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Manuscript Type: Research article	Manuscript Title: Political Regime Types and Economic Development in Nigeria: Significance of Conflict and Corruption
Keywords: Conflict, corruption, Democracy, Economic Development, Nigeria	
Abstract: Abstracts This paper investigates the short and long run effects of political regimes on economic development in Nigeria between 1984 and 2015. It looks at the effects of the conflict and corruption on economic development indicators and examines the interactive effect of political regimes and corruption, as well as conflict on economic development. Corruption and conflict seem to be more prevalent in Nigeria during democracy relative to the periods under dictatorship. Using the Autoregressive Distributed Lag(ARDL) Approach to cointegration, it derived a number of robust conclusions. Democracy in the long run yields higher economic development when it is devoid of conflict and corruption, while autocracy hinders economic development. In the short run however, more autocracy fosters economic development in Nigeria while democracy hinders it. Corruption portends grave threat to the development of Nigeria's economy as it reduces development in the long run. Effect of conflict on economic development in Nigeria is unclear. These findings highlight the need to establish effective anti-graft agencies to fight corruption to the barest minimum in Nigeria. They also highlight the need to employ conflict resolution mechanisms in resolving conflict issues in the democratization process of the country.	

1. Introduction

There has been no consensus in the literature as regards the connection between political regime type and economic freedom. Some observers, such as Friedman (1962), believe that the two freedoms are mutually reinforcing. However, some other observers view it that democracy has either a negative effect on economic performance or no overall effect. Countries with dictatorships have been predicted to grow as rapidly as democracies, perhaps even faster. Although most of the rich countries in the world are democratic, the direction of causality is unclear. Gerring, Bond, Barndt and Moreno (2005) argued that one must keep in mind that many rich countries have become rich under dictatorship.

A high degree of corruption therefore deters investment, and democracy is being claimed to reduce corruption, especially in relatively rich countries (Fjelde and Hegre 2007) and when democracy is consolidated (Rock 2009*a*). Democracy is commonly believed to reduce corruption. (Rock, 2003; Kolstad and Wiig, 2011). However, the situation in Nigeria seems not to agree with this assertion as the level of corruption got aggravated whenever the opportunity of a democracy avails the country. Also, on the other hand, the effect of democratization is argued to be weakened when accounting for the incidence of conflict. Cervellati and Sunde (2012) claimed that the growth effect of democratization is heterogeneous and depends on the democratization scenario. Peaceful transitions to democracy have a significant positive effect on growth that is even larger than reported in the previous literature, whereas violent transitions have no or even negative growth effects. The contentions whether democracy or dictatorship spurs economic performance, and in turn development motivates this paper to investigate the effect of political regimes on economic development in Nigeria. To the best of the knowledge of this paper, none of the studies in the ample literature have investigated the short and long run dynamics of the effect of democracy on economic development. This paper however examines the short and long run effect of the level of democracy on economic development in Nigeria

It also investigates the interactive effect of corruption and conflict with political regimes on economic development. Apart from the introductory part, section two reviews the relevant literature on the effect of political regimes on economic development. Section three appraises the trend of corruption, conflict, socio-economic development and political regimes in Nigeria within the study period while sections four presents the methodology and data source. The fifth part contains the analysis and discussion while the last part concludes and suggests policies for policy makers.

2. The Arguments and Empirical Links between Political Regimes and Growth

The argument of whether democracy could affect growth by Przeworski and Limongi (1993) was in four parts. Firstly, the argument highlights how regime types might matter for property rights.[1] The overall assessment of Przeworski and Limongi is thus that while everyone seems to agree that secured property rights foster growth, it is controversial whether or not democracies or dictatorships better secure these and they further conclude that the idea that democracy protects property rights is a recent invention. However, Knutsen (2011b); North, Wallis and Weingast (2009) and Timmons (2010) disagreed with Przeworski and Limongi's claims with a counter argument that the median-voter based model on redistribution of property captures only one aspect of the politics of redistribution.

Secondly, Przeworski and Limongi (1993:54) highlight how political regime types undermine investment. They claimed that the first modern statements that democracy undermines growth are those by Galenson(1959) and de Schweinitz(1959), who argued that democracy unleashes pressures for immediate consumption, which occurs at the cost of investment, hence of growth. A counter argument was however given by Knutsen (2011b) against the claims that democracy is inimical to economic development. He argued that contrary to claims of Huntington and Dominguez (1975) and Przeworski and Limongi (1993), most dictatorship do not generate very high savings and investment rates because: dictators are self-interested, foreign direct investment is sensitive to protection of property rights and democracy likely strengthens property rights protection and democracy reduce corruption which deters investment.

Thirdly, Przeworski and Limongi (1993:56) noted that scholars studying Latin America and East Asia have linked the economic performances of some dictatorships in these two regions to the autonomy of the dictatorial state. However, Olson (1982) claims that democracies are prone to capture from special interest groups. This may possibly lead to policies that are incoherent with the interests of the general public; economic growth may be sacrificed for the protection of specific business sectors or pivotal voting blocs whose interest is not aligned with economic growth. Knutsen (2011b) also refuted the claim and argued that if there is lack of free and fair elections linking the regime to the broader electorate, no dictator could survive without backing from specific groups, be it the party, the landlord elite or the military.

Lastly, Przeworski and Limongi (1993:57) argued the dictatorships are a source of inefficiency. State autonomy are harmful for economic performance and state is always ready to prey on the society (North, 1990), and only democratic institutions can constrain it to act in general interest. A dictator spends excessive amounts on a repressive apparatus instead of productive investments (Acemoglu and Robinson 2006*b*). In view of this, if a

[1] see Przeworski and Limongi, 1993:52; They belief that democracy leads to extensive redistribution of property from the rich to the poor as shared by for example John Stuart Mill, David Ricardo and Karl Marx, with subsequent negative effects for aggregate production, is old.

dictator believes that modernization theory is correct, with economic growth and industrialization leading to a strong middle class and calls for democracy, the dictator will be better off not industrializing (Acemoglu and Robinson 2006a). In democracies on the other hand, leaders who engage in predatory activities are more likely to be detected because of freedom of media, more likely to be stopped by other institutions like the legislature and courts, and more likely to be thrown out of office in the next election.

Several academics and policy makers seem to believe strongly in the "Lee thesis" (Sen, 1999; Przeworski and Limongi, 1993; Przeworski et al., 2000; Helliwell, 1994; Leblang, 1997), credited to former Singaporean Prime Minister, Lee Kuan Yew. The Lee thesis postulates that particularly in developing countries, a strong dictatorship is necessary for promoting economic development. However, some early studies found a negative effect of democracy on economic growth (Helliwell, 1994; Przeworski and Limongi, 1993; Rachdi and Saidi, 2015). In the recent time, statistical studies relying on more proper estimation techniques and data have found either no significant effect (Remmer (1990); Helliwell 1994; Przeworski et al. 2000), or a positive significant effect (Leblang 1997; Baum and Lake 2003; Bueno de Mesquita et al. 2003; Doucouliagos and Ulubasouglou 2008).

Studies of Arat (1988); Knutsen (2011); Goldsmith (1995) found a positive correlation between democracy and growth. Other studies like Lake and Baum 2001; Bueno de Mesquita, Smith, Siverson and Marrow 2003; Acemoglu and Robinson 2006b have also found positive effects democracy on socio-economic indicators. Several other studies have also found the effects of dictatorship on growth and economic development (Wade 1990; World Bank (WB) 1993; Knutsen 2010b; Olson 1993; Ghandi, 2003).

3. Evidence from Nigeria

3.1 The Nigerian Democratic Experience

Before colonial rule and the introduction of Western democracy, different parts of Nigeria have inherent in them their indigenous political systems. In the Yoruba political system, the Obaship (Kingship) guarantees good governance and the representation of people through established institutions. The Alaafin (King) of Oyo, who many often praised as having the powers of life and death, is in practice, not so absolute in exercising his powers. The Basorun, who is the head of the Oyomesi, the committee responsible for the selection of the Alaafin, is by Oyo constitution, empowered to order an Alaafin to abdicate the throne, when the Alaafin is considered to have violated the Empire's constitution (Aderibigbe, 1965). This Checks and balances inherent in African political system, particularly Nigeria, prevent the occurrence of absolutism and misuse of power by their leader (Omoiya, 2012). On the other hand, emir's decisions in the emirate political system of Northern Nigeria are directly subject to the agreement of his Council (Hunwick, 1965). The Emirate Council consists of the Emir himself, the Waziri, the Khadi, the Chief Imam and other prominent chiefs that vary from place to place (Hunwick, 1965).

In 1900, the British government established colonial rule on the colony of Lagos, protectorates of the South and the North. In 1906, the British Colonial administration formally amalgamated the colony of Lagos and the protectorate of the South (Obaro, 1977), which later accounted for the 1914 amalgamation of the colonies and protectorates of the south and north which was named Nigeria. The colonial government entrenched in its administration various tenets of democracy in the then British West African Countries. The introduction of elective principle brought about increased political activities to Lagos and in turn, resulted to the emergence of political parties. Richard Administration's constitutional provision in 1986 extended the electoral principles to the Northern region. However, the seed of discord was sowed particularly on the electoral process of the Nigerian democracy as this is evident in the gradual way the colonial policies were implemented. After independence, the Nigerian state was compartmentalized into three main regions; North, East and West. Each region was committed to themselves rather than to the Nigerian project as a whole. The fragile unity in diversity encouraged each of the three regions to concentrate more on regional developments and programmes that will respectably sustain them, in case of eventual dismemberment of the Nigeria State.

The Nigerian democratization started experiencing set back in 1963, with the disagreement that accompanied the 1963 election and population census, which had a negative impact on the growth of Nigeria's democracy (Parden, 1986). The political tumult that accompanied various disagreements naturally opened up the Nigeria State to events that culminated into the 1966 coup, which truncated the first elected civilian administration in Nigeria (Post and Vicker, 1973). There was a sectional perspective into the 1966 coup which claimed the lives of the Premiers of both Western and Northern regions and spared the lives of their counterparts in the Mid-Western and Eastern regions, which therefore motivated a counter coup in July 1966. The resultant sectarian crisis and civil unrest metamorphosed into a Civil War consequent upon the decision of the eastern region to secede (Neven, 1970).

