing imbalances, it is imperative to intensify monetary tightening to subdue inflation risk, sustain reforms to strengthen the foreign exchange market, and tackle security issues around the food-belt and oil installations.

Finally, increased and effective coordination, among all policy organs of government, would foster policy harmonisation, and ensure robust synchronisation of socio-economic measures. This would bolster domestic prosperity and uphold economic governance under a shared vision.

OLAYEMI CARDOSO
Governor
Central Bank of Nigeria

March 2024

Preface

I am delighted to present the inaugural edition of the Central Bank of Nigeria (CBN) Macroeconomic Outlook for Nigeria. The Outlook provides a comprehensive and insightful analysis of the Nigerian economy, guiding policymakers, investors, and stakeholders in making informed decisions to foster sustainable economic development.

As a necessary step to the transition to an inflation-targeting framework, the CBN has undertaken the publication of this Macroeconomic Outlook to provide a guidance to our understanding of the intricate dynamics of our domestic economy, and its anticipated trajectories. The initiative is part of our broader agenda aimed at anchoring expectations and influencing economic outcomes. It relies entirely on state-of-the-art macro-models and scientific methods developed in-house by our team of economists, and uses up-to-date techniques, with well-balanced views to approximate future outturns. Based on projections from our models, the Outlook estimates the future trajectory of key macroeconomic variables, highlights potential risks, and proposes policy priorities to bolster the resilience of the Nigerian economy.

The CBN Macroeconomic Outlook represents a response to the aspiration of policy analysts to gain from a synthesis of alternative perspectives on the Nigerian economy. In the light of this, I want to sincerely congratulate staff of the Research Department on the achievement of this significant milestone with the publication of the maiden edition of the CBN Macroeconomic Outlook for Nigeria.

MUHAMMAD SANI ABDULLAHI
Deputy Governor, Economic Policy
Central Bank of Nigeria

March 2024

Executive Summary

The Nigerian economy maintained a positive growth, though at a slower pace in 2023, despite significant global and domestic headwinds. Gross domestic product (GDP) growth decelerated to 2.74 per cent from 3.40 and 3.10 per cent recorded in 2021 and 2022, respectively, indicating a continued decline in annual output growth following the recovery from the COVID-19 pandemic. The growth performance was shaped by the adverse effects of supply chain disruptions (occasioned by the protracted Russia-Ukraine war), elevated inflation, and domestic insecurity, which significantly reduced food production. Furthermore, Premium Motor Spirit (PMS) subsidy removal, foreign exchange reforms, longstanding infrastructural deficits, and global policy rate hikes, weighed on growth outcomes.

Despite these challenges, the economy remained resilient, supported, largely, by private consumption which accounted for about two-thirds of output. Headline inflation remained elevated, rising from 21.34 per cent in 2022 to 28.92 per cent in 2023, owing to significant supply-side shocks from both global and domestic sources. The major drivers of inflation during the year, included adverse spillovers from supply chain disruptions, higher energy and food prices, due to the removal of PMS subsidy, exchange rate reforms, and widespread insecurity.

Real output is projected to grow by 3.38 per cent in 2024 from 2.74 per cent in 2023. This forecast is underpinned, largely, by continued fiscal policy support and broad-based reforms in the oil and non-oil sectors. Renewed efforts to secure crude oil production infrastructure and improve oil refining capacity with the commencement of operation by the Dangote refinery and expected resuscitation of the Port-Harcourt and Kaduna refineries would support growth in the near term. The agriculture, and services sectors (especially ICT) would also continue to propel growth, in addition to the outcomes of the current reforms in the solid minerals sector, tax reforms and innovative financing options for infrastructure development, among others.

Inflation is expected to moderate to 21.40 per cent (within a range of 19.84% - 25.35%) in 2024, from 28.92 per cent in 2023 as the impact of fiscal support begins to crystallise. The inflation outlook is further underpinned by the continued aggressive monetary policy tightening. Also, the transition to an inflation-targeting lite framework would anchor inflation expectations better in 2024, in addition to the favourable effect of moderating global inflationary pressures. However, high energy and food prices, exacerbated by the immediate impact of recent market-based reforms would continue to keep prices moderately high.

The downside risks to the outlook include, the persisting supply-side shocks, high public debt and debt service obligations, implementation of new minimum wage, elevated inflation, high cost of funds, following expected tighter monetary policy stance, and exchange rate volatility.

Climate shocks could exacerbate farmer-herder clashes, destroy crops and livestock, and undermine transport infrastructure, thus dampening growth prospects. Furthermore, spillovers from geoeconomic fragmentation and the recent threat to the global supply chain in the Red Sea, pose considerable risks to the growth and inflation outlook.

Moreso, higher-than-expected interest rates in Advanced Economies (AEs) could diminish foreign portfolio inflows and trigger capital reversals, which could weaken the equities market and heighten vulnerability.

On the fiscal front, inefficiencies in tax administration and low tax compliance could heighten budget risk and limit capacity to finance the budget, due to revenue shortfall. Furthermore, higher interest payments from accumulated debt could reduce fiscal space and elevate sustainability risk.

To tackle existing imbalances and address potential threats to the outlook, it is imperative to recalibrate and strengthen monetary, fiscal and structural policies. Monetary and fiscal authorities would prioritise policy harmonization to ensure a more effective framework for coordinating economic governance under a shared vision. In the near term, the Central Bank of Nigeria would intensify monetary policy tightening, to rein-in inflation and attract foreign exchange inflows using interest rates and other instruments of orthodox monetary policy, as well as sustain the on-going reforms in the foreign exchange market.

In the medium-to-long term, fiscal authorities should embark on strategic reforms to strengthen tax enforcement agencies, promote the digitalisation of tax collection, enhance compliance and enforce penalties for non-compliance. Furthermore, the government should address supply-side shocks through targeted measures to boost domestic production and build buffer stock. Also, mitigating the adverse effects of climate shocks on output through increased investment in early warning systems, smart infrastructure, and renewable energy, should be prioritised. Security challenges should be tackled by strengthening law enforcement agencies, addressing the root causes of insecurity, and promoting community engagement.

1.0 Global Economic Outlook and Risks

1.1 Overview

The global economy is expected to continue on the path of recovery in 2024, amid existing and emerging challenges. Growth is projected to remain unchanged at 3.1 per cent in 2024[1], on account of likely moderation in interest rates, increased resilience in the United States, and key Emerging Markets and Developing Economies (EMDEs), as well as, the fiscal stimulus in China. The headwinds associated with this outlook include, rising geopolitical tensions linked to hostility in the Middle East and the resulting supply disruptions.

Inflation, though moderating, could remain above central banks' targets. This outlook is underpinned by a confluence of factors including geopolitical tensions and lingering effects of the COVID-19 pandemic. On a brighter note, commodities markets present a comparatively clearer outlook, with crude oil prices stabilising around US$80.00 per barrel and precious metals (especially, gold and silver) poised for gains, due to declining US real yields.

After a long spell of uncertainty, global financial markets appear set to benefit from expected easing of monetary and financial conditions in the year, as inflation moderates. In majority of the Advanced Economies, policy rates have plateaued and are expected to trend downwards in the course of the year, thereby lessening the pressure on financial assets occasioned by sharp contraction of central bank balance sheets. In EMDEs, financial markets could face initial headwinds arising from currency markets' instability linked to uncertainties around capital flows. These countries could benefit from reforms including, but not limited to strengthening coordination and building of monetary and fiscal buffers.

1.2 Output

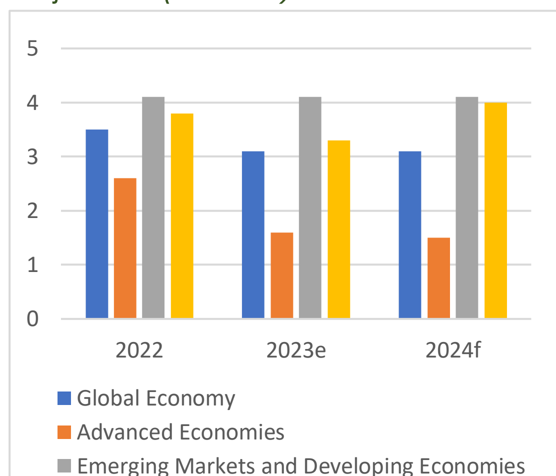
Although the global economy is projected to grow by 3.1 per cent in 2024, growth prospects may remain uneven across countries. In Advanced Economies, growth is projected to slow to 1.5 per cent from 1.6 per cent in 2023, due to weaker-than-expected growth in the Euro area. The factors contributing to this include, geopolitical tensions, restrictive monetary policy, a cost-of-living crisis, and the lingering effects of the COVID-19 pandemic. These headwinds could precipitate tighter financial market conditions and supply chain disruptions in the year. The World Bank offered a less optimistic view, with a projection of 2.4 per cent for output growth in 2024. The prospects of slower growth in the Euro area and the Advanced Economies, equally reflects in Japan as growth decelerates to 0.9 per cent in 2024 from 1.9 per cent estimated for 2023. In contrast, modest improvements are expected in Germany, France, and Italy.

Growth in EMDEs is anticipated to remain unchanged at 4.1 per cent, as expansion in emerging and developing Asia is upset by a projected decline in Latin America and the Caribbeans. In China, following substantial government stimulus, growth is projected at 4.6 per

[1] IMF World Economic Outlook January 2024

cent, while in India, resilient domestic demand is set to boost growth by 6.5 per cent.

Figure 1: IMF Global Real GDP Growth Projections *(Per cent)*



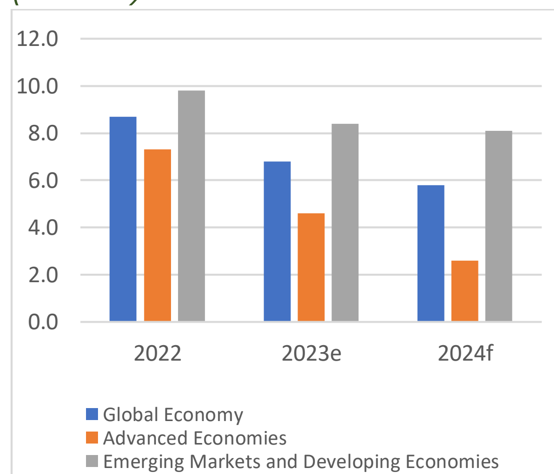
Source: IMF World Economic Outlook, January 2024

Growth in Sub-Saharan Africa (SSA) is expected to quicken to 3.8 per cent in 2024 from an estimated 3.3 per cent in 2023. This growth, is largely, underpinned by the significant increase to 3.3 per cent expected in Angola from 1.3 per cent in the preceding year. Growth in South Africa and Nigeria is also expected to rise to 1.0 and 3.0 per cent, compared with 0.6 and 2.8 per cent in the previous year, respectively.

1.3 Inflation and Monetary Policy

Global inflation is expected to decline to 5.8 per cent in 2024 from an estimated 6.8 per cent in 2023, on account of the subsisting tight monetary policy stance, softening labour market conditions, moderating energy prices and policy reforms in SSA aimed at tackling structural impediments. Relative to historical trends, the projections show that global inflation could remain, largely, elevated beyond 2024. Inflation in AEs is projected to decline to 2.6 per cent, driven by the expected moderation in the Euro area and United States. The rate is expected to moderate to 8.1 per cent in EMDEs, and 13.1 per cent in SSA in 2024.[2]

Figure 2: IMF Global Inflation Projections *(Per cent)*



Source: IMF World Economic Outlook, January 2024

Inflation continues to be a core challenge prompting monetary policy tightening globally, except for a few economies. In most AEs, policy normalisation could continue, albeit at a moderate pace. In EMDEs, monetary tightening is expected to remain relatively more aggressive, to rein-in inflation and currency pressures.

[2] Inflation rate for Sub-Saharan Africa is from the October 2023 IMF Regional Economic Outlook.

Table 1: IMF Projections for Real Output Growth in Selected Countries and Regions *(Per cent)*

	2022	2023e	2024f
World Output	3.5	3.1	3.1
Advanced Economies	2.6	1.6	1.5
United States	1.9	2.5	2.1
Euro Area	3.4	0.5	0.9
United Kingdom	4.3	0.5	0.6
Japan	1.0	1.9	0.9
Emerging Markets and Developing Economies	4.1	4.1	4.1
China	3.0	5.2	4.6
India	7.2	6.7	6.5
Russia	-2.1	3.0	2.6
Brazil	3.0	3.1	1.7
Sub-Saharan Africa	4.0	3.3	3.8
South Africa	1.9	0.6	1.0
Nigeria	3.3	2.8	3.0
Angola	3.0	1.3	3.3
Kenya	4.8	5.0	5.3
Ghana	3.1	1.2	2.7
Middle East and North Africa	5.6	2.0	2.9
Saudi Arabia	8.7	-1.1	2.7
Egypt	6.7	3.8	3.0

Source: IMF WEO, January 2024 and IMF REO-SSA, October 2023

Table 2: Selected Central Banks' Policy Rates

Country	2021	2022	2023
United States	0.25	4.50	5.33
Euro Area	0.00	2.50	4.50
United Kingdom	0.10	3.50	5.25
China	3.85	3.65	3.45
Russia	8.50	7.50	16.00
India	4.00	6.25	6.50
Brazil	9.25	13.75	11.75
Indonesia	3.50	5.50	6.00
South Africa	3.75	7.00	8.25
Kenya	7.00	8.75	12.50
Ghana	14.50	27.00	30.00
Turkey	14.00	9.00	42.50

Source: Reuters 2024

1.4 Public Debt

Global public debt outlook remains pessimistic in 2024, on account of the record high (unsustainable) debt levels in 2023, cumulatively estimated at US$307.00 trillion by the Institute of International Finance (IIF). The sudden rise in inflation has pushed global debt to new highs. Record debt levels and high interest rates have set many countries on a path of continuous borrowing. To meet debt payments, a significant number of countries in both Advanced and Emerging Market Economies will have to reduce spending on health, education, social protection, and other critical sectors of the economy.[3] With borrowing costs still high, careful monitoring of financing conditions and readiness to deploy financial stability tools will remain vital for avoiding strains on the financial sector.

[3] World Economic Outlook 2023

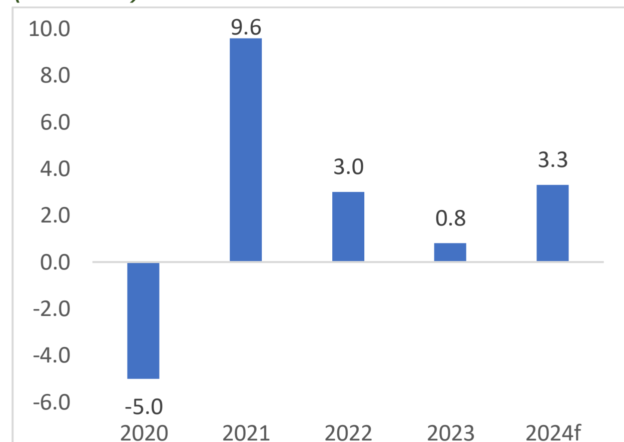
Furthermore, strategies like boosting domestic revenue through tax reforms, addressing inflexible spending patterns, and strengthening fiscal frameworks can aid adjustment efforts across economies with significant spending requirements. For nations facing high risk debt distress, organised debt restructuring may become necessary. Enhanced coordination on debt resolution could mitigate debt contagion[4].

The uncertain outlook for public debt poses an important risk to monetary policy in the short-to-medium term. Constrained by the lack of fiscal space, governments could exert increased pressure on central banks to accommodate deficits monetarily, especially, in EMDEs even in the face of already, largely, unsustainable public debt and grinding inflation pressure in some cases. Unless central banks are able to resist excessive accommodation of government, monetary policy credibility could be seriously undermined.

1.5 Trade

The outlook for global trade is positive, despite subsisting tight monetary policy, rising trade distortions (with over 3,000 new trade restrictions), and geoeconomic fragmentation. Global trade is expected to rebound in 2024, with an expansion of 3.3 per cent in goods trade volume due to expected growth in almost all regions. Trade is predicted to outpace GDP growth in 2024, driven by business-cycle-sensitive investments and durable goods. Asia is expected to lead in both exports and imports.

Figure 3: Global Trade Volume Growth *(Per cent)*



Source: Word Trade Organisation. Note: 2023 and 2024 values are projections

1.6 Commodities Price Developments

The outlook for commodities prices in 2024 remains stable around the end-2023 levels. Brent oil price is expected to stabilise at an average of US$83.00 per barrel in 2024[5], driven by projected growth in oil demand of 1.6 million barrels per day, supported by a resilient U.S. economy, and a steady European economy, and robust performances in emerging markets. For metals, there is optimism for gold and silver, with gold projected to reach new record levels by mid-2024 of an average of US$2,175/oz, and silver nearing US$30.00/oz in the final quarter, influenced by the Fed's monetary policy adjustments and declining U.S. real yields. For agricultural commodities, sugar is expected to average US$0.30/lb in 2024, and wheat is forecasted at an average of US$6.33 per bushel, with an overall positive sentiment for price escalations in the initial phases of the year across various segments. Key risks to watch in the year include rising

[4] IMF World Economic Outlook January 2024

[5] J.P. Morgan Research forecasts

geopolitical tensions, climate risks, and freight costs. Shipping costs, especially, could escalate in the year unless the hostility in the middle eastern region subsides.

1.7 Financial Market Conditions

Despite efforts to prevent a recession, markets could face diverse challenges in 2024. Analysts anticipate significant difficulties throughout the year, influenced by evolving consumer patterns, shifts in investor sentiment, premium stock valuations, historically low volatility, and geopolitical uncertainties. The U.K. equity outlook is positive, supported by attractive valuations, while European equities may experience fluctuation, but end with modest gains. Japan is considered appealing, due to retail engagement, financial fundamentals, improved real income growth, and supportive policies. Emerging Markets and Developing Economies may face challenges initially, but could brighten later in 2024, due to growth divergence, increased interest in non-U.S. diversification, and subdued investor allocations. China's improved economic momentum and reduced geopolitical tensions may lead to enhanced market outcomes. Although, stock performance has been positive, the concentration of equity in a few tech giants raises concerns for corporate profit margins in 2024, especially, with projections of subdued economic growth and inflationary uptick.

