

# **Authoritarian Regimes' and Economic Development**



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## **Preface**

This research work is mainly analysis of fundamental cause of Economic Development. In this research effort is made to develop a framework for thinking why some countries experience economic development success while others fails. In previous literature there is wide acceptance of Harrod- Domar model as a cause of growth. Later major emphasis was given to human capital and technological progress. But we argued that all these are proximate cause and political institution are fundamental cause of cross countries development difference.

Give this we analyze that bad political institution i.e. authoritarian regime negatively affect economic development. As they face little constraint, Decision making and power lies in the hand of few result in bad economic policies. In dictatorship it is observe that a constructive criticism element is usually missing because of lack of opposition. As a result there is poor policy making, less investment on public welfare. In addition to that because of too much centralized control they serve for the interest of elites and involve in repression, corruption, rent seeking activities

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## **ABSTRACT**

The study has been carried out to check the impact of Authoritarian regime on economic development. Authoritarian regime is defined as a system of governance in which concentration of power lies within few hands and usually they face little constraints. In order to safeguard their tenure and to remain in power for a longer period of time dictator allocates fewer resources to education, health care etc. To measure the negative impact of dictatorship we run OLS regression. Therefore, the present study aims at empirically estimate the hypothesis that states that dictators negatively affect economic development. As a result, it leads to bad economic policies and spend less on people's welfares such as education and health i.e. provision of public goods such as public schooling, health services, safe drinking water, and public sanitation. We use Human Development Index as an indicator of Economic Development. By employing OLS regression we conclude that dictatorship has a negative significant impact on economic development in cross-country setting.

# Chapter 1

## Introduction

Dictatorships and their behaviors towards patronage, military spending, and the provision of public goods have been long debated in the literature of political economy. In the same way, the Implications of democracy for economic freedom and overall economic development have been the focus of literature since the Industrial Revolution. For instance, the advocates of democratic institutions believe that economic freedom encourages Schumpeterian creative destruction which, in turn, results in higher productivity and, thus, overall economic development. while in dictatorship regime the innovators and the new entrants are usually shy in investing in research and development program, and in making long term investments respectively because a fear exist that they might become a predator of dictator (Acemoglu & Robinson, 2012). Besides, the anti-militarism claims that democracies allocate fewer resources on military spending, and, in contrast, devote more resources to the provision of public goods which translates in higher economic development. In this paper, we make an endeavor to reinvestigate the repercussions of authoritarian regimes for economic development in the cross-country setting.

Authoritarian regime is defined as a system of governance in which concentration of power lies within few hand, and sometimes a single individual rule over the many. Autocrat government usually does not grant significant political powers to its population or their representatives. They delegate power to different groups such as unions, churches, legislature, and political parties to work, as long as they did not hold the dictator accountable in any way Dictators often gain power by the use of force, though some take the aid from constitutional processes increase their duration that later on they subsequently usurp. Furthermore to stay in

power they extensively used propaganda, repression, control of information, and freedom of speech, assembly, and political activity (Magalhaes III, 1995)<sup>1</sup>. Thus to conduct violence they need a specialized force which are usually in the form of military. Therefore, in non-democratic regime, there is a tradeoff military protect the rule; while, in return, it has been endowed with a privileged position in the patronage and rent-seeking activities of political elites. In addition to that it results in divergence of resources from development non development program such as public goods provision. According to UNDP estimation some of the world poorest countries spend less on people's welfares such as education and health and use their foreign exchange reserves to get weapons and spend more on their military. Indeed in 1992, world military expenditure was approximately equivalent to the income of almost half the world's population (UNDP, 1994). Given that by reducing military spending attention can be devoted to tackle the problem of poverty and economic and environmental security. The opportunity cost of military security in terms of resources that has been foregone from economic and social development is huge and this sacrifice is not necessarily justified in terms of national security.

In this research, our focus is to see what kind of regime existed in a set of ninety two countries during the time period of 1960 - 2013 to compare and decide that whether according to our expectation the authoritarian regime has a significant negative effect on economic development. In other words dictatorship seems to hamper economic development. For instance, in order to safeguard their tenure and to remain in power for a longer period of time dictator allocates fewer resources to education. The justification behind this is education empowers the

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<sup>1</sup>Magalhaes III, E. (1995). Dictatorship, In the survey of social sciences: Governance and Politics service. *Salem Press*, 2.



young and improves the ranks of the middle class. In addition to that they serve as an agent of liberalization and possibly replace dictator (Lipset, 1959). Similarly (Deacon & Saha, 2005) notes that the levels and quality of public services declines when dictatorship is imposed. For instance, when Nigeria came under military rule in 1983, the primary school enrollment fell from 81% to 72% and infancy disease immunization rates has been fallen by more than one-half. In Argentina, the rural population's access to clean drinking water increases after civilian rule that established in 1973, but then fall short remarkably after the military coup in 1976. During 1970 in Greece's infant mortality rate drop by one-fourth as the country made the transition to democracy.

