DEMOCRACY AND ECONOMIC GROWTH IN GHANA

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DECLARATION

I, *PATRICK KWAKYE,* hereby declare that with the exception of the references to other people's work which have been duly acknowledged, this thesis is entirely my own work under the guidance of my supervisors and that neither the whole of this work, nor any part thereof, has been presented for an award of another degree elsewhere.

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ABSTRACT

The study of democracy and economic growth is a growing research area both in economics and political economy all over the globe. This study primarily examines the empirical relationship between democracy and economic growth in Ghana using time series data from 1971-2009. It specifically explores the short-run and long-run relationship between democracy and economic growth as well as the direction of causality between them. The research further seek to find the extent to which tax revenue share in GDP impacts economic growth in Ghana.

The study employed the Autoregressive Distributed Lag Bounds (ARDL) approach of estimation strategy due to its small sample property and its applicability of whether a series are integrated of I(O) or I(1). Granger –causality test was also employed to determine the direction of causality between democracy and economic growth.

The study reveals a contemporaneous relationship between democracy and economic growth in the short-run and bidirectional causality in the long-run. It further ascertains that democracy impacts greatly on economic growth and statistical significant at 1% and 5% both in the long and short run. The research further reveals that tax revenue impacts negatively on economic growth but was statistically insignificant in both models. When it was interacted with democracy, it was still negative and statistically insignificant in the short run but became statistically significant at 1% in the long-run. The error correction Model captures the speed of adjustment to the long-run equilibrium. The ecm(-1) results reveals a high speed of 61% of long-run equilibrium adjustment every year after a short-run shock for both models.

Ghana should continue encouraging its democratic credentials but should allow this credentials to be accompanied with strong and quality institutions to help uphold our democracy in times of

crises. The need for tax reforms and to closely integrate these reforms with structural adjustment measures will help bring growth. The tax net should cover more people in the underground economy by creating more satellite tax revenue stations to curb the laxity of our revenue collection authority in the mobilization of taxes for development in the long. The findings and policy recommendations of this research provides a vital information relevant for developing countries involved in the democratization process.

DEDICATION

I dedicate this thesis to Janelle Mensah, Konadu Nhyira Aryee and Jaden Mensah. May you become great leaders in Africa.

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LIST OF ACRONYMS

ARDL	-	Autoregressive Distributed Lag
BoG	-	Bank of Ghana
BTI	-	Bertelsmann-Stiftung Transformation Index
BWI	-	Bretton Wood Institutions
CDD	-	Centre for Democratic Development
CPP	-	Convention People's Party
CUSUM	-	Cummulative Sum
CUSUMSQ	-	Cummulative Sum of Squares
DFD	-	Democratic Freedom Party
DPP	-	Democratic People Party
ECM	-	Error Correction Model
ERP	-	Economic Recovery Program
FDI	-	Foreign Direct Investment
GCPP	-	Great Consolidated Popular Party
GDP	-	Gross Domestic Product
IMF	-	International Monetary Fund
ISSER	-	Institute of Social, Statistical and Economic Research
KPSS	-	Kwiatkowski-Philip-Schmidt-Shin
LDC	-	Least Developed Countries
NDC	-	National Democratic Congress
NDP	-	National Democratic Party
NLM	-	National Liberation Movement

NPP	-	New Patriotic Party
OECD	-	Organisation for Economic Cooperation and Development
OLS	-	Ordinary Least Squares
PNC	-	People's National Convention
PP	-	Philip Perron
PPP	-	Progressive People's Party
SAP	-	Structural Adjustment Program
SBS	-	Schwartz Bayesian Criterion
SEC	-	Secondary Enrolment
UFP	-	United Freedom Party
UGCC	-	United Gold Coast Convention
UN	-	United Nations
USD	-	United States Dollars
WDI	-	World Development Indicators

CHAPTER ONE

INTRODUCTION

1.1 Background

There is a great deal of literature dealing with the relationship between democracy and economic growth. This research establishes whether democracy causes economic growth or economic growth causes democracy. It can safely be argued that the possible bi- directional relationship between democracy and economic growth is one of the most popular topics both in comparative politics and political economy. Beetham (1999), defines democracy as a political regime with a high degree of popular control over political decision making, and a high degree of political equality. Scholars have not reached consensus about either the causal direction of the relationship between economic growth and democracy or vice-versa. "Inconsistent modeling arguments" and "selection bias" are among the explanations cited for the ambiguous results in the literature" (Brunetti 1997; Przeworsk and Limongi 1993). Moreover, it is rather possible to see deviations concerning democracy- economic growth nexus for different countries (Heo and Tan, 2001). Most of these deviations result due to contradictory empirical results of most of the research outcomes and the methodology used.

According to Vanhanen (2003), democracy means free popular elections to fill positions of power. Brochado and Martins (2005), consider democracy as a system of institutionalized procedure directed to a free political participation and competitiveness. Welzel (2007), defines democracy by constitutional constrain on the power of the state and by popular control over it.

Uysal et al. (2010), using co -integration analysis for the period 1955 – 2006, identified the relationship between economic growth and democracy in Turkey's case. Their empirical results suggest that there is a long-run equilibrium relationship between economic growth and democracy. The studies on the causal relationship between "democracy and economic growth" are not conclusive; some of the findings show the same direction between democracy and economic growth whilst others conclude on opposite direction. Democratic nations, according to a 2002 UN report, are also better at managing conflicts, avoiding catastrophes and dealing with major public health crises. With few exceptions, developed nations are also democratic states.

The peaceful transfer of power in 2001 and 2009 in Ghana stands in sharp contrast to the frequent setbacks to the democratization process elsewhere in West Africa. In Mauritania, the political transition process has been halted by a military coup and in Guinea Bissau; the emergence from domestic political conflict has been interrupted by the assassination of the army Chief on 12th April, 2012. On 6th August, 2008, the then president of Mauritania, Sidi Mohamed Ould Cheikh Abdallah was ousted from office by the military who latter took over the seat of government. Ghana, the first Sub-Saharan African country to obtain its independence in 1957, held its 5th legislative and presidential elections since the return of multi-parties in 1992. According to the World Bank (2010), as of July 2011, Ghana's economy was classified as a lower middle income country. Ghana's political life has been marked by a series of alternations between military regimes and attempts to democratize the political system which have been achieved for the past two decades. There were three periods of elected governments and three of military rules between 1957 and 1992. The first republic under the leadership of Kwame Nkrumah was a civilian government from (1957-1966). The second (1969-72) and third republics (1979-81) where short – lived lasting less than 30 months. Until 1992, when Ghana's

multiparty democracy was interrupted repeatedly by the drift towards dictatorship, the perceived failure of the government of the day and their mistaken policy led to frequent military interventions in 1966, 1972, 1978, 1979 (David, 2009). Leecher (1994), described Ghana as a front runner in the economic reform process and Ghana was regularly put forward by the Bretton Wood Institutions (BWI) as a country whose democracy is stable and able to utilize grants for the betterment of its citizens.

Table 1: MAJOR EVENTS IN GHANA'S POLITICAL TRAJECTORY; 1957 – 2008

1957 – 1958	Attempts at political pluralism
1958 – 1964	Elected civilian regime
1964 – 1966	One Party System (C.P.P.).
1966 – 1969	Military Regime
1969 – 1972	Elected Civilian Regime
1972 – 1979	Military Regime
1979 – 1981	Elected Civilian Regime
1981 – 1992	Military Regime
1992 – 1996	Political Transition
1996 – 2008	Emerging Democracy

Source: GOCKING (2005)

Surprisingly enough, Ghanaians showed a little irony in its GDP growth in that, they showed little appreciation of that growth achievement (Aryeetey and Tarp 2000). Ravi -Kanbur (2001) wonders why "Ghanaians are not dancing in the streets" if the economy has seen growth in the region of 4% - 5.5% for almost two decades. It is indeed relevant to point out that in Aryeetey, Harrigan and Nissanke (2000), there is an argument supporting why Ghana's growth after reforms is worthwhile, it was not any unique comparing to what occurred in the 1960's after an entire different economic policies. The question of increasing economic growth was not

sustained in this period namely due to political instability as of that time. Democracy occupies the moral high ground and this system of governance is much superior to an authoritarian regimes. This is due to the fact that in a democracy regime, the citizens agitate when their civil and political right is been curtailed. Contrary to this, developed countries have different overview as the growth in GDP can be experienced by the inhabitant.

Economists who take a narrow view of development in terms of sustained increase in per capita income and try to compare democracy and dictatorship in respect of economic growth through better property right leave many connected issues to debate and for detailed research.

Economic growth constitutes the single important factor affecting the level of development of countries (Barro & Sala-i- Martin, 2004). Real gross domestic product (GDP) growth record of Ghana before liberalization policies in 1983 was abysmal for some years (Sakyi & Adams, 2012). The reason for this observation is that while the abysmal growth performance for the period prior to 1983 was mainly characterized by political instability and inappropriate macroeconomic policies. Policy makers and the international community to better understand the key determinants of economic growth dynamics of the Ghanaian economy, only a few studies devoted to the determinants of economic growth in the country are known (Frimpong and Oteng-Abayie, 2006; Gyimah-Brempong and Gyapong, 1993; Nketiah-Amponsah, 2009: Sakyi, 2011) but the key question is that, can other variables additionally, contribute to the determinant of economic growth in Ghana. However, none of these studies have investigated the role of democracy, tax revenue and their interactive effect on economic growth. Hence, the need for such research in Ghana.

In Africa, only two countries were considered free in 1972, this increased to eleven (11) by 2008, but decreased to (9) in 2010 (Freedom House 2008, 2011) in terms of civil liberties and political right. Recent report from Freedom House (2011), shows that 19% of the countries in Sub-Saharan Africa were rated as free, 45% as partly free and 35% as not free. Lake and Baum (2001) found that democratically elected government provided significantly higher levels of basic services. In a follow up piece, Baum and Lake (2003) show that precisely because services like health and education lead to an accumulation of human capital, democracy has an important indirect effect on growth due to the fact that its create an enabling environment by aiding in increasing production.

One essential political variable in the study of political economy is taxation, due to the fact that government raises revenue to support its development agenda through taxation. Taxation is the study of government revenue raising activities through taxes. It serves as the major source of government revenue in most developed countries. Bruce (2001), defined tax as an involuntary payment to the government that does not entitle the payer to quid pro quos benefit or to an equivalent value of goods and service in exchange. The voluntary compliance over tax payments would greatly improve the administrative efficiency of tax systems by reducing both tax payments and tax collection cost and improving predictability of revenue streams. This increased predictability and stability of tax revenues, would in turn enable governments to better plan in the long-run and encourage business investment opportunities. Moore (2008) argues that, taxpayers would be able to hold policy makers more accountable if made aware, that they are entitled to representation who will question the use of their taxes by the executives. Taxation and public spending are the major issues in economics and politics. Tax design and the

implementation of tax reforms and government spending programmes are at the core of economic policy. They are also among the most debated issues in the political arena.

Following the political economy theoretical literature, democratization might induce higher taxes and spending to satisfy the needs of redistribution of a large electorate (Acemoglu and Robinson, 2006). This is the case for developing countries of which Ghana is no exception where increase in the size of government turns to increase expenditures of government spending of the various ministries and department (Hausken et al 2004). Ghana recorded a budget deficit of 12.10% GDP in the year 2012 (BoG, 2012) which was also an election year for Ghana. This further stress the point why government spending in election years usually increase.

1.2 Problem Statement

African countries are endowed with so many resources that could have made the continent the richest among the rest of the continents. The continent is the second largest continent after Asia in terms of population and land size. Africa is often characterized as the continent with the largest abundance of natural resources. Although most countries on the continent presumably possess significant natural resource, the IMF currently classifies one-third of sub-Saharan Africa (SSA) countries as "resource –rich". Besides, it barely provides enough to feed itself in the midst of abundant mineral resources, excellent weather conditions, vast agricultural land, etc. The poorest nations in the world are all in sub-Saharan Africa, namely the Gambia, Guinea- Bissau, Zimbabwe etc (World Bank, 2010). In 2001, Ghana was declared as highly indebted poor country (HIPC) and has to depend on debt-relief. Aryeetey and Tarp (2000) have argued that the growth of the 1980's came as a result of the expansion of capital application, largely as a result of inflows, which was similar to the expansion that occurred in the 1960's which was financed largely through accumulated reserves from the 1950's.

Ghana spent so much money in its electoral process both in the election of presidential and parliamentary candidates as well as its district assembly election. The electoral commission of Ghana was allocated a sum of GH¢48,006,292.00, GH¢36,800,000.00, GH¢20,678,400.00 and GH¢3,710,000.00 in its presidential and parliamentary elections in 2012, 2008, 2004 and 2000 as cited in the budget statement of the various years. The creation of more districts from 110 in 2000 to 170 in 2012 is an issue to be considered. Notwithstanding the increase in parliamentary seats in parliament from 230 in 2008 to 275 in 2012, which imply more district chief executives and more members of parliaments. This will increase the expenditure of the government in payment of salaries and basic amenities of these executive positions. Ironically, democracy goes beyond election of presidential, parliamentary and district assembly candidates. Freedom of speech, press and association etc, also create the enabling environment for economic agents to promote their self-interest.

The basic question is whether democracy causes economic growth or economic growth causes democracy. If the former is true, then the country will be justified to spend so much at the expense of other sectors which exhibit growth but if economic growth causes democracy, then much effort will be concentrated on the agents of economic growth in Ghana and whether it will be justified financing political parties in Ghana. The issue of government spending, especially in an election year in order to retain power in Ghana will be an issue to consider. Whether increase in governments spending in the area of education have an impact on economic growth since researchers in this area have arrived at contradicting results .Other researchers argues that not all policies and actions of the state aims at economic growth which contradict the argument of what happens when the democratic dispensation fails to aid increased production by creating an enabling environment. Since the introduction of taxation in Ghana, then Gold Coast, in 1943, its

impacts on democratic regimes have not yet being realised. This might be due to the fact that the positive effects of taxes on development are not being experienced by most Ghanaians. On 24th June, 2013 a group furious youth blocked all access road in the Ayawaso district of the Tema municipality to protest against the poor road network and social amenities in the district. They claim why should they pay toll taxes and yet very bad roads in the municipality and continue to ascertain that the only language policy makers understand is what they have done.

When tax revenues are massively collected but fail to support developmental projects, its effect on economic development will be negative. This phenomenon will encourage tax-evasion making the government revenue authority not exceeding its targeted revenue (Moore 2008) .This scenario hinder developmental agenda of the government which comes with additional cost.

1.3 Objectives

In political economy, democracy plays a major role in the electoral process and the legislature through the exercise of franchise. Democracy can also not be achieved in isolation in a country but through government spending, taxation, financial deepening, etc which are also functions of economic growth.

The fundamental objective of this research is to examine the relationship between democracy and economic development in Ghana. Economic development is the sustained, concerted actions of policymakers and communities that promote the standard of living and economic health of a country. The nature and space of structural changes in economic development drives the rate of economic growth. Specifically the research seeks to:

- Determine the causality between democracy and economic growth and the relationship between them in Ghana. Hence, economic growth is assumed to be the primary factor in the development process.

- Find the extent to which tax revenue share in GDP impacts economic growth.

1.4 Significance

There are a lot of contradicting statements in political economy literature, whether democracy causes economic growth or economic growth causes democracy. This research seeks to contribute to the debate pertaining in Ghana. Most African countries spend a lot of their budget in ensuring that democratic institutions such as the electoral commission are given the requisite amount to carry-out presidential, parliamentary and district assembly elections. The alternative could also arise whether to invest this amount in institutions that bring about economic growth such as creating industries, strengthening human capital, etc. Researchers have not reached consensus about either the casual relationship between economic growth and democracy.

This research brings out, the bi-directional causality between economic growth and democracy (Glasure et al., 1999), the contemporaneous effect and economic growth granger causes democracy in Ghana. Researchers produce contradictory results in the area between tax revenue and economic growth. The issue of raising more taxes in Ghana is not the solution for our development but to avoid tax evasion, leakages and to systematic streamline the informal sector of the economy into our revenue mobilization agenda as this research findings suggest.