1.8 Risks and Vulnerabilities

The global economic outlook is subject to a variety of risks. Geopolitical tensions, including the Russia-Ukraine war and Israel-Hamas conflicts, could worsen geoeconomic fragmentation, thus, exacerbating supply chain disruptions, commodity price volatility, and capital flow challenges. Inflation risk continue to present a dilemma for central banks. Navigating the essential trade-off between tightening financial conditions, preserving fragile output recovery, as well as, ensuring financial stability will be major preoccupations of monetary policy makers in the year. Concerns about the Chinese economy, especially in the property sector, could affect global trade activities and capital flows. High levels of debt stress from COVID-19-induced fiscal spending, climate risks, and increased fragmentation in commodity markets could intensify economic uncertainties. The tightening of global financial conditions and the appreciation of the US dollar may drive countries into deeper debt distress.

Table 3: Global Capital Market Indexes

Markets	2021	2022	2023
.NGSEINDEX	42716.44	51251.06	74773.85
.NGSE30	1722.3	1842.5	2790.28
.NDX	16320.08	10939.762	16825.931
.FTSE	7384.54	7451.74	7733.24
.FCHI	7153.03	6473.76	7543.18
.GDAXI	15884.86	13923.59	16751.64
.JALSH	73709.39	73048.57	76893.15
.STOXX50E	4298.41	3793.62	4521.44
.TOPX	1992.33	1891.71	2366.39
.SPTSE	1286.98	1168.91	1264.83
.MXX	53272.44	48463.86	57386.25
.FTMIB	27346.83	23706.96	30351.62
.IBEX	8713.8	8229.1	10102.1
.XU100	1857.65	5509.16	7470.18
.BSESN	58253.82	60840.74	72240.26
.HSI	23397.67	19781.41	17047.39
.SZI	14857.345	11015.986	9524.6895
.SZSC	2530.1373	1975.6141	1837.8546
.JKSE	6581.482	6850.619	7272.797
.IMOEX	3787.26	2154.12	3099.11
.GSECI	2793.24	2444.25	3130.57
.NSE20	1902.57	1676.1	1501.16
.EGX30	11949.18	14598.53	24894.26

Source: Reuters 2024

2.0 Developments in the Domestic Economy in 2023

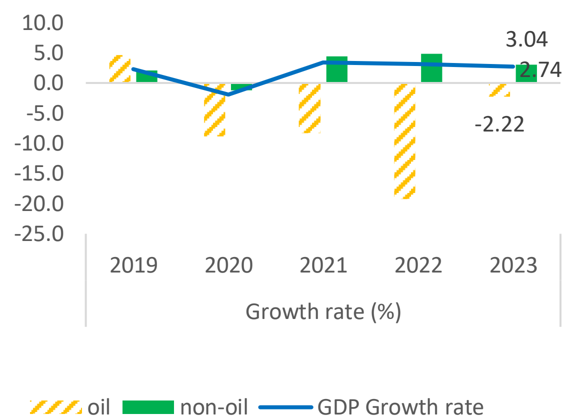
2.1 Overview of the Economy

The Nigerian economy experienced a gradual recovery in 2023, following the disruptions caused by the COVID-19 pandemic. While 2021 saw a rebound in economic growth, subsequent years experienced a slowdown attributed to internal and external factors. Challenges such as supply chain disruptions, inflationary pressures, and domestic insecurity hindered the pace of recovery. Additionally, long-standing infrastructural deficiencies and global policy shifts impacted growth trajectories. Despite these obstacles, the economy displayed resilience, with private consumption serving as a significant driver of output. Inflationary pressures, however, persisted, fueled by disruptions in energy and food supply chains, exacerbated by global geopolitical events.

2.2 Output and Prices

The economy maintained a growth trajectory in 2023, despite significant headwinds. It continued to rebound from the effects of the COVID-19 pandemic during which output contracted to 1.92 per cent in 2020. Recovery, however, remained fragile as growth slowed to 2.74 per cent in 2023 below 3.40 per cent in 2021 and 3.10 per cent in 2022. The slowdown was on account of persisting global headwinds, which permeated the economy through higher energy and food prices.

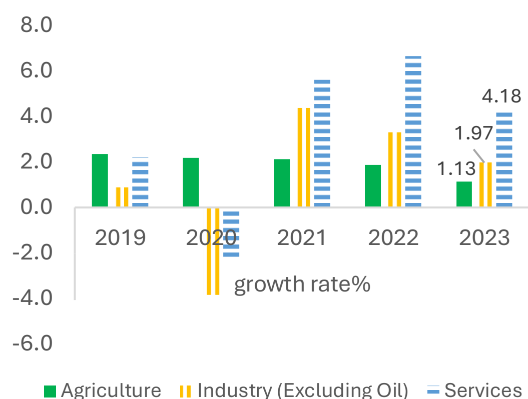
Figure 4: Real GDP Growth Rates *(Per cent)*



Source: National Bureau of Statistics (NBS)

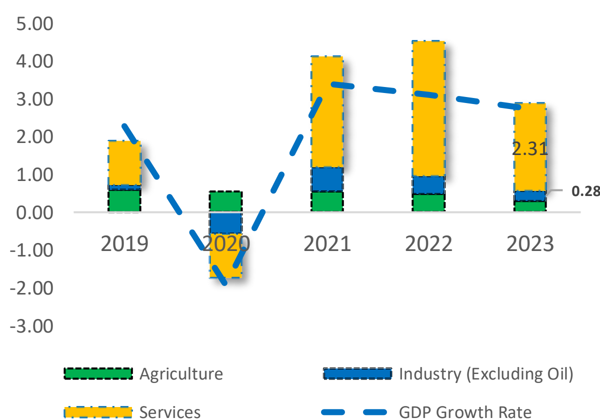
In 2023 real GDP growth was driven by the non-oil sector, especially, the services sector which accounted for 56.18 per cent of overall output. Growth in the services sector was driven, mainly, by the Information & Communications Technology (ICT) and the Finance & Insurance sub-sectors. The growth in ICT was due to the increased number of voice and internet service subscribers, increased broadband penetration and investment in the 5G telecommunication infrastructure, while increased patronage of fintech services drove growth in finance and insurance.

Figure 5: Sectoral Growth Rates *(Per cent)*



Source: National Bureau of Statistics

Figure 6: Sectoral Contribution to Real GDP Growth Rate *(Per cent)*



Source: National Bureau of Statistics

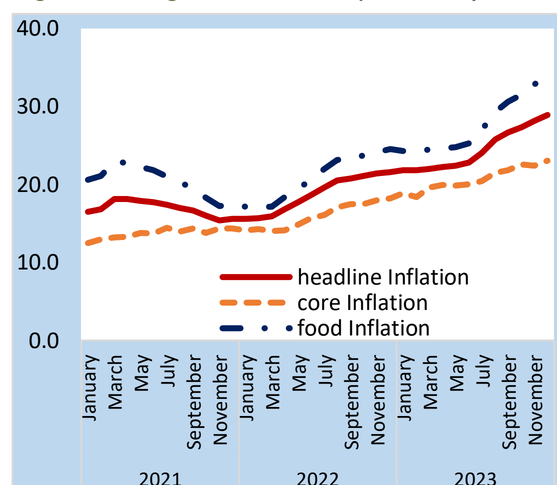
The industry sector (excluding oil) supported growth by 0.28 percentage point and grew by 1.97 per cent in 2023. The sector's growth was driven by investment in the manufacturing subsector, especially, in the food, beverage, and tobacco segment. In addition, sustained efforts at revamping public infrastructure provided additional impetus for growth during the period. Similarly, the agriculture sector supported growth with 0.29 percentage point in 2023. The 1.13 per cent growth in the sector reflected the policy support, to the sector, especially to crop production. High energy cost, protracted insecurity and other structural challenges, however, continued to weigh on the sector's performance.

The contraction in the oil sector narrowed to 2.22 per cent in 2023, from a contraction of 19.22 per cent in 2022. The lower contraction was on account of higher crude oil output of 1.24 million barrels per day in 2023, compared with 1.14 million barrels per day in 2022. Production improved in 2023 following curtailed crude oil theft, replacement of worn-out infrastructure, resumption of crude oil loadings at the Forcados Export Terminal, and increased investment in the sector.

On the demand side, real growth was driven by private consumption which, historically, accounted for about two-thirds of output. Investment spending and net export constituted for about 15.0 per cent apiece, while government expenditure accounted for the balance.

Inflation continued an upward trajectory in 2023, owing to significant supply-side shocks from both global and domestic sources. Headline inflation maintained an upward movement to 28.92 per cent from 21.62 per cent in 2022. The major drivers of inflation during the year included the removal of PMS subsidy and exchange rate reforms, which spurred cost increases across production lines. These were exacerbated by the security challenges, protracted infrastructural deficit, and elevated inflation expectations. On the global side, adverse spillovers arising from supply chain disruptions, higher energy costs and food prices were transmitted to domestic consumer prices.

Figure 7: Nigeria Inflation *(Per cent)*



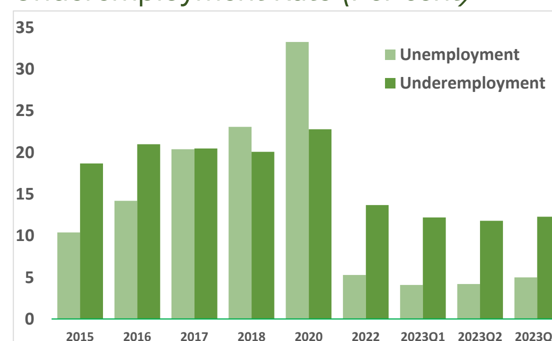
Source: National Bureau of Statistics

2.2.1 Labour market and Employment

Labour force participation rate rose to 79.5 per cent in 2023Q3, from 77.8 per cent at end-2022, indicating that more individuals within the working age population entered the labour market during the year. A large share of the labour force was, engaged in informal activities as 92.3 per cent of employed persons were in the informal sector as at 2023Q3, down from 93.5 per cent at end-2022. The large share of the informal economy provides sufficient room to initiate structural reforms that could engender growth, increase revenue mobilisation and promote effective policy transmission.

In 2023Q3, the share of people in self-employment rose to 87.3 per cent of total number of employed persons, from 84.0 per cent in 2022Q3, as more people go into ICT and e-commerce. The number of underemployed persons as a proportion of employed persons reduced to 12.3 per cent from 13.7 per cent. The dynamics in the labour market have resulted in a slight moderation in the unemployment rate to 5.0 per cent in 2023Q3 from 5.3 per cent in 2022. It should, however, be noted that unemployment rate fell dramatically, compared to the previous years, following the NBS adoption of the new International Labour Organisation methodology for capturing employment data, in April 2023.

Figure 8: Unemployment and Underemployment Rate *(Per cent)*



Source: National Bureau of Statistics

2.3 Monetary and Financial Conditions

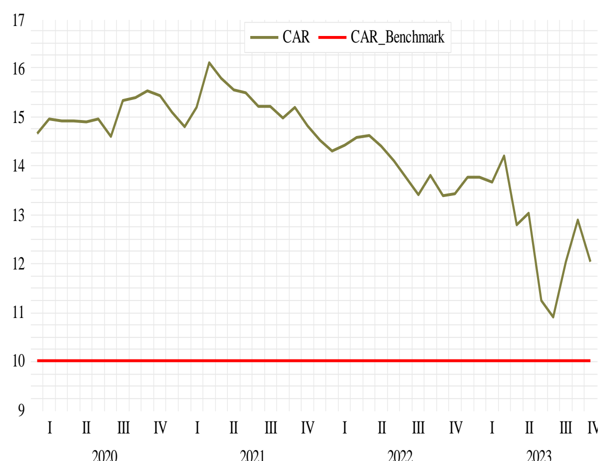
Heightened inflationary pressures, on account of external macroeconomic conditions and other internal supply bottlenecks prompted the Bank to sustain a hawkish monetary policy stance in 2023. Despite this, broad money supply (M3) grew by 51.9 per cent to ₦79,252.46 billion at end-December 2023, from ₦52,187.27 billion at end-December 2022, attributed, largely, to the revaluation effect from the shift to a market determined exchange rate. In a similar vein, net average banking system liquidity grew to ₦346.43 billion at end-December 2023, from ₦182.74 billion in the preceding period of 2022, owing to fiscal and monetary injections. Sectoral credit utilisation and consumer credit also grew by 51.25 and 47.3 per cent to ₦44,536.13 billion and ₦3,416.42 billion at end-December 2023, from ₦29,445.87 billion and ₦2,318.63 billion, respectively, on account of increased demand for

credit amidst high inflationary pressure in the economy.

The financial sector remained stable in 2023 as key financial soundness indicators were within regulatory benchmarks. The ratio of non-performing loans (NPLs) to total loans dropped marginally to 4.1 per cent from 4.2 per cent in 2022, reflecting improvement in the asset quality of banks. The capital adequacy ratio (CAR) decreased by 0.7 percentage point to 13.1 per cent, due to possible write-off by banks that diminished the qualifying capital. The ratio, however, remained above the 10.0 per cent benchmark for the banking industry.

The industry liquidity ratio (LR) fell to 44.0 per cent from 51.2 per cent in 2022, reflecting banks acclimation to the high interest rate regime, and their positioning to avoid losses on fixed-income securities that are fair value to comprehensive income (FVTCI), and fair value to profit or loss (FVTPL). The LR remained above the minimum regulatory benchmark of 30.0 per cent, showing the ability of banks to meet their obligations. Juxtaposed against potential headwinds and threats from global and domestic economic and financial conditions, the solvency and liquidity stress test results showed that the banking industry is resilient to mild-to-moderate stress economic conditions, but vulnerable under severe scenarios.

Figure 9: Monthly Trends of CAR and Benchmark

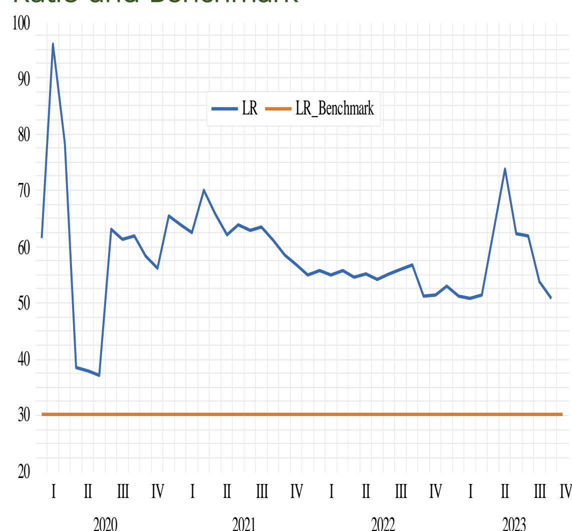


Source: Central Bank of Nigeria

Figure 10: Monthly Trends of NPL and Benchmark

Source: Central Bank of Nigeria

Figure 11: Monthly Trends of Liquidity Ratio and Benchmark



Source: Central Bank of Nigeria

The stability in the financial sector was buoyed by the bullish run in the equities segment of the capital market. The Nigerian Capital Market saw significant improvements in 2023 as the All-Share Index (ASI) and aggregate market capitalisation (AMC) appreciated by 45.9 and 46.9 per cent, respectively, to 74,773.77 index points and ₦75.20 trillion at end-December 2023, relative to the levels in the preceding period. The favourable outcome was due to the reforms in the energy sector and foreign exchange market, better-than-expected corporate earnings, and new listings. The equities market accounted for 54.4 per cent of the AMC, while debt and Exchange Traded Funds (ETF) accounted for 45.6 per cent.

Additionally, the aggregate volume of transactions and value of traded shares increased by 33.9 and 52.1 per cent to 135.83 billion shares and ₦1.78 trillion, respectively, in 1,524,634 deals. This contrasts the 101.04 billion shares and ₦1.17 trillion in 1,107,172.60 deals at end-2022.

Figure 12: All-Share Index and Aggregate Market Capitalisation

Source: Securities and Exchange Commission (SEC) and Nigerian Exchange Group (NGX) Limited

In 2023, the Nigerian capital market witnessed the introduction of new technologies and mechanisms to improve the efficiency of market operations, support innovation, and enhance the depth of the market. Prominent among these were:

i. The creation of the FMDQ Exchange-Traded Derivatives (ETD) market by FMDQ Securities Exchange Limited and FMDQ Clear Limited;

ii. The approval, by the Securities and Exchange Commission (SEC), of the rules for listing on the Nigerian Exchange Group (NGX) Technology Board and the opening of the index for listings. This specialised platform aims at wooing tech-based companies to list and raise capital;

iii. The introduction of the Digital and Technology Products Advisory Panel, aimed at enhancing interaction with the capital market community and the fintech ecosystem to enhance and increase the Exchange's digital product offerings; and

iv. The listing of Africa Infra Plus Fund, which is the first Carbon+fund in Nigeria, amounting to ₦20.50 billion closed-end infrastructure fund.

2.4 Fiscal Operations and Public Debt

Fiscal operations in 2023 were, largely, shaped by geo-political tensions that affected international trade and oil market dynamics, the residual effects of the COVID-19 pandemic, the 2023 general election spending, and the policy direction of the new administration. The persistent security and infrastructural challenges, underdeveloped tax

administration, subsisting production and technical constraints in the oil sector, also affected fiscal performance in 2023. Major fiscal policy parameters expanded above the levels in 2022. Estimated Federal Government of Nigeria (FGN) revenue for 2023, at ₦8.36 trillion, surpassed the realised revenue of ₦7.76 trillion in 2022, on the back of sustained improvement in non-oil revenue. This, however, falls short of the ₦11.05 trillion projected for 2023, following lower-than-expected oil revenue performance.

The provisional aggregate expenditure of the FGN in 2023 was 60.1 per cent of planned spending for the year but exceeded the ₦16.06 trillion spent in 2022 by 8.6 per cent. Recurrent expenditure, at ₦ 13.09 trillion, accounted for 81.5 per cent of total expenditure; while capital expenditure (₦1.94 trillion) and transfers (₦1.03 trillion) represented 12.1 and 6.4 per cent, respectively. The fiscal operations of the FGN resulted in a provisional deficit of ₦7.70 trillion, 9.6 per cent higher than the level in 2022. The higher deficit reflected perennial revenue challenges, which increased recourse to borrowing, with public debt rising to ₦87.91 trillion from ₦46.25 trillion in 2022. This was in addition to the effects of exchange rate valuation and the securitisation of the outstanding ₦22.70 trillion Ways and Means Advances to the FGN.

Exchange rate volatility increased the cost of servicing foreign-denominated debt, while rising inflationary pressures elevated the cost of providing public goods and services. The fiscal space, however, was bolstered by the comprehensive reforms, including the implementation of the PIA 2021 and the removal of fuel subsidy; setting up of a presidential committee on fiscal policy and tax reforms, plugging leakages and promoting expenditure management policies. Overall, fiscal policy in 2023 was constrained by lower-than-expected revenue and high debt burden, which impeded the attainment of policy objectives.

