ECONOMIC PROGRESS ON A TIGHTROPE

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SUMMARY OF PRESENTER'S BIODATA

Ahmad Muhammad Tsauni was born at Tsauni Quarters, Nassarawa Local Government, Kano. He was enrolled in Kawo Unguwar-Gaya Primary School, Government Secondary School, Kawaji, and later Government Secondary School, Gwarzo. He attended the College of Arts, Science and Remedial Studies, Kano in 1993 and obtained his B.Sc., M.Sc., and Ph.D. from Bayero University, Kano in 1998, 2004, and 2009, respectively. Ahmad had consistently occupied the best position since GSS Gwarzo throughout his tertiary education.

Ahmad Tsauni began his working career as a teacher during his mandatory national service in 1998 at Army Day Secondary School, Nguru, Yobe State. Shortly after the commencement of the National Service, he was transferred to First Bank of Nigeria Plc, Nguru Branch, where he completed the service year. Immediately after the National Service in 1999, he joined Kano State Polytechnic as a part-time lecturer. Ahmad Tsauni served briefly as an Education Officer at Government Girls Arabic Secondary School, Danbatta in Kano from 2000 to 2001, Assistant Lecturer at CAS, Kano in 2001, and then worked with the School of Technology, Kano State Polytechnic in the General Studies Department from 2001 to 2004 before he joined the services of Bayero University, Kano on March 15th, 2004 as a Graduate Assistant. He attained the rank of Professor in October 2019.

In his academic profession, he has taught several courses as well as supervised numerous projects at the sub-degree, undergraduate, and postgraduate levels. Prof Tsauni has supervised and graduated over 10 doctoral students and many Masters students. He served as external examiner to Kaduna State University, University of Abuja (Center for Open and Distance Learning & Center for Sustainable Development), Federal University Dutse, Zamfara State University and Federal University Gashua. He assessed 9 Professors from 7 Universities and several Polytechnic/Collages of Education Chief Lecturers. He served as either an Editor-in-Chief or editorial board member of many journals, in Nigeria and abroad. Prof. Tsauni served as visiting lecturer to Umaru Musa Yar'Adua University, Katsina, Yobe State University, Al-Qalam University, Katsina, Northwest University, Kano (now Yusuf Maitama Sule University, Kano) and Sule Lamido University, Kafin-Hausa, Jigawa State. His research bias is on Development Economics. Other specialty areas are Energy Economics, Health Economics, and Industrial Economics. Prof Tsauni has published widely in academic journals, published/edited books, and attended many conferences, seminars, and workshops nationally and internationally.

He served as a resource person to, among others, the National Universities Commission (NUC), National Educational Research and Development Council (NERDC), North East Development Commission (NEDC), National Board for Technical Education (NBTE), the World Bank, the British Council, the EU, and the DFID, among others, and has participated in several community works. Prof Tsauni is a member of the Nigerian Economic Society and as a Development Economist has almost 17 years of development work experience. He has conducted numerous surveys and research activities for State and Federal governments, Development Partners, and Non-Governmental Organizations mostly as the lead researcher or in collaboration with other resource persons. His major areas of responsibility border on *appraisal studies, baseline studies, master plan development, needs/impact assessment, monitoring and evaluation, entrepreneurship promotion, skills ecosystem development, and policy analysis, among others.*

On administrative responsibilities, Prof Tsauni has served in numerous Departmental, Faculty, and University committees and functions. He has served in various capacities at the university:

- Level coordinator Undergraduate 2005, 2009 – 2014
- Examinations Officer 2005 – 2011
- Pioneer Coordinator Masters in Health Economics 2013 – 2014
- Sub-Dean, Faculty of Social and Management Sciences 2010 – 2014
- Head of Department, Department of Economics, Northwest University, Kano, (now Yusuf Maitama Sule University, Kano) 2014 – 2015
- Head of Department, Department of Economics, Bayero University, Kano 2016 – 2018
- Deputy Dean, Faculty of Social Sciences 2018 – 2020
- Dean, Faculty of Social Sciences 2020 – 2022
- Director, Bayero University Press 2022 - Date

Prof Tsauni has participated in numerous fora, committees, and functions at the Community, Local Government, State, and Federal levels.

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The Vice-Chancellor
The Registrar
Other Principal Officers of the University
Provosts, Deans and Directors
Heads of Departments and Units
Members of the Senate and Congregation
Members of the University Community
Family/Friends/Colleagues/Students
Other Esteemed Guests/Visitors/Invitees
Distinguished Ladies and Gentlemen, peace be upon you all

It is with a deep sense of humility and gratitude to the Almighty Allah that I stand before this eminent audience to deliver the 3rd inaugural lecture in the field of Economics, the 5th from the Faculty of Social Sciences/(the 1st in the Faculty of Economics and Management Sciences), the 6th under Professor Sagir Adamu Abbas as the Vice-Chancellor and the 51st in the Professorial Inaugural Lecture series of this revered University, the Bayero University, Kano. My Vice-Chancellor, I am hugely honoured for your kind approval and the pleasure to stand before my learned academics, mentors, colleagues and the notable audience to deliver this inaugural lecture titled: **"Economic Progress on a Tightrope**."

1. INTRODUCTION

We development economists, believed that economic growth is a major policy objective. The main reason for our belief is that enhancing economic growth is the most effective way to pull people out of poverty, inequality, miserable life and engender better well-being. In the economic literature, nothing has worked better than economic growth in enabling societies to improve the life chances of their members, including those at the very bottom (Rodrik, 2007). It is worth noting that, even small changes in the rate of growth, when sustained over long periods, make an enormous difference in the standard of living. The world's great economic success stories in the last few decades began in the 1970s with that group of nations sometimes known as the East Asian Tigers: Indonesia, Malaysia, Singapore, South Korea, and Thailand. The list sometimes includes Hong Kong and Taiwan. The economic growth of the tigers has been phenomenal, typically averaging 5.5% real per capita growth for several decades. In the 1980s, other countries began to show signs of convergence. China began growing rapidly, often at annual rates of 8% to 10% per year. India equally began growing rapidly first at rates of about 5.5% per year in the 1990s, but then higher still in the first decade of the 2000s and beyond.

Economic growth, when managed and distributed effectively, can have a wide range of positive impacts on society. But it is important to note that the extent and nature of these impacts can vary depending on the specific circumstances and policies in place. Thus, from all available evidence, it has the power to:

- reduce **poverty rate** as growth crowds in multifarious economic opportunities.
- create **jobs** as the increasing growth bolsters more formal and informal sector employment;
- drive **human development** as growth raises the **incomes of the poor** and thereby increases their ability to pay for activities and goods that improve their health and education;
- increase the country's **tax base** as growth makes it possible for the government to spend more on key public services of health and education;
- improve levels of income as growth enables consumers to consume more goods and services and enjoy **better standards of living**;
- lower government borrowing as growth creates higher **tax revenues** and reduces debt to GDP ratio;
- boost investment in **infrastructure** as growth encourages firms to invest in order to meet future demand and the high investment increases the scope of future economic growth – creating a vicious cycle of economic growth
- attract domestic and foreign **investment**, creating a cycle of further growth;
- increase **innovation and technological progress**. More firms' spending on R&D as growth boosts their confidence to take more risks and innovate;
- enable people to have **a greater choice** of lifestyles and preferences to work in the service sector, manufacturing, or other sectors;

- exert positive spillover effects on **social well-being** by promoting greater social mobility, reducing income inequality, and providing opportunities for marginalized groups;
- provide resources for investment in cleaner technologies and sustainable practices, which can mitigate environmental damage **(environmental concerns)**.
- enhance a **country's competitiveness** in the global market.

High levels of income (resulting from economic growth) reduce infant mortality, out of school children, poverty incidence and raise productivity, school enrolment and life expectancy (Tsauni & Mustapha, 2018; Bhalotra, 2006; DFID, 2005; Barro & Lee, 1997 and Barro & Sala-i-Martin, 1995).

In order for Nigeria to raise its growth rate capable of steering the country towards economic progress and development, it had had apt and superb plans (National Development Plans, Perspective Plans, Rolling Plans, Medium term strategies, and annual budgets). Although there is no doubt Nigeria has made some progress in socioeconomic terms in its journey, it is still faced with intricate economic predicaments of pervasive poverty, inequality, and deprivations, and thus, the level of progress attained has been far below the world average. It is, therefore, not an overstatement to say that all the anticipated impacts of sustained growth have not been reasonably achieved in Nigeria. Evidence has shown that human capital development remains weak (World Bank, 2018) due to under-investment (Tsauni, 2005a), high dependence on oil (Nwela, 2008), the inability to diversify the economy and infrastructure deficit (Tsauni, 2005b; NPC, 2014). The average growth rate of GDP at 0.7% between 2015 and 2020 and 2.51% in 2023 (World Development Indicators, 2021, 2024) indicates the fragility of the Nigerian economy which justifies its failure to reduce poverty and raise literacy rates and life expectancy. The composite measure of wellbeing – the human development indices – at 0.53 between 2015 and 2020 and 0.548 in 2022 (WDI, 2021, 2024) buttressed the poor economic standing of the country.

The foregoing submission has been my consistent area of research over 18 years, which is domiciled in Development Economics, justifying my choice of the title: "***Economic Progress on a Tightrope***". The objectives of this inaugural lecture, therefore are, mainly, to provide answers to the following questions:

i. Why has Nigeria been unable to use its potentials to attain high economic progress?

ii. Why have contemporary therapies failed to correct or prevent slothful economic progress in Nigeria?
iii. What are the pathways to eradicating the constraints in the way of Nigeria's economic progress?

Following this background, the rest of the lecture consists of the highlight of key concepts, analyses of why Nigeria's economic progress is on a tightrope, and the pathways to economic progress. The last section is my concluding remarks.

2. HIGHLIGHTS OF KEY CONCEPTS

The section underscores the theoretical standpoints of some important concepts and their perspectives (i.e. the conditions for their appropriateness and applicability or otherwise).

Economic Growth

A cursory look at growth is apt owing to its leading contributions to economic progress. Growth connotes the steady increase in aggregate output over time. Where does growth come from? Growth is an outcome of production attained by combining factors like labour and capital. How much output is produced given these inputs depends on the state of technology. Hence, growth comes from **capital accumulation** – an increase in the stock of capital and from **technological progress** – the improvement in the state of technology.

These two factors (capital accumulation and technological progress) play very different roles in the growth process:

i) **Capital accumulation** *by itself* cannot permanently sustain growth. Because of decreasing returns to capital, sustaining a steady increase in output will require larger and larger increases in capital. Decreasing returns to capital means that the property that increases in capital leads to smaller and smaller increases in output as the level of capital increases. At some stage, the economy will be unwilling or unable to save and invest enough to further increase capital. At that stage, output will stop growing as a diminishing return to capital sets in. In other words, how much a country saves is very important, because the saving rate determines the *level* of output, if not its growth rate.

ii) Sustained growth of output is ultimately due to **technological progress**. Given that the two factors that can lead to an increase in output are capital and technological progress, if capital accumulation cannot sustain growth forever, then technological progress must be the key to growth as the surest path to **economic progress**. Technological progress: leads to larger quantities of outputs, leads to better products, leads to new products, and leads to a larger variety of products. This is due mainly to the fact that technological progress enables economies to escape from the problem of diminishing returns to capital in the long run (Barro and Sala-i-Martin, 2004).

Thus, it is vital to note that in the long run, an economy that sustains a high rate of technological progress will eventually overtake all other economies. That is **economic progress**. Perhaps the most important question in the growth theory is what the determinants of technological progress are. Blanchard (2006) gave his perspective on the determinants: the role of fundamental and applied research, the role of patent laws, and the role of education and training.

Table 1: *Determinants of Economic Growth: Theoretical Evidence*

Source	Proponents	Remarks
Describes the economic progress in terms of **division of labour, limited land, and increasing population.** Key focus on free markets, competition, and the self-regulating nature of economies	Adam Smith, Thomas Malthus and David Ricardo **(The classical models)**	○ They have failed or have underestimated the contributions of the technical progress and market failure.
○ Emphasizes on class struggle, labour exploitation, and the dynamics of **capital accumulation**	Marx **(Marxian theory)**	○ Capital accumulation has diminishing returns tendencies
○ The emergence and maintenance of **innovation** as the main driver of economic progress ○ Innovations financed by bank credits	Schumpeter **(Schumpeterian theory of innovation and entrepreneurship)**	○ Innovation is not the main cause of economic progress ○ Separating innovative activity is difficult ○ Ignored the role of savings
○ Advocates the role of government intervention and aggregate demand in stabilizing economies ○ **Increase in aggregate demand**, government spending, taxation and interest rate ○ Keynesians have used new concepts related to growth, the multiplier, and the accelerator	John Maynard Keynes 1929-1933 **(Keynesian theory)**	○ Increasing budget deficit to raise spending through borrowing, which causes high-interest rates ○ The budget deficit, interest rates, and debt financing crowd out finance and

effects		investment ○ They also result in inflation and welfare change
○ Growth influenced by **savings and investment** ○ Increased savings leads to increased investment, higher capital stock, and then higher economic growth	Harrod and Domar **(Harrod-Domar Model 1930s&1940s)**	○ It only uses capital and savings as determinants ○ It ignores other factors like labour productivity and technological advances ○ It assumes the economy is operating at full employment ○ The constant marginal return on capital is not valid ○ Capital is immobile in the economy
○ Emphasizes the importance of investment and savings ○ Explains how **capital accumulation and technological change** affect the economy. ○ Explain differences in development between countries in terms of the efficiency of the combination of the input (human factors, capital, and new technologies) ○ The neoclassical assumptions state that markets are competitive and without state intervention, the optimal level of production and resource allocation is achieved	Robert Solow (and Swan), in the mid-50s **(Neoclassical growth model)**	○ Although more econometric models have been developed, technical progress and technology have been included in various forms, but it is considered exogenous ○ Deficiencies of the model were a result of the idea that exogenous factors determine long-term economic growth
○ Emerged and promoted the traditional neoclassical growth model. ○ Refutes the idea of exogenous factors determining long-term growth **(by endogenizing or internalizing the factors)** ○ Built on the idea that improvements in innovation, knowledge, and human capital lead to increased productivity and	Paul Romer, Robert Lucas, Arrow in the mid-80s (**New growth theory or endogenous growth theory**)	○ Relying on assumptions that cannot be assessed accurately ○ The difference between physical and human capital is not distinct. ○ The model disregards the role of organizations and

economic progress ○ Productivity depends on the progress of technological change, which relies on innovation and human capital; these factors are considered internal to an economy, not external. ○ Emphasizes the need for incentives and subsidies for businesses in the private sector and motivates businesses to invest in R&D to drive innovation ○ Leads to increasing returns to scale by investing in human capital through education, health, or training programmes to improve the quality of labour, which increases productivity ○ Proposes policies that could help entrepreneurs, which creates new businesses and new jobs ○ Invests in improving infrastructure and manufacturing processes to achieve innovation in production ○ Creates intellectual property rights, such as copyrights and patents, as incentives for businesses to expand their operations		places too much weight on human capital.
○ Influence of l**ocation, climate, and natural resource endowment** on economic performance ○ Access to a seaport or distance from major trading centers involves higher transaction costs and significant constraints on international trade and thus on prosperity.	Jeffrey Sachs **(Geography and economic development)**	○ Most developing countries fall victim to their geography being not conducive to modern economic growth, high population density, distance to the coast, and high disease burden.
○ Emphasizes **the role of institutions** in economic growth ○ The institutions are made up of formal rules, informal norms, and the enforcement characteristics of both ○ It is the admixture of rules, norms, and enforcement characteristics that determine economic	North, Thomas, Rosenberg, Birdzell **(Neoinstitutional economic theory)**	○ While the formal rules can be changed overnight, the informal norms change only gradually ○ Developing countries have lax laws, poor enforcement mechanisms, flawed

performance. ○ What motivates investors to mobilize resources, and inputs and to innovate are the rules (institutions) that govern market relations in a society and guide the player's efforts.		justice systems, and endemic corruption ○ Poor ease of doing business

Source: Compiled by the Author
Note: The Author is with Endogenous Growth and Neoinstitutional Economic Theorists

Development

The concept of development is relative, not absolute, and dynamic not static. It is relative because a particular action, activity or outcome may be considered development in one society, but not in another. It is dynamic because people's needs, aspirations, expectations, and realities change over time. Thus, different understandings have been given to the concept in the literature over time bearing in mind its 'relativity' and 'dynamism', (see Table 2).

Development therefore, consists of a process of raising the standard of living of the people (income and consumption, level of food, medical services, education, and other infrastructure); creating social, political, and economic systems and institutions that promote human dignity and respect and increasing freedom of choice of goods and services. Development is equally an innovative process leading to the structural transformation of the social system through the productive exploitation of environmental resources.