1.5 Outline of the Study

This study is organized into five chapters. Chapter one discusses the research problem, objectives and significance of the study. This is followed by a review of relevant theoretical and empirical literature in chapter two. Chapter three discusses democracy and economic growth issues in Ghana. Chapter four discusses the methodology, the type of data to be used for the study, measurement issues and analysis of empirical results. The summary of empirical findings, conclusion and policy recommendation drawn from the findings are outlined in Chapter five

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

There are abundant empirical studies which examine the link between economic growth and democracy. While some of these studies focus on the effect of economic growth on democracy, others investigate the effect of democracy on economic growth. Theoretical and empirical literature gives us no clear cut –support of which direction a country should follow in order to maximize its democracy and economic growth potentials.

2.2 Effect of Economic Growth on Democracy

There are copious empirical works dating back to Dahl (1971) that probe into the impact of economic growth on democracy. Employing GDP per capita as a proxy for economic development, Dahl (1971) found that "economic development in 1957 in the US is typical of polyarteritis (Landsman, 2003), which simply means a lot of sectors all combined together to bring its economic development in the country. Examining the association between economic growth and democracy for 60 noncommunist countries in 1960, Jackman (1973) used cross-sectional data to determine that the curvilinear relationship, emphasizing the idea of a democratic threshold, is more significant than the linear relationship. This implies that as economic growth increases, democracy also deepens but when a threshold is reached, democracy begins to fall when economic growth increases. Bollen (1983) and Jackman (1985), Brunk et al (1987), Burkhart and Lewis – Beck (1994) and Barro (1999) all have shown that economic growth is an important determinant of democracy. Despite these empirical claims, counter arguments and ambiguities persist. Helliwell's (1994) statistical analysis too, reveals a strong positive effect of

per capita income on the level of democracy, however, his analysis shows that while economic development has positive effect for the OECD countries and Latin America, it has negative effects for Africa and the Middle East. This phenomenon is attributed to continuous coup d'état and persistent autocracy in these part of the world. Africa and parts of Middle East countries have now embraced democracy, making the persistent coup d'état to give rise to rule of law. Muller (1995), using cross-national data from a sample of 58 countries, investigated the relationship between economic growth and level of democracy with focus on the impact of income inequality. The findings suggest that, as democracy rises, economic growth also increases thereby lowering income inequality in the countries considered.

Glasure et al. (1999) in their analysis of the period 1972 – 1990 argue that there is a trade-off between economic development and democracy and concluded that economic development has a significant negative effect on democratic performance in the developing countries. For developed countries there is "no linkage" between economic development and democracy for the core developed countries (Glasure et al. 1999). This result was not surprising due to strong and quality institutions in these countries. Comparing 135 countries between 1950 and 1990, Przeworski and Limongi (1997), found that economic growth does not lead to further democratization (or democratic transition) but it does inhibit democratic collapse. This outcome results mainly due to the fact that those countries considered were either colonized, or had frequent military take-over, especially in Africa countries. Robinson (2006), using an elaborate OLS, concluded that there is no sign of a causal relationship between economic development and democracy, even though they are highly correlated. The dependent variable (democracy) was extracted from the polity IV dataset (Marshall and Jaggers, 2002).The polity IV index ranges from -10 to +10. While -10 refers to "hereditary monarchy", +10 denotes "consolidated

democracy" (Marshall and Jaggers, 2002). The theoretical basis in the reverse causation from economic growth to country's propensity to experience democracy lies in the seminal paper of Lipset (1959), who advocates the idea that prosperity stimulate democracy. This phenomenon has been the nexus of most Asian countries, where economic growth is believed to spur democracy.

According to Lipset (1959), as countries develop economically, their societies also develop the strength and skills to sustain liberal democratic governance. He espoused his view in that when political freedom (democracy) cannot lead to prosperity (economic growth), but instead the vice-versa. Lipset (1959) emphasizes that with development, there is an increase in the size of educated middle class, which promotes receptivity to democratic process. An increase in the size of the middle class can cause more awareness about their rights and more organization among the masses which can provide the masses the power to act in their own interest.

The expansion of an educated middle class and an independent business entrepreneurial class produces a pluralistic infrastructure and active civil society which are more difficult to monitor and control from the perspective of an autocrat. When we have a middle class in societies who are well educated, it will be very difficult for government to "box-them". This scenario can greatly be seen in most African countries where illiteracy is on increase but when it begins to fall, such people resort to strikes and demonstrations to fight for their civil and political right.

2.3 Effect of Democracy on Economic Growth

A good number of empirical studies investigate the reverse connection between the impacts of democracy on economic growth since the end of the 1960's (Kurzman et al., 2002). Leblang (1996), using time series and cross-national data from 1960 – 1990, reported that political right

has a positive and statistically significant impact on economic growth as it was used as a proxy for democracy.

With his work, Leblang (1996) not only theoretically but also empirically demonstrated that countries' political rights are more inclined to economic growth than those that do not, and that democratic societies tend to protect political rights in a more efficacious way than other types of governments (Leblang, 1996). Feng (1997) investigated the interactions between democracy, political stability and economic growth, using three stage least – squares estimation, and including 96 countries from 1960 to 1980. Results of this study clearly show that "democracy has a positive indirect effect upon growth through its impact on the probabilities of both regime change and constitutional government change from one ruling party to another" (Feng, 1997). Rodrik (1997) said "the overall effects of democracy on economic growth is moderately negative", this is due to weak institutions that might exist in democratic regimes. Rivera & Batiz (2002) argue that there is not a "determinate relationship between democracy and growth". This phenomenon shows that, democracy is a necessary, but not a sufficient condition for economic growth. When a country only focuses on democracy alone to spur growth, it usually turn up to be a mirage and unrealistic, especially if it does not aid in increasing production by creating an enabling environment. This is mostly seen in third world countries around the globe of which Africa is no exception.

Africa's poor growth record has to do with problems related to its policies and institutions. The idea that governance matters for economic development dates back to Adam Smith (Ndulu & O'Connel 2008) and was later expanded by new institutional economists led by Douglas North.

The increasing number of countries, towards democratization can be attributed to the many advantages democratic institutions bestow upon a country. Democratic countries are more prone to enhance the protection of property rights, promotes the rule of law, economic freedom and stable politics, a more efficient use of resources and an environment conducive for the inflows of foreign direct investment (Baum & Lake, 2003: Shen , 2002). Democracy helps to establish a more open political process that makes government more beholden to voters as it promotes economic prosperity by minimizing social cost from rent seeking (Heckelman, 2010; Wittman, 1995). Surprisingly, Zack-William, (2001) describes democracy as a sine qua non for economic development. This description is highly debated as countries like China, Singapore, Taiwan etc have violated the preamble. According to Hassett (2007), democracy does not always win as it would not necessarily outperform other types of governance for preference aggregations as a route to economic prosperity.

Africa's recent political and economic evolution, as pointed out, demands a specific investigation into their plausible connection. Few studies have tried to systematically examine the relationship between regime types and economic growth, Nkurunziza and Bates (2003), for example did find a positive and significant impact of regime types on economic growth. Fosu (2008), argue that greater executive electoral competitiveness causes economic growth. The impact of legislative competiveness was insignificant on economic growth (Ferree et al., 1997).

2.4 Effect of Government Expenditure on Economic Growth

The effect of government spending on economic growth is not different as well. Not only is government spending important from the Keynesian perspective, especially during periods of recession, but the fact is that governments can succeed or fail depending on whether their economic growth performance ranks high or low. In the endogenous growth models of Lucas

(1988), Romer (1990) and Barro (1990), for example, government spending can stimulate short and long term growth. This can only be achieved through investment in human and knowledge/ technology capital, expenditure on health institution quality. Notwithstanding the theoretical support for government spending as a growth enhancing policy variable, the empirical evidence still remain inconclusive on whether it enhances growth in both developed and developing countries as a whole.

Al- Faris, (2002); Atrayee, (2009); Barro (1991); Nketiah-Amponsah, (2009) all investigated the empirical relationship between government spending and economic growth and found either negative or no effect. In a time series study of the United States over the period 1950-1998, Atrayee (2009), found significant and negative impact of government spending on economic growth.

The rationale for this observed negative and/or no impact of government spending on economic growth is that although government spending on its core functions may enhance economic growth, there are good reasons to believe that economic growth will be retarded if government spending goes beyond its core functions into low/ or non-productive activities (Gwartney et al. 1998). Al-Faris (2002), for example, notes that such low and/or non-productive government spending includes expenditure on defense, subsidies and socially and politically motivated recruitment into the public sector.

The first causal link-composition of the government's budget is drawn between the share of government resources directed into infrastructure and schooling. This is consistent with the findings that posit a positive relationship between the quality of domestic institution and the rates of economic growth (Knack, 1995).

In an influential paper, Barro (1991) in a sample of 98 rich and poor countries found robust evidence in support of an inverse relationship between government spending and economic growth. This relationship was typical of poor countries where government spending goes to non-productive functions. Government in developing countries usually encounters budget deficit due to spending in non-productive investment especially during election years.

2.5 Empirical Literature Review Evidence

Is there any empirical evidence that speaks to these results; the first question is whether the data are actually consistent with claims that economic growth causes democracy. In examining this, it is good to pause and consider issues of data and measurement. The situation with respect to measures of democracy is more problematic. There is a heated debate in political science about how to measure democracy- particularly whether the use of a dichotomous classification of countries as democracies or dictatorships is adequate, or to allow for more appropriate distinction (as to the commonly used Freedom House and polity datasets). The debate is not settled and to the extent that results differ depending on the measure of democracy used, findings will be contested. All statements I make below are subject to these caveats of data quality. Nevertheless, we should not be too general. It is important to be clear about the issues involved in evaluating whether economic growth has a causal effect on democracy.

A number of researchers have conducted a series of research in democracy and economic growth in Africa and have made various conclusions as can be seen in Table 1. I must emphasize that various definitions of democracy were used to suit the objectives of the researchers. Van de Walle (2001) and Narayan et al. (2011) found no effect between democracy and economic growth in Africa. Ferree-Singh (2006) found no effect of democracy, but positive effect of democratic duration when he used 45 Sub-Saharan African countries. Nkurunziza-Bates (2003),

Rodrik-Wacziang (2005), Krieckhaus (2006), Tiruneh (2006), Lewis (2008) all found positive effects between democracy and economic growth in Africa. Fosu (2008), used 30 Sub-Saharan African countries and found a U-shape effect: negative in lower level democracies and positive in higher- level democracies.

TABLE 2. SCHOLARLY LITERATURE ON DEMOCRACY AND GROWTH IN AFRICA

STUDY	TIME COVERAGE	CASES	DEMOCRACY DEFINITION	CONTROLS	DEPENDENT VARIABLE	METHODOLOGY	MAIN FINDING
Van de Walle (2001, 1999)	1986 – 1998	28 SSA	Own classification	Old democracy, Conflict	GDP growth	Descriptive statistics	No effect
Nkunrunziza - Bates (2003)	1970 – 1990	22 SSA	Polity	Political stability, GDP p.c. investment, population growth, Schooling, Half-decade	GDP p.c. growth (log)	System Generalized Method of Moments	Positive effect
Rodnik - wacziarg(2005)	indep. – 2000	154 (SSA and others)	Polity	GDP. p.c., Ethnic fractionalization	GDP p.c. growth (PPP)	Within-country effects	Positive effect of democratic transitions (i.e. already in the short run)
Ferree - Singh (2006)	1970 -2000	45 SSA	Own classification	GDP p.c., Government consumption, Real investment, Life expectancy, Labour force, Decade	GDP p.c. growth	Pooled time-series cross-sectional OLS (r-effects & f-effects)	No effect of democracy, but positive effect of duration
krieckhaus (2006)	1960-2000	70 (SSA and others)	Polity	GDP p.c. initial), Education, Life expectancy. Population growth, tropical climate, institutional quality, Government spending, trade openness, GDP p.c. spending. Trade openness GDP p.c. squared. Labour force	GDP p.c. growth	Cross-sectional and time-series cross-sectional regressions	Positive effect
Tiruneh (2006)	1991-2000	44 SSA	Freedom House-based dichotomy	GDP p.c. (PPP, log), investment, Government consumption, Trade openness, Education, Aid p.c. Population growth, External debt, Political instability	GDP p.c. growth	Cross-sectional OLS	Some positive effect, not strong
Lewis (2008)	1986-2006	36 SSA	Unspecified	Absent	GDP growth	Descriptive statistics	Positive effect
Fosu (2008)	1975-2004	30 SSA	LIEC/ EIEC	Investment, labour force, Terms of trade	GDP growth	Panel regression analysis	U-shaped effect; negative in lower-level democracies positive in higher-level democracies
Narayan et al. (2011)	1972-2001)	30 SSA	Freedom House(Political Rights)/LIEC)	Absent	GDP growth	Granger causality test	no effect of democracy , but positive effect of duration

Source: Giovanni et al (2011)

Table 3. Survey of empirical growth studies working with democracy-measures

Study	Democracy Measure	Countries and Period	Specification and Method	Result
Dick 1974	Own (3 categories: authoritarian, semi-competitive, competitive)	72 LDCs 1959–1968	growth = f(democ.) Descriptive statistics	no relationship
Huntington and Dominguez 1975	Own (4 categories: 1-party communist, 1-party non-comm., competitive, unstable)	35 LDCs 1950s	growth = f(democ.) Descriptive statistics	negative relationship
Weede 1983	Bollen (1960 and 1965)	89–94 countries 1960–1979	growth = f(GDP, PRIM, SEC, milit. partic., democ.) OLS	1. neg. relationship for full sample 2. no relationship for LDCs only 3. neg. relationship for countries with Gov.rev./GDP > 20%
Kormendi and Meguire 1985	Gastil (dummy for civil liberties < 3 in 1979)	47 countries 1950–1977	growth = f(GDP, POPGR, stand. dev. real growth, stand. dev. of money shocks, exports, growth of inflation, investment, democ.) OLS	no relationship
Landau 1986	Own (dummy for democracy since 1950s)	65 LDCs 1960–1980	growth = f(priv. inv., GDP, growth world GDP, GOV (different categories), change money supply, population, life expect., time trend, transfers, real exch. rate, coup, dummies for oil and war, real interest rate, democ) Pooled cross section time series (annual, 4 year averages and 7 year averages), OLS	1. neg. relationship for annual data 2. no relationship for 4 and 7 years averages

Marsh 1988	Gastil (average of civil liberties and average of political rights 1973–1979)	55 LDCs	growth = f(GDP, PRIM, PRIM plus SEC, literacy, ethno-ling. heterog., export concentr., FDI, GOV, milit. per workers, publ. inv., milit. expendit., party compet., low 40% inc. share, gini, democ.)	no relationship
		1965–1984, 1970–1978	OLS	
Pourgerami 1988	Own (5 categories or rule of law)	92 countries	growth = f(union membership per lab. force, welf. spend. per publ. expend., democ.)	1. pos. relationship for democ. only 2. pos. relationship for adding union memb.
		1965–1984	OLS	3. no relationship (signif. at 10% only) for adding union memb. and welfare spending
Scully 1988	Gastil (4 dummies: pol. rights < 2, pol. rights > 4 civ. libert. < 2 civ. libert. > 4 average 1973–1980)	115 market economies	growth = f(growth of capital per worker, democ.) OLS	1. pos. relationship for each dummy separat. 2. no relationship for all 4 dummies together
Grier and Tullock 1989	Gastil (dummy for civ. libert. > 4)	89 LDCs, separate regressions for Africa, Asia, and Americas	growth = f(GDP, pop. growth, inflation, change in inflation, stand. dev. growth, stand. dev. inflat., GOV, OPEC member, democ.)	1. neg.relationship for Africa 2. no relationship for Americas, Asia
		1951–1980	Pooled cross section time series (5 year averages), OLS	

Table 3. (*continued*)