A number of coup took place in 70s after the end of Civil War and the beginning of another democracy in 1979, which led to a change in government from Gowon's to Muritala's administration and then to Obasanjo's administration. An election was conducted in 1979 and brought in Shagari as the Second Republic President in October, 1979. The element of segmentation along regional and ethnic divide that characterized the polity since independence was also visible in the second republic.

After Shagari's first tenure, another election conducted in 1983 was marred with electoral malpractices and created another opportunity for the military to launch another coup that brought in Buhari (Akinbobola, 2000). However, it is pertinent to note that from 1999, Nigeria has been enjoying the longest period of democracy since independence. *Figure 1* show the trend of political regimes characteristics in Nigeria from 1984 to 2015. The purple line indicates the trend of the extent of democracy and the red dotted line represents autocracy. While the

blue dashed-line POLREG indicates political regime trend. The measures are composite indices derived from the coded values of authority characteristic component variables[2] according to the formulas, originally designed by Gurr.

Figure 1 shows that there was strong dictatorship between 1984 and 1999; DEMOC line was at its minimum (0) while AUTOC was close to its maximum score, and POLREG moves around its minimum value implying that Nigeria experienced a strong dictatorship in this period. Between 1984 and 1998 the mean score of the democracy score was 0 showing that there were little or no characteristics of democracy in place during that period. The transition from dictatorship to a civil rule took place in 1999, which marked the beginning of an upward trend in political regimes and democracy. The transition also marked the beginning of the fourth republic which is the longest period of civil rule in Nigeria after other democracies were short-lived. The DEMOC and POLREG lines rose further in 2015; showing more democracy, the first time in the history of the country's that power is being transited from one political party to another. The government of Jonathan of People's Democratic Party lost the 2015 election to Buhari of All Progressive Congress. Despite the positive remarks on 2015 election in Nigeria by *Freedom House* (2015a), Nigeria was categorized as partly free using ratings from political and civil rights enjoyed by the citizens.[3]

3.2 Democracy and Socio-Economic Developments in Nigeria

Historically, the dearth of democratic experience has created enormous challenges to institutionalizing democracy and national integration for national development in Nigeria (Egbefo, 2015:60). After the Nigeria's transition to democracy in 1999, the expectations of the majority of Nigerians was that democracy would engender efficient, accountable, transparent and participatory governance. It was thought that democracy would promote sustainable socio-economic development. However, contrary to the belief of many Nigerians, the seventeen years of democracy has not significantly improved the socio-economic conditions of Nigerians.

Corruption became a major bane on development in the Forth Republic. Rather than popular expression of power by the people, there was obvious disconnect between the government and the ruling elite on the one hand and the masses on the other. This development fosters rampant corruption and economic sclerosis because there is no investment in infrastructure as the country's leader's cream off its wealth (Burleigh, 2013:1). Corruption in the public sector degenerated to outright looting of the nation's treasury and wealth by unscrupulous politicians and public servants at the different level of the country's governance (Unumen and Emordi, 2012). It was reported

[2] See Marshall and Jaggers (2007). Polity iv project: political regime characteristics and transitions, 1800-2006 dataset users' manual, pp. 14.

[3] The political and civil rights assessed include the electoral process; political pluralism; functioning of government; freedom of expression; associational and organizational rights; rule of law; and personal autonomy and individual rights.

that 136 million barrels of crude oil worth $11billion (£7.79billion) were illegally siphoned off in first two years from 2009 to 2011 (Burleigh, 2013:1).

A nation with abundance of potentials, both in human and natural resources is rated among the sixty poorest nations in the world with a purchasing-power-parity (PPP) per capita of $5929 (Gregson, 2017). Between 2004 and 2010, the economy grew strongly at an average annual growth rate of 6.6% making it the 5th fastest growing economy in the world. By 2010, the country's growth rate stood at 7.8 percent and by 2014 it had become the largest economy in Africa (Unumen and Oghi, 2016:39). In 2015, the growth rate dropped to 2.7% while it dropped further to -1.7% by 2016 (IMF, 2017:7). However, in its own report, the Nigeria's National Bureau of Statistics (NBS) reported that for the full year 2016, GDP contracted by -1.51 per cent, indicating real GDP of N67,984.20 billion for the year, the worst in more than 30 years (Obasi, and Taiwo-Obalonye, 2017).

Unumen (2014), and Unumen and Oghi (2016) stated that by all indices of development, the Nigeria remains an underdeveloped country. The country's relative poverty rate increased from 54.5 percent in 2004 to 69 percent by 2010. The percentage of Nigerians living in abject poverty increased from 54.7% in 2004 to 61.2 % in 2010 (NBS, 2012) and per capita poverty rate registers at 35.2 and 33.1 percent of the population in 2009/2010 and 2012/2013, respectively (WB, 2014: 17). Life expectancy at birth rose from 46.6 in 2000 to 53.1 by the end of 2015 (UNDP, 2016:2), which is still very low compared with what we have in developed countries. Mean years of schooling increased by 0.8 years, from 5.2 in 2005 to 6.0 in 2015 and expected years of schooling also increased 2.0 years, from 8.0 in 2000 to 10.0 in 2015.

Figure 2 shows the trend of the trend of political regimes, corruption, GNI and GDP per capita growths in Nigeria between 1984 and 2015. The GNI per capita growth is the orange-line has almost identical fluctuating trend with the GDP per capita growth in black line. The political regimes line is the red-line while COR[4] is the blue-line representing corruption measure sourced from the political risk ratings of the International Country Risk Guide(i.e., ICRG), from the PRS group report. In *figure 2*, the GNI and GDP per capita growth exhibited high level of fluctuations unlike political regimes and corruption trends. The movement of political regimes either towards full democracy or full autocracy does not reflect in the movement of GNI or GDP per capita growths. However, one thing that is noticed in this period of study is that, GNI and GDP per capita growths had the highest percentage growth of 29.5% and 30.4% consecutively in 2004 during democracy and the lowest percentage growth of -13.1% and -15.8% consecutively in 1987 during Babangida's administration. Also, after the 2015 elections and the transition of power from one political party to another, the GNI and GDP per capita growths

[4] See ICRG Methodology of the Political Risk Service (PRS) group at www.epub.prsgroup.com. In this measure of corruption, the minimum number of points that can be assigned to each component is zero, while the maximum number of points depends on the fixed weight that component is given in the overall political risk assessment. In every case the lower the risk point total, the higher the risk, and the higher the risk point total the lower the risk.

became negative implying a negative growth. It also shows that corruption has a relatively higher risk point total between 1984 and 1998 (i.e relatively lower risk of corruption), and a relatively lower risk points total between 1999 and 2015 (i.e relatively higher risk of corruption). Though, the corruption risk point total of Nigeria is generally low over the years, figure ii indicates that the period of dictatorship experienced lesser risk of corruption compared with the period of democracy in Nigeria.

3.3 Political Regimes and conflict: The Nigerian Experience

Since Nigeria gained its independence from British colonialism, and advanced to a post-colonial order which was replete with socio-economic and political dilemmas; one major problem post-colonial Nigeria faced was the obstinate task of governing a multifaceted nation, comprised of 36 regional states divided along ethno-religious lines, up to 300 ethnic groups and a plethora of linguistic dialects, in addition to three distinct religious groupings. Nigeria was confronted with the efficient administration and governance of a broad-based society with a multiplicity of interests, political ideologies, values, traditions and cultural inclinations. The peak of an atmosphere of mutual mistrust from different regions of Nigeria came with the advent of the Biafra secessionist battle of 1967, which has resurfaced again more recently

After about thirty years of dictatorship, Nigeria got back into conventional democracy. While this development was seen by some people as an avenue to explore dividends and goodies of democracy, others saw it as an opportunity to express grievances (Adetoye and Omilusi, 2015), the outcome of which is the occurrence and re-occurrence of ethno-religious, resource-base, socio-economic and political conflicts. The diversity which has been threatening the unity of the country since the pre- and post-independence periods and militated against the deepening of her nascent democracy also persisted in the present fourth republic. This has manifested in form of call for Sovereign National Conference in some parts of the country, agitations for secession by some regions of the country in the case of Biafra, violent fight against western philosophy and education, resource control as well as persistent wave of political, Herdsmen-Farmer conflict, inter-ethnic and sectional violence among others. Nigeria's fourth republic has been adjudged very chaotic; Elaigwu (2005a) identified 17 major violent conflicts in Nigeria from May 1985 to May 1st 1999, and from May 31, 1999 to June 2005 he identified at least 121 cases of conflicts in Nigeria. Adebanwi (2004) in the similar view claimed that it appeared the dawn of democracy provided the atmosphere to ventilate bottled-up frustrations, grievances and fears generously and often times recklessly. Another study also heaped the blame of Nigeria's conflicts on corruption and the abrupt termination of the late Abacha, one of the ruthless dictators Nigeria has ever had. His demise triggered spontaneous culture of revivalism and agitation among different social groupings (Osita 2007: 21).

Figure 3 shows the trend of political regimes[5] characteristics, and the trend of conflict[6] I made use of *ACTOTAL* the total summed magnitudes of all (societal and interstate) *MEPV*.[7] *CONFL* represents *ACTOTAL* in *figure 3*. *Figure 3* shows that conflict was high before 1980s, but later dropped to "0" between 1994 and 1996 during dictatoship. Within the period of study, the conflict value got its lowest value of "0" between 1994 and 1996, implying no episodes of conflict, and its highest magnitude score of "5" between 2009 and 2010, implying a high episode of conflict. It should also be noted that since the transition to civil rule in 1999, conflict episodes have though been fluctuating but remain high in Nigeria. One can adduce the rising trend of conflict during democracy in Nigeria to the high rate of political violence bewildering her democratic process. Nigeria's democracy in the view of this paper can also be described as what Vreeland (2008) referred to as anocracy. The increasing conflict trend during democracy may be one main reason why it has not delivered economic growth in Nigeria.

4 Methodology

The study applies the ADRL–bounds testing approach developed by Pesaran et al (2001) to investigate the primary objectives of the paper. For the purpose of achieving the objectives of this paper, the study is anchored on the basic theoretical underpinning of Cobb Douglas production function as adapted and developed by Fosu (2001) which states:

$$q = a_1 + a_2 p + b_1 l + b_2 pl + c_1 k + c_2 pk + u, \qquad (1).$$

where q is output growth, p measures Political instability, l and k are the respective growth rates of labor and capital, and u is the appended stochastic perturbation term.

