The Role of Governance on Private Investment in Nigeria: A Preliminary Analysis

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Abstract

The paper sets out to investigate the role of governance on domestic private investment in Nigeria using Auto-Regressive Distributed Lag (ARDL) Bounds Testing Approach to ascertain long-run association on an annual data covering the 1970 to 2010 period. Emanated from the estimated models are intriguing findings which showed clearly that difference exists between long and short run determinants of domestic private investment. In the former, degree of openness, previous value of inflation rates and governance indicators are the most important factors but political stability and voice and accountability indicators appear to dominate the governance indicators space as they are both negative and significantly affecting the private investment mobilization. In the latter, savings, real GDP, degree of openness, real interest rates, inflation rates and governance measures are strong determining variables on private investment mobilization. Of the governance indicators however, political stability stood out prominently. A few relatable implications for policy are highlighted for the attention of policymakers.

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I. Introduction

The recent global financial crisis, which engulfed world economy and engendered reduction in foreign aids[1] to developing nations by the developed countries, has consequently, rekindled research interests and renewed vigour at searching for alternative means of driving long-term sustainable economic growth. Though, in the development economics literature, inexhaustible list of probable factors has been identified and explored as drivers of growth. In the same vein, harnessing domestic investment has been found to be one of the veritable transmission channels of driving the much-sought sustainable economic growth if properly explored. However, it has been asserted that a country's economic performance over time is determined to a large extent by its governance performances (i.e. political, institutional, and legal

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[1] *. For instance, post-financial crisis report showed that about US$ 70 billion of FDI were estimated to be cancelled in Africa in 2009 (17% of the US$ 393 billion of total FDI stock).*

environment)[2]. In developing countries, particularly, the sub-Saharan African countries (SSA), harnessing domestic investment for growth is contingent on the relative stability in the level of governance indicatars[3] which are known to be highly volatile for the region. As a corollary, countries within the region are politically endowed with long histories of poor and bad governance. This assertion is further corroborated by Akanbi (2010) when he submitted that poor governance that is reflected in the unstable political environment in most African countries has been a major hindrance to increasing domestic investment over the years. Thus, modeling investment determinants for countries within the sub-region requires accounting for the structure of governance. Failing to account for governance indicators might make the study to be suffering from omitted variables bias, thus making the emanated findings to be interpreted with a high order of caution and while at the same time subjecting policy messages therefrom to be viewed with a high degree of skepticism.

Nigeria, just like other African countries, has witnessed substantial reductions in her share of foreign direct investment (FDI) flows. The influx of these flows dwindled in the wake of the financial crisis thus portending that foreign capital or other assistance as it were, may not be a sustainable source for long-term economic growth. For instance, available statistics show that FDI fell by 60% from US$6 billion in 2009 to $2.3 billion in 2010. Apart from these developments, the country has also experienced a spate of crises occasioned by poor and bad governances. Thus, accounting for the role of governance towards domestic investment mobilization is the central focus of this paper.

Arguably, a large body of empirical studies has examined the determinants of investment from both developed and developing nations' experiences but hardly have studies from the latter controlled for governance indicators in their model estimations. For instance, most studies from the developing economies exclusively focused on the determinants of investment using macroeconomic and financial variables while ignoring the role played by political institutions. Such studies include Shafik, 1992; Oshikoya, 1994; Ghura and Godwin, 2000; Ndikumana 2000; Du Toit and Moolman, 2004 and Bayraktar and Fofack, 2007. Fewer studies however, only examined the importance of the country-specific institutional and political environment as a determining factor in explaining investment. These include Mody and Srinivasan (1998), Altomonte (2000), Bevan and Estrin (2000) but Globerman and Shapiro (2002) specifically investigated how governance

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[2] *See (OECD, 2001a) for more details*

[3] *These include voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality and rule of law*

affects foreign direct investment (FDI) flows in developed and developing economies. Also, Akanbi (2010) study's for Nigeria empirically examines the pattern of domestic investment that is consistent with a neoclassical supply-side model of the Nigerian economy. His results conform to the findings of existing literature that real output, user cost of capital, and the level of financial development are significant determinants of domestic investment in Nigeria.

In addition, most of the previous studies on investment employed different sets of econometric methodologies in their empirical models such as single equation (ordinary least square (OLS)), the Engle Granger (1987) procedure and the Johansen (1988) cointegration procedures to investigate determinants of investment. All these estimation techniques and methodologies are not without their inherent limitations. For instance, while the Johansen (1988) multivariate cointegration method has the most obvious advantage of allowing estimation of multiple cointegrating vectors where they exist, far too often, however, practitioners fail to recognize that the application of the Johansen technique presupposes that the underlying regressors are all integrated of order one (Pesaran *et al.*, 2001). This is necessary because in the presence of a mixture of stationary series and series containing a unit root, standard statistical inference based on conventional likelihood ratio tests is no longer valid. Harris (1995), for example, notes that the trace and maximum eigenvalue tests from the Johansen procedure may lead to erroneous inferences when I(0) variables are present in the system since stationary series are likely to generate spurious cointegrating relations with other variables in the model (De Vita et al, 2005).

Against this background, the primary objective of this paper is to evaluate the role of governance on the domestic investment mobilization in Nigeria using a more robust estimation method of an ARDL bound testing approach proposed by Pesaran *et al.* (2001). The rest of the study is organized as follows; Section 2 reviews both theoretical and empirical studies on the determinants of domestic investment in Nigeria. Section 3 presents the analytical framework, methodology and the description of the data used in the study. Section 4 presents the estimation results while section 5 concludes the study.

II. Literature Review

This section offers an overview of both theoretical and empirical assessments on the determinants of investment as it relates to both developed and developing countries' experiences. This will enable the ensuing discussions to be put in the proper context in what follows.

II.1 Theoretical Review on Investment

Ever since Keynes who was one of the pioneers of investment theories carried out an analysis which showed the ex post equality between savings and investment, the offshoots of his submission later brought about some other investment theories like accelerator theory of investment, neoclassical, Tobin's Q theory and expected profits model. Hence, these theories were theoretically identified to model investment in the existing investment literature.

A flexible accelerator model represents a general form of accelerator model. The basic idea of this model is that the larger the gap between the existing stock of capital and the desired capital stock, the larger a firm's investment would be. The firm's desire is to strive as much as possible to close a fraction of the gap between the desired capital stock K*, and the actual capital stock K, in each period. The model is expressed as: $I = \phi(K^* - K_{-1})$ where I stands for net investment, K^* = desired capital stock K_{-1} = last period's capital stock and ϕ = partial adjustment coefficient. Within the framework of the flexible accelerator model, output, internal funds, cost of external financing and other variables may be included as determinants of K*. However a particular drawback of the neoclassical model is that it does not rationalize the rate of investment or movement toward the optimal capital stock.