Study	Democracy Measure	Countries and Period	Specification and Method	Result
Barro 1989	Gastil (average political rights 1973–1985)	72 countries	a: growth = f(GDP, GDP^2, GOV, publ. inv., dummies for war, social. countries, mixed system, Africa and Latin-America) b: same and additionally: INV, POPGR, school	1. pos. relationship for specificat. a and excl. Africa, Latin-America 2. no relationship for all other specifications
		1960–1985	OLS	
Dasgupta 1990	Gastil (average of pol. rights and average of civ. libert. 1973–1979)	50 LDCs	growth = f(democ.)	pos. relationship
			Spearman Rank Correlation	
World Bank 1990	Gastil (average of polit. rights + civ. liberties 1973–1989)	68 countries	growth = f(democ.)	no relationship
		1973–1987	Simple correlation	
Alesina *et al.* 1996	Own (3 categories: free elections, limited elections, no elections)	98 countries	growth = f(GDP, SEC, PRIM, GOV, deviation of investment deflator, Latin-Amer., Africa, democ.)	no relationship
		1960–1985	OLS	
Levine and Renelt 1992	Gastil (average civil liberties 1973–1989)	83 countries	growth = f(GDP, invest., pop. growth, SEC, GOV,, export, infl., growth domestic credit, revolutions + coups, stand. dev. of infl. and growth dom. credit, democ.)	no robust relationship
		1974–1989	OLS	
			formal sensitivity test	

Barro and Lee 1993	Gastil (average of polit. rights and average of civ. libert.)	84–94 countries	growth = f(GDP, male SEC, female SEC, life exp., INV, GOV, black, market prem., revol., democ.)	no relationship
		1973–1985	Pooled cross-section time series (decade averages) IV	
Helliwell 1994	Gastil (linear transf. of poli. rights and civ. libert. average 1976– and Bollen 1960)	90 countries	growth = f(GDP, average GDP, (SEC- n + g + d) , (investment- n + g + d), democ.)	no relationship
		1960–1985	IV	
De Haan and Siermann 1995	Gastil (4 dummies: pol. rights < 2 pol. rights < 3 pol. rights > 5 pol. rights > 6	97 countries	growth = f(GDP, invest., SEC, pop. growth, GOV, inflation, exports, democ.)	no relationship
			OLS	
			formal sensitivity test	

Source; Journal of Economic Surveys Vol. 11, No. 2, 1997

Table 4: Empirical Studies on the Effects of Taxes on Economic Growth

	Reference	Method/Data	Effects	Summary of Findings
1	Ergete Ferede & Bev Dahlby (2012) *The Impact of Tax Cuts on Economic Growth: Evidence from the Canadian Provinces, National Tax Journal*, 65:563-594.	Canadian provinces (1977-2006)	Negative	Reducing corporate income tax 1 percentage point raises annual growth by 0.1 to 0.2 points.
2	Karel Mertens & Morten Ravn (2012). *The dynamic effects of personal and corporate income tax changes in the United States*, American Economic Review, 70:90-115.	U.S. Post-WWII exogenous changes in personal and corporate income taxes	Negative	A 1 percentage point cut in the average personal income tax rate raises real GDP per capita by 1.4 percent in the first quarter and by up to 1.8 percent after three quarters. A 1 percentage point cut in the average corporate income tax rate raises real GDP per capita by 0.4 percent in the first quarter and by 0.6 percent after one year.
3	Norman Gemmell, Richard Kneller, & Ismael Sanz (2011).*The Timing and Persistence of Fiscal Policy Impacts on Growth: Evidence from OECD Countries*. Economic Journal, 121:F33-F58.	17 OECD countries (Early 1970s to 2004)	Negative	Taxes on income and profit are most damaging to economic growth over the long run, followed by deficits, and then consumption taxes.

4	Jens Arnold, Bert Brys, Christopher Heady, Åsa Johansson, Cyrille Schwellnus, & Laura Vartia (2011). *Tax Policy For Economic Recovery and Growth*, 121:F59-F80.	21 OECD countries (1971 to 2004)	Negative	Corporate taxes most harmful, followed by taxes on personal income, consumption, and property. Progressivity of PIT harms growth. A 1 percent shift of tax revenues from income taxes (both personal and corporate) to consumption and property taxes would increase GDP per capita by between 0.25 percent and 1 percent in the long run. Corporate taxes, both in terms of the statutory rate and depreciation allowances, reduce investment and productivity growth. Raising the top marginal rate on personal income reduces productivity growth.
5	Robert Barro & C.J. Redlick (2011) *Macroeconomic Effects of Government Purchases and Taxes*, Quarterly Journal of Economics, 126: 51-102.	U.S (1912 to 2006)	Negative	Cut in the average marginal tax rate of one percentage point raises next year's per capita GDP by around 0.5%.
6	Christina Romer & David Romer, (2010), *The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks*, American Economic Review, 100: 763-801	U.S. Post-WWII (104 tax changes, 65 exogenous)	Negative	Tax (federal revenue) increase of 1% of GDP leads to a fall in output of 3% after about 2 years, mostly through negative effects on investment.

7	Alberto Alesina & Silvia Ardagna, (2010). *Large changes in fiscal policy: taxes versus spending, in* Tax Policy and the Economy, University of Chicago Press, 24:15-20	OECD countries (fiscal stimuli and fiscal adjustments, 1970 to 2007)	Negative	Fiscal stimuli based upon tax cuts more likely to increase growth than those based upon spending increases. Fiscal consolidations based upon spending cuts and no tax increases are more likely to succeed at reducing deficits and debt and less likely to create recessions.
8	International Monetary Fund, *Will it hurt? Macroeconomic effects of fiscal consolidation, in* World Economic Outlook: Recovery, Risk, and Rebalancing (2010).	15 advanced countries (170 fiscal consolidations over the last 30 years)	Negative	1% tax increase reduces GDP by 1.3% after two years.
9	Robert Reed (2008). *The robust relationship between taxes and U.S. state income growth*, National Tax Journal, 61: 57-80	U.S. states (1970-1999, 5 year panels)	Negative	Robust negative effect of state and local tax burden. Multi-year panels mitigate misspecified lag effects, serial correlation, and measurement error.
10	N. Bania, J. A. Gray, & J. A. Stone (2007). *Growth, taxes, and government expenditures: growth hills for U.S. states*, National Tax Journal, 60:193-204	U.S. states	Negative	Taxes directed towards public investments first add then subtract from GDP.
11	Young Lee & Roger Gordon (2005), *Tax Structure and Economic Growth*, Journal of Public Economics, 89: 1027-1043.	70 countries (1980 - 1997, cross-sectional and 5 year panels)	Negative	Reducing corporate income tax 1 percentage point raises annual growth by 0.1 to 0.2 points.
12	Randall Holcombe & Donald Lacombe (2004), *The effect of state income taxation on per capita income growth*, Public Finance Review, 32: 292-312.	Counties separated by state borders (1960 to 1990)	Negative	States that raised income taxes averaged a 3.4% reduction in per capita income.

13	Marc Tomljanovich (2004). *The role of state fiscal policy in state economic growth*, Contemporary Economic Policy, 22: 318-330.	U.S. states (1972 to 1998, multi-year panels)	Negative	Higher tax rates negatively affect short run growth, but not long run growth.
14	Olivier Blanchard & Robert Perotti (2002). *An Empirical Characterization of The Dynamic Effects of Changes In Government Spending And Taxes On Output*, Quarterly Journal of Economics, 107: 1329-1368	U.S. Post-WWII (VAR/event study)	Negative	Positive tax shocks, or unexpected increases in total revenue, negatively affect private investment and GDP.
15	F. Padovano & E. Galli, E., (2001) *Tax rates and economic growth in the OECD countries (1950-1990)*, Economic Inquiry, 39:44-57	23 OECD countries (1951 to 1990)	Negative	Effective marginal income tax rates negatively correlated with GDP growth.
16	Stefan Folster & Magnus Henrekson (2001). *Growth effects of government expenditure and taxation in rich countries*, European Economic Review, 45: 1501-1520.	Rich countries (1970 to 1995)	Negative	Tax revenue as a share of GDP negatively correlated with GDP growth.
17	M. Bleaney, N. Gemmell & R. Kneller (2001). *Testing the endogenous growth model: public expenditure, taxation, and growth over the long run*, Canadian Journal of Economics, 34:36-57	OECD countries (1970 to 1995)	Negative	Distortionary taxes reduce GDP growth. Consumption taxes are not distortionary.
18	R. Kneller, M. Bleaney & N. Gemmell (1999). *Fiscal Policy and Growth: Evidence from OECD Countries*, Journal of Public Economics, 74: 171-190.	OECD countries (1970 to 1995)	Negative	Distortionary taxes reduce GDP growth.

19	Howard Chernick (1997). *Tax progressivity and state economic performance*, Economic Development Quarterly, 11: 249-267.	U.S. states (1977 to 1993)	Negative	Progressivity of income taxes negatively affects GDP growth.
20	Enrique Mendoza, G. Milesi-Ferretti, & P. Asea (1997). *On the Effectiveness of Tax Policy in Altering Long-Run Growth: Harberger's Superneutrality Conjecture*, Journal of Public Economics, 66: 99-126.	18 OECD countries (1965-1991, 5 year panels)	None	Estimated effective tax rates on labor and capital harm investment, but effect on growth is insignificant. Effective consumption taxes increase investment, but not growth. Overall tax burden levels have no effect on investment or growth.
21	Stephen Miller & Frank Russek (1997), *Fiscal structures and economic growth: international evidence*, Economic Inquiry, 35: 603-613.	Developed and developing countries	Negative	Tax-financed spending reduces growth in developed countries, increases growth in developing countries.
22	John Mullen & Martin Williams (1994). *Marginal tax rates and state economic growth*, Regional Science and Urban Economics, 24: 687-705.	U.S. states (1969 to 1986)	Negative	Higher marginal tax rates reduce GDP growth.
23	William Easterly & S. Rebelo (1993). *Fiscal Policy and Economic Growth: An Empirical Investigation*, Journal of Monetary Economics, 32: 417-458.	Developed and developing countries	None	Effects of taxation difficult to isolate empirically.
24	Reinhard Koester & Roger Kormendi (1989). *Taxation, Aggregate Activity and Economic Growth: Cross-Country Evidence on Some Supply-Side Hypotheses*, Economic Inquiry, 27: 367-86.	63 countries	Negative	Controlling for average tax rates, increases in marginal tax rates reduce economic activity. Progressivity reduces growth.

25	Jay Helms (1985). *The effect of state and local taxes on economic growth: a time series-cross section approach*, Review of Economics and Statistics, 67: 574-582.	U.S. states (1965 to 1979)	Negative	Revenue used to fund transfer payments retards growth.
26	Claudio J. Katz, Vincent A. Mahler & Michael G. Franz (1983). *The impact of taxes on growth and distribution in developed capitalist countries: a cross-national study*, American Political Science Review, 77: 871-886.	22 developed countries	None	Taxes reduce saving but not growth or investment.

Source: McBride (2012)

Empirically, it has been shown that taxes affect the allocation of resources and often distort economic growth. Taxation plays a great deal in influencing economic growth which has been of great interest to most researchers. From the Table (4), it can be seen that most of the effect of taxation is either negative or no effect on economic growth. These outcomes support the supply hypothesis; which ascertain that higher rates of taxation inhibit economic growth. The most prominent studies which support the supply side hypothesis are Marsden (1983), Koester and Kormendi (1989). Higher tax rate might results with lower growth rate which forces people to engage in the underground economy thereby crowding out legitimate businesses.

2.6 Summary

The theoretical and empirical literature on the effect of democracy on economic growth and vice versa is inconclusive. Some economists argue that economic growth positively or negatively impacts democracy whilst others claim democracy results in economic growth. The possible bi-direction in most African countries is not distinct as most of the countries experienced dictatorship rule. Fosu (2008), argues a U-shape relationship between democracy and economic growth. Barro and Lee (1993), Helliwell (1994), De Haan and Siermann (1995) all found no relationship between democracy and economic growth. Huntington and domingues (1975), Weede (1983) also found a negative relationship between democracy and economic growth. Dasgupta (1990) and Scully (1988) found a positive relationship between democracy and economic growth. Interesting, these studies used cross-country data based on the assumption that countries share similar characteristics but this might not be necessarily the case. This also accounts for different findings not withstanding different measures of democracy.

This study uses democracy as measured by Marshall and Jagger (2012) instead of freedom house measurement of democracy which takes into account political right and civil liberties. This will bring out the true performance of Ghana's democracy from the polity 2 scores which is not rescaled. To really see the significance of democracy, an interaction between democracy and tax revenue and its effect on economic growth have been showed. This interaction effect of democracy with these policy variables will bring the true effect of with and without democracy on economic growth.

CHAPTER THREE

OVERVIEW OF GHANA DEMOCRACY PERFORMANCE

3.1 Issues of Financing Political Parties in Ghana

Political parties serve as vital institutions in Ghana for contemporary democratic dispensation and one cannot undermine its vital role in the democratic process. Political parties perform a great deal of functions, as they help recruit and support candidates by harnessing funds for development (Moncrief et al., 2001). Finance is regarded as the most essential resource for political parties (Van Biezen, 2003). For democracy to succeed within existing scarce resources and effective equitable and sustainable party financing, financing is regarded as the way forward (CDD, 2005a). The unwillingness of democratic state to make adequate provisions for financing creates a fertile environment for corruption and mal- governance which inversely affects society as a whole.

In Ghana , Article 21(1) of the political parties Act (Act 2000), Act 574 clearly prescribe the rules for financing, reporting including sources of funds, while Article 23 regulates the funding of the political parties (Ninsin, 2006). Ashton (2006), argued that for political parties to function effectively they need to maintain their party organization, to employ party personnel, to conduct election campaign and to communicate with the electorate at large. The Electoral Commission of Ghana, in 2003 conducted nationwide consultative fora to solicit opinions on financing political parties and its electoral process. The outcome shows that public funding of political parties is needed as a way of enhancing multi-party politics and growth in Ghana. In 2005, the Centre for Democratic Development mounted a research to determine whether political parties should be financed. The outcome shows that many party leaders agreed that it should be funded. However,

more participatory study that takes into account the view of party members popularly known as ‘’grass root members.’’ and that of the members is lacking.

Research has revealed that while party executives endorse state financing of political parties, civil society holds a contrary view. Civil society disagrees that political parties should be funded by the state and that of the tax payers money should be used to fund party campaigns in Ghana.

The argument that financing of political parties will lead to the proliferation of it, is really noteworthy. Using state funds to support all political parties will have a negative effect on some sectors of the economy. The resources allocated for these institutions will be cut in order to satisfy political parties with the intention to rule the country. Increasing and financing of political parties in Ghana will lead to inflation of the government budgets and “free –money” for the boys. The government of Ghana in carried out head-count on two major institution, the Ghana education service and the health service in 2012. The controller and accountant general, realized there were a lot of ghost names in it pay-roll, yet this individuals continue to receive salaries for no work done which affect productivity of labour.

Table 5; Funding sources of political parties in Ghana

Political party	Source of funds
NDC	Membership dues, donations, proceeds from party paraphernalia and other business ventures, external funds from party apparatchiks
NPP	Membership dues, donations, proceeds from party paraphernalia and other business ventures, external funds from party apparatchiks
PNC	Membership dues, donations, proceeds from party business
CPP	Membership dues, donations, profits from party business
DPP	Membership dues, donations, profit from party business
DFP	Membership dues, donations, profits from party business
PPP	Contribution from party members, donation and profit from businesses
NDP	Contribution from party members donations and profit from business

Source: GHANA ELECTORAL COMMISSION (2012)

3.2 Development of Political Parties in Ghana

Political parties became important instruments in Ghana's democratic process as early as the1950's when the country was in transition from colonial rule to an independent nation state. At the time, eight parties existed between 1954 and 1957 to participate in the early pre-independent elections and to fight against the colonial rule (Ninsin, 2006). The most vibrant political party in the political landscape was the Conventions People Party (CPP), National Liberation Movement (NLM), Northern People Party (NPP), and United Gold Coast Convention (UGCC).