Thus, this study adapts Fosu's model and estimates the following models:

$$q_1 = a_1 + b_1 POLREG_t + b_2 CONFL_t + b_3 COR_t + b_4 GDPG_t + b_5 GFCFG_t + b_6 GE_t + b_8 INT_t + b_9 EXCH_t + u_1 \qquad (2)$$

. . .

[5] See explanation in section 3.1

[6] The conflict line was computed using the Major Episodes of Political Violence (MEPV) magnitude scores, sourced from the Centre for Systemic Peace (CSP). The Center for Systemic Peace MEPV, 1946-2015 (War List), lists annual, cross-national, time-series data on interstate, societal, and communal warfare magnitude scores (independence, interstate, ethnic, and civil; violence and warfare) for all countries; Full Set (1946-2012) includes both country data and scores for neighboring countries and regional context for all independent countries (does not include independence wars.

[7] *ACTOTAL=INTTOT +CIVTOT;* INTTOT is the total summed magnitude of all interstate MEPV, that is, the sum of the magnitude score of episode(s) of international violence(*INTVIOL*) and magnitude score of episode(s) of international warfare(*INTWAR*); *CIVTOT* is the Total summed magnitudes of all societal *MEPV*, i.e., the sum of magnitude score of episode(s) of civil violence *CIVVOL*, magnitude score of episode(s) of civil warfare (*CIVWAR*), magnitude score of episode(s) of ethnic violence (*ETHVIOL*) and Magnitude score of episode(s) of ethnic warfare(*ETHWAR*). The scale used for all the variables range between 1(lowest) to 10 (highest) (see Major Episodes of Political Violence (MEPV2015) Codebook, pp.1-17).

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$$q_n = a_1 + b_1 POLREG_t + b_2 CONFL_t + b_3 COR_t + b_4 GDPG_t + b_5 GFCFG_t + b_6 GE_t + b_8 INT_t + b_9 EXCH_t + u_1 \quad (9)$$

where $q_1 \ldots\ldots q_n$ are the regressands[8] for each of the model, $POLREG_t$ represents political regime measuring the type of political system operating in the country, $CONFL_t$ is conflict measuring the level of absence of peace, COR_t is corruption measuring the presence of corruption in the country, $GDPG_t$ is the growth rate of gross domestic product, $EXCH_t$ is the exchange rate, GE_t is government spending, $GFCFG_t$ is gross fixed capital formation growth measuring investment level, INT_t is real interest rate and u is the appended stochastic perturbation term. $a_1, b_1 \ldots\ldots\ldots\ldots b_6$, are the parameters to be estimated.

While for the "interactive effects", the following models were estimated:

$$q_1 = a_1 + b_1 POLREG_t * COR_t + b_2 POLREG_t * CONFL_t + b_3 POLREG_t + b_4 GDPG_t + b_5 GFCFG_t + b_6 GE_t + b_8 INT_t + b_9 EXCH_t + u_1 \quad (10)$$

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$$q_n = a_1 + b_1 POLREG_t * COR_t + b_2 POLREG_t * CONFL_t + b_3 POLREG_t + b_4 GDPG_t + b_5 GFCFG_t + b_6 GE_t + b_8 INT_t + b_9 EXCH_t + u_1 \quad (17)$$

(19)

Where $q_1 \ldots\ldots q_n$ are the regressands as it is in eqn (11), $POLREG_t * COR_t$ is the integration of political regimes and corruption, $POLREG_t * CONFL_t$ is the interaction between political regimes and conflict, $POLREG_t * CONFL_t$, $POLREG_t, GDPG_t, GFCFG_t, GE_t, INT_t, EXCH_t$ and u_1 are the same as we have in eq. (11).

The paper estimates eight models using the same set of regressors. It uses economic development index (i.e, $ECNDEV_t$) as the first regressand and other single economic development indicators (i.e., $AVAD_t$, $CPER_t$, $EGPC_t$, $GDPPC_t$, $GNIPC_t$ $LEXP_t$, $SCHENROL_t$ were used as regressands in other models. The same process was repeated for the interactive effects of both political regimes and corruption on one hand, and political regimes and conflict on the other hand on economic development. Therefore, $q_1 \ldots\ldots\ldots q_n$ indicates the list of regressands as used in

[8] The regressands are the major indicators of economic development used in the literature (i.e., the index of economic development, agriculture value added per worker (constant 2010 US$), Household final consumption expenditure per capita (constant 2010 US$), Electric power consumption (kWh per capita), GDP per capita (constant 2010 US$, GNI per capita (constant 2010 US$), Life expectancy at birth, total (years), School enrollment, secondary (% gross).

the study while $u_1 \dots \dots \dots u_n$ represents the list of error terms. In order to conserve space, the ARDL models for eqns (10) & (17) are not presented.

4.1 Data Measurement and Source

Due to the inaccessibility of data, this paper uses time series data ranging from 1984 to 2015. Data on Political Regimes (POLREG) was sourced from Polity IV Project of Marshall and Jaggers, Center for Systemic Peace,[9] while the data on Conflict (CONFL) was sourced from Major Episodes of Political Violence (MEPV) magnitude scores, in the Centre for Systemic Peace (CSP) database.[10] The data on Corruption (COR)[11] was sourced from political risk ratings of the ICRG, of the PRS group report. Data of Life Expectancy (LEXP), Agricultural Value-added (AVAD), real per capita GDP (RGDP), GNI per capita, Consumption Per Capita (CPER), Electric power consumption (kWh per capita) (EGPC), secondary school enrolment (SCHENROL) sourced from World Development Indicators (henceforth WDI) of the WB. Economic development index was computed from data of Life Expectancy (LEXP), Agricultural Value-added (AVAD), real per capita GDP (RGDP), Consumption Per Capita (CPER), secondary school enrolment (EDU), using the PCA. Other data include; GDP growth (GDPG), Exchange Rate (EXCH), Government Expenditure (GE), Interest rate (INT) and Gross Fixed Capital Formation Growth (GFCFG) which were also sourced from the WDI, and are used as instrument and regressors for the models.

Many economic development indicators have been introduced in the literature. There is serious contention about which of these indicators best fit to measure economic development. Hence, there is need to construct a comprehensive measure of economic development. However, this study uses six different components to represent different aspects of development. Agriculture value added per worker captures the level of rural development in Nigeria while household final consumption expenditure per capita and GDP per capita capture resources need for a decent standard of living or poverty (used by Chirino and Melian, 2006). Electric power consumption per capita captures social or infrastructural development, Life expectancy at birth captures longevity or capability to leading a long and healthy life (Chirino and Melian, 2006). And lastly, secondary school enrollment captures the level of literacy. Before undertaking PCA, I checked the factorability of variables with the Barlett's test for sphericity and Kaiser-Meyer-Oklin (KMO) coefficient. The Barlett's test converts the calculated determinants of the matrix to a χ^2 statistic, which is tested for significance. The null hypothesis of the

[9] See pages 14 &15 for explanation and www.systemicpeace.org/polity for details of the data.
[10] See section 3.3 for more explanations and for more details see Major Episodes of Political Violence (MEPV) magnitude scores, Centre for Systemic Peace (CSP) at www.systemicpeace.org/polity.
[11] This is an assessment of corruption within the political system. Such corruption is a threat to foreign investment for several reasons: it distorts the economic and financial environment; it reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and, last but not least, introduces an inherent instability into the political process.

test is that variables are collinear. The KMO test, on the other hand entails the comparison of the size of the variables' correlation coefficients with the size of the partial correlation coefficients. In the KMO test, a minimum value of 60.0 is necessary for an acceptable PCA. The results on Table 1 present Barlett's and KMO tests as well as the PCA. The results show that the six variables may be assembled into another set of factor using the PCA. Therefore, the values of the first PCA are to calculate the weights for the economic development index.

5 Data Analysis and Empirical Results

5.1 Effects of Political Regimes on Economic Development in Nigeria

To validate the applicability of the ARDL bounds testing method, I employed the unit root tests to evaluate the order of integration of the variables. Both the Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests are employed. In Table 2, all variables are of order I(0) and I(1), and, or a combination of both, and none is integrated of higher order. Therefore, based on these results it is acceptable to apply the ARDL technique.

Next, I test the presence of long-run relationships among the variables used. Table 3A reports the results of the ADRL bounds cointegration tests. The Wald tests (F tests) for joint null hypothesis that the coefficients of the lagged variables in level form are zero (no cointegration between the variables), and the results of the calculated F-statistics and the values for both upper and lower bound are presented. The critical value bounds of the F statistic with k=8 at 5 and 10% levels of significance are presented in Table 3A. All calculated F statistic values for each model are greater than critical values at upper bound I(1), thus implies that there exist long run cointegration among the variables used in each models (i.e. model 1,…..,8). The results of the F statistic for the models used in checking the "interactive effect" are presented in Table 3B.

Having found the existence of long-run relationship, i obtained the long run dynamics of Eq. (4) to Eq. (11). Table 4A reports the empirical findings of the estimated long run coefficients for the eight different models of the economic development equations of the effect of political regimes on economic development in Nigeria. All models include the same set of regressors. Table 4B presents the short run dynamics of these models and it is important to note that all equations as well pass all the diagnostic tests of Breusch–Godfrey test of serial correlation, functional form test, the autoregressive conditional heteroskedasticity (ARCH) test and normality (JB(N)). All the long run coefficients of political regimes are statistically significant for all the models in Table 4A with the exception of model 7 (with life expectancy as its regressands). The unified polity scale values used ranges from +10 (strongly democratic to -10 (strongly autocratic),[12] implies that an increase in POLREG tends towards democracy while a decrease tends towards autocracy. The result in Table 4 shows that POLREG has

[12] See section 3.2 for more explanation on polity IV

positive effect on ECNDEV, AVAD, GDPPC, GNIPC and SCHENROL, which implies that and increase to democracy increases these economic development indicators, and in turn economic development, while a decrease to autocracy reduces these economic development indicators in the long run. For instance, 1 unit/percentage increase in POLREG will lead to 13.2, 46.1 and 13.9 unit/percentage increases in ECNDEV, AVAD and GDPPC respectively and vice-versa. On the other hand, political regime has a negative on CPER and EGPC, indicating that a move towards democracy reduces these indicators and a move towards autocracy increases CPER and EGPC in the long run. That is, a percentage increase in POLREG will reduce CPER and EGPC by 8.1 and 5.9 percent respectively and vice versa. However, in the short run, political regimes has a negative effect on all economic development indicators except GDP per capita and GNI per capita[13]. Thus, more democracy decreases economic development in the short run but increases GDP and GNI per capita. The positive effect of political regimes on GDP and GNI per capita in the short run may be attributed to the method the two indicators are being calculated, which doesn't necessarily reflect the standard of living of people in a particular country. GDP and GNI per capita have been criticized by economic scholars as not being a true reflection of the standard of living of people in an economy. If per capita income is the measurement, the population problem may be concealed, since population has already been divided out. As Kuznets (1995) warns, the choice of per capita, per unit or any similar measure to gauge the rate of economic development carries with it the danger of neglecting the denominator of the ratio.