Another version of accelerator theory is the neo-classical approach to investment which was formulated by Jorgenson (1971). In his own submission, he posited that the K^* (desired capital stock) is proportional to output and the user cost of capital (which in turn depends on the price of capital goods, the real rate of interest, the rate of depreciation and the tax structure).

Tobin's Q theory of investment associated with Tobin (1969) is concerned with the ratio of the market value of the existing capital stock to its replacement cost (the Q ratio), is the main force driving investment. That is to say, enterprises will want to invest if the increase in the market value of an additional unit exceeds the replacement cost. Tobin argues that delivery lags and increasing marginal cost of investment are the reasons why Q would differ from unity. The main criticism of the q theory is that its use tends to be chosen on an *ad hoc* basis rather than on optimization theory. Thus, the theory is silent on the factors that govern the shape and length of the distributed lag specification. Berndt (1990) also noted that in real practice, the model is confronted with such problems as measuring marginal rather than average user cost of capital, accounting for intangibles that affect market value and incorporating tax factors

McKinnon (1973) and Shaw (1973) also formulated the neoliberal approach to investment which stresses the importance of financial deepening and high interest rates as drivers of economic growth. According to them, if an economy were free up from repressive conditions, this would induce savings, investment and economic growth. In their view, investment is positively related to the real rate of interest in contrast with the neoclassical theory. This is made possible because an increase in interest rates will lead to an increase in the volume of financial savings through financial intermediaries and thereby raises investible funds, a phenomenon that McKinnon (1973) calls the "conduit effect". The same criticisms of neo-classical also apply to this model since it is a variant of the same model.

Recent studies on investment have also made provisions for uncertainty into investment theory due to nature of its irreversibility (see Pindyck, 1991 for details). He argued that since capital goods are often firm-specific and have a low resale value; disinvestment is more costly than positive investment. His argument was based on net present value rule[4] which he believed must be modified to reflect an opportunity due to the irreversible nature since the firm cannot disinvest should market conditions change adversely.

More importantly, Rodrik (1991) introduces element of uncertainty as another key determinant of private investment. Apart from this, there are other theories hinging on profits or profits earned by business units and industries instead of output. This analysis of profit and investment relationship has several variants, one of which is that investment is affected by current profits, the amount of retained profits, or by other variables like output, price and sales, which reflect the profits (Chirinko (1993). The profit theory posits that the greater the gross profits, the greater will be the level of internally generated funds and in turn the greater will be the rate of investment (Zebib and Muoghalu, 1998).

In addition, there is the dis-equilibrium approach, which views investment as a function of both profitability and demand for output. In this instance, investment decisions have two stages: first is the decision to expand the level of productive capacity, and second, is the decision about the capital intensity of the additional capacity (Serven and Solimano, 1992). The first decision depends on the expected degree of capacity utilisation in the economy, which provides an indicator of demand conditions, while the second decision depends on relative prices such as the cost of capital and labour. The investment decision takes place in a setting in which firms may be facing current and expected future sales

[4] States that investment should be made whenever the value of a unit of capital is at least as its cost.

constraints (Serven and Solimano, 1992). Therefore, investment depends both on profitability and on the prevailing sales constraints, which determine the rate of capacity utilisation (Serven and Solimano, 1992). Criticism of the models arises because the models are not clear on the role of cash flow.

It is discernable from the brief theoretical expositions that private investment variables can be drawn from different schools of thought namely: Keynesian, neoclassical, neoliberal and uncertainty since each of them has its inherent drawbacks.

II.2 A Brief Review of Previous Empirical Studies on Investment

Dailami and Walton (1992) examined the behavior of private investment in Zimbabwe over the period 1970 to 1987. The results showed that private investment is positively related to GNP growth, real interest rate, real effective exchange rate, and the lagged dependent variable, and negatively related to the government bond yield, relative price of capital goods, and real wage. Asante (2000), analyzed the determinants of private investment in Ghana using a time series analysis and complementing it with a cross-sectional one over the period 1970-1992. The results showed that the variables that had a significant positive relationship with investment are: lagged investment, public investment, private sector credit, real interest rate, and real exchange rate. Trade, political instability, macroeconomic instability, and the growth rate of real GDP all had a negative relationship with private investment. Ribeiro (2001) employed the Johansen multivariate co-integration technique and Engle-Granger Two-step approach to model private-sector investment in Brazil during the period 1956-1996. The results reveal a positive impact of output, public investment and financial variables and the negative effect of exchange rate. He also conducted weak exogeneity and superexogeneity tests and the results confirmed the importance of credit and public investment as economic policy instruments.

Luintel and Mavrotas (2005) investigated domestic private investment behaviour in a panel of 24 low-income and middle-income countries spanning the period 1981-2000. The paper rigorously addresses (i) the cross-country heterogeneity in private investment behaviour, and (ii) endogeneity. Indicators of financial sector development and other standard macroeconomic determinants of private investment appear significant in explaining private investment behaviour in the sample; however, the estimated parameters and adjustment dynamics exhibit important cross-country differences. Lesotlho (2006) support the existence of a short-run dynamic adjustment and the long run equilibrium relationship between

the macroeconomic variables used in the study and private investment level. Public investment, bank credit to the private sector and the real interest rate affect private investment level in the short run, while GDP growth and real exchange rate affect private investment in the long run.

More recently, Frimpong and Marbuah (2010) sought an empirical assessment of factors that have either stimulated or dampened private sector investment in Ghana. Employing co-integration and error correction techniques within an ARDL framework, their results suggest that private investment is determined in the short-run by public investment, inflation, real interest rate, openness, real exchange rate and a regime of constitutional rule, while real output, inflation, external debt, real interest rate, openness and real exchange rate significantly influenced private investment response in the long-run. Fowowe (2011) conducted an empirical investigation of the effect of financial sector reforms on private investment in selected Sub-Saharan African countries. An index is developed to track the gradual progress made with the implementation of the phases of the reforms. The results show that financial sector reforms (measured by the index) have had a positive effect on private investment in the selected countries[5] considered for his study, thus offering support to the financial liberalization hypothesis.

It is instructive to note that even though the determinants of private domestic investment have attracted some attention in the literature, it has not been studied extensively in Nigeria. Among the few studies that have been considered within the context of the Nigerian economy are Busari and Omoke (2008), Akanbi (2010).