Table 2: *Development: A* ***Historical Perspective***

Year	Definition
1950s	○ Development entails the capacity of a nation to generate and sustain an annual increase in its Gross National Product of 5% or more. **GNP** is the market value of all final goods and services produced by country's citizens in a given period. While GNP= GDP+ net factor income from abroad, **GDP** is the market value of all final goods and services produced within a country in a given period.
1970s	○ Dethronement of GNP as the sole measure of development in the 1970s and increasing emphasis on **"redistribution from growth"** and on **"non-economic social indicators"**. ○ Economic development was then measured by the reduction or elimination of **poverty**, **inequality,** and **unemployment** within the context of a growing economy (Dudley Seers, 1969). ○ Denis Goulet (1971) posits 3 basic core values as a practical guideline for understanding development: i) Life-sustenance, ii) Self-esteem & iii) Freedom ○ Development requires: i) increasing the availability and distribution of basic goods, ii) raising levels of living & iii) expanding the range of social and economic choices available to individuals
1980s	○ Amartya Sen's "Capability" approach sees the economic metrics such as growth in GDP per capita as narrow. ○ By the "capability" approach, 'poverty' is understood as deprivation in the capability to live a good life, and 'development' is understood as capability expansion. ○ The ability of individuals and nations to convert available resources to improve their well-being is the measure of development. ○ Thus, development cannot focus only on income, but we also need to look at other factors impacting a person's capability to function.
1990s	○ Development is about **improvement in the quality of life (QOL)**. The improved QOL involves higher incomes, better education, higher standards of health and nutrition, less poverty, a cleaner environment, more equality of opportunities, greater individual freedom, and a richer cultural life (World Development Report, 1991) ○ **UNDP Human Development Index (HDI) -** Initiated in 1990 and undertaken by the Project in its annual series of HDIs. The HDI, as a measure of development is based on 3 goals: i) Longevity, ii) Knowledge iii) Standard of living ○ HDI= 1/3(Income index) +1/3(Life expectancy index) +1/3(education index). Thus, the countries involved are ranked into 3 groups: i. Low human development = 0.00 - 0.49 ii. Medium human development = 0.50 - 0.79 iii. High human development = 0.80-1.00
2000s	○ **Sustainable development**: this is a development that seeks to meet the needs and aspirations of the present generation without compromising the ability to meet those of the future. ✓ Millennium Development Goals **MDGs** (2000 – 2015) ✓ Sustainable Development Goals **SDGs** (2015 – 2030)

"Development is a multi-dimensional process involving changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty" (Todaro and Smith)

Source: Compiled by the author

Economic Progress

Economic progress refers to the advancement of a nation's economy, resulting in improved living standards, increased productivity, and sustainable growth. It involves both the **process** of implementing policies and reforms to drive development and the **outcome** of these efforts, measured through indicators like GDP growth, reduced poverty, and improved quality of life.

As a **process**, it involves continuous efforts in areas such as infrastructure development, technological advancements, investment in education, institutional reforms, and implementation of economic policies. This process is dynamic, reflecting a nation's journey toward higher productivity, enhanced living standards, and sustainable growth. For example, structural reforms, capacity building, and poverty reduction strategies are all part of the process of fostering economic progress.

As an **outcome**, it signifies the tangible achievements and milestones that reflect economic advancement. Outcomes like higher per capita income, reduced inequality, and improved social infrastructure are evidence of successful economic progress. Ultimately, economic progress signifies a society's journey toward greater prosperity and well-being. Thus, when a society produces high-valued goods and services, increases high-real income per capita, and raises the well-being of its people and quality of the culture, ***'it is said to have attained economic progress'.*** This working definition, therefore, is in line with the conceptualization of Solow (1968). Economic progress is also considered synonymous with long-run/sustained economic growth in the lecture.

How is Economic Progress Measured?

To begin with, the concept of progress is dynamic and multidimensional. Assessing progress requires tracking a select number of relevant indicators - either on their own or aggregated into a single one-dimensional index. The effectiveness of any measure of progress also depends on the availability and quality of data, which vary greatly between and within countries.

Economic progress is measured using a variety of indicators and metrics that assess the health, overall well-being, growth, performance and development of an economy. Thus, there have been numerous attempts to put forward a realistic measure of economic progress in the literature over the years. However, there is no consensus as to which of the measures has the greatest merit, since no measure will satisfy everyone, in part because all are imperfect. Below is a rundown of the available measures, indicators, and indices to gauge economic progress.

1. ***Gross Domestic Product (GDP):*** GDP is one of the most common and widely used measures of economic progress. It represents the total value of all goods and services produced within a country's borders over a specific period, usually a year. There are three approaches to measuring GDP: ***production*** (value-added by industries), ***expenditure*** (total spending on consumption, investment, government, and net exports), and ***income*** (total income earned by residents and businesses). These incomes include, among others, taxes paid to the government, corporate profits, and the compensation of employees.

   There is an ongoing debate among economists and policymakers whether efforts should concentrate on improving GDP as a measure, supplementing it, or replacing it altogether with more holistic measures of well-being. One of the arguments in favour of improving or supplementing GDP is that it is a well-established and widely recognized measure. Those who advocate replacing GDP altogether argue that GDP is a poor measure of welfare that distracts policy-making from focusing on what is important for people's well-being (Goossens, 2007).
2. **Measure of Economic Welfare (MEW)**

   The MEW attempts to capture direct consumption benefits - which, for instance, lead it to include imputed benefits of health care, education, and leisure and subtract negative externalities, such as the "disamenities" associated with urban life and work. Likewise, it excludes from the measure any expenditure that is imputed to be non-final consumption related. Criticisms of MEW include the arguments that corrections to the GDP are arbitrary, that the system provides little focus on welfare distribution, that health services are considered intermediate output and excluded from national output, and that wages are used as a reference in the monetization of leisure.

3. ***Human Development Index (HDI):*** The HDI is a composite index that considers various factors beyond economic output, including life expectancy, education, and per capita income. It is used to assess the overall well-being and development of a country. But, HDI is limited in terms of simplification of complex realities, inadequate focus on income distribution, focus on averages, education component limited to enrolment, health component ignores non-fatal health issues, cultural and environmental factors, lack of subjective well-being measures, changes over time, international comparability, and limited data availability and quality. Other drawbacks are its limited scope (e.g., it does not include ecological or political issues), its mixing of stock and flow variables (e.g., GDP per capita is a flow variable, while the level of education is a stock), and it does not capture inequality within its units of measurement, that is, within national economies (Bagolin, 2004).
4. ***Genuine Progress Indicator (GPI):*** The GPI adjusts personal consumption expenditures (which are counted in the GDP) by income distribution; it also subtracts from expenditures those associated with crime, social costs (such as expenditures arising from divorce), depreciation of environmental assets (e.g., stocks of fossil fuels) and even costs associated with indebtedness. It adds to GDP the values of time spent on household work, parenting, and volunteer work; the imputed benefit, beyond the cost of acquisition, of consumer goods (e.g., refrigerators) and services (e.g., highways).

   Although the method of monetization of factors, such as crime and divorce, are debated, the GPI, like the Index of Economic Well-being accounts for the intergeneration effect of growth based on debt and the depletion of natural assets. "While we have added to future generations' debt burden by failing to reinvest in business and borrowing from foreign countries, increased consumption has also depleted the legacy of natural assets that will be inherited by our children".
5. ***Multidimensional Poverty Index (MPI):*** The MPI seeks to indicate what share of the population is "poor", as measured by several indicators in the areas of health (child mortality and

nutrition), education (years of schooling and child enrolment), and standard of living (access to electricity, drinking water, sanitation, type flooring in dwellings, cooking fuel and the ownership of particular types and numbers of assets). This index is sensitive to the depth of deprivation faced by individuals. One of the main criticisms of the MPI is that it requires the selection of several indicators and the aggregation of these indicators into a unidimensional index. Both processes are subject to arbitrariness; there is no consensus on which dimensions of poverty one should consider or what weights each of these dimensions should be assigned to compile the composite index. Assigning weights is an exercise that requires ranking and comparing deprivations: how does the death of a child compare to not owning more than one radio?

6. ***Happy Planet Index (HPI):*** The HPI was compiled by the New Economics Foundation (NEF) and launched in 2006. It combines measures of life satisfaction and life expectancy with environmental efficiency (measured by ecological footprint). The main goal of this index is to compare how countries balance the attainment of well-being and the use of natural resources. According to NEF, the HPI for OECD countries was higher in 1961 than in 2005 despite an increase of 15 percent in the combined measure of life expectancy and life satisfaction during the 45 years. The drop in HPI was driven by the increase in the ecological footprints per capita of 72 percent during the same period. One of the greatest challenges of this index is that life satisfaction is a very subjective indicator that may not be easily affected by public policy (Goossens, 2007).
7. ***Index of Economic Well-being (IEWB):*** The IEWB was first designed by Osberg and Sharpe in 1998 and based on the earlier work of Osberg in 1985 (Osberg and Sharpe, 2001). The Centre for the Study of Living Standards has published it for Canada and other OECD countries since 1998. It comprises four components: per capita consumption flows (e.g., the consumption of market goods and services, per capita flows of household production, leisure, and other non-marketed goods and services); net accumulation of stocks of productive resources (e.g. tangible capital, housing stocks, consumer durables, environmental costs, the value of natural resources stocks, net change in the level of foreign indebtedness); income distribution (e.g. intensity of poverty [incidence and depth] and income inequality) and

economic insecurity (e.g. job loss, unemployment, illness and poverty in old age).

8. ***Quality of Life Index:*** The Quality-of-Life Index was developed by the Economist Intelligence Unit (EIU) and combines subjective and objective measures of life satisfaction. For 2005, it was calculated for 111 countries. The index is composed of measures of material well-being (GDP per person in PPP terms), health (life expectancy at birth), political stability and security (political stability and security ratings compiled by the EIU), family life (divorce rate), community life (measured by church attendance or trade union membership), climate and geography (latitude), job security (unemployment rate), political freedom (average of indices of political and civil liberties) and gender equality (ratio of average male and female earnings). In 2005, Ireland, Switzerland, and Norway topped the index, while Tanzania, Haiti, and Zimbabwe came in at the bottom (Economist Intelligence Unit, 2005).
9. **The EU Sustainable Development Indicators (SDIs)**
   The EU SDIs comprise more than 100 indicators capturing 10 dimensions of "development" that include socio-economic development, public health, and social inclusion. The SDIs, used to track the EU's Sustainable Development Strategy, are published every two years. The SDIs are a dashboard of indicators; they do not constitute an index and, therefore, do not offer an easy way to assess overall progress or make comparisons between countries.

Thus, measuring economic progress involves considering a combination of these indicators to provide a more comprehensive understanding of an economy's performance and its impact on the well-being of its citizens. It's important to note that economic progress should be evaluated in conjunction with social, environmental, and sustainability metrics to provide a more holistic view of a country's development.

3. NIGERIA'S ECONOMIC PROGRESS ON A TIGHTROPE

The benchmark for attaining economic progress has been a country's ability to produce high-valued goods and services, increase high-real income per capita, and raise the well-being of its people and the quality of its culture. While economic progress is being made in Nigeria, it is fragile and must be carefully managed, navigating the imbalances, to avoid setbacks or negative consequences, just like walking on a tightrope requires balance and precision to avoid falling.

This section starts by giving a brief situation analysis on the development standing of Nigeria and then addresses those questions as to *why has Nigeria been unable to use its potential to attain high economic progress* and *why have contemporary economic therapies failed to correct or prevent slothful economic progress in Nigeria.*

Potentials and Slothful Growth

The Economic Recovery and Growth Plan (2017) and PwC (2015) gave a superb description of Nigeria's economic situation. Nigeria has the potential to become a major player in the global economy through its human and natural resource endowments. The country has a young, productive, highly entrepreneurial, youthful, and growing working population (over 75% of the population is under the age of 35), a large consumer market, and a strategic geographic location. Since achieving accelerated growth and higher levels of average material welfare have been key in attaining economic progress, Nigeria has been making concerted efforts over the years by coming up with National Plans consisting of programmes, policies, schemes, and strategies aimed at sustaining growth and rising the living conditions of Nigerians (see Table 3).

Table 3: *Nigeria's plans for economic progress: a historical perspective*

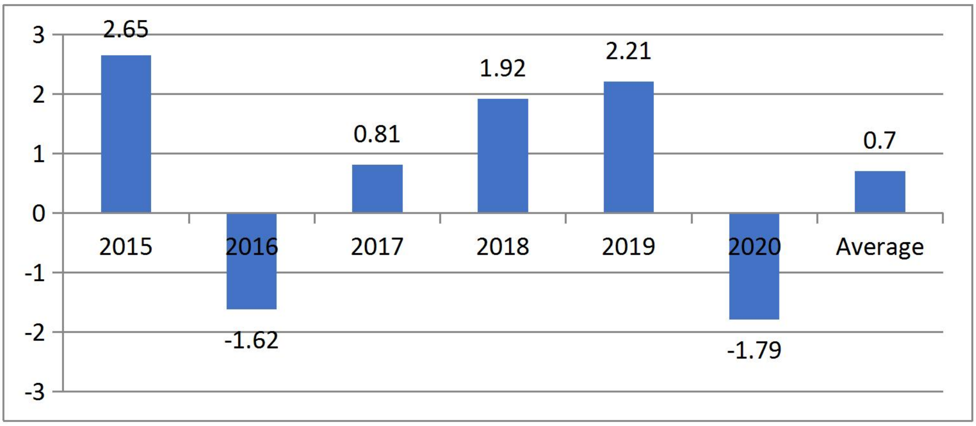
Plan	Duration	Goal/Focus
First National Development Plan	1962 – 1968	To steer agricultural, industrial, transport, and manpower development in order to achieve the highest possible level of living conditions.
Second National Development Plan	1970 -1974	To restore the economy from the ghastly effects of the civil war, guide the reconstruction of facilities as well as the rehabilitation and resettlement of the victims of the war, job creation, and the improvement of the quality and level of social life amongst other objectives.

Third National Development Plan	1975 – 1980	To increase the per capita income, ensure an even distribution of income, reduce the level of unemployment, and increase the supply of high-level manpower across the country, economic diversification, balancing development and indigenization of economic activities in the country
Fourth National Development Plan	1981 – 1985	To bolster industrial development, enhancement of international trade, power generation and supply, job creation, and an improvement in technological skills.
Structural Adjustment Programme (SAP)	1986 – 1989	Restructuring and diversifying the productive base of the economy to reduce dependence on the oil sector and imports; achieving fiscal and balance of payments viably over the period; laying the basis for sustainable non-inflationary growth, and reducing the dominance of unproductive investments in the public sector by improving public sector efficiency and enhancing the growth potential of the private sector.
Perspective and Rolling Plans	1986 – 1994	To reduce inflation and exchange rate instability, maintain infrastructure, achieve agricultural self-sufficiency, and reduce the burden of the SAP on the most vulnerable people
Vision 2010	1995 – 2010	To facilitate Nigeria to becoming a developed nation in terms of economic prosperity, political stability, and social harmony. Vision 2010 was to be achieved using multi-tier medium-term plans (annual budget and rolling plans) that are anchored on a fifteen-year perspective plan. Under this arrangement, the annual budget is to be linked with the rolling plan because the annual budget is the controlling plan which was to match resources with possible achievements. The rolling plan was to take into account new information, improve data, and analysis, and incorporate periodic revision into the 15-year planning machinery.
National Economic Empowerment and Development Strategy (NEEDS)	2004 - 2007	A medium-term economic development plan focused on wealth creation, employment generation, poverty reduction, and value re-orientation. The goal was to create an environment in which businesses can thrive, the

		government is redirected to providing basic services, and people are empowered to take advantage of the opportunities availed to them by the plan.
The Seven-Point Agenda	2007 - 2010	To tackle the problems of (i) Power and Energy; (ii) Food Security and Agriculture; (iii) Wealth Creation and Employment; (iv) Transport sector; (v) Land Reforms; (vi) Security; and (vii) Education. These are supposed to be running alongside the Nigerian version of the United Nations Millennium Development Goals (MDGs).
Transformation Agenda	2011 – 2015	A medium-term strategy to make Nigeria among the top 20 economies in terms of GDP size by 2020, job creation, poverty reduction, inclusive economic growth
Economic Recovery and Growth Plan	2015 – 2020	A medium-term strategy aimed at restoring economic growth while leveraging the ingenuity and resilience of the Nigerian people, eliminating the bottlenecks that impede innovation and market-based solutions, leveraging Science, Technology, and Innovation (STI), and building a knowledge-based economy. The ERGP is also consistent with the aspirations of the Sustainable Development Goals (SDGs) given that the initiatives address its three dimensions of economic, social, and environmental sustainability issues. Diversification and numerous packages for empowerment.
National Development Plan (NDP)	2021 - 2025	The plan is to (i) establish a strong foundation for a diversified economy, (ii) invest in critical physical, financial, digital, and innovative infrastructure, (iii) build a solid framework and enhance capabilities to strengthen security and ensure good governance, (iv) invest in the social infrastructure and services, (v) promote development opportunities across states to minimize regional economic and social disparities.
Renewed Hope	2023 - 2027	The 'Eight-Point Agenda' aimed to achieve (i) job creation, (ii) food security, (iii) poverty eradication, (iv) economic growth, (v) access to capital, (vi) a level-playing field, (vii) improving security, (viii) rule of law and fighting corruption.

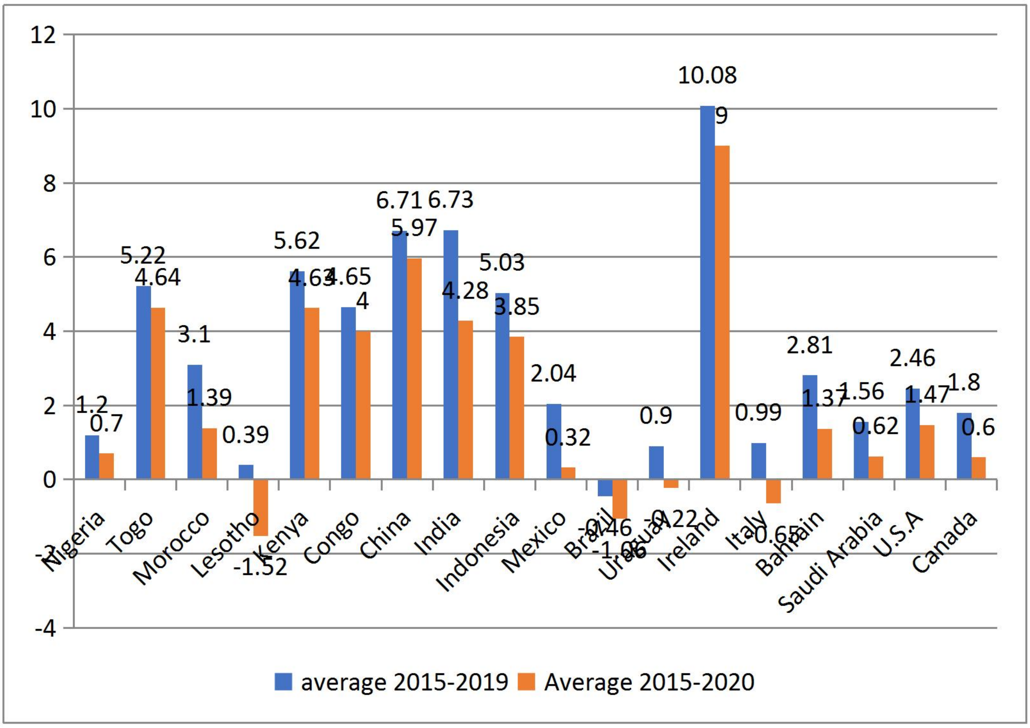
Source: Compiled by the Author

However, despite a series of suitably thought economic plans that could have placed it as one of the top economies in the world, Nigeria wallows in poverty, inequality, and economic deprivation. Nigeria has more people living in extreme poverty than any other country in the world. The potential has remained relatively untapped over the years. Nigeria's oil wealth was not used to develop a broader-based economy with better infrastructure and institutions (e.g., rule of law and political governance) to support long-term productivity growth.



