
The Democracy and Economic Growth Nexus: Empirical Evidence from Côte d'Ivoire

Wadjamsse B. Djezou¹

Abstract

This paper investigates the relation between economic growth and democracy for Côte d'Ivoire for the period 1960 to 2012. It analyzes both the long-run relation and the direction of causality. To this end, an autoregressive distributed lag (ARDL) model of cointegration and a Granger causality test have been implemented within a vector error correction model (VECM) framework. The results show cointegration in the long run when regime durability is taken into account. Indeed, for economic growth and democracy to move together in the long run, they need to be associated with regime durability. The tests for causality show long run causality running from GDP per capita and regime durability to democracy. In the short run, only the regime durability granger causes democracy. These results suggest that economic growth through strong institutions is a precondition for democratization.

JEL: O10, D72, C32, P16

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1. Introduction

The determinants of economic growth continue to be central to the debate among economists. According to the neoclassical view about the theory of growth, key factors for economic growth are labor, physical and human capital. Empirical studies, however, suggest that these factors are inadequate to understand growth and provide many instances where countries with similar per capita levels of physical and human capital realize very different rates of economic growth.

Thus, other factors need to be accounted for. Many authors since Douglas North's early work (summarized in North, 1990) stressed that the main missing factors are 'institutions'. The key institutional factor considered in the literature is the political regime, notably the degree of democracy. Many developing countries in general and Sub-Saharan African countries in particular have a complex history of regime changes, where the pressures of international organizations and other aid donors for democratization play an important role.

In the empirical literature, there is no consensus about the relationship between democracy and economic growth. This divergence of views on the relationship between these two variables is related either to the data and variables used in the study, the characteristics of the countries under study or the model specification (Gundlach and Paldam, 2008). Moreover, establishing the causal effect of economic growth on democracy is challenging because of endogeneity problems like omitted variables and reverse causality issues.

This paper intends to contribute to this literature by a case study of Côte d'Ivoire spanning the time period from 1960 to 2012, which has experienced three decades of single party (1960-1990) and two decades of multipartism (1990-2012). It contains a set of formal tests analyzing the direction of causality between democracy and economic

* University of Bouaké (Côte d'Ivoire)/Ivorian Center for Economic and social Research (CIRES). I am grateful to anonymous referees of this journal for their valuable comments on earlier drafts of this paper. wdejzou2000@yahoo.fr

growth. More specifically, the objective of this paper is to investigate the existence of a long-run relation and the direction of causality between economic growth and democracy in Côte d'Ivoire. To this end, we first perform a multivariate cointegration test with regime durability as a control variable on the country dataset running from 1960 to 2012 and cross-check this long-run relationship with an autoregressive distributed lag (ARDL) model approach to cointegration. Next, we use the Granger causality test within a vector error correction model (VECM) and estimate three different models using a non-linear specification: Ordinary Least Squares (OLS) estimation, Fully Modified OLS (FM-OLS) and Dynamic Ordinary Least Squares (DOLS).

The rest of the paper is arranged as follows: Section 2 analyses briefly the political and economic process in Côte d'Ivoire, Section 3 describes the data sources and outlines the econometric methodology. Section 4 presents and discusses the results. Section 5 concludes the paper by drawing some policy implications.

2. Brief review of the literature

The statistical association between income and democracy is widely investigated by political economy scholars. Many studies have reported a positive association between income per capita and the degree of democracy supporting the modernization theory according to which the level of economic development drives the implementation and consolidation of democracy (Lipset, 1959; Barro, 1997, 1999; Przeworski, 2005; Papaioannou and Siourounis, 2008; Paldam, & Gundlach, 2008; Heid et al., 2012; Che Yi et al., 2013, Benhabib et al., 2013). Indeed, as the gross domestic product (GDP) per capita increases poor countries are more prone to change their institutions (Moral-Benito et al., 2012). Benhabib et al. (2011) argued that citizens of wealthier countries, who generally have high levels of human capital and income, are more effective at creating and sustaining democratic institutions. These hypotheses are related to the exogenous and endogenous theory of democracy. This view contrasts with another approach that supports a reverse causality in the sense that good democratic institutions that limit government actions and protect property rights generate economic growth (Scully, 1988, 1996; Levine, 1991; Alesina and Perotti, 1994; Rodrik, 1999, Acemoglu, et al., 2001; Easterly and Levine, 2003; Rodrik et al., 2004). However, there is a threshold beyond which freedom has a negative impact on economic growth (Barro, 1989).

