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Economic Growth and Unemployment Nexus: Okun's Two-Version Case for Nigeria, South Africa and United States of America

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Abstract: Okun's law in its original form was predicated on the experience in the United States of America. Some methodological refinements have been added based on studies conducted in other climes with varied results. This research investigated the applicability of this law in Nigeria, South Africa and the United States of America. The study conducted a comparative analysis of three of the versions of the law. The research employed Ordinary Least Squares method having validated it's appropriateness with Dickey-Fuller and Philips-Perron tests. The result also showed that the dynamic version of the law was applicable in the three nations while the difference version was applicable only in Nigeria. This study also found that the dynamic version was superior to the difference version. Deployment of employment creative employment schemes, labour market reform and economic restructuring are recommended in the Nigerian case. The policy makers on South Africa and USA are enjoined to pursue both labour and growth-inducing policies.

Keywords: *Okun's Law, GDP growth, Unemployment rate, Difference version, Dynamic version*.

1. Introduction

The postulation of Arthur Melvin Okun (1939-1980) is part of the supply-side economics school of macroeconomic thought which contends that economic growth can be effectively engendered by lowering of production barriers. Okun's Law in effect refers to the inverse nexus between output and unemployment. The law in its original form states that a 2 per cent increase in output matches up to a 1per cent fall in the cyclical unemployment rate, 0.5 per cent increase in labour force involvement, 0.5 per cent rise in the number of hours worked per employee and 1 per cent increase in labour productivity that is, output per hours worked (Okun, 1962). For the economy to grow at a pace above its potential and therefore reduce the rate of unemployment, there must be a continuous rise in the both the size of the labour force and labour productivity. Critics of Okun's law points out that it is not based on any strong economic reasoning but only shows a statistical relationship based on the regression of unemployment and the growth of the economy. The coefficient adduced in the Okun's law is a rule of thumb, useful at best in forecasting for the purpose of policy formulation (Harris, 2001). In particular, the variations in the unemployment rates cannot be ascribed solely to the changes in the economic growth (Kwami, 2005). This is because there are other intermediary factors linking both variables. The degree of the applicability Okun's Law differs across countries. It also differs over the stages of a business cycle and over different time periods (Ball, 2017). Several versions of the law have been developed and deployed with varying results.

Indeed, the link between the growth of the economy and the level of unemployment have been modelled in a non-linear manner, contrary to the original linear postulation The Okun relationship has in addition to being different during the course of the business cycle, mutated over time and across nations. This makes it imperative for policymakers to have clear grasp of the direction and magnitude of these variations (Ball, 2017). The relationship between the two variables is reported stable, strong and constant (IMF, 2010), (Crespo-Cuaresma, 2003) and (Silvapulle, 2004). Some studies have also been carried out on the applicability of this study to the Nigerian case with conflicting results. Some indeed reported a stagflation situation (Jumah, 2007), (Njoku, 2011), (Sanusi, 2012) and (Amassoma, 2013). The lack of understanding of these nonlinearities and asymmetries in Okun's law can lead to forecasting errors and policy misdirection. The novelty of the study study therefore is the comparative investigation of the applicability of the law in three countries. Nigeria and South Africa are developing economies, and the USA, a developed country. In addition, two of the versions of the law (dynamic and difference versions) were conducted because the dynamic has been reported to be the more robust estimator (Knotek, 2007). The secondary question to be answered by this study is whether this is so in its countries of interest. The choice of the study period (1980-2010) provides an opportunity for a comprehensive assessment of the connection between employment and GDP.

2. Literature and Empirical Reviews

This section is in two parts: trend analysis of unemployment and economic growth of the countries of interest to this study and the review of related works across the globe. The law of demand for labour states that the number of employers required in the economy will vary with the level of productivity, demand for labour and variations in the price of the product. Across economic cycles of boom and depression, economic buoyancy and recession for almost 75 per cent of the life of Nigeria since attaining political independence in 1960. The next section is devoted to the review of relevant literature. The research methodology is discussed in section three followed by the analysis of results and discussions in the section four. In the concluding section, a brief summary of the study is presented together with some proffered recommendations. The supply law attributes employment factors such as the education, technology, the economic cycles, productivity level, profits desire and the intension of potential and actual workers to be gainfully employed (Dritsaki, 2009).