Source: World Development Indicators, 2021
Fig 1: *Nigeria's GDP Growth Rate*

The key indicator of economic progress, growth (GDP per capita USD2,400.45, June 2020 and USD2,460.39, Dec 2023), is too low to lift the bottom half of the population out of poverty and raise human development indices like life expectancy at birth (in February 2021 it stood at 60.87 years – 59 years for males and 63 years for females - and 55.75 years in 2023), the infant mortality rate (as at 2021 is 57.7 deaths per 1000 live births, a 2.5% decline from 2020 and 54.74/1000 live births in 2023), the percentage of illiterate people in the total population (31% in 2023) and overall living standards. In fact, economic growth was found to be a poor determinant of education expenditure in Nigeria (Tsauni, 2007b). Moreover, the availability of physicians and dentists (per 100,000 population) is grossly inadequate and their quality of service is low due to several reasons.

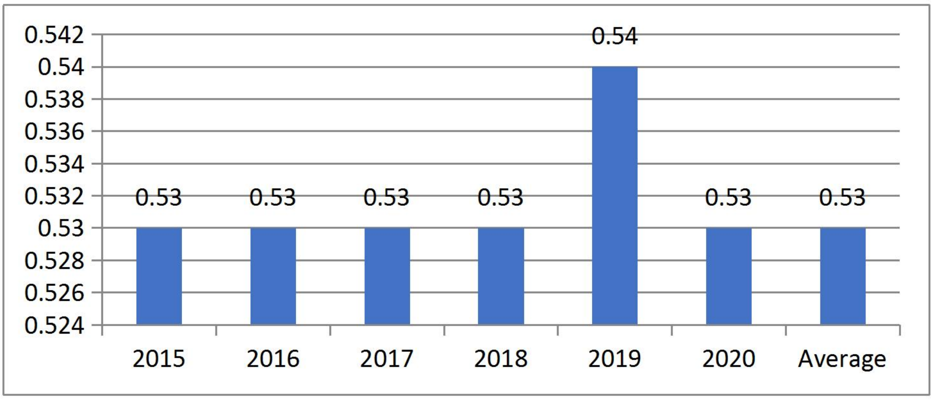


Source: World Development Indicators, 2021

Fig. 2: *Average GDP growth rate 2015–2019 & 2019-2020*

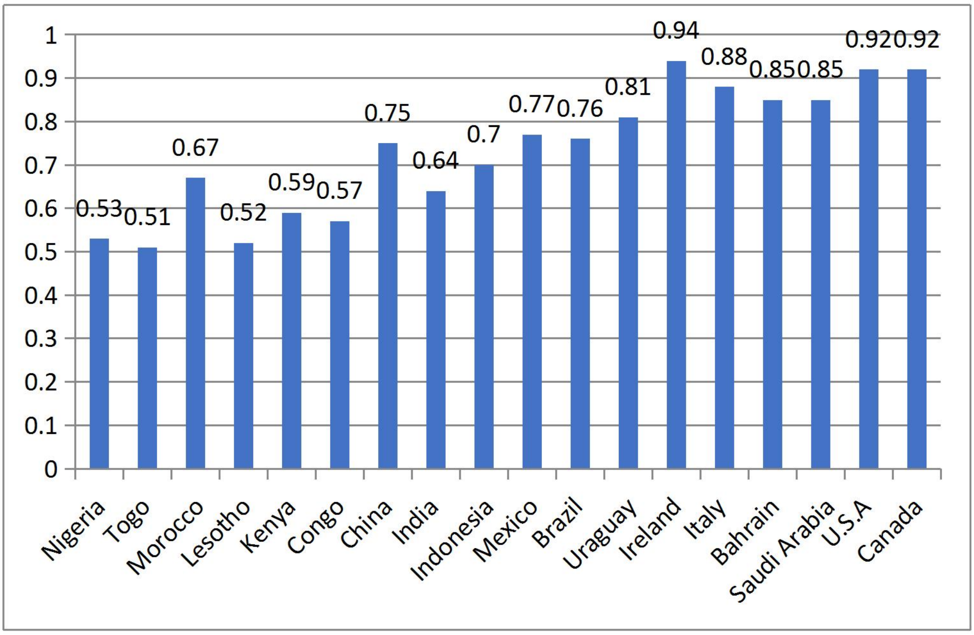
After a shift from agriculture to crude oil and gas in the late 1960s, Nigeria's growth has continued to be driven by consumption and high oil prices. Previous economic policies, deplorable infrastructure, corruption, and mismanagement of public finances left the country ill-prepared for the vulnerability in the crude oil prices and production as well as economic crises. The structure of the economy remains highly import-dependent, consumption-driven, and undiversified. Oil accounts for 95% of Nigeria's foreign exchange earnings, more than 75 percent of budgetary revenues and 50 percent of all government revenue while the manufacturing sector accounts for less than ten percent of total exports.

Industrial production averaged 0.64 percent from 2007 until 2019, reaching an all-time high of 20.10 percent in the first quarter of 2011 and a record low of -20.40 percent in the first quarter of 2016 (CBN, 2018; World Fact Book, 2018). Nigeria's annual real GDP growth rate, which averaged 7 percent from 2000 to 2014, mainly driven by higher oil prices, which were largely non-inclusive, fell to 2.7 percent in 2015 and -1.6 percent in 2016. The collapse of global oil prices during 2014 – 2016, combined with lower domestic oil production, led to a sudden slowdown in economic activity. Growth rebounded to 0.8 percent in 2017, 1.9 percent in 2018, 2.2 percent in 2019, and then -1.8 percent in 2020. It roused to 2.5 % in 2023 (NBS, 2024).



Source: World Development Indicators, 2021
Fig 3: *Nigeria's Human Development Indices*

The majority of Nigerians remain under the burden of poverty, inequality, and unemployment. It has been reported by the NDIC (Hassan, 2021) that 99.4% of bank accounts in Nigeria contain less than N500,000 and less than 5% of Nigerians own 90% of deposits, which shows the highest level of inequality. The National Bureau of Statistics figures in 2019/2020 showed that 40.1% of the country's 206.140 million population or 82.9 million Nigerians are living in poverty. The number of poor Nigerians exceeds the total population of South Africa, Namibia, Botswana, Lesotho, Mauritius, and Eswatini combined. Using the World Bank's income poverty threshold of \$3.20 per day, Nigeria's poverty rate was 71%. Compared to lower rates for some oil-producing developing countries like Brazil (9.1%), Mexico (6.5%), Ecuador (9.7%), and Iran (3.1%), this is heart-wrenchingly touching.



Source: UNDP report 2017, 2020, 2021
Fig 4: *Average Human Development Indices 2015-2020*

Why has Nigeria not attained High Economic Progress?

There are many contributing factors to the slothful growth in Nigeria. These factors are classified, based on the researches I have conducted over the years, into two viz: core factors and constraints.

Core Factors

The engine of economic progress (Samuelson and Nordhaus, 1989) must ride on four wheels, no matter how rich or poor the country is. The four central factors are:

i) Human resources (labour supply, education, discipline, motivation);
ii) Natural resources (land, minerals, fuels, climate);
iii) Capital formation (machines, factories, roads); and
iv) Technology (science, engineering, management, entrepreneurship).

i. Human Resources

Human resources imply the labour required in the production process. For economic progress, the growth process rests on the quality of workers – healthy and educated people become more productive workers when they can use capital more effectively, adopt new technologies, and learn from their mistakes. Most often, countries send the best brains abroad to bring back the newest advances in science, engineering, medicine, and management. The application of high-productivity techniques of production to local conditions almost always requires the management, production workers and engineering know-how found only in a literate and highly skilled workforce.

However, quality of labour input is among the most important barriers to economic progress in Nigeria with overarching challenges to the attainment of the goals of access and quality education.

a) In terms of access to education:
   i. Over 11 million children who are expected to be in school are not in school or are receiving poor schooling;
   ii. The country has the highest number of out-of-school children in sub-Saharan Africa, with an estimated figure of over 10,193,918 out-of-school children;
   iii. Science and technology-based education required for the rapid transformation of society is hampered by a bias for senior secondary education against technical and vocational education and skills development; and
   iv. At the tertiary level, access is even worse. Only 10% of applicants seeking admission into tertiary institutions are placed because of the low carrying capacity of these institutions and other impediments.
b) For standards and quality:
   i. Massive infrastructural decay and inadequate facilities have not only impeded access but also affected the delivery of quality education;
   ii. The education curriculum is yet to be reviewed to meet the needs for a technology-based and enterprise economy (Rasheed, 2018);
   iii. There is still a palpable teacher gap across all levels of education in terms of the quality and quantity of teachers;
   iv. Funding, above all, remains a big problem in the sector. The limited percentage of the federal government budget that goes to education and health and poor research funding, discourage the efforts of the accumulation of human capital (Tsauni, 2005a). That could be buttressed by the lingering and protracted strike actions by universities and other tertiary institutions; and
   v. Universities, despite their important role in the provision of a skilled population and efficient innovation system (Tsauni,

2021), cannot create a knowledge economy alone in the absence of government and industry (each stakeholder has to play its due role). Thus, the university-government-industry relationship is critically weak in Nigeria.

Investment in education and skills can be as important as investment in machinery and plants in delivering growth. Investment in this ‘human capital’ is especially appealing, as it directly leads to improved human development as well as helps to drive growth. The costs of this investment are both direct (for example, the cost of school equipment and books) and indirect (the opportunity costs of the wages lost from remaining in education). Amelioration of these, together with raising the return on education (the wages for skilled workers), is likely to increase educational investment.

A wide range of labour skills is needed to catalyze and sustain economic growth, including education at all levels from primary schools through to universities, and technical and vocational training as well as 'learning by doing'. Unfortunately, progress in overcoming the shortages of skilled and trained manpower in the world's poorest countries has been disappointingly slow.

Human resource is also hampered by poor health provisions. The health status indicators for Nigeria are among the worst in the world: life expectancy, child mortality and maternal mortality, access to primary health care, and high incidence of chronic and infectious diseases, despite considerable investment in the health sector over the years. Evidence has shown that health services throughout Nigeria are delivered through a weak health system characterized by the inequitable distribution of resources, decaying infrastructure, poor management, negative attitude of healthcare providers, weak referral systems, poor coverage of high-impact cost-effective interventions, the unavailability of essential drugs and other health commodities and lack of integration and poor supportive supervision.

ii. Natural Resources

Countries are differently endowed with natural resources. While some nations are poorly endowed naturally, others have bounties of resources. In Africa most often, countries like Nigeria have arable land and minerals. Farming arable land employs much of the labour force, unlike other minerals. Therefore, the productive use of land (with appropriate conservation, fertilizers, and tillage) will go a long way in increasing the poor nation's output. Moreover, land ownership patterns are key to providing farmers with strong incentives to invest in capital and technologies that will increase their land's yields. If farmers own the land, they will be willing to make improvements, invest in irrigation systems, and undertake appropriate conservation practices (Samuelson & Nordhaus, 1989; Tsauni, 2018a, 2019a).

Agriculture

The agricultural sector remains the largest employer, employing more than 36% of the labour force. However, it contributes to Nigeria's GDP with a weak share of 22% as of Q1 2020. More than 80% of Nigeria's farmers are smallholder farmers (with less than 2 ha under cropping and low per ha yield of crops) producing 90% of Nigeria's agricultural output. The sector was found to have less than 10% of irrigable land under irrigation, insufficient harnessing of Nigeria's surface and underground water, inadequate processing facilities and storage systems, and very little value addition of agricultural commodities via industrial processing.

Other features of the sector include: Nigeria's tractor density is at 0.27 hp/hectare, which is far below the FAO's recommended tractor density of 1.5 hp/hectare; Nigeria's trade deficit widened by N689.7 billion in 2019 compared to N549.3 billion in 2018; in four years 2016 – 2019, Nigeria's cumulative agricultural imports stood at N3.35 trillion, four times higher than the agricultural exports of N803 billion within the same period (PwC, 2020). That reflects low capacity in the diversification efforts over the years. There is a low prospect for the rural poor, high food inflation, and adverse impacts on the livelihoods of the urban poor. Moreover, the sector suffers high levels of post-harvest losses, high operative costs for agro-processors, poor implementation of government support, price variability and uncertainty, foreign competition, and food smuggling.

Water

There are abundant water resources in Nigeria to meet all needs if properly harnessed (estimated at 267.3 bm^3 of surface water and 52 bm^3 of groundwater). There are also more than 200 dams with a combined storage capacity of 34 bm^3 and the capability to irrigate 500,000 ha of land (currently just under 300,000 ha are equipped for irrigation out of 3.1 million ha of irrigable land). 19 dams have small hydro-power facilities, with a combined potential capacity to generate about 3,600MW of electricity (NPC, 2014). There are numerous ongoing new dam projects and irrigation projects with various completion levels across the country. The relevance of water to economic progress cannot be overemphasized.

The water resource is used for direct human consumption, agricultural irrigation, fisheries, hydro-power, industrial production, environmental protection, and industrial effluents, hence requires effective management.

Nigeria's water resources are not yet effectively utilized. National access to potable water is only 60% and to sanitation, it is only 31%. However, UNICEF with the National Bureau of Statistics undertook a Multiple Indicator Cluster Survey (MICS). This survey provides figures for water and sanitation. So, when it comes to water coverage, it was about two-thirds of the population, implying that over 57 million Nigerians lack access to safe water (UNICEF, 2018). Efforts, therefore, needed to be intensified to meet **Goal 6 of the United Nations Sustainable Development Goals (SDGs) in 2030 which strives to "ensure water and sanitation for all."**

Mining

Nigeria has, among others, deposits of coal, gold, columbite, tantalite, bitumen, iron ore, and uranium. Coal is found (mined) in Kogi, Nassarawa, Enugu, Gombe, Adamawa, Akwa Ibom, Bauchi, Cross River, and Benue States. Gold deposits are found (mined) in Northern Nigeria, most prominently near Maru, Anka, Malele, Tsohon Birnin, Gwari-Kwaga, Gurmana, Birnin Yauri and Okolom-Dogondaji. Columbite and tantalite are found (mined) in Nassarawa State near Jos Plateau, as well as in several areas in southeast Nigeria. Bitumen deposits are found in Lagos, Ogun, Ondo, and Edo states. Total reserves are expected to be over 13 billion barrels of oil. Uranium deposits are found in Cross River, Adamawa, Taraba, Plateau, Bauchi, and Kano States. Nigeria has several deposits of iron ore, but the purest deposits are in and around Itakpe in Kogi State (NPC, 2014).

However, mining and quarrying sector contributed 6.73% to the overall GDP in Q1, 2023, lower than the 7.89% recorded in Q1, 2022 (NBS, 2024). It is conducted at a very small scale and currently employs approximately 450,000 people directly and 2 million people indirectly. The sector thus has great potential for generating more employment opportunities and wealth creation. It was estimated that, given adequate funding, the sector is capable of generating employment opportunities for over 5 million people in the short term and that the industry could contribute 3-8% to GDP in the medium term. But it suffers neglect, dominance of informal miners and insecurity.

iii. Capital Formation

Growth requires investment in physical capital – the plants, machinery, raw materials, etc. are central to production. Restricted or expensive access to finance is a brake on such investment, particularly for mini, small and medium-sized enterprises and for the informal sector. Accumulating capital requires sacrifices of current consumption over many decades. In advanced economies, 10 to 20 percent of income may go into capital formation. Contrarily, poor countries are often able to save only 5 percent of their national income. Moreover, much of the low level of savings goes to providing the growing population with housing and simple tools. Little is left over for development. Such countries could not accumulate the needed railroads, electricity-generating plants, equipment, factories, and other capital goods that underpin a productive economic structure.

In many developing countries, the single most pressing problem is too little saving – urgent current consumption competes with investment for scarce resources. The result is often too little investment in the productive capital necessary for rapid economic progress. It must be emphasized that under-saving is not a universal syndrome. Many of the more successful middle-income countries – South Korea, Taiwan, Hong Kong, and Singapore – have succeeded in raising the share of their income devoted to investment to 20 or 30 percent. These are the countries that provide models to emulate.

Saving can come from foreign or domestic sources. Foreign sources can accrue to a country in varying forms – different private investments and aid are typical examples. These foreign resources (approximately described by economists as foreign savings) add to the total resources for use. Domestic saving similarly comes from different sources – individuals, corporations, and tiers of government. Where there are obstacles to finding domestic saving for capital formation, countries rely on foreign loans. All development economists saw foreign capital inflows as one answer to developing countries' low capacity to save.

However, in Nigeria, the insufficient level of national savings, high level of interest rates, gross consumption expenditure, external debt burden (see table 4), and the limited percentage of the federal government budget that goes to education and health, in particular, discourage the efforts of the accumulation of capital in the country (Tsauni, 2005a).