Busari and Omoke (2008), presented an empirical assessment of the impact of trade policy practice and its credibility on private investment using firm level data of 67 Nigerian firms over the period 1980–2003. The results underscore the robustness of the links among private investment, trade policy and macroeconomic uncertainty. Many of the trade and volatility measures considered show strong negative association with private investment. Furthermore, the study observed that trade policy practices in Nigeria have deterred investment by making the cost of importing high, which particularly affects firms with high import intensity. In addition, the negative impact of real exchange rate uncertainty on investment is significantly larger in firms that are import intensive. Akanbi (2010) empirically examined the pattern of domestic

[5] Botswana, Cameroon, Cote d'ivoire, Gambia, Ghana, Kenya, Madagascar, Malawi, Mali, Mauritius ,Senegal, South Africa, Uganda and Zimbabwe

investment in Nigeria using a neoclassical supply-side model over the period 1970 to 2006. To achieve this objective, he therefore employed the Johansen estimation techniques. The results show that real output, user cost of capital, and the level of financial development and the governance indicators are significant determinants of domestic investment in Nigeria.

II.3 Empirical Studies between Governance and Investment

The paticular literature that crafts a role for governance in investment determinant space is still sparse and highly restricted to the developed countries, and are mostly cross-country studies.. Examples of such studies include Ngov (2008) and Aysan et al,(unpublished).

Ngov (2008) study focused on the impacts of governance on foreign direct investment and promoting domestic investment and growth performance in three different income group of countries: low income, middle income and high income groups. Using intra-group regression method, he finds that governance is positively correlated with per capita growth rate in the middle and high but not in low income groups. Rather, governance is found to have a positive relationship with total investment (domestic investment plus FDI) ratio but not with FDI inflow ratio, suggesting the impacts of governance on domestic investment. Aysan et al (unpublished) examined the governance institutions and private investment in Middle East and North Africa (MENA) region. Their results show the importance of governance in private investment decisions. They were able to establish the important component of administrative quality over less robust result of public accountability. Their results also stress that structural reforms -- such as financial development and trade openness and human development affect private investment decisions directly, and/or through their positive impact on governance. Also, Aysan et al (unpublished) empirically show that the perceived quality of governance is an important determinant of the private investment decisions in the developing countries by stressing the existence of different types of possible measures of governance. Different types of governance; namely "Quality of Administration" (*QA*), "Political Accountability" (*PA*) and "Political Stability" (*PS*) are confirmed to exert their influence on the private investment through diverse mechanisms. All of the three indicators were proved to be significant –although at different levels of significance and magnitudes of influence for private investment decisions.

In the light of the foregoing, it is apparently clear that the particular literature that crafts a role for governance in private investment determinant space is still emerging, thus providing a justification for undertaking this study.

III. Methodology

This section contains the specification of the relationship between private domestic investment and some of its determining variables, augmented with governance indicators. Also, the description and measurement of the variables used in the empirical analysis is presented. Finally, we expound the adopted ARDL Bound Testing methodology approach.

III.1 Model and Variable Description

Against the background of the earlier arguments, on the determinants of private domestic investment, the empirical model for this study is specified as:

$$PDI = f(RGDP, SAV, OPENX, RINR, INF, GOV\_IND) \quad (1)$$

where PDI is Private Domestic Investment, RGDP =Real GDP, INF=Inflation rate, OPENX =Degree of Openness, RINR= Real Interest Rate, SAV=Savings and GOV_IND=Governance Indicators. The governance indicators being a composite variable are further decomposed[6] as:

$$GOV\_IND = f(VA, PS, GEF, REQ, ROL, CORR) \quad (2)$$

where VA=voice and accountability, PS=political stability, REQ=regulatory quality, GEF=government effectiveness, ROL=rule of law and CORR= corruption, Thus, equation (1) can explicitly be rewritten as:

$$PDI = f(\overset{+}{RGDP}, \overset{+}{SAV}, \overset{+/-}{OPENX}, \overset{-}{RINR}, \overset{-}{INF}, \overset{+}{VA}, \overset{+}{PS}, \overset{+}{GEF}, \overset{+}{REQ}, \overset{+}{ROL}, \overset{+}{CORR}) \quad (3)$$

Generally, RGDP which is a measure of level of economic activities is used to capture the aggregate demand conditions in the economy and it is expected to exert a positive effect on private investment. INF measures macroeconomic uncertainty, this adversely affects private domestic investment mobilization thus justifying its negative hypothesized sign. OPENX is a measure of the level of the country's integration into the world global market as well as international relations which may be positive or negative depending on the country's external and trade policies. RINR is a proxy for user cost of capital but it has a negative impact on the private investment since higher interest rates tend to discourage the borrowers from borrowing. Also, savings exert a positive impact on private domestic investment mobilization. However, the impact of governance indicators usually exerts a greater impact on private investment in the developing countries.

[6] Using the International Country Risk Guide (ICRG) classification system.

According to the International Country Risk Guide (ICRG), governance indicators are classified into 6 groups: (i) Voice and Accountability (VA)-measuring political, civil and human rights; (ii) Political Stability (PS) measuring the likelihood of violent threats to, change in, government, including terrorism; (iii) Government Effectiveness (GEF) measuring the competence of the bureaucracy and the quality of public service delivery; (iv) Regulatory Quality (REQ) measuring the incidence of market-friendly policies; (v) Rule of Law (ROL) measuring the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence; and (vi) Control of Corruption (CORR) measuring the exercise of public power for private gain, including both petty and grand corruption and state capture. Estimate of governance ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance. To cap the foregoing, annual data spanning the period 1970-2010 was used in the study. All data were obtained from the World Bank's *World Development Indicators*, 2012 and from the International Country Risk Guide (ICRG), (2012).

IV. Econometric Methodology

It is by now routine, in the empirical literature, to bump into formal tests of stationarity. The underlying logic of this practise is not unconnected with the spuriousness that epitomises both the estimates and inferences derived from imposing intrinsically static estimation techniques on data that are more often than not non-mean reverting. To this end, each of the variables entering the estimable equation (3) should be tested for the presence or otherwise of unit roots. However, the characteristics of the variables are looked into before delving into the unit root tests.

