Nigeria's Economic Growth: Past, Present and Determinants

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Abstract

This study empirically analyses the pattern of economic growth in Nigeria since its independence and investigates the determinants of its economic growth for the sample period 1960-2015. The findings of the study based on the estimation of Autoregressive Distributed Lag (ARDL) model indicate that the long-run economic growth is significantly influenced by the level of investment, while political stability and political freedom have a negative insignificant impact on the growth rate of the Nigerian economy. However, the one-year lag of the economic growth substantially determines the level of economic growth in the short-run.

Keywords: Economic growth, ARDL model, political stability, political freedom

1. Introduction

The growing concern among researchers in the field of macroeconomics focuses on providing evidence-based answers to the following economic questions: what determines economic growth? Why some countries grow faster than the other? What accounts for unequal growth rates across countries? Are these factors country-specific? There are still diverse answers to the above questions in the literature. However, scanty or little empirical studies have been conducted in examining the influence of political factors on economic growth in developing nations like Nigeria, relative to other determinants such as FDI, human capital, physical capital, trade openness, financial development, economic freedom etc. The political climate of any country can promote or retard economic growth, which is why this paper intends to examine the determinants of economic growth in Nigeria as well as its political effects on the level of economic performance.

The study adds to the existing knowledge on determinants of economic growth from a number of angles. First, quite a number of studies on economic growth in Nigeria focus on the relationship between economic growth, FDI and economic freedom, there is no study that has specifically investigated the link between economic growth and political factors in Nigeria to the best knowledge of the author. Second, most research on the political system was mainly cross-countries analysis (see Bengoa and Sanchez, 2003; Javorcik (2004); Kapuria (2007). The country-specific studies on the relationship between a political system and economic growth are very limited in the case of Nigeria. In addition, the use of most recent dataset with a large scope is another contribution to the existing research. This study seeks to address this issue by building quantitative models in order to how much its growth has been improved over the years and the contributing factors to these improved growths. In addition, it lays out empirically as many facts as possible about the country's economic growth since its independence in 1960.

The basic aim of this paper is to empirically examine the long-run determinants of Nigerian economic growth. The empirical paper depends on a time series regression framework in which economic growth is fundamentally determined by drivers identified in the growth accounts, and potentially influenced by political factors. The novel ideas in its econometric work are that the study employs a long –term database spanning almost fifty-five years.The study fills the existing gap in the literature by examining the impact of political regimes on economic growth for developing economies like Nigeria that had been ruled by the British government for almost 100 years.

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The recent situation of political issues in Nigeria motivates the need to examine the influence of political determinants on its economic growth. The remaining of the paper is segmented as follows. Section 2 reviews the relevant economic literature while analytical framework including the econometric methodology is developed in Section 3. Empirical results are presented in Section 4. Discussion of the most relevant outcomes and drawing of the conclusion are provided in Section 5.

1.1 Stylized Facts of Nigerian Economy

Prior to the independence of a country now called Nigeria, the British ruled the country for almost 100 years in order to exploit abundant natural resources needed to sustain its empire. The colonial authorities provided basic infrastructure and services required to boost the exportation of raw materials to Britain. Owing to the interest of the colonialists, agriculture and trade were used as the drivers of the colonial economy. They put in places several measures to stimulate the production of industrial raw materials such as palm oil and kernels, cocoa, cotton, groundnut and rubber. This leads to the dominant role of commodities export in the economy. According to Onimode (1983), the rise in export demand triggered the production of other major agricultural products such as cocoa, groundnut, cotton, and rubber. During this colonial era, the main source of the foreign exchange earnings was the trade in the major agricultural commodities. The promotion of major agricultural goods for export led to the problem of food insecurity as the production of food crops was handled by farmers who generally worked on small plots of land with inefficient traditional technologies.

Another important economic activity during the colonial era was the exploitation of mineral resources like coal, tin, columbite, petroleum and gold. The British colonialists managed the gold mining activities while other minerals were left to the private foreign companies. Their economic interest prevented the promotion of industrial activities especially manufacturing with the aim of protecting the market for the products from their home country. Since the independence of Nigeria in 1960, the average growth rate of its per capita GDP has been 1.7 percent per year. The stability of the country's economic growth is an indication that the country is very close to its long-run steady state balanced growth path. This evidently shows in the absence of trends in its capital-output ratio and its real interest rates. The average real GDP per capita was about US$ 1222 between 1950 and 1959. The amount rose to US$1477 under the regime of the country's first president. The GDP per capita reached a peak of about US$1804 on average between 1976 and 1979 during the military period of Olusegun Obasanjo. After the Obasanjo's military regime, the declining trend of average real GDP per capita was observed (See Table 1). Prior to the adoption of 1986 Structural Adjustment Programme (SAP) in the country, the average per capita was almost US$ 1544 between 1960 and 1985. However, a decline in real GDP per capita was experienced after the SAP era. The real GDP per capita on average stood at US$1446 when the country was under the military regime. Since the adoption of a democratic system in the country, there was an improvement in the real GDP per capita. This might reflect the positive effect of democracy on the economic growth identified in the literature. Also, the highest annual growth rate of Nigeria's GDP per capita was observed between 1999 and 2007. The least growth rate in the country was attributed to the period before the democratic system of government (see Table 1).

