



Research Article

Nigeria's Output Gap: A Tool to Inform Economic Policy

Abidemi Olufemi Olusegun Falade¹, Femi Michael Nejo²

1. Dept. of Management and International Business, Birmingham City University, United Kingdom; Prof.femmy@yahoo.com
2. Dept. of Management and International Business, Birmingham City University, United Kingdom; Zealconceptini@gmail.com

Copyright © 2025 by Authors, Published by **Demagogi: Journal of Social Sciences, Economics and Education**. This is an open access article under the CC BY License <https://creativecommons.org/licenses/by/4.0/>

Received : August 17, 2025

Revised : September 13, 2025

Accepted : October 19, 2025

Available online : December 01, 2025

How to Cite: Nejo, F. M., & Falade, A. O. O. (2025). Nigeria's Output Gap: A Tool to Inform Economic Policy. *Demagogi: Journal of Social Sciences, Economics and Education*, 3(5), 344-357. <https://doi.org/10.61166/demagogi.v3i5.127>

Abstract. A vibrant economy is achieved when actual output and potential output grow at an equal proportional, resulting in a zero output gap. In Nigeria of today, actual output may sometime be below its potential capacity or above it, leading to under-utilisation or over utilisation of resources. Therefore, this study examined the growth pattern of actual output and potential output in Nigeria from 2006-2025. The study used secondary data which were collected from the International Monetary Fund, IMF (2025). Thereafter, the study employed Augmented Dickey Fuller (ADF) and Phillip Peron (PP) unit root tests, and Johansen Co-integration for pre-test; while, a ten-year Moving Average (MA) was used to achieve the stated objectives. The ADF and PP unit root test showed the stationary level of the variables at level and at first level difference, the Johansen co-integration established two co-integration relationships at 5% level of significance. The MA technique showed that from 2006-2009, Nigeria's actual output and potential output were closed aligned, with the country operating near full capacity in 2006 and 2009 respectively. Therefore, implies a zero output gap. From 2011- 2020, actual

output was below the potential output; therefore, indicates a negative out-gap. Also, there was high tendency that Nigeria's actual output gap exceeded potential output gap from 2021-2025. This implies a positive output gap. The study therefore, concluded that the country operated efficiently in 2006-2009, experienced idle capacity from 2011 to 2020, while that of 2021-2025 was over-utilisation of resources. Therefore, recommended that Nigeria government should reduce her excessive borrowing of external or domestic source, in order not to pluck the economy to further overheating. Also, government should invest more on physical and human capital so that the present demand for more workers would not be tentative in nature.

Keywords: Actual output, potential output, output gap, Moving Average

INTRODUCTION

Production is a crucial part of local activities which occurs when utility is added to raw materials for consumption purpose. The aggregate production (finished goods) of a country within a year made-up of gross domestic product (GDP). Gross domestic product (GDP) is a powerful macroeconomic indicator for assessing or determine economy's stand as it relates to production and scorecard of a given country's economic health. However, economist and policy makers are often more concerned with the potential of a country's GDP rather than paying too much attention to its increase or decrease in value. This is due to the fact that potential utilisation of a country's GDP indicates that a country is operating efficiently, without idle capacity or slack resources. Considering this, Darby and McIntyre (2018) are of the view that, increase or decrease in output or GDP are not majorly the concern of many economists, but also whether such output or GDP is below or above its potential output level.

In the real sense, the economies of both developed and developing countries are not devoid of business cycle. A business cycle is said to occur when there is upswings and downturns of business activities. The features of a business cycle when occurs within an economy, include expansion, crisis, recession and recovery. GDP is a key macroeconomic indicator that shows the pattern or movement of a country's business cycle. Also, an output of a country is otherwise known as the GDP, that comprises of goods and services produce in a country within a year.

Meanwhile, the aggregate actual output produce by a country sometime may be below its potential capacity, otherwise known as under-utilisations of resources. This suggests that the country perform below its efficient level in producing annual goods and services. The difference between potential capacity and actual capacity results to an output gap. Output gap is the difference between the actual level of a nation's output and the potential output (Baba, 2013; Sarwat & Ahmed, 2013). A country is said to experience potential output when its yearly products in terms of goods and service are produced at maximum capacity without idle capacity. However, an output gap can either rise or fall. When it rises above actual output, it indicates a positive output gap and implies operating beyond full capacity; while its fall indicates a negative output gap and implies under-utilisation of production capacity. Nigeria as country is not far from this reality as the country's GDP exhibits increased in

average value in the last four decades. For instance, the average value of Nigeria GDP was 0.24%, 3.04%, 25.97% and 99.36% for from 1981-1990, 1991-2000, 2001-2010 and 2011-2020 respectively (Central Bank of Nigeria, Statistical Bulletin, 2020).