The purpose of study is to analyze the undesired effect of dictatorship on economic development. Economic development can be measured in term of disaggregate level through GDP. But latter on different theories presented which widen up the scope and not only look at the income there are certain indicator also which play a very important role in determining the extend of development in a economy In addition to income there are two more indicator, one is education and other is health. These two are integrate with income to determine the process of development. In this regard indicator developed by the United Nation Development Program (UNDP) knows as human development index probably the most successful, which capture the indicator of development achievement in to a single index. HDI gives a nice picture to measure the extent of development within countries. It classifies economic performance over a wide range of development variables such as primary school enrollment; child and adult mortality rate; life expectancy at birth. There are comparisons in term of HDI for development of different countries. In the UNDP report we observe different level of HDI across different countries to

access whether develop or not. According to the UNDP Report<sup>2</sup> in 2007/2008 which analyzed 26 countries having low economic development; out of that 25 were in sub Saharan Africa. South Africa taken as sub-Saharan economic power house ranked 125 in the world. But in addition to that the same report finds Brunei Darussalam having authoritarian regime ranked at 27<sup>th</sup> number among the top 50 countries in HDI Ranking. In term of human development other authoritarian regime such as UAE, Qatar and Bahrain also come among top 50 countries .But it is worthwhile to note here all these authoritarian regimes are rich in crude oil and natural gas. Contrary to this, China ranked at 94<sup>th</sup> position straggling behind Jordan, Suriname, and Dominican Republic.

This is an empirical endeavor to show that dictatorship negatively affect development. It invests less as compared to democracy. This view has implication on the income, provision of public goods such as public schooling, health services, safe drinking water, and public sanitation. For this purpose GDP as an indicator to measure extend of development of a country. As GDP per capita income gives the one side of picture in addition to that there are various dimension that are used to determine what are the extend of development of a country such as health, and education. To measure well-being of economy HDI is used as an indicator of development. Which is if our hypothesis was true should be of lower ranked in non-democratic regime as compared to democratic. For analysis purpose, most frequently two indices are used for measuring country's regime types. The first one is based on polity index. Polity Index is a well-established method/index of gauging a country's regime ranging from autocracy to democracy at any given time period. The second method is based on (Golder, 2005), which identifies regime types by introducing dummy variables. In the current study, the purpose is to precisely identify

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<sup>2</sup> . UNDP Human Development Report, 2007/8, [http://hdrstats.undp.org/countries/country\\_fact\\_sheets/cty\\_fs\\_GHA.html](http://hdrstats.undp.org/countries/country_fact_sheets/cty_fs_GHA.html).

regime type and in combination with HDI to establish the level of economic development a country has achieved.

## **Chapter 2**

### **Literature Review**

This section broadly draws attention to the literature done so far on the authoritarian regime and economic development. The literature review is basically divided into two parts. Section 2.1 covers the studies conducted to analyze the relationship between regime type and economic performance. Section 2.2 puts light on the literature done so far on the evolution of different types of regimes.

#### **2.1. Perspectives Analyze the Relationship between Regime Type and Economic Performance**

There are many empirical and theoretical studies which have investigated the impact of authoritarian regime on economic development. Some studies end up with finding a negative relationship between nondemocratic regime and development success. However other established literature did not find any evidence of the existence of such type of relationship between regime type and economic development. So different perspectives have been applied to analyze the association between regime types and economic performance: 1) conflict perspective; compatibility perspective; 3) skeptical perspective.

The proponent of conflict perspective argue that as few veto players are involved in autocrat government so decision making is more decisive, while democratic government may face postponement and indecisiveness in decision making. Autocratic government has the ability to pursue long term national policies in comparison with democratic process because they are relatively not came under the influence of outside pressure and face less political instability. In this view, Authoritarian regime has the ability to resolve conflict, cut off rent-seeking, and continue medium to long-run social investment plan. While democratic government try to

implement those policies with provides short term gain rather long term growth (Prezeworski, Adam, Alvarez, Cheibub, & Limongi, 2000).

On the other hand compatibility perspective argues that democracy is compatible with growth. In democratic states there is usually significant regulation and control on corruption without keeping too much centralized control as we have in autocratic government. Democracy enhances economic development because policies are more stable and predictable. While change in regime is come through election and more specifically it leave constitution and legal framework unchanged. In addition to that democracies are lesser possibility to go for war. Likewise,<sup>3</sup> Mesquita, Bruce, & Morrow ( 2003) study analyzed that dictatorships provides less political and civil liberties and conclude that dictatorship work for the interest of an elite group relative to whole population and this lead to undesired implication on the public goods. Diamond, Linz, & Lipset (1995) argued that to some extend it is hard to develop a effective nation's economy; society or its culture, norms without parallel construction of democratic politics'. Even if it manages to develop economically and socially but it neither guarantee economic well-being. With the objective of analyzing the impact of dictatorship on economic development, (Deacon & Saha, 2005) find a statically significant and negative relationship between dictatorship and provision of public good. This study is an empirical endeavor using wide range of indicator to measure public education (literacy rates, enrollment rates, persistence to grade level) and public health (immunization rates, access to clean water, infant mortality rates).

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<sup>3</sup>Mesquita, B. d., Bruce, & Morrow, J. D. (2003). *The Logic of Political Survival*. MIT press .

In contrast to above view skeptical perspective, argued the institution democratic versus autocratic are not the key of development. There is no statistically significant association between regime type and economic performance of the country. The key is reliable independent judiciary and police system that reject corruption. Rule of law matter in determining the pace of development. Many scholar defined rule of law as protection of political and economic rights, an independent judicial system, and professional and honest police force system. Islam (1999) argued that there is no significant relationship between political system and development. Economic performance of a country is independent of regime type. Along with Democracy is not a precondition (necessary condition) for economic development; it is empirically evident that non democratic government perform well and boost up economic growth. Example china, Chile, Greece, Spain economically performs outstanding under authoritarian regime (Saez & Gallagher, 2009). While comparing the successful case of development states taken in isolation. It is finds similar level of authoritarianism such as North Korean and South Korean from 1950,s until mid-1980 leads to opposite outcomes. Taken in to account difference in relative development success suggest there is intrinsic complexity of market, internal politics are the factors other than level of authoritarian regime.