Contrary to this strand of literature, some authors have not found a robust link between democracy and economic growth (Helliwell, 1994; De Hann and Siermann, 1995; Alesina et al., 1996; Acemoglu et al., 2008). Moreover, a number of scholars have pointed out the adverse effects of democracy on economic growth (Loui, 1969; Crosier et al., 1975; Buchanan and Wagner, 1977; Barro, 1989). Indeed, many low-income countries with a large proportion of less educated people are governed by democratic institutions, which have been imposed by former colonialists (Barro, 1999, Huntington, 1968). According to Keefer (2007), democratic regimes discourage investment, as governments tend to give priority to current consumption in order to ensure their re-election. They forgo long-run investments by privileging short-run ones that are not development-oriented.

In this way, other authors revealed that dictatorship as the lack of democracy has a positive effect on the economic performance (Weede, 1983; Kohli, 1986; Sloan and Tedin, 1987), even if some authors recognized its limited effect (Barro, 1989; Grier and

Tullock, 1989). The autonomy of decision makers is the key argument explaining the success of this developmental dictatorship.

It follows from above that no consensus has been reached to date on the relationship between democracy and economic growth. The diverse evidence can be explained by the nature of data and variables, the geographic characteristics and the methodologies used in the studies (Gundlach and Paldam, 2008). This last issue includes endogeneity problems among which the reverse causality from economic growth to democracy is most prominent.

In this context, the present paper intends to contribute to the literature by testing the direction of causality between democracy and economic growth in Côte d'Ivoire.

3. Political process and economic growth in Côte d'Ivoire

The political and economic history of Côte d'Ivoire can be analyzed by considering two main time periods. The first phase is running from 1960 to 1980 and a second phase from 1980 to 2010.

During the first phase that is the period 1960-1980, state intervention has concerned indicative planning (quinquennium plans) and "state capitalism". This control of the state over the economy was inherited from the colonial period. Indeed, although economic liberalism has been adopted since political independence, Côte d'Ivoire evolved until 1980 without effective enforcement of liberal principles. In the political framework, this full presence in the economy took the form of a one-party system² that has contributed to a political stability and has boosted economic growth over the period 1960-1970. Indeed, the annual growth rate of GDP was on average 7% in real terms and the production per capita was increasing at a rate of 5% per year during the same period of time.

The second phase from 1980 to 2010 saw the economy collapse. This collapse could partly be traced to external shocks especially the oil crises of the 1970s. In fact, the oil crisis of 1973-1974, which was basically at the origin of the global economic crisis of that era, has strongly affected the Ivorian economy through the deterioration of its terms of trade. The rise in oil price caused a fall in the external demand for commodities and an increase in prices of imported goods. Similarly, the increase in international interest rates following the rise in the dollar exchange rate led to excessive external indebtedness. In addition, there was a severe drought in 1983, which caused losses of about 50% in agricultural production. All these internal and external imbalances led to a gradual deterioration of the Ivorian economy. As a result, poverty and inequality increased during the 1980s, 1990s and 2000s. According to the National Institute of Statistics (INS), absolute poverty has almost quadrupled in Côte d'Ivoire over the period 1981-2000 as the incidence of poverty increased from 10% in 1985 to 32.3% in 1993, 36.8% in 1995 and 38.4% in 2002. In 2008, it has even reached 48.9%. This situation led to social unrest and widely questioned the long single-party reign of the Democratic Party of Côte d'Ivoire (PDCI) under its founder Houphouët-Boigny. In this context, the Ivorian Popular Front (FPI) was clandestinely created in 1982 as the main opposition party and brought the regime of Houphouët-Boigny to officially accept a multiparty system in 1990. Yet, the mismanagement of this new system resulted in a military coup in 1999 which was the first coup d'état in the history of Côte d'Ivoire. Indeed, despite