Also in the result reported in Table 4A, conflict (CONFL) has statistically significant effects on all the economic development indicators except AVAD and GNIPC in the long run. The study uses the MEPV2015 ACTTOTAL,[14] to measure conflict in Nigeria. Conflict has a positive effect on ECNDEV, GDPPC and SCHENROL, while it has negative effects on CPER, EGPC and LEXP. That is, a percentage increase in CONFL will increase ECNDEV, GDPPC and SCHENROL by 21.4, 6.4 and 8.5 percent respectively and reduce CPER, EGPC and LEXP by 3.3, 4.6 and 21.4 percent respectively and vice versa. The positive effect of conflict on economic development index and GDP per capita, implies that conflict increases development in Nigeria, contrary to theoretical believes and empirical findings of Collier and Hoeffler (2004), and Polachek and Sevastianova (2010). However, Chauvet (2003) argues that while violent instability attracts foreign aid, social instability discourages it. Therefore, to the extent that aid stimulates economic growth, conflict might affect aid allocation decisions and therefore growth rates in aid recipient countries. Also the impact of conflict on development depends on the typology and coverage of the conflict (Collier and Hoeffler, (2004). In the short run, conflict indicates a negative effect on ECNDEV but

[13] See table 4B in the Appendix.
[14] See section 3.3 for more details on MEPV2015 or www.systemicpeace.org/warlist.htm for details.

still maintains a positive effect on GDPPC[15], which may also be attributed to the deflating effect of conflict on population, a denominator for deriving GDPPC.

Result in *Table 4A* also shows a statistically significant effect of corruption on all the economic development indicators except Life expectancy (LEXP). In table 4A, the corruption data sourced from ICRG[16] shows that COR has positive and statistically significant effect on all the economic development indicators except CPER. For instance, a percentage increase in COR (which implies lower potential risk of corruption) increases ECNDEV, EGPC, GDPPC and SCHENROL by 188.1, 49.7, 89.6 and 49.8 percent respectively and vice versa. In other words; the higher the number of points of corruption indicating a lower potential risk, the higher the economic development in the long run (as in the work of Ugur and Dasgupta, 2011; Mauro, 1995). As such, a lower potential risk of corruption in Nigeria generally boosts economic development and other economic development indicators as GDP and GNI per capita, school enrolment, power consumption per capita and agricultural value added per worker in the long run. However, it displays a mix result in the short run as corruption has both negative and positive effect on economic development indicators[17]. A negative effect of COR implies that a higher number of points of corruption indicating a lower potential risk reduce economic development by 34.3 percent in the short run and vice versa. Some works in the literature that tried to find if there is a positive effect of corruption,[18] found that aside the negative effect corruption on growth which is the general believe, it can also have positive effects on growth. Leff (1964); Huntington (1968); Lui (1996); Mo (2001); Teles (2007) have at one point or the other found a positive effect of corruption on economic growth.

The results of the effect of other regressors used in the models are presented in Table 4 & 4B. GDPG and INT show a statistically effect on economic development index (ECNDEV), while GFCFG and EXCH are not statistically significant in both short and long run dynamics. In view of the results in Table 4A, more democracy yield higher economic development in the long run particularly in per capita GNI and GDP, as well as agricultural value added per worker, while autocracy yields lower economic development. However, in the short run more autocracy boost economic development while democracy reduces economic development in Nigeria. A reduced level of corruption fosters economic development in Nigeria in the long run, while it effect in the short run is not clear, as it displays varying effect on economic development indicators. Conflict shows varying effects on economic development indicators due to the fact that some of this indicators are per capita variables which have

[15] See Table 4B in the Appendix
[16] For details see section 3.2
[17] See Table 4B in the Appendix
[18] Leff (1964) argued that there are six positive effects of corruption: (1) Indifferences and hostility of government, (2) governments have other priorities, (3) uncertainty reduces and increases investment, (4) innovation, (5) competition and efficiency, and (6) as a hedge against bad policy and also Huntington (1968), the proponents of "efficient corruption" claim that bribery may allow firms to get things done in an economy plagued by bureaucratic hold-ups.

population as a component. Conflict affects the two components of these per capita variables, thus making the effect of conflict on these economic development indicators depends on the magnitude of effect it has on each of the component used in computing it.

5.2 Interactive Effects of Political Regimes with Conflict and Corruption on Economic Development

Scholars do believe that if democratic tenets are entrenched, there is more transparency and accountability which in turn reduces the corruption. Figure 2 indicates that there was higher risk of corruption during democracy relative to the dictatorship in Nigeria. Since the Nigeria assumed democracy in 1999, despite the various reforms of government and the establishment of anti-corruption agencies, the country has experienced high profile corruption cases by public office holders.

Over and above corruption as the main bane of democracy to achieving development in most developing countries, conflict has also been identified has a major challenge to democratization in Africa. Conflict is undoubtedly a major cause of underdevelopment, especially in developing countries. In this subsection, I estimated the interactive effects of political regimes and corruption, as well as the interactive effect of political regimes and conflict, on economic development index and other economic development indicators. Also, other variables were added as regressors to improve the robustness of the result of the estimation. I conducted the same pre-estimation tests and follow the same procedure (as in section 5.1). The results in table 3B show that there exist long run relationships among the variables used in each models (i.e. model 1,…..,8). Next, i obtained the long run dynamics of Eq. (10) to Eq. (17). In the results as presented in Table 5A, the interactive variable of political regimes and corruption ($POLREG_t * COR_t$) shows a statistically significant positive effect on all the economic development indicators, including the economic development index (see Table 5A). However, the effect is not statistically significant on household consumption per capita (CPER).

In other words, an increase in the value of the variable interacting political regimes and corruption (POLREG*COR) denotes a move towards more democracy and lower level of corruption, while a decrease denotes a move towards autocracy and higher risk level of corruption. The result of the long run dynamics shows that an increase POLREG*COR increases ECNDEV and AVAD by 1.365 units and 13.9% in the long run and are statistically significant at 5% and 1% levels respectively. With this result however, one can say that in the long run democracy increases economic development in Nigeria essentially when it is devoid of corruption. Though on the contrary, an autocratic regime with or without corruption drains development in Nigeria, particularly in the long run. There is positive effect of POLREG*COR on the indicators of economic development and economic development index in the short run dynamics except on CPER (with a negative effect), which thus was statistically insignificant in the long run dynamics (see table 5B in the Appendix). That is to say, even in the

short run an increase in the value of the variable interacting political regimes and corruption (POLREG*COR) tend to an increase in economic development and other economic development indicators.

The result in Table 5A is quite interesting as the interactive variable of political regimes and conflict (POLREG*CONFL) has a statistically significant effects only on electric power consumption per capita (EGPC), life expectancy (LEXP) and secondary school enrolment. From this result, one can infer that POLREG*CONFL has no statistically significant on income output and consumption related variable, which make the bulk of the indicators that formed the economic development index. The result in Table 5A shows that POLREG*CONFL has a negative effect on EGPC and LEXP implying that an increase in POLREG*CONFL reduces EGPC and LEXP by 0.009% and 0.119% respectively. In other words, a move towards full democracy with a higher incidence of conflict tends to reduce electric power consumption per capita and life expectancy. This corroborates the findings of Plümper and Neumayer (2006); ACAPS (2012) who argued that armed conflicts have important indirect negative consequences on agriculture, infrastructure, public health provision and social order. Recall also that in Table 4A, POLREG has a statistically insignificant negative effect on life expectancy (LEXP) while conflict has a statistically significant negative effect on it. This suggests that political regime has no effect on life expectancy and the negative effect of the interaction of the two variables (POLREG*CONFL) is basically caused by the effect of conflict on life expectancy.

Also some studies have shown a significant positive effect of democracy on per capita household electricity consumption (Ahlborg *et al*., 2015; Acemoglu and Robinson, 2006; Collier (1999); Schmitter and Karl, 1991). On the other hand, electricity producing infrastructures are considered to be of generally recognized military importance, and are targeted for destruction on grounds of "military necessity" (Gellman, 1991).

Result in Table 5A also shows that the variable interacting political regimes and conflict (POLREG*CONFL) has a significant positive effect on secondary school enrolment in the long run. This corroborates the results in Table 4A, section 5.3, where POLREG and CONFL have statistically significant positive effects on SCHENROL, suggesting that a move to more democracy increases secondary school enrolment, likewise more incidence conflict. The result in Table 5A suggests that a move towards more democracy as well as higher incidences of conflict tends to increase secondary school enrolment in Nigeria in the long-run. Contrary to the result in Table 5A, several studies found a negative effect of armed conflict on education (UNICEF, 2009; UNESCO, 2011; Stewart et al. (2001)). The direct impact of armed conflict on education ranges from the fact that educational facilities are damaged and destroyed, schools occupied by armed forces, school buildings become shelter for IDPs, lack of qualified personnel caused by dis-placement of teachers and other staff, curriculum changed to support the violent societal dynamics, recruitment of children into armed groups and other indirect impacts (UNESCO, 2011).

Though the paper argued that the time series data in the study don't show a strong negative correlation between conflict and the provision of education, it is still possible that there is an unobserved relationship.[19] Thus, it will be instructive to note however that secondary school enrolment data from WDI used in this study is incomplete data, which was interpolated with the aid of EVIEWS. The incompleteness of the data used presents a reason why the effects of interactive variable between political regimes and conflict (POLREG*CONFL) on school enrolment may be contrary to a priori expectations.