Table 4: *Nigeria's External Debt as of June 30, 2021*

S/N	CREDITOR	DEBT ($)
1	International Development Association (IDA)	11.62bn
2	Euro Bond	10.37bn
3	International Monetary Fund (IMF)	3.50bn
4	Exim Bank of China	3.48bn
5	African Development Fund	1.53bn
6	African Development Fund	952.8m
7	Agence Francaise Development	482.2m
8	IBRD (The World Bank)	410.7m
9	Diaspora Bond	300m
10	IFAD	226.7M
11	PROMISSORY NOTES	181.7M
12	Kriditanstalt Fur Wieder aufbua	181.7m
13	Japan International Coop Agency	74.8m
14	European Development Fund	50.5m
15	Exim Bank of India	34.6m
16	Islamic Development Bank	32.3m
17	Africa Growing Together Fund	46K
18	Arab Bank for Economic Development in Africa	5.88m
Total external debt, 2021		**33.47 bn**
Total external debt, Dec 2023		**42.5 bn**

Source: DMO, 2021; CEIC, 2024

Note that the creditors include: Multilateral, Bilateral, Commercial, and Promissory Notes

iv. Technology

Besides the key factors of production, natural resources, human resources, and capital formation, there is the vitally important fourth factor of technology, which is as one of the main drivers of long-term growth. It is undebatable that technology makes production processes more efficient, thereby increasing the competitiveness of countries and reducing their vulnerability to market fluctuations. Structural change, i.e., the transition from a labour-intensive to a technology-intensive economy, drives economic upgrading. Low-income countries thus acquire the necessary capabilities to catch up and reduce the gap with per capita incomes in high-income countries (Yong, 2016). Thus, developing countries may also have potential benefits by relying on the technological skills of more advanced nations. This happens via imitation. Countries send students abroad to learn Western technologies and that shows how nations can thrive by adapting foreign science and technology to local market conditions.

In the coming decades, radical innovations, such as the mobile internet, artificial intelligence (AI), the Internet of Thin, the cloud computing, and robotics, are likely to revolutionize production processes and enhance living standards, particularly in developing countries. Sustainable Development Goal 9 *Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation* adopted on 26 September 2015 implies that without technology and innovation, industrialization will not happen and without industrialization, development will not happen.

For technological progress to be realized, improvements in training, capacity-building efforts, upgrading technologies, and more support to R&D are eminent. More access to education at all levels, including technical and vocational, and its quality are appropriate. Building the capacities and capabilities of entrepreneurs, and motivating innovation and creativity are relevant also. Additionally, adapting or developing technologies and improving agricultural markets for seeds, fertilizer, and agricultural outputs will help to raise agricultural productivity, which then catalyzes growth, as well as have strong effects on job creation and poverty reduction.

Entrepreneurship and Innovation
Economic progress requires fostering an entrepreneurial spirit. Growth in entrepreneurship provides a significant basis for the adequate supply of goods and services, thereby improving the welfare of the people and enhancing economic progress. A group of owners or managers that are willing to undertake risks, open new plants, adopt new technologies confront labour strife, and import new ways of doing business are imperative for entrepreneurship. The owners or managers crucially require government interventions in terms of provision of utilities, setting up extension services, educating and training the workforce, establishing management/technical/vocational schools, building skills ecosystem, and maintaining a healthy respect for the role of private initiatives are crucial.

The brilliant performance of most Asian countries has been attributed to the continuous enhancement of entrepreneurship. The entrepreneurs do very well in the imitation and adaption of technologies as well as in making the advanced technologies work. However, such is not an easy recipe for development in Nigeria due to numerous cultural and economic barriers as well as poor absorptive capacity (i.e., political conditions, institutional changes, social attitudes, and the organization of the government). Advanced technology was developed to meet the special conditions of the advanced countries hence it was not 'a cap fits all'.

Thus, the necessary conditions like high wages, plentiful capital relative to labour and ample skilled engineers to absorb the advanced technologies are grossly lacking. The enterprise culture in semi-urban and rural areas is virtually absent as the people in semi-urban and rural areas were neither well informed about the imperativeness of entrepreneurship in the growth process nor assisted in removing the cultural and economic barriers (Tsauni, 2010a). Moreover, the informal sector, which constitutes the bulk of entrepreneurs, is overwhelmed by less educated and may not be able to achieve much due to inaccessibility to credit (Tsauni & Nura, 2010). Another study showed that productivity and wages do not have any long-run equilibrium suggesting that Nigeria's wage is productivity retarding (Tsauni & Aminu, 2010).

Also, corruption tends to provide no incentive for productive entrepreneurship rather increases the cost of doing business and creates unnecessary difficulties and frustrations for productive entrepreneurs (Tsauni & Garba, 2016). The cost of exporting 100 tons of cargo in Nigeria is $35,000 compared to $4,000 in Ghana. The leading ports for West Africa currently are in Cote d'Ivoire, Ghana, Togo, and the Benin Republic due to modernized management systems (Adesina, 2021). Nigeria's ability to achieve and sustain growth is dependent upon whether the benefits brought about by productive entrepreneurial activities outweigh the negative effects of non-productive entrepreneurial activities.

Constraints

Developing nations have common binding constraints against economic progress, but while surmounting the challenges, they differ. Countries have specific policy/therapy requirements, due mainly to their diverse histories, opportunities, and current growth conditions (Ndulu *et al*, 2007). Moreover, there is no 'one right answer' in terms of a policy that fits all low-income countries (Tsauni, 2014). Economic progress or otherwise depends on the ability of nations to address those most binding constraints. Thus, the ability of a country to fix those constraints determines whether economic progress exists or not. The constraints include:

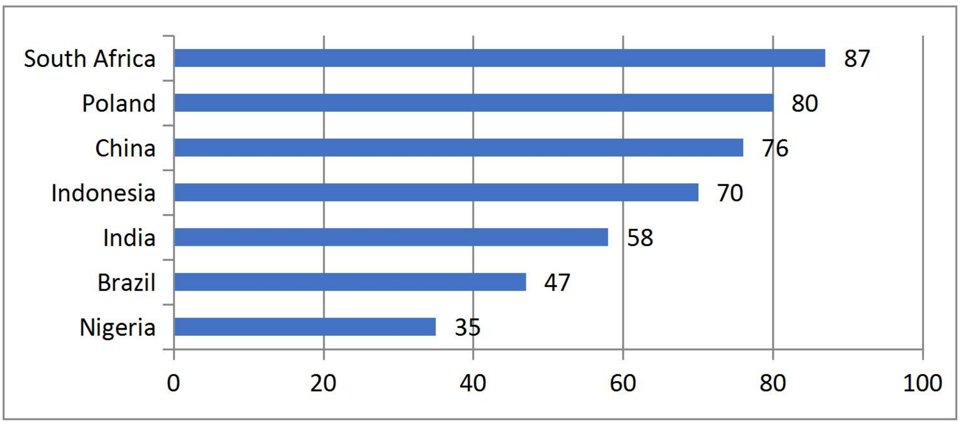
i) Infrastructure Deficit

Investors need good access to knowledge, inputs of capital, labour, raw materials, and markets. This requires transport infrastructure, as well as the provision of a regular supply of electricity and other utilities. In Africa, transport and energy make up the largest proportion of indirect costs for businesses, weighing heavily on the competitiveness of firms in most

African countries (Ndulu, 2007). The contributions of electricity generation, electricity consumption, water resources, and health and education have been so marginal, and inadequate and could not support manufacturing firms in Nigeria to significantly improve their productivity and compete favourably in the global economy (Tsauni, 2005b). In a related research, several constraints to industrial development in Kano State (Tsauni & Adamu, 2016) have been identified, ranging from infrastructural deficiencies to small home markets and insecurity. Hence, the available infrastructure in the country is not consistent with the performance requirements of manufacturing firms. In fact, Nigeria needs $1.5 billion a year for investment in infrastructure (Adesina, 2021).

Core Infrastructure Stock in Nigeria

Nigeria's infrastructure has long been a bottleneck for economic growth and the infrastructure is underdeveloped compared to that of other fast-growing emerging countries. In contrast to international benchmarks of 70%, Nigeria's core infrastructure stock is estimated at only 35% of GDP – the equivalent of less than USD 100 billion in 2012. This low value has been driven by historically low public and private spending on infrastructure.



Source: NPC, 2014

Fig. 5: *Total core infrastructure stock in Nigeria compared to other emerging economies*

Road density in Nigeria, for example, is only about a fifth that of India. The Nigerian population's access to sanitation and mobile telecommunications both compare unfavourably with Brazil and South Africa (mobile penetration is about half and access to sanitation is ~40% of these countries). Nigeria's 5 hospital beds per thousand people ratio is also lower than India's (at nine) and much lower than South Africa's 28 beds per a thousand people.

The energy sector comprises oil and gas as well as power sub-sectors. It is one of the most important sectors for Nigeria because of its multiplier effect across all the sectors of the economy, its contribution to government revenues, and its potential to spur significant economic growth. Nigeria has an abundance of most of the energy sources (fossil fuels, hydro, solar, tidal, geothermal, nuclear, and biomass) for power generation, which, if properly harnessed, can meet the country's energy needs and generate export revenue.

Evidence has shown that in Nigeria, over 60% of the people lack access to electricity in 2022 (Statista, 2024). Power demand will increase by over 90% between 2021 and 2050. About 95% of firms have their generators due to an unreliable power network. Electricity coverage ranges from 65% in urban areas to 28% in rural areas. Nearly 62 million people live without clean cooking facilities. Two-thirds of the population continues to burn biomass for fuel, which poses both health and environmental hazards and requires time-consuming foraging by women and children.

Digital infrastructure

Digital infrastructure comprises the physical resources that are necessary to enable the use of data, computerized devices, methods, systems, and processes. Examples of digital infrastructure include:

- Internet backbone, broadband
- Mobile telecoms and digital communication suites, including apps
- Data centres and networks
- Enterprise portals, platforms, systems and software
- Operational security, user identity, and data encryption
- APIs and integrations

Digital infrastructure has become indispensable to the functioning of society and the quality of life of its citizens. With digital infrastructure, Nigeria could develop a strong digital economy given its youth population, the largest in the World. The digital economy is the worldwide network of economic activities, commercial transactions, and professional interactions that are enabled by information communications and technologies (ICT). It is simply, an economy based on digital technologies.

In a digital economy, the financial technology (Fintech) industry plays a crucial role. Fintech has recently been recognized as the major driver of a modern economy. It is one of the fastest growing tech sectors, with companies innovating and automating their services in almost every area of finance; from payments and loans to credit scoring and stock trading, mobile banking and insurance to cryptocurrency. Fintech industries integrate technologies into traditional financial sectors to make them safer, faster, and more efficient.

The Fintech sector dominated start-up funding in 2020 with 44% while health tech (10%), entertainment (10%), off-grid energy (13%), and others (23%). Electronic payments are growing fast (105 trillion naira transferred electronically in 2019) and Nigerians have invested in savings and investment products to the tune of 1.5 trillion naira ($3.6 billion) in 2019. Nigerians are looking for where to invest their money. Furthermore, the industry has the potential to make access to banking services smoother and more convenient for the 36% of Nigerian adults who are financially excluded and boost other services. However, Nigeria needs 15 trillion naira in funding to bridge the digital infrastructure gap (ATCON, 2021) and realize all the potentials.

ii) Weak Institutions

Institutions are the rules of the game of a society or more formally are the humanly-devised constraints that structure human interaction. They are composed of formal rules (statute law, common law, regulations), informal constraints (conventions, norms of behaviour, and self-imposed codes of conduct), and the enforcement characteristics of both. Organizations are the players: groups of individuals bound by a common purpose to achieve objectives. They include political bodies (political parties, the executive, the legislature, a regulatory agency); economic bodies (firms, banks, trade unions, family farms, cooperatives); social bodies (religious organizations, clubs, athletic associations); and educational bodies (schools, colleges, vocational training centers) (North, 1992). What motivates investors to mobilize resources, and inputs and to innovate are the rules (institutions) that govern market relations in a society and guide the player's efforts.

No matter the appropriateness of an idea, a policy, or aid, the institutional context is perhaps the single most important factor in determining whether they would be successful or not. Institutions may be crudely seen as the framework in which markets operate: the basis of the rule of law and enforcement of property rights (Martins, Ummu & Tsauni, 2014). Countries with well-defined and enforceable property rights succeed. Incentives for investment in physical and human capital, the scope for technology transfer, and a whole host of other key conditions for growth depend on the institutional setting.

Hence, the slothful growth of the Nigerian economy, in particular, was attributed to weak institutions including inadequate legal systems, weak property rights protection, insufficient regulatory frameworks, poor transparency and accountability, exclusive economic policies that prioritize the narrow political or elite interests over public interest. These shortcomings hinder investment, growth, and economic progress. Thus, the endemic corruption that has become a way of life in Nigeria, often referred to as ***'business as usual'***, was attributed to mere absence of consequences or enforcements, thereby entrenching more poverty, inequality and slow growth.

iii) Flawed Rule of Law

With its diverse resources and energetic population, Nigeria has the best chance to succeed economically. However, the success is contingent upon the belief that all individuals, institutions, and entities are accountable to laws that are publicly promulgated, equally enforced, independently adjudicated, and consistent with international human rights principles. The rule of law as encapsulated in sections 1, 14, and 33-34 of the 1999 constitution (as amended) clearly provides for, among other things, the supremacy of the laws of the land, social justice, equity, equality before the law and protection of the fundamental human rights of the citizens, etc.

The law is a mechanism by which decisions are translated into action. An economic plan has to be translated into budgets and economic policy decisions, all of which involve a legal framework and legal procedures, including administrative directives derived from and delegated by law. The business environment needs to have safeguards from the law, which ensures due returns to investments. The logic, simplicity, and workability of the legal procedures crucially affect the success of the policies whose execution has been decided upon. Thus, the political and economic future of a country depends on the ability to adhere to the legal processes (Proehl, 1965).

However, the inability of the Nigerian government to uphold the rule of law threatens the potential returns of businesses and makes investment unattractive and thus damages the country's prospects for growth. The rule of law in Nigeria is overly flawed and hence the government could not impose the necessary restrictions for destructive entrepreneurship. In some instances, state resources are used in promoting the destructive entrepreneurs fuelled by corrupt practices of public officials and vested interests thereby increasing the cost of doing business and frustrating productive entrepreneurship (Tsauni & Garba, 2016).

iv) Macroeconomic Instability

Macroeconomic stability is necessary for any successful effort to increase private sector development and economic growth. Hence, growth, investment, and productivity are positively correlated with macroeconomic stability (Easterly and Kraay, 1999). Macroeconomic stability exists when key economic relationships are in balance, for example, between domestic demand and output, the balance of payments, fiscal revenues and expenditure, and savings and investment. So, when there is low volatility in key indicators such as prices, jobs, economic growth, interest rates, investment, and trade, macroeconomic stability occurs. The stability is measured by some variables: (i) low and stable inflation (ii) low long-term interest rates (iii) low national debt relative to GDP (iv) low deficits and (v) currency stability. A stable macroeconomic environment includes a monetary policy that delivers low and stable inflation, effective management of government tax and spending to deliver public services, and an exchange rate regime that is not excessively distorted or volatile.

Investors make decisions based on the rate of return they expect to receive and the riskiness of the investment project - the higher the risk, the higher the required rate of return. A stable macroeconomic environment is crucial to reducing the risks associated with investment. Thus, instability in the macroeconomy and a low-functioning financial sector increase the risks associated with investment and decrease investible funds. Analyzing capital formation vis-à-vis the macroeconomic environment in Nigeria, unequal distribution of income, high rates of inflation and interest, poor financial framework, and government policies were found to be responsible for low gross national savings leading to low investible funds (Tsauni, 2005a).

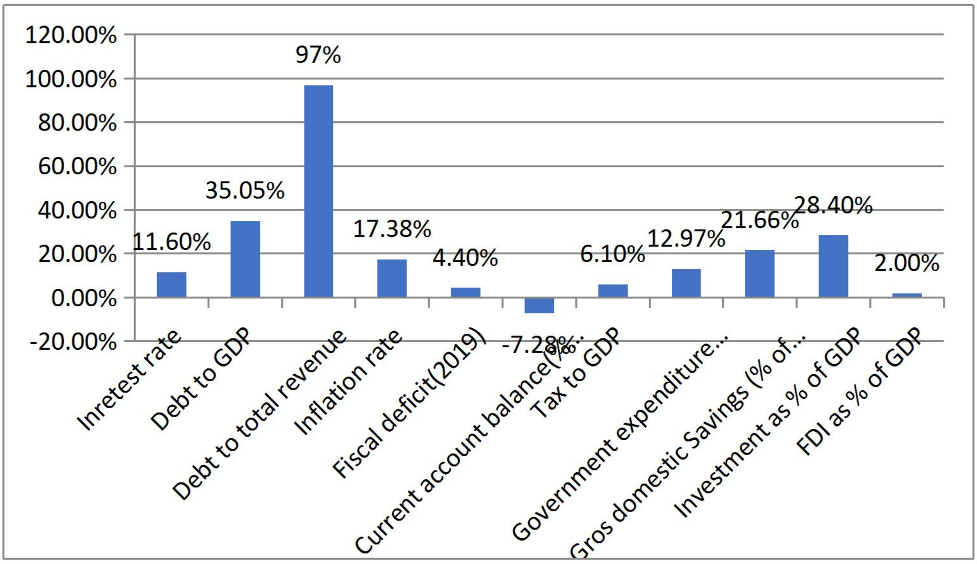


Fig. 6: Macroeconomic variables

Studies have revealed that the macroeconomic policies employed over the years have recorded marginal success because the policies were mere copy and paste (Tsauni, 2012). They were not tailored to Nigeria's circumstances and needs, rather they follow universal blueprint approaches.

v) Knowledge Gap

Knowledge is an enabler as it helps economies to be more efficient, dynamic, and innovative. It has been emphasized as a crucial determinant of innovative capacity, competitiveness, and economic progress. Policymakers have conceded to the fact that innovative capacity is the main driver of economic progress. Thus, growth would often be steadily marginal, or even negative, without the support of knowledge in the short run, and in the long run, it will be the only key determinant of sustainable economic growth (Solow, 1957; Lucas, 1988).

A deficiency of knowledge is a more pervasive handicap to development than is the scarcity of any other factor. Knowledge, however, is a global public good (Stiglitz, 1999) and contact with more advanced economies provides an expeditious way of overcoming this deficiency. The importation of technical know-how and skills is an indispensable source of technical progress and the importation of ideas in general is a potent stimulus to development - vital not only for economic change but also for political and sociocultural advances that may be necessary preconditions of economic progress. By providing the opportunity to learn from the achievements and failures of the more advanced economies, and by facilitating selective borrowing and adaptation, foreign trade can help considerably in accelerating a country's development.