## **2.2. Evolution of Different Types of Regime**

The classical theories on authoritarian regimes develop during the 1950s and 1960s were based primarily on a distinction between totalitarianism and authoritarianism. Later, (Linz & Stepan, 1996) have further improved classical classification by adding categories of post totalitarianism and Sultanism. later with the passage of time this typology soon got obsolete because it is seem that rarely any regime fit in the totalitarian category, while, the authoritarian category was, rather, too inclusive (Brooker, 2000). The criteria choose for this purpose was a little bit vague

and left some loopholes; and furthermore, no serious attempt has been made to apply the model systematically over time or, to a broader range of cases.<sup>4</sup>

Compared to earlier research, (Sartori, 1993) contemporary research is based on the identification of different sub categories that are not only theoretical point of view important as well as empirical point of view. In this regard Geddes made a remarkable contribution on the classification of authoritarian regime type literature. The study highlights qualitative division among authoritarian regime.<sup>5</sup> Geddes (1999) say that dictatorship is equally different from each other as much as they are different from democracy. The classification is based on the basis of which sub categories has control over access to power. This results in three kind of dictatorship. Geddes distinguished it as Personalist, military, and, single party regime. In Personalist regime is defined as where power and its distribution are concentrated in the hand of certain individual. In the dictatorship that is classified as military rule are states “in which military officers are predominant political actors by virtue of their actual or threatened use of force” (Nordlinger, 1977). Chile in the 1973–89 periods is a notable example. Lastly, in single party regime political control has been derived from dominant party. However, some classification problems present in this approach. Geddes (1999) admit that some uncertainty remain in the division of personalist

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<sup>4</sup> For instance, Snyder and Mahoney (1999) applied this classification to just one country.

<sup>5</sup> Firstly she shows some regime is more volatile and easily changed than other. Among these military regime was most easily broken and their period is the short-lived. Military regime leaves the stage with relative’s promptitude because of weak roots in society. Mostly for them it seems difficult to control or hold up popular protest. Personalist regime last longer, because they root themselves through the structure of clientelistic basis. However, one party rule is mostly long lived and their life expectancy last for longer time.

and the military regime. For example, there is possibility leader having military background and even wear uniform but still be an individual leader, which legitimizes the classification as a personalist rule.

Hadenius & Teorell (2006) argued that in Geddes typology two important types of dictatorships are missing; so in addition to Geddes typology they introduced monarchies and electoral dictatorships. In Monarchies succession of political power has been inherited from inside the royal family. As far as electoral forms of dictatorships are concern, their worked increased the accuracy in Geddes third category Personalist rule by it into three sub-categories: no-party, one-party, and multi-party regimes. For these sub-types to be fit in the definition of dictatorship elections must exist in such regimes. Many dictators permit some sorts of non-competitive normally manipulated, elections, but the effect of these is doubtful. To sum up we have five main types of regime monarchies; military; nonparty; one party and multiparty.

By putting a glance on transitions of rule from one to another. Out of the total number of regime transitions during 1950–2006, 43% were changed from dictatorship to dictatorship, while only 27% were transition from democracy to dictatorship and 31% from dictatorship to democracy (Magaloni & Kricheli, 2010).

The government in Saudi Arabia is a typical example of a monarchy. In one-party regimes, all parties except one is prohibited formally or by using de facto power from taking part in the elections process. North Korea is a typical one party regime. While in no- party regime elections held but all political parties (or at least any candidate representing a party) are banned. Elections in no-party regimes might exhibit an element of competition, but it exists only among individual candidates. The Maldives serve as example of this form of government.



## Chapter 3

### **Theoretical Framework and Methodology**

Established literature on socioeconomic development shows that there are various factors which may be held responsible for economic development disparities within or across countries. This study is an analysis of the impact of authoritarian regime on the economic development outcomes. One of the measures of economic development is GDP. However, using strictly GDP per capita may bypass other human aspects of development. Therefore in the present analysis our dependent variable is HDI along with independent variables polity, population density, infrastructure, remittances, industrialization, and ethnic heterogeneity has been recognized as growth enhancing factors in the development process.

In the current research policy variable is authoritarian regime. Authoritarian governments may have an incentive to invest less in human development process specifically in the impoverished regions. The rationale behind this is education and economic advancement is likely to create more highly mobilized rural politics. Van de Walle (2001) empirically investigated and finds that most contemporary African elites are care takers only of the needs and interests of small fraction of population as compared to general population.

Industrialization raises incomes of individuals through creation of jobs opportunities. The major effects of industrialization are to promote innovation, labor skills and technical education by improving return to human capital. It positively contributes to human development (Hawash, 2007). Similarly UNDP (2005), analyze the determinants of, and the relationship between the industrialization and human development in Kenya. The report studies the relationship of industrialization with different human development indicators like income, education, employment, agricultural productivity, skill formation and entrepreneurship. The

overall results showed that there had a strong, significant and positive correlation between industrialization and human development in Kenya. Furthermore, the study also mentioned some challenges face in the process of industrialization to human development in case of Kenya such as rapid urbanization, uneven development and limited skills over specialization, poor worker health, environmental degradation and over-crowded services. Moreover, it is suggested that if industry flourish, it would be supportive for human development via tackling poverty, improving opportunities to work, providing clean and healthy environment, create job security and quality of infrastructure, training and education, addressing gender disparity, information and awareness.