In the short run, POLREG*CONFL maintains a significant negative effect on life expectancy and electric power consumption, while same significant positive effect on secondary school enrolment (see Table 5B). Also in the short run, POLREG*CONFL has a significant positive effect on per capita consumption and overall effect on each per capita variable (GDP or GNI) depends on whether the denominator, which in this case population, is most deflated by the effect of conflict. For instance, if population is most deflated by the effect of conflict rather than GDP or consumption, the effect of conflict and, or the interaction of political regimes and conflict will increase per capita GDP and consumption. This may be the case in Nigeria as the bulk of the GDP is derived from high tech production (i.e oil production, ICT and other services) with little need of labour force, and also the bulk of her consumption is from importation. Other regressors used (except exchange rate and GDP growth) in the eight models in Table 5A as reported didn't show impressive statistically significant effect on the economic development index and other economic development indicators.

In view of the result of these estimations, democracy will only improve economic development in the long run if there is a reduced level of corruption in Nigeria. Also, democracy will boost economic development in the long run if there are little or no incidences of conflict in Nigeria. Likewise in the short run, democracy tends to boost economic development in Nigeria if there is a reduced level of corruption. The effect of political regimes with conflict has not been clearly distinguished, especially on the per capita variables used. This is due to the fact that the two indicators used in computing the per capita variable can both be affected by conflict; thus the actual effect depends on the magnitude to which conflict affects each of the indicators. With the presence of corruption and conflict, political regime has a negative effect on economic development index and other economic development indicators used in short run. This in other words infers that more democracy in Nigeria with the presence of conflict and corruption reduces economic development in the short run.

6.0 Conclusion

This study explores the relationship between political regimes and economic development in Nigeria. The situation in Nigeria seems to disagree with some of these scholars' assertion as the level of corruption got

[19] See UNESCO (2011).

aggravated since the inception of democracy in 1999. The country experienced high profile corruption cases among public office holders it assumed democracy.

This paper investigates the short and long run dynamics of the effect of political regimes and economic development. It also examines the interactive effects of corruption and political regimes as well as conflict and political regimes on economic development. With the aid of graphical representations; the study found that there have been fluctuations in the political system in Nigeria, and concludes that political system in Nigeria has experienced instability during the study period. The study also found, as against the a priori knowledge, that the level/volume of corruption increased considerably after the transition to a democratic system. Thus, democratic inclinations tend to induce corruption level in Nigeria. The paper found increased level of conflict during democratic periods as against dictatorship. The incidence of conflict seems higher since the advent of a democratic dispensation in 1999, as against the a priori expectations. However, many authors (Adetoye and Omilusi, 2015; Elaigwu, 2005a) gave reasons why the incidence of conflict got higher in a democracy.

There exists long run relationships among the variables used in all the models estimated in this study. In the long run, more democracy yields higher economic development in Nigeria particularly in per capita GNI and GDP, as well as agricultural value added per worker when the issue of conflict and corruption are being addressed, while autocracy yields lower economic development. In the short run however, more autocracy fosters economic development in Nigeria while democracy hinders it. Corruption portends grave threat to the development of Nigeria's economy as higher risk of corruption reduces economic development indicators in the long run. Nevertheless, a higher risk of corruption leads to economic development in the short run in Nigeria.

The effect of conflict on economic development in Nigeria is unclear, thus it is determined by the magnitude of its impact on the components of the per capita variables used. Yet, it reduces per capita consumption, life expectancy and electric power consumption per capita, while it increases economic development index and per capita GDP. A move towards more democratization in Nigeria fosters economic development in the long and short run if there is a reduced level of corruption and vice versa. The effect of more democracy with the presence conflict on economic development seems ambiguous, especially on the per capita variables. Thus, democracy with the presence of conflict reduces electric power consumption per capita and life expectancy while it increases secondary school enrolment in Nigeria in the long run. Conclusively, with the rise in corruption and conflict levels in Nigeria democratic experience, democracy tends to hinder development in both short and long run. For the purpose of policy making, the findings this study highlight the need to establish effective anti-graft agencies in order to fight corruption to the barest minimum in Nigeria. They highlight the need to entrenched cardinal tenets of democracy (i.e, rule of law, transparency and accountability, equity and equal representations etc) in order to reduce the incidence of conflicts and to allow Nigeria partake in the dividends of democracy. They also highlight

the need to employ conflict resolution mechanisms, as well as enhance various institutions and research think-tanks (i.e. Nigeria's institute for peace and conflict resolution) in resolving conflict issues in the democratization process of the country. There are other factors that may hinder or foster democracy and dictatorship in achieving economic development which this paper will suggest for further investigation.

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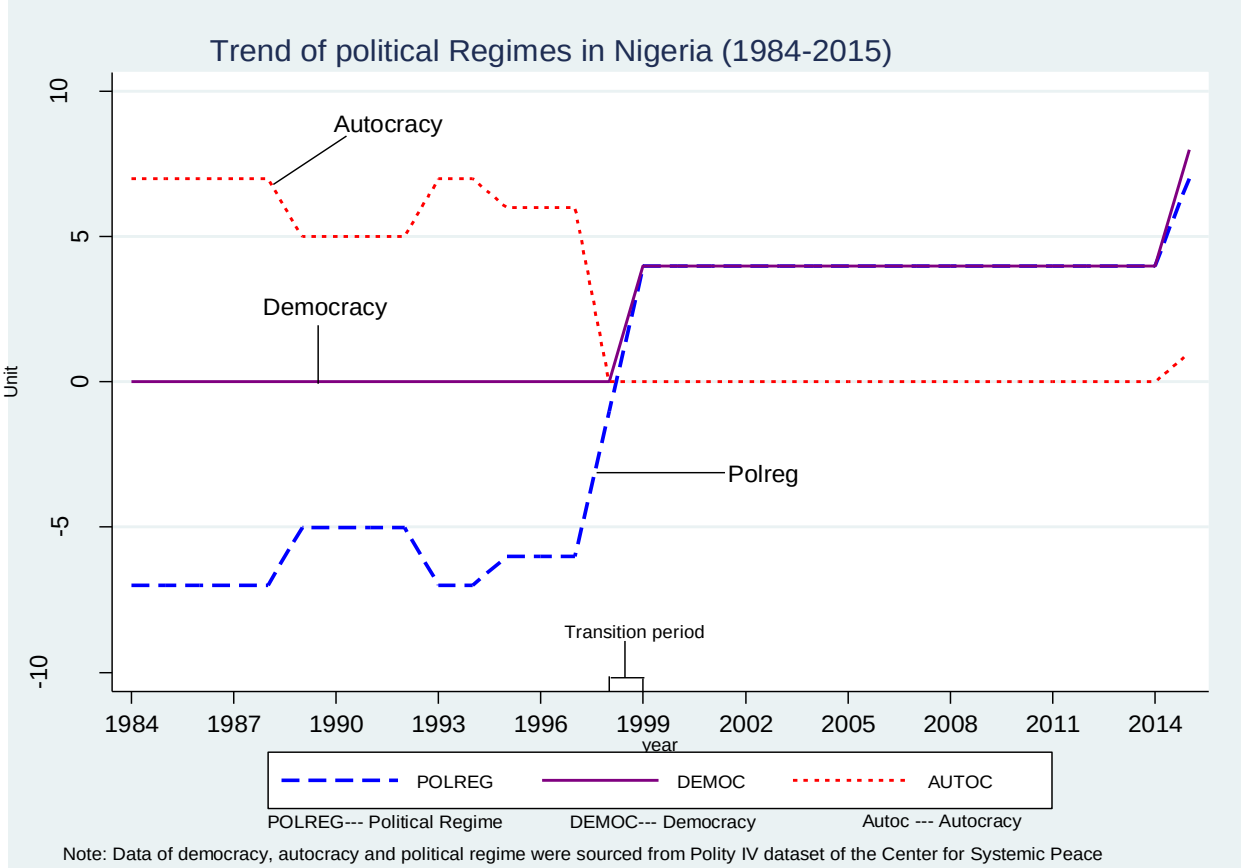
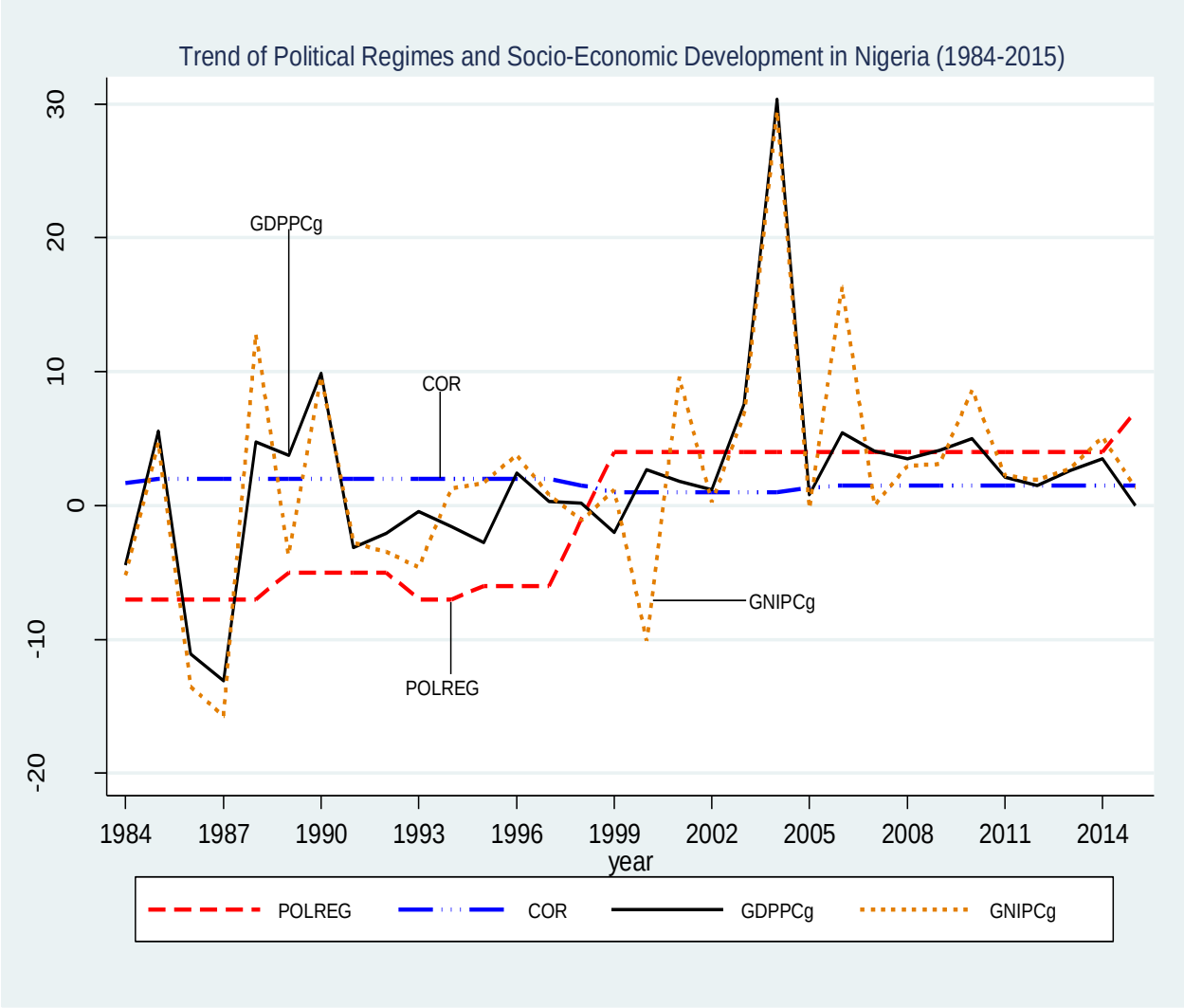
Figure 1: Trend of Political Regimes in Nigeria (1984-2015)