Trend Analysis of Unemployment and Economic Growth: An estimated 210 million unemployed people globally which is an increase of over 30 million since the start of the great recession of 2007 was recorded (Loungani, 2017). Unemployment as defined by the International Labour Organization (ILO) relates to the employable individuals actively by unsuccessfully seeking for jobs. They also include people who have voluntarily left work or have lost their jobs (Dwivedi, 2001). The insightful explanation for the causes of unemployment is predicated on the law of demand and supply for internal resources in the production process. Insight into the linkages between output and unemployment provided that unemployment could be decomposed into frictional, structural and cyclical elements for better understanding of Okun's Law (Geldenhuys, 2007). Whereas cyclical unemployment arises from deficiency in aggregate demand, imperfections in the microeconomic labour market and information asymmetry give rise to frictional and structural unemployment. Structural unemployment occurs as a result of advanced technology which replaces worker tasks with machines unless the workers are retrained. The unemployment trends for Nigeria, South Africa and USA depicted in Figure 1 showed that the patterns of the countries in the case study are different.

Figure 1: Unemployment Trends in Nigeria, South Africa and USA 1980 -2018

Source: Authors' compilation (2020)

The illustration in the rough shows that for Nigeria, the unemployment and real GDP are largely trended in the up with some significant drops in 1994 / 1995. The growth of the population can be held to be largely responsible for this. The country has experienced fundamental economic and indeed socio-political structural changes since its political independence in 1960. The relative growth of the economy due to crude oil boon in the greater parts of the 1970s had scant impact on the employment levels because the oil economy has been dominated by foreign oil corporations and interests. The level of integration of the oil sector and the rest of the economy is low. The results of wasteful expenditure in the public sector, in line with Dutch disease syndrome, caused employment dislocations and distorted policy planning (Fasanya, 2013).

The Structural Adjustment Programme (SAP) of 1986 and other reforms have yielded limited results. Unemployment which stood at 5.3 per cent in 1986 has risen to 23.1 per cent in the 2018 (National Bureau of Statistics, 2018). The average economic growth rate of 2.2 per cent during the study period lagged behind the average unemployment rate of 23 per cent. The report by the South African National Treasury (2018) is that unemployment rose from 9.2 per cent in 1980 to a peak of 29.4 per cent in 1984. It stood at 26.5 per cent in 2018 (Figure 1). Unemployment in South Africa, suffers from unmanaged structural unemployment as opposed to the cyclical unemployment in the USA due to reduced consumer demand country especially during the recession phase of the business cycle (Kamgnia, 2009). The post-apartheid years have not delivered the promised benefits of economic freedom for the majority of the population who had suffered from antiquated education during the apartheid years (Mosikari, 2013).

The average United States of America economic growth rate of 2.7 per cent during the study period lagged behind the average unemployment rate of 6.4 per cent. In the USA, the misery index which is the sum of the inflation and unemployment rates is used as an indicator of tough times. Figure 1 depicts a trend with the narrowest band of variation of unemployment amongst the three countries over the period under review. The problem is considered very severe in the United States being the epicentre of the economic recession. Indeed, Americans living in poverty rose by 30 per cent from 37.3 million in 2007 to 48.5 million in 2011 Indeed, the 2.9 per cent rate of growth was less than the 3.9 per cent rate of unemployment as of 2018 (World Development Indicators, 2018). Several studies have been conducted on the association between unemployment rate and the growth of GDP. The empirical evidence from across the world is presented in the next section.

Empirical Literature: Some of the earlier studies on this topic found little correlation between reduction in aggregate national outputs and the rise in unemployment during the countries' recessions suggesting that Okun's Law may indeed be exaggerated across countries ((Gordon, 1984), (Knoester, 1986), (Prachowny, 1993), (IMF, 2010) and (McKinsey, 2011)). An inverse linkage was recorded in a bi-variate component modelling of the law for United Kingdom and France (Stephan, 2012). The study which utilised quarterly data OECD data (1969:1 to 2011:2) is supportive of the real business cycle theory. The Middle Eastern economies came to similar conclusions (Soylu, 2018). Furthermore, a Scottish study shows that the strength of association between the growth of the economy and employment was due to the disparity in the rural and urban areas of the two economies (Revoredo-Giha, 2012). The worldwide economic recession between 2008 and 2009 provides ample opportunity for researchers to test the relevance of Okun's Law. Some other deviation from Okun's Law as reported by in the study of Germany was that the fall in the unemployment rate occurred more during recession (Burda, 2011).This marvel was explained by the reduction in the hours per worker as a result of government - sanctioned work sharing arrangement. The tradition of lifetime provision of employment in Japan was the explanation given for the weak link between unemployment and output growth. The study contended that the Okun Coefficient for the country may have risen but for the reluctance of firms to disengage workers.