A vibrant economy must ensure that both actual output and potential output grow together to achieve the desired results, such that the output gap remains at zero. Considering this, Darby and McIntyre (2018) disclose that output gap could exhibit either a positive or a negative; but, emphasize that neither a positive nor a negative gap is desirable for health growth. A zero output gap infers that actual output is equal to potential output. This implies that each of the sign (positive or negative) exhibits by output gap has implication on both monetary policy and fiscal policy adopted by a nation. When a positive output gap is experienced, it implies that actual output is greater than potential output, resulting to a situation in which aggregate demand is greater than aggregate supply; therefore, result to "overheating". To meet-up with the aggregate demand when a positive output gap occurs, all factor inputs, businesses and factories operate above their most efficient capacity, which is highly feasible during the short term period (Falade, 2021).

In Nigeria of today, the country is endowed with every resource to increase her annual production and services, and to be regarded as developed country among the comity of the world nations. However, reverse is the case, as the nation is characterised presently with many macroeconomic challenges, including high debt stock, unemployment, inflation, insecurity and over or under-utilisation of the country's production capacity. For instance, spiral inflation, especially that of consumable goods is alarm. For instance, food intake that serves as the basic need of individuals is on the high side which has reduced consumers' welfare in the entire country.

The problem created by the rising prices of foods and other essential goods and services has led to a high cost of living has become too challenging for the government to address in Nigeria. For instance, between December 2020 and March 2021, there was 28% increase in price of milk, wheat (23%) and Beans (41%); also, Composite Food Index rose by 45.1% within this period alone (National Bureau of Statistics, NBS, 2021). Such rise in price level reduces consumer welfare through reduction in purchasing power, deny household of other necessity of life, food insecurity and escalate poverty rate. Furthermore, there has been increased in the country's debt stock without a recourse to its implication on the output gap. As at December, 2020, the country's debt stock was 32.9 trillion naira, of which 12.7 billion naira and 20.2 trillion naira are owed to external and local sources; of this external source, 9.7% or 1.2 trillion was owed to the Export-Import Bank of China (Debt Management Office, 2021). Considering this, the present study examines Nigeria's output gap as it revolves over the past. The remaining session include literature review, methodology, result and discussions and conclusion and policy recommendation.

LITERATURE REVIEW

Alghamdi (2023) investigated the variables influencing the unemployment rate in US public sector states. The researcher measured the population, GDP, and unemployment rate of each state using scale and nominal-level statistics. The analysis

comes to the conclusion that lower GDP in American states was a result of increased unemployment rates. In a related research, Kungoza et al. (2023) used OLS to examine the impact of unemployment on community economic growth in Uganda. The gross domestic product and unemployment were shown to be negatively correlated. Thus, it was determined that a high unemployment rate hinders economic expansion. James et al. (2023) conducted a comparable analysis using VECM on sectoral development patterns and unemployment in Uganda. The results of this study demonstrated that a positive shock in agriculture sector value addition had a positive causal effect on unemployment. Also, a positive and negative shock in the industrial sector does not influence the amount of unemployment. Also, the unemployment rate was negatively impacted by both positive and negative shocks to the value added of the service sector. The scale and makeup of sectoral growth are important factors in tackling Uganda's unemployment issue.

The relationship between economic growth and unemployment in Jordan from 1991 to 2019 was examined by Hala et al. (2021). The auto-regressive distributed lag (ARDL) model was employed in the investigation. The ARDL showed a long-term correlation between Jordan's urban population, female population, education, economic growth, and unemployment rate. Also, it was revealed a positive correlation between Jordan's urban population, education, and female population and unemployment, and a negative correlation between economic growth and unemployment.

Stavytskyy *et al.* (2020) was concerned on how some certain key interest rate responds to out gap over the years using some selected countries in Eurozone, as well as, the United States and Japan. The study adopted VAR modeling in arriving at the findings. From the findings obtained, it was confirmed that output gaps implementation was similar throughout all the selected areas with Japanese economy exhibited a very low level sensitivity to changes in monetary instruments when compared to others countries in Eurozone and United States. Also, it was established that all the countries identified as area of study had a negative output gap.

On financial-cycle output with concentration on monetary policy, Douglas et al. (2019) conducted a study with emphasized on mind the gaps. The study made a clear distinction from the perceptive of the model and measurement through using the financial-stability risks in determine the reaction of each variables acknowledged in the model. It was confirmed that financial-cycle output-gap model (FCMOD) as identified in the study outperformed the traditional monetary-policy-relevant in determining the reaction of GDP in the medium-term. Also, the study took a cursory look at two countries (U.S. and China) on output gaps with a focus on their financial-cycles. Through the empirical discovery, it was confirmed that output gaps of the U.S based on financial-cycle concept was much larger in two time same of that China prior to the global financial crisis witnessed; while, that of China in term of her financial-cycle output gap was similar scale to that of U.S before the financial crisis.

