A Comparative Study of Nigeria Economic Growth between 2001/ 2020 and 1981/2000

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Abstract: The study examines a comparative study of two quarters of the Nigerian economy, 2001/2020 and 1981/2000. Identifies the problems facing Nigeria. A multiple linear regression model was used for the analysis. The data for the analysis was obtained from Nigeria's GDP 1981-2020/Macro Trends a publication from the Central Bank of Nigeria and the National Bureau of Statistics. The results show that the first quarter of 2001/2020 has the least root mean square error and the inequality coefficient values of 3.57 and 0.15 denoting the best model. This means that the first quarter (2001/2020) connotes the best economic growth in Nigeria.

Keywords: Economic Growth, Multiple Regression.

INTRODUCTION

Economic growth is a significant increase in the amount of goods and services produced per head of the population over a period of time. Economic growth is caused by the improvement in the quantity and quality of the factors of production that a country has available this includes land, labour, entrepreneur and capital. Conversely, economic decline may occur if the quality and quantity of any of the factors of production fails Gbadebo (2009).

Nigeria is in a challenging and deteriorating economic situation with lower growth projections. To reduce its vulnerability to economic crisis and rise to its potential Nigeria has to choose among markedly different paths. Policy reforms are available to help the country overcome the current challenges and set the foundations for rising to its potential. These reforms are needed in three areas thus: restoring macroeconomic stability, boosting private sector development and competitiveness and expanding social protection to protect the poor and most vulnerable Gonsalves (1989).

This study argues the thesis that government has become indispensable in the quest for socio-economic growth and development of states including Nigeria. It stresses the position that the economic and social activities of citizens in the state can no longer exist outside the purview of the governing authorities. That government is real and has become imperative in the world as presently construed is a self-evident truth. However, the state cannot achieve its economic and social goals without the government adopting civilized, populist, citizen-friendly economic, monetary and fiscal policies and of course socio-political policies, all of which ginger economy and bring out the creative best and entrepreneurial spirit in the citizens. This is where the concept of good governance makes rational and informed meaning. The principles of good governance take cognizance of the fact that the government ought to have a clear commitment to aims and policies directed to the well-being, freedom and happiness of all the citizens. No government, at any level, can, however, achieve this primary goal – happiness to the citizens – without first attaining a strong economic basis Hobbes et al., (1966). No strong economic basis can be attained without the government doing the

needful by way of creating the enabling environment critical to establishing, nurturing and sustaining business growth in the areas of commerce, raw material production, manufacturing, and distribution of foods and services. The support of local industries becomes a matter of necessity to the government in the quest for socio-economic growth and development in states, especially Nigeria. This study is informed by the author's socio-economic experience as a keen watcher within. For instance, Nigeria used to boast of tyre and textile industries, among the best in the world. Kano was once a home of textiles, not forgetting Aba, Onitsha and Lagos. Fabric making, using local cotton and yarn was the order of that period. In Lagos, Dunlop and Michelin were manufacturing motor tyres that even fed the African Sub-region. Industries in Nigeria were running three shifts. Today, however, the story has changed to a sorry one. Every concerned and well-meaning citizen should be concerned. These are however not insurmountable. This is where government comes in with its might, force, legitimacy, power and authority. Government is well positioned being the recipient of authority, mortal god and a contrivance of human wisdom to satisfy human want Ige (2011).

Some economic challenges in Nigeria: Some causes of economic disparity as examined by this study in Nigeria are as follows; (i) State society gap: the state society gap is the disparity that exists between a country's government and its citizens. For instance, a government cannot manage it economic, political, and social affairs without fostering interaction between it, the private sector and other social groups. (ii) Corruption: corruption is a global menace. It is quite prevalent in African countries, Nigeria included. For many years, Nigeria has earned a considerable sum of money from its natural resources, such as gas and oil, with a considerable portion going down the cesspool created by basically, a considerable portion of the money the country earns finding its way into pockets of a few, leaving millions impoverished. (iii) Inconsistent economic policies: the lack of consistency and political greed are among the causes of the haemorrhage in the economy. Every administration which comes on board sets up a new policy initiative instead of working on the previous one. Consequently, Nigeria has a series of inefficient and poorly executed policies. (iv) Poor human capital development: Human capital plays a significant role in the success or failure of any nation or organization. Much of the problems facing the Nigerian economy reflect the bad quality of the nation's human capital. (v) Crime and Terrorism: Public security is an essential aspect of every state, and Nigeria has performed dismally in this respect. Terrorist attacks have been on the rise in Nigeria. The situation is worsening by the regular occurrences of bombing, kidnappings, etc. (sanandres. Esc.edu.ar/secondary/economics%20packs/deve) Lucas (2015).