² The one-party state is represented by the Democratic Party of Cote d'Ivoire (PDCI) founded by Félix Houphouët Boigny who has been the first president of Côte d'Ivoire.

the adoption of a multiparty system in 1990, democratic principles were poorly enforced, which prompted the opposition forces to boycott presidential elections in 1995. Despite the boycott, elections were held and won by the PDCI, which remained in power with Henri Konan Bédié³ as leader. Thus, the duration of the PDCI regime (about 40 years in power) and its incapacity to find solutions to the country's economic and social problems have exacerbated the discontent of a group of Ivorians and led to the military coup in 1999.

Constitutional reforms in 2000 led to temporary democratic progress that resulted in a political changeover with the victory of Laurent Gbagbo, the leader of the opposition with FPI, in the presidential elections. However, this progress was hampered by a military-political crisis in the wake of an attempted coup on September 19, 2002, which undermined the economic growth perspectives. Moreover, the country was divided into North and South, which went along with a democratic backsliding: neither elections in 2005 nor regular constitutional revisions could take place. During this post-coup period between 1999 and 2010, the GDP per capita remained constantly low with some years of negative growth rates. A renewed momentum is ongoing since the leader of the opposition party Rally of the Republicans (RDR), Alassane Ouattara, won the elections in 2010.

Thus, the political process (one-state party, multipartism, and regime durability) and economic performance (economic growth or recession) in Côte d'Ivoire are unlikely to be independent. But, did democratization follow economic growth or is it a consequence of economic recession? In other words, are political and economic trends related? In the following, we will seek to find an answer with rigorous tests through appropriate econometric techniques.

4. Data and methodology

4.1 Data sources and variables description

The time series data used in this study is annual data spanning the period from 1960 to 2012. The economic performance proxied by the real GDP per capita is obtained from World Bank's World Development Indicators (WDI) 2013. Data on democracy and regime durability was obtained from the Polity IV dataset version 2013. Descriptive statistics of the three variables used, GDP, DEMO and DUR, variables are presented in table A1 in the appendix.

According to the polity IV project, DUR is the number of years since the last substantive change in authority characteristics. In other words, it is a measure of the durability of the regime's authority pattern. It is defined as a 3 point move in a country's democracy score. For example, if a given country remained consistently democratic or autocratic during the sample, it may be less likely to experience a drastic change in regime.

Democracy scores (DEMO) are based on the premise that a mature and internally coherent democracy is an institutional framework in which a political participation is unrestricted (open and fully competitive), an executive recruitment is elective, and the constraints on the chief executive are substantial. Higher values represent stronger democracy as Polity2 has a range of -10 and 10.

³ Successor of Houphouët-Boigny in 1993, Henri Konan Bédié has been reelected in 1995 and ousted by the military coup in 1999 led by an Army General, Robert Guéi.

4.2 Unit root tests

Given that we analyze time series data, we investigate the order of integration of each series with the test developed by Dickey and Fuller (1979, 1981), the so-called augmented Dickey–Fuller (ADF) test. In addition, we use the test of Phillips and Perron (1988) (PP test), since the ADF test is relatively sensitive to any incorrect establishment of lag parameter and tends to under–reject the null hypothesis (Agiakoglu and Newbold, 1992). The PP test incorporates an automatic correction to the ADF test to allow for autocorrelated residuals. The null hypothesis of ADF and PP test is that a series is nonstationary.

4.3 Cointegration test

After determining the order of integration, the concept of cointegration is used to examine the existence of a cointegrating relationship among the variables. Series that are cointegrated move together in the long run at the same rate, that is to say they obey an equilibrium relationship in the long run. Thus, cointegration analysis will tell us whether the economic performance is possible with or without democracy. Cointegration can be investigated using a multivariate approach proposed by Johansen and Juselius (1990) or the ARDL bounds test. In this paper, we cross-check the cointegration by both approaches.