Knowledge gap as a constraint to economic progress in Nigeria is in two major areas: one is barriers to the flow of knowledge due to poor absorptive capacity (i.e., poor political conditions, weak institutional changes, flawed social attitudes, and the defective organization of the government) and the other issue is underinvestment in knowledge with less than 10% education budget and human development indices at 0.53.

vi) Compromised Political Economy

Political economy seeks to understand how political institutions, policies, and processes influence economic outcomes, and vice versa. It involves the use of state power to make decisions about who gets what, when, how, and why in the distribution of public goods and values. Where the political and economic systems within a society are functional, efficient resource allocation, social justices, or economic stability would be the outcome.

However, a "compromised political economy" refers to a situation where the economic policies and practices of a country or region are influenced or controlled by political interests, often to the detriment of the overall economy or certain sectors within it. In such a scenario, political considerations take precedence over economic principles or the welfare of the population.

A compromised political economy is characterized with:

i) corruption, where political leaders, influential figures, individuals or institutions prioritize personal gain or the interests of certain groups over the welfare of society as a whole. This leads to inefficient allocation of resources, undermines the rule of law and distorts economic decision-making.

ii) rent-seeking, where powerful individuals or groups may seek to extract economic rents by influencing government policies and regulations in their favour or by capturing government subsidies, rather than through productive economic activities. This often leads to economic inefficiency and inequality, monopolistic practices and stifles competition.

iii) Clientelism, where politicians may use public resources or economic benefits to reward their supporters, often at the expense of broader economic development. This can create dependency relationships and perpetuate inequalities within society.

iv) policy capture, where special interest groups, such as corporations or wealthy individuals, may exert undue influence on policymakers to shape economic policies in their favour. This can result in policies that prioritize short-term gains for a few at the expense of long-term economic stability and equity.

v) state capture, where in extreme cases, certain powerful entities may effectively control the state apparatus, using it to advance their economic interests and suppress dissent. This undermines democratic principles and leads to widespread abuse of power.

vi) lack of accountability, where economies often lack mechanisms for holding political leaders and institutions accountable for their actions. Without accountability, there may be little incentive for policymakers to pursue policies that promote economic efficiency, equity, or long-term prosperity.

Nigeria is a mixed economy, where the private ownership of property and the means of production, create conditions under which the concentration of wealth and economic powers are likely to thrive. The country has scarcity of private entrepreneurs with both organizing ability and financial resources. Often, even when the number of entrepreneurs is more numerous, the poor doing business indicators and the systemic corruption favours, as well as find the bigger and established firms more efficient and, therefore, regard them as better candidates. Typically, therefore, a few top businesses develop extensive industrial, financial, and trading interests.

The topmost business complexes have amassed capital investments, which are not merely immense in relation to national wealth but also extensive in their range. This situation leads to, in the first place, monopolistic practices, which may be economically inefficient – a result that must be weighed against the advantages of more efficient organization and management, which these top businesses may offer. More importantly, these large complexes develop considerable political influence in their favour against the public interest. After a certain stage, it becomes impossible to reverse the political situation by evolutionary or reform methods as governments become dependent on party finance on economic giants and impervious to any genuine control of the concentration of wealth and economic power (Bhagwati, 1967). (See Nweala, Fighting corruption is dangerous in Nigeria).

The close link that develops between vested interests and governments is worrying not merely in itself but because it threatens eventually to stand in the way of economic progress. The growing concentration of wealth and influence, for example, shields the wealthier classes from heavy taxation and complying with some government policies/regulations they may consider as barriers. This in turn prevents governments from taxing other, not-so-affluent groups. Thus, they find it difficult to enforce the implementation of some policies. The whole tax effort and implementation of certain policies thus get compromised. This explains the low tax-to-GDP ratio at 6.1% and the high debt service-to-revenue ratio at 73% in Nigeria.

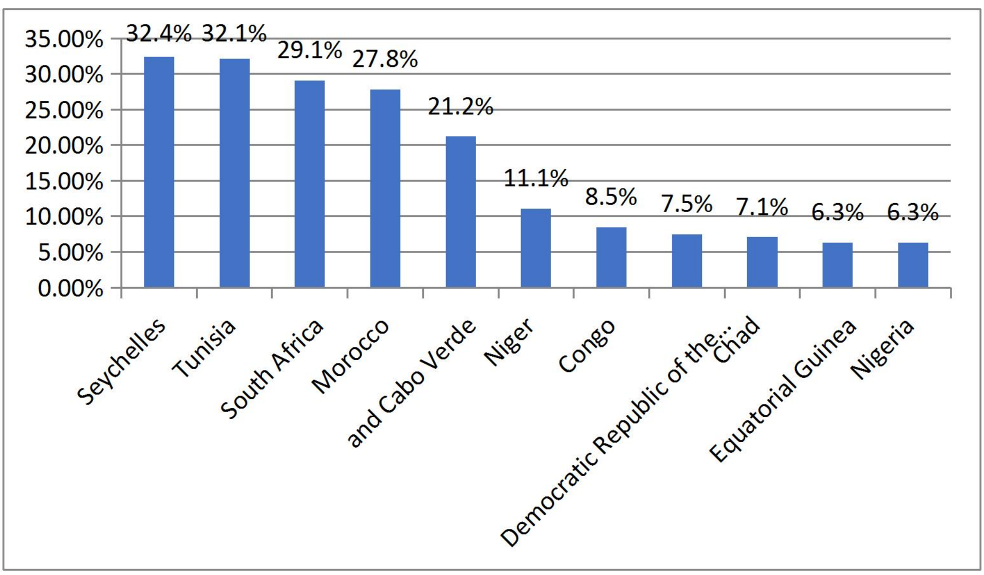


Fig. 7: Tax to GDP ratio for the top 5 and least 5 African countries in 2018

The tax to GDP ratio measures a country's tax revenue, relative to the size of its economy (measured by its GDP). A higher tax-to-GDP ratio means more money is going to government coffers, and in theory, public services like education and infrastructure. The total tax collected in 2020 is about N8,883.5 billion. As a percentage of GDP, Nigeria's taxes represent 6.1% in 2020 and 9.4% in 2023 one of the lowest in the World (IMF, 2024). In 2018 the top 5 African countries in tax to GDP ratio were: Seychelles (32.4%), Tunisia (32.1%), South Africa (29.1%), Morocco (27.8%), and Cabo Verde (21.2%). The least 5 African countries are Niger (11.1%), Congo (8.5%), Democratic Republic of the Congo (7.5%), Chad (7.1%), Equatorial Guinea (6.3%) and Nigeria (6.3%). According to the data from the OECD (a group of some of the most developed countries in the World), their average tax-to-GDP ratio is about 34.3%. The Latin American Countries average was (23.1%) and Africa average was (16.5%). France, one of the OECD countries has a tax to GDP ratio of over 46%.

To corroborate the link between vested interests and governance further, which is responsible for the inability of the country to harness its potentials, Professor Patrick Wilmot has made concise clarifications.

> *Nigeria had the possibility of becoming a great country, which could transform the whole of Africa. It has the resources, human and material. Nigeria has some of the cleverest people in the world. Nigerians are occupying credible positions in business, computer firms, science, and industry all over the world. If Nigerians are so good outside, why are they so bad at home? Is it the effect of colonialism? As has been submitted by General Murtala at the OAU summit decades ago, the fortunes of Africa are in their hands to make or to mar. However, the leadership in Nigeria, except for General Murtala Muhammed, was without ambition, it was without intelligence, it was without competence, it was without integrity. People were not going into government to transform the Nigerian economy or to benefit the ordinary Nigerians. They were in government for one purpose only; to control power and to use that power to steal. They take the money outside Nigeria and put it into banks and institutions. This is opposed to every other nation in the history of the world. In a normal nation, corrupt, powerful brutal leaders go out and plunder other countries and bring it back into their own country. African leaders do the opposite".*

vii) Rent-Seeking Behaviour

Rent seeking behaviour is a deliberate act of creating situations that enable mis-allocation of societal income or resources in-favour of some private interests at the expense of the public interest. It often takes place where there is connivance between private actors and, usually, government agents, and the latter is granting the former an undue privilege in the allocation of income or resources, that is otherwise inaccessible. Monopoly rents, government subsidies, patent rights, and adverse regulations that target certain firms but not others, thereby eroding competition are key examples. Weak political institutions, policy corruption and lobbying serve as the enablers that the private sector - individuals, firms (domestic and foreign) - exploit to secure rents. Thus, affluence in the private or public sectors is determined by one's closeness to the government in Nigeria.

It also refers to all largely unproductive, expropriative activities, which bring positive returns to the individual but not to society (Krueger. 1974). Rent-seeking and corruption underpinned the socioeconomic crisis developing countries find themselves and without addressing such, the prospects for their economic progress are uncertain. One reason is that "rent-seeking, particularly rent-seeking by government officials, is likely to hurt innovative activities more than everyday production" (Murphy, Shleifer, and Vishny 1993). Public rent-seeking attacks innovation, since innovators need government-supplied goods, such as permits, licenses, import quotas, and so on.

The existence of vested interests and pressure groups holds up economic progress over a vast range of issues. Reforms, transformation, restructuring, and fighting corruption are typical examples. Currently, the government is unable to address rent-seeking, as it could not suppress the vested interests and corrupt practices of ***'business as usual'*** nor could it break the vicious cycle of rent-seeking perpetrated by vested interest groups across all levels. These vested interests in Nigeria reached a high stage in rent-seeking by being able to overwhelmingly influence the country's political situation and economic potentials in their favour, thus making it almost impossible for the government to reverse the situation by evolutionary or reform measures for desired economic progress.

Frequently, stiff legislations are made and security operatives are used to silence radical criticisms. In practice, the legislation is implemented with cynicism and widely avoided. For instance, governments in Nigeria could not resolve issues of oil theft, actual accruable oil revenue, fuel subsidy, the cost of governance, due process, and, of course, the fight against corruption. All of these were majestically handled with laxity in compromise to the vested interests, despite the desperate need for economic progress in the country. The immediate past and the present governments have been identified with fighting corruption, increasing security, tackling unemployment, diversifying the economy, enhancing climate resilience, poverty eradication, rule of law, a level-playing field and boosting the living standards of Nigerians as their main policy priorities, but the attainments of all those are highly uncertain.

viii) Defective Restructurings and Reforms

The market system that Nigeria operates propagates restructuring and reforming economies as the surest path to economic progress. While many developing countries successfully restructured and reformed their economies (particularly East Asian countries) and came closer to the structures of successful industrial economies, the process remains incomplete in other countries like Nigeria because they are characterized (Tsauni, 2006b; Krugman and Obstfeld, 2009) with some of the following features:

i) The inability of the governments to ensure the provision of basic infrastructure like education, health care, agriculture, and utilities, which could serve as an enabler, a cushioning effect of the harsh aspects of the reform makes it attractive.

ii) Inability to reduce the role of government in the areas of restrictions on international trade, direct government control over internal financial transactions, cost of governance and high level of government consumption as the share of GDP.

iii) High inflation. Many economic activities are undertaken underground, so it proved easiest simply to print money. Seigniorage is the name economists give to the real resources a government earns when it prints money that it spends on goods and services. When their governments were expanding money supplies continuously to extract high levels of Seigniorage, developing countries experienced inflation and hyperinflation.

iv) Weak credit institutions to support the liberalization process. Loans are made based on personal connections rather than prospective returns and government safeguards against financial fragility, such as bank supervision, tend to be ineffective due to incompetence, inexperience, and outright fraud. The legal framework for resolving asset ownership and cases of bankruptcy typically is also weak. Financial markets, most often, direct savings toward their most efficient investment uses. As a result, they are even more prone to crises.

v) Exchange rate control either through undervaluation or overvaluation of currencies. The free system makes it volatile.

vi) Natural resources or agricultural commodities make up an important share of exports for the country.

vii) Attempts to circumvent government controls, taxes, and regulations have helped to make corrupt practices, such as bribery and extortion, a way of life in many if not most developing countries. The development of underground economic activity has in some instances given some temporal life to the economy, which, constituted corrupt and unproductive/destructive activities. Evidence has shown that corruption and poverty go hand-in-hand. By underground economy, means that part of a nation's economic activity is not measured in official statistics, either because the activity is illegal or because people and firms are seeking to avoid taxes.

The structuring and reforms require strengthening institutions, enhancing transparency and accountability, and promoting inclusive economic policies that prioritize the public interest over narrow political or elite interests.

Contemporary Therapies and Slothful Economic Progress

Contemporary therapies for development were premised on the western experiences, and that was why the thinking of developing countries like Nigeria is, indeed, being guided by those theories, to the extent that every model to adopt, which forms the basis for development planning, is dictated by the therapies and international organizations. Regarding the question of ***why contemporary therapies have failed to correct or prevent slothful economic growth in Nigeria***, it should be noted that Nigeria, like other low-income economies, relies on developed economies concerning the development models, technological skills, ideas, and other necessary capabilities required towards attaining economic progress. Therefore, Nigeria, accepts the resolutions of the "Washington Consensus" consisting broadly of free market economic ideas, which are expected to engender advancement in technological change and productivity, as the main drivers of long-term growth.

The term Washington consensus comes from a simple set of ten recommendations identified by economist John Williamson in 1989: 1) fiscal discipline; 2) redirecting public expenditure; 3) tax reform; 4) financial liberalization; 5) adoption of a single, competitive exchange rate; 6) trade liberalization; 7) elimination of barriers to foreign direct investment; 8) privatization of state-owned enterprises; 9) deregulation of market entry and competition; and 10) secure property rights. The theoretical foundations underlying these policy recommendations were nothing else but neoclassical economics espousing a firm belief in the market's "invisible hand," the rationality of economic actors' and the minimalist version of the states' regulation of economies (Lopes, 2012).

To promote the ***'invisible hand therapy'*** orchestrated by the consensus, there were usually two major stages of intervention: the first focused on macroeconomic stability and structural adjustment programmes, and the second included such objectives as improving institutions, reducing corruption or dealing with infrastructure inefficiency (Naim, 1999). The conditionality exercised by the Bretton Woods institutions and wealthy countries played a crucial role in indebted countries' decisions to push through macroeconomic stabilization reforms and structural adjustment programmes. The debt crisis that first affected a number of Latin American countries and then African and Asian countries, in the 1970s and 1980s, further increased their dependence on external loans, leaving them no other option than to follow the prescriptions that enabled them to access financing.

However, it is a common knowledge that structural adjustment (SAP) and macroeconomic stabilization programmes had a disastrous impact on social policies and poverty levels in many countries. Following the first wave of reforms undertaken by debt-affected African and Latin American countries – which included public expenditure cuts, introduction of charges for health and education, reductions in industrial protection, elimination of subsidies for fertilizers, and promotion of export crops, leading to high unemployment, poverty rise, fall in agricultural and manufacturing productivity and output, rise in indebtedness, exacerbate unequal land distribution, encourage de-industrialization and unequal income distribution. Social and economic sectors that were essential to the survival of the poor were at the receiving end.

Although the resolutions were inevitable, they should not be considered as "one right answer" to economic progress for developing countries. The reason is that the conventional wisdom (the Washington consensus) has not been successful across developing countries over the years. While Nigeria adheres to the dosages through numerous reforms for decades, to no avail, many countries like China, India, Malaysia and Singapore often departed from the consensus and have been successful in the implementation of their ***market-systems-adjusted reforms***. For instance, China, India, and a few other Asian countries witnessed rapid economic growth that resulted in an absolute reduction in the number of people living in extreme poverty (Rodrik, 2005). China and India in particular, increased their reliance on market forces but their policies differ in many respects from those advocated by the Washington consensus. Singapore, while relying on the market system as well, emphasized three important variables in their development effort: Merit, Pragmatism, and Honesty (MPH). But, technical expertise and strategic capability on the part of the implementing countries are central. Thus, Nigeria should equally rely on the market system but pursue appropriate policies and measures within its contexts, even if they deviate from the consensus.

4. PATHWAYS TO ECONOMIC PROGRESS IN NIGERIA

Thus far, my modest research efforts over the years focused on how to get Nigeria's economic progress free from bondage and out of its shackles. As a development economist, therefore, all recommendations from the prior researches I have conducted centered on providing pathways through which the core factors could be met and the binding constraints to Nigeria's economic progress could be uniquely overcomed. The suggestions provided how the delicate or risky growth path of the country should be navigated to maintain the necessary balance or precision required for the economic progress of Nigeria to remain on the tightrope.

Enhancing Capital Formation

I began my academic journey with a research titled, "*An Empirical Analysis of the Determinants of Capital Formation in Nigeria*" ***in*** **2005**. The paper investigates the determinants of capital formation in Nigeria from 1980 to 2004 using time series data. The accelerator model was modified and adopted in the work, while the new growth theory was the theoretical context within which the study was carried out.

It was discovered that commercial bank loans and advances, capital expenditure on economic services, and overall deficit were capital augmenting in Nigeria. However, gross consumption expenditure, gross national savings, high level of interest rates, a limited percentage of the federal government budget that goes to education and health, and external debt burden, among others, were found to be capital retarding in Nigeria. Weak financial institutions, inappropriate policies, low savings rate, less attention to social and economic sectors, and excessive debt are behind the low level of capital formation in Nigeria. On that note, strengthening the institutions to ensure judicious utilization of available resources, sticking to national budgets, and banking consolidation have been part of the recommendations of the lecture.

Boosting Infrastructure

Reform policies were introduced by the government of Nigeria in mid-1986 and beyond to transform and re-structure the fundamental sector of the economy, to revitalize the growth potential of the nation. The investment climate and business environment have normally been the scapegoat in the successful performance of business firms. Contributing to the debate, the paper investigated the *impact of infrastructure on business performance in Nigeria with specific evidence from the manufacturing sub-sector from 1985 to 2004* **in 2005**.