In the same vein, the rate of GDP per capita growth in the post-SAP era was higher compared to the pre-SAP era. Under the Gowon administration, the country witnessed the highest growth rate of economic growth but its real GDP per capita had the highest during the military administration of Olusegun Obasanjo. The drastic fall in the growth rate of per capita GDP was noticeable when Shehu Shagari controlled the affairs of the country. However, the country's average annual GDP per capita since its independence was US$1627.59 compared to US$1222.48 between 1950 and 1959. This indicates that Nigeria was able to contribute about US$405(33% increase) to its pre-independence per capita income for more than 55 years of its independence. The dynamics of political system and regimes in the country contribute the level of economic performance. This leads to the questions of why some political systems enhanced the level of economic growth while others slow down the growth pace; and what makes some government regimes better in terms of economic performance than the other?. Therefore, this demands to an evidence-based answer on the impact of political determinants on economic growth in Nigeria. This justifies the relevance of this study in providing useful insights to the political effects of economic growth for a country like Nigeria that is potentially worthy to be at the growth frontier but recently struggles to remove out of economic recession.

Table 1: Pattern of Nigerian Economic Growth under Political Regime

	Average real GDP per Capita (US$2005)	Average Annual Growth of real GDP per Capita (%)
Colonial Era(1950-1959)	1222.48	1.60
Before Democracy(1960-1998)	1446.43	0.32
Democracy(1999-2007)	1747.41	8.10
Pre-SAP era(1960-1985)	1543.67	0.83
Post-SAP era(1986-2007)	1454.65	2.91
Political Regime		
NnamdiAzikiwe (1960-1966)	1477.71	1.10
Yakubu Gowon(1967-1975)	1535.31	4.36
Olusegun Obasanjo(1976-1979)	1804.34	-2.69
Shehu Shagari(1980-1983)	1486.16	-4.92
Muhammadu Buhari(1983-1985)	1405.80	2.52
Ibrahim Babangida(1985-1993)	1253.17	-1.45
Sani Abacha(1993-1998)	1250.03	0.53
Abdul Salam Abubakar(1998-1999)	1260.64	-0.92
Olusegun Obasanjo(1999-2007)	1589.52	5.76
Umaru Musa Ya'Adua(2007-2010)	2212.60	4.20
Goodluck Jonathan(2011-2014)	2443.31	2.43
Muhammadu Buhari(2015-)	2548.17	-0.01

Source: Compiled by the author from Penn World Table (2007) and World Development Indicators (WDI)2015

1.1.1 Structure of Nigerian Economy

The share of the agricultural sector to the gross domestic products declined from about 65 percent in 1962-1963 to 63 percent in 1966-67. However, the substantial rise in crude oil production in the country from 24.6 billion barrels in 1962 to 116.5 billion barrels in 1967, reflecting the optimistic future of the oil sector. Similarly, the contribution of growth in import-substituting industries to the gross domestic product accounted for 5.3 percent in 1962-3 and 7.0 percent in 1966-67 respectively. The First National Development plan (1962-1968) Transport in total capital 20%; 33%Second Plan (1970-74); 20% The Third Plan (1975-1980).The structural changes that arose from the factors such as the economy's response mechanism to changes in public policies after the civil war (1967-1971); the determination and zeal of the military administration in power to revive the war-torn economy; the timely rise in oil revenue, the quantity and quality of its manpower; passion of its Nigerians in transforming the economy; and the country's natural endowments; led to the exponential economic recovery and growth between 1970 and 1974. For instance, annual growth rate of 9 percent was recorded during this period, compared to the plan's 6.6 percent target rate. In addition, the robust sectoral performance in the country confirmed the shift of the economic growth determinant from agriculture to the internally directed modern domestic sectors; and also reflected the significant contribution of the private sector to the development process.

The real investment grew at the rate of 7.7 percent on average during the plan period. This noticeable growth was attributed mainly to the growth of oil sector (arising from a rise in crude oil prices in 1973-74, and invariably led to an increase in oil revenue from N1.5 billion in 1973 to N4.2 billion in 1974) as well as the investment linked to the plan. Also, this contributed to a substantial improvement in essential sectors like building and construction, transport and communications, manufacturing, electricity and water supply (Usoro, 1992).Despite the robust rise in the growth rate of investment from 17.7 percent in 1970-74 to 26.7 percent in 1975-1980, the good economic performance built in the Second Plan was adversely affected during the third plan era. The slow economic growth rate of about 5 percent in the Third Plan was a result of the 1975-1976 political crisis and the increasing rate of inflation (34 percent in 1975 and 24 percent in 1976 mainly emanated from the excess money supply through deficit financing during the preceding plan periods). However, key economic sectors like manufacturing recorded an average growth rate of 18.1 percent.

There was a declined contribution from sectors such as mining and quarrying, distributive trade and agriculture to the overall economic growth but still remained significant in this period. Therefore, the government concern was on addressing domestic economic malady instead of meeting the 9 percent target rate of growth stated in the National Plan. In order to rectify the economic problem, the government utilised three key policy instruments (monetary and credit, fiscal and exchange control) as regulatory measures. This led to a decline in the inflation rate to 8 percent by 1980. The future prospects of Nigerian economy largely depend on its political stability (Usoro, 1992). Development planning in Nigeria is broadly grouped in three periods. These are the period of Fixed-Term Planning (1962-1985), the Era of Rolling Plan (1990-1998) and the New Democratic Dispensation (1999 till date). The fixed term planning is subdivided into four successful plans namely the First National Development Plan(1962-1968); the Second National Development Plan(1970-1974); the Third National Development Plan(1975-1980); and the Fourth National Development Plan(1981-1985).