2.5 External Balance and Exchange Rate

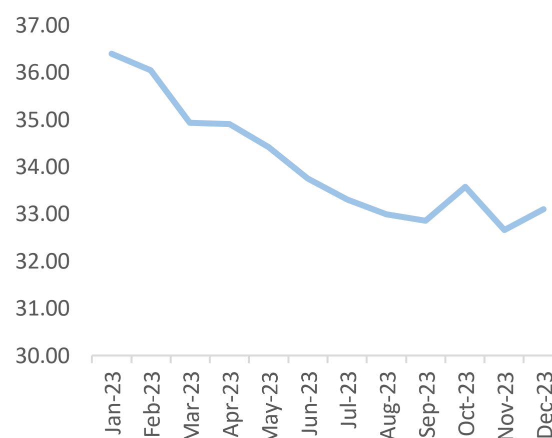
The external sector developments were shaped by the Russia-Ukraine conflict, which worsened prevailing supply chain constraints. Escalating energy and commodity prices, due to the war, caused unprecedented global inflationary pressures and aggravated exchange rate depreciation, especially in EMDEs.

The provisional data for 2023, shows that the overall balance of payments deficit widened to US$3.56 billion from US$3.32 billion in 2022. The current and capital accounts, however, improved to a higher surplus of US$5.31 billion, compared with US$1.02 billion in 2022. This improvement was attributed to favourable terms of trade and sustained inflows of diaspora remittances. Transactions in the goods account recorded a lower surplus of US$4.85 billion, compared with US$6.00 billion, due to reduced imports. Domestic economic conditions dampened demand for merchandise import, resulting in a decrease in import bills to US$49.68 billion from US$58.23 billion. Aggregate export earnings declined to US$54.53 billion from US$64.23 billion, reflecting lower global demand for Nigerian products.

The services account deficit narrowed to US$12.92 billion from US$13.96 billion in 2022, owing to reduced payments for transport, financial, and other business services. The primary income account improved, with a lower deficit of US$8.46 billion, compared with US$12.87 billion in 2022, due to reduced dividend payments and negative reinvestment earnings on direct investment. The secondary income account surplus marginally narrowed to US$21.84 billion from US$21.85 billion in 2022, attributed to decreased inflow of diaspora remittances. On the backdrop of increased purchases of debt securities by non-resident investors, the financial account recorded a net incurrence of financial liabilities of US$6.39 billion, compared with US$6.49 billion in 2022.

The International Investment Position (IIP) reported an increased net borrowing position of US$80.31 billion in 2023, compared with US$74.64 billion in 2022, attributed to rising financial liabilities and a decrease in external reserves to US$33.22 billion from US$36.61 billion. At the current level, the external reserves could cover 9.5 months of goods imports or 6.7 months of goods and services imports, compared with 9.3 months of goods imports or 6.8 months of goods and services imports, respectively, in 2022.

Figure 13: External Reserve (US$ Billion)



Source: Central Bank of Nigeria

In the foreign exchange market, the premium between the Nigerian Foreign Exchange Market (NFEM) and the Bureaux de Change (BDC) rates widened, after a brief period of convergence in July 2023. Major supply issues included declining crude oil and gas receipts and dwindling foreign investment inflow into the economy. On the demand side, subsisting appetite for imported goods and services constricted the foreign exchange market. Importation of refined petroleum products, capital outflows, payment of school fee and medical tourism, contributed to demand pressures.

3.0 Outlook for the Domestic Economy

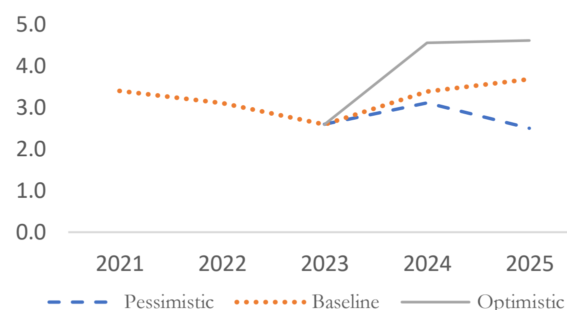
3.1 The Real Sector

3.1.1 Output

Tailwinds from the global economy, ongoing economic reforms, continued policy support and increased investments in oil and non-oil sectors are expected to keep the domestic economy on the path of recovery. Real output is projected to grow by 3.38 per cent in 2024 from an estimated 2.74 per cent in 2023. In the oil sector, renewed efforts to secure crude oil production infrastructure and improve oil refining capacity with the coming on stream of the Dangote refinery and expected resuscitation of the Port-Harcourt and the Kaduna refineries would support growth in the near term.

In the non-oil sector, the agriculture, and services sectors (particularly the ICT sub-sector) will continue to propel growth. In addition, outcomes of the current reforms, including those in the solid minerals sector, will boost the growth outlook. Reforms such as tax harmonisation and innovative financing options for infrastructure, especially in roads, ports and electricity would improve the environment for increased economic activities and ease infrastructure deficits. It is expected that the expansion and upgrading of the quality of road infrastructure, and the provision of additional electricity generation and transmission projects such as the Zungeru Hydroelectric Power Project, will engender growth in the medium term. Furthermore, the planned recapitalisation of commercial banks will strengthen their capacity to effectively undertake financial intermediation to boost growth.

Figure 14: GDP Growth Projections *(Per cent)*

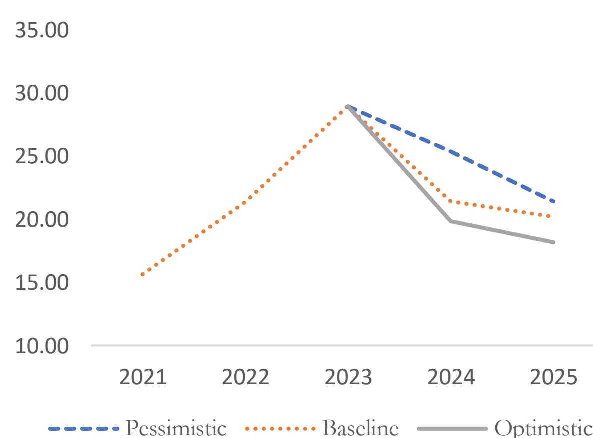


Source: CBN Staff Estimates

3.1.2 Inflation

Inflation though elevated, is expected to moderate in 2024. It is projected at 21.40 per cent (within a range of 19.84% and 25.35%) from 28.90 per cent in 2023. Inflation will be driven by food and non-food prices. Also, high energy prices exacerbated by the immediate impact of market-based reforms, notably the removal of PMS subsidies in 2023 and foreign exchange reforms, will keep prices relatively high in 2024, albeit lower than in the preceding year.

Figure 15: Projected Annual Inflation *(Per cent)*



Source: CBN Staff Estimates

Food inflation is expected to ease in 2024 as the impact of fiscal and quasi-fiscal support (including grain distribution initiatives and the revitalisation of specialised agriculture agencies, among others) begins to crystalise. However, major upside risks to the outlook include higher energy prices, persistent insecurity, infrastructural challenges, and exchange rate pressures. Core inflation is also expected to moderate in 2024 on account of sustained restrictive monetary policy stance. The recent adoption of inflation targeting lite framework will anchor inflation expectations in 2024, in addition to the favourable effect of moderating global inflationary pressures.

3.2 The Financial Sector

3.2.1 Monetary and Financial Conditions

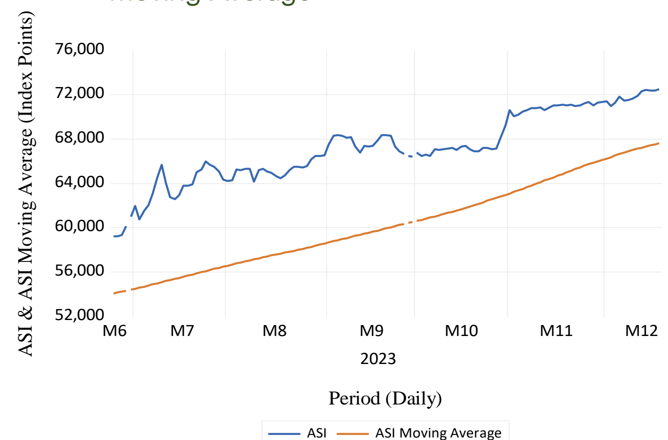
Monetary aggregates are expected to maintain an upward trajectory in 2024. Reserve money is projected to rise on account of the expected increase in the liabilities to other depository corporations (ODCs), arising from high CRR. Broad money expansion will reflect the effect of inflation on net domestic assets (NDA) and the effect of exchange rate depreciation on net foreign assets (NFA).

The financial sector is expected to remain resilient and stable in 2024, reflecting regulatory efforts to manage emerging vulnerabilities and risks continuously, and adopting measures, such as the planned recapitalisation of banks, to strengthen the banking industry. The payments system architecture is also expected to remain robust, driving digital financial inclusion through the introduction of innovative measures, aimed at fostering a more profound evolution of the payments system landscape.

3.2.1.1 Nigerian Capital Market

The Nigerian capital market is anticipated to remain bullish in 2024, underpinned by strong 2023 corporate returns and the ongoing innovations, geared towards improving the efficacy and depth of the market. Analysis of the market momentum, using the 125-day historical trend, shows that the actual ASI is greater than the historical average, implying rising investor confidence in the capital market.

Figure 16: 125 Days Historical Trend of All-Share Index and 125 Days Rolling Moving Average



Source: Central Bank of Nigeria

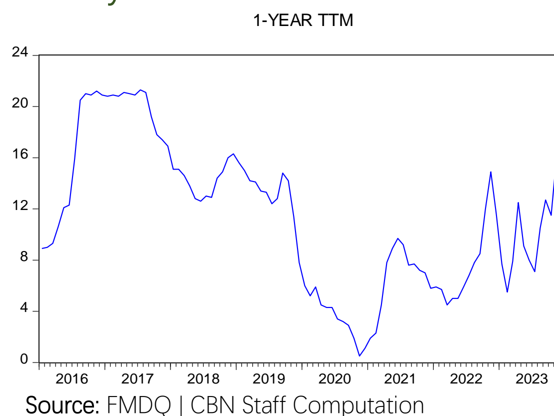
Yield Curve

The yield curve is expected to shift upwards and remain normal in 2024. To depict the short-, medium- and long-tenors of the yield curve, the forecast was couched in three term-to-maturity classes, namely: 1-year, 3–5-year, and 10–30-year bonds[6]. The short end of the

[6] Based on ARIMA model in which the best forecast was chosen using a combination of a statistical p-value, the lowest AIC and SIC coefficients, the highest adjusted r-squared; and the coefficient of the SIGMASQ.

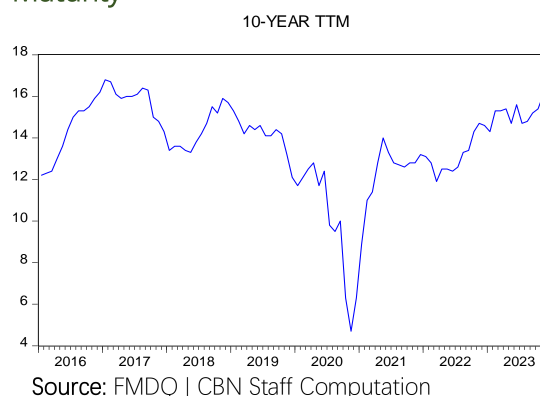
curve is expected to average 14.98 per cent in 2024Q1 and then rise to an average of 16.33 per cent in 2024Q4. In the same vein, the 3–5-year tenor averaged 16.46 per cent in 2024Q1, rising to an average of 19.09 per cent in 2024Q4. The longer end of the curve is expected to stand at 25.06 per cent on average in 2024Q1 and end at 29.64 per cent in 2024Q4. The forecast for 2024 is 15.47, 18.01 and 26.71 per cent for the short-, medium-, and long tenors, from 5.21, 12.83 and 16.58 per cent, respectively, in 2023. The expected upward shift in the yield curve illustrates the effect of inflation expectations on the psychology of economic agents, and investors' sentiments on the prospects of the Nigerian economy in 2024.

Figure 17: Bonds with 1 Year Term to Maturity



Source: FMDQ | CBN Staff Computation

Figure 18: Bonds with 10 Year Term to Maturity



Source: FMDQ | CBN Staff Computation

Table 4: Bond Yield Forecast for 2024

Period	Term-to-Maturity			Quarterly Average		
	1-Year	3-5 Year	10-30 Year	1-Year	3-5 Year	10-30 Year
Dec-23	14.13	15.86	24.53			
Jan-24	14.51	15.97	24.59			
Feb-24	14.82	16.65	25.15			
Mar-24	15.60	16.76	25.45	14.98	16.46	25.06
Apr-24	15.17	18.34	25.84			
May-24	15.44	18.78	26.16			
Jun-24	15.53	18.85	26.42	15.38	18.66	26.14
Jul-24	15.32	18.65	26.00			
Aug-24	15.54	18.07	26.94			
Sep-24	16.10	18.94	27.25	15.65	18.55	26.73
Oct-24	16.15	18.91	29.74			
Nov-24	16.02	18.94	29.83			
Dec-24	16.81	19.43	29.36	16.33	19.09	29.64
2024f	**15.47**	**18.01**	**26.71**			

Source: CBN Staff Forecast

3.2.1.2 Monetary Aggregates

Broad Money Liabilities

Broad money liabilities (M3) surged by 51.86 per cent to ₦79,252.46 billion at end-December 2023, compared with N52,187.27 billion at end-December 2022. This increase exceeded the benchmark of 28.21 per cent for the year 2023 by 23.65 percentage points. The significant growth in M3 reflected, largely, the revaluation effect resulting from the shift to a market-determined exchange rate.

In 2024, several factors, such as supply constraint in the foreign exchange market, elevated inflationary pressures, and increased forex demand are expected to exert considerable influence on the trajectory of money supply. The revaluation effect will have the most pronounced impact on M2, as it encompasses the foreign currency deposits component of money supply. Thus, M2 growth could surpass the annual projection of 15.68 per cent for 2024 if the naira depreciates. Nevertheless, concerted efforts to stabilise the foreign exchange market, coupled with the tight monetary policy stance, could play a crucial role in moderating broad money supply (M3) growth to achieve the targeted growth of 15.60 per cent in 2024.

Broad Money Assets

Net Domestic Assets (NDA) saw a substantial increase, rising by 44.62 per cent to ₦69,914.01 billion from ₦48,344.19 billion, exceeding the 2023 target of 17.85 per cent by 26.77 percentage points. This growth was primarily propelled by the 45.31 per cent increase in domestic claims, which followed the significant growth of 41.61 and 47.38 per cent in net claims on central government and claims on other sectors, respectively. A notable shift occurred in the composition of claims on the central government, following the securitisation of the Ways and Means advances in May 2023. Consequently, the composition of Ways and Means advances as part of claims on central government declined significantly to 18.19 per cent, compared with 85.28 per cent at end-December 2022. Despite this, the Federal Government’s fiscal deficit continued to rise and recent efforts to amend extant laws governing the Ways and Means Advances point to its possible growth in 2024.

Conversely, claims on other sectors is expected to decline in 2024, due to the Bank's aggressive tightening and the general uncertainty in Nigeria's business environment. Claims on private sector is likely to receive the strongest impact from the tight monetary policy environment and is projected to grow by 11.11 per cent in 2024, which is significantly lower than the growth of 57.78 per cent in 2023.

Monetary Base

Monetary base grew by 54.28 per cent to ₦24,735.52 billion, compared with the 2023 target of ₦19,933.75 billion. The monetary base is expected to increase to ₦28,274.79 billion in 2024, implying a 41.84 per cent growth year-on-year. At end-December 2023, liabilities to other depository corporations constituted 85.23 per cent of the monetary base, while currency-in-circulation (CIC) constituted the remaining 14.77 per cent. This implies that a change in liabilities to ODCs will have a significant impact on the monetary

base. The aggressive monetary policy stance of the Bank, which led to the increase in the cash reserve requirement by 1,250 basis points to 45.00 per cent, is expected to significantly increase liabilities to ODCs and consequently the monetary base in 2024.

Table 5: Projected Growth Rate of Selected Monetary and Credit Aggregates

Monetary Aggregates (₦)	Projection 2023	Actual 2023	Projection 2024
Broad Money (M3)	28.21	51.86	15.60
Broad Money (M2)	29.18	52.20	15.68
Income Velocity (M3)	2.87		2.48
Income Velocity (M2)	2.87		2.49
Net Domestic Credit (%)	17.88	44.62	22.65
Credit to Private Sector (%)	44.09	57.78	11.11
Net Credit to Government (%)	58.63	41.61	14.99
Monetary Base (₦ Billion)	19,933.75	24,735.52	28,274.79

Source: Central Bank of Nigeria

3.3 The Fiscal Sector

The fiscal outlook is generally optimistic, riding on reforms to enhance tax administration and the efficiency of public expenditure and leaning on the Medium-Term Expenditure Framework and Fiscal Strategy Papers 2024-2026. The projections incorporate global and domestic factors that shape the trajectory of public finance and define the underlying automatic stabilisers in fiscal operations.

The FGN revenue is projected to grow to ₦19,598.47 billion in 2024 from ₦8,361.84 billion estimated for 2023[7]. Resource-based revenue, consisting of ₦7,686.28 billion from crude oil and gas sales/royalties and ₦4.56 billion from minerals and mining, is expected to account for 39.2 per cent of the projected revenue for 2024, compared with 10.6 per cent in 2023. Taxes will contribute 21.7 per cent to FGN revenue in 2024; with company income tax (CIT), value added tax (VAT), and customs levies jointly accounting for 77.1 per cent of the total tax revenue. FGN revenue is expected to be bolstered by substantial receipts from 'other revenue' sources – including Independent FGN revenue and revenues from government-owned enterprises (GOEs) – and the 3.5 per cent contribution from grants and donor funding.

Revenue inflow in 2024, is projected to significantly surpass 2023 inflow. The optimism around oil revenue performance in 2024 is based on the continued implementation of the Petroleum Industry Act (PIA) 2021, increased domestic crude oil production, and enhanced domestic refining capacity (in view of the advent of the Dangote refinery, the expected reopening of the Port Harcourt refinery by the first quarter of 2024, and the restarting of three other national refineries later in 2024). Non-oil receipts, particularly from revenue generating agencies, are projected to increase, on the backdrop of sustained tax reforms, including the digitalisation of the collection processes and the implementation of robust expenditure management systems.

[7] This was estimated using the provisional fiscal data from the Office of the Accountant-General.