Onuoha and Agbiede (2019) used the Generalized Technique of Moments technique to examine how disaggregated public expenditure affected unemployment rates in a number of African nations. The study demonstrated that investing in infrastructure and education reduces unemployment rates. Spending on defense and

health care, however, increases them. Similarly, Omodero (2019) examined the effect of sectoral government expenditure on poverty reduction from 2000 to 2017 using the ordinary least squares (OLS) approach. The regression analysis revealed that government expenditure on building, health, education, construction, and agriculture had no discernible impact on reducing poverty in Nigeria.

Citu and Twaddle (2018) was concerned with both the output gap, as well as, its role in foresting monetary policy making. Among the interested monetary policy, the study was interested in was inflation and economy. It was discovered that there existed a linkage between real economy and inflation with the notion that output gap did not give the accurate response of inflation to real economy growth; thus, created a weakness in ascertain inflationary pressure on real aggregate economy. The conclusion drawn was that the reaction of the output gap tends to posed as difficult task on determine and measuring the aggregate resource pressures which often causes policy error. In a similar, a study on what is output gap, how can it be measured, as well as, using it on policy formation was conducted by Darby and McIntyre (2018). In answering the question raised, it was confirmed through monetary policy that raising interest rate using out gap as yardstick had zero effect on investment; while on that of fiscal policy, increase in government investment still exhibited had an infinitesimal influence in shifting the aggregate economy out of a low growth equilibrium.

Also, Ademola and Badiru (2016) use an Ordinary Least Square (OLS) approach to examine how unemployment and inflation affect Nigeria's economic performance. it was revealed that a favourable relationship existed between economic growth and both inflation and unemployment. Onanuga et al. (2016) was interested in Nigeria's output gap with a focus on monetray policy using it for policy marking from 1991Q1-2014Q4 using a Generalized Method of Moments (GMM) technique. It was revealed through the GMM approach used that real output gap and inflation uncertainty were confirmed to be significant respectively. In addition, inflation uncertainty exhibited a non-significant effect on monetary policy rate; with real output exhibited an indirect and significant effect on monetary policy rate. It was concluded that monetary policy had a tiny responsive to uncertainty of real output gap and inflation in the country.

Using an application from the purview of different econometrics filters, Baba (2013) conducted a study on potential growth and output gap in Nigeria. Among the different econometrics filters used by the study are Baxter-King filter, Hodrick-Prescott filter, fixed and full length Christiano-Fitzgerald filters. The results obtained revealed that the methods adopted produced different outcomes, but every one showed a very strong relationship in their evolution during the years of study. All the selected filters confirmed that indeed between 2004: Q1 to 2005: Q4, Nigeria's economy exhibited an over-heating on the average value; while within the 2008: Q1 and 2009: Q4 there was idle capacity with the economy. Furthermore, a strong and stable link was discovered between inflation and output gap. It was concluded that out gap usage in monetary policy decision making produce a desirable result.

Moosa et al. (2009) used a Romanian economy to estimate the desire potential GDP with the aid of production function approach and other statistical de-trending

methods. It was confirmed through the techniques used that there was increase in growth rate was greater than the potential output in the 2008: Q3; while a declined was experienced in both 2008: Q4 and 2009: Q1. Considering this, it was confirmed that technological progress was the true determinant of potential growth in the study area of Romania. In considering the East African countries, Osman (2008) was concerned with the potential output gap using an eclectic approach. The study covered areas like Tanzania, Ethiopia, Kenya and Uganda. In all the four areas used growth rate was showed to below the potential output.

METHODS

Theoretical framework

Rational expectations as propounded by Muth (1961) was used as the theoretical preposition for this study. The theory avows that on the average, an economic agent uses available information to make prediction about uncertainty in the market by a random forecast error. Muth (1961) used the concept to explain the reaction of both consumers and producers of certain goods on expect change in price of such goods. For consumers, they optimise available information about price to form new expectation about change in price in the future; while, producers use actual price change to determine the future price. Nigeria as a country has witnessed both increase and decrease in her actual production or output over years with expectation of such increase, or decrease in-line with the potential output. Considering this, expectation of the output gap about the country is projected on the average, using a ten year moving average, based on the available information of the country's actual output (GDP) from 2006-2025. Using Nigeria's output gap as the case study, suppose that Y is the equilibrium output which is determined by equation of demand and supply in an economy. The present output would only depart from expectation if there is an 'information shock' caused by information unforeseeable at the time expectations were formed by economic agents. The equation for the output gap is expressed in mathematic form below as;

$$Y = Y^* + \mathcal{E} \quad \dots \dots \dots (i)$$

$$\hat{E} [Y] = Y^* \quad \dots \dots \dots (ii)$$

Where Y^* is the rational expectation and is the random error term, which has an expected value of zero, and is independent of Y^* .