The first plan was extended to 1969-70 due to the civil war and made a provision of N2.2 billion for capital expenditure. During this plan, the National Manpower Board was established as employment promotion scheme in 1962. The second plan had a capital expenditure budget of about N3billion, all stakeholders were engaged in this era. The third plan started with a capital expenditure of N30 billion and later revised to N43.3 billion. The actual amount spent by the government was N29.43billion with the goal of improving people welfare. Under this plan, the local government were involved in its design and formulation.The first rolling plan (1990-1992) was to evaluate the achievement made in implementing SAP and address the challenges confronting the economy. The key priority was to strengthen the National Directorate of Employment. The second rolling plan (1993-1995) aimed to address the observable lapses and inefficiencies in the operation of monetary and credit instrument, low level of capacity utilisation of industries and the rising trends of unemployment. The 1994/96 and the 1997/99 Rolling plans aimed at generating employment as its key priority; and building a strong, virile and broad-based economy with adequate capacity to absorb externally generated shocks. All in all, the study presents the facts in relation to the economic growth in Nigeria over time with the aim of providing answers to the research question on what are the growth patterns experienced by the country? Second, it examines the extent by which Nigeria lags in catching up with other countries in a developing region, as well as identifies the drivers that hinder or enhance economic growth. Third, it also considers the influence of the political regimes witnessed in the country has on the level of its economic performance.

2. Literature Review

This segment provides a concise theoretical and empirical review on the determinants of economic growth. The huge amount of literature has been carried out in examining the drivers of economic growth in developed and developing countries. However, their results are mixed.

2.1 Theoretical Review

Different growth models have been utilised to examine the transition from stagnant living standard to a modern era of economic growth. Virtually all of these models incorporate the Malthusian diminishing returns. However, studies such as Lee (1988), Kremer (1993), and Jones (2001) combined the Romer model of growth with the Malthusian channel. Lucas (2002) placed an emphasis on the role of human capital accumulation in his model while Hansen and Prescott (2002) centered on a neoclassical model that considers a structural transformation from agriculture to manufacturing.

The source of the neoclassical theory of growth can be traced to the Harrod-Domar model. The model was designed to explain the link between investment, growth rate and employment in a country with stationary growth. According to them, production capacity was proportional to the stock of capital. However, the Solow growth model was based on the assumption that production relied on capital, labour and technology with the condition of input perfect substitution. To him, technological change was only the factor that influences the long-run growth, while saving only determines the short run growth or growth when it is transitory to the long-term path. The empirical evidence did not validate the Solow proposition in the sense that it was lucid that a nation's income per capital converges to its steady state value after controlling explanatory variables. This led to the concept of conditional convergence. The conditional convergence postulates that the steady-state levels of capital and output per worker are determined by saving rate, population, production function, the initial endowment of human resources and government policies etc.

Barro and Sala-i-Martin (1992) suggested that the level of technology is spread out from advanced nations to less developed economies, and the flow of technology will grow faster in the catching up countries as diffusion closes. To them, the technology-gap and the speed of convergence depend on the rate of diffusion of technology. The neoclassical models are not commonly applied in academic circles because of the assumption of different levels of technology based on geographic regions, and they neglect the assumption of worldwide identical technology. The concept of rivalry and excludability adds the new air to the economic growth theory, the endogenous economic growth model. Differentiating between rival and non-rival inputs, and between excludable and non-excludable goods led possibly to reconsider the role of technology as pure public good. In addition, it gave the possibility of considering technology as a private sector activity rather than public. The spillover effects of creating technology can benefit everyone in the country (Easterly, 1998).Grossman and Elhanan (1994), and Pack (1994) point out that continuing accumulation of the inputs that generate positive externalities can lead to a sustained growth. With the assumption of non-decreasing returns to factors of production in endogenous growth models, this implies that economies that save more grow faster indefinitely and those nations do not need to converge in income per capita even if they have the same preferences and technology.

In the traditional neoclassical growth model, the long-term growth determinants are physical and human capital accumulation, and technology only while other factors have been limited to transitory effects on the rate of growth. However, the endogenous growth model has included many variables such as financial development, education, population, international trade, and public policy etc. some studies examine the link between financial development and growth (see Roubini and Sala-i-Martin,1992; De Gregorio and Guidotti, 1995; King and Levine, 1993; Benhabib and Spiegel, 2000; Beck, Levine and Loayza,2000; Alfaro et al., 2004; Durham, 2004; and Ang, 2008). The market factors are not sufficient in analysing a nation's economy because every economic system has to be in line with the continuous development process in the country, a trend that reflects the dynamics of technology and innovations as well as the political circumstances that lead to modification of various interests and institutions. This buttresses the need to consider political factors in examining the economic performance (Boyer, 2011; Bresser-Pereira, 2012 as cited in Radu, 2015). In addition, it is more important to examine what extent and in what direction the regime type of a country government influences its economic growth. Some existing studies pointed out that democracy has either a negative influence on GDP growth or no effect (Gerring, Bond, Barndt, Moreno, 2005). However, some studies consider democracy as the right to vote (Cheung, 1998); Rivera-Batiz (2002) regards it as the system of controlling and maintaining a balance of the executive power based on the constitutional process, as well as allowing freedom of press and involvement of citizens in decision-making.

For over the past decades, there has been a subject of a great debate on whether centralised economies or market economies are more efficient in terms of economic activities and standard of living. For instance, Galenson and De Schweinitz (1959) argued that democracy creates pressure on immediate consumption, which invariably leads to a rise in the investment costs that retard the growth. Their argument was supported by Huntington (1968) and Huntington and Dominguez (1975) through viewing democracy as a factor responsible for an explosion of demand for current consumption, demand that threatens profit, leading to declined investment and a slowed down growth. This brings about the government actions in raising the investment size as well as the resources utilised in the process. It is understood that no political party could not hope to win elections with a government programme that involves sacrifice in the present for a bright future (Huntington, 1968). He also postulated that the economies with an authoritarian government witness the same rate or higher rate of economic growth compared to democratic nations.

However, it is empirically proved that market economies have been the long term contributing factor to the rise in the welfare since the commencement of the Industrial Revolution. This poses a question of what extent democracy and economic growth are linked together (Friedman, 2006). There has been a long time debate among academic researchers on how the government's regime influences economic growth. The concept of political regime is viewed by Przeworski (2001) as a situation whereby most political parties in many economies formulate and implement similar policies without factor in the ideological orientation of the political party. It is widely acceptable that there is a direct link between the political system and economic growth.