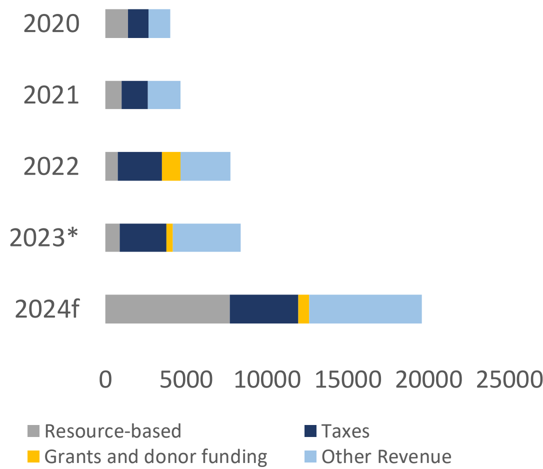
Table 6: Fiscal Operations of the FGN (₦ Billion)

	2020	2021	2022	2023*	2024f
FGN Revenue	4,039.09	4,643.51	7,756.07	8,361.84	19,598.47
Resource-based	1,411.54	993.30	781.09	886.63	7,690.84
Oil revenue	1,409.23	990.00	776.35	883.18	7,686.28
Minerals & Mining	2.31	3.30	4.74	3.45	4.56
Taxes	1,262.92	1,654.18	2,717.59	2,906.60	4,245.60
CIT	639.14	787.39	1,289.69	1,506.04	1,472.58
VAT	203.58	265.29	327.87	441.87	512.83
Customs	394.82	559.34	694.42	626.88	1,287.53
Federation Levies	25.38	42.16	59.36	50.76	248.26
Stamp Duty (EMLT)	-	-	17.58	34.54	24.39
Education Tax (TETFUND)	-	-	328.67	246.50	700.00
Grants and donor funding	-	-	1,145.11	381.70	685.63
Other Revenue	1,364.63	1,996.03	3,112.30	4,186.91	6,976.40
Independent Revenue	626.27	1,251.28	1,402.44	2,703.93	1,907.78
Transfers from Special Revenue Accounts	384.11	138.00	175.79	168.00	300.00
Signature Bonus/Renewals	117.57	381.27	280.86	180.52	251.46
Domestic Recoveries + Assets + Fines	11.54	-	7.15	-	-
Oil Price Royalty	-	-	-	-	24.17
Dividend (NLNG)	144.00	208.54	101.70	155.12	357.92
Share of Excess PPT/Forex Equalisation	9.73	6.56	-	80.17	-
Exchange Rate Difference	71.41	10.38	-	40.90	490.00
Revenues from GOEs	-	-	1,144.36	858.27	4,853.57
GOEs Operating Surplus (80% which is captured in independent revenue)	-	-	-	-	- 1,208.48
Aggregate Expenditure	10,017.26	11,079.70	14,786.27	16,064.69	28,777.40
Recurrent	7,987.47	8,679.63	11,773.08	13,087.65	17,039.47
Recurrent (non-debt)	4,645.21	4,457.97	6,116.50	5,423.09	8,768.51
Recurrent (debt)	3,342.26	4,221.66	5,656.58	7,664.56	8,270.96
GOEs Recurrent					1,059.62
Aggregate Capital Expenditure	1,601.76	1,903.55	2,203.07	1,942.38	9,995.14
Capital Expenditure of GOEs	-		309.57	300.00	820.91
Transfers	-	-	-		-
Statutory transfers*	428.03	496.52	810.12	1,034.67	1,742.79
Total expenditure (excl. GOEs)	10,017.26	11,079.70	14,786.27	15,764.69	26,896.88
Deficit (with GOEs)	-5,978.17	-6,436.19	-7,030.22	-7,702.85	-9,178.93
Deficit-to-GDP	-3.9%	-3.7%	-3.5%	-3.4%	-3.88%
Financing	2,057.54	4,519.09	7,030.21	6,696.91	9,178.93
Sale of Government Property	-	-	-	-	298.49
Privatization Proceeds	-	-	-	-	-
Multilateral/Bilateral Project-tied Loans	-	-	-	-	1,051.91
Restructured Loans	-	-	-	-	-
Foreign Borrowing	-	1,623.60	510.21	1,066.91	1,767.61
Domestic Borrowing	2,057.54	2,895.49	6,520.00	5,630.00	6,060.92
Sub-total Financing (excl. project-tied loans)	2,057.54	4,519.09	7,030.21	6,696.91	8,127.02
Net deficit/Surplus (excluding GOEs budget & project-tied loans)	-3,920.62	-1,917.10	-1,144.35	-1,564.22	-4,024.95
Grand total (revenue + financing)	6,096.63	9,162.60	14,786.28	15,058.75	28,777.40

Source: OAGF Budget performance Report for various years, and MTEF 2024-2026

Note: * estimates; f - forecasts; ** Statutory transfers in the 2024 and 2025 forecasts excludes the ₦982.99 billion and ₦883.85 billion in capital expenditure in the respective forecasts

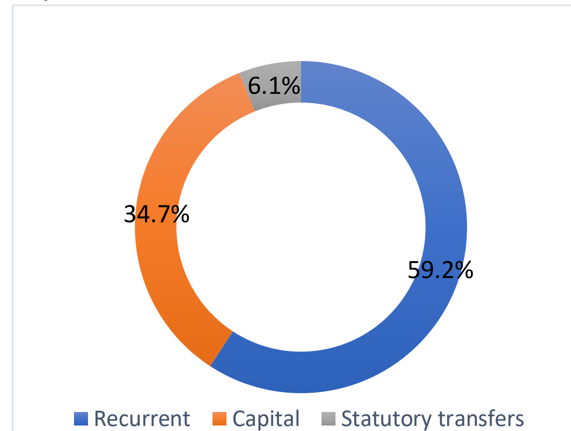
Figure 19: FGN Revenue and Components (₦ Billion)



Source: MTEF&FSP 2024-2026

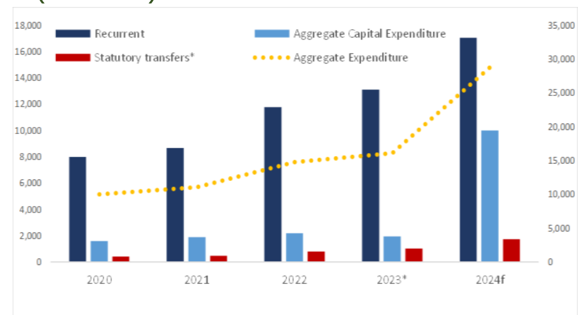
The aggregate expenditure of the FGN, including those of the GOEs and project-tied loans, is estimated to reach ₦28,777.40 billion in 2024, about 79.1 per cent above spending in 2023. A disaggregation of the projected expenditure indicates an *ex-ante* share of 30.5 per cent for non-debt recurrent expenditure and 34.7 per cent for capital expenditure. The outlook also projects the share of debt service (including sinking fund) at 28.7, and 6.1 per cent for statutory transfers. Thus, total recurrent expenditure could be accounted for 59.2 per cent of expected spending in 2024, compared with the provisional estimate of 81.5 per cent for 2023. Recurrent expenditure is expected to rise by 92.0 per cent above the level in 2023, reflecting the anticipated surge in debt service payments and potential increase in public service wage bill. Fiscal outlook is hinged on Government drive to stimulate economic activity and ease the pressure on households.

Figure 20: Decomposition of FGN Expenditure



Source: CBN Staff compilation using projections from the MTEF 2024-2026, Budget Office of the Federation (BoF)

Figure 21: Public Expenditure Pattern (₦ Billion)

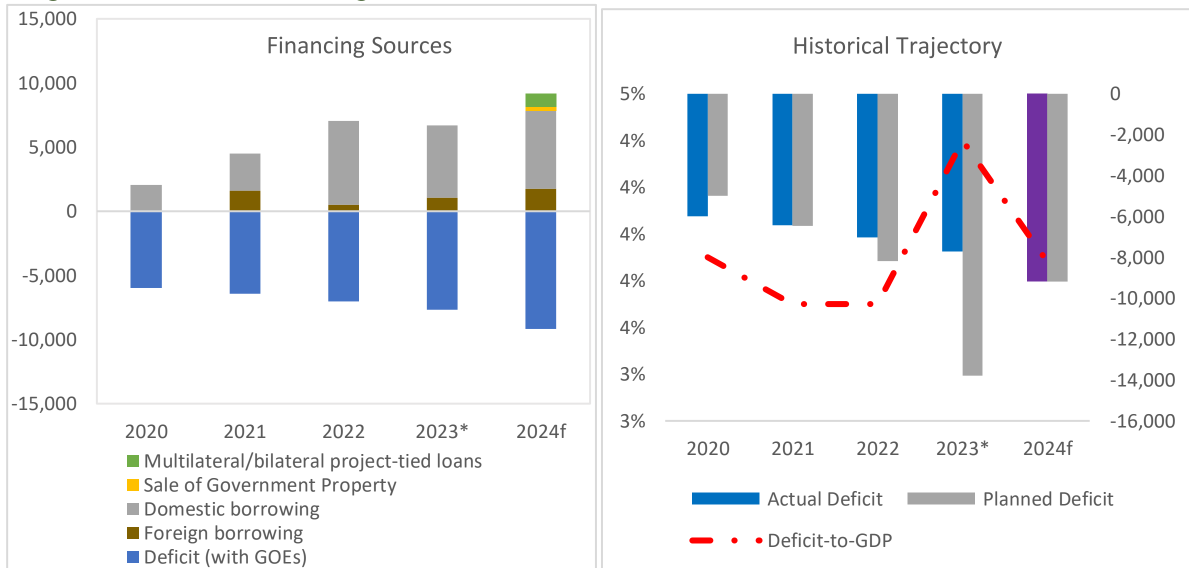


Source: Staff compilation using data from the Budget Office of the Federation, Office of the Accountant-General of the Federation and Medium-Term Expenditure Framework.

Note: *Estimates as at October 2023; f - forecasts; ** Statutory transfers in the 2024 and 2025 forecasts exclude the N982.99 billion and N883.85 billion in capital expenditure in the respective forecasts. Growing fiscal spending is still dominated by recurrent expenditure, though a sizeable rise in capital allocation is projected for 2024.

The fiscal operations of the FGN in 2024 is anticipated to result in a projected deficit of 3.9 per cent of GDP, that will be financed through new borrowings, asset sales, privatisation proceeds, and multilateral/bilateral project-tied loans. Congruent with the Medium-term Expenditure Framework, new borrowings in 2024 will be skewed in favour of internal sources. FGN's fiscal operations in 2024 is expected to be increasingly funded through deficit financing, as revenue challenges persist, amidst burgeoning public expenditure needs.

Figure 22: Fiscal Financing

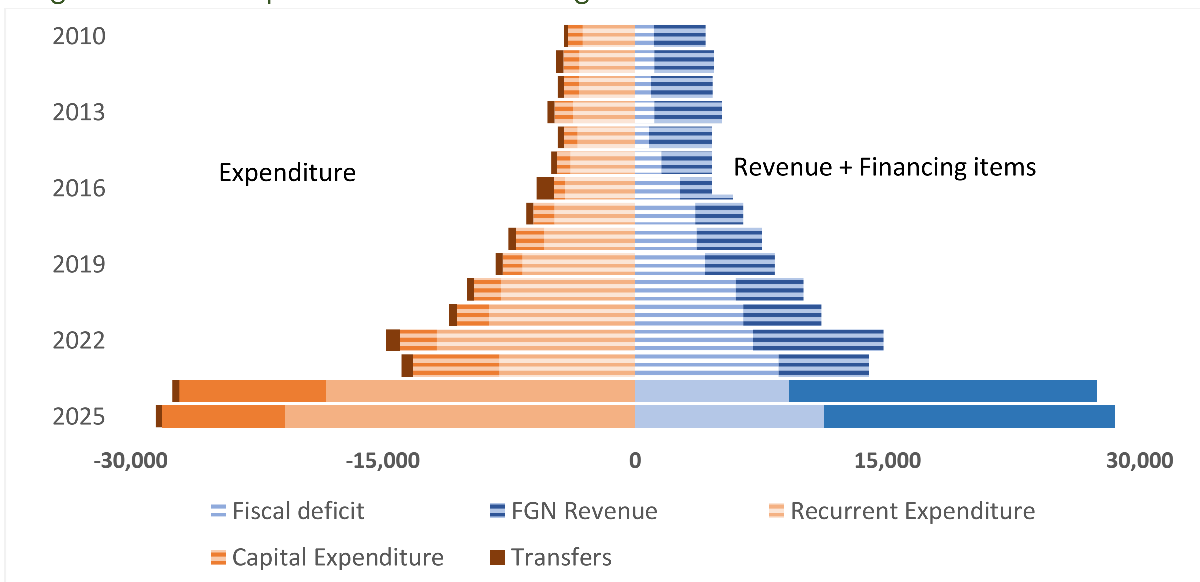


Source: CBN Staff compilation using data from the BoF and the OAGF

Note: * estimates as of October 2023.

Loans from internal agencies are expected to support fiscal financing in 2024, even as the contribution of domestic debt increase significantly

Figure 23: FGN Expenditure and Financing



Source: CBN Staff compilation using from the BoF and the OAGF

Public debt is expected to maintain an upward trajectory, but will remain on a sustainable path in 2024. The expected trajectory of public debt is underscored by planned infrastructural investment, social interventions, and the securitisation of the Ways and Means Advances to the FGN.

Table 7: Public Debt (₦ Trillion)

Classification	2020	2021	2022	2023	2024f
External Debt	12.71	15.86	18.70	31.98	41.90
Of which:					
FGN	10.95	13.88	16.70	31.98	41.90
States & FCT	1.76	1.97	2.00	-	-
Domestic Debt	20.21	23.70	27.55	55.93	75.60
Of Which:					
FGN	16.02	19.24	22.21	50.19	69.29
States & FCT	4.19	4.46	5.34	5.74	6.31
Total FGN Debt	28.73	35.10	40.91	82.17	111.19
Total Public Debt	32.92	39.56	46.25	87.91	117.50
Debt-to-GDP (%)	21.61	22.80	23.20	38.24	49.73
Nominal GDP (trillion naira)	152.32	173.53	199.34	229.91	236.31

Assumptions for Debt Projections:

New borrowings in 2024 - external ₦2.82 trillion and domestic N6.06 trillion

Securitisation of ways and means advances (2023) - ₦7.3trillion

Legislative approval for $8.699 billion and 100 million euros, equivalent to ₦7.1 trillion

Projected output in 2024 (based on the MTEF)

10% annual increase in states' domestic debt stock based on a 5-year trend
Exchange rate @N800 per USD, consistent with the MTEF

Note: 2023 debt figures are as at end-September 2023.
Source: Debt Management Office (DMO), Budget Office of the Federation, and CBN Staff estimates

3.4 The External Sector

The performance of the external sector is expected to improve in 2024, driven by a favourable trade balance, increased domestic oil production, high crude oil prices, and the operationalisation of the Dangote and Port Harcourt refineries. Improvements in global economic conditions and easing inflationary pressures in advanced economies are expected to enhance trade and investments and bolster external sector performance.

3.4.1 Balance of Payments

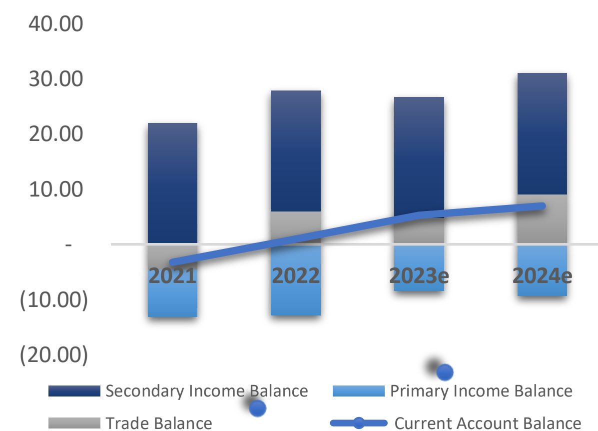
The current account is projected to record a higher surplus of US$6.96 billion in 2024 from US$5.31 billion in 2023, driven by sustained trade surplus from robust export performance and increased diaspora remittances. The OPEC+ crude oil supply cuts, ongoing Middle East tensions, and anticipated rise in domestic crude oil and gas production, are likely to boost export earnings. Moreso, the commencement of the Dangote refinery is expected to increase export receipts and reduce petroleum product imports.

Import in 2024 is expected to decrease to US$46.11 billion from US$49.68 billion in 2023, primarily, due to a decline in oil imports. The continued implementation of the Petroleum Industry Act 2021 (PIA), and operations of the Dangote and Port Harcourt refineries, are anticipated to reduce oil imports. However, a slight increase in non-oil imports is expected, due to anticipated improvement in global and domestic economic conditions.

Export is projected to rise to US$55.21 billion in 2024, from US$54.53 billion in 2023, arising from the sustained growth in oil and non-oil exports. Anticipated increase in domestic crude oil production owing to enhanced security of oil installations, is expected to boost export receipts. The improvement in export would be reinforced by the operations of the Dangote refinery and potential oil price increase amid geo-political tensions and OPEC+ supply cuts. In the non-oil sector, high global commodity prices and government initiatives (such as the "Export774" Programme) to diversify the export base, will further enhance total export. Higher receipts from the export of key commodities, including urea, fertiliser, sesame seeds, cocoa beans, hibiscus flower, and cashew nuts, are expected to drive non-oil export.

The deficit in the services account is expected to narrow, slightly, to US$12.85 billion from US$12.92 billion, as higher cost and weaker naira could suppress spending, especially on business, transportation, and travel services. In the primary income account, the deficit is projected to widen to US$9.36 billion from US$8.46 billion in 2023. This outcome is based on the anticipated increase in repatriation returns on investment by foreign investors.

Figure 24: Current Account Position (US$ Billions)

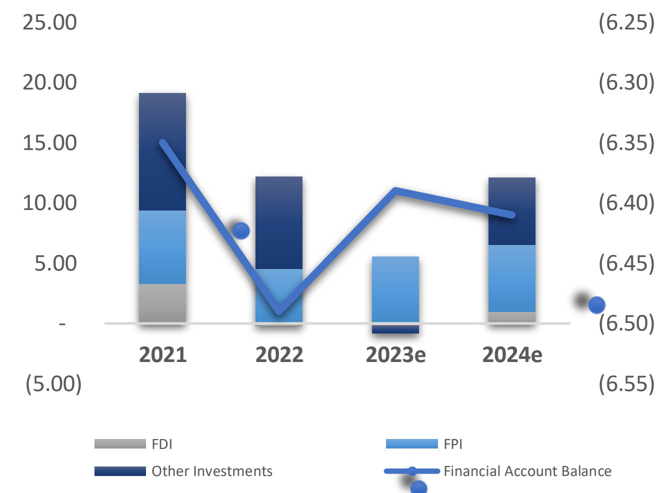


Source: Central Bank of Nigeria

The outlook for diaspora remittances indicates a marginal increase to US$19.42 billion from US$19.17 billion in 2023. This is on account of expected improvement in global economic conditions and reforms in the foreign exchange market that allow International Money Transfer Operators (IMTOs) to pay beneficiaries at market determined exchange rates. Similarly, the ongoing efforts by the Bank to improve efficiency, transparency and confidence in the foreign exchange market is expected to boost remittances through formal channels.