4.3.1 Johansen and Juselius approach

The Johansen-Juselius approach uses a maximum likelihood procedure to test the possibility of multiple cointegrating relationships among the variables. Indeed, the Johansen methodology provides inference on the number of cointegrating relations (cointegrating rank (r)) that is determined by the so-called trace test statistic. As it is a multivariate generalization of the Dickey-Fuller unit root test that is popular in the literature, we are not presenting the theoretical framework here in detail. The interested reader is referred to Johansen and Juselius (1990).

4.3.2 ARDL Bounds tests for cointegration

We used the bounds testing approach to cointegration within the autoregressive distributed lag (ARDL) framework to cross-check the long-run equilibrium relationship between the variables of interest found by the Johansen and Juselius approach. The bounds testing approach is developed by Pesaran and Shin (1999) and Pesaran et al. (2001) and has certain advantages over the conventional cointegration techniques. Unlike the conventional cointegration techniques, the ARDL test is more efficient in small and finite sample sizes and can be applied to the model irrespective of whether the variables are purely $I(0)$, purely $I(1)$ or fractionally integrated. In addition, the ARDL technique provides unbiased estimates of the long-run model (Harris and Sollis, 2003) even in the presence of endogeneity resulting from the reverse causality that may exist among variables. In the context of the present analysis, the ARDL bounds testing approach to cointegration can be formulated as follows:

$$\Delta GDP_t = \beta_0 + \sum_{j=1}^p \beta_{1j} \Delta GDP_{t-j} + \sum_{j=0}^p \beta_{2j} \Delta DEMO_{t-j} + \sum_{j=0}^p \beta_{3j} \Delta DUR_{t-j} \\ + \alpha_1 GDP_{t-1} + \alpha_2 DEMO_{t-1} + \alpha_3 DUR_{t-1} + \varepsilon_{1t}$$

$$\Delta DEMO_t = \beta_0 + \sum_{j=0}^p \beta_{1j} \Delta GDP_{t-j} + \sum_{j=1}^p \beta_{2j} \Delta DEMO_{t-j} + \sum_{j=0}^p \beta_{3j} \Delta DUR_{t-j} \\ + \alpha_1 GDP_{t-1} + \alpha_2 DEMO_{t-1} + \alpha_3 DUR_{t-1} + \varepsilon_{2t}$$

$$\Delta DUR_t = \beta_0 + \sum_{j=0}^p \beta_{1j} \Delta GDP_{t-j} + \sum_{j=0}^p \beta_{2j} \Delta DEMO_{t-j} + \sum_{j=1}^p \beta_{3j} \Delta DUR_{t-j} \\ + \alpha_1 GDP_{t-1} + \alpha_2 DEMO_{t-1} + \alpha_3 DUR_{t-1} + \varepsilon_{3t}$$

Where Δ is the first difference operator. The residuals ε_{it} are assumed to be normally distributed and white noise.

An important issue in applying the bounds testing approach to cointegration is the selection of the optimal lag length. The Akaike information criterion (AIC) and Schwartz criterion (SC) statistics are used to choose the best ARDL models.

The bounds test for cointegration is based on an estimation of the above unrestricted error correction model by OLS. Then, we conduct the usual F -test for cointegration. This involves testing the null hypothesis $H_0: \alpha_1 = \alpha_2 = \alpha_3 = 0$ against the alternative hypothesis that at least one of the coefficients is not equal to zero. The computed F -statistic from the test is then compared with critical values from Pesaran et al. (2001) and Narayan (2005). As cointegration indicates only whether or not a long-run relationship exists between the variables, we provide information on the direction of causal relationships through granger causality tests.