This early political parties had different identities and philosophy of existence. While some of the parties were formed to express sub-national or ethnic and regional ideologies; others were formed on religious note. After almost half a decade of one party state, the country returned to multi-party democracy in the second republic (1969 to 1972). As a result, between five and twelve political parties were formed to join hands in the struggle to restore democracy. After independence, the CPP put in place mechanisms to consolidate power, culminating in a one-

party state. This number expanded further in 1979 when eleven active political parties mushroomed with the hope of capturing the commanding heights of power.

By 1981, the scramble for political power through election had decreased to six political parties. The reason for such reduction was that in 1981, the country was caught in the grips of military rule which lasted for a decade. Free transfer of power through the ballot box was nullified and businesses as well as issues of national interest were decided by military decrees (Ninsin, 2006). In 1992, the formation of political parties witnessed another turning point when multiparty democracy was restored paving the way for formation and registration of new political parties to contest in the December polls. The enthusiasm to form political parties, overwhelming allowed thirteen political parties to be formed when the fourth republic began in 1992. These included; Democratic People's Party, New Generation Party, Ghana Democratic Republican Party, National Independence Party, People's Heritage Party, Every Ghanaian Living Everywhere Party, National Convention Party, National Democratic Congress, New Patriotic Party, National Salvation Party. Four years into the constitutional rule, eight of the political parties had survived to contest the 1996 election. In 2000, seven political parties contested in the 2000 election.

By 2004, the political arena had stabilized to allow only the better organized political parties to sustain their participations in Ghana politics. In 2004, eight political parties took part in the election (Ninsin; 2006). Ironically, as at December 2007, a total of 16 political parties were in the records of the Electoral Commission as registered parties. Fosu (2008) concluded that increase in an electoral competitiveness of the executive does stimulate democracy in Africa.

In the 2000 election in Ghana, the NPP had 48.4% of the total vote cast; whiles NDC had 44.8% of the vote cast. A total of 7 political parties contested in the 2000 elections. Since none of the

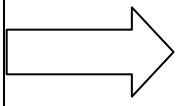
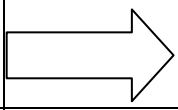
political parties obtained above 50% there was a run-off on December 28 for the two main political parties namely the NDC and NPP. The leading political party had 56.90% of the total valid vote cast whiles the party in power NDC had 43.1% of the total valid vote cast. This enabled the then opposition party to take over office (African election data base 2012).

In 2004, only 4 political parties contested namely NPP, NDC, PNC, and CPP. The election was won by the NPP with 52.45% of the total vote cast whiles the leading opposition party had 44.64% (African election data base 2012). Ironically, in 2008, eight political parties contested during the first round, the NPP had 49.13% of total valid vote cast whilst the NDC had 47.92%. This called for a second round, interestingly enough; the NDC won the election with 50.23% of the total vote cast whilst the NPP had 49.77%. The election was closely contested and made Ghana a test case for democratic tolerance. The margin of votes between the winner and loser was close, in that it could have resulted in electoral dispute in Ghana as seen in most African countries. On 24 July 2012, the sitting president passed on and less than five hours, the vice-president was sworn into office on the same day. This occurrence further cast Ghana as a maturing democracy in the sub region and Africa as a whole.

A total of eight presidential candidates contested the 2012 presidential election in Ghana. Seven of the candidates stood on a ticket of a political party with one independent presidential candidate. A total of thirteen registered political parties took part in the 2012 parliamentary elections and only seven took part in the presidential elections. These are; the NDC, GCPP, NPP, PPP, UFP, PNC and the CPP. The NDC presidential candidate won with 50.7% of the total valid vote cast and the NPP which is the leading opposition party obtained 47.74% of the total valid vote cast. The presidential candidate of the NPP, the vice and the chairman of the NPP are

contesting the 2012 presidential results at the Supreme Court of Ghana to annul over 40,000 valid vote cast and subsequent declare the NPP flag bearer the president of Ghana.

TABLE 6: Trend of Political and Economic Transformation of Ghana

STATUS INDEX	1-10	7.39	# 22 of 128	
POLITICAL TRANSFORMATION	1-10	8.25	# 19 of 128	
ECONOMIC TRANSFORMATION	1-10	6.54	# 39 of 128	
MANAGEMENT INDEX	1-10	6.79	# 13 of 128	
	Scale 1 (lowest) to 10 (highest)	Scale	Rank	Trend

SOURCE: BTI 2012- GHANA COUNTRY REPORT

3.3 Trend of Political and Economic Transformation of Ghana

Ghana democratic country report is part of the Bertelsmann Stiftung's transformation index (BTI) 2012, The BTI is a global assessment of transition process in which the state of democracy and market economy as well as the quality of political management in 128 transformation in developing countries are evaluated. Key indicators such as population, population growth, life expectancy, urban population, HDI, UN Education index, Gender inequality, GDP per capita, Gini index, Gender inequality, Gini index, Poverty and Aid per capita are used to arrive at the various index.

According to Bertelsmann Stiftung's transformation index (BTI), Ghana performed incredibly well in its political and economic transformation index. The trend of both political and economic

transformation moved in the same direction for the case of Ghana. This implies that, as Ghana improves in her political transformation, which includes freedom of speech, civil liberties, political right, free and fair judiciary etc. it will automatically spur economic development of which economic growth is no exception. Ghana performed well in its political transformation index than the economic transformation index, which implies more economic policies should be undertaken to push economic development which can be seen in Table (6).

It is not surprising that the political transformation index of Ghana performed well than the economic transformation index. Over the past two decades, the country has consistently tried to achieve credible and strong democratic credential in the sub-region. This achievement called for the first African – American President of United State of America (USA) to pay a courtesy visit to the country in July, 2009. According to the Bureau of African Affairs in USA, the choice of Ghana was mainly as the result of strong democratic credential it has shown over the past decades. Ironically, the economic transformation has not sufficiently corresponded to this success. This is usually attributed to lack of prudent economic development agenda.

3.4 Ghana's Economic Growth as related to political regimes

Leechor (1994) describes Ghana as a frontrunner in the economic reform process. Ghana gained independence in 1957; it was the world's leading producer of cocoa and had one of the highest GDP per capita in the region. Its economy was successful before independence than it has been since. Ghana inherited fortunes of the Gold Coast, well endowed with the proceeds of cocoa boom and relatively advanced infrastructure and social services as well as efficient institution. Given the deterioration of the economy, a reversal in policies was imminent. Indeed, by the mid 1960's the level of income had plummeted to USD 260 per capita, from USD 310 per capita a decade earlier. Macroeconomic imbalances and political turbulence heightened the uncertainty in

the economic environment. Hence, Ghana implemented its first IMF-sponsored stabilization plan, which brought partial recovery. By 1976, the economy had surmounted its difficulties to regain the income level it registered shortly after independence. Rather than pushing forward from its recovered state, however, the economy stumbled again into an even steeper decline, shocked by rising oil price and deteriorating terms of trade, several attempted and realized coup d'état, two severe droughts (1975-77 and 1981-83), and the expulsion of a million Ghanaians from Nigeria in 1983.

In an effort to get out of the dark, second wave of Economic Recovery Programme and Structural Adjustment Programme (ERP-SAP) were implemented in 1983 and subsequently reinforced in 1986 (Leechor 1994; Gyimah-Boadi 1995; Alderman 1994).

3.5 Trends of Political Regimes and Economic Growth of Ghana

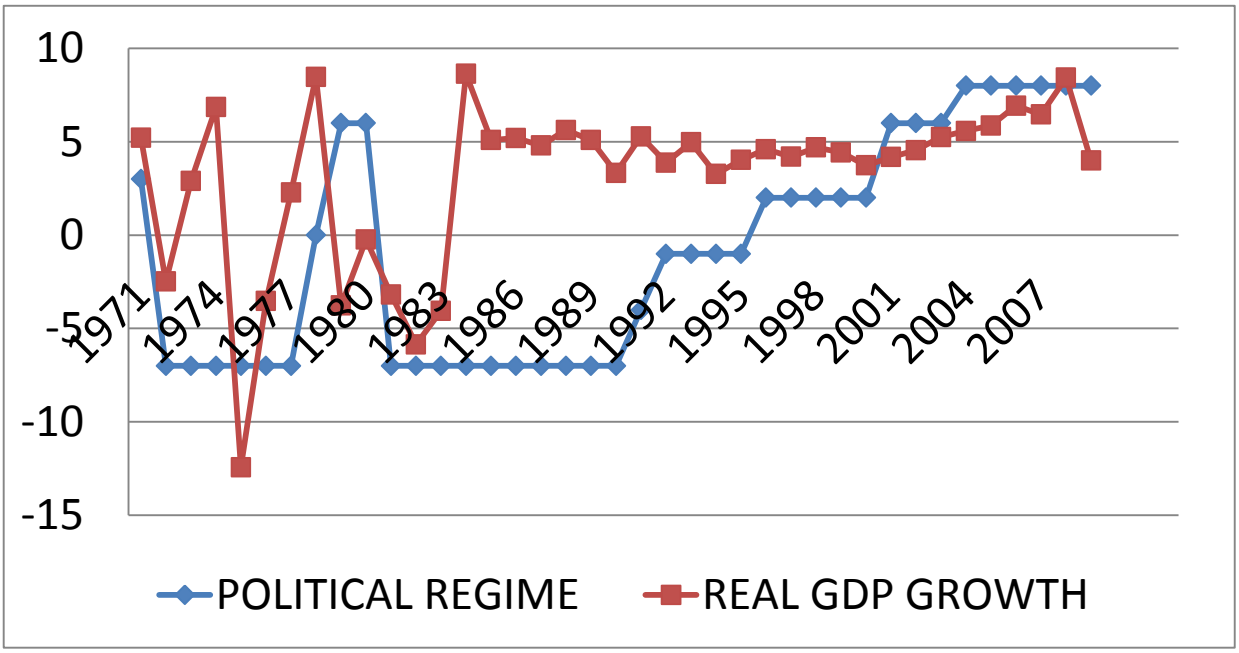


Fig 1: Trends of Political Regimes and Economic Growth of Ghana

SOURCE: Author's computation from WDI and Polity 2 scores data.

The average growth performance for these periods is not surprising as real GDP for the years 1972, 1975-1976,1979 and 1981-83 where negative, whilst that for the period 1984-2009 has remained positive throughout the study period (see Fig 1). The reason for this observation is that while abysmal growth performance for the period prior to 1983 was mainly characterized by political instability and inappropriate macroeconomic and political liberalization policies (Sakyi, 2011) but the government continued to put in their structural adjustment programme in place. In spite of the sustained positive real GDP growth performance from the past decades in the post-liberalization period, pessimists still believe that enhanced policy reforms are still needed in Ghana. Democracy should vary directly as economic growth, as this phenomenon will spur the business and private community and increase the growth rate of the country.

3.6 Economic Growth in Ghana in an Unstable Environment

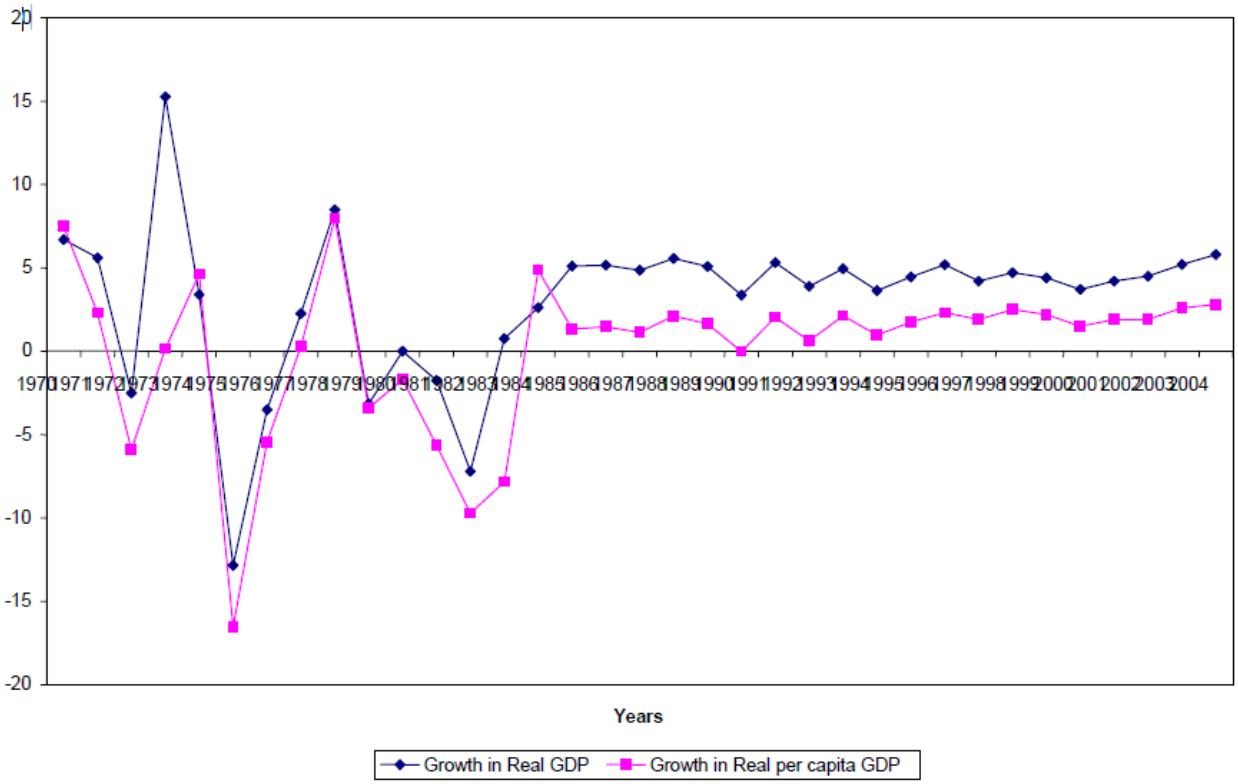
Aryeetey and Fosu (2005) offer explanation about why the measured growth in Ghana often raised questions in the minds of most Ghanaians, the returns on which have been sometimes misallocated. Aryeetey and Tarp (2000) had earlier argued that the growth of the 1980's came about as a result of the expansion of capital application largely as a consequence of increased aid inflows, which was similar to the expansion that occurred in the 1960's financed largely through accumulated reserves from the 1950's. Aryeetey and Fosu (2005) utilize the growth accounting results in O'Connell and Ndulu (2000) for the decomposition of per capita growth in Ghana during 1960 -97 which showed that during the entire 1960-97, output per worker declined by 0.12%. This was mainly as the result of political instability and bad macroeconomic policies in the country.

Youngblood and Franklin (2000) argue that the most unstable macroeconomics environment was in the 1990's. This was the period in Ghana's history where the country was trying to enter into democratic dispensation .They also noted that, despite the modest but steady economic growth throughout the 1990's, the monetary,exchange rate and fiscal policies were inconsistent with one another.This was as a result of weak technocrat decision because of the fear of politicians in power. Youngblood and Franklin (2005), again argue that government continously run large deficits that had to be financed by printing money, borrowing both domestically and externally.

When economic growth increases in a country, its expected to have a trickle down effect on the poor in the country. A situation where economic growth increases but have no direct impact on the poor, present a special case of a deja-vu scenario. African countries experience such situation where economic growth increases but the population remains poor. Ghana's situation is no different , but from 1984 to 2004 economic growth and Real GDP per Capita Growth both

grew together. This was due to emergence of democracy in Ghana and other indirect factors of production.

Fig. 2 Real GDP and Real Per Capita GDP Growth (1970-2004)



SOURCE; ARYEETEY AND KANBUR (2005)

3.7 Economic Growth, Democracy and Taxation in Ghana

Taxation was first introduced in Ghana, then Gold Coast, in 1943 by the colonial Government. Before the introduction of income tax in 1948, several attempts had already been made, for example, as far as April 1852; The Poll Tax Ordinance was passed to raise money to finance the increased cost of British Administration. The first income Tax law was the income tax ordinance (No. 27), 1943. This ordinance was modeled to a large extent on the general principles underlying the income tax act then in force in the United Kingdom. It was imposed generally on

incomes having their sources in Ghana so that foreign source of income was not liable unless it was remitted in Ghana. Major features of this ordinance were the numerous personal reliefs and deduction it contained.