The financial account is expected to maintain a higher net borrowing position at US$6.41 billion, compared with US$6.39 billion in 2023. This projection is based on a higher net incurrence of financial liabilities, totalling US$13.08 billion, from US$5.14 billion in 2023. The higher liabilities is attributed to expected increase in external borrowings, through euro bonds and multilateral loans, and higher portfolio inflows. On the asset side, residents are likely to increase investments abroad leading to a rise in the acquisition of financial assets.

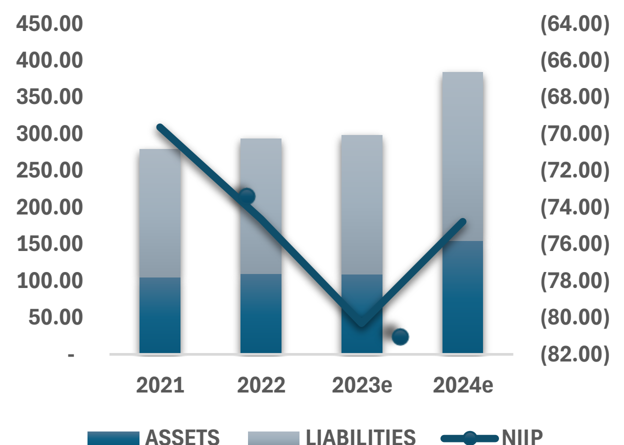
Figure 25: Capital Inflows (US$ Billions)



Source: Central Bank of Nigeria

The international investment position is projected to record a lower net borrowing position in 2024, due to expected rise in financial assets in excess of the increase in financial liabilities, as residents invest more abroad. The rise in financial liabilities is on account of the expected easing of monetary policy stance in Advanced Economies, which will improve investment flow to emerging markets. Furthermore, a projected rise in external debt is expected to impact financial liabilities.

Figure 26: Nigeria's International Investment Position (US$ Billions)



Source: Central Bank of Nigeria

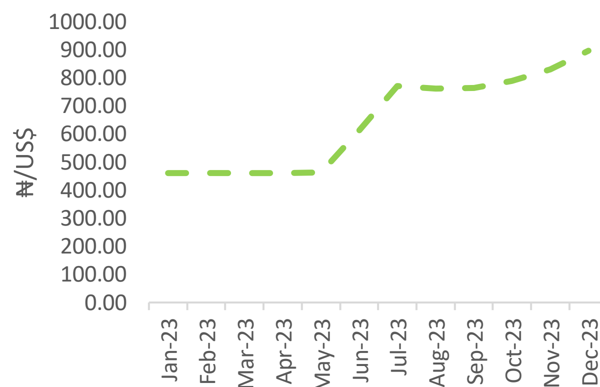
3.4.2 External Reserves

The external reserves which stood at US$33.09 billion in 2023 could reduce slightly in 2024. This is on the assumption of continued payments of outstanding foreign exchange forward obligations, matured foreign exchange swaps, and debt service. The expected improvement in crude oil earnings together with recent reforms in the foreign exchange market and energy sector, however, would cushion the drop in external reserves.

3.4.3 Exchange Rate

The recent reforms in the foreign exchange market is expected to entrench efficiency and transparency, narrow the gap between the BDC and the NFEM rates, and stabilise the exchange rate. In 2024, improved investor confidence and higher remittances as a result of the reforms in the foreign exchange market, are expected to help stabilise the exchange rate. The expected rise in crude oil export receipts would provide further impetus to the market, moderate depreciation pressures and strengthen the naira.

Figure 27: Exchange Rate of the Naira per US Dollar



Source: Central Bank of Nigeria

4.0 Risks to the Outlook and Vulnerabilities in the Domestic Economy

Real Sector

Despite the positive outlook, the growth trajectory could be vulnerable to a number of risks. Elevated inflation (owing to legacy structural constraints and reform measures) may necessitate protracted monetary tightening, leading to lower-than-expected growth outcomes. Slow adjustment of businesses to cost pressures accompanying the reforms could limit productivity and hurt growth. In response to cost pressures by businesses, slack labour market conditions could further narrow the formal sector, encourage underground economy, and impede expected growth outturns.

In addition, the frequency and intensity of likely climate shocks, could exacerbate farmer-herder clashes, reduce crop yield, stifle the business environment, destroy transport infrastructure, and dampen growth outcome. Furthermore, spillovers from geoeconomic fragmentation on account of the protracted Russia-Ukraine war and a renewed threat to the global supply chain along the Red Sea, pose considerable risks to growth and inflation outlook. Supply-side shocks coupled with the effect of the reforms in the energy and foreign exchange markets could aggravate inflationary pressures.

Table 8: Real Sector Risk Assessment Matrix

Event	Risk	Likelihood	Impact
Elevated inflation	Persisting elevated inflation could further distort allocative efficiency of resources, exacerbate macroeconomic instability, deepen social strife, and necessitate prolonged monetary tightening	High	High
Slower pace of implementation and inappropriate sequencing of reforms	Flawed execution of reforms could stall or delay expected productivity gains and erode investor confidence	Medium	Medium
Slackening labour market conditions	Slackening labour market conditions in response to cost pressures may further narrow the formal sector, encourage underground economy	Medium	Medium
Elevated climate shocks	This may lead to increased farmer-herder clashes; and destruction of crops, businesses, and transport infrastructure	High	High
Rising insecurity	Worsening insecurity could dampen economic activities and lower productivity, thereby leading to lower growth prospect and high inflationary pressure	Medium	High
Spillovers from geoeconomic fragmentation	It may lead to supply chain disruptions, impair trade, elevate logistics & transport costs, and increase pass-through to domestic prices	Medium	Low
Persisting supply side shocks	Domestic shocks may continue to add to price pressures on account of the continued implementation of structural reforms, higher energy prices and import costs following the depreciation of the local currency	High	High

Source: CBN Staff compilation

Financial Sector

The stable financial sector outlook projected for 2024 could be hampered by persistent inflationary pressure and continued exchange rate depreciation which pose a threat to financial soundness indicators. Higher-than-expected interest rates in advanced economies could heighten vulnerability, dampen foreign portfolio inflows and escalate capital reversals from Nigeria which could weaken the equities market.

Table 9: Financial Sector Risk Assessment Matrix

Event	Risk	Likelihood	Impact
Higher-than-expected interest rates in advanced economies	High interest rates in the US and other advanced economies and the prospects of the rates remaining "higher for longer" could dampen foreign portfolio inflows and trigger capital reversals in Nigeria.	Medium	High
High cost of funds	High cost of funds heralded by tighter monetary stance could dampen economic activities and heighten loan default.	High	High
Growing foreign currency positions	The growing trend of foreign currency loans and deposits exposes the balance sheet of banks to exchange rate risks and external shocks.	Medium	High
Climate shocks	Sudden climate changes could cause sharp repricing in financial market, especially affecting the portfolios of investment funds, pension funds, insurance companies and money market. This could strain borrowers' ability to repay bank loans, leading to higher default and loan losses.	Medium	High

Source: CBN Staff compilation

Fiscal Sector

The fiscal outlook, though positive, is susceptible to downside risks that could undermine fiscal outcomes in 2024. Oil theft, pipeline vandalism and decline in crude oil price could significantly reduce expected revenue and constrain government's ability to finance the budget. There is also the risk of weaker revenue generation from non-oil sources, due to possible leakages, low tax compliance and inefficiency in tax administration. Fiscal operations could also be constricted by extra-budgetary spendings that could result from worsening insecurity and climate shocks.

Furthermore, unforeseen adverse macroeconomic outcomes pose considerable risk to the fiscal outlook. For instance, if the expected sustained recovery does not crystallise, it could result in lower taxable activities in the domestic economy. The risk associated with persistent inflation could raise the cost of funding the budget, widen fiscal deficit, induce extra borrowing, and blur the fiscal outlook. Exchange rate volatility and rising domestic interest rates constitute potential risk to debt

sustainability. Rising public debt, that takes the debt-to-GDP ratio above the 40.0 per cent threshold, could raise the cost of debt service, reduce fiscal space, and elevate debt sustainability risk.

Table 10: Fiscal Policy Risk Assessment Matrix

Event	Risk	Likelihood	Impact
Oil theft, pipeline vandalism and decline in global oil price	Reduced revenue and constrained ability to finance budget	Medium	High
Revenue leakages in MDAs and GOEs	The inability of revenue generating agencies to meet target owing to leakages could constrict fiscal space	High	High
Lower-than-expected tax revenue	Revenue shortfall, due to low tax compliance and inefficiencies in tax administration, could heighten budget risk and limit capacity to finance the budget	High	High
Rising insecurity	Worsening insecurity could necessitate extra-budgetary spending	Medium	High
Elevated public debt	Higher interest payments from accumulated debt could reduce fiscal space and elevate sustainability risk	High	High
Persistent inflation	Raises the cost of funding the budget, widens fiscal deficit, and induces borrowing	Medium	High

Source: CBN Staff compilation

External Sector

On the downside, lower-than-expected crude oil production and prices could reduce export receipts, lower the accretion to reserves, heighten pressure in the foreign exchange market and undermine the external sector outlook. High inflation, exchange rate volatility, and rising insecurity could erode investor confidence, and potentially constrain capital inflow or trigger capital reversal. Unforeseen global shocks that impact economic activities and income could adversely affect capital flows and remittances. Moreover, rising external debt poses risks of higher debt service payments and weakening external reserves.

Table 11: External Sector Risk Assessment Matrix

Event	Risk	Likelihood	Impact
Decline in crude oil production and price	Reduced export receipts, low accretion to external reserve and increase pressure in the foreign exchange market	Medium	High
Socio-economic instability	Decreased capital inflows and capital reversal	Medium	Medium
Global economic shocks	Decline in remittances and capital inflow, and surge in capital reversals	Low	Medium
Rising external debt	Higher debt service payments and depletion of the external reserves	Medium	Medium
Exchange rate volatility	Increased uncertainty and loss of investor confidence in the economy	Medium	High

Source: CBN Staff compilation

5.0 Policy Priorities

Against the backdrop of the outlook for the Nigerian economy in 2024, it is imperative to strengthen fiscal, monetary and structural policies to tackle existing imbalances and potential threats to macroeconomic stability. This will require prioritising policy adjustments within the short, medium, and long-term horizons.

Short-term Measures

- Intensify monetary policy tightening to rein-in inflation and encourage foreign exchange inflows using interest rates and other instruments of monetary policy.
- Sustain the willing-buyer and willing-seller market-based approach, among other policy measures, to ensure price-discovery, transparency, efficiency and stability in the foreign exchange market.
- Strengthen the monetary policy communication to anchor inflation and exchange rate expectations more effectively.
- Support the redeployment of food and grains from the strategic reserves to the market to dampen food prices.
- Prioritise monthly dialogue sessions among relevant agencies to foster policy harmonisation between monetary and fiscal authorities and ensure a more robust and effective framework for coordinating economic governance under a shared vision.

Medium-term Measures

- Ramp-up crude oil production to bolster Federal Government revenue and foreign exchange receipts by strengthening security surveillance of oil installations and fostering new investments in pipeline infrastructure.
- Embark on strategic fiscal reforms to strengthen tax enforcement agencies, promote the digitalisation of tax collection, enhance compliance of fiscal rules, and enforce penalties for non-compliance.
- Address supply-side shocks in Nigeria through targeted measures to boost domestic (agricultural and industrial) production. This will involve collaboration among relevant government agencies to promote investment in key sectors, support SMEs & businesses, improve infrastructure & technology, and diversify energy sources.

Long-term Measures

- Mitigate the adverse effects of climate shocks on output (agricultural and industrial) through increased investment in early warning systems, and climate-resilient smart infrastructure.
- Tackle security challenges by strengthening law enforcement agencies – through more efficient use of budgetary allocation and specialised training – and addressing the root causes of insecurity (such as poverty and deprivation, unemployment, resource struggle, extremism) – through socio-economic programmes, and promoting community engagement. Additionally, reinforcing border security measures, intelligence-sharing, and regional cooperation can significantly curb cross-border threats and foster stability.

6.0 Topical Issues based on Empirical Findings

6.1. Energy Prices and Inflation in Nigeria[8]

6.1.1 Background

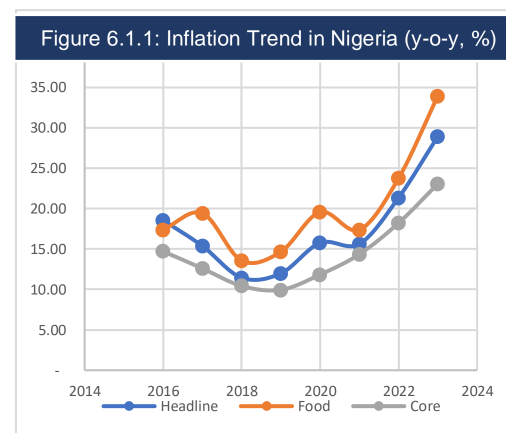
Low and stable inflation remains a priority for policymakers everywhere. This is against the backdrop of the wider implications of inflation on macroeconomic stability and the credibility of a central bank and its overriding objective of price stability. Essentially, a high inflation environment disincentivizes investments and productivity, and erodes citizens' welfare. Thus, policy makers are intent on identifying the specific drivers of inflation, and proffer mitigative measures.

Rising and elevated energy prices, under the influence of successive global shocks and geopolitical fragmentations, have continued to fuel inflationary pressures in recent times. Domestically, governments at the risk of fiscal distress are increasingly finding fiscal consolidation measures (such as ending subsidy on energy consumption) attractive. These developments, in addition to structural impediments to energy production, distribution and consumption, have contributed to rising energy prices, particularly in energy-dependent economies.

6.1.2 Trend in Inflation and Energy Prices in Nigeria

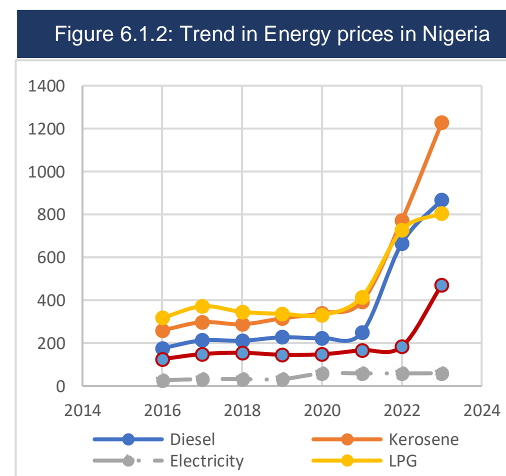
In Nigeria, inflation has remained elevated, with headline inflation reaching a high of 28.92 per cent in December 2023 (NBS, 2024), propelled by both monetary and structural factors.

Figure 6.1.1: Inflation Trend in Nigeria (y-o-y, %)



Source: National Bureau of Statistics

Figure 6.1.2: Trend in Energy prices in Nigeria



Source: National Bureau of Statistics

The prices of diesel, premium motor spirit (PMS), liquefied petroleum gas (LPG), jet fuel, and kerosene have continued to rise, leaving permanent imprints on consumer prices, as government increasingly favour price-discovery reforms. For instance, with the removal of subsidy on PMS in June 2023, the price of a litre of PMS

[8] This paper is an extract from the study 'Energy Price Shocks and Inflation Dynamics in Nigeria', by Igue, N.N., Belonwu, M.C, Opiah, D., and Aminu, U., (Forthcoming in the Economic and Financial Review, Volume 62, Number 3, September 2024 Edition). The views expressed in the paper are those of the authors and do not represent the official position of the Central Bank of Nigeria.

soared from ₦166.66 per litre to ₦617.00 between December 2021 and December 2023. The price per litre of kerosene also jumped to ₦1,287.1 from ₦289.37, over the same period. Also, the price of LPG increased to ₦965.64 per kilogramme from ₦586.56, reflecting adjustment to global energy price shocks.

Although energy prices have continued to rise in Nigeria, in recent times, there are considerable variations in the pace of price increases over time and across the different energy products. The price of PMS increased by 4.5 per cent on average, between 2016 and 2020, and 59.7 per cent between 2021 and 2023, and only the price of diesel rose higher in both periods, 6.5 and 69.6 per cent, respectively. These compare with the average price increases of 26.1 and 0.4 per cent in electricity in 2016-2020 and 2021-2023, respectively. The lower price changes in electricity, relative to other energy forms, could be attributed to the subsisting subsidy in electricity consumption in Nigeria. Generally, high energy prices, particularly in the last three years, created veritable concerns about energy inflation in Nigeria.

High energy prices are often transferred to consumer prices through higher transportion cost, utility bills, and production cost. There is, therefore, a basis to suspect that changes in energy prices strongly impact dynamics in the general price level in Nigeria. This relationship is underlain by the Philips Curve, which highlights the trade-off between inflation and unemployment. Based on this theoretical framework, inflation is presumed as a cost-push phenomenon, with energy as an input in the production process.

6.1.3 Drivers of Energy Inflation in Nigeria

Past efforts at disentangling energy inflation in Nigeria had employed, largely, crude oil or petrol as the proxy for energy price, masking the idiosyncratic and heterogenous effects of different energy prices on inflation dynamics in Nigeria.

This study employed the structural vector autoregressive (SVAR) model to account for the inflationary impact of energy price changes in Nigeria, using monthly data spanning 2016 to 2023. The choice of variables and study frame were informed by data availability. Energy prices were captured as the log-differenced prices of diesel, PMS (gasoline), kerosene, liquefied petroleum gas, and electricity; while inflation was measured by the headline, food, and core

(year-on-year). Diesel, PMS, and kerosene, were measured in litres, while LPG was measured per kilogram, and electricity per unit of KWH. Broadly, the research contributes to studies on the drivers of inflation in Nigeria, particularly, energy inflation.