The results showed that electricity generation, electricity consumption, transport and communication, water resources, and education and health were imperative for the manufacturing sector to thrive. Although transport and communication spur positive contributions, electricity generation, electricity consumption, and water resources were statistically insignificant (their contributions were so marginal and thus, have been so inadequate and could not support manufacturing firms in Nigeria). The negative contribution of education and health in the regression showed that it will be difficult for manufacturing firms in Nigeria to significantly improve their productivity and compete favourably in the global economy due mainly to the fact that the development of human capital is a prerequisite for growth and progress.

Hence, the available infrastructure in the country is not consistent with the performance requirements of manufacturing firms, even though communication has started picking up. Thus, to trigger and sustain business performance in Nigeria, fiscal discipline, priority in government expenditure to infrastructure, maintenance culture, and incentives to the private sector to invest in infrastructure were recommended.

Promoting More Export of Manufactured Goods

In the development literature, export is seen as one of the major drivers of economic growth, especially in developing countries. This paper on the "*export of manufactured goods as an engine of economic growth in Nigeria*" **in 2006** analyses empirically the nature of the relationship between manufactured exports and economic growth. Results obtained using multiple and trend regression analyses showed a positive relationship between the exports of manufactured and semi-manufactured goods and economic growth within the study period. This according to the paper is not unconnected to the enormous body of both institutional and financial incentives put in place since the introduction of the structural adjustment programme in the country. The paper recommends the promotion of stable industrial and foreign trade and exchange rate policies for effective and sustained manufacturing sector performance. Industrial and manufacturing capacities need to be enhanced towards textiles and garments, food, transport, automobiles, computers, and electronics and logistics.

Pursuing Economic Reforms with Caveats

The paper investigates the responsiveness of some key economic and social indicators in Nigeria to the reforms implemented **in 2006**. In the paper titled *"Economic Reform in Nigeria: A Critical Analysis (1999 – 2004)*", it was found that the economic reforms have not been consistent with the realities. The paper stressed that reforms are necessary for the economic progress of the country. But, it, however, generates to the public more than the expected pains of normal reforms. Indeed, all economic reforms in Nigeria from independence to date are virtually two sides of the same coin. This is due to the inability of the government to ensure the provision of basic infrastructure like education, health care, agriculture, and utilities that would serve as cushioning effects and make the reforms attractive and practicable.

For effective reforms, political will, provision of basic infrastructure, technical expertise/capability for implementation, and enforcement of the anti–corruption laws, fiscal discipline, realistic budget, and societal re-orientation are relevant. Furthermore, the provision of adequate measures to cushion the harsh effects of the reforms, the creation of an enabling environment, and patriotism are ***pathways*** for future reform prospects, which are necessary for economic progress in Nigeria.

Broadening Access to and Quality Education

The connection between education as an important aspect of human capital and economic growth is firmly rooted in the literature. Thus, the paper investigated "*the causal relationship between education expenditure and economic growth*" **in 2007**, the nature and direction of causality, and whether education expenditure is a good predictor of economic growth or otherwise using time series data from 1975 to 2005. The findings were instructive. Results of co-integration support the evidence of the causal relationship between education expenditure and economic growth. However, economic growth was found to be a poor determinant of education expenditure, perhaps due to distortions and leakages. Results of Granger causality tests support the evidence of a unidirectional causal link from education expenditure to economic growth in Nigeria. The paper recommends adding attention to the education sub-sector in the subsequent national budgets and improving institutions as ***pathways*** to attaining economic progress.

Supporting Non-Governmental Organizations in Ensuring Commitment and Due Process

The overall outcome of development strategies in Nigeria, in particular, has been modest, if not disappointing due mainly to poor governance and public sector management – accountability, transparency, the legal framework for development, information about economic conditions, and cooperation between government and Civil Society Organizations (World Bank, 1992; UNDP, 1996; Sisk, 2000).

Thus, NGOs have been instrumental in ensuring commitment and due process globally, which are eminent tools for good governance and development. That justified the choice of the title *"The Role of NGOs in Ensuring Commitment and Due Process in Nigeria"* carried out **in 2007.** It was found that Non-Governmental Organizations played pivotal roles in the actualization of a democratic system of governance in 1999, advocating for accountability, transparency, and good governance. The paper, therefore, suggests that the activities of NGOs and community organizations should be encouraged and the duo should pursue their activities with human faces.

Fostering Entrepreneurship in Semi-urban and Rural Areas

One of the key tasks of economic development is the fostering of an entrepreneurial spirit. A country cannot thrive without a group of owners or managers willing to undertake risks, open new plants, adopt new technologies, confront labour strife, and import new ways of doing business (Samuelson and Nordhaus, 1989). Growth in entrepreneurship provides a significant basis for the adequate supply of goods and services, thereby improving the welfare of the people and enhancing social progress. A study conducted revealed that the continuous enhancement of entrepreneurship has been central to the brilliant performance of most Asian countries, particularly China, in recent years (Danju, 2008).

The study on "*entrepreneurship and employment generation in semi-urban and rural areas"* conducted **in 2010**, using a model of self-employment, which exactly fits our societies, submits that the enterprise culture in semi-urban and rural areas is virtually absent. The near-total absence of economic activities in rural areas after harvest could be the evidence. Other implications are that people in semi-urban and rural areas are not well informed about the imperativeness as well as the paramount importance of entrepreneurship in employment generation. Also, over 70 percent of those people who migrate to urban areas have not succeeded in getting sustainable paid employment or self-employment. Based on that, it was discovered that poverty, shortage of capital, the absence of basic infrastructure, and ignorance are the pushing factors leading to rural-urban migration, which has a spill-over effect on urban employment. The efforts of governments at the grassroots in promoting self-employment were, however, found to be insignificant and discouraging. Thus, the promotion of self-employment is the ***pathway*** to the attainment of economic progress in Nigeria.

Strengthening the Informal Sector for Job Creation

People of low income globally rely on the informal sector for survival because it provides ample opportunities to support their livelihood. The role of the informal sector as a major driver of most third-world economies has been recognized in the literature. Thus, the paper *"Strengthening the Informal Sector for Curving Unemployment in Nigeria"* published in **2010** calls for the need to fortify the informal sector to attain the employment generation goal of the country. However, it was found that the informal sector may not be able to achieve much due to inaccessibility to credit, despite the ongoing policies of the federal government through the Central Bank on micro-financing. The paper suggests that the government should employ IT and more automation procedures to ensure continued access to credit for the informal sector to finance its activities, as ***pathways*** to unemployment reduction.

Encouraging Self-Employment among Women

This study analyses the *"Impact of Self-Employment Among Women in Reducing Social Problems in Nigeria"* in **2010.** Evidence on that was drawn from Kaduna, Kano, and Katsina States. The objectives were to ascertain the self-employment culture among housewives in north-western Nigeria, the impact of the economic activities they engaged in on the level of their dependency on their husbands, its effects on social problems, the possible measures to improve women's participation in economic activities and the measures the government should take to improve self-employment among the women.

The findings revealed that most housewives studied in Kaduna, Kano, and Katsina were self-employed, which enables them to generate a certain level of income and reduce their level of dependency on their spouses, as well as lower unemployment in the society at large. Based on the problems encountered by those self-employed housewives like lack of capital, low level of education to attend training, lack of encouragement, and government negligence, the study recommends that government should pay more attention to self-employment among housewives due to the positive socioeconomic multiplier effects of their activities. It was also suggested that loans be provided with little or no interest to the women and housewives and skills training.

Enhancing Nigeria's Trade Relations in Africa

International economic relations have always been critically important components of the cobweb of a country's external preoccupation, engagement, and foreign policy interaction. Essentially, for proper and beneficial trade relations in Africa, the paper titled "*An Analysis of Nigeria's Trade Relations in Africa*" in **2010** suggests that trade-related infrastructure, intra–African communications, right response to importation needs, and collaboration on science and technology should be enhanced.

Uplifting Real Wage for Productivity

The paper *"Productivity – Real-Wage Relationship in Nigeria: An Empirical Investigation (1994 – 2008)"* published **in 2010**, examined empirically the relationship between productivity and wages in Nigeria using data from the Central Bank of Nigeria (CBN), National Wages and Salaries Commission and National Bureau of Statistics (NBS). Using the Autoregressive Distributed Lag (ARDL) model, the results revealed the existence of cointegration in the series which suggests that productivity and wages have long-run equilibrium over the sample period. All the coefficients indicated a positive relationship between productivity and wages. The policy recommendation was that the government should intensify efforts towards increasing workers' wages as this would help raise productivity and bolster economic growth.

Boosting Internally Generated Revenue Capacity of Local Governments

Nigeria is a country that operates a federal system with three tiers of government, namely federal, state, and local. The later tier of government seems to be closer to the people and has 774 in the whole country. Part of the key issues of concern is revenue generation and allocation, which are fundamental in meeting the yearnings and aspirations of the teeming populace of the country. However, the over-dependence of the Nigerian economy on crude oil exports for its foreign earnings and sharing the centrally generated revenue among the different tiers of government has remained dual unresolved problems. A study on *"A cross-section analysis of internally generated revenue capacity of selected Local Governments in Kano State"* in **2010** showed that none of the local governments was able to generate 5 percent of its total revenue internally for the period under review due mainly to population growth, poor planning, mismanagement, poor collection machinery, narrow revenue bases, infringement of some revenue rights by the state governments, tax evasion and avoidance, poor infrastructural facilities, low level of economic activities, inadequate manpower and corruption.

Based on the findings, the paper recommends, among others, investment in the establishment and maintenance of modern markets, motor stations, public conveniences and refuse disposals. House numbering/street naming; local rates and local license fees as well as tenement rate valuation, are other sources of revenue as they will assist the local government to further unlock revenue potentials. Yet, effective management, staff training, enlightenment, M&E, conducting regular and proper valuation, and assessment of revenue bases to cope with changing realities are eminent.

Increasing Firm-level Efficiency

The key to reversing the poor performance of the Nigerian manufacturing industry is an increase in firm-level total factor productivity (efficiency). The paper *"Total Factor Productivity and Output Growth: A Study on Manufacturing Industries in Kaduna and Kano, Nigeria"* published **in 2010,** examined the determinants of Total Factor Productivity (TFP) growth as well as TFP differences across selected manufacturing industries in Kaduna/Kano industrial zone between 1996 and 2006. Panel data technique was used, where both the Fixed Effects and Random Effects Regression Models were employed. The panel regression results show that capital stock is the major source/determinant of TFP growth in manufacturing industries from Kaduna and Kano.

Although three other independent variables, namely labour (LAB), research and development (R&D), and information and communication technology (ICT), equally have a positive relationship with manufacturing output, they could not be regarded as determinants of growth, as their p-values were greater than 0.05 and t values were less than their theoretical t values. That means LAB, R&D, and ICT were not augmenting output growth in the area in question. The study also found no variations in the performance of productivity variables (staff training - STT, R&D, ICT, and foreign direct investment - FDI) across the industries from Kaduna and Kano. The study recommends improvements in medium and long-term staff training, more capacity-building efforts, upgrading technologies, improving infrastructural facilities, and more support to R&D units as ***pathways*** to technological progress.

Making Debt Relief Fund Beneficial

The paper published **in 2011**, examined *"The Economic Implications of the Paris Club Debt Relief for Nigeria"*. Diminishing return to capital theory was considered relevant to guide the work. It was ascertained that the relief is of crucial importance to the country, as resources meant for debt service payments ($1.3 billion annually) could be used for development purposes. However, corruption, mismanagement, and stringent IMF conditions attached to the relief have been leveled as some of the constraints to the realization of the full benefits of the debt relief (for instance, the attainment of the Millennium Development Goals). It was deduced that debt relief for Nigeria is a mirage. Given that, fiscal discipline, the provision of infrastructural facilities with the $1.3 billion set aside annually for debt service payments, renewed efforts on anti-corruption campaigns, and the creation of a **debt relief trust fund** to manage the said amount have been some of the ***pathways*** to economic progress recommended.

Repositioning Microfinance for Grassroots Development

The paper *"Microfinance and Grassroot Development: Theoretical Evidence"* published **in 2011**, focuses on the theoretical explanations of how microfinance brings about grassroots development. Various theories that express the links between microfinance and Mini and Small-scale Enterprises (MSEs) as well as between MSEs growth and poverty reduction were widely consulted. However, evidence showed the unimpressive performance of poverty reduction in rural areas despite numerous microfinance efforts in Nigeria. The existing microfinance serves less than 1 million people out of more than 40 million potential people who need the service. Then the paper moves a theoretical argument toward establishing a new theoretical grassroots development model.

Reducing the Use of Generators as an Alternative Source of Energy

The paper published **in 2011,** examined *"The economic cost implications of the use of generators as an alternative source of energy in the Kano metropolis of Nigeria"*. Specifically, it focuses on what happens to income, employment, health, and the environment in Kano, as generators are being used as substitutes for the energy supplied by the government. The major findings show that the use of generators has reduced consumers' effective demand in the Kano metropolis and its excessive use is responsible for the double-digit inflation in the country at large. The practice in the study area was found to be detrimental both to the environment and the health of the people living there. The paper recommends, among others, that the users of generators should be sensitized on their implications on health, so that preventive efforts can be taken, and the government should put more concerted efforts in the generation and distribution of electricity.

Addressing Energy Crisis for Enterprise Growth and Employment Generation

This research on *"Enterprise Growth, Employment Generation and Energy Crisis in Kano-Nigeria"* published **in 2011**, examined the effects of the energy crisis on enterprises and employment generation in Kano. The study areas chosen were the Bompai, Yankaba, and Sharada Industrial Areas. The result revealed that power (electricity) is the major factor that affects enterprise growth and employment generation in Kano. Many enterprises were forced to operate below capacity and incur high costs of production with reduced output, thereby inhibiting growth. Even though enterprises resort to an alternative source of power, generators do not ensure efficiency as they are not cost-ineffective. The consequences are involuntary, disguised, and cyclical unemployment. Privatization of the power sector was recommended as it would increase the efficiency and reliability of power supply. This in turn would adjust enterprises' activities back to the optimal level of operations, capacity maximally utilized, and more employment capacities generated.

Exploring the Potentials of Demographics

The paper published **in 2011** examined "*the empirical relationship between demographic variables and economic growth in the context of the Nigerian economy for the period between 1970 and 2007*". The results indicated that the growth of the working-age population has not had positive effects on economic growth. Life expectancy has negative effects on growth possibly because of limited development in health status and welfare, which consequently affects productivity. While population density contributed positively, per capita income and population growth had insignificant contributions. Thus, Nigeria is seen to be on the verge of experiencing a demographic transition, as life expectancy is expected to continue increasing, crude death rate, crude birth rate, and total fertility rates are expected to continue falling while the population is expected to continue its rapid and sustained growth. The paper recommends that the government should make adequate plans and investments to train and develop human resources, provide support towards self-employment and entrepreneurship, and prepare our youth for the adaptation and use of new technologies through the provision of good education. If the demographic asset is given access to education, medical care, skills, and other opportunities, will drive and sustain Nigeria's economy.

Tackling Water Shortage

Households in the Kano metropolis spend a huge amount of money to get access to potable drinking water. The water consumption expenditure in the study area depends on households' residential water demand, the volume of water supplied by tap, and the volume of water obtained from other sources. Water price is not necessarily affecting water consumption, as households devise other means to have their water needs met. However, in the process, significant working and study hours were lost, leading to falling productivity, and education standards and compromising good health conditions. A large proportion of the respondents, in a study on the *"Impact of Water Shortage on Household Consumption Expenditure in Kano Metropolis"* published **in 2011**, blame the use of poor infrastructure as the cause of water scarcity in Kano Metropolis and revealed mismanagement of water resources as another cause of the severe shortages in the area. Other causes include environmental pollution, high population growth, and high agricultural demand. To improve the water supply in Kano Metropolis, more efforts in updating water infrastructure, ensuring judicious implementations of water laws, soliciting the cooperation of water users in managing the resource, and ensuring the proper maintenance of water infrastructure were recommended.

Ensuring Policy Stability

Nigeria, although richly endowed with vast agricultural, mineral, and human resource potentials, pursued numerous policies to transform the country into an industrialized giant. However, despite the myriad policies put in place since the country's existence, Nigeria is still grappling with numerous development challenges like poverty, unemployment, slow growth, and dilapidated infrastructure. On that note, the paper titled *"Policy Stability: A Hope for Industrial and Economic Development in Nigeria"* published **in 2012**, examined the relationship between policy stability and industrial/economic development. Policies in Nigeria were not tailored to the circumstances and needs of the citizens, rather they were mere **'copy and paste'** following universal blueprints. The policies were defective, as they could not address the key obstacles to sustained industrial growth. Furthermore, corruption, inadequate institutional capacity, poor infrastructure, poor leadership, and indiscipline contributed immensely to the non-implementation of some policies over the years. The paper suggested that government policy should be relative, dynamic, and people-driven thereby concurring with Aluko (2005) that "it is wrong to design World Bank/IMF medium-to-long-term economic packages for all of Africa from Cape to Cairo, from Swaziland to Zanzibar or even from Lagos to Kebbi".

Making Monetary Policy More Effective

The paper published in **2013** investigates *"the effectiveness of monetary policy in Nigeria"*. It employed the vector autoregressive technique on monetary policy variables, Real Broad Money Supply (RBMS), Real Interest Rate (RINTR) and Real Exchange Rate (RER) and other macro-economic variables, the Consumer Price Index (CPI), Gross Domestic Product (GDP) and Real Total Expenditure (RTEXP). The study reveals that both CPI and GDP account for about 90 and 80 percent variation in them, respectively. While price level has no significant impact on output, the GDP is prominent in determining the level of inflation in Nigeria. It observes interest rates as the most effective monetary transmission mechanism. The paper recommends that government expenditure be planned based on the monetary and financial targets to enhance the effectiveness of monetary policy on output and price stability.

Reducing the Proportion of the Poor

The paper titled *"Socioeconomic Analysis of Poverty Incidence and Food Insecurity in Kano State-Nigeria"* published **in 2014,** investigates the interconnectedness of poverty incidence and food insecurity in Kano state vis-à-vis their socioeconomic implications. The two concepts are not only independent but are correlated as poverty leads to food insecurity. Information on people living in poverty, poverty incidence, income inequality, calorie intake, and underweight children was obtained from the records of the relevant State Ministries, Departments, and Agencies. The paper reveals that the poverty trend in Kano State is on the increase buttressed by the high relative (67.4%) and extreme (67.1%) poverty levels, the incidence of poverty (68.2%), and underweight children (41.8%).