Using the Generalised Method of Moments, the examination of the dynamic relationships subsisting between output growth and unemployment in Nigeria between 1970 and 2010 confirmed a non-linear and hump-shaped dynamic link (Sanusi, 2012). The connection was being positive at unemployment rates below the threshold of 5.5 per cent and become negative at higher unemployment rates (Adeyeye, 2017). The dynamic research which applied the same generalized method of moment's estimation reports an adverse impact of present and past GDP on the rate of employment in Nigeria between 1985 and 2015. The relationship estimate in the USA was about a 3 per cent output reduction for every 1 per cent rise in the unemployment rate (Prachowny, 1993). He contended that most of the change in a country's output apart from unemployment, was due to variables including the number of hours worked and the level of capacity utilization. When these other factors are held constant, variations in GDP plummets to about 0.7 per cent for every 1 per cent change in the unemployment rate. The study of the fitness of Okun's Law into short-run unemployment movements in twenty one advanced economies since 1980 recorded stable but strong connection in most countries, notwithstanding the various economic recessions (Kooros, 2006). This was contrary to the findings of the examination the linkage between variations in the output growth and unemployment rates based on USA labour market flows and utilising the difference version of the Okun's law. The net flows between unemployment rate and indeed rate of employment were reported.

To be sensitive to variations in output growth which responds differently to negative and positive shocks (Lim, 2019). In effect, the relationship espoused by Okun's law was stable but asymmetric. The impact of the variations was larger during periods of economic contraction than when it was expansionary. This position validated the findings of (Owyang, 2012) and (Cazes, 2013) where unemployment appeared to react less to economic growth before rather than after the onset of economic depression. The limitation of Okun's rule of the thumb especially during global financial crisis manifested in the puzzling paradoxical coexistence of relatively modest national output growth and the significant decline in the US unemployment rate between 2010 and 2011 (Bernanke, 2012). One possible explanation for the incongruence situation is statistical white noise arising from the use of GDP. An alternative measure of economic activity (gross domestic income) constructed from the same data source report different results. Another explanation is the likelihood that the unemployed has given up looking for work in which case the dip in the rate of unemployment would be exaggerating the improvement in the job market.

The modification of the Okun's Law, set within a vector autoregressive (VAR) framework and evaluated by means of impulse response analysis data from some African countries found that that 14 out of 29 countries show zero causal interaction (Jumah, 2007). Similar finding in Nigeria showed that unemployment rate between 1986 and 2010 has an insignificant influence on productivity in the short and long run (Amassoma, 2013). Contrary findings were reported on the affiliation between economic growth and the level of unemployment in Nigeria between 1985 and 2009 (Njoku, 2011). The result demonstrated that whereas the economy grew by about 56 per cent between 1991 and 2006, the unemployment level rose by about 75 per cent. Similar finding was reported reports the phenomena of 'jobless growth' in the Nigerian study spanning 1970 to 2009 (Adawo, 2012). Whereas the country's labour force grew at an average rate of 0.3% every year, the GDP growth rate at 1984 factor cost grew at 3.5% over a period of 33 years. In the same vein, the Okun's coefficient was studied in order to validate the law in some Asian countries using the annual time series data between 1980 and 2006 (Lal, 2010). In addition, the research employed the Error Correction Mechanism (ECM) evaluate the dynamics in the short run.

The Granger co integration technique to identify the long-run connection. The investigation concluded that Okun's law interpretation of the output-growth nexus may not be applicable in some Asian developing countries. However, given the myriads of factors shaping economic growth, relying on Okun's Law to make specific predictions about the level of unemployment given the growth trends of the economy appears difficult (Lal, 2010). Over time, the growth-unemployment nexus as observed by Okun changed but there was no consensus on the extent of co-trending among the unemployment rate and output (Huang, 2005). The relationship has also been reported to differ during a business cycle (Crespo-Cuaresma, 2003), over time (Sögner, 2002), and across countries (Silvapulle, 2004). Three main versions of the Okun's Law identified in the literature are the gap, the difference and the dynamic versions (Mielcová, 2011). This rule of thumb in the empirical study of the law by Okun has, together with the Phillips curve, been of interest to many economists not only because of their robustness, but also because both laws help to model the aggregate supply curves (Friedman, 1974). The key versions are presented in the next section in addition to other methodological matters of interest to this study.