IV.1 Estimation Technique

The study adopts an Auto-Regressive Distributed Lag (ARDL) bounds testing approach developed by Pesaran et al (2001) to model the long run determinants of domestic private investment. This approach has some econometric advantages over the Engle-Granger (1987) and maximum likelihood-based approach proposed by Johansen and Juselius (1990) and Johansen (1991) cointegration techniques. First, the bounds test does not require pre-testing of the series to determine their order of integration since the test can be conducted regardless of whether they are purely I(1), purely I(0), or fractionally integrated. Second, endogeneity problems and inability to test hypotheses on the estimated coefficients in the long-run associated with the Engle-Granger (1987) method are avoided. According to Pesaran and Shin (1999), modeling the ARDL with the appropriate lags will correct far both serial correlation and endogeneity problems. Jalil et al (2008) argue that endogeneity is less of a problem if the

estimated ARDL model is free of serial correlation. In this approach, all the variables are assumed to be endogenous and the long run and short run parameters of the model are estimated simultaneously (Khan et al, 2005). Third, as argued in Narayan (2004), the small sample properties of the bounds testing approach are far superior to that of multivariate cointegration (Halicioglu, 2007). The approach, therefore, modifies the Auto-Regressive Distributed Lag (ARDL) framework while overcoming the inadequacies associated with the presence of a mixture of I(0) and I(1) regressors in a Johansen-type framework. Secondly, the long and short-run parameters of the model in question are estimated simultaneously. Lastly, The ARDL has superior small sample properties compared to the Johansen and Juselius (1990) cointegration test (Pesaran and Shin, 1999).
An ARDL representation of equation (1) can be specified as follows:

$$\Delta LNPRINV = \varpi_0 + \sum_{i=1}^{q} \omega_1 \Delta LNPRINV_{t-i} + \sum_{i=1}^{q} \omega_2 \Delta LNRGDP_{t-i} + \sum_{i=1}^{q} \omega_3 \Delta LNSAV_{t-i} + \sum_{i=1}^{q} \omega_4 \Delta LNOPENX_{t-i} + \sum_{i=1}^{q} \omega_5 \Delta RINR_{t-i} +$$

$$\sum_{i=1}^{q} \omega_6 \Delta INF_{t-i} + \sum_{i=1}^{q} \omega_7 \Delta VA_{t-i} + \sum_{i=1}^{q} \omega_8 \Delta PS_{t-i} + \sum_{i=1}^{q} \omega_9 \Delta GEF_{t-i} + \sum_{i=1}^{q} \omega_{10} \Delta REQ_{t-i} +$$

$$\sum_{i=1}^{q} \omega_{11} \Delta ROL_{t-i} + \sum_{i=1}^{q} \omega_{12} \Delta CORR_{t-i} + \lambda_1 LNPRINV_{t-1} + \lambda_2 LNRGDP_{t-1} + \lambda_3 LNSAV_{t-1} +$$

$$\lambda_4 OPENX_{t-1} + \lambda_5 RINR_{t-1} + \lambda_6 INF_{t-1} + \lambda_7 VA_{t-1} + \lambda_8 PS_{t-1} + \lambda_9 GEF_{t-1} + \lambda_{10} REQ_{t-1} +$$

$$\lambda_{11} ROL_{t-1} + \lambda_{12} CORR_{t-1} + \mu_t \qquad (4)$$

Where Δ is the first difference of a variable

LN indicates that the data set are expressed in natural logarithms,

ϖ_0 is a constant

q is the maximum lag order,

$\omega_1, \ldots\ldots\ldots\ldots \omega_{12}$ represent the short-run coefficients (short run dynamics),

$\lambda_1, \ldots\ldots\ldots\ldots \lambda_{12}$ correspond to the long-run coefficients,

i time trend, and,

μ_t is the white noise error.

The implementation of the ARDL approach involves two stages. First, the existence of the long-run nexus (cointegration) between the variables under investigation is tested by computing the F-statistics for analyzing the significance of the lagged levels of the variables. Pesaran and shin, 1999 and Narayan, 2004 have provided two sets of appropriate critical values for different numbers of regressors (variables). This model contains an intercept or trend or both. One set assumes that all the variables in the ARDL model are I(0), and another assumes that all the variables are I(1). If the F-statistic lies above the upper-bound critical value for a given significance level, the conclusion is that there is a non-spurious long-run level relationship with the dependent variable. If the F-statistic lies below the lower bound critical value, the conclusion is that there is no long-run level relationship with the dependent variable. If it lies between the lower and the upper limits, the result is inconclusive. The general form of the null and alternative hypotheses for the F-statistic test is as follows:

$$H_0 : \lambda_{PRINV} = \lambda_{RGDP} = \lambda_{SAV} = \lambda_{OPENX} = \lambda_{RINR} = \lambda_{INF} = \lambda_{VA} = \lambda_{PS} = \lambda_{GEF} = \lambda_{REQ} = \lambda_{ROL} = \lambda_{CORR} = 0$$

$$H_1 : \lambda_{PRINV} \neq \lambda_{RGDP} \neq \lambda_{SAV} \neq \lambda_{OPENX} \neq \lambda_{RINR} \neq \lambda_{INF} \neq \lambda_{VA} \neq \lambda_{PS} \neq \lambda_{GEF} \neq \lambda_{REQ} \neq \lambda_{ROL} \neq \lambda_{CORR} \neq 0$$

Secondly, if the cointegration between variables is identified, then one can undertake further analysis of long-run and short-run (error correction) relationship between the variables.

The error correction representation of the series can be specified as follows:

$$\Delta LNPRINV = \varpi_0 + \sum_{i=1}^{q} \omega_1 \Delta LNPRINV_{t-i} + \sum_{i=1}^{q} \omega_2 \Delta LNRGDP_{t-i} + \sum_{i=1}^{q} \omega_3 \Delta LNSAV_{t-i} + \sum_{i=1}^{q} \omega_4 \Delta LNOPENX_{t-i} + \sum_{i=1}^{q} \omega_5 \Delta RINR_{t-i} +$$

$$\sum_{i=1}^{q} \omega_6 \Delta INF_{t-i} + \sum_{i=1}^{q} \omega_7 \Delta VA_{t-i} + \sum_{i=1}^{q} \omega_8 \Delta PS_{t-i} + \sum_{i=1}^{q} \omega_9 \Delta GEF_{t-i} + \sum_{i=1}^{q} \omega_{10} \Delta REQ_{t-i} +$$

$$\sum_{i=1}^{q} \omega_{11} \Delta ROL_{t-i} + \sum_{i=1}^{q} \omega_{12} \Delta CORR_{t-i} + \xi ECM_{t-1} + \mu_t \qquad (5)$$

where ξ is the speed of adjustment coefficient and ECM is the residuals obtained from equation (4) while other variables remain as earlier defined. The coefficient of the lagged error correction term is expected to be negative and statistically significant to further support the existence of a cointegrating relationship.