The study used three variables that include gross domestic product (*GDP*) at constant price, inflation (*INF*), and long-run trend growth (*TREND-GROWTH*). The rationale for using the variables include the following; (i) *GDP* at constant price take notes of real change in output and expresses value in term of a base period, and serves as proxy for actual output (ii) to describe the pattern of inflation over the periods of 2006-2025, (iii) *long-run trend growth* is the ten years moving average use as proxy for output gap of the country.

Table 1: Definition and Measurement of Variable

<i>Variables</i>	<i>Description</i>	<i>Measurement</i>	<i>Source</i>
------------------	--------------------	--------------------	---------------

<i>GDP</i>	The total sum of goods and service produced yearly which expresses its value in term of a base period in percentage.	Percentage (%)	<i>International Monetary Fund, IMF (2025)</i>
<i>INF</i>	Inflation is the end period consumer prices in percentage	Percentage (%)	<i>International Monetary Fund, IMF (2025)</i>
<i>TREND-GROWTH</i>	The ten years moving average of the GDP at constant price using GDP data for 1997 to 2006 inclusive to calculate the 2006 number.	Percentage (%)	<i>Researcher's compilation (2025)</i>

Source: Self-developed (2025)

Results and Discussion

Pre-Test Analysis

Unit Root Analysis

Table 2: Results of Unit Root Test

Variable	<i>Augmented Dickey Fuller (ADF)</i>			<i>Phillip Peron (PP)</i>		
	Test Statistic	5% critical value	Level	Test Statistic	5% critical value	Level
<i>GDP</i>	/4.940627/	/3.040391/	I(1)	/7.997481/	/3.040391/	I(1)
<i>INF</i>	/3.159484/	/3.029970/	I(0)	/3.047359/	/3.029970/	I(0)
<i>TREND-GROWTH</i>	/4.484241/	/3.040391/	I(1)	/4.335669/	/3.040391/	I(1)

Source: E-view Output (2025)

Table 2 shows both the Augmented Dickey Fuller (ADF) and Phillip Peron (PP) obtained results at level and test at first differences. Out of the three variables examined, only inflation rate (*INF*) exhibited stationary at level, implying that it was integrated of order zero ($\Delta = 0$). Also, both gross domestic product (*GDP*) and long-run trend growth (*TREND-GROWTH*) exhibited a stationary at first level difference. This implying that *GDP* and *TREND-GROWTH* were integrated of order 1 ($\Delta = 1$). The implication is that at level and at first level difference sampled variables showed stationary.

Co-integration Analysis

Table 3: Johansen Co-Integration Test

<i>Traces Statistics</i>			<i>Max-Eigen Statistics</i>		
$r = 0$	$r = 1$	$r = 2$	$r = 0$	$r = 1$	$r = 2$
39.30812 (29.79707) {0.0030*}	17.43382 (15.49471) {0.0411*}	0.504854 (3.841466) {0.4774}	23.87431 (21.13162) {0.0200*}	14.92896 (14.26460) {0.0392*}	504854 (3.841466) {0.4774}

** denotes rejection of the null hypothesis at the 0.05 level, Critical value at 5% level in (), & Prob. in { }*

Source: E-view Output (2025)

It was confirmed from both the Traces and Max-Eingen Statistics that there was a two co-integrating equation in the model. This implies that each of the identified variable in the model positively impact each other in the long-run.

Covariance Analysis

Table 4: Correlation Matrix

Probability	GDP	INF	TREND-GROWTH
GDP	1.000000		
INF	-0.507735	1.000000	
	0.0223		
TREND_GROWTH	0.677110	-0.281399	1.000000
	0.0010	0.2294	