It was also found that almost 70 percent of the Kano State population lived on less than US$1 a day and the scenario is more severe in rural areas. The steady fall in the quality and quantity of food people take resulted in a rising level of absolute poverty in the State. The effort to reduce poverty, as encapsulated in the Kano State Economic Empowerment and Development Strategy (K-SEEDS) and the integrated agricultural input support initiative amongst others is likely to reduce the proportion of the poor in the state when implemented judiciously.

Encouraging Productive and Dampening Destructive Entrepreneurship

It was revealed in a paper titled *"An Analysis of Productive and Destructive Entrepreneurship: A Survey of Literature"* published **in 2016**, that entrepreneurship is overwhelmingly accepted by policymakers in both developed and developing countries as a veritable tool for job creation and growth. Thus, Nigeria's development depends on the actions and the behaviour of her entrepreneurs justified by the consensus in the literature that the outcomes of entrepreneurial actions can be a source of economic progress or economic stagnation (Sauka, 2008; Coyne, Sobel & Dove, 2010). Entrepreneurship takes different forms. It could be productive, unproductive, or destructive (Baumol, 1990).

The allocation of entrepreneurship talent into productive, unproductive, or destructive activities has been theorized to be driven by institutions. It is the structure of the payoffs (rule of the game) that determines what type of entrepreneurs will be dominant in a particular place or country. The ultimate driver for most entrepreneurial undertakings is profit making or the maximization of private return on their investment. Entrepreneurs often show little or no concern about the social return of their business and how their activities contribute to the performance and growth of the economy (Sauka. 2008, Baumol, 1993).

The determination of what type of entrepreneurship to be encouraged is a very important input for policy making. The continuous usage of wrong information by putting all entrepreneurs together may have some negative implications. It could be dangerous if State resources are utilized in promoting non-productive entrepreneurship. The dominance of non-productive entrepreneurship may create further non-productive entrepreneurship, which will result in economic decline. Institutions and governments need to impose the necessary constraints for destructive entrepreneurship so that the excesses of destructive entrepreneurs are curtailed. The corrupt practices of public officials are among the major factors that seriously weaken institutions and accentuate destructive entrepreneurship. Corruption tends to provide no incentive for productive entrepreneurship. It only increases the cost of doing business and creates unnecessary difficulties and frustrations for productive entrepreneurs. Countries with corruption tendencies and lax policies are suggested to be cautious with destructive entrepreneurship push and pull factors. Rule of law is overly needed to impose the necessary restrictions for destructive entrepreneurship alongside improving infrastructure and reducing the cost of doing business.

In Nigeria, evidence has shown that vested interests control the institutions that are expected to promote productive entrepreneurship, which they do to the contrary. Therefore, Nigeria's ability to achieve and sustain growth is dependent on whether the benefits brought about by productive entrepreneurial activities outweigh the negative effects of non-productive entrepreneurial activities.

Mending Constraints to Industrial Development

The paper investigates the *"constraints to industrial development in Kano, Nigeria"* **in 2016**. Various policies and incentives pursued from independence to date toward attaining industrial development and the corresponding performance were reviewed. It was however observed that not much has been achieved as the major industrial indicators are not faring well. The rate of closure and distress of companies, the rate of unemployment, and the poverty level in Kano buttressed those findings. To that effect, several constraints to industrial development in the State identified, were infrastructural deficiencies, small home market, and insecurity. The pathways to addressing the constraints are to fine-tune industrial policies to converge with the economic realities and to provide the needed infrastructure, security, and incentives.

Remedying Poverty Impasse

This paper published **in 2016,** assesses the *"socioeconomic determinants of poverty and food insecurity in Kano using the logit model"*. The need for the logit model is predicated on the fact that households' food security and poverty are largely functions of household social and economic characteristics. In analyzing the factors that determine the poverty status of the households and the level of food insecurity, a logit regression model was estimated using a dummy variable (1, 0) for poverty status and food insecurity as the dependent variable. Household socioeconomic characteristics were the explanatory variables.

Table 5: *Estimates of the Determinants of Rural Poverty using Logit Regression Analysis*

Explanatory Variables	Coefficients (standard err	z-statistics
HHS	0.171*	0.553
HGDR	-0.224**	-2.22
DPR	0.89***	0.57
EDUL	-0.348***	-0.59
HMST	0.98***	0.66
DTCH	0.002*	0.43
MHH	-1.77***	0.77
HINC	0.0012*	0.04
HACR	0.0014	-0.16
AGEH	0.0018**	3.71
HCSM	2.225*	6.20
HASET	0.235**	0.73
HSPR	0.66**	1.94
Constant	-3.99***	-
Number of Observations = 120, Log-likelihood = -30.76 Test that all slopes are zero: G = 104.006, DF = 13, P-Value = 0.000		

Notes: * Indicates statistical significance at 1% level.
** Indicates statistical significance at a 5% level
*** Indicates statistical significance at 10% level.

The empirical findings from the analytical tool showed that:

i. Education and the literacy levels of the households, younger age, and male-headed households were found to have increasing effects on the chances of households being neither poor nor food-insecure in the study area.
ii. On the other hand, household size, the number of dependents, distance to clinic or hospital, and low income were found to have a positive increasing effect on poverty and food insecurity in the study area.

iii. Majority of the households studied expended over 2/3 of their income on food and related consumable products;
iv. The earlier conclusions suggest that poverty and food insecurity prevail in the State and the incidence is relatively high, as buttressed further, by the dissatisfaction of the households with the State's poverty reduction programmes over the years at the 10% level of significance.

The paper recommends that the government should pay special attention to the provision of basic infrastructure, market access, and facilities as well as good governance. People in Kano should also try to build their capacities and capabilities by engaging in entrepreneurship training, savings, and education.

Reviving Institutions

The Vector Error Correction Model was employed to investigate the *"impact of institutions on macroeconomic performance in Nigeria between 1981 and 2013"* published in **2016**. Three institutional measures were employed in the paper, namely contract-intensive money, revenue source volatility, and the quality of service delivery. Accounting for structural breaks in the series, a long-run equilibrium relationship was found between macroeconomic performance and institutional indicators. A short-run bidirectional causality between institutions and Nigeria's macroeconomic performance was also found. There was evidence of unidirectional causality from revenue source volatility to macroeconomic performance and contract-intensive money and between macroeconomic performance and the quality of service delivery. Contract-intensive money, revenue source volatility, and quality of service delivery were found to account for 57% of shocks in RGDP, indicating that institutions are crucial to the performance of the Nigerian economy.

It was recommended that property rights institutions should be improved by promoting contract-intensive money through financial deepening, which encourages private sector deposit in financial institutions, improves contractual rights, and discourages high volumes of currency outside circulation, to promote private investment and thus enhance macroeconomic performance. The economy should be more diversified, taking into account agriculture, mining, and service sectors to curtail revenue source volatility, which negatively impacts policy implementation and government effectiveness. The quality of service delivery should be enhanced through more provisions of electricity to reduce production costs, promote employment generation, and improve aggregate performance.

Building Social Capital

The paper published in **2016** assesses the *"impact of the Fadama III Project on social capital formation among farmers in Kano State"* and the implications of the resultant formed social capital in the achievement of the project's overall development objectives. Empirical findings revealed that Fadama III had impacted significantly on the farmers' skills and capabilities in farming practice. The project has appreciably improved the community's stock of social capital; high level of adherence to group formation; high level of social inclusion; transparency and accountability and the ownership of sub-projects. The study also found that the capacity of Fadama users and LGAs was improved leading to better management of Fadama resources and local development plans (LDPs). The capacity of LGA staff has equally been successfully improved, as indicated by participating in preparing LDPs and by integrating the plans into their annual plans. It was, therefore, recommended that all the concerned Ministries, Departments, and Agencies in the State should ensure the sustenance of the intervention and the beneficiaries should put what they learned to the test.

Eradicating Food Insecurity through Fertilizer Use

Food insecurity, which is one of the main problems bedevilling the Sub-Saharan African region, will be eliminated via the adoption of modern agricultural production technology one of which is chemical fertilizer. The paper titled "*An Empirical Analysis of Fertilizer Use Intensity in Rural Sub-Saharan Africa: Evidence from Tofa Local Government Area, Kano State, Nigeria"* published **in 2016** to assess the factors that can be employed to improve the rate of fertilizer use intensity in rural Sub-Saharan African countries.

The result shows that the increase in farmers' income encourages their intensity of fertilizer use. Secondly, ensuring regular extension agents' visits to farmers will improve the intensity of fertilizer use by the farmers. Thirdly, the method adopted by them on how to use fertilizer has a significant influence on fertilizer use intensity and overall productivity. However, the price of fertilizer was found to hurt the intensity of fertilizer use in the study area. Thus, the average rate of fertilizer application in the study area was 25kg per hectare. The paper recommends that the government should encourage farmers' contact with extension agents throughout the farming season and expose farmers to skills and training on some off-farm jobs to raise their income to enable them to afford the recommended amount of fertilizer and quality farm inputs.

Improving Non-Oil Exports

The paper published **in 2016** examined *'the comparative impact of the two components of exports, oil and non-oil on economic growth in Nigeria by using VAR based approach".* Although export in general is positively related to economic growth, the relative contributions of its components differ. In Nigeria, while oil exports have a significant dynamic impact, non-oil exports do not seem to make an impact on the economy in the short run but appear to be significant in restoring imbalances in its long-run relationship with GDP and other variables. Secondly, although GDP responds positively to shocks in oil and non-oil exports, the oil exports component elicits more responses than the non-oil exports at least in the short run. Thus, the findings imply that changes whether by policy or abrupt in oil, exports will have a much more immediate impact on the economy. This has shed light on the possible policy direction of the government. Thus, policy actions centered on diversifying the economy by promoting non-oil exports are likely to have long-run effects.

It is therefore recommended that the efforts by the government at diversifying the economy through non-oil export should be strengthened and sustained. This is owing to two facts; first, non-oil export has a long-run impact on stabilizing the economy and second, the economic growth has shown a positive response to external shock from the non-oil export component. Intuitively, it conforms to the idea of the "linkages effect" the non-oil exports may have on the agricultural and manufacturing sectors. It is also critical that policy action should point in the direction of trade liberalization and increase in productivity as trade openness index showed a positive dynamic impact on economic growth.

Reducing the Cost of Health Care

The paper published **in 2017,** examined *"the cost of illness among patients with Diabetic Foot Ulcer (DFU) in General Hospital, Minna, Niger State".* Findings revealed that lack of education contributed immensely to increasing the relative cost of DFU and over 60% of people with DFU earned an average income of N25,000 monthly, indicating that they are poor, which often makes it overly difficult for them to finance their health needs. The cumulative direct cost of illness for the 40 respondents (drugs, investigation, surgery, consultation, admission, rehabilitation, transport, feeding, others) made up 92% of the total cost amounting to N4,162,400.00 while the indirect cost (patient lost job, caregiver lost job) was 8%, amounting to N363, 900. The expenses were incurred through out-of-pocket financing (self-payment), which was found to be the common mode of payment amongst patients (80%) with DFU in Niger State, Nigeria. Besides, the direct cost of DFU, productivity lost by the patient accounted for 85.6% of the total indirect cost and 14, 4% by their caregivers. However, it could be concluded that the treatment of DFU to patients in the General Hospital, Minna is relatively cheaper compared to cases in Kano and other places.

The paper recommends the need for the Hospital authority to strengthen the Nutrition Department to meet the dietary requirements of diabetes patients. Patient education and counseling on diabetic foot care on regular clinic days to stress the importance of primary prevention were also recommended. The social welfare department should be funded to take care of the destitute and paupers, who are diabetic but cannot, afford the treatment to prevent complications. The federal government should strengthen and improve the National Health Insurance Scheme to capture more individuals, especially those in the informal sector, to reduce excessive out-of-pocket spending. There is equally the need for training and retraining of healthcare providers on the current international best practices in the management of diabetes.

Improving Farming Technologies for Income Generation

This paper published **in 2018,** examines *"the effect of Fadama III Project intervention on farmers' income generation through crop production"*. The farmers are referred to in the paper as Fadama User Groups (FUGs). Results showed that on average in the rain-fed crops, 32 bags of rice were realized by each beneficiary where a mean income of N142,714.00 was generated. The average income generated by each farmer from other crops is sorghum (N64,857); millet (N38,000); beans (N36,000); maize (N140,500); groundnut (N108,000) and Soya Beans (N65,000). Farmers were found practicing mixed cropping systems where all or most of these crops were grown. The results from the irrigated crops were also found to be satisfactory. Thus, the average income was used in gauging the effects of the project on income generation among farmers in Kano. The paper recommends massive enlightenment of the FUGs on the appropriate utilization of the Fadama technologies.

Reducing Child Labour

The study carried out **in 2018** on the *"Impact of School Feeding Programme on Child Labour: Evidence from Lower Middle-Income Countries* investigated the effects of the School Feeding Programme (SFP) on child labour proxied by the average working hours of a child working only in selected lower-middle-income countries. The models of the study were estimated using propensity score matching (PSM) with the difference-in-difference (DiD) estimator. First, the results were presented based on three standard matching techniques: nearest neighbour matching, kernel matching, and local linear matching on the propensity score. Second, the matching was combined with the difference in difference to provide a more consistent estimator of the effect of the SFP.

The result depicts a negative effect of SFP on child labour by reducing the number of out-of-school children's working hours and attracting the same to schools. The distribution of effects in the DiD models across all the quintiles is to a large extent homogenous and suggests that the distribution effects are the average work of children is lower by 20 hours per week in the SFP participating countries than the average working hours of children in the non-participating countries over time. However, country-specific results may show some differences. While countries with less or minimal corruption may succeed, countries identified with high levels of corruption like Nigeria may not attain that.

Unfolding the Potentials of Land Registration

Evidence of chaotic property rights and a flawed land registration system was established in Kano State, Nigeria where millions of people are living without possessing formal titles of the plots of land they occupy. Lack of land titling hampers the security of tenure, which in turn delays the attainment of assurance effects, realizability effects, and collateralization effects. Those effects have significant economic impacts on investment, revenue generation, productivity, and growth. Specifically, land titling could allow the owner to use it as collateral to secure a loan and this credit could be invested as capital in productive activities, thereby increasing employment, labour productivity, and income.

The paper published **in 2018,** examined the *"impact of the Systematic Land Title Registration (SLTR) programme on the economy of Kano with special reference to Tarauni Local Government"*. The paper assesses the viability and potentials of the land registration in bolstering the State IGR and property tax/tenement rates at the pilot local government.

Employment and income generation, investment, and the growth potentials of the programme were exposed. The merit of the SLTR over the old system of registration was equally disclosed despite the low prices collected for CofO by the former. It is recommended that achievements made from the SLTR programme in Tarauni local government should be replicated in other LGAs of the State

Boosting Business Environment and Wellbeing through Land Registration

The paper published **in 2018,** ascertained the *"impact of land registration on the business environment and wellbeing in Kano State"*. The data employed for the probability analysis is qualitatively gathered using a structured questionnaire administered to households in Darmanawa, Gyadi Gyadi Kudu, and Tarauni wards. Two major towns each were selected from the three chosen wards and data were then collected from 40 selected households from each ward, making a total of 240 sampled households. The study employed a logit regression model where the endogenous variable is a dummy or categorical variable with 1 representing business environment and well-being are improved and 0 if otherwise.

The paper found that while household size, dependency ratio, and women's ownership of land have the business environment and wellbeing decreasing effect, the male household head, education, tenure security, and land market participation have been veritable predictors for improving business environment and wellbeing. A significant percentage of the respondents were not aware of the importance of Certificates of Occupancy (CofO) in getting access to credit. Although the idea was very appealing to them, the willingness to borrow indicator results show less likelihood of property owners collecting loans with their land certificates. The paper, given the impact of land registration and the slow phase of the collection of (CofO) by the beneficiaries, recommends that enlightenment should be intensified.

Improving Sustainable Energy Provision

This paper published **in 2019,** examined the "*Long-Run and Causal Analysis of Economic Growth, Financial Development and Trade Openness on CO_2 Emission in Nigeria"* Applying the Environmental Kuznets Curve (EKC) framework, the stationarity analysis is performed using ADF, PP, and KPSS and the ARDL bounds test for a long run relationship between the variables. Furthermore, the robustness of ARDL was tested by Fully Modified Ordinary Least Square (FMOLS). The results confirm that the variables were cointegrated and that economic growth and trade openness increase carbon dioxide (CO_2) emissions, while financial development and its square term have no significant effect on CO_2 emissions. This implies that the inverted U-shaped relationship between financial development and CO_2 emissions does not hold in the case of Nigeria. The paper suggests the need for diversifying energy sources by focusing on less greenhouse gas emissions, such as solar power, biomass power, and wind as well as hydropower. This will assist in reducing CO_2 emissions and hence improve environmental quality.

Raising Tenure Security and Investment

It was evident that millions of people in Kano live without adequate security of tenure or property rights and the desired investment and poverty reduction effects of land have not been significantly achieved. The paper assesses *"the impact of the recent land registration system on tenure security and investment in Kano State, Nigeria"* **in 2019**. The land right-investment-return modified framework of Feder et al. (1988) by Hugos (2012) has been adopted in the paper. It was found that about 96% of land owners covered by the registration exercise are secured from any unexpected change of land holding either by administrative action or other shocks. As such, investment will increase by 57% if all the landowners collect their CofOs. The programme raises the awareness of land title holders on the changing value of land, which will increase activities in the land market by 16.9%. With the rising value of land, investment will be geared towards land and landed property in the State, leading to more increase in the volume of the demand for land. The growing demand will then influence more activities in the land market further. Moreover, the paper showed that investment in the overall appearance of titled buildings and quality walls triggers the volume of demand. The paper recommends that the State government should tactfully pin down its empowerment support to the land registration certificates.