Studies such Ulubasoglu and Doucouliago, 2006; Mulligan et al., 2004 observed that democracies are less volatile, and taking drastic economic reforms is more difficult to implement in the democratic system (see Chan, 2002; Dornbusch and Edwards, 1991; Kohli, 2004; and Leftwich, 2005). For instance, studies found that a positive link between economic stock and economic growth when considered a nation's history in terms of political regime (Gerring et al, 2005; and Persson and Tabellini, 2006) and between democracy and the development of various economic policies relevant to growth (Thacker, 2011).

2.2 Empirical Review

In this sub-section, previous empirical studies are reviewed in line with variables included the economic growth model and the nature of dataset employed. Roubini and Sala-i-Martin (1992) found that financial repression reduces capital productivity and saving, and consequently growth. De Gregorio and Guidotti, (1995) revealed that financial liberalisation has not increased saving rate in Latin American countries, and poses a negative influence on growth. King and Levine (1993) indicated a positive influence from four alternative measures of financial depth on long-term economic growth, investment rate and total factor productivity. Benhabib and Spiegel (2000) and Beck, Levine and Loayza (2000) found in their cross-country studies that finance (financial intermediary development) influences economic growth through a third variable such as total factor productivity, investment, physical capital accumulation or private saving rates, indicating a strong positive effect of financial development on total factor productivity, and consequently on growth. Some empirical works argue that TFP positively influences economic growth through combining the relevance of other variables like human resources and institutional factors (Easterly and Levine, 2000; De Gregorio, 1992; De Gregorio and Lee, 1999; Fajnzylber et al., 2001 for Latin American countries; and Carranza, Fernández-Baca and Morón, 2003 in Peru). Easterly and Levine (2000) defined TFP as the residual change in output not accounted for by increases in all factor inputs.

Some research works had attempted to link aggregate schooling measures to national productivity and income using cross-country data (see Prichett, 1996; Barro and Sala-i-Martin, 1995; and Barro 1997, 1990; Barro and Lee, 2000; De Gregorio and Lee, 2003). They found that there was an empirical relationship between increases in women's schooling and slowdowns in growth. Barro and Sala-i-Martin (1995) revealed no link between growth and primary education level in a 97-country analysis but found a positive relationship between growth and male secondary education. In addition, Barro (1997) showed that female education influences growth through its effects on the fertility rate, infant mortality rate, and nutrition level. De Gregorio and Lee (2003) concluded that human capital is a key determinant of the different growth paths followed by Latin America and South East Asian countries. Other empirical studies such as Kormendi and Meguire (1985) and Fischer (1991, 1993); Easterly, Loayza and Montiel (1997); Easterly and Rebelo (1993) examined the link between macroeconomic stabilisation and structural reform, and economic growth. Kormendi and Meguire (1985) and Fischer (1991, 1993) indicated an empirical evidence for a positive relationship. However, other studies such as Cuadros et al. (2000 in Mexico, Brazil and Argentina LAC); Ndikumana and Verick (2008), Sylwester (2005) and Lumbila (2005); Dutt, (1997); Fry (1993); Hermes and Lensink (2003) investigated the link between export, growth and FDI. Their findings support the existence of the export-growth nexus while some did not. With the inclusion of FDI, the growth is mainly determined by FDI and export is mainly influenced by FDI. Dollar (1992) ascertained that distortions and variability in the real exchange rate have statistically important negative effects on economic growth in a global sample.

2.2.1 Fiscal Policy and Economic Growth

Some studies examine how the government economic measures (fiscal policy) influence the economic growth rate. One stream of government measures includes the level of taxation and uncertainty in forms of distortions in foreign trade and macroeconomic instability. Another stream includes the rule of law, institutions and policies that promote economic development such as infrastructure investment. The research on economic growth-government policy nexus emanated in the mid-1980s (see Landau, 1986; Ram, 1986; Barro, 1991). Landau, (1986) concluded that larger government size (share of government consumption in GDP) weakens economic growth. The research on the importance of fiscal policy on economic growth witnessed a tremendous interest among researchers and policymakers in the 1990s (see Barro, 1991; Engen and Skinner, 1992; De Gregorio, 1992; Ayal and Karras, 1998; Heckelman and Stroup, 2000; Carlson and Lundstrom, 2001). Barro (1991) found a negative link between economic growth and government spending, and a weak relationship between growth and public investment. Similarly, Engen and Skinner (1992) confirmed that the aggregate balance of public sector negatively influenced the economic growth. De Gregorio (1992) also revealed a negative link between government spending and economic growth.

Kormendi and Meguire, 1985; Landau, 1986; Barro, 1991; and Engen and Skinner, 1992) using a single fiscal variable (government size) back the notion that smaller government are associated with faster growth rates. They found a clear negative influence of share of government spending on output growth rates. However, King and Rebelo (1990) opined that impact of taxation in small countries with capital mobility is uncertain. Similarly, Easterly and Rebelo (1993) revealed that the effect of taxation are difficult to determine because of tax effect isolation problems but a close relationship is established between public infrastructure and growth.Folster and Henrekson, (1998) argued that the wrong conclusions or inconclusiveness of the empirical work might be associated with the inclusion of developed and developing countries in the same analysis. Calderón, Easterly and Servén (2002a, 2002b) revealed a positive link between infrastructure investment and growth in Latin America related studies by incorporating the infrastructure into the model as an input factor. Others indicate a clear negative link between government spending and output growth (De Gregorio, 1992).In addition, De Gregorio and Lee (2003) conducted a comparative analysis to investigate the experience of growth performance and macroeconomic adjustment of Latin America and East Asia from 1970 to 2000, finding a negative relation between government spending and economic growth. Loayza and Soto (2003 and 2002), and Loayza, Fajnzylber and Calderón (2002) come up with a negative relation between economic growth and government spending, but positive for economic growth and public investment in Latin America and Caribbean countries.