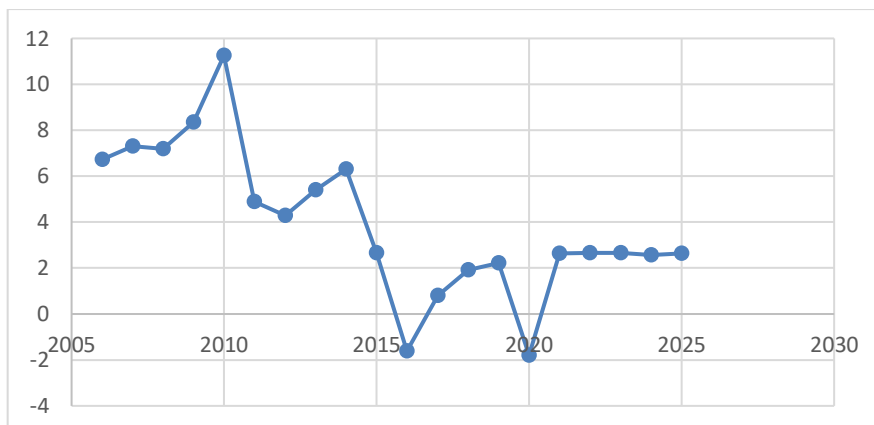
Source: E-view Output (2025)

In table 4 above, the obtained result for gross domestic product (*GDP*) was consistency with the Pearson's correlation assumption that avows that a perfect and strong correlation is obtained when a variable is estimated against itself (i.e. X_1 against X_1). Since gross domestic product (*GDP*) showed a perfect and strong correlation, implying that the desirable actual output in the economy was perfectly proportional to the potential output when fully utilised. For inflation rate (*INF*), it had a negative relationship with gross domestic product (*GDP*) with a coefficient value approximately to 50.7% and *p*-value of 0.0223. Statistically, this suggests that increased in general price retards aggregate output. Furthermore, in term of the degree of association between long-run trend growth (*TREND-GROWTH*) and gross domestic product (*GDP*), it was established that a strong and positive nexus occur between the duo. This shows that achieving the zero output gap in Nigeria is when both actual output and potential output grow at equal proportional rate of 67.7% within the years in study.

Trend and Pattern Analysis

Trend and Pattern of Economic Growth

Figure 1: Trend and Pattern of Nigerian GDP (%) from 2006-2025

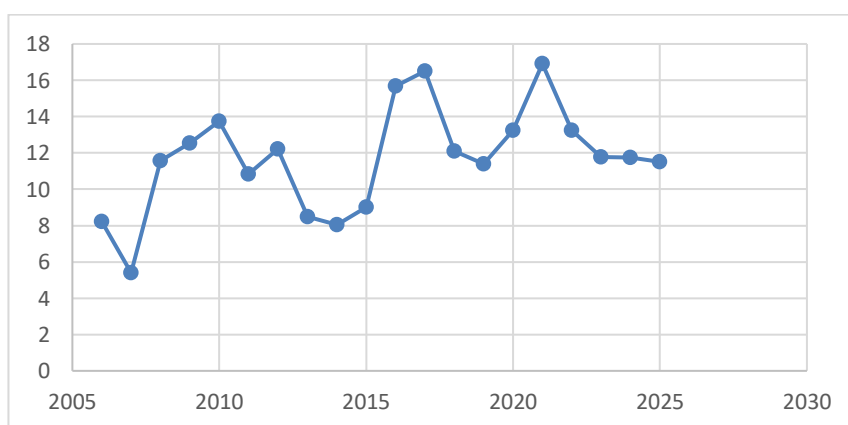


Source: Output from Excel (Data from IMF, (2025))

Figure 1 above shows the trend and pattern analysis of Nigeria's GDP at constant price from 2006-2025. The trend of the GDP shows that there was upswings and downswings in Nigerian GDP; therefore, depicts a situation called business cycle. In 2006, the country's GDP shows sign of recovery with a value of 6.73%. Also, 2007 depicts an expansion in its value, with a value of 7.32%, indicating 0.6% increase when compared to 2006. A slightly decline was observed 2008 (7.20%) indicating 0.12% decrease when compared 2007. However, there was a rapid and significant changes in Nigeria GDP at constant price as it re-picked in 2009 with the highest ever recorded value in 2010 (11.26%). Also, from year 2011-2020, the country's GDP at constant price showed a full business-cycle with a depression in 2016 and recession in 2020. Furthermore, GDP re-picked with a value of 2.64% and 2.66 in 2021 and 2022 respectively; with an expectation that it remains stable from 2023-2025.

Trend and Pattern of Inflation

Figure 2: Trend Pattern of Nigerian Inflation (%) from 2006-2025



Inflation, % change

Source: Output from Excel (Data from IMF, (2025))

Figure 2 above shows the trend analysis of Nigerian inflation from 2006- 2025. Nigeria's inflation rate was within a 1-unit digit value in 2006-2007 and was considered as walking inflation that promotes growth. The 1-unit digit value witnessed in 2006-2007 may be due to debt forgiven, given to the country by Paris club. However, there was sharp increase in the country's inflation rate from 2008-2012, with its value stood within 2-digit value. The reason for this then, is due to adoption of expansion monetary policy facilitated by increase in crude oil price. Also, 2013-2015 witnessed decline in its value to 1-unit digit; while from 2016-2022, it showed increase in value with 2-digit. In addition, there is high probability that the country's inflation rate will operate within a 2-digit value. The implication is that the country would witnessed reduction in consumers' purchasing power due to spiral inflation.