Engendering Land Market Transactions

The paper published **in 2019,** analyzed the *"response of land market transactions to land registration in Kano State"*. The extent to which land registration leads to emerging or the invigoration of land market transactions was ascertained. Property and tenure theories served as the basis for the paper. The paper employed a binary choice model. Significant increases in land market transactions have been recorded a year after the registration. It was found to augment value addition to the certified land, as 80.3% of the respondents conceded to invest more in their certified land. The volume of demand for landed property, formal credit access and land value appreciation have collectively increased land market activities in Kano further. It was also evident based on the results that value has been added to landed property in terms of good quality walls, good quality roofs, and overall building appearance and structure in the study area, thereby propelling high transferability of land via sales or rentage. The paper recommends continuous enlightenment to all the stakeholders of the new land registration and establishing a workable framework for supervision to ensure compliance and sustenance of the system.

Fostering Industrial Growth

The paper titled *"Fostering Industrial Growth in West Africa through Triple Helix Model: Lessons from Nigeria"* was published **in 2021.** The paper revealed that university-industry relationship/collaboration has been very weak in West Africa, portraying a clear manifestation of a mismatch between industry needs and university output. That results in a very marginal average GDP growth in West Africa at 0.5 percent, 2.5 percent, and 2.9 percent in 2016, 2017 and 2018, respectively. The manufacturing share in all the West African economies is the smallest and most countries are vulnerable to external shocks given their dependence on oil or other mineral extractions. Poverty and inequality are equally high. Nevertheless, the paper shares with the rest of West African countries the proposed Nigeria University revitalization agenda with a strategic plan and goals for 2019-2023 in the medium term and 2023-2050 in the long term. It was recommended that universities in West Africa should strengthen innovations, patents, and new knowledge production to have a tangible impact on the living conditions of ordinary citizens through wealth creation, poverty reduction, and socioeconomic and technological development. More research funding, and the integration of relevant content in the universities' curriculum that would go a long way in catering for the needs of industry were re-echoed.

Intensifying Bank Deposits and Private Savings for more Growth

The article published **in 2022** assesses *the nexus among private savings, bank deposits and banking sector liabilities* and how they matter in crowding-in or otherwise economic growth in Nigeria. Autoregressive Distributed Lag (ARDL), Error correction method and Granger causality tests were the analysis tools employed. A positive relationship between physical capital and bank deposits was found. While consumption, dependency ratio and interest rate move in the same direction with bank deposits; increase in bank assets boosts growth. Enhancing the environment for the sustainable growth of banking deposits, increase in the level of financial literacy, and promotion of microfinance banking were recommended.

Increasing Access to School Infrastructure

This article published **in 2022** examines the *"basic infrastructure affecting child labour in North-Eastern Nigeria"*. The data obtained from 3 states of North Eastern Nigeria were analyzed using the Tobit Model. The results reveal that access to electricity and clean pipe borne water have no significant effect on children engaging in work. But the distance of school from households in kilometers has a significant positive effect on children engaged in work. Therefore, the study recommends the provisions and spread of more schools infrastructure.

Promoting Financial Inclusion for Growth

The chapter titled *"Gross Domestic Saving, Household Consumption, and Inequality in Africa"* published **in 2022,** explores the relationships between these economic variables and how they impact African economies. Using 24 countries from 1989 to 2019, the results of the panel cointegration analysis shows that inequality has negative effects on gross domestic savings and positive effects on household consumption in the sampled countries. To improve savings, consumption, and reduce inequality in Africa, the chapter recommends promoting financial inclusion and access to credit, investing in human capital through education and healthcare, implementing progressive taxation and social safety nets, and diversifying economies while supporting informal sectors and rural development.

Redistributing growth

The article *"Analysis of the Impact of Human Capital on Inclusive Growth in Nigeria: An ARDL Approach"* published **in 2022** stresses the shift from just increase in economic growth to the growth that touches and improves the life of everybody. On that note, an index of inclusive growth was constructed to analyze the impact of human capital on inclusive growth in Nigeria. The results show that, there is a long run relationship between human capital and inclusive growth in Nigeria. While government education expenditure exerts positive long run significant impact on inclusive growth, the impact of health expenditure is insignificant. The study therefore suggests more government intervention to education and health sectors.

Facilitating Access to Resources for Women Enterpreneurship

"Enterpreneurship and Women" is a chapter published in the book titled Studies on Women: Theoretical and Empirical Issues **in 2024**. The involvement of women in entrepreneurship not only benefits individual women but also contributes to economic growth and innovation on a broader scale. Although women have made significant progress in entrepreneurship, in the developing nations they have lower access to resources, and remain underrepresented in the economic and political leadership. Efforts to support and empower women in entrepreneurship through policy changes, access to resources, and cultural shifts are essential for creating a more inclusive and equitable entrepreneurial landscape.

Mitigating Digital Financial Apathy

The paper *"An Exploratory Analysis of Digital Finance Apathy and Poverty Incidence in Northwestern Nigeria"* published ***in 2024*** explores the devastating impact of digital finance apathy (DFA) on poverty reduction in northwestern Nigeria, adding valuable insights into the enablers of DFA and its implications for financial inclusion and poverty reduction in the region. The findings inform policy recommendations aimed at enhancing the digital financial inclusion and reducing poverty. Enhancing financial literacy, security and privacy of digital financial transactions, access to the internet or digital devices, and digital financial platforms can reduce the apathy.

Bolstering the Economic Involvement of Kano Women

The chapter *"Potential Economic Opportunities for Women in Kano"* published **in 2024** revealed that Kano as the commercial hub of the country, had for many decades, opened up economic opportunities that women can harness. Although certain barriers had relegated the true contributions that women can offer for a very long time, Kano women seemed to live up to expectations by striving towards utilizing the opportunities thereby increasing their numbers in the proportion of economic actors and the overall contributions to the development of the State. The chapter equally digests the drivers of women's entrepreneurship in Kano and identifies challenges and obstacles to women's economic activity. To bolster the economic involvement of Kano women, supportive policies and programmes that specifically target women are required. The initiatives should include promoting entrepreneurship and vocational training programmes, access to markets, addressing gender disparities, and improving access to education and finance.

5. CONCLUDING REMARKS

The attainment of economic progress has been considered the surest means of breaking the vicious circle of poverty and is, therefore, capable of catering for countries' expectations of reducing inequality, improving education, health services, private consumption, and enhancement in the living standards of people. The progress depends on the core factors that need to be fulfilled over time: the accumulation of physical and human capital, efficiency in the allocation of resources, the adoption of appropriate technology, fostering entrepreneurship and innovation and sharing the benefits of growth. The realization of the core factors requires the appropriate choice of therapies/policies to adopt, institutions to create and the trajectory of implementation, when the binding constraints are seamlessly addressed.

Many countries have attained economic progress while others struggle to pursue it. But, **'how to get there'** often becomes overly difficult for Nigeria due mainly to its inability to satisfy the core factors (natural resources, human resources, capital formation, and technology) and fix the binding constraints (infrastructure deficit, weak institutions, flawed rule of law, macroeconomic instability, knowledge gap, rent-seeking behaviour, compromised political economy and defective restructuring & reforms), which make Nigeria's economic progress on a **"tightrope"** i.e. in a difficult/precarious/challenging situation, risky/uncertain status, retrogressive and moving along a mirage syndrome with serous setbacks.

Thus, satisfying the core factors (i.e. by addressing the defective and scarce human resources, poor and underutilized natural resources, inadequate savings/capital and debt burden, technology gap and weak entrepreneurial spirit/skills ecosystem) and surmounting the constraints require an **absorptive capacity** (i.e. improved political conditions, positive institutional changes, better social attitudes, and effective organization of the government). Furthermore, Nigeria's slothful growth, despite several plans, models, and perspectives adopted over the years, is attributable to **either the adoption of incompatible policies or the failure to domesticate the borrowed therapies with Nigeria's needs, values and contexts.**

Additionally, it is worth noting that although there is no 'one right answer' to economic progress, the contemporary therapies (e.g. the free market economic ideas), have not been rightly implemented in Nigeria and/or Nigerians have failed to realize that **'no economic therapy, whatsoever, can be effective in ensuring meaningful progress with indiscipline, corruption, vested interest, rent-seeking, economic sabotage, distortions, leakages and lack of patriotism'.** Moreover, the essential technical expertise and capabilities for the due implementation of the therapies/policies are deficient and worsened further by lack of merit and pragmatism. More challenging, is sharing the benefits of growth in the country. Therefore, **the fate of economic progress lies in the hands of all Nigerians**. The detailed recommendations have already been provided under the pathways as extracts from my researches over the years.

Current and Future Research

The author is currently working on the following areas/books at different levels of completion:

1. Kano Economy
2. Socioeconomic and Health Impact of Heat in Kano State
3. Pathways to Economic Progress in Nigeria
4. Economic Literacy and Poverty: A Primer
5. Digital Finance Apathy and Poverty Reduction in Kano
6. Future-Proofing Kano: Skills Assessment and Demand Mapping among Key Growth Sectors

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LIST OF PROFESSORIAL INAUGURAL LECTURE TO DATE

S/N	NAME	DEPT	DATE	TOPIC
1st	Emmanuel Ajayi Olofin	Geography	4th March, 1992	The Gains and Pains of Putting a Water Lock on the Face of the Drylands of Nigeria
2nd	Garba Dahuwa Azare	Education	24th June, 2000	BASIC CONCERNS: Revitalizing Nigeria's Primary Education in the New Millennium
3rd	Dajuma Abubakar Maiwada	Education	29th July, 2000	Improving Teaching and Learning in University Education with Particular Reference to Bayero University, Kano
4th	Majekodunmi Oladeji Fatope	Chemistry	7th July, 2001	NATURAL PRODUCTS SCIENCE: Looking Back and Looking Forward
5th	Muazu Alhaji Zaria Sani	Nigerian Languages	13th October, 2001	A focus on Some Segmental and Suprasegmental Features in Hausa Phonology
6th	Isa Hashim	Political Sciences	20th March, 2004	Planning and Budget Implementation in the Health Sector
7th	Abdulla Uba Adamu	Education	24th April, 2004	SUNSET AT DAWN, DARKNESS AT NOON: Reconstructing the Mechanisms of Literacy in indigenous Communities
8th	Auwalu Hamisu Yadudu	Private and Commercial Law	5th June, 2004	LAW AS INTERPRETATION: An Exploratory inquiry from Islamic Law Jurisprudence
9th	Mohammed Sanni Abdulkadir	History	31st July, 2004	STRUCTURING, STRUGGLING AND SURVIVING ECONOMIC DEPRESSION IN NORTHERN NIGERIA: The 1930s As Preview of the present
10th	Muhammad Sani Sule	Bio-chemistry	23rd March, 2013	Enzymology and Radiation Biology in the Understanding of Biochemistry
11th	Essiet Unanaowo	Agriculture	22nd May, 2013	AGRICULTURE SUSTAINABILITY IN THE DRYLAND OF NIGERIA:

	Essiet			Realities and Prospects
12th	Aliyu Kamal	English Studies	5th March, 2014	The Islamic Novel Style and Structure
13th	Abdu Ahmed Manga	Agriculture	9th April, 2014	Horticulture as a Panacea for Food Insecurity and Unemployment
14th	Sa'idu Muhammad Gusau	Nigerian Languages	26th May, 2014	Wakar Baka Bahaushiya (The Hausa Oral Songs)
15th	Abdallah Uba Adamu	Mass Comm-unication	9th July, 2014	IMPERIALISM FROM BELOW: Media Contra-Flows and Emergence of Metro-Sexual Hausa Visual Culture
16th	Ghaji Abubakar Badawi	Library and Information Sciences	29th July, 2015	THE ROLE OF PUBLIC LIBRARIES AS CENTERS OF INFORMATION TO DISADVANTAGED GROUPS: A 2004 - 2014 Study of the Information Needs of Gada Prostitutes in Dawakin Kudu Local Government Area of Kano State, Nigeria.
17th	Mohammed Kabir	Community Medicine	16th September, 2015	Public Health Concern for Chronic Non-Communicable Diseases Surpasses Anxiety Over Most Infections
18th	T.I. Oyeyi	Biological Sciences	30th March 2017	Linking Schistosomiasis and Water Resources Development in Kano State Nigeria: Public Health Impact and Mitigation
19th	Abdulrazaq G. Habib	Medicine	27th April, 2017	Medicine, Science and Society – The Global Health Imperative
20th	S. Y. Mudi	Chemistry	6th July, 2017	Natural Products: Plants as Potential Sources of Drugs
21st	Sani Ibrahim	Biological Sciences	27th July, 2017	BETWEEN LIFE AND DEATH: Water Quality and Resource Evaluation - The Place of Hydrobiologists

22nd	J. Afolabi Falola	Geography	26th October, 2017	The Poor We Have With Us Always
23rd	Umar G. Danbatta	Electrical Engineering	2nd November, 2017	GETTING OUT OF THE WOODS: Diversifying Nigeria's Economy Through the Telecommunications Sector
24th	Adelani W. Tijani	Nursing	23rd November, 2017	Wholesome Alimentation: Path to Radiant Health
25th	Juwayriya Badamasiuy	Private and Commercial Law	21st December, 2017	Uncovering Patriarchy in the Law: Feminist Movement for Re-Interpretation of Islamic Law in Focus.
26 th	Isa Mukhtar	Nigerian Language	25th January, 2018	STYLISTIC THEORIES AND THE LINGUISTICS OF HAUSA PROSE TEXTS: the (SFL) approach.
27th	Ganiyu Sokunbi	Physiotherapy	29th March, 2018	TODAY IT HURTS, TOMORROW IT WORKS: Complimentary and Alternative Therapy for Failed Back Syndrome
28th	Aminu K. Kurfi	Business Admin. and Entrepreneurship	19th April, 2018	Micro-finance as an Elixir for Poverty Alleviation and Wealth Creation in Nigeria
29th	Muhammad S. Khamisu	Arabic	17th May, 2018	Substitution in Arabic Languages Rules and Types
30th	Habu Nuhu Aliyu	Pure and Industrial Chemistry	21st June, 2018	SCHIFF BASES AND THEIR TRANSITION METAL COMPLEXES: The Drug for the Next Generation
31st	Hashim M. Alhassan	Civil Engineering	19th July, 2018	EASING THE BURDEN OF TRAVEL: Can Roadway Capacity Modeling Help?
32nd	Habu Mohammed	Political Science	13th September, 2018	TUG OF WAR OR ECHO IN THE DARK? Civil Society Organizations (CSOs) and the Fight Against Corruption in the Era of Change Mantra in Nigeria
33rd	Bello Idrith Tijjani	Physics	20th September, 2018	NAVIGATING THE DATA LABYRINTH: Application of Some Advanced Statistical Analysis in Atmospheric Physics

34th	Mohammed Ajiya	Electrical Engineering	18th October, 2018	SEAMLESS GLOBAL CONNECTIVITY AT THE SPEED OF LIGHT: Converting Intrinsic Phenomena in Optical Fibers to Capacity Increase.
35th	Abdulrahman Abdul Audu	Pure and Industrial Chemistry	25th October, 2018	MY ACADEMIC VOYAGE IN WATER INTO THE WORLD OF HEAVY METALS
36th	Ibrahim Rakson Muhammad	Animal Science	21st February, 2019	FORAGE AND FODDER PRODUCTION IN NIGERIA: Its Sensitivity in Sustainable Ranching.
37th	Muhammad Bashir Ibrahim	Department of Pure and Industrial Chemistry	14th March, 2019	WATER POLLUTION AND THE QUEST FOR ITS REMEDIATION: The Natural Resource Option
38th	Oyerinde O. Oyesegun	Department of Physical and Health Education,	4th April, 2019	MAN DOES NOT DIE BUT KILLS HIMSELF: The Dilemma of the Health Educator and the Moderating Influence of Health Education
39th	Danladi Ibrahim Musa	Department of Physical and Health Education	25th April, 2019	WAGING WAR ON THE DEADLY QUARTET AND ITS CO-MORBIDITIES: A Physical Activity Panacea
40th	Kabiru Isa Dandago	Department of Accounting	2nd May, 2019	THE ACCOUNTING IN HUMANITY KNOWS NO BOUNDS
41st	Mustapha Hassan Bichi	Department of Civil Engineering	20th June, 2019	MAN, ENVIRONMENT AND WATER - The *Moringa oleifera (Zogale)* Intervention
42nd	Mustapha Muktar	*Department of Economics*	27th June, 2019	PEOPLE, PLANET AND PROFIT: Peaceful Bed Fellows at the Best of Times But Strange Roommates at Present - The Economist's Approach to a Peaceful and Sustainable Co-Existence
43rd	Mohammed Atiku Kano	*Department of Biochemistry*	25th July, 2019	Serum Lipids and Lipoproteins - A Curse or a Blessing?
44th	Rabi'u Mohammed	*Department of Physical and Health Education*	8th July, 2019	EXERCISE AND SPORTS FOR THE ATYPICAL PERSONS: A Multidimensional Analysis
45th	Yahaya, D.B.	Department of Mechanical Engineering	12th December 2019	GETTING OUT OF THE DARKNESS: The Solar Energy Solution

46th	Shehu Alhaji Musa	*Department of Agricultural Economics & Extension*	22nd April 2021	CROSSING THE CHASMS OF AGRICULTURAL DEVELOPMENT IN NIGERIA: Consumer Preference Studies: Market Integration Syntheses and Value Chain Diagnoses to the Rescue
47th	Shehu U.R. Aliyu	*Department of Economics*	24th June, 2021	What Have We Learnt From Modelling Stock Returns In Nigeria: Higgledy-Piggledy?
48th	Kamilu Sani Fage	*Department of Political Science*	8th July, 2021	FROM DIVIDEND'S OPTIMISM TO DASHED HOPES: The Imperatives of Leadership Re-Engineering in Nigeria
49th	Babatunde Olamide Bamgbose	*Department of Oral Diagnostic Sciences*	9th Sept., 2021	MATRIX OF THE KNOWLEDGE OF LIGHT AND KNIFE: The Journey of a Maxillofacial Surgeon into Imaging
50th	Umar Ibrahim Gaya	*Department of Pure and Industrial Chemistry*	4th Nov., 2021	In Search of Catalysts…