3. Methodology

Versions of Okun's Law: The original empirical observation of Okun on the nexus between unemployment and economic growth, have attracted the formulation of several other versions. This was in a bid to apply the law in different times and climes. The application of regression analysis between unemployment and economic growth has resulted in contradictory coefficient values and indeed, causality due to the historical nature of the data inputs and the time periods used. The gap version also known as the level version asserts that when output is below full employment, the unemployment will exceed the natural rate. The stipulation of the gap version is that the potential GDP will fall by an additional 2% for every 1% rise in the rate of employment. This version is useful for illustrating the material costs of unemployment. The 'gap version' of the (Okun, 1962) examines the differences in actual and potential output. This is written as:

$$(\overline{Y} - Y)/\overline{Y} = c(u - \overline{u}), \quad (1)$$

Where: $\overline{Y}$ is potential GDP, Y is actual output, $\overline{u}$ is the natural rate of unemployment, u is actual unemployment rate and C is the factor relating change in unemployment to changes in output. The Difference version of the Okun's Law was formulated to address the problem of trending associated with the estimation of time series data (Prachowny, 1993). In clear terms, the difference version (equation 2) is the difference between output and potential output expressed as a percentage of potential output for a given economy. This is inversely proportional to the variance between the actual unemployment rate and the natural rate of unemployment. This version is a purely statistical and simple calculations method which can be directly calculated from the available empirical data without making any assumptions. The approach is to simply regress GDP growth over changes in unemployment rate. In clear terms, the difference version stipulates that the difference between output and potential output as a percentage of potential output for a given economy is negatively proportional to the difference between the rate of unemployment and the natural rate of unemployment (Prachowny, 1993). This version is depicted by equation (2):

$$(UM_t - UM_{t-1}) = \alpha + \beta(Y_t - Y_{t-1}) + \mu_t \quad (2)$$

This can also be rewritten as:

$$\Delta UM_t = \alpha + \beta \Delta Y_t + \mu_t \quad (3)$$

Where: ΔUM_t is the first difference of Unemployment (denoting changes in unemployment), ΔY_t is the first difference of GDP growth rate (denoting changes in economic growth) and μ_t is the error term. The dynamic version of Okun's Law ignores the temporal effects of output fluctuations. It relates the current change of the rate of unemployment to the current real output growth and past real output growth on the one hand, and past changes in the unemployment rate on the other (Knotek, 2007). The Dynamic version also addresses the problem of endogeneity bias because the inherent distributed lag specification reduces the simultaneous equation bias for the total effect of output on unemployment when output growth is positively auto-correlated (Sögner, 2002). This model is specified as equation (4).

$$\Delta UM_t = \beta_0 + \beta_1 Y_t + \beta_2 Y_{t-1} + \beta_3 Y_{t-2} + \beta_4 \Delta UM_{t-1} + \beta_5 \Delta UM_{t-2} + \mu_t \quad (4)$$