V. Empirical Results and Discussion

The descriptive statistics reveals that the governance indicators are very weak as each of the indicator variables carries negative values coupled with low correlation values. The mean values range between -0.909 and -1.539. For CORR, in terms of spread, the mean value ranged from as high as –0.810 to as low as -1.320. Of all the governance indicators, VA has the highest mean value of -0.590 and this is directly followed by PS indicator with -0.710. The least of the mean values goes to PS with -2.050 and also has the highest dispersion from the mean of 0.249. The mean value of a composite indicator, GOV_IND is -1.19 with the maximum and minimum being -0.990 and -1.240, respectively. For the control variables, such as SAV, RGDP, RINR, INF and OPX, the differences between their minimum and maximum values are quite substantial.

Table.1: Descriptive Statistics

	PRINV	INF	OPENX	RGDP	RINR	SAV
Mean	254837.2	19.407	32.44634	268149.1	14.829	472491.9
Median	8176.100	13.700	37.10000	265379.1	16.938	29651.20
Maximum	3215478.	72.800	60.31000	775525.7	29.800	4118173.
Minimum	-279851.0	3.200	2.250000	4219.000	6.000	341.6000
Std. Dev.	695944.4	16.175	19.75231	213769.0	6.618	942134.6
Skewness	3.017250	1.637	-0.077737	0.665916	0.195	2.403451
Kurtosis	11.70452	5.056	1.549168	2.715863	2.045	8.071410
Jarque-Bera	191.6474	25.521	3.637188	3.168125	1.817	83.41023
Probability	0.000000	0.000	0.162254	0.205140	0.403	0.000000
Sum	10448324	795.700	1330.300	10994113	607.992	19372169
Sum Sq. Dev.	1.94E+13	10465.29	15606.15	1.83E+12	1751.689	3.55E+13
Observations	41	41	41	41	41	41

Continuation on Table. 1

	CORR	GEF	PS	REQ	ROL	VA	GOV_ IND
Mean	-1.102	-0.989	-1.539	-0.920	-1.241	-0.909	-1.119
Median	-1.100	-0.990	-1.540	-0.920	-1.240	-0.910	-1.120
Maximum	-0.810	-0.800	-0.710	-0.750	-1.060	-0.590	-0.990
Minimum	-1.320	-1.230	-2.050	-1.340	-1.610	-1.670	-1.240
Std. Dev.	0.083	0.075	0.249	0.118	0.099	0.214	0.050
Skewness	0.203	-0.876	1.393	-1.974	-1.545	-2.029	0.199
Kurtosis	7.329	6.415	7.466	7.952	7.511	8.841	4.835
Jarque-Bera	32.296	25.164	47.344	68.510	51.087	86.414	6.021
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.049

Sum	-45.170	-40.560	-63.080	-37.730	-50.890	-37.260	-45.880
Sum Sq. Dev.	0.275	0.226	2.483	0.561	0.394	1.833	0.101
Observations	41	41	41	41	41	41	41

Source: Computed

Apart from the first moment statistics of the series, the results of other statistics are also evident from the table. For instance, Jarque-Bera which measures whether the series are normally distributed or not, also rejects the null hypotheses of normality for all the variables in terms of their distribution.

Kurtosis measures the peakedness or flatness of the distribution of the series. The statistics also concur with the fact that all the variables as being normally distributed. Lastly, skewness is a measure of asymmetry of the distribution of the series around the mean. The statistic for skewness shows that all the variables except for CORR, PS and a composite governance indicator are negatively skewed, implying that these distributions have long left tails.

As is the convention in contemporary time series investigations, to side step spuriousness in the regression estimates we initially employ the well-known Augmented Dicken Fuller and Philip-perron unit root tests. The tests could not reject the null hypothesis of unit root in levels for variables like GOV_IND, REQ and LNPRINV except for ADF (with intercept and trend) which then means that this hypothesis is rejected in their first differences. Similar situations also occur for variables like VA, GEF, ROL and CORR in both tests but differ when intercept and trend are tested for.

Table.2: Unit Root Test Results

Variable	Intercept without Trend		Intercept with Trend		Remarks
	ADF	PP	ADF	PP	
LNPRINV	-1.7664	-3.6751**	-3.3193**	-3.7045***	I(0)
D(LNPRINV)	-10.5915***	-	-	-	I(1)
LNRGDP	-2.3295	-2.0661	-5.4371***	-1.8966	I(0)
D(LNRGDP)	-5.8298***	-6.1308***	-	-6.9165***	I(1)
LNSAV	-0.3329	-1.9095	-1.1459	-2.2764	I(0)
D(LNSAV)	-5.0363***	-4.9633***	-5.2811***	-5.3576***	I(1)
INF	-3.2066**	-3.1608**	-3.1095**	-3.0546**	I(0)
D(INF)	-	-6.1172	-	-11.6086	I(1)
OPENX	-2.8060*	-3.9912**	-2.5941	-3.9312**	I(0)
D(OPENX)	-7.2129***	-	-9.7475***	-	I(1)
RINR	-1.4749	-1.5703	-1.9278	-2.8063	I(0)
D(RINR)	-9.9239***	-9.8500***	-9.9719***	-10.0025***	I(1)
VA	-2.8605	-2.9592	-2.8775	-2.9781	I(0)

D(VA)	-	-	-6.3124***	-6.3199***	I(1)
PS	-1.8273	-1.8273	-1.9239	-1.9239	I(0)
D(PS)	-6.4211***	-6.4693***	-6.4473***	-6.6196***	I(1)
GEF	-5.2667***	-5.1454***	-2.2902	-2.0896	I(0)
D(GEF)	-	-	-5.7371***	-5.7955***	I(1)
REQ	-4.9338***	-4.0409***	-3.2158**	-3.1270**	I(0)
D(REQ)	-	-	-	-	I(1)
ROL	-6.4533***	-4.6689	-2.4355	-2.3304	I(0)
D(ROL)	-	-	-6.9237***	-6.7234***	I(1)
CORR	-4.8890	-5.2672	-2.4365	-2.2204	I(0)
D(CORR)	-	-	-5.4972***	-5.4498***	I(1)
GOV_IND	-6.1447***	-6.0381***	-3.4116**	-3.2932**	I(0)
D(GOV_IND)	-	-	-	-	I(1)

Notes: ***(**)* indicate significant at the 1%, 5% and 10% respectively.