2.2.2 Trade Openness and Economic Growth

De Gregorio (1992) analysed the determinants of growth in Latin American region between 1950 and 1985. His finding revealed that various openness indicators did not influence GDP per capita but macroeconomic stability and human capital had a noticeable impact. He concluded that instruments such as learning-by-doing, fostered by the protectionist policies affect the economic performance positively. In the same vein, Astorga (2010) revealed the existence of a positive link between openness and growth after the 1980s in Latin America. Other studies linked income improvement to increased consumption of capital goods, industrial equipment, and dissemination of ideas. Makki and Somwaru (2004) showed that export and FDI had a positive influence on economic growth in 66 developing economies. In addition, they identified a rise in external shocks such as distortions of terms of trade and exchange rate that create foreign capital outflows, resulting in a slowdown in growth rates, as one risk associated with openness.

2.2.3 Foreign Direct Investment (FDI) and Economic Growth

There are inconclusive findings on the link between FDI and growth. Some research identifies that FDI correlates positively to growth. This view supports the relevance of improvements in technology, efficiency, and productivity. For instance, Borensztein et al.(1998) revealed that FDI is an engine for technology transfer, and contributes more to growth compared to domestic investment. He concluded that a significant share of growth rate in developing economies is explained by a convergence process on the level of technology. The flow of FDI went to sectors with advanced technological innovation, and countries experience higher growth rates as they achieve higher education levels.

2.2.4 Economic growth and institutional Factors

Good institutional quality enhances economic growth by stimulating the overall investment and restricting activities that lead to the unlawful appropriation of resources. The empirical research found that institutional factors such as rule of law, political freedom improve the economic performance. Tsui (2011) revealed that resource abundance retards the process of democratisation. Low institutional quality encourages profit-seeking behaviour in exploiting natural resources, increasing corruption and distorting the allocation of public goods. He concluded that weak institutions result in inequality and lack of constraints on leaders (Trevino et al. 2008). The strong link is established between institutions and capital inflows in advanced economies where political stability and property rights attract capital inflows. Therefore, Abramovitz (1986) and Borensztein et al.(1998) point out that the necessary conditions for attracting FDI into any economy include the level of human capital, economic and political stability, liberalisation of markets, financial globalisation, and sufficient infrastructure.

2.2.5 Macroeconomic Volatility and Economic Growth

The previous literature identifies the influence of macroeconomics and political stability on economic growth. Easterly and Kraay (2000) revealed that the adverse effect of external volatility is partially addressed by strong and transparent government institutions. The weak fiscal institutions featured in volatile countries incapacitate in providing a swift and appropriate response to capital outflows. Unstable macroeconomic environment increases the adverse impact of marker constraints on domestic credit, invariably reduces economic growth, and public debt overhang hinders FDI (see Benassy-Quere et al. 2007). Macroeconomic volatility lessens access to the financial market, which makes the income-risk diversification difficult. Also, it alters the pattern of government spending on public services such as hospitals and health. Gavin and Hausmann (1998) showed that government revenues and expenditures depend substantially on the variation in commodity prices for South America particularly Argentina, Ecuador and Venezuela.

2.2.6 Time Series Studies versus Panel Data Studies on Economic Growth

Hatef, Altaee, Al-Jafari applied the Autoregressive Distributed Lag (ARDL) model to examine the determinants of economic growth in Saudi Arabia between 1980 and 2004. Their findings revealed that there is a long relationship among the variables such as import, export, real GDP, real gross fixed capital formation and financial development. In addition, they concluded that gross fixed capital formation, export and financial development significantly influence the long-run economic growth in Saudi Arabia; and that the equilibrium is restored within the mid of the year if there is any shock to the long-run relationship. Similarly, Shahbaz, Ahmad and Chaudhary (2008) examined the economic growth in Pakistan using quarterly data from 1991 to 2007. Their results from advanced ARDL model and log-linear model showed that credit to private sector as a proxy for financial development, FDI and inflow of remittances exhibit a positive correlation with the long-run economic growth. However, high inflation rate and trade openness reduce the growth rate in both the short-run and the long-run.

Ajide (2014) employed a time series analysis to examine the determinants of economic growth in Nigeria for the period, 1980-2010. He added an institutional variable proxied as economic freedom to capital, FDI, labour, life expectancy, financial variable, real GDP, and degree of openness; into the multivariate regression model, in order to establish the link between economic growth, foreign direct investment (FDI) and institution. His findings showed that labour, life expectancy, the degree of openness and economic freedom influence the level of the country's economic growth at different significant levels. The outcome of a disaggregated model pointed out that freedom of international trade has a positive impact on economic growth but the size of government adversely affects the economic growth.
Biswas and Saha (2014) analysed the macroeconomic determinants of economic growth in India between 1980 and 2011, using vector error correction model (VECM). Their findings suggested a long-run link between economic growth and the concerned explanatory variables such as gross domestic capital formation, employment, export, FDI, and money supply. However, inflation and fiscal deficit adversely affect the growth rate. The short-run GDP is substantially driven by the country's gross domestic capital formation.