Table 6.1.1: Summary statistics (per cent)

	Headline inflation	Food inflation	Core inflation	Diesel	PMS	Kerosene	LPG	Electricity
Mean	16.01	18.31	13.37	348.62	190.10	478.82	452.25	44.62
Median	15.91	17.38	12.72	226.19	150.28	326.93	346.23	32.00
Max	28.20	32.85	22.58	1004.98	617.00	1303.16	965.64	59.41
Min	9.62	10.64	8.53	146.20	86.50	223.26	293.96	26.50
Std. Dev.	4.18	4.65	3.36	250.74	117.92	325.26	188.35	14.32
CV	26.1	25.4	25.1	71.9	62.0	68.0	41.7	32.1
Skewness	0.78	0.88	1.02	1.42	3.04	1.60	1.20	0.0
Kurtosis	3.22	3.54	3.37	3.26	11.18	3.95	2.81	1.07
JB	9.87	13.46	16.89	32.38	411.92	43.90	23.08	14.80
Prob.	0.01	0.001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0006
No. Obs.	95	95	95	95	95	95	95	95

Source: Igue et al. (2024)

The summary statistics of the variables, reveals the mean values for headline, food, and core inflation to be 16.01, 18.31, and 13.37 percent, respectively; while diesel, PMS, kerosene, LPG and electricity prices had mean values of ₦348.62, ₦190.10, ₦478.82, ₦452.25, and ₦44.62, respectively. The coefficient of variation (CV), which measures the volatility of the

Figure 6.1.3: Inflation and energy price shocks

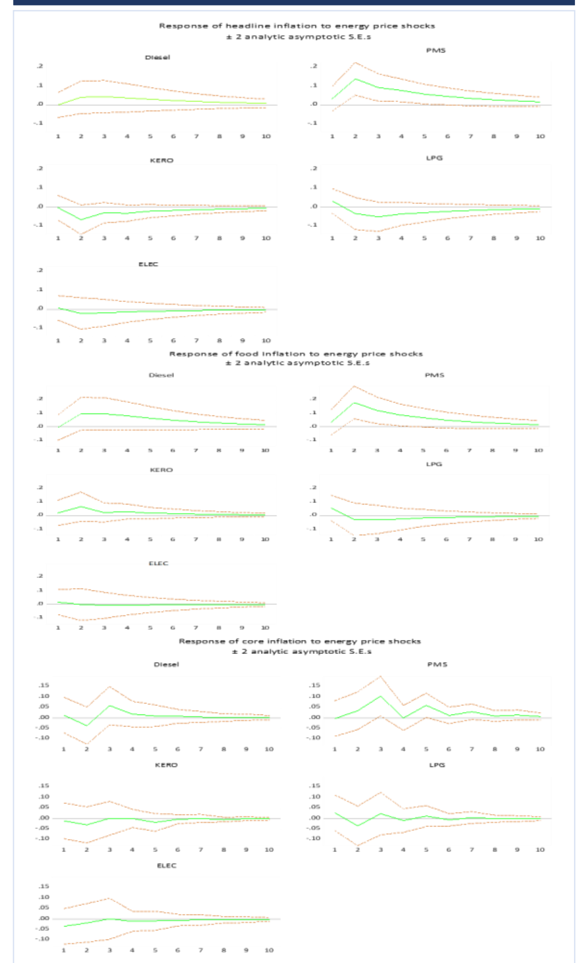


Figure 6.1.4: Energy contribution to headline inflation

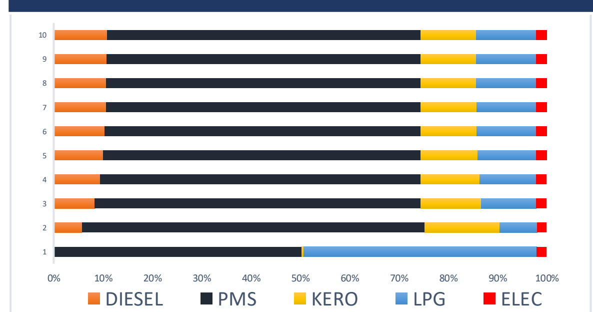
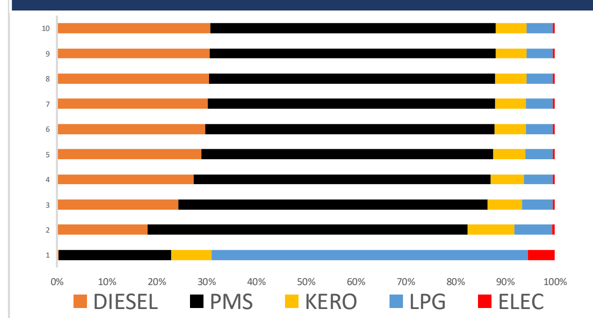


Figure 6.1.5: Energy price contribution to food inflation



series identifies diesel, kerosene, LPG, and electricity, with the most volatile prices, in that order.

The analysis observes a positive correlation between energy prices and inflation in Nigeria. Furthermore, the impulse response functions (IRFs) output, suggests that inflation in Nigeria appear to be markedly influenced by price developments in PMS (compared with other energy prices), and the impact subsists over the short- to medium-term (Figure 6.1.3), corroborating earlier studies (Kilian and Zhou, 2023; Sa'ad et al., 2023; Kpagih et al., 2022; Chinanuife et al., 2021; Agu and Nyatanga, 2021; Otoakhia, 2020; Raymond, 2020; Bassey and Ekong; 2019; Iorember et al., 2018). The IRFs indicate that headline, food and core inflation respond positively and significantly to PMS price shocks, implying that hikes in PMS prices are expected to be inflationary.

A decomposition of energy price shocks to inflation and its components reveals that energy price shocks, on average, account for between 11.0 – 14.0 per cent of variation in inflation and its components in Nigeria. The paper further observes that in the set of energy price shocks, PMS accounts for the most (significant) variations in inflation, supporting results from the IRFs. This tends to suggest that PMS price hikes significantly transmits to inflation in Nigeria.

To provide clarity on how much energy price shocks impact inflation dynamics in Nigeria, the study further computed the relative share of individual energy price shocks to variation in inflation. PMS price was found to account for 63.4, 55.53, and

Figure 6.1.6: Energy contribution to core inflation

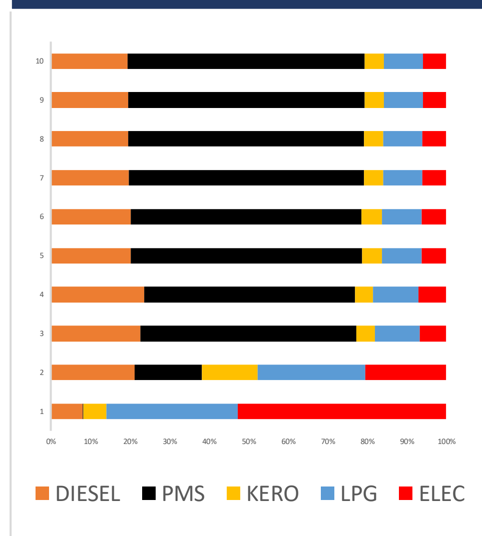


Figure 6.1.7: Aggregate contribution to inflation (per cent)

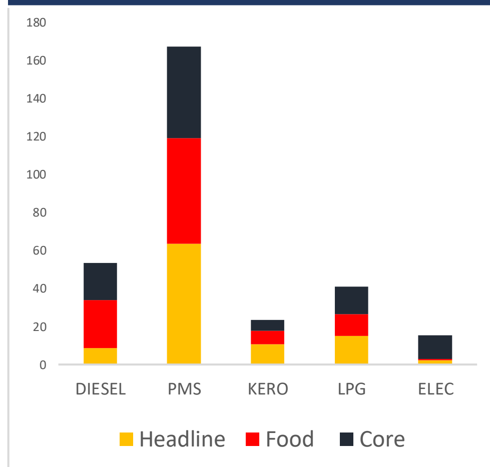
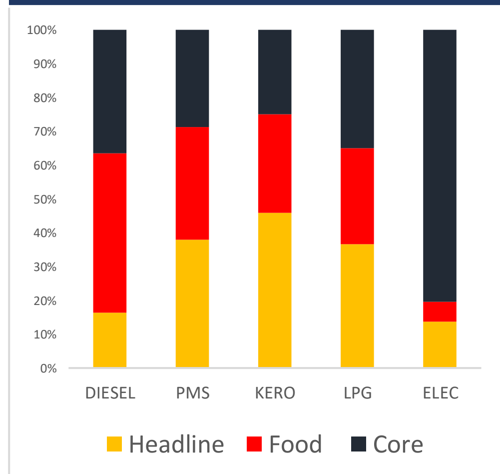


Figure 6.1.8: Proportionate energy contribution (per cent)



Source: Authors' compilation

48.11 per cent of the total energy price effect on headline, food, and core inflation, respectively; followed, at a distance, by diesel – 8.67, 25.16, and 19.44 per cent, accordingly.

Electricity price least explained inflation development, reflecting the impact of the longstanding subsidy in the electricity sector, and its disconnection with price dynamics in Nigeria. The relative importance of PMS in explaining the variation in inflation increases over the forecast horizon, implies that any shock to or increase in PMS price, exerts upward pressure on inflation and its components.

6.1.4 Conclusion and Policy Imperatives

The paper concludes that, on the average, energy price shocks account for 11.0 – 14.0 per cent of variation in inflation in Nigeria, and that changes in the price of PMS is the major driver of energy inflation, followed by diesel and LPG. Shocks that trigger increases in the prices of these energy forms are likely to exert upward pressure on headline, food, and core inflation in the near-to-medium term. This could explain why the general price in Nigeria has historically been highly sensitive to changes in PMS prices.

In addition, the observation of a near imperceptible inflationary impact of electricity price, compared with the other energy forms, seems to attest to the moderating effect of energy subsidy on inflation.

Recommendations for addressing energy inflation in Nigeria are the prioritisation of structural reforms that mitigate the impediments to efficient energy pricing (such as a measured liberalisation of the energy market); and the development and diversification of energy sources through investment in cleaner energy (gas, wind and solar). Furthermore, in underscoring the low inflationary impact of electricity price, the study suggests that energy subsidies could be potentially useful in mitigating and short-circuiting the inflationary and welfare-reducing impact of energy price shocks. This would, however, require striking the delicate balance between fiscal sustainability, on the one hand; and the overarching goals of price stability and social welfare, on the other.

References

- Aastveit, K. A., H. C. Bjørnland, and J. L. Cross (2021). Inflation expectations and the pass-through of oil prices. The Review of Economics and Statistics, 1–26.
- Agu, O.C. and Nyatanga, P. (2021). Does the expected crude oil price influence inflation in Nigeria? *African Journal of Business and Economic Research*, 16, No. 4.
- Arora, V., P. Gomis-Porqueras, and S. Shi (2013). The divergence between core and headline inflation: Implications for consumers' inflation expectations. *Journal of Macroeconomics,* 38, 497–504.
- Bassey, G.E. and Ekong, M.U. (2019). Energy consumption and inflation dynamics in Nigeria: An ARDL cointegration approach, *Energy Economics Letters*, ISSN(e): 2308-2925DOI: 10.18488/journal.82.2019.62.66.83Vol. 6, No. 2, 66-83.
- Bernanke, B. S. (1986). Alternative explanation of the money-income

correlation, Carnegie-Rochester Conference Series on Public Policy 25, 49–100.

- Canova, F., & De Nicolo, G. (2002). Monetary disturbances matter for business fluctuations in the G–7, *Journal of Monetary Economics*, 49(6), 1131–59.
- Casolia, C., Manera, M., and Valenti, D. (2023). Energy shocks in the Euro area: disentangling the pass-through from oil and gas prices to inflation, Fondazione Eni Enrico Mattei (FEEM), https://www.jstor.org/stable/resrep51835, pp. 1-40.
- CBN (2022) Statistical Bulletin, the Central Bank of Nigeria.
- Chinanuife, E., Kingsley, M., and Momoh, Z. (2021). Oil price volatility and inflation level in Nigeria: an exponential GARCH approach, *International Journal of Advanced Research*, 9(08):01-08, DOI:10.21474/IJAR01/13219
- Choi, S., D. Furceri, P. Loungani, S. Mishra, and M. Poplawski-Ribeiro (2018). Oil prices and inflation dynamics: Evidence from advanced and developing economies, *Journal of International Money and Finance*, 82, 71–96.
- Choi, S., Furceri, D., Loungani, P., Mishra, S., and Poplawski-Ribeiro, M. (2017). Oil prices and inflation dynamics: evidence from advanced and developing economies, WP/17/196, International Monetary Fund (IMF)
- Clerides, S., S.-I. Krokida, N. Lambertides, and D. Tsouknidis (2022). What matters for consumer sentiment in the Euro Area? world crude oil price or retail gasoline price? *Energy Economics* ,105, 105743.
- Cooley, T.F., & Leroy, S.F. (1985). Atheoretical macroeconometrics: A critique, *Journal of Monetary Economics*, 16 (3), 283–308.
- Enders, W. (2010), Applied Time Series Econometrics, Wiley.
- Geiger, M. and J. Scharler (2019). How do consumers assess the macroeconomic effects of oil price fluctuations? evidence from US survey data, *Journal of Macroeconomics*, 62, 103134.
- Haider, A., Ahmed, M.Q. and Jawed, Z. (2014). Determinants of energy inflation in Pakistan: An empirical analysis, *The Pakistan Development Review*, Winter 2014, 53(4) pp. 491-504. https://www.jstor.org/stable/24398734
- Iorember, P., Usar, T. and Ibrahim, K. (2018). Analyzing inflation in Nigeria: A fractionally integrated Arfima-Garch modelling approach, *African Journal of Economic Review*, 7(1), pp. 33-46.
- Kilian, L. and X. Zhou (2022b). Oil prices, gasoline prices, and inflation expectations, *Journal of Applied Econometrics*, 37 (5), 867–881.
- Kilian, L. and X. Zhou (2022b). Oil prices, gasoline prices, and inflation expectations, *Journal of Applied Econometrics*, 37 (5), 867–881.

- Kilian, L., & Zhou, X. (2022). A broader perspective on the inflationary effects of energy price shocks. Federal Reserve Bank, Working paper 2224

6.2 Macroeconomics of Diaspora Remittances in Nigeria[9]

6.2.1 Background

Diaspora remittances refers to money, goods, or skills sent by residents of another country to their home country to support families and friends. Diaspora remittances significantly contribute to economic stability in developing nations, representing the second most crucial financial support after foreign direct investment (FDI).

The economic impact of remittances, particularly in Nigeria is profound, as it serves as a significant source of foreign exchange inflow, contributing to the maintenance of robust external reserves, thus, helping to stabilise the economy. Hence, understanding remittances dynamics and how it can be used for effective economic development and poverty reduction is crucial.

Diaspora remittances have various impacts on the macroeconomy and the lives of individual households. On a macroeconomic level, remittances boost consumption and investment, thus, leading to economic growth. It also contributes to poverty reduction by providing families with additional income for basic needs such as food, education, and healthcare.

Moreover, diaspora remittances can have a positive effect on the exchange rate, by increasing the supply of foreign currency into the economy. This helps to stabilise the value of the naira against other currencies and reduces volatility in the foreign exchange market.

Remittances also play a crucial role in financial inclusion by enabling access to formal financial services for recipients who may not have had access previously. This could lead to higher savings and investment at the household level.

However, challenges such as the cost of remittance transfers, exchange rate fluctuations, and the prevalence of informal remittances channels can hinder the potential impact of diaspora remittances in Nigeria. Other challenges include over-dependency on remittances, money laundering risks, and macroeconomic instability arising from imbalances affecting host countries. Security risks such as fraud and cyber threats also impedes remittances through online channels. Addressing these challenges through policies and regulations aimed at reducing transfer costs, promoting formal channels, and enhancing financial infrastructure can help maximise the positive effect of diaspora remittances on the Nigerian economy.

Over the years, CBN has implemented various policies and regulations to improve and sustain the inflow of diaspora remittances. The most recent policy was the 'Naira 4 Dollar Scheme' which was introduced in 2021. It was an initiative which incentivised remittances and resulted in increase in remittances inflow to US$19.86 billion in 2022 from US$19.23 billion in 2021.

This study provides a comprehensive understanding of the macroeconomic

[9] This paper was written by., Omotosho, B. S., Sani, Z., Okafor, I. I., and Asuzu, O. C. (Forthcoming in the Economic and Financial Review, Volume 62, Number 3, September 2024 Edition). The views expressed in the paper are those of the authors and does not represent the official position of the Central Bank of Nigeria.

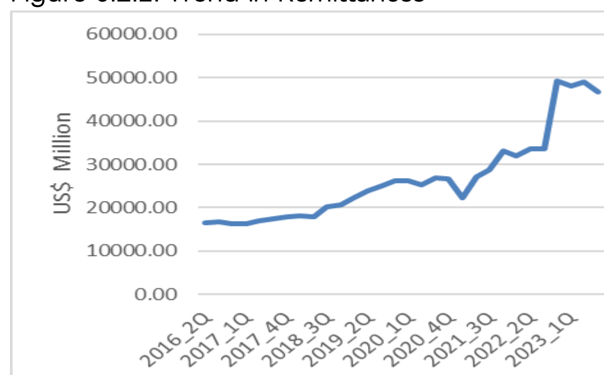
factors influencing diaspora remittances, the growth implications of remittances and the user sentiments associated with remittance apps; thus, contributing valuable insights into the multifaceted landscape of remittance dynamics in Nigeria.

6.2.2 Remittances Trend in Nigeria

Available data on remittances inflow to Nigeria showed consistent growth from 2016 to 2019, with a record high of US$2.62 billion in 2019Q4, prior to the COVID-19 pandemic. However, by 2020Q2, remittances experienced a 3.0% decline, attributed to the impact of the Pandemic on global economic activity. The effect of the COVID-19 pandemic persisted, resulting in a further drop in 2021Q1 to US$2.22 billion.

With the easing of global movement restrictions and the implementation of supportive fiscal measures to counter the pandemic-induced economic slowdown, remittances inflow to Nigeria surged to US$4.92 billion by 2022Q4. The policies implemented by the CBN, including the 'Naira 4 Dollar Scheme' encouraged remittances inflow into the country.