The study aimed to compare the Nigeria economic growth of two-quarters of the Nigeria economy between 2001/2020 and 1981/2000 to examine the best quarter with the best economic growth.

LITERATURE REVIEW

There are extant works that have captured the state of the Nigerian business environment in some ramifications. In his section, we take a look at some critical impediments to local business growth in Nigeria. For instance, Nigeria has been rated very poor in the ease of starting a business and ease of doing business index. In the latest ranking by the World Bank Group, Nigeria was ranked 169 out of 189 economies of the world. This shows that it is difficult to start and continue to do business in Nigeria. The difficulty of starting a business and doing business in terms of bureaucratic bottlenecks, high cost of charges and corrupt state officials discourages the growth of business and hampers economic growth. Some areas of difficulty have been identified by scholars. For instance, Ngwama, (2009) observed that Nigeria's transportation and power sectors of the economy are not strong enough to support virile growth and development. According to Ngwama, (2009). despite Nigeria's huge resources endowment in energy and enormous investment in the provision of energy infrastructure, the performance of the power sector has remained poor, in comparison with other developing economies. Obayan, A. (2012). is also in favour of electricity as a driver of industries.

They maintained that the manufacturing sector remains the engine of growth and development in any country. However, they noted that the electricity supply in Nigeria is not adequate to drive manufacturing productivity. According to them, it is lack of energy that forced two tyre makers-Dunlop and Michelin to close down their factories. In the same vein a World Bank Report on Nigeria Economy 2012 Obayan, A (2012). 97% of firms own generators, 67% of production time was supported by generators, causing substantial additional cost and 75% of the total cost of production was due to fueling of generators. Oyeneye, et al., (2014). who studied 7353 firms in 12 countries including Nigeria documented in clear terms that over 50% of the firms have electricity supply as a major factor limiting productivity. For George and Oseni quoted from Oyeneye et al poor and inadequate supply of electricity accounts for crass unemployment in Nigeria. However, Rousseau (1968) quoted from Oyeneye et al(2014) concludes that any significant improvement in electricity supply is capable of saving an amount that is equivalent to the cost of 1.5 million jobs.

METHODOLOGY

Study Area and Data Source

The study was conducted in Nigeria; the country is situated in the Gulf of Sub-Sahara Africa. Data used in the study were from Nigeria's GDP 1981-2020/macro trends a publication of the Central Bank (CBN) and National Bureau of Statistics. https://www.macrotreds.net/country/NGA/nigeria/gdp.gross-domesticproduct

Analytical Techniques

To compare two-quarters of the Nigeria's economic growth from 2001/2020 and 1981/200, the following empirical model was specified based on the objective of the study.

$$NEGTY = \emptyset_0 + \emptyset_1 RGRX_1 + \emptyset_2 PGRX_2 + U_x \tag{1}$$

Where

$\emptyset_0, \emptyset_1, \emptyset_1$, are the regression constants

$NEGTY$ = Nigeria's economic growth- (dependent variable)

$RGRX_1$ = Current growth rate between 2001/2020.- (independent variable)

$PGRX_2$ = Prior growth rate between 1981/2000- (independent variable)

U_x = Stochastic error term $U_x \sim iid(0, \sigma^2)$.

Model Selection Criteria

To select the best-fitting model, two methods were used for forecasting. The Root Mean Square Error (RMS) and Theil Inequality Coefficient (TIC) utilizing two equations-$EQ1$ ($data$ 2001/2020), $EQ2$ ($DATA$ 1981/2000). and we compare EQI and EQ2 to determine which model has better forecasting power ability. i.e. the smaller the value of RMS and TIC better the forecast. Also, if the RMS and TIC values are smaller. It shows that the gap between the actual NEGTY (dependent variable) and the forecasted NEGTY is small which implies that the model is the best fitted.

Results and Discussion

This section deals with the results obtained from the research and discussion of the findings.