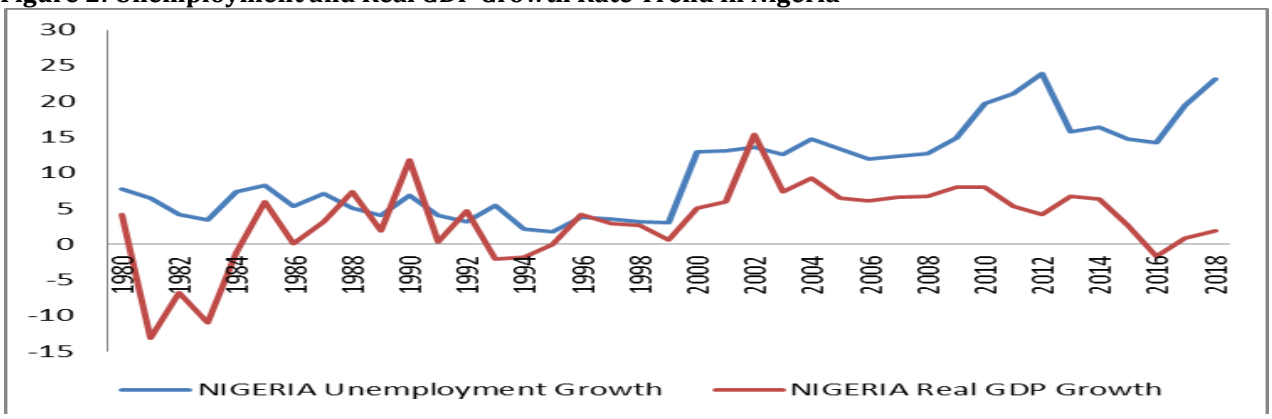
Where: Y and C are as defined in equation (1) and (2), ΔY and Δu is the change in actual output and actual unemployment respectively from one year to the next, k is the average annual growth rate of full-employment output and β is the coefficient. The dynamic version as deployed to developed nations like the USA is considered more robust than the other versions (Knotek, 2007). The salient question for this study is whether this position is true for Nigeria, South Africa and indeed, USA. The study therefore estimated the nexus between economic growth and unemployment rate using the difference and dynamic versions given their advancement over the basic gap version. The models to be estimated are as depicted in equations (3) and (4) in order to better assess the applicability of each of the methods. A comparative analysis of the results for the three countries is then conducted before inferences are drawn for policy advice.

Data Collection and Estimation Techniques: This research utilised time series data obtained from the (World Development Indicators, 2018) and the Central Bank of Nigeria Statistical Bulletin (various years). The study period spanned thirty – eight (38) years (1980-2018). The data on unemployment rate and GDP were also validated from the International Financial Statistic*s* (International Monetary Fund). A two-step estimation procedure was deployed. The first stage is to check for the stationarity of the variables by utilising the Augmented Dickey-fuller (1979) and Phillips Perron unit root tests. The need for testing stationarity conditions of variables arose in order to avoid spurious regression results. Since all the variables were stationary at level, the Ordinary Least Squares (OLS) was deployed as the appropriate regression technique. The statistical software package, EViews 9 was used for the computations. The choice of the study period spanning thirty-eight year ended 2018 is borne out of the fact that the Nigerian government embarked on an economic structural adjustment programme (SAP) in 1986 which involved massive disinvestment of government ownership from some key economic sectors. This International Monetary Fund (IMF) inspired programme also involved the deregulation and liberalization which impacted the macroeconomic variables including employment. Sufficient time has elapsed since then for a comprehensive evaluation of this programme with respect to unemployment and economic growth.

4. Results and Discussion

Findings: The test for stationarity in the variables shows that the tendency of the regression being spurious is non-existent. Also, the result of the Johansen cointegration showed significant cointegrating relationship among the variables. The graphical depictions of the findings on comparison of unemployment and economic growth between 1980 and 2010 for Nigeria, South Africa and USA are presented in Figures 2, 3 and 4 respectively. The illustration in the rough shows that for Nigeria, the unemployment and real GDP are largely trended in the same direction which is contrary to Okun's Law. Please refer to Appendix 1 for the Schedule of employment and real GDP growth rates for Nigeria, South Africa and USA (1980 to 2018). The graphical illustrations are given in Figures 2, 3 and 4.

Figure 2: Unemployment and Real GDP Growth Rate Trend in Nigeria



Source: Authors' compilation (2020)