4.4 Granger causality test

The causal relationship between the three variables is investigated through the granger causality framework. According to the concept of Granger causality, 'X causes Y' if and only if the past values of X help to predict the changes of Y. In the same way, 'Y causes X' if and only if the past values of Y help to predict the changes of X. Indeed, if a set of variables are cointegrated, there must be short run and long run causality but it cannot be captured by the standard first difference VAR model (Granger, 1988). In this case, we implement the Granger causality test with the vector error correction model (VECM) framework as follows:

$$\Delta GDP_t = \beta_0 + \sum_{j=1}^p \beta_{1j} \Delta GDP_{t-j} + \sum_{j=0}^p \beta_{2j} \Delta DEMO_{t-j} + \sum_{j=0}^p \beta_{3j} \Delta DUR_{t-j} + \lambda_1 ECT_{t-1} + \mu_{1t}$$

$$\Delta DEMO_t = \beta_0 + \sum_{j=0}^p \beta_{1j} \Delta GDP_{t-j} + \sum_{j=1}^p \beta_{2j} \Delta DEMO_{t-j} + \sum_{j=0}^p \beta_{3j} \Delta DUR_{t-j} + \lambda_2 ECT_{t-1} + \mu_{2t}$$

$$\Delta DUR_t = \beta_0 + \sum_{j=0}^p \beta_{1j} \Delta GDP_{t-j} + \sum_{j=0}^p \beta_{2j} \Delta DEMO_{t-j} + \sum_{j=1}^p \beta_{3j} \Delta DUR_{t-j} + \lambda_3 ECT_{t-1} + \mu_{3t}$$

The long-run causality is indicated by significant coefficients for the lagged error-correction term ECT_{t-1} , while the short-run causality is examined on the basis of likelihood ratio (LR) statistics for testing the joint significance of the lagged dynamic terms.

5. Empirical results and discussion

The results of unit root tests are reported in Table 1. In this study, these tests give the same results, namely that each of these series is I(1), that is they are integrated of order 1.

Table 1: unit root tests

Variables in level	PP test	ADF test	Variables in first difference	PP test	ADF test
GDP	-1.4108(0.57)	-1.269(0.636)	ΔGDP	-5.428(0.000)***	-5.352(0.000)***
DEMO	-0.528(0.87)	-0.374 (0.905)	$\Delta DEMO$	-5.560(0.000)***	-6.656(0.000)***
DUR	-1.590(0.48)	-1.546(0.502)	ΔDUR	-7.009(0.000)***	-7.009(0.000)***

***, ** and * denote the null hypothesis is rejected at 1% level, 5% level and 10% level, respectively. The values in parentheses are p-values.

Source : Author's calculation

As all series are I(1), cointegration can be investigated using a multivariate approach à la Johansen and Juselius (1990). The results are reported in table 2 followed by their interpretation.

Table 2: results of the Johansen-Juselius rank test for cointegration

H_0	H_A	Trace test statistic	Critical value 5%	p-value
<i>Bi-variate cointegration rank test on democracy and GDP</i>				
$r = 0$	$r = 1$	6.795	15.494	0.601
$r \leq 1$	$r = 2$	0.604	3.841	0.436
<i>Multivariate cointegration rank test on democracy, GDP and regime durability</i>				
$r = 0$	$r = 1$	30.298***	29.797	0.043
$r \leq 1$	$r = 2$	11.992	15.494	0.157
$r \leq 2$	$r = 3$	2.905	3.841	0.088

***denotes rejection of the null hypothesis at the 1% level.

Source: Author's calculation

We observe from the bivariate cointegration rank test that the null hypothesis cannot be rejected as the trace statistic (6.795) is less than the critical values at 5 % probability levels. We therefore conclude that democracy and economic growth are not cointegrated, that is they don't move together in the long run. This fundamental result reveals for Côte d'Ivoire that a democratic system alone doesn't ensure positive economic growth. Economic growth can as well prevail in a non-democratic country as illustrated by the good economic performance of the People's Republic of China. Thus, the political system alone like democracy cannot determine the country's economic performance.