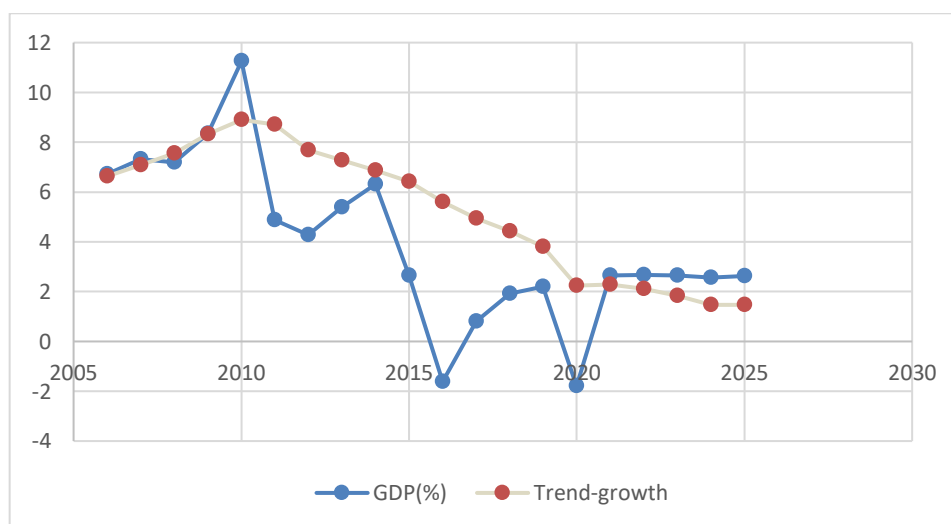
4 Estimated Value of Ten-Years Moving Average (MA)

Table 4: Ten-Year Moving Average (MA) of Nigerian GDP (%)

Year	GDP	10yr MA	Year	GDP	10yrMA	Year	GDP	10yr MA	Year	GDP	10yr MA
2006	6.726	6.63	2011	4.887	8.72	2016	-1.617	5.6	2021	2.64	2.28
2007	7.318	7.08	2012	4.279	7.69	2017	0.806	4.95	2022	2.665	2.12
2008	7.199	7.55	2013	5.394	7.28	2018	1.923	4.42	2023	2.65	1.84
2009	8.353	8.33	2014	6.31	6.87	2019	2.208	3.81	2024	2.561	1.47
2010	11.259	8.9	2015	2.653	6.43	2020	-1.794	2.25	2025	2.637	1.47

Source: Researchers' computation (2025)

Figure 3: Evolution of Nigerian GDP and Output Gap from 2006-2025



GDP at constant price, % change

Trend growth of GDP at constant price, ten year moving average % change

Source: Output from Excel (Data from IMF, (2025)

From 2006-2009, Nigeria's actual output and potential output were desirable with the country operating efficiently in 2006 and 2009 respectively. Implying having zero output gap where actual output equates potential output. Having this desirable result may be attributed to overall reduction in Nigeria's debt stock by \$30 billion. Therefore, gave the country maximum capacity to operate efficiently at her potential output. With the zero output gap during this period monetary policy became effective with both contractionary and expansionary policies achieving the desired result. During these periods, inflation becomes growth friendly. In the word of Roberto and Sveriges (2020), inflation during zero output improves economic performance. As a result of this, the country maintained 1-digit value of inflation rate during this period in 2006-2007 (8.24% and 5.38% respectively). Therefore, from 2006-2009, the level of aggregate demand equates aggregate supply.

In 2011, there was a sharp decline in actual output below the potential output, and it was maintained till 2020. This implies a negative output gap. For a negative output gap, actual output would be less than potential output, that is feasible in the economy, using all the available capacity. This indicates that for ten years (2011-2020) there were spare capacity, or slack, where the country's resources were not fully utilised as due to deficiency in aggregate demand. Its implications on monetary policy include rendering monetary policy ineffective. For instance, during a negative output gap, there is high rate of unemployment due to idle capacity despite decrease in real interest rate to stimulate investment. Schuler (2020) and Coibion, Gorodnichenko and Ulate (2017) revealed that during this period there is slack in production capacity as due to deficient in demand.