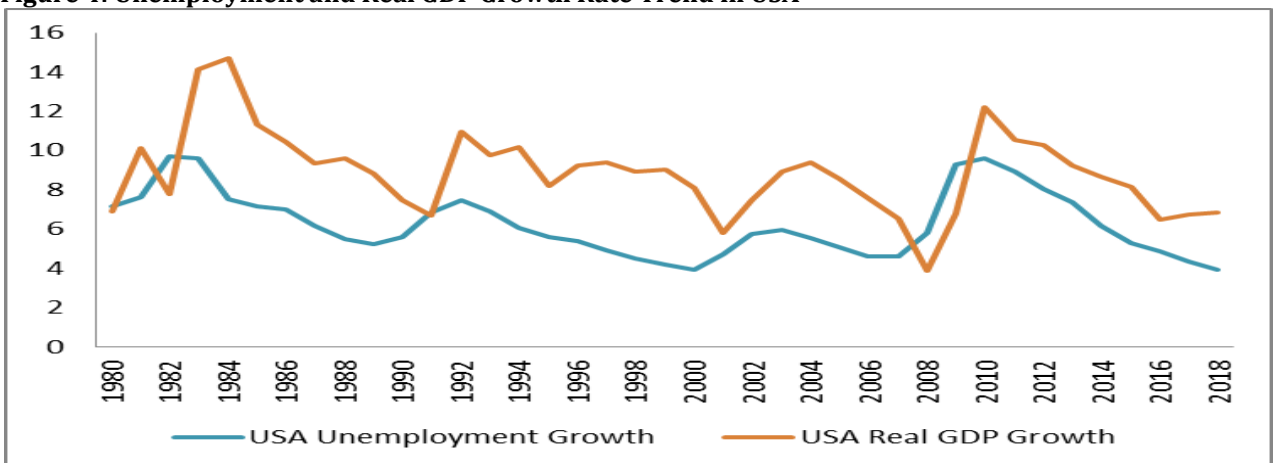
The South Africa case demonstrated conformity with the postulation of the Okun's Law as illustrated in Figure 3. Both variables are trended in the same direction and have continued on a rising spiral.

Figure 3: Unemployment and Real GDP Growth Rate Trend in South Africa

Source: Authors' compilation (2020)

Although the GDP growth rates exceeded those of unemployment, the trend in the United States of America also generally conforms to the Okun's law as shown in Figure 4.

Figure 4: Unemployment and Real GDP Growth Rate Trend in USA



Source: Authors' compilation (2020)

As shown in Table 1, all the series (both at Difference and levels) are stationary at 5% level of significance. This is expected, since differencing time series helps in addressing unit root. Unit root test was conducted on the Difference version of unemployment and growth rate as they take the form of variables (Equation 1). The implication of this result is that the tendency of the regression being spurious is non-existent.

Table 1: Unit Root Test Result

	ADF Test			Philips-Perron Test		
	ΔY	ΔUM	Y	ΔY	ΔUM	Y
Nigeria	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)
South Africa	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)
United States of America	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)

Source: Author's computation

Applying the Difference version of the Okun's Law, Table 2 below reveals that the Okun law of Output-unemployment relationship does not hold weight in Nigeria. This is because the coefficient explaining the rate of change in unemployment as caused by a change in growth rate shows a positive sign as against the expected negative sign. The hypothesis however holds for the United States of America and South Africa as the coefficient in the Okun's Difference equation shows a positive sign (Table 2).

Table 2: Estimated Result using Difference Version of Okun's Law

Country	Okun's Coefficient (Difference Version)			
	Sign	Magnitude	t-statistic	P-value
Nigeria	Positive	0.0161	1.8125	0.0756
South Africa	Negative	0.0055	1.9255	0.0642
United States of America	Negative	0.0348	3.5291	0.0025

Source: Author's computation (2014)

With respect to the t-statistic, output growth rate is significant in determining unemployment as in the case of the United States. However, it is insignificant in the case of South Africa and Nigeria at 5% level of significance. A major concern in the dynamic model is the nexus between the current change in unemployment (ΔUM) and the current rate output growth (Y) (Knotek, 2007). To satisfy this submission in the analysis, the coefficient of Y (current rate of output growth) is solely used in discussing the dynamic

model version of the Okun's law. The result of the dynamic version shown in Table 3 shows consistency in the Okun's coefficient for Nigeria as this is a positive sign. However, the relationship between changes in unemployment and growth shows an expected negative sign for South Africa and the United States of America as earlier shown in the Difference version result.

Table 3: Estimated Result using Dynamic Version of Okun's Law

Country	Sign	Magnitude	T-Statistic	P-Value
Nigeria	Positive	0.0268	2.1003	0.0332
South Africa	Negative	0.0151	-2.2542	0.0346
United States of America	Negative	0.0632	-4.4422	0.0003

Source: Author's computation (2014)

The use of the dynamic version of the Okun's Law improved the result given the presence of consistency in the directional relationships between unemployment and growth as shown in (Table 4). In addition, to the consistency in sign, the problem of simultaneity bias (autocorrelation), which would have dampened the BLUE properties of the estimates, was well taken care of.