The income tax law has seen several changes through amendments, and modification, such as the income tax (amendment) ordinance 1952. The first consolidated edition of the income tax ordinance was published in March, 1953. The Acts then introduced amendments to the consolidated edition Act 68 in 1961, followed by Acts 178 and 197 in 1963 and Act 312 in 1965. The second considered edition was published in September, 1966. The income Tax law is the Internal Revenue Act, 2000 (Act 592). This is the fourth consolidated edition to which reference will extensively be made. The government of Ghana has merged all the revenues and tax collection agencies together. The major reason for this merger is to maximize revenue and avoid leakages. Taxation is often defined as the levying of compulsory contributions by public authorities having tax jurisdiction, to defray the cost of their activities. Tax revenue can be increased in the country if the tax payer has representation and their taxes are put into profitable and accountable use. Cross-country indicator on taxation suggests that Ghana's corporate tax structure possess relatively light burden on companies. Ghana's tax rate on profit is slightly higher than the OECD average, and much lower than that of most sub-Saharan countries. The World Bank's report of paying Taxes 2010 report rank Ghana's as "timely to comply" with tax law as the nation ranked 88^{th} in the world, and 22^{nd} out of 53 countries in the African union.

Taxes are believed to affect a country's economic growth and should therefore be considered in any economic growth model (Barro and Sala-I-Martin, 1992). For taxation to be effective in order to raise government revenues, then tax reforms should be closely integrated with structural adjustment measures. In 1983, the government of Ghana embarks on a series of fiscal and

financial adjustment to stimulate economic recovery. The country went through a lot of severe drought and macroeconomic stability failure. A plethora of tax reforms was introduced, for instance, the introduction of an Investment code (PNDC Law, 1985) which was to encourage local and foreign direct investors to invest in the country as they are protected by law.

3.8 Trends of Economic Growth, Democracy and Tax Revenue/GDP (1971-2009) in Ghana

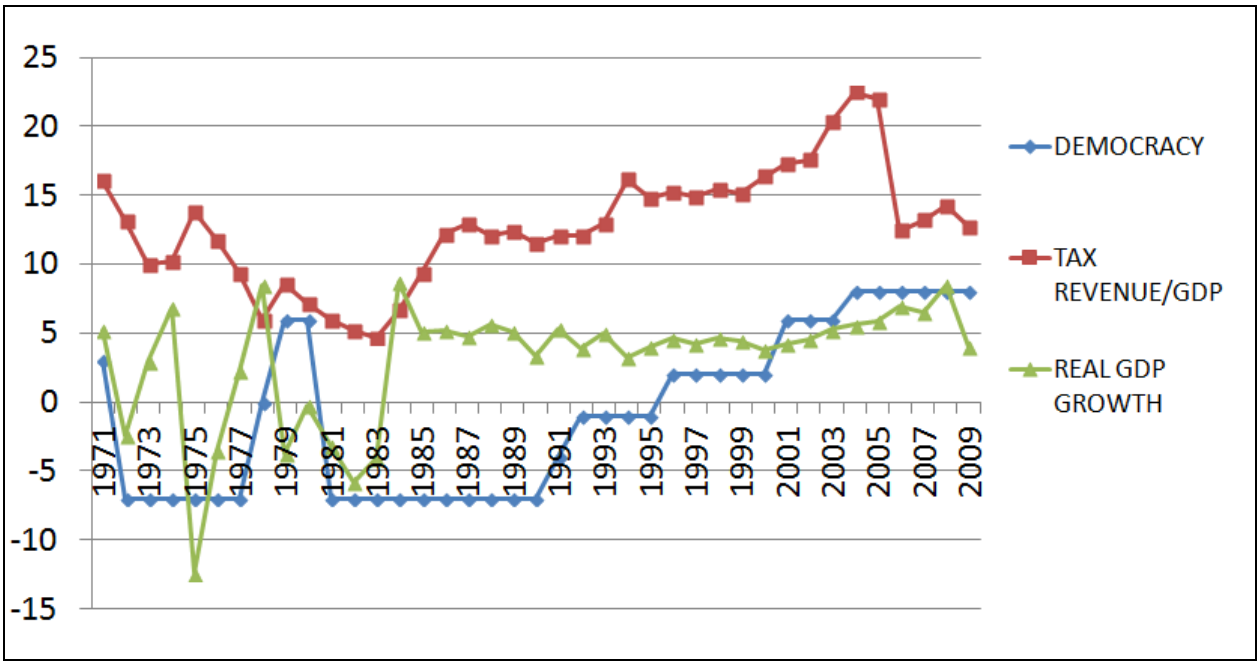


Fig 3: Trends of Economic Growth, Democracy and Tax Revenue/GDP (1971-2009) in Ghana

SOURCE: Author's computation from WDI and Polity 2 Score

Taxes are very essential in the development of any economy all around the continent. They are the blood line to all development agenda in a nation. Usually the tax revenue collected by developing countries are usually transferred out of the country called transfer pricing. This is how some multi-national companies evade taxes. Glencore, a multinational company in the

extraction of copper in Zambia was indicted by the Norwegian development agency for tax evasion in 2008. From 1971 to 1975, as tax revenue declined, democracy also declined in Ghana. This was attributed to turbulent coup d'état and political instability. Tax revenue sharply rose between 1985 and 1990 as democracy remains constant. Ironically the polity2 score during that period was -7 signifying a relative strong autocracy. As democracy continues to increase in 1992 to 2000; tax revenue also increased sharply. Interestingly, in 2005 to 2009 as democracy increased with a polity 2 score of +8.0 which implies strong democracy, tax revenue as a % of GDP declined drastically due to tax evasion. This halted most government development project during that period.

The trend of economic growth and tax revenue to GDP proof very interesting. During 1971-74, as economic growth decreased, tax revenue to GDP dropped. From 1985 to 2004, tax revenue increased as well as economic growth. Interestingly enough, in 2005-09, as economic growth declined, tax revenue also declined.

Ghana continues to show good performance on democratic governance, arising from strong multi-party political system, growing media pluralism and strong civil society activism. According to the 'Reporters Without Borders' 2013 Press Freedom index report, Ghana progressed from the 41st to 30th position out of 179 countries and 3rd position in Africa on Press Freedom. This performance reflects the positive effects of an improving environment for democratic governance coupled with a gradual improvement in the effectiveness of public institutions and persistent economic growth. This increase in economic growth can be partly attributed to stable democracy that have beacon the nation for the past two decades. According to the 2012 World Development Indicator (WDI) report, foreign direct investment (FDI) flowed in to the tune of US$3billion per year. The current account deficit moved between seven and eight

percent of GDP in the 2009-2010 period, but rose to 9.8% of GDP in 2011 and expected to rise further. A cardinal indicator for investors in a country is the ability for the country to have strong democracy by which the rule of law, civil liberties and political liberties are enhanced. This great attributes make Ghana one of the safest place to do business in Sub-Saharan Africa and Africa as a whole. As this democratic credentials of Ghana continues to increase, it has trickle-down effect on tax revenue as investors continues to be certain that their investment are save hence establishment of more business and the payments of corporate taxes.

CHAPTER FOUR

METHODOLOGY AND RESULTS OF EMPIRICAL ANALYSIS

4.1 Introduction

This chapter outlines the methodology used and the source of data for the study as well as the empirical results from the study. Section 4.2 presents the theoretical framework within which the study is carried out while section 4.3 presents the estimation procedures as well as description of all variables and expected results. Section 4.4 presents the data source for the study while 4.5 presents the descriptive statistics of the dependent and independent variables as well as discussion of the empirical findings from the econometric estimations. This chapter ends with a summary in section 4.6

4.2 Theoretical Framework

To investigate the effect of democracy on economic growth in Ghana, the formulation usually adopted for country-level studies by earlier growth researchers is augmented production function of the following specification:

$$Y_t = f(A_t, KAP_t, LAB_t), \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where Y_t is the real GDP, KAP_t is the capital stock, LAB_t is the labor force and A_t measures total factor productivity or the growth in real GDP not captured by growth in capital and labor. Following the endogenous growth literature and the literature reviewed on the relationship among democracy, tax revenue share in GDP and economic growth, we assume that the total factor productivity (A_t) in Ghana is determined by policy variables such as democracy (DEM_t), **tax** revenue share in GDP (TAX_t), interaction term for democracy and tax revenue ($DEM*TAX)_t$,

financial development(FD_t) and t*rade* openness ($OPEN_t$). Substituting for A_t in equation**.....(1); we** obtain:

$$Y_t = f(DEM_t, TAX_t, DEM_t*TAX_t, FD_t, OPEN_t, KAP_t, LAB_t)..(2)$$

Therefore, we estimate the empirical model of the form below;

$$LogY_t = f(DEM_t, TAX_t, DEM_t*TAX_t, FD_t, OPEN_t, KAP_t, logLAB_t) + e_t.....(3)$$

Where e_t is the error term, ***Log*** is logarithmic operator and all other variables are as previously defined. The inclusion of $(DEM*TAX)_t$ in equation ***(3)*** *is* to capture any interaction and or non-linear effects that might exist among democracy, tax revenue and economic growth in Ghana (Acemoglu and Robinson, 2006; Boix, 2003; Hausken et al 2004; Martin and Plumper, 2003). Although, a priori $logLAB_t$ *and* KAP_t, are expected to have positive effects on growth, the expected signs for DEM_t ,, and $OPEN_t$ as per the literature reviewed is unknown as their effect depends on several factors. Financial development enables efficient allocation of resources and hence long-run growth.

4.3 Data Source

The period of study of this research is from 1971-2009. The data for real GDP (i.e Y_t) are obtained from World Bank (2010). Data for democracy (DEM_t) are based on Polity 2 score obtained from Polity IV Project (Marshall and Jaggers, 2009). The labor force LAB_t *and* capital stock KAP_t (proxied by share of gross fixed capital in GDP) are based on data obtained from the World Bank (2010). The trade openness ($OPEN_t$) variable is measured based on the trade share in GDP (i.e.,[EXPORTS + IMPORTS/GDP]) are obtained from World Bank (2010). Tax revenue is measured as the share of tax revenue in GDP based on data from Ministry of Finance

in Ghana. For financial development (FD_t), we used the share of credit to the private sector in GDP obtained from World Bank (2010). The principal investigators of the polity project, Ted Gurr (1995) and Keith Jaggers (2002), compute a democracy and an autocracy index both ranging from -10 to 10. To obtain the level of democracy, they subtracted the countries' autocracy score from its democracy score (Jaggers and Gurr, 1995). The resulting variables range from -10 to +10, where -10 means strongly autocratic and +10 means strongly democratic.

4.4 Estimation Strategy

Several cointegration approaches are available in the literature to establish both long-run and short-run relationship among cointegrated variables. In the framework of Engel and Granger (1987), Johansen and Juselius (1990) and Gregory and Hansen (1996) among others, if two variables are integrated of order one (i.e.[1]) and the associated error term is integrated of order zero (i.e.[0]) then the two variables are said to be cointegrated. Nonetheless, the requirement of strictly I (1) stationary variables is often difficult to be met in empirical applications. Moreover, these approaches are particularly appropriate for large samples which are not the case in this research with only 39 annual observations. Due to the above reason, we propose the ARDL bounds testing approach to cointegration and error correction model (ECM) to determine the extent to which democracy, tax revenue to GDP affected economic growth in both the long and short run over the period, 1971-2009. The ARDL approach to cointegration is not only robust in the presence of cointegration and potentially endogenous regressors but also particularly appropriate for a small sample, provided the underlying variables are not integrated of order two (i.e.,I[2] stationary) or even, yields valid results irrespective of whether the variables considered are purely *I(1),I(0)* or a combination of both (Pesaran et al.,2001).

To define a long-run relationship between two variables **Y** and **X,** the ARDL approach involves first estimating the conditional error correction model (ecm) of the following after specification

$$\Delta Yt = \alpha 0 + \alpha_1 t + \sum_{i=1}^{p} \alpha 1 \Delta Yt - i + \sum_{k=0}^{p} \alpha m \, \Delta \, X \, t - i + \delta 1 \, Yt - 1 + \delta m \, Xt - 1 + \varepsilon t \; ; \; t = 1, \ldots n \quad \ldots (4)$$

Where Y_t **is** the dependent variable, $\boldsymbol{X_t}$ is the vector of observations of included explanatory variables in equation (3), Δ is the first difference operator, ***m*** is the number of regressors and $\boldsymbol{\varepsilon_t}$ is the error term.

The second step is to test the null hypothesis of no cointegration by restricting the coefficients of the lagged level variables equal to zero ***(Ho: = $\delta_1 = 0 = \delta_m = 0$ against the alternative hypothesis that H1 = $\delta_1 = \delta_m \neq 0$)*** using an F-test by estimating equation **(*4*)** by OLS. The asymptotic distribution of the F-statistic follows a non-standard distribution under the null of no cointegration as reported by Pesaran et al. (2001), provides two stochastic simulations; the lower and the upper critical values. The lower and upper critical value assume that all variables are *I(0) and I* (1) respectively. If the estimated F-statistic appears larger than the upper bound of critical value, then the null hypothesis of no cointegration is rejected, which suggests that the variables included in the model are cointegrated. If the estimated F-statistic is smaller than the lower bound of critical value, then the decision of the null hypothesis is accepted. Again, if the F-statistic falls between the lower and upper critical value, the decision is inconclusive regarding the null hypothesis of no cointegration (Hoque and Yusop, 2010).

The second step is to estimate the elasticities of the long run relationship and determine their values. Finally, in the third step, calculation of the short run elasticities from the coefficient of

the first differenced variables of the ARDL model, the coefficients of the first differenced variables in the unrestricted error correction model represents short-run elasticities (Tang, 2003). To ascertain the goodness of fit of the ARDL model, relevant diagnostic tests and stability tests are conducted. The diagnostic test examines the normality, serial correlation and heteroscedasticity associated with the models. The structural stability test is conducted by employing the CUSUM and CUSUM of squares tests. To determine the long-run relationship among the variables of interest, we follow Bannerjee et al (1998) which use the t-test. If the calculated t-test exceeds the critical value tabulated by Bannerjee et al (1998), it confirms the presence of the long-run relationship.

Following the existence of cointegration, the final step estimates the long-run and short-run coefficients of the selected ARDL models. In selecting the optimal lag structure (***p)*** for the ARDL model in equation (4), we use Schwartz Bayesian Criterion (SBC) as this provides more parsimonious model specification, particularly for small samples (Pesaran and Pesaran, 2009).

Granger causality test is carried out to test whether there is uni-directional relationship or bi-directional relationship between democracy and economic growth.

4.5 Advantages of the ARDL Bounds Test Approach

The ARDL test approach has several advantages over Johansen's cointeration method. Firstly, the ARDL efficiently determines the cointegrating relation in small sample cases (Ghatak & Siddiki, 2001; Tang, 2003), whereas Johansen's method requires large sample for validity. Secondly, Johansen's method requires that the variables must be integrated of the same order before the cointegration test is carried out, while the ARDL approach can be applied irrespective of whether the regressors are *I(1) and I(0) or mutually* cointegrated, in which the dependent

variable must be *I(1).*If the nature of the stationarity of the data is not clear, then the use of the ARDL Bounds test is appropriate. A unit root test is not necessary if a conclusion can be made from the Bounds test for cointegration (Pesaran et al., 2001). Thirdly, the choice in Johansen's method are limited, when using the ARDL a large number of choices can be made including decisions regarding the number of endogenous and exogenous variables, if any, for inclusion, the treatment of deterministic elements. The other major advantage of the ARDL approach is that it can be applied to studies that have small sample size.

4.6 Empirical Results and Discussion

In this section, we present and discuss the empirical results on the relationship among economic growth, democracy and tax revenue share in GDP in Ghana (1971-2009). We begin the presentation of empirical results and discussion of the time series properties of the data and the ARDL-based cointegration test. We then discuss the long-run and short-run estimates, unrestricted error correction model and variable deletion test. The diagnostic tests examine the normality, serial correlation and heteroscedasticity associated with the model. The structural stability test is conducted by employing the CUSUM and CUSUM of squares test.