To investigate the relationship between social infrastructure and economic development (Chin & Chou, 2004), finds that social infrastructure has a strong positive relationship with economic development. The study shows that those countries who invest more on social infrastructure has been able to achieve better economic development as compare to the rest of counties. As they generate positive externalities. Education and health are social goods. It is productive to invest in education because it enhances human capital. The role of education as a social infrastructure enhances the growth process only if it is qualitatively provided. UNESCO recommends that minimum 15% of the national expenditure should be spend on education. Likewise public health is a major determinant of labor productivity and efficiency.

The relationship between remittances and economic development has been the key question in many findings. Iqbal & Sattar (2005) explain the impact of remittances on the economic development in case of Pakistan. After doing empirical analyses from 1972 to 2003, the study concluded that remittances are one of the important sources to increase economic development of Pakistan. Adam (2006) finds from an empirical study that remittances generally reduced poverty and could redistribute income so from this it is infer that there is a positive

correlation between remittances and human development. Adenutsi (2010) empirically investigated the long run impact of remittances on human development in lower income countries. Study is comprises of eighteen Sub-Saharan countries and used panel data from 1987 to 2007 for the study. According to their study remittances has a significant positive impact on the human development in Sub Saharan countries. Working in the same line (Fayisaa & Nsiah, 2010) analyze the association between aggregate remittances and economic growth with unbalanced panel data from 1980 to 2004 in thirty-seven African countries. Which explore the significance of remittances on the economic growth of African countries. So Remittances inflow can be a source of capital accumulation in receipt economies. The most obvious is direct financing result in increase in capital accumulation. In addition to that it improves the credit worthiness of domestic investor because large capital inflow lowers the cost of capital in the receipt economy

Filmer & Pritchett (1999) demonstrated that some countries may face social fractionalization; this fragmentation may be because of political and religious factor. It is explore that ethnically homogeneous societies like Sweden and Japan has been able to get impressive levels of human development because the more the coherence and brotherhood in the society which may fasten the pace of development. Secondly as these countries are free from racial, ethnic, and linguistic divisions. The rationale of introducing ethnic heterogeneity that it causes rigidity and it may slower down the pace of development process Furthermore, the study of (United Nations 1991: 3) finds that unified by a common language and culture, citizens of such societies may be enjoy equal share resources by creating equal opportunity to all. Moreover, ethnically homogenous societies presumably face less risk of violent conflict.

Molina & Purser (2010) used urbanization, demographic, fertility, female schooling as a determinant of HDI. While using data from 1970 to 2005 find that human development trend are robust with the longer term trend of demographic and population change. The overall result shows that demographic transition, urbanization, and declining fertility rate improve life expectancy and increase literacy rate

### 3.1. Econometric Methodology

$$\text{HDI} = f(\text{Dic}, \text{SI}, \text{IND}, \text{PD}, \text{Openness}, \text{REM}, \text{UB}, \text{SXP}, \text{AID}, \text{S.S.AFRICA})$$

In econometric form,

$$\text{HDI} = \beta_0 + \beta_1 \text{Dictatorship1} + \beta_2 \text{IND} + \beta_3 \text{SI} + \beta_4 \text{PD} + \beta_5 \text{OPENESS} + \beta_6 \text{REM} + \beta_7 \text{UB} + \beta_8 \text{SXP} + \beta_9 \text{AID} + \beta_{10} \text{S.S.AFRICA} + \beta_{11} \text{EH} + v \dots \dots \dots 3.1$$

$$\text{HDI} = \varphi_0 + \varphi_1 \text{Dictatorship2} + \varphi_2 \text{IND} + \varphi_3 \text{SI} + \varphi_4 \text{PD} + \varphi_5 \text{OPENESS} + \varphi_6 \text{REM} + \varphi_7 \text{UB} + \varphi_8 \text{SXP} + \varphi_9 \text{AID} + \varphi_{10} \text{S.S.AFRICA} + \varphi_{11} \text{EH} + v \dots \dots \dots 3.2$$

HDI= human development index

DIC 1= dictatorship

DIC 2= dictatorship

SI = Social infrastructure

EH = Ethnic heterogeneity

Ubn = Urbanization

REM = Remittances

IND = Industrialization

PD = Population density

SXP= share of natural resource

AID= aid

S.S.AFRICA= Sub Saharan Africa

### **3.2. Description of Variables and Source**

Economic development deals with the progress of economic growth in countries by improving the factor like health, education, working environment, market condition, and domestic and global policies. Economic growth is mostly measure in GDP per capita while comparing one country growth to another country performance. It gives one side of picture. As there are many factors that are held responsible for economic development. So we used HDI or inequality adjusted HDI as a dependent variable, which is an aggregate measure of development covering three dimension health, education, and income. The data of HDI and inequality adjusted HDI is collected from Human Development Report published by UNDP. In addition to dictatorship, some control variables social infrastructure, ethnic heterogeneity, industrialization, population density, and remittances represent all the other factors that could probably affect the economic development process.

#### **a) Human development Index**

The HDI used in the current study is the geometric mean of the three dimension indices  $HDI = (1/3\text{health} + 1/3\text{education} + 1/3 \text{ income})$ . these three dimension are further comprises of four indicators.