Uwakaeme (2015) employed annual time series data to investigate the causal relationship as well as the determinants of economic growth. He established that productivity index, stock market capitalization and FDI are the key drivers of Nigeria's economic growth. In addition, an inverse relationship is observed among the following: between inflation and economic growth; between government deficit and economic growth; but trade openness has an insignificant positive impact on the level of economic growth in the country. Ismaila and Imoughele (2015) applied a co-integration technique to investigate the factors that influence economic growth in Nigeria from 1986 to 2012. They found that gross fixed capital formation, FDI, and total government expenditure are the key determinants of economic output in the country under a stable inflationary rate. However, Dewan and Hussein (2001) investigated the determinants of economic growth using a panel dataset spanning from 1965 to 1997 for 41 middle-income developing countries. Their outcomes of panel regression models indicate that growth in labour force, investment in both physical and human capital, low inflation and open trade policies are the key factors that influence economic growth. Also, they identified that the ability to adopt technological changes plays a significant role in raising efficiency. However, developing economies with a large agricultural sector, negative supply shock in this second poses an adverse influence on economic growth.In the same vein, Kowalski (2000) utilised a panel linear regression model to analyse the factors that drive economic growth in 16 Asian countries, between 1983 and 1997. He found that export, government spending, inflation and government debts significantly influence the level of economic growth.

Furthermore, his result established a positive correlation between domestic investment and economic growth, between government investment and economic growth, but there is a negative correlation between government spending and GDP growth. Barrow (1996) conducted an empirical analysis of drivers of economic growth for 100 countries from 1960 to 1990 using variables such as GDP, human capital, fertility rate, government consumption, rule of law index, terms of trade, regional variables, and investment ratio. Their results indicated that better maintenance of the rule of law, smaller government consumption, and lower inflation boost the growth rate of real per capita GDP. Moreover, the rises in political rights improve growth at the initial stage but hinder it when a moderate level of democracy has been attained. Other variables such as life expectancy, schooling enrollment, fertility rate and terms of trade exhibit the same influence on growth as it was observed in the case of political rights.

Bhattarai (2004) conducted empirically a global analysis on economic growth models for 208 countries using a panel regression model. He considered variables such as the ratio of public spending to GDP, inflation, openness and exchange in the model. His finding revealed that country or region specific micro and macro-economic factors as well as policy variables, significantly affect the rates of economic growth. Tridico (2006) empirically presented a comparative analysis of determinants of economic growth for emerging economies (44 countries) between 1999 and 2005. His result estimates pointed out that the ability of each country to have appropriate governance and institutions, complemented education level, export activity and human development determines the level of economic growth in the country. Tolo (2011) analysed the determinants of economic growth by considering 23 emerging markets in the Philippines between 1965 and 2008. His findings showed that fiscal deficit, inflation, trade openness, the current account balance and the frequency of crisis episodes are noticeable determinants of growth.

Radu (2015) extended the existing studies by examining the political determinants of economic growth in CEE countries between 1990 and 2010, using the multivariate regression approach. He discovered that the political determinants have no direct impacts on economic development but have a strong positive correlation with economic variables that positively influence the level of economic growth. Similarly, Pokrivčák and Záhorský (2016) applied regression analysis based on a growth accounting technique to investigate the determinants of economic growth across 10 Central and Eastern European countries for the period, 2004-2012. They concluded that economic growth is mainly driven by the growth of non-ICT, capital, ICT capital and Total Factor Productivity (TFP) while the marginal effect is associated with labour quality and a negative effect from labour quantity.

3.   Analytical Framework and Methodology

3.1 Analytical Framework

The study adopts a technique that has been applied by several studies such as Scully (1988), Romer and Weil (1992), Helliwell (1994), and Barro (1997). Many studies used cross-countries data for long periods. Barro (1997) pointed out that any analysis carried out within the short periods could lead to misspecification of precise timing between growth and its determinants; and wrong measurement of political variables over time. However, time series analyses have the advantage of showing the dynamic changes that occur within a country due to the interaction between politics and economic development. Studies such as Burkhart and Lewis-Beck (1994), Gasiorowski (1995), and Prezeworki et al.(2000) employed time series analysis in their work.

The previous research considered the determinants of economic growth to include investment, human capital, international trade, and inflation. For instance, Levine and Renelt (1992) revealed that global trade and investment significantly influence the long-term economic growth. Similarly, Mankiw, Romer and Weil (1992) found that the initial level of growth, savings and human capital have an impact on the economic growth.The aim of this study is to observe the trends of Nigerian economic growth since the creation of the country in 1960 to 2015 in the light of political determinants changes. The study utilises a time series approach as an empirical model, complemented with analytical methods identified in the literature (Barro, 1991, 1996; Przeworki, 2000; Feng, 2003).

3.2 Methodology

The study applies a multivariate regression as an econometric model. The model is expressed as follows:

$$g_t = \rho + \beta x_t + \vartheta y_t + \varepsilon_t$$

Where g is the growth rate of GDP per capita; x represents the set of economic variables that include real GDP per capita, the share of investment in GDP, share of labour compensation in the total national income, trade openness; y denotes the set of political variables such as political freedom and political stability; ε is the error term while t is the analyzed period. Data availability determines the number of variables as well as the sample period used in the study. The concerned variables and their data sources are presented in Table 2.

Table 2: Summary of variables used in the study

Variables	Notation	Source of Data
Dependent variable: Growth Rate of real GDP per capita	GDPCG	World Bank WDI
Explanatory variables: Real GDP per capita	GDPPC	World Bank WDI
Investment	GCFC	International Monetary Fund(IMF)
Employment	LABOR	Penn World Table
Trade Openness	TO	Central Bank of Nigeria
Political Freedom	POLFRE	Simon Fraser Polity IV
Political Stability	POLSTA	Simon Fraser Polity IV

Source: Compiled by the Author

Hypothesis Statement
- A high level of political freedom positively affects the level of economic growth
- A stable political environment has a positive effect on the level of economic growth

4. Empirical Results

The study first attempts to address the issue of multicollinearity by conducting a correlation among the concerned variables identified in the previous section. Multicollinearity becomes a problem as a result of the existence of a linear relationship between two or more of the independent variables. This leads to unreliable regression estimates in the sense that they are poorly determined and tend to vary erratically from sample to sample. This problem arises from the limited information content of the data rather than model misspecification. The regression estimates are carried out by increasing sample information, increasing the number of observations, using appropriate sample design to improve the variability in the independent variables and collecting data on relevant variables. As indicated in Table 3, the political variables and growth exhibit a positive weak relationship, as it was observed in the previous studies (see Radu, 2015). However, political stability has a moderate positive link with real GDP per capita. The investment level in Nigeria has a negative relationship with all other variables except real GDP per capita for the sample period. In addition, there is a negative between political freedom and trade openness (see Table 3).