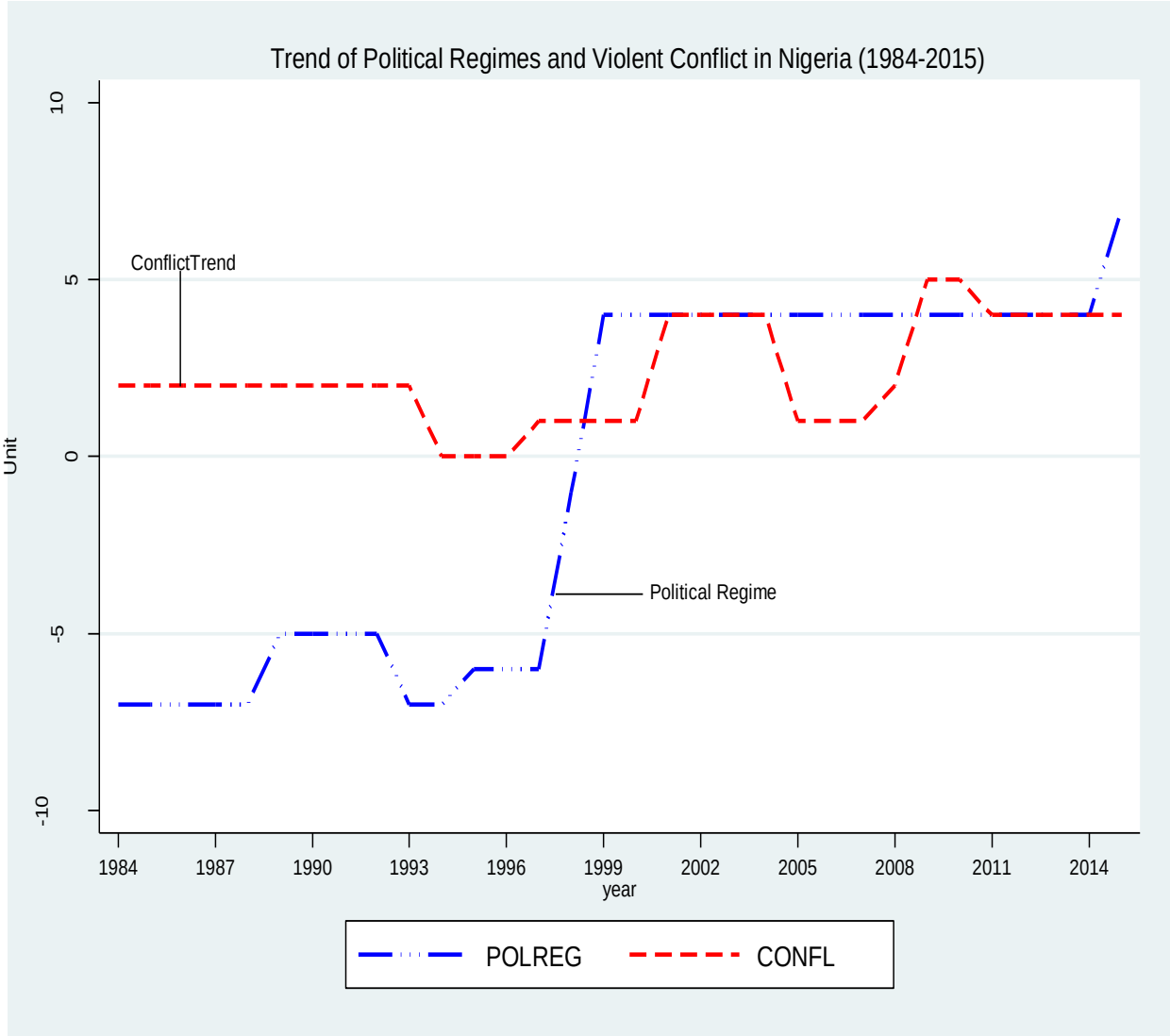
Source: **Author**

Figure 2: Trend of Political Regimes and Socio-Economic Development in Nigeria (1984-2015)



Source: **Author**

Figure 3: Trend of Political Regimes and conflict in Nigeria (1984-2015)



Source: **Author**

Table 1: Construction of economic development index

Test for factorability	
Determinant of the matrix of correlation	0.0023
Barlett's test for sphericity	365.718
	(0.000)***
Kaiser-Meyer-Oklin measure	0.777

Principal Components/Correlation — Number of Obs = 32

Number of comp. = 6

Trace = 6

Rotation: (unrotated = principal) Rho = 1.0000

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	5.48021	5.19945	0.9134	0.9134
Comp2	0.280759	0.142891	0.0468	0.9602
Comp3	0.137868	0.0766372	0.0230	0.9831
Comp4	0.0612304	0.0263701	0.0102	0.9933
Comp5	0.034860	0.029788	0.0058	0.9992
Comp6	0.005072		0.0008	1.0000

Principal Components (eigenvectors)

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Unexplained
AVADPW	0.4204	-0.0598	0.0854	-0.5158	0.5845	-0.4523	0
CPER	0.3745	0.8996	0.1472	0.1388	-0.0006	0.0979	0
EGPC	0.4003	-0.3575	0.7468	0.3812	-0.0276	0.0902	0
GDPPC	0.4210	-0.0785	-0.1390	-0.2072	-0.7757	-0.3907	0
LEXP	0.4216	-0.1687	-0.2127	-0.3701	-0.0110	0.7819	0
SCHENROL	0.4095	-0.1573	-0.5905	0.6241	0.2361	-0.1167	0

Source: Author's computation with SPSS and STATA

***Table 2*: Unit root test result**

Variables	Augumented Dickey-Fuller			Philip-Peron		
	Levels	1st Diff	Rmks	Levels	1st Diff	Rmks
AVADPW	1.855547	-4.435753***	I(1)	1.779715	-4.508832***	I(0)
CONFL	-1.873426	-4.861046***	I(1)	-2.0372	-4.970959***	I(1)
COR	-2.075726	-3.810971***	I(1)	-1.4094	-3.816396***	I(1)
CPER	-0.632861	-9.162554***	I(1)	-1.3996	-9.098266***	I(0)
ECNDEV	0.948957	-4.224064***	I(1)	0.7951	-4.240506***	I(1)
EGPC	-1.281544	-6.766623***	I(1)	-1.2513	-6.880446***	I(1)
EXCH	0.092548	-5.050588***	I(1)	0.104743	-5.048326***	I(1)
FDI	-3.547315**		I(0)	-3.531109**		I(0)
GDPg	-4.582585***		I(0)	-4.589829***		I(0)
GDPPC	0.948953	-4.224067***	I(1)	0.795047	-4.24051***	I(1)
GDPPCg	-4.588589***		I(0)	-4.595895***		I(0)
GE	-3.173381**		I(0)	-3.171054**		I(0)
GFCF	-1.686344	-2.732537*	I(1)	-1.749478	-5.580418***	I(1)
GFCFg	-2.690807*		I(0)	-5.519003***		I(0)
GNIPC	1.008125	-2.918069*	I(1)	0.979097	-5.336634***	I(1)
GNIPCg	-5.797174***		I(0)	-5.790433***		I(0)
INT	-5.497889***		I(0)	-5.497789***		I(0)
LEXP	-0.684513	-1.821222*	I(1)	2.107317	-1.082292*	I(1)
POLREG	-0.866274	-3.400099**	I(1)	-0.568395	-3.282385**	I(1)
POLREG*CONFL	-0.704549	-5.300389***	I(1)	-0.101768	-5.902282***	I(1)
POLREG*COR	-0.415487	-4.013274***	I(1)	-0.540695	-4.048815***	I(1)
POPg	-4.767169***		I(0)	-1.259856	-1.992171*	I(1)
SCHENROL	-0.035657	-0.986311*	I(1)	-0.169627	-3.981691***	I(1)

Notes: ***,**, * indicates level of significance at 1%, 5% and 10% respectively. Unit root was conducted with intercept and no trend

Source: Author's computation with Eviews 9

Table 3: **Testing for long run cointegration; F statistic**

Model 1: (Dependent variable: ECNDEV)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		149.1226
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.34	2.26
5%	3.68	2.55
Model 2: (Dependent variable: AVAD)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		3.46738
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	2.79	1.66
5%	3.11	1.91
Model 3: (Dependent variable: CPER)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		3.968063
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.34	2.26
5%	3.68	2.55
Model 4: (Dependent variable: EGPC)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		3.738762
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.34	2.26
5%	3.68	2.55
Model 5: (Dependent variable: GDPPC)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		3.699965
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.34	2.26
5%	3.68	2.55
Model 6: (Dependent variable: GNIPC)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		12.81282
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.34	2.26
5%	3.68	2.55
Model 7: (Dependent variable: LEXP)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		10848.78
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.34	2.26