4.7 Unit Root and Cointegration Test Results

Since the validity of the ARDL approach relies on *I(0),I(1)* or a combination of both, it is important to first determine the time-series properties of individual variable that enter equation *(3).*This is done to know whether the variables are integrated of order zero or one or even more. Given that unit root testing procedures have their own limitations. Two unit root test are considered for this research. These are the non-parametric Philip-Perron (PP) test proposed by Phillips and Perron (1988) and Kwiatkowski-Phillips-Schmidt- Shin test statistics (1992) which

is usually called the KPSS test. The PP tests the null hypothesis that the series have no unit root whilst the KPSS tests the null hypothesis that the series are stationary. The PP tests are robust to the general forms of heteroskedasticity in the error term and user does not have to specify a lag length for the test regression. The KPSS test on the other hand renders it more stable test statistics in small sample situations. The robustness of the KPSS test under various degrees of serial correlation makes it an essential unit root test for small sample size.

TABLE 7: PP UNIT ROOT TEST RESULTS

VARIABLES	LEVEL		FIRST DIFFERENCE	
	TREND AND INTERCEPT	NO TREND AND INTERCEPT	TREND AND INTERCEPT	NO TREND AND INTERCEPT
LOG RGDP	-1.988	2.448	-5.513***	-4.3047***
DEM	-3.560**	-1.543	-12.401***	-12.677***
DEM*TAX REV/GDP	-.3377	-1.378	-7.004***	-7.2972***
TAX REV/GDP	-2.895	-.1.907	-5.448***	-5.5946***
FD	-3.481	-0.8166	-6.960***	-6.165***
OPEN	-1.816	-0.9963	-5.196***	-5.2702***
KAP	-2.866	-1.177	-7.520***	-7.6781***
LOGLAB	-5.502***	1.951	-0.4903	-3.7089***

SOURCE: Author's computation

NOTE: * (**) INDICATES REJECTION OF THE NULL HYPOTHESIS OF UNIT ROOT AT THE 1% (5%) LEVEL.**

TABLE 8: KPSS STATIONARITY TEST

VARIABLES	LEVEL		FIRST DIFFERENCE	
	TREND AND INTERCEPT	INTERCEPT	TREND AND INTERCEPT	INTERCEPT
LOGRGDP	0.1887***	0.7005***	0.1063***	0.6745***
DEM	0.1649***	0.5413***	0.1934***	0.3207***
DEM*TAX REV/GDP	0.1636***	0.5215***	0.0665***	0.1674***
TAX REV/GDP	0.11405***	0.4440***	0.1499***	0.1662***
FD	0.21384***	0.48064***	0.1200***	0.5954***
OPEN	0.11505***	0.5592***	0.1228***	0.1242***
KAP	0.1198***	0.6035***	0.1558***	0.1589***
LOGLAB	0.1898***	0.7249***	0.1916***	0.5398***

SOURCE: Author's computation

NOTE: * Indicates acceptance of the null hypothesis of stationarity at the 1% level.**

Table 6

The results from the PP test reveal that all the variables are stationary only after first differencing (i.e., ***I[1]***). The result is independent of whether there is a deterministic trend or not. On the other hand the results of the KPSS test reveal the failure of rejection of the null hypothesis of stationarity both at levels and first difference. The PP and KPSS test results confirm that all included variables in equation (3) can be treated as either I (0) or I(1). This justifies the rational for the adoption of the ARDL bounds testing approach to cointegration.

TABLE 9: DESCRIPTIVE STATISTICS OF VARIABLES

	LOG RGDP	DEM	TAX/GDP	FD	OPEN	KAP	LOGLAB	DEM*TAX
MEAN	10.0007	-0.7436	12.71406	7.341578	52.686	15.17	1.7284	4.451
MAXIMUM	10.3513	8	22.46301	15.88198	116.05	29.00	1.7594	179.704
MINIMUM	9.7927	-7	4.6174557	1.542268	6.3203	3.531	1.7091	-96.383
S.D	0.16733	6.0163	4.269636	4.590048	29.931	7.475	0.0017	80.146
OBSERVATIONS	39	39	39	39	39	39	39	39

Source: Author's computation

All the variables both the dependent variable and the explanatory variable all fell in place to be used in the model. The dependent variable is LOGRGDP and the explanatory variables are DEM, TAX, FD, OPEN, KAP, LOGLAB, and DEM*TAX. From Table 9, the mean and standard deviation of LOGRGDP is 10.0007 and 0.16733.The mean of DEM, Tax/GDP, FD,OPEN,KAP,LOGLAB,DEM*PSE,DEM*TAX are -0.7436,12.71406,7.341578, 52.686,15.17,1.7284, and 4.451. The standard deviation as reported in Table 9 are; 0.16733, 6.0163, 4.269636, 4.590048, 29.931, 7.475, 0.0017, 80.146 for LOG RGDP, DEM, TAX/GDP, FD, OPEN, KAP, LOGLAB and DEM*TAX respectively

4.8 Testing for Multicollinearity among Explanatory Variables.

The presence of multicollinearity among explanatory variables, violate the assumption ten of the classical linear regression model (CLRM) which state that, there should not be multicollinearity among regressors. The study employs the use of variance inflating factor (VIF) and tolerance (TOL) which is an inverse of the VIF. The study also used the correlation matrix to further confirm the presence or absence of multicollinearity as various rules of thumb suggest. The mean VIF for the regressors is 9.39 and none of the regressors for the TOL is zero; one can conclude that there is no perfect multicollinearity in the regressors. As a rule of thumb, if the VIF of a variable exceeds 10, which happens when $\boldsymbol{R^2}$ exceeds 0.90, that variable is said to be highly collinear. Since the tolerance check, counteract the VIF results, we can still use those variables whose VIF exceeds 10, since it will not have significant effect on the results Gujarati (1995).

Using the pairwise correlation matrix, we can conclude that most of the regressors have less than 0.8 correlation coefficient but according to Gujarati (1995), those with excess of it does not necessary suggest the presence of multicollinearity but technically, high zero-order correlation are sufficient but not a necessary conditions for the existence of multicollinearity, because it can exist even though the zero-order or simple correlations are comparable low as seen in the table 9 below.

TABLE 10: VIF AND TOLERANCE CHECK

VARIABLE	VIF	1/VIF
DEM*TAX	12.9	0.077539
DEM	11.64	0.085901
KAP	11.1	0.090052
OPEN	9.84	0.101635
LOGLAB	8.89	0.112426
TAX	7.00	0.14289
FD	4.37	0.228954
MEAN VIF	9.39	

SOURCE: Author's computation from WDI and Polity 2 Scores

TABLE 11: PAIRWISE CORRELATION MATRIX

	DEM	OPEN	LOGLAB	TAX	KAP	DEM*TAX	FD
DEM	1						
OPEN	0.6651	1					
LOGLAB	0.7832	0.8533	1				
TAX	0.5556	0.8767	0.6945	1			
KAP	0.6697	0.9212	0.863	0.8672	1		
DEM*TAX	0.9538	0.6846	0.8055	0.5875	0.6807	1	
FD	0.7325	0.7898	0.8106	0.7414	0.7341	0.751	1

SOURCE: Author's computation from WDI and Polity 2 Scores

TABLE 12: ARDL Bounds Test for Cointegration Relationship

MODELS	I	II
F-TEST STATISTICS	6.8993*	8.3569*

Source: Author's computation

* indicates rejection of the null hypothesis of no cointegration at the 1% significance level.

The computed F- statistic of 6.8993 is greater than the lower critical bound value of 3.15 and upper critical value of 4.43 for model I and the computed F-statistic for model II is 8.3569 which are greater than the lower critical bound value of 3.34 and upper critical value of 4.63 at 1% level significance level. The critical values are cited from pesaran et al., (2001). This indicates the existence of a steady – state long – run relationship among democracy, tax revenue and economic growth in Ghana over the study period considered.

4.9 Estimation of ARDL Regressions for Model 1

Autoregressive Distributed Lag Estimates For Model I
TABLE 13(i); ARDL (1, 0, 0, 0, 0, 1, 0, 1) Selected Based on Schwarz Bayesian Criterion.

Regressor	Coefficient	Standard Error	T-Ratio	[Prob]
LRGDP(-1)	0.38643**	0.14372	2.6888	[.012]
OPEN	0.00001762	0.004327	0.0040727	[.997]
FD	-0.00357	0.0021995	-0.16224	[.872]
KAP	0.0019413*	0.0011077	1.7526	[.091]
LNLAB	-24.1130	15.7933	-1.5268	[.139]
LLAB(-1)	29.4313**	14.1423	2.0811	[.047]
DEMTAX	-0001.98	0001.29	-1.5357	[.137]
DEMTAX(-1)	-0.0001.35	0.0000793	-1.7034	[.100]
TAX	-0.0017834	0.0015798	-1.1289	[.269]
DEM	0.0039835**	0.0016833	2.3664	[.026]
T	0.0023956	0.0040124	0.59705	[.556]
C	-3.0642	4.6403	-0.66035	[.515]
R^2=.99487	**R-Bar^2=.99270**	**DW-statistic =2.0943**	**F(11, 26) 458.2615 *****	**[0.000]**

[***] (**),{*} indicates the significant at 1%, 5% and 10% respectively.

Source: Author's Computation

Table 13(ii); Short-Run Error Correction (ECM), For The ARDL Models 1: Dependent Variable Δ LGDP

	Regressor	Coefficient	Standard Error	T-Ratio	[Prob]
Δ	OPEN	0.00001762	0.004327	0.0040727	[.997]
Δ	FD	-0.003568	0.0021995	-0.16224	[.872]
Δ	KAP	0.0019413*	0.0011077	1.7526	[.091]
Δ	LNLAB	-24.1130	15.7933	-1.5268	[.138]
Δ	DEMTAX	-0.001979	0.001289	-1.5357	[.136]
Δ	TAX	-0.0017834	0.0015798	-1.1289	[.269]
Δ	DEM	0.0039835**	0.0016833	2.3664	[.025]
Δ	ECM(-1)	-0.61357***	0.14372	-4.2692	[.000]
Δ	T	0.0023956	0.0040124	0.59705	[.555]
Δ	C	-3.0642	4.6403	-0.66035	[.514]
	R^2 = .61888	**R-Bar^2 =.45763**	**DW-statistic=2.0943**	**F(9, 28) =4.6910*** **	**[0.001]**

[***].(**),{*} indicates 1%,5% and 10% significance level respectfully.

Source: Author's Computation

Table 13(iii): Estimated Long- Run Coefficients using the ARDL Approach for Model 1

Regressor	Coefficient	Standard Error	T-Ratio	[Prob]
DEM	**0.0064924*** **	**0.002192**	**2.9619**	**[.006]**
OPEN	**0.00002872**	**0.007053**	**0.0040722**	**[.997]**
TAX	**-0.0029066**	**0.0026256**	**-1.1070**	**[.278]**
KAP	**0.003164***	**0.0017231**	**1.8362**	**[.078]**
DEMTAX	**-0.005428*** **	**0.001810**	**-2.9986**	**[.006]**
FD	**-0.00582**	**0.0036027**	**-0.16143**	**[.873]**
LLAB	**8.6679***	**4.3956**	**1.9720**	**[.059]**
C	**-4.9941**	**7.4651**	**-0.66899**	**[.509]**
T	**0.0039044**	**0.0065822**	**0.59318**	**[.558]**

Source: Author's Computation

Table 13(iv): Model 1 Diagnostics Test

Test Statistics	LM Version	F Version
A. Serial Correlation	CHSQ(1)= .13969[.709]	F(1, 25)= .092242[.764]
B. B:Functional Form	CHSQ(1)= 3.5245[.060]	F(1, 25)= 2.5558[.122]
C. C:Normality	CHSQ(2)= 3.6656[.160]	Not applicable
D. D:Heteroscedasticity	CHSQ(1)= 4.4520[.135]	F(1, 36)= 4.7774[.168]

A. :Lagrange multiplier test of residual serial correlation
B. :Ramsey's RESET test using the square of the fitted values
C. :Based on a test of skewness and kurtosis of residuals
D. :Based on the regression of squared residuals on squared fitted values

Source: Author's computation

Note: dependent variable LRGDP. [***](**),* indicates the significance at the 1%, 5% and 10% respectively.

4.10 Estimation of ARDL Regressions for Model 2

Autoregressive Distributed Lag Estimates for Model 2
TABLE 14(i): ARDL(1,0,0,0,1,0,1) selected based on Schwarz Bayesian Criterion

Regressor	Coefficient	Standard Error	T-Ratio	[Prob]
LRGDP(-1)	0.38636**	0.13984	2.7628	[.010]
FD	-0.003536	0.0020077	-0.1761	[.862]
KAP	0.0019423*	0.0010631	1.8269	[.079]
LLAB	-24.0667**	10.7545	-2.2378	[.034]
LLAB(-1)	29.3923***	10.212	2.8782	[.008]
DEMTAX	-0.001979	.000126	-1.5652	[.129]
DEMTAX(-1)	-0.001353*	0.0007099	-1.9052	[.067]
TAX	-0.0017802	0.0013376	-1.3309	[.194]
DEM	0.0039847**	0.0016243	2.4532	[.021]
T	0.0023846	0.0029016	0.82183	[.418]
C	-3.0759	3.5775	-0.85978	[.397]
R^2=.99487	**R-Bar^2=.99297**	**DW-statistic=2.0945**	**F(10, 27) 523.4753*** **	**[0.000]**

***], (**), {*} indicates the significance at 1%, 5% and 10% level respectively.

Source: Author's computation

Table 14(ii); Short-Run Error Correction (ECM), For The ARDL Models 2 ARDL(1,0,0,0,1,0,1) selected based on Schwarz Bayesian Criterion

	Regressor	Coefficient	Standard Error	T-Ratio	[Prob]
Δ	FD	-0.003536	0.0020077	-0.17610	[.861]
Δ	KAP	0.0019423*	0.0010631	1.8269	[.078]
Δ	LNLAB	-24.0667**	10.7545	-2.2378	[.033]
Δ	DEMTAX	-0.001979	0.001264	-1.5652	[.128]
Δ	TAX	-0.0017802	0.0013376	-1.3309	[.194]
Δ	DEM	0.0039847**	0.0016243	2.4532	[.020]
Δ	ECM(-1)	-0.61364***	0.13984	-4.388	[.000]
Δ	T	0.0023846	0.0029016	0.82183	[.418]
Δ	C	-3.0759	3.5775	-0.85978	[.397]
	R^2= .61888	R-Bar^2=.47772	DW-statistic=2.0945	F(8, 29)=5.4804	[.000]

Source; Author's computation

Note: dependent variable is Δ LRDP. [***],(**.){*} indicates significance at the 1%, 5% and 10% respectively.

Table 14(iii): Estimated Long Run Coefficients using the ARDL Approach for model 2

ARDL(1,0,0,0,1,0,1) selected based on Schwarz Bayesian Criterion

Regressor	Coefficient	Standard Error	T-Ratio	[Prob]
FD	-0.000576	0.0032836	-0.17546	[.862]
KAP	0.0031652*	0.0016682	1.8973	[.069]
LNLAB	8.6787**	3.4311	2.5294	[.018]
DEMTAX	-0.000543***	0.000175	-3.1072	[.004]
TAX	-0.002901	0.0021856	-1.3273	[.196]
DEM	0.0064936***	0.0021302	3.0483	[.005]
T	0.003886	0.004677	0.83086	[.413]
C	-5.0125	5.8242	-0.86064	[.397]

Source: Author's Computation

The dependent variable logGDP. [***], (**), {*} indicates the significance at the 1%, 5% and 10% of significance respectively.