- 1) Life expectancy at birth
- 2) Mean years of schooling
- 3) Expected years of schooling.
- 4) GNI per capita (PPP \$)

Data is taken from Human Development Report published by UNDP.

#### **b) Dictatorship<sup>1</sup>**

In current analysis, for a country regime type Polity index is used. It is denoted by Dictatorship Polity IV project data on Polity which is formed by democracy-autocracy mean a nation polity score has been constructed by subtracting its autocracy score from democracy score. It is ranges from 1(Extreme Dictatorship) to 0(Ideal democracy), averaged from 1964-2009, depending upon availability. Data is collected from Polity IV data base, (Marshall & Jagger, 2000) “it rates countries on the basis of political competition, the openness and competitiveness of executive recruitment, and the extent of legislative and judicial constraints on the chief executive”.

### **c) Dictatorship2**

The second measure of country regime type is denoted by dictatorship2, it has been based on (Golder, 2005) which measures regime type by introducing a dummy variable where democracy takes a value 0 while dictatorship takes a value of 1. In the given research both of these measures are averaged from 1960 to 2000 and constructed in such a way that ranges from 0(ideal democracy) to 1(extreme dictatorship). The data on Yearly regime type has been taken from (Golder, 2005).

### **d) Remittances**

Remittances relates to those transfer which is received by household at home. In the current study we have used the average of personal remittances as a percentage of GDP. Personal transfers consist of all current cash transfer or in kind received by resident households to or from nonresident households. Data is taken from World Development Indicator from 1960 to 2013.

### **e) Industrialization**

Industry corresponds to that sector of economy which is comprises of manufacturing and production of different product. In the established literature various proxies has been used for industrialization to examine its relationship with development. We have used average industry value added as a percentage of GDP. It is a net output of manufacturing sector after adding and deducting intermediate product.

### **f) Population Density**

Population density is defined as midyear population divided by land area in square kilometer. The data is taken from 1960 onwards from world development report. In some countries data is not available for longer period so we take data for period in those countries.

### **g) Social Infrastructure**

Social infrastructure may be a more realistic or reliable indicator of development. In the current study we used average of education expenditure along with health expenditure % of GDP as a proxy of social infrastructure.

### **h) Ethnic Heterogeneity**

In the given research our measure of ethnic heterogeneity is Ethno-Linguistic Fractionalization. It is the likelihood that the two randomly selected individuals from a particular country not

belonging to the same ethno-linguistic group. The greater probability entails more ethno-linguistically diverse society. Data has been taken from Easterly and Levine (1997).

**i) Urbanization**

For urbanization we take average value of urban population as percentage of total population from 1960 to 2013. World Development Indicators, World Bank

**j) Openness**

It is measured as the sum of imports and exports of goods and services as percentage of GDP. It is taken from World Development Indicators, World Bank averaged from 1960 to 2013.

**k) Area**

We used in Square Kilometers as measure of total Area and the source is World Development Indicator.

**l) Share of Natural Resource**

It has been measured as the per cent share of natural resources exports (including agricultural and raw material exports, fuel exports, food exports, and ores and metals exports) in GDP, averaged from 1960 to 2000

**m) Aid Per Capita**

It comprises of total aid Received by a Country. It represents Official Development Assistance (ODA) and other official aid received in constant US dollars, taken as average from 1960 to 2013.

**n) Sub- Saharan Africa**

Dummies are introduced. It takes value 1 if country belong to Sub Saharan Africa continent,0 otherwise.

## Chapter 4

### Data, Empirical Results and Discussion

In current research we have used HDI as an indicator of Economic Development. In this section summary statistics are presented in Sections 4.1 and the results of OLS estimations are discussed in Section 4.2. In estimation our main focus is on the explanatory power of dictatorship while controlling for a bunch of other possible explanatory variables.

#### 4.1. Data and Summary Statistics

Due to the unavailability of data on the whole sample used in the study, annual averages data is used for cross-section regressions. The unavailability of data showed that variable is highly specific. In the present study cross-sectional data is examined by three factors i.e. unbalanced panel, the use of highly persistent variables<sup>6</sup> and due to the presence of endogeneity in case of dictatorship. The dictatorship is correlated with the errors of human development index. As in a country there is more socio economic development, it leads to highly educated people which in turn showed less persistence of dictatorship. In other way around more development will cause liberalization in the political system and more probably replaces the dictatorship. The countries used in the sample vary on the basis of highly persistent institutional variables. There are different types of these highly persistent institutional variables like democracy, military dictatorship, monarchy etc. Developed countries followed democracy as an institution; Arab countries follow monarchy while dictatorship is followed mostly by Asia, Sub-Saharan Africa.

In the analysis two types of regime indices are used i.e. dictatorship 1 and dictatorship 2. The dictatorship 1 index is constructed on the basis of nation's polity score and obtained by subtracting its autocracy score from democracy score (Marshall & Jagger, 2000) . The

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<sup>6</sup> Institutional variables



dictatorship 2 is in the form of dummy variable, takes value 1 means extreme dictatorship and 0 means extreme democracy (Golder, Democratic Electoral system around World, 2005). Both the measures of dictatorship are averaged and there values ranged between 0 and 1 for ideal democracy and dictatorship respectively. The dependent variable is HDI and IHDI. HDI is potential economic development that could be attained if there is no inequality.