Table 3. Correlation Matrix of Variables in the growth model

Variable	TO	POLSTA	POLFRE	LABOR	GFCF	GDPPC	GDPCG
TO	1.0000						
POLSTA	0.2643	1.0000					
POLFRE	-0.0667	0.1766	1.0000				
LABOR	0.2227	0.5523	0.1169	1.0000			
GFCF	-0.3343	-0.0206	-0.0750	-0.2338	1.0000		
GDPPC	-0.0191	0.5550	0.1251	0.4557	0.3860	1.0000	
GDPCG	0.0141	0.1583	0.1451	0.1199	-0.2108	0.2397	1.0000

Source: Author's computation

4.1 Econometric Results
The study applies the unit root test techniques to examine the time series nature of the concerned variables using both the Augmented Dickey-Fuller (ADF) test and the Phillip and Perron (PP) test in order to avoid spurious regression results. The results of the two approaches show that all variables except GDPCG are stationary at first difference based on 5 percent level of significance. Owing to this, the study investigates the long-run relationship between the variables concerned by employing an Autoregressive Distributed Lag (ARDL) method. This approach is applied to time series data characterised with different orders of integration (a mixture of I(0) and I(1)).

Among the advantages of the method is that it can be used to concomitantly estimate both the short-run and long-run effects of the independent variables on the explained variable, under small sample size. The outcome of ARDL model in Table 4 is subjected to a bound test with the aim of examining whether there is cointegration or not. The result of the bound tests reveals the rejection of the null of no cointegration for the model as indicated with F-statistics of 194.933, which is higher than the upper bound critical value 3.99 at 1 percent (see Table 5). Therefore, this confirms the existence of long-run equilibrium among all the concerned variables. However, these variables might diverge from one another because of any shock to the Nigerian economy.

Table 4: Results of ARDL model

Variable	Coefficient	Prob.*
GDPCG(-1)	0.05742	0.047
GDPPC	0.067089	0.000
GDPPC(-1)	-0.069629	0.000
GFCF_IMF	0.123814	0.020
LABOR	2.286082	0.560
TO	0.004178	0.746
POLFRE	-0.009599	0.406
POLSTA	-0.054282	0.375
C	1.708558	0.210
R-squared	0.975655	
Adjusted R-squared	0.971228	
F-statistic	220.4169	
Prob(F-statistic)	0.000	

Table 5: Bound Tests

Variables	F-Statistic	I(0) Bound	I(1) Bound
GDPCG	**194.93**	**2.88**	**3.99**

4.2.1 Long run model Estimation

As reported in Table 6, the coefficient of real GDP per capita is -0.003, indicating that a 1 percent rise in the level of Nigeria's real GDP per capita would lead to a decline in its growth rate by 0.003 percent on average, keeping other things constant. The influence of real GDP per capita on the Nigeria's growth rate is statistically significant at 1 percent. However, the level of investment (GFCF) has a positive significant impact on the per capita growth rate in the country. With the coefficient of 0.13, suggests that a 1 percent increase in the investment level would contribute to a rise in the growth rate by 0.13 percent on average, holding other factors constant. Similarly, trade openness positively influences the growth rate of per capita income in an insignificant way. Labour accounts for the largest influence but its coefficient is not statistically significant. Negative and insignificant influences are noticeable from political freedom and political stability in relation to economic growth in Nigeria.

Table 6: Result of Estimated Long-run ARDL Model

Dependent Variable : GDPCG	Coefficient	Prob.
Regressors		
GDPPC	-0.002695	0.0095
GFCF	0.131357	0.0238
TO	0.004432	0.7463
LABOR	2.425345	0.5619
POLFRE	-0.010184	0.405
POLSTA	-0.057589	0.3755
C	1.812639	0.2090

Source: Author's computation

4.2.2 Short run model Estimation

Table 7 presents the short-run estimates of the ARDL model employed in the study. The result shows that all explanatory variables turn to be insignificant in determining the growth rate of per capita income in Nigeria. The error correction term confirms to a prior expectation with a negative sign and lies between 0 and 1. It is statistically significant at the 1 percent level. Its negative sign (-0.933) suggests that the long run equilibrium would be normalised back if there is any shock to the economic system. The value of the coefficient is very high, implying that it would take a very short time to restore the equilibrium if the system is disturbed.

Table 7: Results of Short Run Growth Model

Variable	Coefficient	Prob.
D(GDPPC)	0.066926	0
GFCF_IMF	0.011093	0.6964
TO	0.000584	0.9591
LABOR	-0.976265	0.6705
POLFRE	-0.013511	0.2577
POLSTA	0.015706	0.7784
ECT(-1)	-0.933404	0

Source: Computed by the Author

Many empirical studies (Levine, Renelt, 1992; Mankiw, Romer and Weil, 1992; and Radu, 2015) found that the level of the country's GDP adversely affects the growth rate of that country. A similar effect is observed from this model results. The value of adjusted R-square indicates the strong relevance of the model built. Political freedom and political stability have no significant impact on economic growth in Nigeria even with the negative effect. This is completely different from the previous outcomes in the literature. In addition, this is contrary to the findings of Radu (2015) on political determinants.