Table 14(iv) : Model 2 Diagnostic Tests

Test Statistics	LM Version	F Version
A: Serial Correlation	CHSQ(1)= .68209[.409]	F(1, 26)= .096014[.759]
B: Functional Form	CHSQ(1)= .025989[.872]	F(1, 26)= .016425[.899]
C: Normality	CHSQ(2)= 3.6696[.160]	Not applicable
D: Heteroscedasticity	CHSQ(1)= 4.4567[.235]	F(1, 36)= 4.7832[.245]

A: Lagrange multiplier test of residual serial correlation
B: Ramsey's RESET test using the square of the fitted values
C: Based on a test of skewness and kurtosis of residuals
D: Based on the regression of squared residuals on squared fitted values

Source: Author's Computation

Following Bannerjee et al., (1998), to further determine the long-run relationship among the variables of interest; we use the t-test. Based on the results in Tables (13i) and (14i), the calculated value of the t-test is -9.93 from the pesaran et al (2001) and is more than the critical value of – 5.04 (at 1% significance level) tabulated by Bannerjee et al (1998). This indicates the

presence of the long-run relationship among variables of interest. One of the more important issues in applying ARDL is choosing the order of the distributed lag functions. Pesaran and Smith (1998) argue that the Schwarz Bayesian Criterion (SBC) should be preferred to other model specification criteria because it often has more parsimonious specification: the small data sample in the study further reinforces this point. The optimal number of lags of each of the variables is shown as ARDL (1, 0,0,0, 0,1,0,1) for model 1 and ARDL (1,0,0,0,1,0,1) for model 2. The optimal number of lags in both models simple indicates the order of integration of the variables used in the regressions. Hence for model 1, it means GDP is integrated of order 1 in the model and so on.

4.11 Estimated Regression Results

We report in Table (13 ii and iii and Table (14ii and iii), the estimated long –run and short – run results respectively for each model. Beginning with the variables of interest, the coefficient on DEM is positive and statistically significant in both the long – run (Table 13iii and 14iii) and short- run (Table 13ii and 14ii). This finding is not surprising, because as noted by Aghion et al. (2007), democracy is conducive to growth in more advanced and developing economy. They report that democracy does not matter or even have a negative effect on economic growth in sectors far away from the technological frontier. In an earlier study of South Africa and Ghana over the period 1960 – 1998, Guesh and Oritsefor (2007) reported that democracy had a positive effect in South Africa but negligible effects in Ghana due to weak institutions but as time elapses, Ghana begins to strengthen its institution, the reverse of Guesh and Ortsefor (2007) findings. This finding gives support to the view that democracy by itself is unlikely to promote economic growth (Acemoglu, 2009). In poor developing countries for example, Stasavage (2005), notes that the formal adoption of democracy, in isolation, will have no effect on policy (and hence economic growth) because of the absence of quality and strong institutions. Ghana's

achievement in terms of democracy is as a results deliberate institutions that have been put in place to secure our modest democracy such as independent judiciary, the parliament, the electoral commission, commission of human right and administrative justice (CHRAJ), independent media, think-tanks groups etc.

The results of the estimations in model 1 and 2 are particularly encouraging in terms of "goodness of fit" and statistical significance of regressors. The estimated equation in model 1 explains ninety nine percent of the variation in the model with an equation standard error of 1.43 percent. Model 2 estimated its equation explains ninety nine percent of the variation with an equation standard error of 1.41 percent.

The diagnostic test in model 1 and 2 used Lagrange Multiplier (LM) test statistic due to Breusch and Pagan (1980) in identifying residual correlation. The LM test statistics in both models indicates the systematic dynamics of the equations are not white noise. The general test of mis-specification of the model 1 (RESET) = 3.5245 and model 2 (RESET) = 0.025989 indicates that the functional form of the equations has been correctly specified.

The estimated model in 1 and 2 passed the test of skewness and kurtosis of residuals due to Bera and Jarque (1982). Both model 1 and 2 show no presence of heteroscedasticity on the regression of squared residuals on squared fitted values.

In model 2; the coefficient of DEM is also positive and significant as seen in model 1 when all variables are present. But in model 2, trade was removed to see whether it has significant impact in the regression, yet DEM follows the same pattern of positive coefficient and significant at the long – run and short run in both model. Barro (1996) argued that for countries with low levels of political freedom, for example, more democracy would enhance growth. This result is further stressed by Fosu (2008) in a panel 30 Sub-Saharan African countries, that increasing electoral

competition in these countries would be growth enhancing. Given the moderate level of democracy in Ghana when we take the mean of our democracy indicators into consideration, the coefficient for democracy would be expected to be significant. However, this result does not necessarily mean that increasing democracy would not be growth enhancing, but that its true impact depends also on the country – level conditions. Moreover, it is important to note that the period 1971 – 2009 under the study is characterized by not just a smooth transition from autocracy to democracy but political instability and dictatorship for the most part. This may try to explain the reason why the coefficient of the democracy term is statistically significant.

Przeworsk et al (2000), argue that democracy favors economic growth by fostering macroeconomic stability in terms of policies and the promotion of trade openneness. Consistent with neoclassical growth theory, both labor force and capital stock variables enter with the correct sign (positive) and are statistically significant in the long run and for all estimated models. Consistent with many other studies (Aisne and Veiga, 2011, Gries et al., 2009), trade openness is positive but not significantly related to economic growth, at least for the study period. This result may partly be due to the import substitution industrialization policies that were undertaken prior to trade liberalization policies and it does not necessarily means that promoting trade in Ghana is bad for growth. Sakyi (2011) has shown that trade over the post – liberalization period has been good for growth. Lipset (1959), argue that trade spark economic growth and create a larger middle class, which in turn demand greater influence over political decision. We find in this study that, for Ghana, the financial depth (share of credit to the private sector in GDP) variable is negative but not significant in both the long and short – run during the study period. This implies that financial deepening cannot significantly play a facilitative role in promoting economic growth. If the government of Ghana could focus on promoting policies conducive for financial deepening. This will have a positive effect, particularly in the banking

sector. This can be done if loans can be given to people to do business with lower interest rate as the ease of doing business the country increases.

Theoretically, increase in tax revenue will have a positive effect on economic growth. But in both models, the effects of tax on economic growth in both long and short-run is negative .In model I, the impacts on share of tax revenue to economic growth is negative both in the long and short-run but was statistically insignificant whereas in model 2, it appears to be negative both in the long and short- run but statistically insignificant. When DEM interacts with Tax (DEM*TAX) in model I, it is still negative in the long-run and statistically significant but in the short-run it was negative but statistically insignificant. In model 2, although its impact was negative, it was statistically insignificant again in both the long and short run. The possible explanation for this phenomenon during this study period is massive tax evasion in the country and unproductive use of tax revenue in supporting government core functions. In 2011, an undercover investigator from the crusading guide unravels how tax officials connive to evade the taxes in Ghana.

Paulson and Kaplan (2008) and Lee and Gordon (2005) argue that there is negative relationship between tax policy and economic growth. Karran (1985) argues that any change in policy that leads to an increase in tax burden distorts economic growth. Arnold et al. (2011) in their study of 21 0ECD countries also had a negative effect between share of tax revenue and economic growth. Barro and Redlick (1960) also confirm this negative relation by their studies in US from 1912 - 2006. It is expected that with the adoption of democracy, it impact on taxes will be positive. Ironically, democracy alone does not stimulate tax revenue but when quality and accountable institutions are put in place to check tax evasion and compliance by authorities to punish, name individuals and institutions and who evade tax in the country. This can be done by

individuals reporting culprit who invade tax and as a return, the governments reward such fellows if found their lead was viable. The government should set up a legislature that will enable multinational companies to be audited when there are credible informations indicting them of transfer pricing.

The time trend (T) which represents proxy for general policy impacted positively both in the long and short-run for both models. The significance of its positive effect on economic growth can be attributed to stable democracy for the past decades. The era of rampant coup d'état really affected the country in terms policies guiding the nation. Most of the elected civilian and the self-imposed military leaders were overthrown by their own comrades. This did not allow most of their immediate and long-term policies for the country to mature. The continuous democratic credentials Ghana has achieved for the past two decades enables newly elected government not to abolish previous regime policies which is contributing to the overall well-being of the country. A typical example is the national youth employment, national health insurance scheme which was introduced by former president Kuffour is still ongoing in the country.

As can be seen in Table (13ii and 14ii) for model 1 and 2, it can be seen that the coefficient of the lagged error correction term (i.e. ECM) [-1] has a negative sign as expected and it is -0.61357 for model 1 and -0.61364 for model 2. The ecm (-1) results reveals a high speed of long run equilibrium adjustment of 61.4% for model 1 and 2 respectively every year after a short-run shock and statistically significant at 1% level. The ECM coefficient shows how quickly or slowly the relationship returns to equilibrium path for the variable of interest and should have a statistically significant coefficient with a negative sign and this proof our earlier results in this research. Bannerjee et al (1998), states that a highly significant error correction term is further proof of the

existence of a stable long-term relationship. This also confirms further the cointegration test results.

It is important to note that the adequacy and reliability of ARDL models crucially depend on their statistical properties (Hendry et al., 1984) for this reason; we report a series of diagnostic tests as seen in Tables 9(ii) and 10(ii). The diagnostic tests reveal the statistical adequacy of the estimated ARDL models. Interestingly, all estimated ARDL model pass the test of functional form and normality of residuals and there is no evidence of serial correlation, heteroskedasticity, model misspecification, non-normality of residuals and structural stability of the model. The Reset test indicates that the model is correctly specified, while the F-test for forecast indicates the predictive power and accuracy of the model. Finally, the cumulative sum of recursive residuals (CUSUM) and the CUSUM of squares (CUSUMSQ) tests were applied to test for parameter constancy. Fig 1 and 2 plots the CUSUM and CUSUM of squares statistics.