**Table 1: Summary Statistics of the Variables**

Variable	World	Europe	Asia	Sub-Saharan Africa	Neo-Europe	Others
Human development index	0.65 (0.17)	0.84 (0.401)	0.69 (0.11)	0.45 (0.11)	0.89 (0.013)	0.65 (0.09)
Inequality adjusted HDI	0.65 (0.17)	0.46 (0.25)	0.50 (0.24)	0.30 (0.27)	0.37 (0.28)	0.54 (0.28)
Dictatorship1	0.45 (0.27)	0.104 (0.178)	0.62 (0.35)	0.61 (0.18)	0 (0)	0.43 (0.26)
Dictatorship2	0.43 (0.32)	0.157 (0.291)	0.76 (0.36)	0.92 (0.11)	0 (0)	0.56 (0.37)
Industrial value added as% of GDP	32.2 (12.4)	29.38 (4.71)	41.5 (15.6)	26.8 (13.0)	28.2 (4.35)	33.9 (10.9)
Social infrastructure	7.71 (3.07)	11.87 (2.183)	5.87 (2.03)	5.75 (1.69)	12.1 (1.16)	7.17 (1.87)
Population Density	86.1 (120.9)	140.6 (116.5)	155.6 (195.8)	40.0 (38.9)	11.8 (12.1)	54.5 (70.3)
Openness	54.3 (41.1)	72.0 (76.5)	58.5 (32.2)	43.5 (16.5)	36.1 (16.2)	53.3 (26.5)
Remittances	1.84 (2.29)	0.93 (1.21)	1.66 (2.06)	1.67 (1.76)	0.40 (0.48)	2.92 (3.03)
Urbanization	49.0 (23.1)	68.3 (12.4)	48.0 (23.4)	27.8 (13.2)	80.3 (5.03)	51.1 (19.4)
Ethno-Linguistic Fractionalization	0.23 (0.28)	0.16 (0.26)	0.28 (0.33)	0.24 (0.26)	0.56 (0.43)	0.19 (0.24)
Area (in thousands square Kilometers)	1050.9 (2024.8)	229 (184.6)	1225.6 (2283.1)	669.25 (537.25)	6955.1 (4574)	972.1 (1620.9)
Natural Resources	16.5 (13.4)	9.74 (9.77)	22.0 (18.4)	15.8 (11.2)	10.2 (6.29)	19.4 (13.1)
Aid Per Capita (in US \$)	14.73 (19.01)	3.9 (11.4)	12.51 (27.26)	21.81 (10.62)	0 (0)	17.71 (20.53)
Sub Sahara Africa	0.24 0.43	0 (0)	0 (0)	0.92 (0.28)	0 (0)	0 (0)

Note: Each entry is the Average of the variable with Standard Deviation in the Parenthesis.

IHDI is actual level of development which captures inequality. In the table 1 annual averages of all variables used in this study are given, by comparing the averages of world and continents.

The average value of Dictatorship1 and Dictatorship2 indicates that more than 40% countries of the in the world have experienced dictatorship since 1960-2013. The average score of

Dictatorships is between 0.43 and 0.45. While examine the continents wise distribution Neo-Europe countries has experienced ideal democracy. The summary statistic table below shows

that average score of our measure of HDI and IHDI is 0.65. The difference between HDI and IHDI capture the losses in development due to inequality in education, health and income.

Although continental wise division reflect a diversion pattern but it is hard to compare as data is missing for sixteen countries. Sub-Saharan Africa has the greatest inequality in the HDI and averaged score is around 0.30.

#### **4.2. Interpretation Human Development Index**

In the current research HDI is used as an indicator of development instead of GDP. The rationale behind this, it is an achievement approach which focuses on outcome and gives a nicer picture of economic development. It overcomes the limitation of mean perspective view. The primary control variables used in all specification of HDI are industrialization, social infrastructure, population density, and openness. To make sure result are not the representative of some characteristics of these countries. Urbanization is used as a controlled variable in some specification to see its impact on development because it is view rapid urbanization leads to urban bias in their development strategies. The notion that government give favor to urban sector through policies, which widen the gap between rural and urban economies. In addition to that we control for ethno linguistic fragmentation because, it slow down growth process due to increased civil conflicts, racism, and prejudices. Similarly population density is controlled in all

specification. It is a welfare indicator. Population density is not overpopulation, but it is the numbers of people in an area relative to its resources and the capacity of the environment to sustain human activities. It contributes to socioeconomic development process if there is vertical integration and agglomeration of economies as in case of metropolitan cities and big cities i.e. Korea. On the other side it negative affects development process if slum generate and most of population of that area compete for resources. Heterogenic societies may face distributional issues because counterproductive government policies are made to suppress certain ethnic groups rather than promoting growth and development, Aid, share of natural resource are also controlled in some specification.

Political institution is generally considered to be a fundamental cause for economic development. For that we have used two measure of dictatorship as defined previously. Table 2 shows the regression result of our variable human development index. Each column is including a subset of these control variables. In the first regression HDI is regress on Dictatorship1, industrialization, social infrastructure, population density, openness. The regression result suggests that Dictatorship1 as measured by polity has a significant negative effect on HDI. It shows that going from democracy to extreme dictatorship there will be approximately 0.17 decreases in HDI. It is probably explained by the fact that it invests less on population welfare such as education (promotion of adult literacy rate) and in healthcare i.e. control of contagious disease, access to safe drinking water, hospital.