We move to a multivariate cointegration rank test with the control variable DUR, which represent regime durability defined as the number of years since the most recent regime change. When we control for the regime durability variable, the result shows that the null hypothesis of a unique cointegrating relation cannot be rejected. From these above results, we can conclude that for economic growth and democracy to move together in the long run, they need to be associated with regime durability. Although, democracy alone does not move together with economic growth in the long run, it does so when one considers regime durability as a third variable in the analysis. Indeed, in the first two decades following independence, economic growth was coupled with a single party regime (political stability). But, in the 1980s with the persistence of economic recession under the same political regime after twenty years in power, part of the population started claiming political reforms through demonstrations that resulted in the creation of the FPI in 1982. Thus, the informal multiparty system that prevailed since the beginning of the 1980s became legal and official only with the constitutional reform in 1990. Therefore, the positive and negative economic growth rates recorded during the periods 1960 to 1980 and 1980 until after 1990, respectively, can be associated with institutional transition. The positive per capita GDP growth rate from 1960 till 1980 has fostered political change after 1980. This result is consistent with Moral-Benito et al. (2012) who state that "as GDP per capita increases, poor countries are more prone to change their institutions". In other words, improving income per capita in poor countries is expected to have a positive effect on their democracy standards. Moreover,

in Côte d'Ivoire, economic liberalization through structural adjustment programs since 1981 is coupled with political liberalization.

We cross-check the cointegration test by using the ARDL approach. In order to select the optimal lag length, we set the maximum lag length at 3 years which is sufficiently long for an annual data study to capture the dynamic relationship. According to the results of table A2 in the appendix, AIC suggests 3 lags while SC indicates 2 lags. Since the values associated to 2 and 3 lags are closer in AIC, we adopt an optimal lag length of 2.

The results are reported in table 3. They confirm that the null hypothesis of no cointegration can be rejected at the 5% significance level only when DEMO serves as the dependent variable. For this equation, the calculated F -statistic is greater than the upper critical values tabulated by Pesaran et al. (2001). As our sample size is small, we also used critical values from Narayan (2005) for robustness checking and found the same result. We conclude that democracy, economic growth and regime durability share a long-run level relationship.

Table 3: Bounds test results

Dependent variable	F -statistic	5% critical value				Decision
		(Pesaran, 2001)		(Narayan, 2005)		
		I(0)	I(1)	I(0)	I(1)	
Demo	5.662**	3.79	4.85	4.070	5.190	cointegration
Gdp	2.636	3.79	4.85	4.070	5.190	no cointegration
Dur	2.020	3.79	4.85	4.070	5.190	no cointegration

** denotes the rejection of the null hypothesis of no cointegration at the 5% significance level

Source: Author's calculation

In developing countries like Côte d'Ivoire, regime stability is a necessary condition to undertake long-run investments such as education and infrastructure, which support economic and social development. With five-year terms that prevail in most of developing countries, the party in power is often not confronted with sufficient incentives to promote long-term investments, although they are necessary for a sustainable economic growth. The party in power prefers short run investments as they can bring result very quick to support their reelection.

Since a long-run relationship exists between the series, we provide estimates of the long-run coefficients using a nonlinear specification. We do so since the effect of income on democracy is not necessarily constant for every level of income. Moral-Benito et al. (2012), for example, argue that "countries that are not fully democratic, may have good economic performances, but once they have good economic results, they hardly change their institutions". In addition, while Acemoglu et al. (2008) found that there is no evidence of a linear effect of income on democracy, some authors like Benhabib et al. (2011), Treisman (2011), Moral-Benito et al. (2012) and more recently Masaki and Walle (2014) found evidence of a positive effect from income to democracy using a non-linear specification. The economic and political context in Côte d'Ivoire, furthermore, seems appropriate to use a non-linear specification to investigate the relationship between income per capita and democracy (see section 3)⁴. In this way, as the results indicate one cointegrating relation, we estimate the equation where the null

⁴ Moral-Benito et al. (2012) do find significant evidence in favour of a non-linear effect only in low-income countries.

hypothesis of no cointegration is rejected. We run three different models using OLS estimation, Fully Modified Ordinary Least Squares (FM-OLS) and Dynamic Ordinary Least Squares (DOLS). The last two methods proposed by Phillips and Hansen (1990) and Stock and Watson (1993), respectively, are used to provide robust results in small sample sizes and they account the endogeneity, autocorrelation and heteroscedasticity problems (Hurlin et al., 2007). The results are reported in the table 4.