Table 4: Result of Breusch-Godfrey Serial Correlation Test

Country	Difference Model	Dynamic model
Nigeria	0.9451	0.2125
South Africa	0.0815	0.9643
United States of America	0.0254	0.2141

Note: LM test static p-value reported above
Source: Author's computation (2014)

To further buttress the efficiency and unbiasedness of the estimates, the regression was run in such a way that the stand errors and co-variances are white, i.e. heteroskedasticity is consistent, which implies that the assumption of equal variance of disturbances is fully accounted for in the two models used. The dynamic version further helps justify the significance of growth in determining changes in unemployment as shown for the three countries.

5. Discussion of Findings and Conclusion

The Output-Unemployment relationship of Law Okun was not applicable in the Nigerian case. This can be adduced to the dependency on crude oil for most of the foreign revenue. The sector has been responsible for about 10% of Gross Domestic Product and about 88% its foreign exchange earnings (Organization of the Petroleum Exporting Countries - OPEC, 2019). The oil prices and volumes are exogenously determined by OPEC and other international oil interests. The Nigerian result was however, contrary to the report of (Huang G. H., 2019) which confirmed the validity of the proposition of Okun by utilising the variations in oil prices and net crude export as exogenous instrumental variable for economic growth. The results of the Dynamic and Difference versions for Nigeria clearly showed that economic growth did not influence the unemployment levels during the research period. Indeed, whereas the rate of economic growth was 3.29 per cent on the average, the average unemployment rate during the study period was 23.1 per cent. These results have also support the similar findings of ((Arewa, 2012), (Bankole, 2013) and (Lal, 2010)) on Nigeria. The result of the Difference version for United States of America is negative. This connection in the case of USA is stable, strong and reliable of (Ball, 2017). The asymmetric weakening of the Okun relationship over the years since the 1980s has been reported over the years (Valadkhani, 2015). The results of the Dynamic versions for USA were also negative.

The investigated linkage between changes in the rate of unemployment and growth of USA output USA from the perspective of the labour market flows also manifested negative nexus (Lim, 2019). Specifically, the net flows between unemployment and employment were recorded to be sensitive to changes in output growth and reacted inversely to negative and positive changes in growth. The importance of market driven labour policies was also identified as being decisive in explaining the cross-country cyclical variances in the

aggregate Okun's coefficient obtained in USA, Japan, The United Kingdom and Switzerland (Goto, 2019). The results of the Difference and Dynamic versions conducted by this research with respect to South Africa were negative. Okun's law holds in this country. However, the findings in the literature are mixed. The study up held the findings of the relationship to be negative (Geldenhuys, 2007). The finding ran contrary to the findings that Okun's law is not applicable in South Africa (Moroke, 2014). This study found evidence of the superiority of the Dynamic version over the Difference version. Drawing lessons from the country's experience during the Structural Adjustment Programme era, there are no one-size-fits-all economic policies as we have always been made to believe. It therefore implies that most developing countries, especially in the African continent need home-grown economic policies, which can be adapted from successful development models in the developed countries.

Conclusion

This study investigates the relationship between unemployment rate and GDP for Nigeria, South Africa and the United States of America. The idea is to test the relationship for Nigeria but bench marked by the results for South Africa, an emerging country and the U.S.A., a developed country. Using the more robust dynamic version, the Okun hypothesis, shows that the negative nexus between unemployment and economic growth holds for Nigeria as well as for the other two benchmark countries. The difference version of the law, which expectedly holds for United States of America and surprisingly for South Africa did not apply to Nigeria. The parody in the Nigerian case is therefore manifest. The study found no evidence that the dynamic version of Okun's law is the more robust estimator than the difference version as posited by (Javeid, 2012). Stemming from these findings, on the whole, the world is indeed much more complicated for a simple causal interpretation of equations. Therefore, policy rules based on such simplistic model should possibly be viewed carefully. The base line recommendation however is that the government should take concrete steps to diversify the economy. The Nigeria's over-reliance on crude oil export for about 10% of GDP, 65% of government revenue and about 88% its foreign exchange earnings is undesirable. This exogenously controlled sector cannot engender sustainable economic growth and domestic employment. The Nigerian government is enjoined to introduce macro-economic stabilization policies, which aim at providing job creation opportunities. The policy makers of South Africa should continue the deployment of growth inducing policies. The United States of America should continue to device both growth and labour enhancing policies.

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