Table 1.1: Model EQ1 (2001/2020) Estimated Equation

Dependent Variable: NEGT
Method: Least Squares
Date: 01/31/23 Time: 16:23
Sample: 2001 2020
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.232813	1.437805	2.943940	0.0087
RGRX1	1.188656	0.221063	5.377008	0.0000
R-squared	0.616305	Mean dependent var		10.50000
Adjusted R-squared	0.594988	S.D. dependent var		5.916080
S.E. of regression	3.765025	Akaike info criterion		5.584026
Sum squared resid	255.1574	Schwarz criterion		5.683599
Log-likelihood	-53.84026	Hannan-Quinn criter.		5.603463
F-statistic	28.91221	Durbin-Watson stat		1.312204
Prob(F-statistic)	0.000041			

Source: Researchers Computation using EViews 10 version.

Table 1.1 shows the model equation estimate of EQ1-2001/2020. From the model we evaluate the forecast estimate.

Figure 1.1: Forecast Estimate of EQ1

Source:
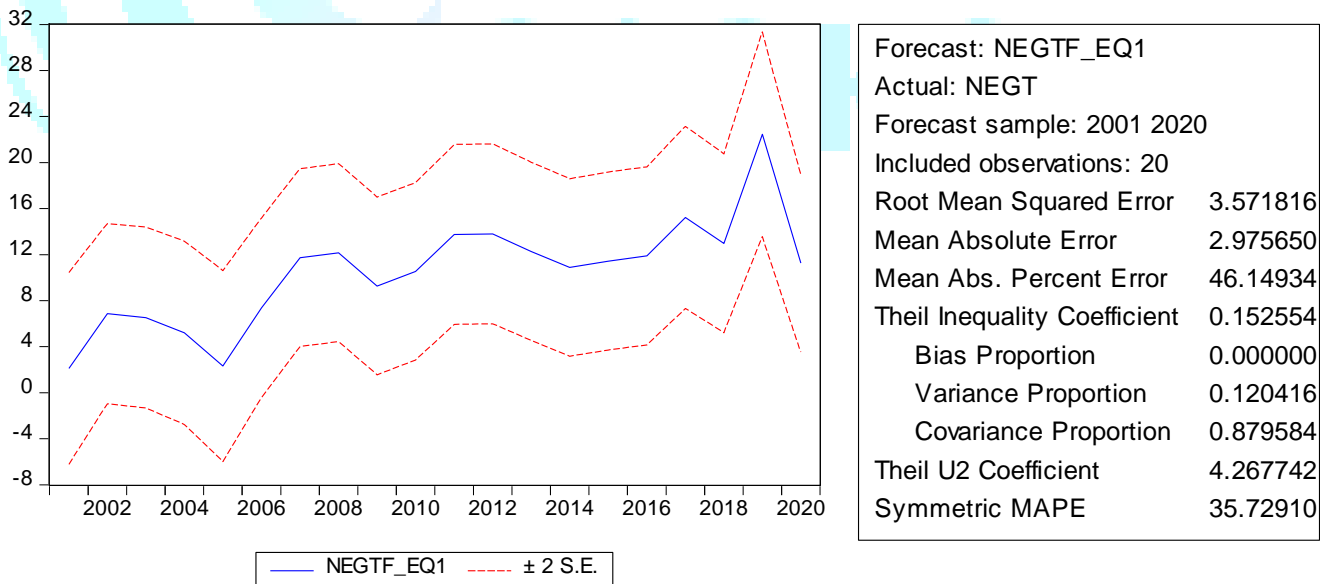
Source: Researchers computation using EViews 10 version

Since we are comparing the values of RMS and the TIC, thus;