By and large, it can be concluded that there are mixture of I(0) and I(1) variables, thus posing a problem of conducting cointegration analysis using Engle-Granger and Johansen cointegration techniques. This is because both require all variables to be integrated of order one (1) before cointegration tests can be conducted. An alternative technique that does not impose such restriction is the Autogressive Distributed Lag Framework (ARDL) of Pesaran, et al (2001) and Pesaran and Shin (1999). The ARDL method allows for the inclusion of variables integrated or orders zero (0) and one (1) in the same cointegrating equation. We have adopted this technique because both unit root tests show that all variables to be included in the model are either integrated of orders 0 and 1.

ARDL procedure comprises two steps. The first involves testing the null hypothesis of no long run relationship between the levels of the variables. In order to do so, an F-test with a non-standard distribution is employed. Pesaran, et al (2001) have provided two sets of asymptotic critical values for this test for the cases when all the variables are I(0). If the computed F-statistics exceeds the lower critical value, then the null hypothesis of no long run relationship can be rejected provided all variables are either integrated of orders 0 or 1. On the other hand, if the F-statistic is lower than the lower critical value, the null hypothesis cannot be rejected. If the long run relationship exists, then the second step can be implemented. This involves estimation of the ARDL model using either the AIC or SBC to select the maximum order of lags to obtain long run coefficients. This method involves the estimation of the error correction model (ECM) of the ARDL model.

In accordance with the ARDL method, cointegration tests are conducted to examine the existence of long run relationship between the variables by

computing the F-statistics for the joint significance of lagged levels of variables. The F-statistics for each of the models is greater than the lower critical bounds at both the 1% and 5% levels respectively. Therefore, we conclude that non-spurious long run relationships actually exist in all the models. By implications long run relationship exists between private domestic investment and its determinants and we can proceed to obtain the long run coefficients.

Table.3: F-Statistics for Co-integration Tests

Models	F-Statistics
1	5.2648***
2	19.3216***
3	4.7115**
4	4.5533**
5	4.7289**
6	4.4511**
7	7.0597***

Notes: The critical value bounds are from Table F in Pesaran and Pesaran (1997) (with an intercept and no trend). They are 2.262-3.367 at the 90% significance level, 2.649-3.3805 at the 95% significance level, and 3.516-4.781 at the 99% significance level. ***(**)* indicate significant at the 1%, 5% and 10% respectively.

Table.4 shows the level of associations which exist among the governance indicators in order to avert the problems of multicollinearity that may be present.

Table.4: Correlation Matrix

	CORR	GEF	PS	REQ	ROL	VC
CORR	1					
GEF	-0.4520	1				
PS	-0.1930	-0.1951	1			
REQ	0.3064	-0.3988	0.0356	1		
ROL	0.2373	-0.2874	0.0020	0.0376	1	
VC	0.0425	0.2535	-0.1119	-0.1914	-0.0789	1

Source: Computed

From the table, it is apparent that there exists low correlation among the variables of interest as the values ranged between 0.3064 (highest) and -0.4520 (lowest). It is thus plausible to include all the governance variables in the same model (possibility of multi-collinearity).

Table.5 presents different estimates of long run private domestic investment models with each having different governance indicators. In model 1 of the table, it is observed that of all the variables of interest, OPENX is statistically significant at the 1% level. This result is plausible considering the high level of dependence of most private investors on imported inputs or resources for production. Thus, liberalization has facilitated easy movements of resources, goods and labour from one location to another without any undue hindrance. Interestingly, it is the only variable which appears to be highly significant across all the models. The RGDP is statistically significant in five out of the eight models but carries the negative sign in all the models. This is a repudiation of economic theory which postulates positive relationship between RGDP and investment. This result contradicts most findings in many empirical studies in the literature like Ibrahim (2000), Asante (2000), Akpalu (2002), Outtarra (2005), among other studies. This may be explained, in part, by the level and extent of corruptive tendencies and other forms of rent-seeking attitudes among the political office holders or those that may be referred to as *''public resource managers''* in the Nigerian political system. SAV variable bears the expected sign in all the models.

This findings support the theoretical postulations that hypothesize positive relationship between private domestic investment and savings. The variable of RINR is statistically significant just like saving but has the expected negative sign across the models. This may be attributed to the high cost of borrowings by the private investors from the financial institutions. This result contrasts with the empirical findings obtained by Asante (2000) and Frimpong and Marbuah (2010) for Ghana. The inflation variable is also significant in a large number of the models but has a positive as opposed to the theoretically expected negative sign. The positive sign of inflation is a repudiation of the economic postulate that requires private domestic investment to thrive well in a low and stable inflation environment. The corollary of this finding is that as prices of goods and services are soaring higher in Nigeria, a profit maximizing rational agent sees it as an opportunity to make abnormal profits, thus venturing into such businesses in order to partake in the perceived excessive gains. This result is consistent with studies like Acosta and Loza (2005) for Argentina and Frimpong and Marbuah (2010) for Ghana. This further confirms Ajide and Lawanson (2012) study for Nigeria.

Also worthy of note, is the political stability indicators which appears to be statistically significant at the 1% level out of all the governance indicators. This corroborates the results of our descriptive statistics in Table.1. Really, the history of political unrests is as old as Nigeria itself but the situation became heightened after the enthronement of democratic structures. The country has witnessed and

is still witnessing spate of killings, wanton destruction of properties, civil disturbances by the day. All the indicators are negative, thus portending their bad states but are no longer regarded or perceived as such in the Nigerian context; more specifically that corruption has been receptively institutionalized. In Model 8 where each of the indicator is treated as independent, only PS and ROL are statistically significant but at different conventional levels. COR is control of corruption and not corruption index, thus it is expected to exert positive impact on investment, however these variables are not statistically significant, thus, no basis for the analysis; it is only political stability measure that is significant.