Table 4: Long run estimates

Variables	OLS Coef.	FM-OLS Coef.	DOLS Coef.
Constant	38.91*** (3.204)	46.243*** (3.427)	54.46*** (3.846)
Gdp	-0.000154*** (-3.184)	-0.000182*** (-3.400)	-0.000213*** (-3.777)
Gdp²	1.26.10 ⁻¹⁰ *** (2.745)	1.54.10 ⁻¹⁰ *** (3.032)	1.83.10 ⁻¹⁰ *** (3.397)
Dur	-0.0971*** (7.672)	-0.1161*** (-3.224)	-0.1178*** (-3.428)

***denotes statistical significance at the 1% level and t-statistics are in parentheses.

Source: Author's calculation

As can be seen, all variables are highly significant at the 1% level and have the expected signs. The model is also well specified as indicated by the Ramsey test (see table A3 in the appendix). All the three approaches provide relatively similar results demonstrating the robustness of the results.

The results show that the non-linearity in the GDP variable reveals the existence of a minimum level of GDP per capita required to ensure the transition to democracy as found earlier by Moral-Benito et al. (2012). Indeed, at a low level, a GDP per capita has a negative effect on democracy. But at a given threshold, any increase in this variable positively affects democracy. The results indicate that regime stability associated with economic growth will result in democracy. This is in line with the Lipset hypothesis (or modernization theory) stating that prosperity stimulates democracy (Lipset, 1959). In a developing country like Côte d'Ivoire, this channel can only work if some long-run effective investments are made. According to Rao (1984), economic development is a process for which huge investments in personnel and material are required. These include basic public education, health, and physical infrastructure (roads, electricity, water, etc.). Still, these investments cannot be provided unless the nature of politics and governance in most of African countries changes radically. Indeed, such investment programs imply cuts in current consumption which increases with democracy (Huntington, 1968, Huntington et al., 1975). Such measures may not be adopted in a democratic developing country where the system requires their submission to a popular vote of the citizens who are already living with low income levels. In this point of view, there is a kind of incompatibility between democracy and investments since increasing demand for current consumption threatens profits and reduces investments as political parties are giving higher priority to the interest of the voters (Keefer, 2007). In this way, Galenson (1959) observed that the more democratic a government is, the greater the diversion of resources from investment to consumption. Thus, political parties are less likely to win a clean democratic election in a poor country on a platform of current

sacrifices for a future. Based on that mechanism and the short length of terms (five-year terms), the ruling party will forgo long-run investments by privileging the ones that are not development-oriented (especially current consumption) to ensure their reelection. In this perspective, illicit tactics are often used and negatively affect the incentives of governments to deliver good economic performance (Collier et al., 2010). To overcome this difficulty, the state must be insulated from societal pressures and empowered to pursue development policies as suggested by Przeworski et al. (1993). Although, the state autonomy may be effective through authoritarian political arrangements (Haggard, 1990), we agree with Bardhan (1990) that what matters is the extent of centralization of decision making coupled with the flexibility in dealing with changes in technical and market conditions. Therefore, the leading political class of Côte d'Ivoire or Africa in general should design a right institutional framework that ensures confidence for long-run investments (foreign and domestic), peace, low transaction costs and a rule of law. Such a political environment promotes stability, growth and legitimacy and will result, with time, in a liberal democracy. These imperatives are the key foundations of the East Asian economic miracle.

The results of the tests for causality are reported in table 5. They show that there is a long-run causality running from GDP and regime durability to democracy as the estimated coefficient of the lagged error-correction term is only negative and statistically significant in the democracy equation. This is quite a fundamental result since it tells us clearly that it is the economic performance that influences democracy and not the reverse. Thus, past information on a country's economic performance does permit a better prediction of the level of democratization in that country when regime durability is taken into account.

This reinforces the findings of a long-run relationship among the variables. The results suggest that poor countries should first of all eliminate poverty before discussing about political freedom (or election). In other words, economic growth through strong institutions is a precondition for democratization (liberal democracy).