EQI: RMS = 3.57, TIC = 0.15. Bias = 0.0000

If TIC = 0, it means there is a perfect fit which implies that actual NEGT and forecasted NEGT will move together or be the same. But if TIC = 1, it shows that the predicted power of the model is worse. TIC is between 0 and 1. Hence, TIC = 0.15, which means that the predicted power of the model is strong. Bias proportion = 0.0000. it is also called systematic error. i.e. the gap between the actual NEGTY and the forecasted NEGTY is small. i.e. 0%.
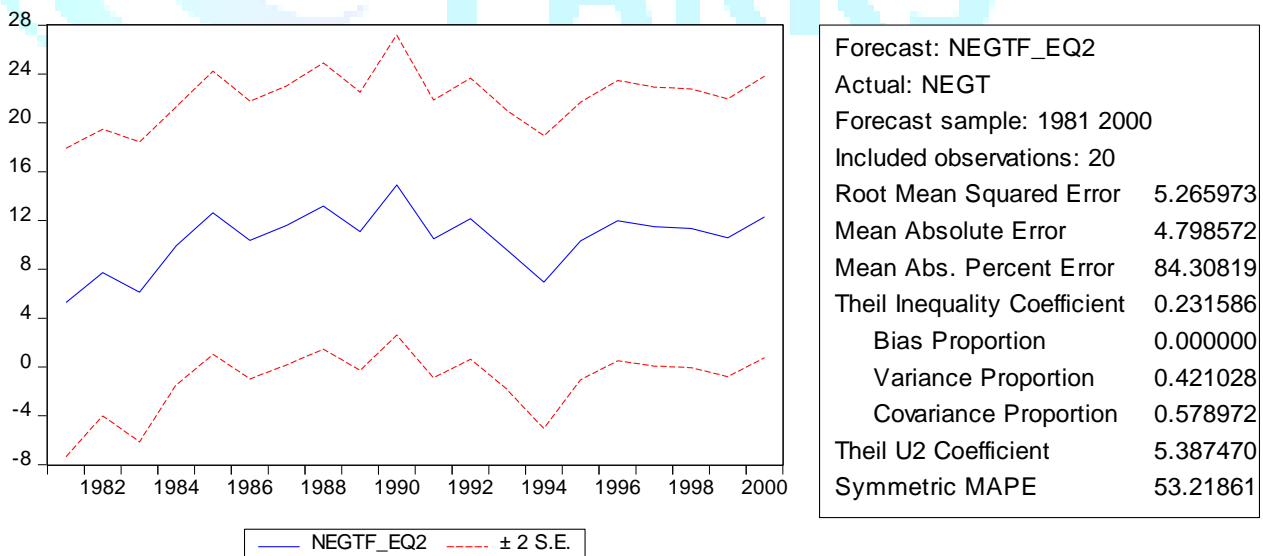
Table 1.2: Model Estimate of EQ2(1981/2000).

Dependent Variable: NEGT
Method: Least Squares
Date: 01/31/23 Time: 16:31
Sample: 1981 2000
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.35279	1.243636	8.324611	0.0000
PGRX2	0.386386	0.204133	1.892816	0.0746
R-squared	0.166001	Mean dependent var		10.50000
Adjusted R-squared	0.119667	S.D. dependent var		5.916080
S.E. of regression	5.550823	Akaike info criterion		6.360409
Sum squared resid	554.6095	Schwarz criterion		6.459982
Log likelihood	-61.60409	Hannan-Quinn criter.		6.379847
F-statistic	3.582754	Durbin-Watson stat		0.210632
Prob(F-statistic)	0.074576			

Source: Researchers computation using EViews 10 version

Figure 1.2: Forecast Estimate of EQ2 (1981/2000).

Forecast: NEGTF_EQ2	
Actual: NEGT	
Forecast sample: 1981 2000	
Included observations: 20	
Root Mean Squared Error	5.265973
Mean Absolute Error	4.798572
Mean Abs. Percent Error	84.30819
Theil Inequality Coefficient	0.231586
Bias Proportion	0.000000
Variance Proportion	0.421028
Covariance Proportion	0.578972
Theil U2 Coefficient	5.387470
Symmetric MAPE	53.21861

Source: Researchers computation using EViews 10 version

EQ2 = RMS = 5.26, TIC = 0.23, Bias = 0.0000.

Comparison of the two models

EQI: RMS = 3.57, TIC = 0.15. Bias = 0.0000

EQ2 = RMS = 5.26, TIC = 0.23, Bias = 0.0000.

Decision

The condition of our comparison stipulated that the lower the values of RMS and TIC the better the fit. Hence, from our analysis, the best model is EQ1 (2021/2020). This means that the Nigerian economy in 2001/2020 is better than prior 1981/2000.

Summary and Conclusion

The study identifies factors that when properly managed will harness economic growth in Nigeria. they include land, labour, capital and entrepreneurs. It also examines some economic problems that Nigeria is facing such as State-Society gap, corruption, inconsistent economic policies, crime and terrorism. Annual data derived from Nigeria GDP 1981 to 2020/ macro trends a publication of Central Bank of Nigeria and National Bureau of Statistics. A multiple linear regression model was used for a comparative study. The findings show that Nigeria's economic growth in the first quarter of 2001/2020 was better than 1981/2000.

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