In addition, the models pass all diagnostic tests for non-normality of error term, white heteroskedasticity, autoregressive conditional heteroskedasticity, model specification and serial correlation,

Table.5: Dependent variable: LNPRINV- Long Run Estimates of Governance and Private Domestic Investment Determinants

(ARDL(1,1,1,0,1,1,1,0,1,1,0,1) selected based on AIC								
Independent Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**
Constant	18.287 (3.019)***	-3.653 (-0.734)	23.043 (2.665)**	14.559 (1.844)*	10.765 (1.165)	17.170 (1.864)*	-12.185 (-1.064)	-9.948 (-0.957)
LNRGDP	-1.415 (-1.620)	-0.793 (-1.390)	-1.824 (-2.135)**	-1.810 (-2.095)**	-1.796 (-2.100)**	-1.861 (-2.147)**	-1.794 (-2.327)**	-0.804 (-1.376)
LNSAV	0.819 (1.901)*	0.325 (1.114)	0.992 (2.318)**	1.025 (2.367)**	1.032 (2.409)**	1.005 (2.259)**	1.057 (2.733)**	0.320 (1.075)
OPENX	0.146 (3.174)***	0.094 (3.133)***	0.176 (4.109)***	0.174 (3.928)***	0.171 (3.940)***	0.180 (4.141)***	0.164 (4.209)***	0.090 (2.771)**
RINR	-0.245 (-1.963)*	-0.050 (-0.570)	-0.286 (-2.296)**	-0.301 (-2.380)**	-0.303 (-2.428)**	-0.293 (-2.219)**	-0.293 (-2.608)**	-0.033 (-0.366)
INF	0.069 (2.017)**	0.035 (1.502)	0.074 (2.135)**	0.076 (2.194)**	0.075 (2.184)**	0.076 (2.157)**	0.070 (2.225)**	0.029 (1.271)
VA	4.081 (1.654)							-2.456 (-1.266)
PS		-10.105 (-7.069)***						-11.055 (-6.561)***
GEF			5.963 (0.936)					2.348 (0.467)
REQ				-2.522 (-0.587)				3.331 (0.644)
ROL					-4.835 (-0.967)			-11.566 (1.800)*
CORR						-0.208 (-0.034)		5.619 (0.816)
GOV_IND							-25.805 (2.961)**	

R-Squared	0.48	0.77	0.45	0.45	0.45	0.44	0.55	0.81
Adj R^2	0.39	0.73	0.36	0.35	0.36	0.34	0.48	0.74
Diagnostic Statistics								
χ^2_{NORMAL}	0.34[0.46]	0.31[0.37]	0.29[0.32]	0.46[0.52]	0.32[0.43]	0.33[0.38]	0.35[0.42]	0.37[0.39]
χ^2_{WHITE}	1.02[0.54]	0.98[0.66]	0.89[0.59]	0.96[0.53]	0.89[0.51]	0.77[0.69]	0.79[0.77]	1.05[0.52]
χ^2_{ARCH}	0.21[0.12]	0.32[0.25]	0.35[0.43]	0.16[0.21]	0.19[0.33]	0.16[0.32]	0.20[0.35]	0.26[0.42]
χ^2_{RESET}	1.15[0.32]	1.11[0.23]	1.09[0.15]	1.10[0.11]	0.96[0.22]	0.89[18]	0.78[0.23]	0.33[0.22]
χ^2_{SERIAL}	0.87[0.42]	0.76[0.55]	0.80[0.44]	0.86[0.56]	0.82[0.56]	0.92[0.39]	0.78[0.38]	0.74[0.46]

Notes: (i) ***(**)* indicate significant at the 1%, 5% and 10% respectively. (ii) Figures in parenthesis ( ) and [ ] are T-ratios and standard errors respectively.

In order to see the short run dynamics, the empirical estimates of the error correction models are presented in Table 6.

The results of the short-run dynamics associated with the ARDL are reported in Table 6. The coefficients of the lagged error correction terms for the models range between -0.2446 and -0.8587, are negatives and statistically significant though at various conventional levels but models 3 and 6 have non-significant ecm term. The negative and significant coefficient is an indication of cointegrating relationship between private domestic investment and its determinants, inclusive of governance indicators except for government effectiveness (GEF) and corruption (CORR) which are insignificant. The magnitude of the ecm coefficients indicates the proportion of the disequilibrium caused by previous period's shocks that converges back to the long-run equilibrium in the current year. However, voice accountability (VS) and political stability (PS) indicators revert back to their long run equilibrium than any other governance indicators.

Also, the results are quite intriguing as the signs of some variables contradict a priori expectation, for instance, LNRGDP, LNSAV and INF. The coefficients of the current OPENX for all the models though carry the expected signs and at the same time statistically significant across the models. This in effect, suggests the importance of liberalization policies in promoting private domestic investment mobilization in the short run. The previous year's value of OPENX also exerts positive impacts but limited to models 1, 4, 6 and 7. Just like the values of the long run estimates, the coefficients of each of the LNRGDPs bear negative values across the models, albeit insignificant at any level of significance. The coefficients

of SAV also fail to conform to the hypothesized signs thus disproving the theoretical economic postulations. The discernable implications are that in the short term savings or investment funds are not usually channelled towards promoting private domestic investment as one would expect. Alternatively, anecdotal evidences have shown that such funds are usually diverted into other non-productive activities.

Table. 6: Error Correction Representation for ARDL Model Private Domestic Investment Equations

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	0.6915 (0.8325)	0.6906 (1.0840)	0.9110 (0.8773)	0.7448 (0.7560)	0.6115 (0.5681)	0.3327 (0.3139)	-0.3649 (-0.4018)
D(LNPRINV (-1)	-0.3329 (-1.7848)*	-0.0809 (-0.4216)	-0.5105 (-2.5118)**	-0.4080 (-2.0894)**	-0.4137 (-2.1226)	-0.4587 (-2.3430)**	-0.5298 (-2.8464)**
D(LNRGDP)	-0.4843 (-0.4108)	0.0575 (0.0582)	-0.5889 (-0.4364)	-0.7104 (-0.5114)	-0.7193 (-0.5177)	-0.9193 (-0.6723)	-0.6524 (-0.5390)
D(LNRGDP (-1)	-1.1288 (-0.9481)	-0.5839 (-0.6366)	-1.2915 (-0.9611)	-1.3407 (-0.9379)	-1.4315 (-0.9998)	-1.5777 (-1.1238)	-2.0613 (-1.6527)
D(LNSAV)	-1.0647 (-0.5012)	-0.7903 (-0.4714)	-3.1970 (-1.1842)	-0.8290 (-0.3198)	-0.4177 (-0.1545)	1.3263 (0.4433)	1.8579 (0.7930)
D(LNSAV(-1)	-0.9841 (-0.3973)	-1.6296 (-0.8885)	0.9920 (0.2752)	-0.9610 (-0.3270)	-0.7661 (-0.2259)	-0.9488 (-0.2788)	1.3047 (0.5016)
D(OPENX)	0.0950 (2.5623)**	0.0735 (1.8662)*	0.0964 (1.9103)*	0.1074 (2.3411)**	0.1043 (2.1696)	0.1031 (2.3776)**	0.0603 (1.4573)
D(OPENX(-1)	0.0842 (2.1066)**	0.0432 (1.3815)	0.0718 (1.6373)	0.0867 (1.8185)*	0.0908 (1.8036)	0.1108 (2.3998)**	0.1318 (2.7789)**
D(RINR)	-0.0650 (-0.4530)	-0.0632 (-0.5624)	-0.0267 (-0.1562)	-0.0908 (-0.5489)	-0.0848 (-0.4804)	-0.0753 (-0.4595)	0.0103 (0.0713)
D(RINR(-1)	0.0466 (0.3092)	-0.0432 (-0.3587)	-0.0008 (-0.0050)	-0.0327 (-0.1907)	-0.0304 (-0.1672)	-0.0588 (-0.3515)	0.0435 (0.2838)
D(INF)	0.0381 (1.2940)	-0.0064 (-0.2735)	0.0233 (0.6940)	0.0238 (0.6928)	0.0208 (0.5944)	0.0241 (0.7223)	0.0116 (0.3916)
D(INF(-1)	0.0533 (1.5984)	0.0326 (1.1333)	0.0797 (2.1924)**	0.0878 (2.3825)**	0.0874 (2.2259)***	0.0885 (2.5000)**	0.0721 (2.1882)**
D(VA)	-4.1694 (-1.4248)						
D(VA(-1)	-5.0955 (-1.8080)*						
D(PS)		-7.4098 (-4.3296)***					
D(PS(-1)		2.9912 (0.8073)					
D(GEF)			17.0153 (1.5612)				