Fig 4: Stability Test for Model 1

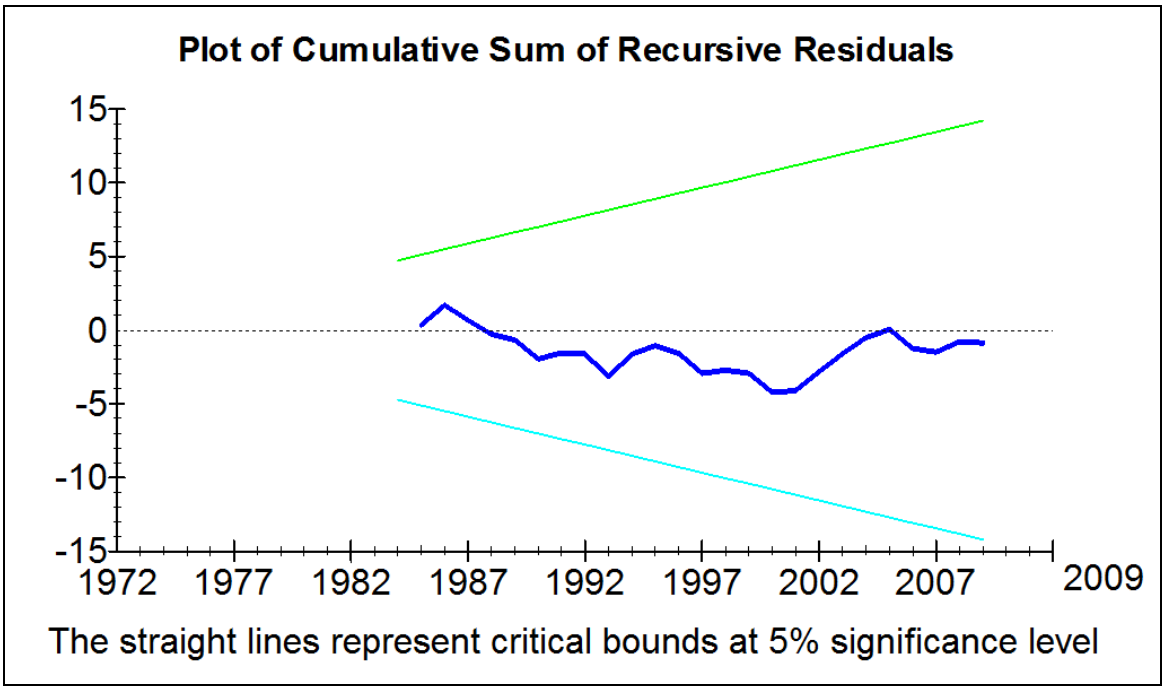


Fig 5: Stability Test for Model 1

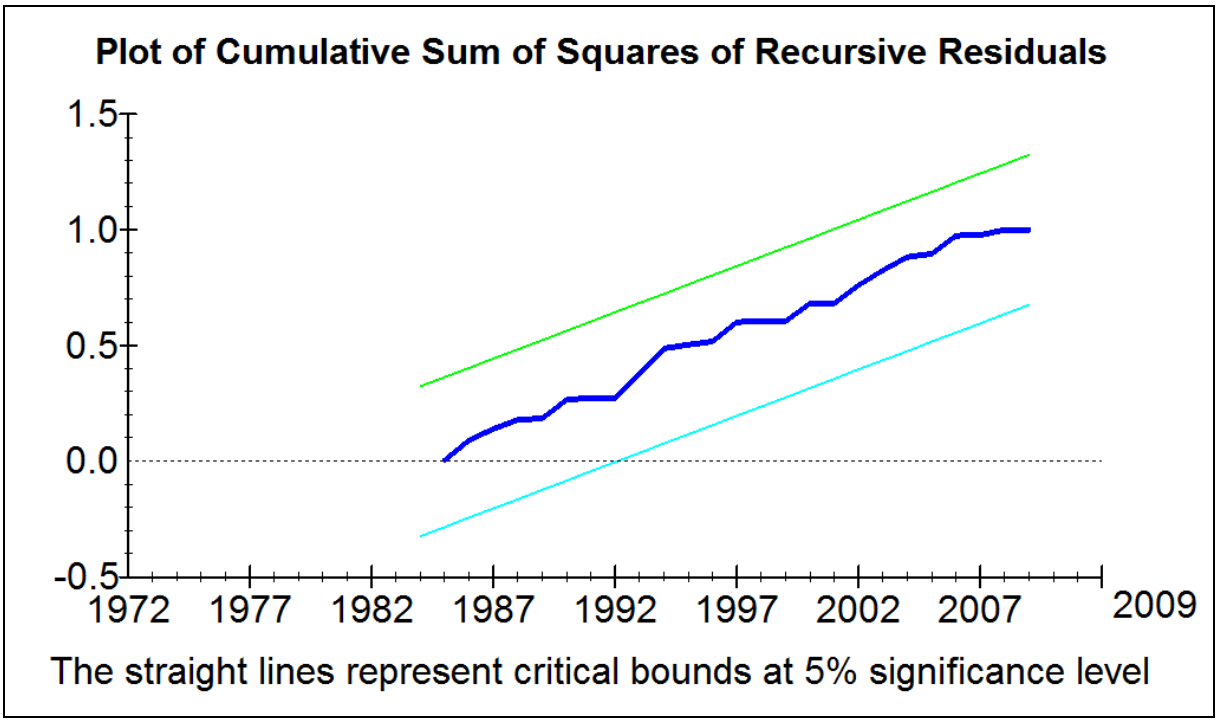


Fig 6: Stability Test for Model 2

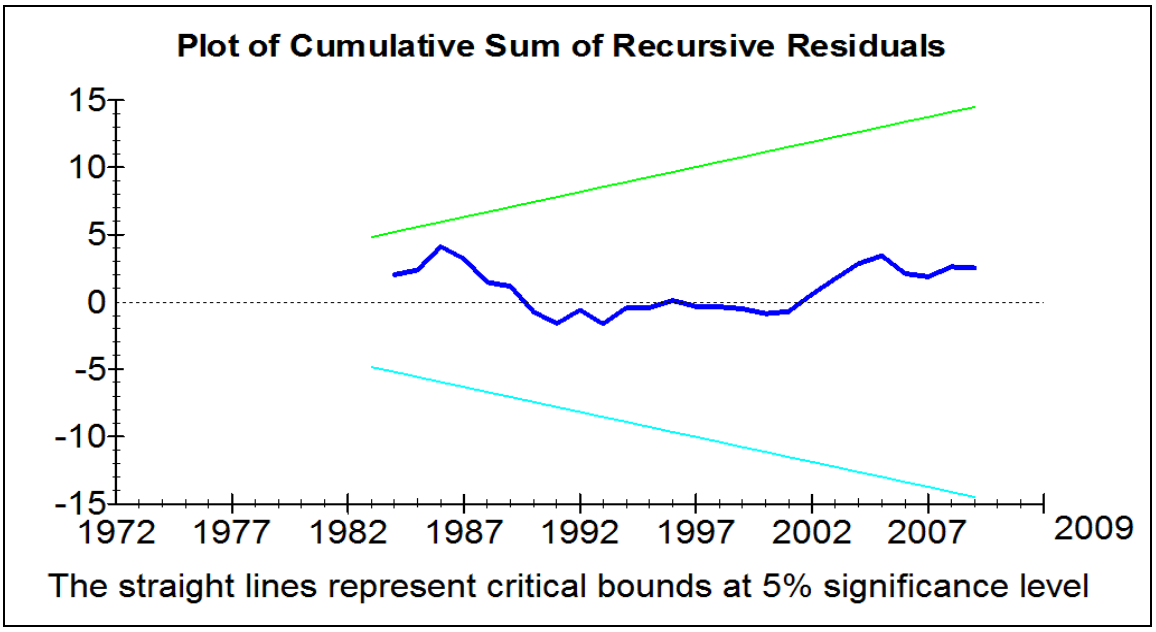
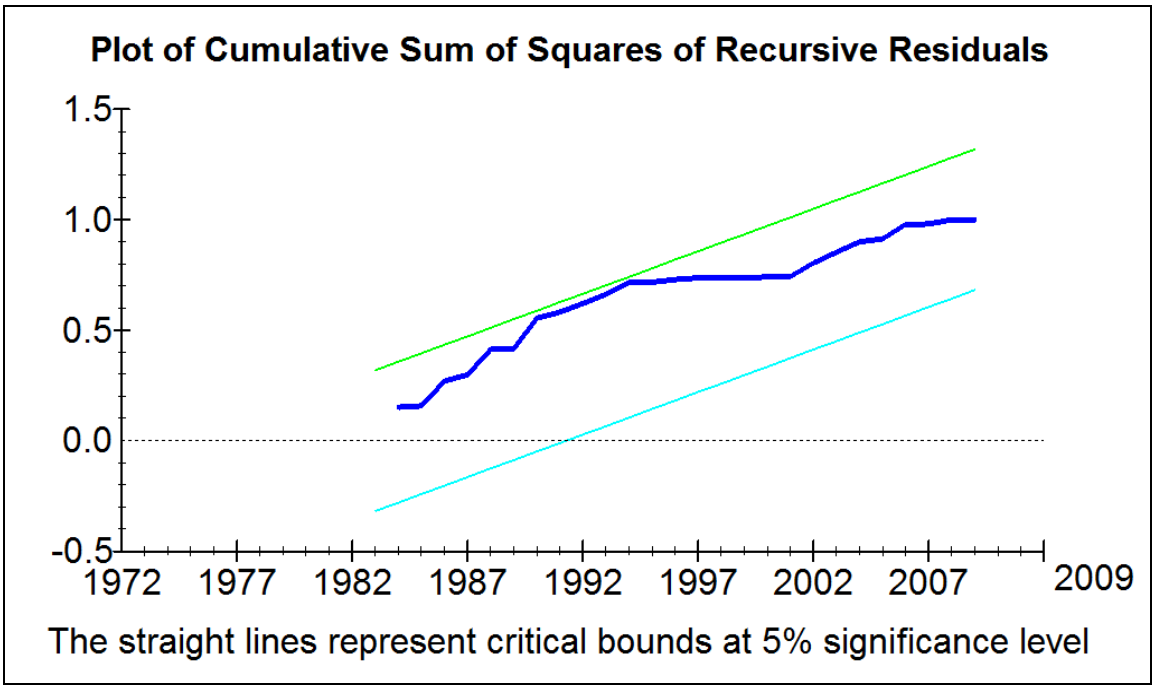


Fig 7: Stability Test for Model 2



The stability of the regression coefficients is evaluated using the cumulative sum (CUSUM) and CUSUM squares (CUSUMSQ) test for structural stability (Brown et at., 1975). The regression equation appears stable since neither the CUSUM nor CUSUMSQ test exceeds the bounds at the 5% level of significance. This can be seen from the graph as the thick blue line oscillating up to the 5% significant level.

The granger causality test is applied in order to test for the causal relationship between democracy and economic growth. The null hypothesis states that economic growth does not granger causes democracy whilst the alternative hypothesis states economic growth does granger cause democracy and vice versa. A bidirectional flow of causality indicates economic growth leads to improvement in democracy and vice versa. To test whether granger causality exists, we need to compare the probability that the null hypotheses exists with the critical value. If the

critical value is greater than the probability, the null hypothesis stand to be rejected and the alternative hypothesis is accepted. In case the probability value is greater than the critical value, the null hypothesis is considered as significant and we accept it as the true case.

TABLE 15: Granger causality test statistics

GDP Growth does not granger cause DEMO				**DEM does not granger cause GDP Growth**		
Lags	**Obs**	**F. Stats**	**P- value**	**obs**	**F-Stats**	**P-value**
1	38	1.7615	0.1931	38	0.26489	0.61
2	37	1.58048	0.2215	37	0.22582	0.7991
3	36	3.85418**	0.0195	36	0.11872	0.9484
4	35	2.70833*	0.0521	35	0.29835	0.8763
5	34	3.06206**	0.0291	34	6.50935***	0.0007
6	33	4.9239***	0.00305	33	3.61938**	0.01354
7	32	8.41279***	0.00017	32	6.30558***	0.00093
8	31	8.2672***	0.00036	31	3.90653**	0.01271

Source: Author's Computation

Obs: Number of observations included in the test.

[***].(**),{*} indicates the rejection of the null hypothesis at [1%],(5%) and {10%} respectively.

It can be seen From Table 15 that at Lag 1 and Lag 2, GDP growth does not granger cause democracy and democracy does not granger cause GDP growth. Therefore there is no leading variable in the relation between GDP growth and democracy. We concluded that the effect is contemporaneous as both are not significant at any level. This confirms what Narayan et al., (2011) in his 30 SSA studies from 1972-2001 found a contemporaneous causality between democracy and economic growth. Van de Walle (2001, 1999) in his study of 28 SSA countries from 1986-1998 also confirms a contemporaneous effect between democracy and economic

growth. Additionally, we agree with Gerring et al (2005), Ferre and Singh (2006) that the establishment of democracy may not immediately produce economic gains, as its full effect only becomes apparent with time, when the functioning of the new institutional set up are followed. At lag 3 and 4, it can be seen that GDP growth does Granger cause Democracy at 5% and 10% significant level. This confirms what Burkhart and Lewis-Berk (1994) concluded that economic growth "causes" democracy but democracy does not "cause" economic growth. They later throw more light on it to the extent that their findings reveal it holds for nations currently in democratic transition, the implication was that democratic reform by itself cannot be counted on to bring about the needed economic growth. However, this is no counsel to dictatorship. This further confirms why Asian countries argue that democracy hurts economic growth; this is known as Lee thesis.

From Lag 5 to 8, there is a bidirectional relationship: In other words, the causation runs from GDP growth to democracy and also from democracy to GDP growth. This can be attributed to Ghana over two decades of democracy practice. When democracy is practiced for a long time and strong and quality institutions are put in place, it spurs up economic growth. Ghana's years of democracy has played a major role in its economic growth success. The optimal lag length for the granger-causality test is 9 and one varies the lag length to see the behavior of causality in the various lags and conclude the direction of causality.

4.12 Summary

Ghana's democratic credentials continues to be among the best in Africa in terms of political and civil rights. Freedom house rating for Ghana was 1.5 in 2012 and was considered free among few other countries in Africa countries where democracy has come to stay. Polity 2 score which

measures the level of democracy all over the globe placed Ghana of having a +8.0 score out of a scale of -10 to +10 in 2011. This further ascertains Ghana's democratic achievement.

Democracy alone in isolation contributes a marginal positive effect on economic growth both in the long and short run (Acemoglu, 2009) as seen in the case of African countries. The major reasons contributing to this phenomenon can be attributed to quality and strong institutions. This is noted by Stasavage (2005) in his studies of developing countries. It must be noted that, the period 1971 to 2009 had some characteristics of political instability and dictatorship especially from 1970's to late 80's.

Various research findings in the area of democracy and economic growth especially on Africa support the causality directions as pertained in Ghana. The case of the contemporaneous effect between democracy and economic growth can be seen showing on the granger causality table at lag 1 and 2. This confirms what Vande Walle (2001. 1999) and Narayan el al (2011) findings established. Lag 3 and 4 shows that economic growth granger cause democracy thereby confirming the studies of Burkhart and Lewis-Berk (1994). Lag 5 to 8 shows a bidirectional relationship between democracy and economic growth in Ghana.

The ecm (-1) results reveals a high speed of long run equilibrium adjustment of 61.4% and 61.4% every year for model 1 and 2 between democracy and economic growth in Ghana.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The study primarily investigates the empirical relationship between democracy and economic growth in Ghana by applying the ARDL bounds testing model to examine both the long and short run on the variables of interest. The study applies the PP and KPSS unit root test to ensure all the variables are integrated of order I[0] or [1]. To ensure that long run and short run dynamics exist in the variable of interest, we confirm using the variable addition test in which the F-statistics exceeds the Pesaran et al., (2001) calculated value. This show the existence of long and short run dynamics exist. To further confirm this point, we also use Banerjee et al., (1998) table to ascertain this. The study finds out that all the models pass the diagnostic test by ensuring the model pass all the problems associated with ARDL model in time series such as serial correlation, functional form, normality and heteroskedasticity. The model also passes the stability test by ensuring that the cummulative sum of recursive residuals (CUSUM) and the cummulative sum of square (CUSUMSQ) are all significant at 5% level. Hence, the results are robust to the estimation techniques. Granger causality is applied in order to test the causal flow between democracy and economic growth and vice-versa.

Specifically, the study seeks to determine the causality between democracy and economic growth and the relationship between them. Hence, economic growth is assumed to be the promoting element in the development process in Ghana. It also finds the extent to which tax revenue share in GDP affect economic growth. The study reveals that at lag 1 and 2, the causality between democracy and economic growth is a contemporaneous effect; as both democracy and economic growth do not granger cause each other. At lag 3 and 4, it is economic

growth which granger causes democracy. Ironically, from lag 5 to 8, there is a bidirectional Granger causality which implies democracy Granger cause economic growth as well as economic growth Granger causes democracy during the study period of the studies. The study also finds out that the effect of democracy on economic growth is positive and statistically significant for both long and short run. This implies that democracy alone spur up economic growth but will be better enhance by the help of indirect factors. When other factors such as good governance, strong and quality institutions are put in place to safe guard democracy, it spurs up economic growth. The effect of tax revenue to economic growth is negative. This result confirms the empirical findings of a positive effect of tax revenue on economic growth in developed countries but negative on developing countries. When tax revenue is interacted with democracy, the coefficient was negative in the short run but became statistical significant of 1% in the long run for both models. This implies massive tax evasion and misappropriation of tax revenue, which can be seen from the negative coefficient of tax revenue share in GDP both in the short run but this scenario reverses in the long run when institutions and individual demands accountability and equitable use of their revenues in to productive ventures by the government.

5.2 Conclusions and Recommendations

The finding of this research suggests that democracy, tax revenue and economic growth have both long and short run dynamics between them. The labour force and capital stock variables were significantly related to economic growth, while trade openness was positive in both long and short run and statistically insignificant. The financial development variable has a negative long and short run coefficient of -0.005816 and -0.003568 for model 1 and -0.005762 and -0.003536 for model 2 respectively. This coefficient was found to be is statistically insignificant. On recent advancement of democracy in Ghana, this result implies that the government of Ghana is focusing on its core functions providing public goods conducive for long run growth. Barro

(1996), observed that an African country in which democracy gets far ahead of efforts at promoting economic development is unlikely to be sustained. The way forward is to promote not only democracy but also to work harder to increase the supply of good leaders, good governance, independent and autonomy of the judiciary, confront the subservient of the legislature to the executive. This can be done by increasing elite population who will be responsible to hold governments accountable by knowing their civil and political right. Democracy becomes more essential for economic growth when the democratic dispensation is able to aid in increasing production by creating an enabling environment. In terms of enabling environment, we mean the establishment of strong and quality institutions such as the judiciary, the electoral commission, financial intermediaries which Ghana has exhibited all accumulated to its significant inputs on economic growth. It interesting to note that when a country adopts economic growth, it converges faster to democracy in both the medium and long-run. This explain why most Asian countries are experiencing economic growth which latter bring democracy a phenomenon called the Lee Thesis.

Tax revenues in Ghana has a negative effect on economic growth but not statistical significant. Ironically, it become statistically significant when interacted with democracy. This suggest that tax evasion is pervasive in democratic regimes. McBride (2012) in his studies on taxes shows this negative relationship tax revenue had on economic growth in developing countries of which Ghana is no exception. The studies further reveal a positive effect of taxes on developing countries. Revenues generated from taxes mostly service recurrent expenditures such as salaries of government workers, thereby infrastructure and developmental agenda are sacrifice. When people experience this phenomenon for a long time, they choose to invade the taxes. Multinational companies in the country enjoys a lot of tax free holidays and when the time for

them to pay their taxes, they shift their capital offshore and change the name of their company thereby enjoying continuous tax holidays.

Fosu (2008) suggests, for instance; that increasing electoral competiveness can enhance growth in "advanced countries" in terms of their democratic scores in which Ghana is not an exception. This could be better enhanced when the institutions in the country are better enhanced to play its primary objectives without fear or favor. The research has shown clearly that the formal adoption of democracy will automatically lead to economic growth. In fact, when Ghana adopted democracy, the immediate effect was contemporaneous; that is to say democracy does not granger cause economic growth and economic growth also does not granger cause democracy. At Lag 3 and 4, it was economic growth which granger causes democracy and not the reverse. From Lag 5 to Lag 8; there was bidirectional causality between democracy and economic growth. This can be attributed to over two decades of an uninterrupted democracy by the military. Since Ghana continuous to achieve a credible democratic scores an attempt should be made in creating more industries and investing in capital expenditures which will enable the nation moves from lower middle income to a higher income category.

As a nation, we have chosen only one direction to spur economic growth. Since economic growth also spurs democracy, fundamental reforms in terms of free market and the importance of securing private property rights Hernandez Martinek (2008). This scenario is consistent with the recent progress witnessed by the Asian economies. In this sense, effort at promoting trade and financial development and attracting foreign direct investment should be the priority for the government. It can be seen that, the time trend which was used as a proxy for policy, impacted positively on economic growth. This study is characterized by continuous coup d'état and pre-mature abrogation of elected government. This implies that autocracy for Ghana should not even

be named or encouraged in the country as it causes detrimental effect on the growth of the country. Since electoral competitiveness causes economic growth as suggested by Fosu (2008), policy makers should ensure that district and municipal chief executive must be elected by inhabitants of the community.

The coefficient of tax revenue share of GDP is negative during the period under study. This implies that there is massive tax evasion due to the underground sector of the economy. Policy makers should create satellite revenue stations for the majority of the people in the informal sectors to be covered. Notwithstanding any companies both local and multinational caught engaging in tax fraud should be severely punish and blacklisted in Ghana. Officials from our revenues authorities caught or conniving with others in defrauding the country should be severely punish to deter others in doing the same.

5.3 Limitations of the study and Areas of Further Research

One evident limitation of this study is the broad concept of which democracy is measured. Other studies suggest that different components of democracy might have different effects and that some components may be more important than others (Heckelman, 2010). For instance, using civil and political right as used by Freedom house to measure democracy will help which of these two contributes more significantly to economic growth. Another key issue is that, future research should examine which type of democracy (regime type) is more growth enhancing, for example parliamentary versus presidential as noted by Persson (2005) , Acemoglu (2009) and Teles (2009). Finally, future research should seek to examine in details other channels or indirect effects of democracy and tax revenue on economic growth as this study and others suggest.

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