**Table 2: OLS Regressions for Human Development Index**

Dependent Variable: Human Development Index											
Explanatory Variables	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
Constant	.289*** (.048)	.296*** (.058)	.299*** (.052)	.298*** (.061)	.277*** (.044)	.264*** (.048)	.291*** (.053)	.282*** (.050)	.311 *** (.055)	.312*** (.064)	.408*** (.050)
Dictatorship 1	-.17*** (.042)		-.175 *** (.042)		-.118 *** (.037)		-.18*** (.042)	-.173*** (.042)	-.138*** (.034)	-.125*** (.043)	-.135*** (.033)
Dictatorship 2		-.135*** (.037)		-.133 *** (.037)		-.075*** (.031)					
Industrialization	.007*** (.001)	.007*** (.001)	.007 *** (.001)	.007 *** (.001)	.0038*** (.001)	.004 *** (.001)	.007*** (.001)	.007*** (.001)	.008*** (.001)	.007*** (.001)	.005*** (.001)
Social infrastructure	.027*** (.0037)	.028 *** (.00409)	.027*** (.004)	.0275*** (.004210)	.015*** (.003)	.017*** (.003)	.027*** (.0037)	.027*** (.0038)	.024*** (.0037)	.0185** (.0075)	.022*** (.003)
Population density	.0002** (.0002)	.00015 * (.00009)	.001** (.00009)	.00015 * (.0000876)	.0002** (.00008)	.0002** (.00008)	.0002** (.0000)	.0002** (.00008)	.00007 (.00006)	.0002 (.0001)	.00004 (.00008)
Openness	-.0002 (.0002)	-.00009 (.0002)	-.0001 (.00018)	-.00008 (.0002)	-.0001 (.0002)	-.0001 (.0003)	-.0002 (.0002)	-.0001 (.0002)	.0005 (.0003)	-.0001 (.0005)	-.0001 (.0002)
Remittances			-.003 (.0041)	-.001 (.003763)							
Urbanization					.0037*** (.0006)	.0037*** (.0006)					
Ethno-Linguistic Fractionalization							.029 (.034)				
Area									5.94e0*		

(2.79e0)

Share of  
natural resource

-.0028\*  
(.0016)

Aid

-2.28e11  
(3.78e1)

Sub-Saharan  
Africa

.148\*\*\*  
(.024)

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R2	0.70	0.70	0.70	0.70	0.83	0.82	0.70	0.70	0.71	0.55	0.80
F-Statistic	60.18	62.39	55.57	52.36	73.44***	70.65	48.23	53.04	49.12		94.7***
N	92	92	92	92	92	92	90	92	92	70	92

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Note: \* Significant at 10%; \*\* Significant at 5%; \*\*\* Significant at 1%. Robust Standard Errors in the Parenthesis. There are no significant differences between estimation with dictatorship1 and dictatorship2; therefore we use dictatorship1 in all the sensitivity specifications.

Alternately, going from extreme dictatorship to ideal democracy there will be approximately 0.17 improvements in HDI. Which is explained that democracy take care of wide cross-section of society. While the coefficients of industrialization, social infrastructure, population density are statistically significant and showing positive influence on HDI and openness has no significant influence on HDI as shown in column 1. In regression2 Dictatorship1 is excluded and added Dictatorship2 and estimate the model with same independent variable as used in column1. Regression1 and regression2 is our baseline models given in column I and II. These two models are used for further analysis. Control variables are add one by one with Dictatorship1 and Dictatorship2 alternatively for evaluating which policy variable gave more consistent results and also checking for misspecification of model. In regression three and four the variable of remittances are added but it gave an insignificant impact on HDI. As indicated in column 5 and 6 two regressions equation are estimated with Dictatorship1 and Dictatorship2 by adding the variable of urbanization in baseline model which shows that it has a significant positive impact on HDI. The results point outs that one unit increase in average urban population as a percentage of total pollution there will be approx 0.0037 unit improvements in HDI. Ethno linguistic fragmentation and Aid does not have significant influence on our result. In addition to these, area and share of natural resource is also controlled in some specification to see if it has any impact on socioeconomic development. There is a negative significant association between natural resource and HDI as given in table II. This is probably explained by the fact that resource abundant economy that suffer from corruption, substandard education level, low investment, protectionist measure most likely will not benefit from its natural wealth. As the coefficient of natural resource is significant but the difference between extreme dictatorships and ideal democracy is around 0.17units. So natural

resource does not change the magnitude and significance our result. In the regression XI dummy for sub-Saharan countries is introduced to check whether attributes of these countries have any significant impact on HDI or not.