This result is consistent with Barro (1999) who states that "democracies that arise without prior economic development, sometimes because they are imposed by former colonial powers or international organizations, tend not to last". For democracy to result and sustain, economic growth should be promoted through a stable regime led, for example, by a benevolent dictator. Indeed, based on lower political cost, government planners in non-democratic countries usually have more autonomy in policymaking than those in democratic countries (Hu and Mckitrick, 2013).

Table 5: Granger causality results

Dependent variable	Source of causation (independent variables)			Long run
	Short run			
	Δ GDP	Δ DEMO	Δ DUR	
ΔDEMO	0.4259(0.6560)	-	11.8172(0.0001)***	-3.5204(0.0011)***
ΔGDP	-	-0.0682(0.9341)	0.3554(0.7030)	
ΔDUR	0.1065(0.8992)	0.050(0.9511)	-	

Figures are F-statistics and t-statistics while those in parentheses are p-values. *** and * indicates statistical significance at 1% and 10% respectively

Source: Author's calculation

In this way, the benevolent dictator can design economic policies that favor long run investments that have high growth potential without being challenged by any political party. Thus, development partners should put emphasis on economic growth and good governance rather than just democratization. Good governance is not reduced to five-year presidential terms (or elections) but it should be viewed as a constant attempt to capture all of the considerations involved in assuring that stakeholder interests are addressed and reflected in policy initiatives. This requires careful and creative institutional design, to give political leaders and groups the incentives to behave in ways that will enhance lawfulness, stability, and trust. Such a socio-political environment may explain why several countries enjoy positive economic growth although they are not democratic.

6. Conclusion and policy recommendations

Democracy has been postulated to be the pre-condition for economic growth. That is the argument behind the democratization process imposed by international organizations in most of the developing countries in general and in African countries in particular. In contrary to that, some countries like China experienced economic development although they are non-democratic. In this context, the objective of this paper was to investigate the causal relationship between economic growth and democracy in Côte d'Ivoire. To this end, we implemented both Johansen and Juselius as well as ARDL models to cointegration to investigate the existence of a long run relation among the above noted series. Then, Granger causality within a VECM is used to test the direction of causality between the variables. Firstly, the results show that there is cointegration among the variables specified in the model when regime durability is taken into account. Indeed, for economic growth and democracy to move together in the long run, they need to be associated with regime durability. Secondly, the tests for causality conducted show that there is a long-run causality running from GDP and regime durability to democracy. It is the economic performance that influences democracy and not the reverse. In the short run, only the regime durability granger causes democracy.

The relationship between economic growth and democracy is nonlinear revealing the existence of a minimum level of GDP per capita required to positively impact democracy. But, economic growth can only occur in a particular environment that provides accountability, transparency, rule of law, and ethnic inclusiveness. Although such institutional change is not easy to achieve, it will bring a kind of legitimacy necessary for political stability and state building.

Therefore, we are not proposing an authoritarian regime but a kind of consensus among political groups to build a strong state before democracy can take hold. As most of the countries are already engaged in democratization process, the African ruling class should seek a consensus around growth and development issues rather than just control the power. Democracy should not be viewed as the dictatorship of the majority but the protection of the minority by taking into account their preoccupations. Indeed, minorities may have constructive proposals that the ruling party should examine and incorporate into its political program. Thus, state building and democracy building should be simultaneous and complementary tasks. These are crucial in ensuring sustainable growth.

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Appendix

Table A1: Descriptive statistics of the variables

Variables	Number of observations	Mean	Std. Dev	Min	Max
Dur	53	14.02	12.86	0	38
Demo	53	-6.06	4.15	-9	4
Gdp	53	478641.302	96665.4	367992	723182

Source: Author's calculation

Table A2: optimal lag length for ARDL model

Lag order	AIC	SC
0	52.16	52.28
1	46.22	46.68
2	45.47	46.30*
3	45.21*	46.40

*Denotes the optimal lag

Source: Author's calculation

Table A3: Ramsey specification test

F-statistic	0.2725	probability	0.6040
Log likelihood ratio	0.3001	probability	0.5838

Source: Author's calculation