5%	3.68	2.55
Model 8: (Dependent variable: SCHENROL)		F-Statistic
F(POLREG, COR, CONFL, GDPG, GFCFG, GE, INT, EXCH,)		37.89263
Critical Values	Upper Bound I(1)	Lower Bound I(0)
K=8; n=30		
10%	3.06	1.95
5%	3.39	2.22

Source: **Author's Computation, Eview 9**

Table 3B: **Testing for long run cointegration; F statistic**

Model 1: (Dependent variable: ECNDEV)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		229.6012
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=31		
10%	3.06	1.95
5%	3.39	2.22
Model 2: (Dependent variable: AVAD)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		4.015585
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=31		
10%	3.06	1.95
5%	3.39	2.22
Model 3: (Dependent variable: CPER)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		11.30096
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=30		
10%	3.34	2.26
5%	3.68	2.55
Model 4: (Dependent variable: EGPC)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		3.442853
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=31		

10%	3.06	1.95
5%	3.39	2.22
Model 5: (Dependent variable: GDPPC)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		406.2466
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=31		
10%	3.06	1.95
5%	3.39	2.22
Model 6: (Dependent variable: GNIPC)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		3.490507
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=31		
10%	3.06	1.95
5%	3.39	2.22
Model 7: (Dependent variable: LEXP)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		32.20468
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=31		
10%	3.06	1.95
5%	3.39	2.22
Model 8: (Dependent variable: SCHENROL)		F-Statistic
F(POLREG*COR, POLREG*CONFL, POLREG, GDPG, GFCFG, GE, INT, EXCH)		3.861362
		Lower Bound
Critical Values	Upper Bound I(1)	I(0)
K=8; n=30		

10%	3.34	2.26
5%	3.68	2.55

Source: **Computed with Eviews 9 by Aurthor.**

Table 4A: **Estimated long run coefficients from the ARDL models**								
Variable	**Model(1): ECNDEV ARDL(1,2,2,2,2,2,1,0,0)**	**Model(2): AVAD ARDL(2,2,2,0,0,2,1,2,2)**	**Model(3): (CPER) ARDL(2,0,2,1,2,2,2,0,2)**	**Model(4): (EGPC) ARDL(1,0,1,0,2,2,2,2,0)**	**Model(5): (GDPPC) ARDL(2,1,2,2,2,2,2,1,0)**	**Model(6): (GNIPC) ARDL(2,2,2,2,2,2,2,1,2)**	**Model(7): (LEXP) ARDL(2,2,2,0,2,2,2,1,2)**	**Model(8): (SCHENROL) ARDL(2,2,2,2,1,2,2,2)**
POLREG	0.132***	0.461**	-0.081***	-0.0595***	0.139***	0.175**	-0.0800	0.023*
	(0.039)	(0.017)	(0.002)	(0.000)	(0.004)	(0.068)	(0.166)	(0.081)
CONFL	0.214***	-0.1952	-0.033**	-0.046***	0.064**	0.0622	-0.214**	0.085***
	(0.001)	(0.143)	(0.036)	(0.000)	(0.026)	(0.137)	(0.018)	(0.001)
COR	1.881***	5.056***	-0.413***	0.497***	0.896***	1.045***	-0.5666	0.498***
	(0.001)	(0.000)	(0.006)	(0.000)	(0.000)	(0.003)	(0.259)	(0.001)
GDPG	-0.284***	0.115***	-0.4127	0.0026	0.111***	0.0019	0.0052	0.0053
	(0.002)	(0.005)	(0.235)	(0.347)	(0.000)	(0.760)	(0.351)	(0.163)
GFCFG	-0.0002	-0.054***	0.005***	0.004***	-0.003**	-0.0044	0.015**	-0.006***
	(0.964)	(0.002)	(0.003)	(0.002)	(0.014)	(0.139)	(0.016)	(0.002)
GE	0.0178	0.0182	-0.0059	-0.012***	0.014**	0.031*	-0.058**	0.016***
	(0.107)	(0.614)	(0.467)	(0.003)	(0.010)	(0.053)	(0.026)	(0.003)
	0.013***	0.0188	0.005**	-0.0012	0.0013	0.006**	0.028***	0.007***

INT	(0.002)	(0.195)	(0.033)	(0.411)	(0.265)	(0.027)	(0.002)	(0.000)
EXCH	0.0006	-0.0035	0.004**	0.017***	-0.0077	-0.0104	0.039**	0.003***
	(0.855)	(0.709)	(0.019)	(0.000)	-(0.138)	(0.265)	(0.010)	(0.004)

Notes: ***, **, * indicate statistically significance at the 1 per cent, 5 per cent and 10 per cent level respectively. The test for serial correlation is the LM test for autocorrelation, the test for functional form is Ramsey's RESET test, the test for normality is the test proposed by Bera and Jarque (1981), the test for heteroskedasticity is the LM test. Lag length is based on SBC.

*Source***: Computed with Eviews 9 by Aurthor.**

Table 4B: **Estimated short run coefficients from the ARDL models**								
Variable	**Model(1):ECNDEV ARDL(1,2,2,2,2,2,1,0,0)**	**Model(2):AVAD ARDL(2,2,2,0,0,2,1,2,2)**	**Model(3):(CPER) ARDL(2,0,2,1,2,2,2,0,2)**	**Model(4):(EGPC) ARDL(1,0,1,0,2,2,2,0)**	**Model(5):(GDPPC) ARDL(2,1,2,2,2,2,2,1,0)**	**Model(6):(GNIPC) ARDL(2,2,2,2,2,2,1,2)**	**Model(7):(LEXP) ARDL(2,2,2,0,2,2,2,1,2)**	**Model(7):(SCHENROL) ARDL(2,2,2,2,2,1,2,2,2)**
d(POLREG)	-0.019***	-0.0083	-0.102***	-0.061***	0.004***	0.043*	0.002**	-0.024**
	(0.004)	(0.697)	(0.001)	(0.000)	(0.005)	(0.069)	(0.028)	(0.048)
d(COR)	-0.343***	-0.1935	-0.740**	-0.586***	0.055***	0.799*	0.033**	-0.0262
	(0.001)	(0.400)	(0.013)	(0.001)	(0.006)	(0.065)	(0.049)	(0.864)
d(CONFL)	0.0026	0.0104	0.0189	-0.047***	-0.00003	-0.043*	-0.004**	0.050***
	(0.516)	(0.558)	(0.369)	(0.001)	(0.969)	(0.052)	(0.027)	(0.008)
d(GDPG)	0.031***	-0.008**	0.000001	0.0008	0.009***	0.010**	0.0006***	0.004***
	(0.000)	(0.042)	(0.999)	(0.618)	(0.000)	(0.012)	(0.006)	(0.004)
d(GCFCG)	0.0005	0.004***	0.002**	0.002***	-0.00004	-0.002*	0.0003***	-0.001**
	(0.105)	(0.007)	(0.021)	(0.008)	(0.462)	(0.063)	(0.002)	(0.011)
d(INT)	-0.001***	-0.0011	-0.0013	-0.0007	-0.00005	0.0015	0.0003*	-0.00005
	(0.001)	(0.295)	(0.395)	(0.340)	(0.348)	(0.421)	(0.009)	(0.949)
	-0.00008	0.0006	0.005**	0.008***	-0.0004**	-0.002	0.0002**	-0.004***

d(EXCH)	(0.856)	(0.718)	(0.036)	(0.000)	(0.033)	(0.315)	(0.027)	(0.002)
d(GE)	-0.0022	-0.0029	-0.017	-0.012***	0.001***	0.0005	-0.002***	0.008**
	(0.156)	(0.628)	(0.017)	(0.003)	(0.005)	(0.882)	(0.002)	(0.048)
CointEq(-1)	-0.125***	-0.159***	-1.252***	-1.029***	-0.097***	-0.824**	-0.030***	-1.059***
	(0.004)	(0.003)	(0.000)	(0.000)	(0.005)	(0.047)	(0.003)	(0.001)
Adj R-squared	0.9958	0.3693	0.6817	0.519	0.9955	0.9264	0.9999	0.9592
DW-statistics	2.6848	2.7353	1.9118	2.2375	2.5469	2.9687	2.1347	2.4264
LM (χ^2) Version								
Serial Correlation	$\chi^2(2)$= 24.929[.000]	$\chi^2(2)$= 8.385[.015]	$\chi^2(2)$= 26.358[.000]	$\chi^2(2)$= 14.903[.001]	$\chi^2(2)$= 16.025[.000]	$\chi^2(1)$= 29.959[.000]	$\chi^2(1)$= 24.877[.000]	$\chi^2(2)$= 29.338[.000]
Functional Form	$\chi^2(7)$= 0.471[.652]	$\chi^2(8)$= 1.042[.328]	$\chi^2(6)$= 1.003[.356]	$\chi^2(9)$= 0.707[.497]	$\chi^2(5)$= 0.681[.526]	$\chi^2(2)$= 0.123[.913]	$\chi^2(1)$= 1.467[.381]	$\chi^2(3)$= 0.715[.526]
Normality	$\chi^2(1)$= 0.151[.927]	$\chi^2(1)$= 0.402[.818]	$\chi^2(1)$= 0.404[.817]	$\chi^2(1)$= 0.252[.888]	$\chi^2(1)$= 0.984[.611]	$\chi^2(1)$= 8.411[.015]	$\chi^2(1)$= 0.426[.808]	$\chi^2(1)$= 0.059[.971]
Heteroskedasticity	$\chi^2(21)$= 19.034[.583]	$\chi^2(21)$=20.532[.488]	$\chi^2(22)$= 23.473[.376]	$\chi^2(19)$= 22.765[.248]	$\chi^2(23)$= 21.260[.565]	$\chi^2(26)$= 25.873[.470]	$\chi^2(27)$= 27.790[.421]	$\chi^2(25)$= 29.461[.245]

F-Statistics								
Serial Correlation	F(2,6)= 14.747[.005]	F(2,7) = 1.358[.318]	F(2,5)=18.095[.005]	F(2,8)= 3.949[.064]	F(2,4) = 2.293[.217]	F(1,5)=365.674[.037]	F(1,1)=4.856[.271]	F(2,2)=44.323[.022]
Functional Form	F(1,7)=0.222[.652]	F(1,2) = 1.086[.328]	F(1,6)=1.006[.356]	F(1,9)=0.500[.497]	F(1,5) = 0.464[.526]	F(1,2)=0.015[.913]	F(1,1)=2.152[.381]	F(1,3)= 0.511[.526]
Normality	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Heteroskedasticity	F(21,8)=0.661[.788]	F(21,8)= 0.826[.659]	F(22,7)=1.144[.458]	F(19,10)= 1.656[.208]	F(23,6)= 0.565[.801]	F(26,3)=0.723[.729]	F(27,2)=0.932[.644]	F(25,4)=8.742[.024]

Notes: *, **, *** indicate statistically significance at the 1 per cent, 5 per cent and 10 per cent level respectively. The test for serial correlation is the LM test for autocorrelation, the test for functional form is Ramsey's RESET test, the test for normality is the test proposed by Bera and Jarque (1981), the test for heteroskedasticity is the LM test. Lag length is based on SBC.