5. Conclusion

Nigeria is currently facing serious economic challenges in terms of shrinking economic growth, high inflation rate, high unemployment rate especially among the young graduates, and unstable exchange rate. This has led to government adoption of different measures with the aim of solving these challenges. The belief of most Nigerians is that the change of government administration would stimulate the economic growth quested for by the Nigerians. However, the current regime would solve the real challenges facing the country. This is a call for more evidence-based research in providing more understanding of the pattern of economic growth in the country. This motivates the study to examine the impact of political factors on economic growth in Nigeria. The data employed for the empirical study as well as the variables are constrained by the availability of data in the country. From the economic history of the country since its independence in 1960, the pattern of economic growth is very difficult to predict because of the nature of the political environment. As observed in the history of the Nigerian economy, the political will of the country's leader plays the very important role in influencing the level of economic performance. For instance, the issue of hyperinflation experienced in 1974 and 1975 was able to resolve because of the willingness of the leader.

The empirical findings from this study, the sustainable economic growth dreamed by the country, which accommodates more than 180 million people with abundant resources, does not depend on the political stability and political freedom in both the short-run and long-run scenarios. This is similar to the findings of Radu (2015) that established no link between political factors and economic growth.However, the level of investment strongly influences the long-run economic growth in the country. The short run influence mainly comes from the last year economic growth. This suggests the need to stimulate the level of investment in the country by providing a good investment climate for both domestic and foreign investors. The investment climate would be conducive for private sectors if there are adequate basic infrastructures such as stable electricity supply, good transport network. In addition, the issue of life and property security needs to handle with appropriate government measures. As indicated in the study, a 1 percent rise in the investment level leads to about 0.33 percent increase in the country's growth rate. Therefore, the government needs to address measures that can hinder the level of investment in the country without compromising the welfare of its people.

      The study identifies further areas of research in the future. First, it will be more interesting if all variables suggested in the literature are included in estimating the economic growth model for the country. Second, use of primary data such as surveys to complement the secondary data in order to examine political determinants of economic growth is another area of future research. Third, research that would employ the panel dataset that comprises all the states within the country could be provided with an insight in understanding the determinants of economic growth. All in all, it is widely accepted that the economic policies and measures adopted at the colonial era significantly influenced the nature and character of the development problems Nigeria faces today. Therefore, there is need to change the features of the Nigerian economy in order to improve living conditions of its citizens.

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Appendix

Pairwise Granger Causality Tests
Date: 02/01/17   Time: 10:24
Sample: 1960 2015
Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
POLSTA does not Granger Cause TO	54	0.08125	0.7768
TO does not Granger Cause POLSTA		0.12368	0.7265
POLFRE does not Granger Cause TO	54	4.1E-05	0.9949
TO does not Granger Cause POLFRE		0.54769	0.4627
LABOR does not Granger Cause TO	54	0.03843	0.8454
TO does not Granger Cause LABOR		4.06261	0.0491
GFCF_IMF does not Granger Cause TO	54	3.52372	0.0662
TO does not Granger Cause GFCF_IMF		0.00301	0.9565
GDPPC does not Granger Cause TO	54	0.53348	0.4685
TO does not Granger Cause GDPPC		0.87377	0.3543
GDPCG does not Granger Cause TO	53	0.09805	0.7555
TO does not Granger Cause GDPCG		0.67922	0.4138
POLFRE does not Granger Cause POLSTA	55	0.21108	0.6478
POLSTA does not Granger Cause POLFRE		6.19677	0.0160
LABOR does not Granger Cause POLSTA	55	0.17117	0.6808
POLSTA does not Granger Cause LABOR		2.36018	0.1305
GFCF_IMF does not Granger Cause POLSTA	55	1.35090	0.2504
POLSTA does not Granger Cause GFCF_IMF		0.48196	0.4906
GDPPC does not Granger Cause POLSTA	55	0.04135	0.8397
POLSTA does not Granger Cause GDPPC		0.96333	0.3309
GDPCG does not Granger Cause POLSTA	54	0.24873	0.6201
POLSTA does not Granger Cause GDPCG		2.2E-05	0.9963
LABOR does not Granger Cause POLFRE	55	0.77065	0.3841
POLFRE does not Granger Cause LABOR		1.01810	0.3176

GFCF_IMF does not Granger Cause POLFRE	55	0.61537	0.4363
POLFRE does not Granger Cause GFCF_IMF		1.62402	0.2082
GDPPC does not Granger Cause POLFRE	55	0.40373	0.5280
POLFRE does not Granger Cause GDPPC		0.00222	0.9626
GDPCG does not Granger Cause POLFRE	54	0.00579	0.9397
POLFRE does not Granger Cause GDPCG		0.03641	0.8494
GFCF_IMF does not Granger Cause LABOR	55	0.03561	0.8511
LABOR does not Granger Cause GFCF_IMF		1.19901	0.2786
GDPPC does not Granger Cause LABOR	55	1.76747	0.1895
LABOR does not Granger Cause GDPPC		1.86778	0.1776
GDPCG does not Granger Cause LABOR	54	1.06628	0.3067
LABOR does not Granger Cause GDPCG		0.28629	0.5949
GDPPC does not Granger Cause GFCF_IMF	55	4.31884	0.0426
GFCF_IMF does not Granger Cause GDPPC		4.06499	0.0490
GDPCG does not Granger Cause GFCF_IMF	54	0.22461	0.6376
GFCF_IMF does not Granger Cause GDPCG		1.76159	0.1903
GDPCG does not Granger Cause GDPPC	54	5.32273	0.0251
GDPPC does not Granger Cause GDPCG		1.35723	0.2494