D(GEF(-1)			-2.0877 (-0.2138)				
D(REQ)				-1.7568 (-0.4285)			
D(REQ(-1)				-1.1743 (-0.2960)			
D(ROL)					-3.8290 (-0.6390)		
D(ROL(-1)					-0.7937 (-0.1198)		
D(CORR)						-12.9280 (-1.3282)	
D(CORR(-1)						0.8531 (0.0918)	
D(GOV_IND)							-7.2622 (-0.9118)
ECM?(-1)	-0.8587 (-3.7554)***	-0.8407 (-3.6897)***	-0.2717 (-1.1895)	-0.3634 (-1.7250)*	-0.3671 (-1.7440)*	-0.2446 (-1.1269)	-0.3923 (-1.7603)*
R-Squared	0.78	0.87	0.73	0.70	0.70	0.71	0.77
Adj R^2	0.66	0.80	0.57	0.52	0.52	0.55	0.64
Diagnostic Statistics							
χ^2_{NORMAL}	0.69[0.76]	0.57[0.67]	0.59[0.62]	0.72[0.62]	0.62[0.63]	0.53[0.58]	0.52[0.47]
χ^2_{WHITE}	0.82[0.64]	0.78[0.66]	0.89[0.69]	0.86[0.53]	0.79[0.57]	0.77[0.62]	0.79[0.57]
χ^2_{ARCH}	1.10[0.78]	0.92[0.65]	0.85[0.63]	0.96[0.71]	0.89[0.73]	0.76[0.72]	1.20[0.65]
χ^2_{RESET}	1.05[0.79]	1.01[0.83]	1.09[0.85]	1.10[0.81]	0.96[0.82]	0.89[78]	1.08[0.89]
χ^2_{SERIAL}	0.97[0.72]	0.73[0.56]	0.80[0.49]	0.86[0.66]	0.82[0.76]	0.77[0.69]	0.74[0.68]

Notes: (i) ***(**)* indicate significant at the 1%, 5% and 10% respectively. (ii) Figures in parenthesis ( ) and [ ] are T-ratios and standard errors respectively.

The real interest rates denoted by RINR conform to the a priori expectation but insignificant across the models. In an economic sense, negative interest rates are a drag on investment stimulations both at the domestic and foreign levels as the case may be. Interestingly also is the fact that the previous values of inflation rates significantly impacted on domestic investment in the short run models except for models 1 and 2 whose t-values are non-significant.

In addition, of all the governance indicators, PS is statistically significant at the 1% level except for the previous value of VA which also appears significant at the 10% level. Expectedly, the a priori signs are negatives except for GEF which

carries a positive sign. This possibly suggests improvements in the quality of public services, the quality of the civil service, the quality of policy formulation and implementation, and the credibility/commitment of the government.

Just as in Table.5, all the models pass the diagnostic tests for non-normality of the error term, white heteroskedasticity, autoregressive conditional heteroskedasticity, model specification and serial correlation.

VI. Conclusion and Policy Prescriptions

The immeasurable costs of the recent global financial crisis on developing economies, particularly countries within the sub-Saharan African region occasioning substantial reduction in FDI and other foreign assistance flows, has called for renewed interests at searching for alternative means of driving economic growth. Evidently, private domestic investment remains one of the surest and veritable financing means that is easily accessible by countries but the mobilization of which in SSA countries is believed to be largely determined by the relative stability in the structure of governance indicators. To empirically confirm this assertion, this paper examined the role of governance on the private domestic mobilization in Nigeria over the period 1970 to 2010. Quite intriguing are the results obtained where variations are seen to exist in the determinants of private domestic investment both in the short and long run. In the former, degree of openness, previous value of inflation rates and governance indicators are the most important factors influencing private domestic investment mobilization.

Political stability and voice and accountability indicators appear to dominate the governance indicators space as they are both negative and significantly constituting drags on the private investment. On the other hand, in the long run, saving, real GDP, degree of openness, real interest rates, inflation rates and governance measures are strong determining variables on private investment mobilization. Of the governance indicators however, political stability stood out prominently while the not-too-visible effect of the voice and accountability governance indicator peters out over the long run horizons. A few relatable implications for policy are: since all measures of governance are negative thereby portending their diminutive impacts on private investment generation but with political stability indicator significantly featured prominently in both horizons, efforts should be directed at settling any course of action that could breed political impasse among the warring factions in the country. Also, fundamental human rights, improvements in the quality of public services, the quality of the civil service, the quality of policy formulation and implementation, and the credibility/commitment of the government and other components of

governance indicators should be strengthened and duly observed. In addition, minimizing adverse cost of inflation, setting of tolerable real interest rates, adoption of fettering liberalization policies and encouraging thrift habits with the pledge of reaping bumper gains in the future will go a long way in guaranteeing private domestic investment.

Given the fact that research on governance-investment nexus is still emerging, it is suggested that future research endeavour should try to employ alternative methodologies[7] for the country so as to be able to either validate or refute the obtained results. The basic limitation of the study, however, stems from the paucity of governance indicators data which can only be assessed from 1996. In addition, future studies should try to account for both regime shifts and structural breaks.

[7] *ARDL has problems of multicollinearity, endogeneity and possible autocorrelations,*

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