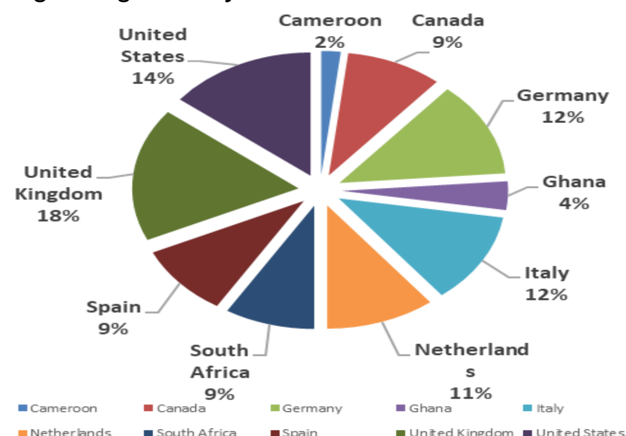
Figure 6.2.1: Trend in Remittances



Source: Authors' compilation using data from World Bank

A further examination of remittances inflow showed that the United Kingdom leads the pack, contributing to 18.0 per cent of the total remittance inflow, followed closely by the United States at 14.0 per cent, and Italy at 12.0 per cent. Other significant contributors include the Netherlands, Canada, Spain, and South Africa, each accounting for 9.0 per cent of total remittances. Ghana follows with a contribution of 4.0 per cent, while Cameroon represents the smallest portion, constituting only 2.0 per cent of the total remittance inflows. This breakdown highlights key countries that significantly contribute to Nigeria's remittances and the importance of understanding and fostering relationships with these remittance corridors.

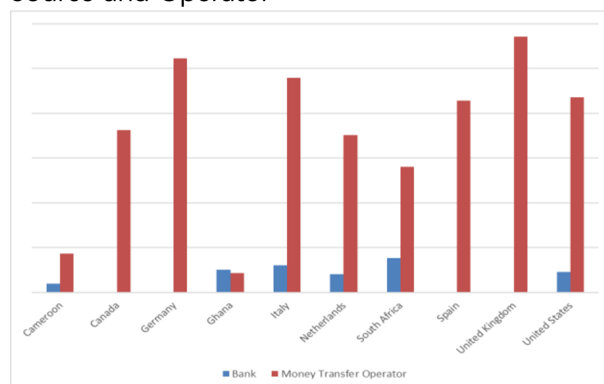
Figure 6.2.2: Remittances Inflow by Originating Country



Source: World Bank

Remittances to Nigeria are through formal and informal channels. The formal channels involve established financial institutions that are regulated by the CBN. The most common formal channels include commercial banks and International Money Transfer Operators (IMTOs) who partner with domestic banks for remittance payouts. The informal channels are characterised by their flexibility and lack of transparency, and it include mediums like hand-to-hand transfers, Hawala systems, and other unregulated channels.

Figure 6.2.3: Remittance Inflows to Nigeria by Source and Operator

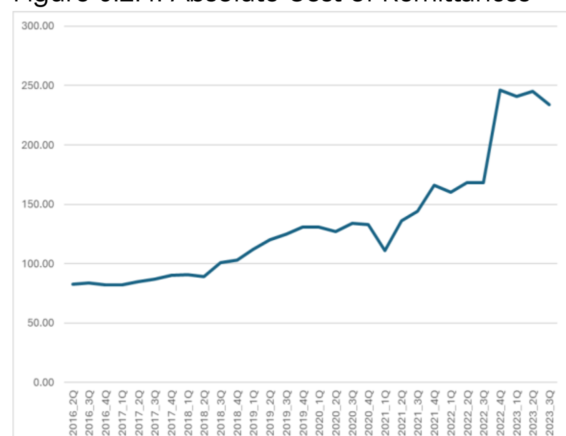


Source: Authors' compilation[10]

Figure 6.2.3 shows the state of remittance infrastructure in Africa, contrasting with the more advanced economies where reliance on International Money Transfer Operators (IMTOs) is predominant. This disparity in infrastructure is a key factor contributing to the higher transaction costs observed in African countries, primarily due to the prevalent reliance on banks for remittance services.

Unlike in advanced economies where IMTOs offer more competitive pricing structures, banks in Africa often impose higher flat rates for transactions, leading to increased costs for remitters. The reliance on banks may stem from infrastructure deficits, regulatory constraints, and a lack of competition in the remittance market, resulting in limited options for cost-effective transfer methods. Addressing these infrastructure challenges and fostering a more diverse and competitive remittance landscape in Africa could help alleviate the burden of high transaction costs and enhance the efficiency of cross-border fund transfers in the region.

Figure 6.2.4: Absolute Cost of Remittances

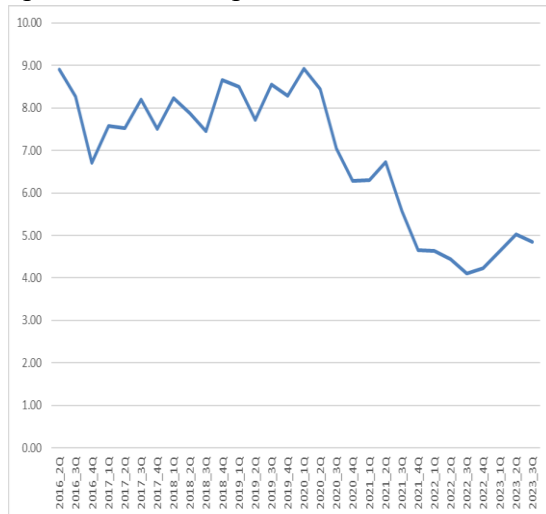


Source: Authors' compilation using data from World Bank

In absolute terms, the cost of remittance to Nigeria exhibited a consistent upward trajectory from 2016 to 2019. However, when examining average costs, a different trend emerges, particularly noticeable from 2020Q1 onwards, indicating that remittance costs from specific source countries were significantly higher compared to others.

[10] Remittance Prices Worldwide 2011-2023_Q3 dataset | Remittance Prices Worldwide (worldbank.org)

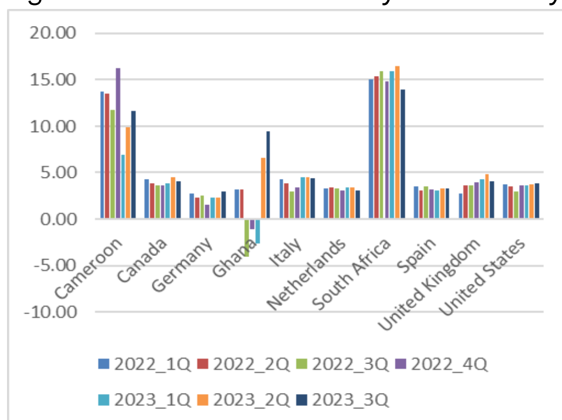
Figure 6.2.5: Average Cost of Remittances



Source: Authors' compilation using data from World Bank

To delve deeper into this disparity, we conducted an analysis of transaction costs based on remittance origin (Figure: 6.2.6). This examination provides valuable insights into the varying costs associated with remittances to Nigeria from different regions, shedding light on potential factors influencing these discrepancies and informing strategies to mitigate excessive remittance expenses for certain corridors.

Figure 6.2.6: Remittance Cost by Host Country

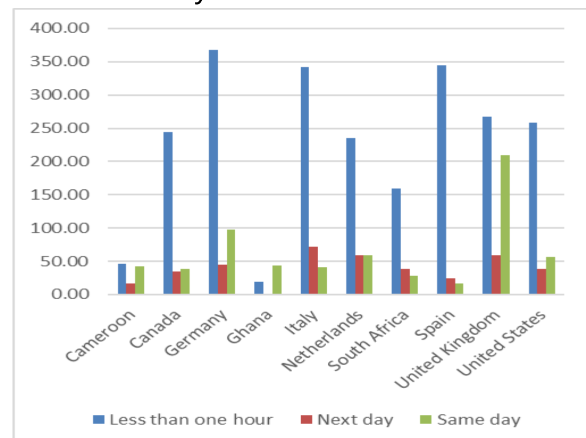


Source: Authors' compilation using data from World Bank

The analysis highlights significant disparities in remittance costs between various source countries, with notably higher costs observed for transfers from South Africa, Cameroon, and more recently Ghana, compared with Canada, the UK, USA, and the Netherlands. Interestingly, Germany emerges as offering the lowest remittance costs to Nigeria.

These findings underscore existing challenges with intra-Africa transfers, likely exacerbated by infrastructure deficiencies that hinder competition and contribute to overreliance on banking institutions, which often impose flat fees regardless of transaction volume. Addressing these infrastructure gaps and promoting competition within the intra-Africa remittance market could help alleviate the burden of high costs and enhance the efficiency of cross-border fund transfers within the continent.

Figure 6.2.7: Remittance Speed of Transmission by Source



Source: Authors' compilation using data from World Bank

In terms of the speed of concluding remittance transactions, inflows from advanced economies such as Spain, Germany, the UK, and the US are faster compared to intra-Africa transfers from countries like Cameroon, Ghana, and South Africa (Figure 6.2.7).

This variation in speed can be attributed to a variety of factors including differences

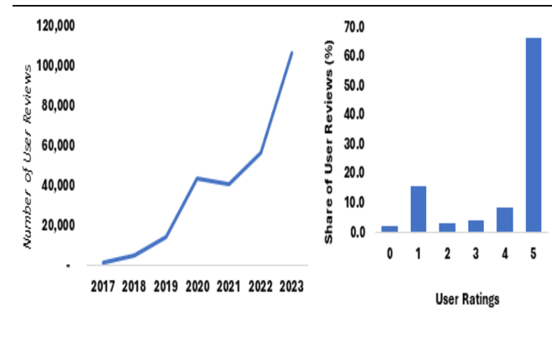
in infrastructure, regulatory frameworks, and the presence of established remittance corridors. Advanced economies often benefit from more robust financial systems and technological advancements, facilitating faster and more efficient transfer processes. In contrast, intra-Africa transfers may face challenges associated with infrastructure deficits, regulatory barriers, and limited competition among service providers, causing longer transaction times. Addressing these disparities and promoting improvements in intra-Africa remittance infrastructure could help to streamline transfer processes and enhance the speed and efficiency of remittance flows within the continent.

6.2.3 Analysing User Experience of Remittance Mobile Apps

The level of user satisfaction with services provided by remittance services provider is an important determinant of remittance inflows to Nigeria. 268,660 user reviews from 11 selected international mobile money remittance apps collected between 2017 and 2023, was analysed using text mining techniques to extract useful insights pertaining to user sentiments and emotions.

The utilisation of international mobile money remittance apps surged notably in the wake of the COVID-19 pandemic, with the number of user reviews rising from 5,197 in 2017 to 43,907 in 2020 and 106,534 in 2023, suggesting a heightened adoption of these apps for international remittances in Nigeria, particularly post-COVID-19.

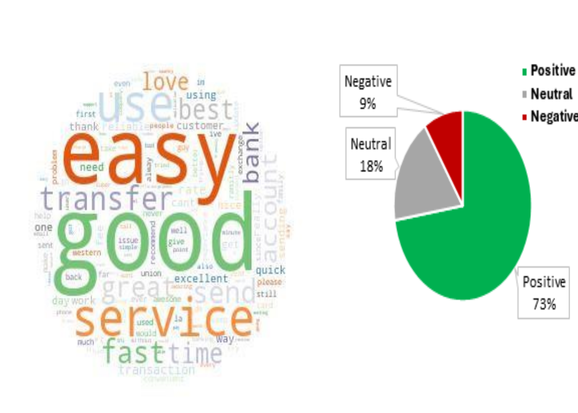
Figure 6.2.8: Trend in User Reviews and Ratings of Mobile Money Remittance App



Source: Authors' compilation

Most users expressed high satisfaction with selected international mobile money remittance apps, with approximately 66.0 per cent assigning a 5-star rating, while only 15.7 per cent assigned a 1-star rating, indicating a strong positive sentiment. Overall, around 75.0 per cent of users rated the apps 4-star or 5-star, reflecting widespread satisfaction with the user experience.

Figure 6.2.9: Word Cloud and Sentiment Analysis of User Reviews



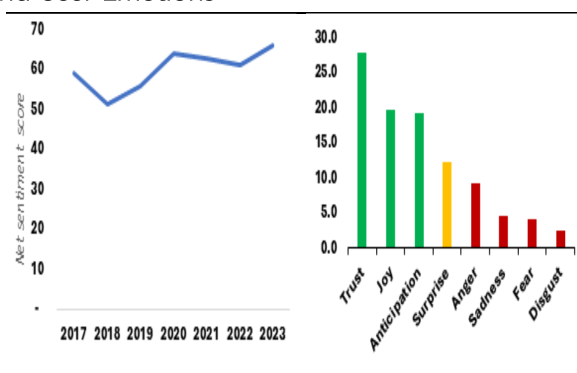
Source: Authors' compilation

Users of the selected international mobile money remittance apps commonly described their experiences as "good," "easy," and praised the "service," aligning with the anticipated benefits of

convenience and efficiency associated with using these apps for international remittance transactions.

Most respondents conveyed positive sentiments about their experience with international mobile money remittance apps, with approximately 73.0 per cent of words in user reviews expressing positivity, compared with only 9.0 per cent, expressing negativity, resulting in an overall net sentiment score of 64.0 per cent. However, there was a slight decline in user satisfaction during the COVID-19 pandemic, potentially attributed to the rapid increase in app users during that period.

Figure 6.2.10: Evolution of Net Sentiments and User Emotions



Source: Authors' compilation

Most users conveyed emotions of "trust," "joy," and "anticipation" when discussing their experience with international mobile money remittance apps, with "trust" being the predominant emotion at 27.9 per cent, followed by "joy" at 19.8 per cent and "anticipation" at 19.3 per cent. However, it's crucial for mobile money service providers to address issues related to "anger," "sadness," "fear," and "disgust" to ensure continued user satisfaction.

6.2.4 Drivers and Impact of Remittances in Nigeria

A confluence of factors has been identified in the literature to drive remittance inflow into Nigeria is influenced by various factors. Top among this, is the GDP of the host country (i.e., countries where Nigerians in diaspora reside), which reflects the economic opportunities available to migrants.

Also, Nigeria's own GDP plays a significant role in shaping the overall economic environment and potential investment prospects within the country. Moreover, the level of financial development in Nigeria, encompassing the accessibility and efficiency of banking systems and other financial services, impacts the ease and cost-effectiveness of remittance transfers. Exchange rate movements also affect remittances inflow, as changes in exchange rates can alter the value of remitted funds.

Interest rate differentials between Nigeria and countries where Nigerians reside can influence the attractiveness of remitting funds to Nigeria, with higher interest rates potentially incentivizing greater remittance flows. Understanding these multifaceted drivers is essential for policymakers and financial institutions seeking to facilitate and optimize the impact of remittances on the economy.

The study also showed that remittances promote domestic real GDP growth. In the short run, remittances have a positive and statistically significant impact on domestic real GDP albeit with some lags. Also, an increase in the current and lagged values of investment and government expenditure promotes economic growth in Nigeria.

6.2.5 Making Remittances work better for Nigeria

The findings of the study highlight key recommendations for optimising the impact of diaspora remittances on the Nigerian economy. In view of the findings above, the study offers the following recommendations for enhancing the impact of diaspora remittances on the Nigerian economy:

a. Remittance inflows to Nigeria tend to respond positively to worsening economic conditions in the country as Nigerians abroad send more resources home to support their families during crisis periods. Given the observed negative, but statistically insignificant, long-run impact of remittances on domestic real GDP, initiatives aimed at promoting steady inflows of remittances into the country should be prioritised. This could encompass measures to

    i. reduce the transaction costs associated with remittances, such as fees and exchange rate charges. This can be achieved through negotiation with financial institutions and payment service providers;

    ii. sustain financial inclusion efforts of the Bank as it would encourage the use of formal banking channels for remittance transfers. Developing and expanding banking services, especially in rural areas would make it easier for recipients to access and use remitted funds;

    iii. provide incentives for individuals and businesses to use formal channels for remittance transactions, such as tax breaks or other financial incentives for remittance service providers;

    iv. embrace technological advancements for enhancing the efficiency and security of remittance transactions, including exploring the use of blockchain and other innovative technologies to streamline the remittance process;

    v. enhance financial literacy to educate both senders and recipients about the benefits of using formal channels, the importance of saving, and making sound financial decisions; and

    vi. Build partnerships with remittance service providers, both domestic and international, to ensure the availability of secure and efficient channels for fund transfers.

b. It is also recommended that the international mobile money service providers pay more attention to user reviews and resolve legacy concerns that could lead to persistent negative sentiments from users. It is also

important that regulators continue to monitor user reviews with a view to promptly detecting emerging issues that could hurt proper market conduct and financial system stability.

References

Bakker, M. (2015). Discursive representations and policy mobility: How migrant remittances became a 'development tool'. Global Networks, 15(1):21–42.

Deodat E. Adenutsi and Christian R. K. Ahortor (2021). Macroeconomic Determinants of Remittance Flows to Sub-Saharan Africa. *AERC Research Paper 415 African Economic Research Consortium, Nairobi January 2021.*

Dilip R. (2009). Remittances in Development. *Finance & Development, December 2009, Volume 46, Number 4.*

Hector P, Jemma D, Tunc G, and Mounir B. (2019). The Impact of Remittances on Economic Activity: The Importance of Sectoral Linkages. IMF eLlibrary, Volume 2019: Issue 175. https://doi.org/10.5089/9781498324489.001

International Monetary Fund (2009). International transactions in remittances: guide for compilers and users.

Paola G. and Marta R. (2009). Remittances, financial development, and growth, Journal of Development Economics, Volume 90, Issue 1, 2009, https://doi.org/10.1016/j.jdeveco.2008.10.005

Sandra P. A., Pascal B, Olivier F, and Ulrike R, (2015). Remittances: How reliable are the data? Migration Policy Practice Vol. V, Number 2, April 2015–June 2015.

Soma R. S. (2020). The impact of remittances on economic growth in Bangladesh, India, Pakistan and Sri Lanka. *International Journal of Economic Policy Studies (2020) 14:275–295* https://doi.org/10.1007/s42495-020-00034-1. Asia-Pacific Financial Markets 1997 – 2023 Volumes 102 Issues

Uchenna E, Simplice A, Chinelo O, Vanessa T, Belmondo T. (2019). Remittances, finance and industrialisation in Africa, Journal of Multinational Financial Management, Volume 49. https://doi.org/10.1016/j.mulfin.2019.02.002

United States Government Accountability Office (GAO) (2016). Money Laundering Risks and Views on Enhanced Customer Verification and Recordkeeping Requirements. *GAO-16-65 Report to Congressional Requesters.*

World Bank Group (2022). Remittances Brave Global Headwinds. *Special Focus: Climate Migration, Migration and Development Brief 37 November 2022.*

Yoshino, N., F. Taghizadeh-Hesary, and M. Otsuka (2017). International Remittances and Poverty Reduction: Evidence from Asian Developing Countries. ADBI

Working Paper 759. Tokyo: Asian Development Bank Institute. Available: https://www.adb.org/publications/international-remittances-and-poverty-reduction.