Also, excessive negative output is an indication that an economy is diving toward recession which promote unemployment and fall in price and wage; therefore, resulting in decrease in inflation. Considering this, Nigeria experienced such recession in 2015 and 2020 respectively with 2015 having severe effect on the entire economy. During a negative output gap, fiscal policy directed towards revenue generation become less effective due to fall in tax receipt, as a result of declining in sale and employment. Also, in an economy that practices welfare economic like developed nation; it spends more during this period on job seekers allowance, housing benefits and so on. In such situation, the monetary authority should adopt expansionary policy such as lowering interest rate, increase in money supply and others quantitative easing to encourage investment and aggregate demand, in order to prevent inflation falling below the recommended 3.0% target (Mogaji et al., 2020; Falade et al., 2018). While, the fiscal authority should adopt balanced budget or deficit budget (if deficit budget is used less external debt should be borrowed).

Furthermore, there is high tendency that Nigeria's actual output gap was greater than potential output gap from 2021-2025. Therefore, implies a positive output gap. A positive output gap occurs when actual output is greater than potential output. This generally happens when demand is very high and the economy is said to be "overheating". To meet demand, businesses, factories and workers operate beyond their most efficient capacity. One disadvantage of this situation is that high demand for more workers during this period is tentative in nature. That is, it is feasible in the short term, but results in higher costs in the long-run, which continually drive up

prices and wages and generating rising inflation. If demand remains high, the only way this can be sustained without accelerating inflation is if potential output increases, i.e. the economy expands its production capacity; this is most likely to be achieved via investment in physical and human capital, which takes time to deliver. In the short term, a forecast of an emerging positive output gap is likely to result in tighter monetary policy, through a higher interest rate which is intended to “cool” the “overheating” economy by inducing a decline in interest sensitive components of demand, including business investment and household consumption.

CONCLUSION AND POLICY RECOMMENDATIONS

The study examined both actual output and potential output of Nigeria, using a Moving Average (MA) technique from 2006-2025. The ten-years Moving Average (MA) used showed that the country witnessed zero output gap in 2006 and 2009 respectively, actual output was below the potential output within 2011 to 2020, while the actual output gap was greater than the potential output gap from 2021-2025. Furthermore, there was reduction in consumers' purchasing power between 2022 to 2025. It was concluded that the country operated efficiently in 2006-2009, experienced idle capacity from 2011 to 2020, while that of 2021-2025 was over-utilisation of resources. the study made the under listed recommendations;

- i. The study recommends that Nigeria's government should reduce her excessive borrowing either through external or domestic source in order not to pluck the economy to further overheating. The obtained result showed that the overall reduction in the country's debt stock enabled the country to achieved zero output gap, where actual output equates potential output in 2006 and 2009 respectively.
- ii. Government should invest more in physical and human capital so that the present demand for more workers would not be tentative in nature. The obtained result has shown that the country should expect more of demand for labour and increase in aggregate demand in the nearest future due to overheating of the economy. However, such is tentative due to absence of infrastructural facilities to absorb such increase. Hence, government must invest in the critical infrastructural that encourages growth.
- iii. The apex bank in the country should consider using inflation targeting as a means through which it can achieve a 1-unit digit and reduce spiral inflations.

REFERENCES

- Ademola, A. S. & Badiru, A. (2016). The impact of unemployment and inflation on economic growth in Nigeria (1981-2014), *International Journal of Business and Economic Sciences Applied Research*, 9(1), 47-55.
- Alghamdi, N. (2023). Understanding the relationship between states' unemployment rates and gross domestic product. *Eximia*, 9(1), 44-63. <https://doi.org/10.47577/eximia.v9i1.261>
- Baba N. Y. (2013). Nigeria's potential growth and output gap: Application of different econometrics filters. *Journal of Economics and Sustainable Development*, 4(13), 20-33.