Source: **Computed with EVIEWS 9 by Aurthor.**

Table 5A: **Estimated long run coefficients from the ARDL models**

Variable	Model(1): ECNDEV ARDL(1,1,0,0,1,1,1,1,0)	Model(2): AVAD ARDL(1,0,1,0,0,0,0,1,0)	Model(3): (CPER) ARDL(2,2,2,2,1,2,2,2,2)	Model(4): (EGPC) ARDL(1,0,0,0,0,1,0,0,0)	Model(5): (GDPPC) ARDL(1,1,0,1,1,1,1,1,1)	Model(6):(GNIPC) ARDL(1,1,0,1,0,0,0,0,0,)	Model(7): (LEXP) ARDL(1,0,0,1,0,1,1,0,0)	Model(8): (SCHENROL) ARDL(1,1,2,2,2,2,1,2,2)
POLREG*CCOR	1.365**	0.139***	0.0462	0.087***	0.237***	0.218***	1.368***	7.368***
	(0.024)	(0.004)	(0.303)	(0.005)	(0.000)	(0.000)	(0.000)	(0.004)
POLREG*CONFL	-0.0474	0.0119	-0.0057	-0.009*	0.009	-0.0001	-0.119**	0.654**
	(0.200)	(0.141)	(0.351)	(0.055)	(0.215)	(0.986)	(0.019)	(0.027)
POLREG	-2.522**	-0.278***	-0.343*	-0.209***	-0.406***	-0.425***	-2.366***	-15.406***
	(0.015)	(0.001)	(0.051)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
GDPG	1.2189	0.0034	-0.040*	0.004	0.196**	0.025**	0.061*	-0.448**
	(0.117)	(0.432)	(0.058)	(0.214)	(0.023)	(0.042)	(0.077)	(0.036)
GFCFG	0.0064	0.0026	0.015**	0.0002	-0.0006	-0.0010	0.0138	-0.168*
	(0.584)	(0.115)	(0.029)	(0.892)	(0.679)	(0.766)	(0.299)	(0.077)
GE	0.1222	0.0073	0.059**	-0.0061	-0.0123	-0.0028*	0.251**	-0.656**
	(0.194)	(0.474)	(0.014)	(0.373)	(0.171)	(0.766)	(0.027)	(0.017)
INT	0.0188	0.0037	0.0039	-0.0013	-0.0029	0.0006	-0.0022	0.322***
	(0.203)	(0.195)	(0.114)	(0.281)	(0.293)	(0.732)	(0.843)	(0.005)

EXCH	0.045*	0.009***	0.042**	0.009***	0.002	0.007***	0.089***	0.349***
	(0.011)	(0.000)	(0.032)	(0.000)	-(0.466)	(0.009)	(0.000)	(0.006)

Notes: ***, **, * indicate statistically significance at the 1 per cent, 5 per cent and 10 per cent level respectively. The test for serial correlation is the LM test for autocorrelation, the test for functional form is Ramsey's RESET test, the test for normality is the test proposed by Bera and Jarque (1981), the test for heteroskedasticity is the LM test. Lag length is based on SBC.

Source: **Computed with Eviews 9 by Aurthor.**

Table 5B: **Estimated short run coefficients from the ARDL models**

Variable	Model(1):ECNDEV ARDL(1,1,0,0,1,1,1,1,0)	Model(2):AVAD ARDL(1,0,1,0,0,0,0,1,0)	Model(3):(CPER) ARDL(2,2,2,2,1,2,2,2,2)	Model(4):(EGPC) ARDL(1,0,0,0,0,1,0,0,0)	Model(5):(GDPPC) ARDL(1,1,0,1,1,1,1,1,1)	Model(6):(GNIPC) ARDL(1,1,0,1,0,0,0,0,0)	Model(7):(LEXP) ARDL(1,0,0,1,0,1,1,0,0)	Model(7):(SCHENROL) ARDL(1,1,2,2,2,2,1,2,2)
d(POLREG*COR)	0.026***	0.064*	-0.419**	0.072**	0.0028	0.043**	0.105***	6.413*
	(0.004)	(0.072)	(0.029)	(0.029)	(0.269)	(0.042)	(0.011)	(0.084)
d(POLREG*CONFL)	-0.0011	-0.0012	0.029**	-0.008**	0.0004*	-0.00004	-0.009***	0.508**
	(0.189)	(0.703)	(0.038)	(0.048)	(0.089)	(0.986)	(0.006)	(0.047)
d(POLREG)	-0.056***	-0.128*	0.846**	-0.175***	-0.0045	-0.089**	-0.211***	-14.657*
	(0.002)	(0.056)	(0.029)	(0.008)	(0.396)	(0.031)	(0.001)	(0.062)
d(GDPG)	0.028***	0.0016	0.022**	0.0033	0.009***	0.008***	0.005**	-0.0549
	(0.000)	(0.448)	(0.013)	(0.202)	(0.000)	(0.000)	(0.026)	(0.644)
d(GCFCG)	-0.0001	0.001*	-0.0023	-0.0011	0.0001	-0.0003	0.0001	-0.109*
	(0.474)	(0.069)	(0.177)	(0.178)	(0.178)	(0.488)	(0.852)	(0.081)
d(GE)	-0.0004	0.0034	-0.065**	-0.0051	0.00036	-0.0009	0.0079	-0.3078
	(0.771)	(0.462)	(0.023)	(0.388)	(0.293)	(0.765)	(0.145)	(0.375)
d(INT)	-0.0001	0.0002	-0.0648	-0.0011	-0.0001	0.0002	-0.0002	0.0716
	(0.663)	(0.798)	(0.152)	(0.275)	(0.356)	(0.732)	(0.840)	(0.283)
	0.001**	'0.004**	-0.044**	0.007***	-0.00015	0.0024*	0.007***	0.0799

d(EXCH)	(0.049)	(0.025)	(0.018)	(0.000)	(0.354)	(0.064)	(0.002)	(0.556)
CointEq(-1)	-0.022**	-0.459***	-1.226**	-0.836***	-0.046**	-0.330**	-0.077***	-1.343**
	(0.011)	(0.003)	(0.035)	(0.000)	(0.022)	(0.015)	(0.002)	(0.012)
Adj R-squared	0.9917	0.9909	0.9987	0.8981	0.9998	0.9847	0.9994	0.9444
DW-statistics	2.1026	2.1368	2.3173	2.2878	2.8251	2.2675	1.3307	2.1606
LM (χ^2) Version								
Serial Correlation	$\chi^2(2)$= 14.196[.001]	$\chi^2(2)$= 8.792[.012]	$\chi^2(2)$= 29.129[.000]	$\chi^2(2)$= 4.024[.134]	$\chi^2(2)$= 6.050[.049]	$\chi^2(2)$= 3.687[.158]	$\chi^2(2)$= 7.208[.027]	$\chi^2(2)$= 24.152[.000]
Functional Form	$\chi^2(15)$= 0.773[.451]	$\chi^2(18)$= 0.233[.818]	$\chi^2(2)$= 0.294[.797]	$\chi^2(19)$= 0.326[.748]	$\chi^2(13)$=1.656[.122]	$\chi^2(18)$= 0.459[.652]	$\chi^2(17)$= 7.224[.000]	$\chi^2(4)$= 3.316[.029]
Normality	$\chi^2(1)$= 1.113[.573]	$\chi^2(1)$= 032..589[.000]	$\chi^2(1)$= 0.387[.824]	$\chi^2(1)$= 3.261[.195]	$\chi^2(1)$= 0.351[.839]	$\chi^2(1)$= 0.899[.638]	$\chi^2(1)$= 3.522[.172]	$\chi^2(1)$= 0.139[.932]
Heteroskedasticity	$\chi^2(14)$= 10.622[.715]	$\chi^2(11)$=10.714[.468]	$\chi^2(26)$= 27.401[.388]	$\chi^2(10)$= 13.262[.209]	$\chi^2(16)$= 22.952[.115]	$\chi^2(11)$= 12.661[.316]	$\chi^2(12)$= 13.390[.341]	$\chi^2(24)$= 26.231[.342]
F-Statistics								
Serial Correlation	F(2,14)= 5.914[.013]	F(2,17) = 3.365[.059]	F(2,5)=16.735[.170]	F(2,18)= 1.342[.286]	F(2,4) = 1.455[.272]	F(2,17)=1.148[.037]	F(2,16)=2.423[.120]	F(2,3)=6.194[.086]

Functional Form	F(1,15)=0.598[.451]	F(1,18) = 0.055[.818]	F(1,2)=0.086[.797]	F(1,19)=0.106[.748]	F(1,13) = 2.742[.122]	F(1,18)=0.211[.652]	F(1,17)=52.182[.000]	F(1,4)=10.992[.029]
Normality	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Heteroskedasticity	F(14,16)=0.596[.832]	F(11,17) = 0.9123[.548]	F(26,3)=1.216[.506]	F(10,20)=1.495[.213]	F(16,14)=2.496[.046]	F(11,19)=1.193[.354]	F(12,8)=1.141[.389]	F(24,5)=1.449[.364]
Notes: *, **, *** indicate statistically significance at the 1 per cent, 5 per cent and 10 per cent level respectively. The test for serial correlation is the LM test for autocorrelation, the test for functional form is Ramsey's RESET test, the test for normality is the test proposed by Bera and Jarque (1981), the test for heteroskedasticity is the LM test. Lag length is based on SBC.								
Source: **Author's Computation, Eviews 9**								