6.3 An Assessment of Nigeria's Monetary Conditions[11]

6.3.1 Introduction

Ensuring monetary and price stability remains one of the core policy objectives of the CBN. The achievement of these key objectives has informed monetary policy decisions over the years. Usually, the Bank has the option of pursuing an expansionary monetary policy, if prevailing economic conditions support it or a tight monetary policy, if there is heightened inflationary pressure in the economy. In following any of such paths, it is of policy importance to understand the relationship between the monetary policy instruments and various macroeconomic outcomes. This is because monetary policy decisions typically transmit into changes in interest rates. The changes in interest rate, in turn, could impact consumption and saving choices of households, investment and borrowing decisions of firms, and ultimately, economic growth and inflation dynamics. In a flexible exchange rate environment, changes in the policy rate could also affect the value of the domestic currency vis-à-vis other currencies, thus, affecting the competitiveness of domestic exports, costs of imports (ultimately affecting net trade) and aggregate demand. Furthermore, movements in the exchange rate can impact domestic inflation via the consumption of imported goods.

It follows, therefore, that during periods of financial stress, changes in the monetary policy rate alone may not suffice to completely capture the interactions between the monetary system and the real economy. Understanding the interaction between the level of aggregate credit in the economy and exchange rate dynamics may covey additional information about the monetary conditions. This might explain the persistent inflationary pressures, despite the CBN's hawkish monetary policy stance, in the recent time. In 2023, the MPR was increased from 16.5 per cent in January to 18.75 per cent in July. However, despite the hiking of MPR, the inflationary pressure has persisted, as headline inflation increased to 28.9 per cent in December 2023 from 21.8 per cent in January. This has raised concerns among analysts on the effectiveness of the transmission mechanism of monetary policy in Nigeria, whether the monetary environment or condition is adequately assessed to ascertain the level of monetary policy intervention required to curtail inflationary pressure. A proper assessment is critical because, if the monetary condition is not adequately captured, the monetary authority may appreciate the necessary adjustments in the policy rate or money supply level required to stabilise economy. Thus, having, an index of monetary conditions to guide future monetary policy decisions in Nigeria is necessary.

Therefore, an indicator that enable a quick assessment of the current state of monetary conditions is critical for effective policy decisions, and it would be a key element for macro-prudential

[11] This paper was written by., Nwosu, C. P., Atoi, N. V., Akpan, U. & Odu, A.T. (Forthcoming in Economic and Financial Review, Volume 62, Number 3, September 2024 Edition). The views expressed in the paper are those of the authors and do not represent the official position of the Central Bank of Nigeria.

policymaking. The Monetary Conditions Index (MCI) has gained prominence as a useful indicator for assessing the overall health and tightness or otherwise of a country's monetary policy (Firdous et al., 2023; Qayyum, 2002; Siklar & Dogan, 2015; Tule et al., 2014; Yaaba, 2013). The index, which was pioneered by the Bank of Canada in the 1990s, has long attracted the interest of other central banks and international institutions across the world, and has become a critical input for effective policy decisions and a key element for macro-prudential policymaking.

We constructed a monetary conditions index (MCI) for Nigeria, to provide additional toolkit for informed monetary policy decisions towards the attainment of desired economic outcomes. The paper improves on previous efforts by Tule, et al (2014) and Yaaba (2013) by extending the data points to account for recent developments in the economy.

6.3.2 Data and Methodology

The variables considered in this study are real interest rate, real exchange rate, real credit to private sector, and real GDP, all sourced from the CBN database and spanning the period 2000Q1 to 2023Q3. The real interest rate was computed as the difference between the monetary policy rate (MPR) and the year-on-year inflation. The choice of MPR in the computation of the real interest rate in MCI analysis aligns with global standards because it provides a clear, stable, and direct signal of monetary policy. Thus, including the policy rate ensures the MCI accurately reflects the central bank's policy stance and allows for better international comparisons. The credit to private sector was divided by the headline consumer price index to compute the real credit to the private sector. The methodology employed was the principal component (PC) and the Freedman (1994) techniques. The former method involves constructing PCs from several financial variables, using variances of linear combinations of these variables, while the latter approach follows a weighted average procedure, depending on each variable's relative impact on aggregate demand. Two variants of MCI for Nigeria, namely the narrow and broad indicators, were constructed employing the two techniques. The narrow MCI accounts for only real interest rate and real exchange rate, while the broad MCI considers real interest rate, real exchange rate and real credit growth.

6.3.3 Results and Discussion

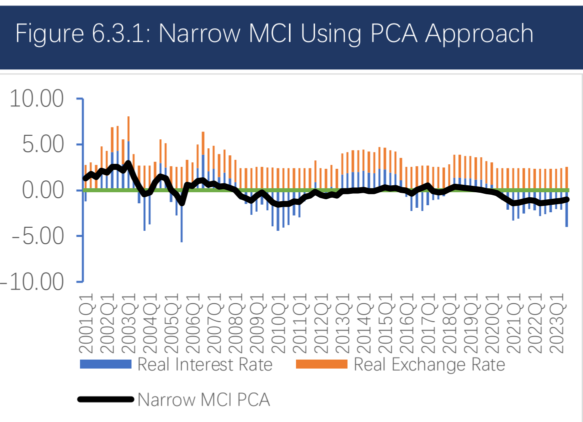
The overall result indicates a descent from a predominantly tight monetary conditions in the pre–Global Financial Crisis (GFC) of 2008 to a largely loose stance post-2008, except for the period 2016-2017. Policy reactions in the wake of the COVID-19 pandemic, partly explained Nigeria's loose monetary conditions during the period and part of 2023. However, the dynamics of Nigeria's MCI significantly trended towards a tight stance in 2023Q3, though remaining loose afterwards. The loose MCI justifies the need for further monetary policy tightening to curb rising inflation over the near term.

In particular, Figure 6.3.1 presents the narrow MCI, estimated using the PCA approach. 2012Q3 was selected as the

base period, because the real interest rate was relatively neutral at that point, compared to previous periods and the real exchange rate was relatively stable. Considering the values of the eigenvector loadings, increases in real interest rate imply tightening, while decreases signify loosening, contrary to the the real exchange rate. Consequently, values below zero (0) indicate loose monetary conditions relative to the base period.

Figure 6.3.1, which illustrates the movements of the MCI and the corresponding real interest rate and real exchange rate dynamics, reveals that, Nigeria's monetary conditions was tight during the periods 2001 – 2005, 2006-2008 and 2013-2020 and relatively loose during the periods 2009 – 2012 and 2020 - 2023. From 2020Q2, monetary conditions entered the most recent loosening regime when the real interest rate became more negative, and the exchange rate was relatively stable. Although the monetary policy rate was unchanged during that period; the heightening inflation marked the onset of the relatively looser monetary conditions. The conditions became less loose in 2022Q1 and 2023Q2 when the CBN began hiking policy rate.

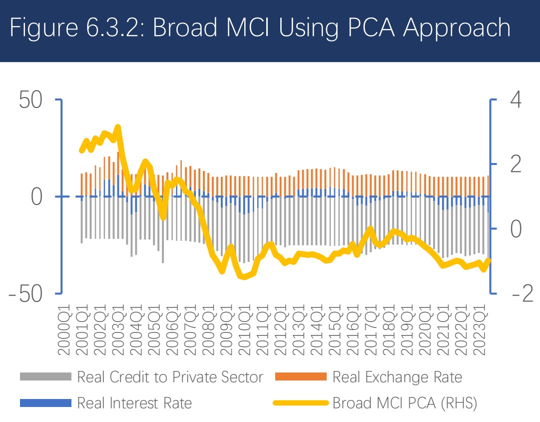
Figure 6.3.1: Narrow MCI Using PCA Approach



Source: Authors computation

Accounting for credit to the private sector in the construction of the MCI yields a broad MCI with a similar trajectory to the narrow MCI (Figure 6.3.2). However, the broad MCI indicates that monetary conditions in Nigeria post-2007, have largely been loose except for 2017Q1, when real credit growth declined, real exchange rate depreciated, and the real interest rate became less loose. Interestingly, monetary conditions began a loosening trend in 2020Q4 that was sustained until 2023Q2, when it troughed, before it started rising in 2023Q3, largely due to the policy rate hikes and a slowdown in credit expansion.

Figure 6.3.2: Broad MCI Using PCA Approach

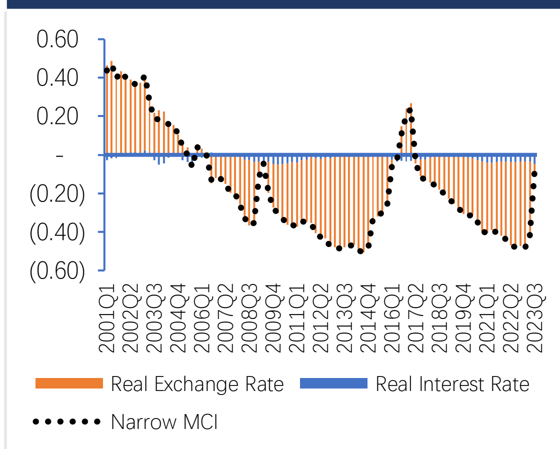


Source: Authors Computation

The trajectory of the narrow MCI constructed using the Freedman (1994) approach is similar to the trajectory of

both MCIs constructed using the principal components approach (Figure 6.3.3). The consistency of the techniques serves as a robustness check of our model results. The MCI reveals two major periods of tight monetary conditions (2001-2006 and 2016-2017), aside which conditions were largely loose. Using this approach, the MCI reveals that the most recent loosening regime began in 2017 and has been sustained till late 2022, driven, largely, by expansionary policy initiatives that accompanied the COVID-19 crisis recovery efforts. However, following the emergence of the COVID-19 crisis, the conditions became significantly less loose from 2023Q3. This change coincided with the policy rate hikes between 2023Q2 and 2023Q3.

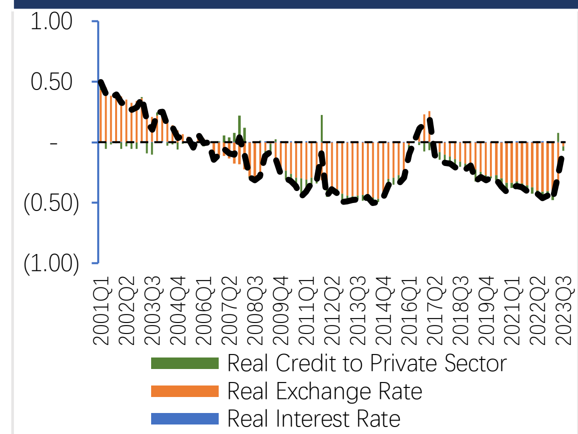
Figure 6.3.3: Narrow MCI Using FM Approach



Source: Authors Computation

Using the same Freedman approach, we found that the path of the broad MCI was similar to the narrow MCI, due to the significant weight of the real exchange rate in its composition (Figure 6.3.4). The broad MCI also features two major periods of tight monetary conditions (2001-2006 and 2016-2017), aside from which monetary conditions were largely loose. Monetary conditions remained loose in 2023 but started trending towards tightness in 2023Q3.

Figure 6.3.4: Broad MCI Using FM Approach

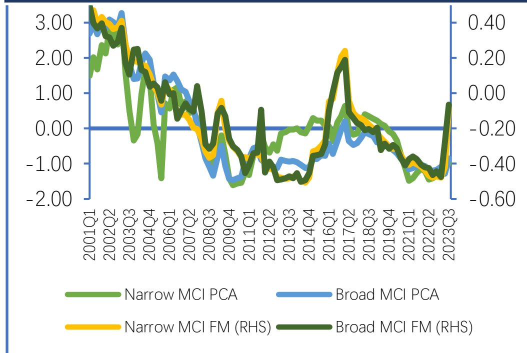


Source: Authors Computation

6.3.4 Comparison of the Indices

Figure 6.4.5 illustrates the four different MCIs constructed using the two approaches. The chart reveals significant co-movement across both approaches (PCA and Freedman (1994)) in the MCI components (narrow and broad). An overview of the indices indicates a descent from a predominantly tight stance in the pre-2008 period to a largely loose stance post-2008, except for the period 2016-2017. In 2023, the indices remained loose, however, the index significantly trended towards a tight stance in 2023Q3. The loose monetary condition index as at 2023Q3 provides an impetus for further monetary policy tightening to restrain persistent inflationary pressures.

Figure 6.3.5: Comparison of Monetary Conditions Indices



Source: Authors Computation

The correlations between the indices and inflation and real GDP growth suggest that the narrow MCI constructed using the PCA most closely mimics the movements in headline inflation (Table 6.3.1). In relation to Real GDP growth, although the correlations across the methods are similar, the broad MCI constructed using the PCA best mimics the variations in real GDP growth. Interestingly, over the 2015-2023 period, the MCIs constructed using the Freedman (1994) method outperformed the PCA-based MCIs.

Table 6.3.1: Correlation of Monetary Conditions Indices and Inflation and Real GDP Growth

	Inflation	Real GDP Growth
Full Sample		
Narrow MCI PCA	-0.33	0.39
Narrow MCI FM	0.20	0.39
Broad MCI FM	0.20	0.39
Broad MCI PCA	-0.01	0.53
2010-2023		
Narrow MCI PCA	-0.53	-0.36
Narrow MCI FM	0.27	-0.54
Broad MCI FM	0.34	-0.54
Broad MCI PCA	-0.11	-0.55
2015-2023		
Narrow MCI PCA	-0.67	-0.27
Narrow MCI FM	-0.04	-0.47
Broad MCI FM	0.08	-0.47
Broad MCI PCA	-0.41	-0.35

Source: Authors Computation

6.3.5 Outlook of Nigeria's Monetary Conditions

Nigeria faces challenging macroeconomic policy trade-offs in responding to the heightened risks posed by exchange rate depreciation and persistently high inflation. While weaker exchange rate has contributed in fueling domestic consumer prices in the short-term, it is expected that the critical policy reform would yield long-term economic gains in terms of macroeconomic stability and inflows of foreign investment. In responding to inflation spiral, which stood at 29.90 and 31.70 per cent in January and February 2024, respectively, the Central Bank of Nigeria has set out a renewed focus to anchor inflation expectations by prioritizing price stability as its core mandate. Hence, after keeping the policy rate unchanged at 18.75 per cent since July 2023, the Bank raised it by 400 basis points to 22.75 per cent in its February 2024 Monetary Policy Committee (MPC) Meeting.

Monetary condition in Nigeria is expected to remain tight in the medium-term, given the Bank's renewed focus to curtail rising inflationary pressure. As shown in Figure 6.3.6, it is projected that the MCI will become marginally tight in 2024Q1, largely due to expected hawkish policy stance by the Bank. This stance will likely include further policy rate hikes which is expected to reduce inflationary pressures, control monetary expansion, attract capital inflows, boost foreign exchange liquidity, and stabilise the exchange rate. Overall, these actions are projected to keep monetary conditions tight from 2024Q2 to 2024Q4, leading to

moderated inflation, positive real interest rates, and stable exchange rates.

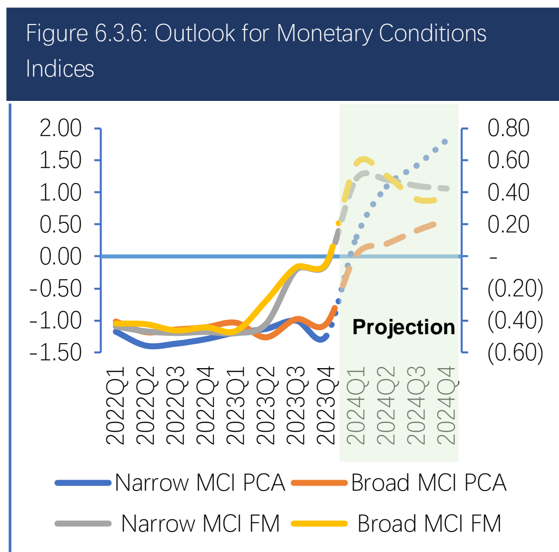


Figure 6.3.6: Outlook for Monetary Conditions Indices

Source: Authors' computation

6.3.6 Conclusion

We assessed Nigeria's monetary conditions over the period 2000Q1 – 2023Q3 by constructing monetary conditions indices (MCIs). Employing the principal components and Freedman (1994) approaches, both narrow and broad monetary conditions indices were computed. The narrow MCI accounted for only real interest rate and real exchange rate, while the broad MCI accounted for real interest rate, real exchange rate and real credit growth. The results indicate significant co-movement among the four MCIs constructed. Specifically, the indices reveal a descent from a predominantly tight stance in the pre-2008 period to a largely loose stance post-2008 except for the period 2016-2017. As at 2023Q3, all the indices remained loose, despite the hawkish monetary policy stance of the Bank. Correlations between the indices and inflation, and economic growth suggest that the narrow MCI constructed using the PCA most closely mirrors the trajectory of headline inflation. Regarding Real GDP growth, although the correlations across methods are similar, the broad MCI constructed using the PCA best mimics the variations in real GDP growth. Interestingly, over the 2015-2023 period, MCIs constructed using the Freedman (1994) method outperformed the PCA-based MCIs. The loose monetary condition index as at 2023Q3 thus provide a clear signal and impetus for further monetary policy tightening to restrain persistent inflationary pressures. Projections point to tight MCI over the medium term, on account of renewed focus to stabilise consumer prices.

References

Firdous, I., Mahmood, A., Rahman, M. A., & Faisal, F. (2023). Monetary Condition Index: Empirical Evidence from Pakistan. *iRASD Journal of Economics*, 5(2), 532–545. https://doi.org/10.52131/joe.2023.0502.0144

Freedman, C. (1994). The use of indicators and of the monetary conditions index in Canada. Frameworks for monetary stability: policy issues and country experiences, 458-476

Qayyum, A. (2002). Monetary Conditions Index: A Composite Measure of Monetary Policy in Pakistan. Pakistan Development Review, 41(4) Winter 2002, Available at SSRN: https://ssrn.com/abstract=967561

Siklar, I., & Dogan, B. (2015). Monetary Condition Index with Time Varying Weights: An Application to Turkish Data. *Business and Economic Research*, 5(1), 117.

https://doi.org/10.5296/ber.v5i1.7101

Tule, M. K., Isah, A. M., Okafor, P. N., Pedro, I., Ukeje, S. A., Oji, K., & Oladunni, S. (2014). Nigeria's Monetary Conditions Index. *CBN Economic and Financial Review* (Vol. 52). https://dc.cbn.gov.ng/efr/vol52/iss3/4

Yaaba, B. N. (2013). Monetary Policy Rule: A Broad Monetary Conditions Index for Nigeria. In *CBN Journal of Applied Statistics* (Vol. 4, Issue 1).