- Central Bank of Nigeria, Statistical Bulletin (2020). 2020 Statistical Bulletin_Real Sector. Available online: https://www.cbn.gov.ng/out/2020/std/2020q1%20statistical%20bulletin_contents%20and%20narratives.pdf
- Citu, F. & Twaddle, J. (2018). The output gap and its role in monetary policy decision-making. Reserve Bank of New Zealand: *Bulletin*, 66(1),1-10.
- Coibion, O., Gorodnichenko, Yu., & Ulate, M. (2017). The cyclical sensitivity in estimates of potential output (NBER Working Paper No. 23580). Retrieved from <http://www.nber.org/papers/w23580>
- Darby, J. & McIntyre, S. (2018). The output gap: what is it, how can it be estimated and are estimates fit for policy makers' purposes? *Economic Commentary*, 19-25.
- Debt Management Office (2021). Nigeria's External Debt Stock
- Douglas, L., Asya, K., Akaki, L., & Gevorg, M. (2019). Mind the gaps: Financial-cycle output gaps and monetary-policy-relevant output gaps. *Institute of Global Affairs*.
- Falade, A. O. O. (2021). Determinants and sustainability of manufacturing sector performance in Nigeria: The roles of selected macroeconomic variables. *Applied Finance and Accounting* 7(2), 31-40
- Falade, A. O. O., Aladejana, S. A. & Oluwalana, F. A. (2018). External debt in Nigeria: How sustainable using Heavily Indebted Poor Countries (HIPC) indicators? *AAU Anal of Accounting, Educational and Social Research*, 5(2), 34-43.
- Hala, H., Mehdi, S. & Huseyin, O. (2021). The nexus between the economic growth and unemployment in Jordan. *Future Business Journal*, 5(7), 89-109.
- Jose, L. R., Jose, E. & Jose, A. (2023). Minding the output gap: A Hamilton Filter approach and updated estimates for the Brazilian economy. *Publication of inter-American Development Bank*
- Katuka, B. & Calvin, M. (2023). Impact of output gap, covid-19, and governance quality on fiscal space in sub-Saharan Africa. *Economies* 11: 256. <https://doi.org/10.3390/economies1100256>
- Kungoza, R., Zikusooka, E., Ngiri, A. & Amany, G.(2023). The effect of unemployment on economic growth of communities in Uganda. A case of Kiryandongo Town Council. *Metropolitan Journal of Social and Educational Research*, 2(6), 598-60.
- Mogaji, O., & Falade, A. O. O. & Ogundipe, S. A. (2020). Inflation, interest rate and domestic investment in Nigeria: Auto-Regressive Distributed Lag (ARDL) Approach. *International Journal of Engineering and Management*, 2(8), 516-525
- Moosa, A., Ciprian, N., & Gabriel, B. (2009). Estimating potential GDP for the Romanian economy. An eclectic approach. *DOFIN, Academy of Economic Studies, Bucharest, Centre for Advanced Research in Finance and Banking (CARFIB)*.
- Murray, J. (2014). Output gap measurement: judgement and uncertainty. Office for Budget Responsibility working Paper 5. Available at <http://budgetresponsibility.org.uk/wordpress/docs/WorkingPaperNo5.pdf>
- Muth, John F. (1961). Rational expectations and the theory of price movements. *Econometrica* 29(3), 315-335.

- National Bureau of Statistics, NBS (2021). Consumer Price Index December 2021: (BASE PERIOD NOVEMBER 2009 = 100). Available online: <https://www.nigerianstat.gov.ng/pdfuploads/CPI%20DECEMBER%202021%20REPORT.pdf>
- Omodero, C. O. (2019). Government sectoral expenditure and poverty alleviation in Nigeria. *Research in World Economy, Sciedu Press*, 10(1), 80-90.
- Onanuga, A. T., Tella, S. A., & Osoba, A. M. (2016). Uncertainty of output gap and monetary policy-making in Nigeria *Acta Universitatis Danubius*, 12 (5), 11-21.
- Onuoha, F. C., & Agbede, M. O. (2019). Impact of disaggregated public expenditure on unemployment rate of selected African Countries: A Panel Dynamic Analysis. *Journal of Economics, Management and Trade*, 24(5), 1-14. <https://doi.org/10.9734/jemt/2019/v24i530175>
- Osman, M. (2008). Estimating potential output gap for East African countries: An eclectic approach. *European Journal of Economics, Finance and Administrative Sciences*, 2(12), 20-28
- Patricia, A., Milton, I. & K. Eugene (2009). Estimating potential output for Nigeria: A structural VAR approach. Available at www.africametrics.org/documents/...provisional_programme.pdf.
- Roberto, M. B., & Sveriges, R. (2020). Output Gaps and robust monetary policy rules. *International Journal of Central Banking*, 125-152.
- Sarwat, J. & Ahmed, S. M. (2013). What is the output gap? *Finance & Development*, 2, 38-39.
- Schuler, Y. S. (2020). On the credit-to-GDP gap and spurious medium-term cycles. *Economics Letters*, 192, 109245. <https://doi.org/10.1016/j.econlet.2020.109245>
- Stavytskyy, A., Kharlamova, G., Giedraitis, V., Osetskyi, V., & Kulish, V. (2020). Can key interest rates decrease output gaps? *Investment Management and Financial Innovations*, 17(3), 205-218.
- Tino, B. (2008). Estimating Europe's natural rates", university of Muenster and SHERPA. [Atwww.wiwi.uni.muenstar.de/iioe/organisation/tino_download/nkpc.pdf](http://www.wiwi.uni.muenstar.de/iioe/organisation/tino_download/nkpc.pdf)