**Table 3: 2SLS Regressions for Human Development Index**

Explanatory Variables	Dependent Variable: Human Development Index							
	I	II	III	IV	V	VI	VII	
Constant	.543*** (.037)	.587*** (.038)	.394*** (.037)	.435*** (.0501)	.4117*** (.027)	.495*** (.041)	.649*** (.035)	
Dictatorship1	-.193*** (.068)		-.178*** (.057)		-.240*** (.072)	-.241*** (.073)	-.283*** (.054)	
Dictatorship2		-.278*** (.058)		-.172*** (.055)				
Industrialization	.006*** (.001)	.007*** (.0009)	.003*** (.001)	.003*** (.001)	.005*** (.001)	.009*** (.001)	.005*** (.001)	
Social infrastructure	.018*** (.0034)	.017*** (.0043)	.013*** (.003)	.023*** (.0037)	.017*** (.003)	.027 (.0047)	.0187*** (.005)	
Population density	.00006 (.0001)	.00001 (.00009)	.0001** (.00007)	.0001 (.00007)	.0003 (.0002)	-.00003 (.0001)	-.00008 (.00009)	
Openness	.0003 (.0002)	.0004 (.0002)	.00002 (.0003)	.0001 (.0003)	.0007*** (.0002)	.001*** (.0004)	.0001 (.0002)	
Urbanization			.0045*** (.0006)	.004*** (.0007)				
Area					1.52e-08* (9.12e-09)			
Share of natural resource						-.005*** (.002)		
Sub Saharan African							-.169*** (.028)	
Adjusted-R <sup>2</sup>	0.65	0.86	0.66	0.81	0.36	0.63	0.74	
Wald-chi2	58.5***	63.4***	318.4***	278.9***	277.2***	60.9***	275.9***	
N	92	92	92	92	92	92	92	

**Note:** \* Significant at 10%; \*\* Significant at 5%; \*\*\* Significant at 1%. Robust Standard Errors in the Parenthesis. In 2SLS, the  $R^2$  has no statistical meaning and therefore is omitted from the table. For all of our specifications: For the Sargan test statistic P-Value >0.05, which implies the validity of instruments. We report 2SLS results only for those specification in which some of the coefficients are significant in case of OLS along with baseline regressions.



After getting the initial estimate, it is good to check the results are robust to the problem of endogeneity. For instance it is quite possible in the current research that higher development may cause liberalization in political process and probably replace the dictatorship. For the purpose of this study, the approach of instrumental variable is adopted for dealing with the problem of endogeneity. For the two alternative measures of dictatorship legal origin and Muslim denomination as an instrument. Legal origins are regarded as colonial legacy and most commonly used instrument for the quality of institution (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999). Whereas, since the spread of Islam, Muslim ruler have attracted that earth belong to God and they rule as a God's deputy or lieutenant on this earth. Thus, Muslim beliefs have an associated legitimacy for the persistence of dictatorships and to the best of our knowledge. Second, it is belief that religious and politics are not separated entity (Khan & Shah, 2010). This dimension is first time used by Khan and Shah to gauge dictatorship. This is evident by the fact that Muslim majority are less democratic than non Muslim majority. There has been a negative statistical correlation between Islam and democracy. For instance, for the year 2004, the polity IV data set ranks the countries on the basis of governess. It ranges from -10 (extreme dictatorship) to 10 (ideal democracy). The result indicated that Non-Muslim countries average score was 5.45 and for Muslim majority countries the score assigned is -2.16. None of the Muslim country was allotted polity IV highest score 9 or 10.

Similarly, legal origin of colonizer determines current legal system and current institution (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999). Legal origin is shown to shape institution because different legal tradition, imposed during colonization, affect current legal system being more globally and accepted in this region; British common law is proposed to be used as one of our instrument. These approaches circumvent the problem of endogeneity i-e

Muslim denomination and legal origin determine the current political institution, but not directly affect development outcomes. It has no role in current policy choices.

For incorporating the problem of endogeneity, as explained above, 2SLS approach is used. The results of 2SLS are given in table3. First to check whether the alternative measure of dictatorship is endogenous or not we have applied test of endogeneity on it. From result it is observe that there is problem of endogeneity, so our results of 2SLS are consistent with instrument variable. For testifying the instrument validity used for Dictatorship, Sargan test is applied on our Model. The results show that the P- values  $> 0.05$ ,  $H_0$  cannot be rejected so instrument is valid. The results of 2SLS are given in table. In column I the coefficient of Dictatorship 1 are statistically negative significant at 1 percent. Similarly the variable of Dictatorship 1 in model II to VII are also show that with the addition of control variable if we made a transition from dictatorship to democracy there will be improvement in Human Development index.

## Chapter 5

### Conclusion

Earlier studies there is widespread acceptance of Harrod- Domar as a benchmark growth model which focused entirely on physical investment. Later on human capital and technological progress are taken up as engine of growth because theories are based on the idea that these things are the cause of economic development and result in economic growth. Later on researcher questioned these theories and asked why some countries invest less on physical and human capital as compare with others. Modern theories developed later on answered that political institution as fundamental cause and investment physical and social were found to be proximate cause.

The main attempt of this research is to check the impact of dictatorship on economic development in cross-setting analysis of ninety two countries. In the literature there are different perspective which analyzed the relationship between regime types and economic development. According to these perspectives autocratic regime is held responsible for both development success and failure. These different approaches provide a useful insight and this help in making our research hypothesis.

Using data from ninety two countries over the period of 1960 to 2013, human development index is used as a measure of growth. In this study two alternative measure of dictatorship. In addition to that industrialization, social infrastructure, population density, area, urbanization, remittances, share of natural resource, Aid, Ethno-Linguistic Fractionalization , Sub-Saharan Africa are all our control variable applied to discuss and empirically estimate the hypothesis that state dictatorship negatively affects development. The results, based on data from the cross-section of the countries, confirm the Hypothesis, i. that dictatorship hampers economic

growth. It has a significant negative effect on the economic development. Results also demonstrate that behavior of the dictatorship is to spend less on people's welfares such as education and health i.e. provision of public goods such as public schooling, health services, safe drinking water, and public sanitation. Therefore it can be concluded that going from democracy to extreme dictatorship there will be a decrease in HDI. Alternatively a transition toward democratic institution is efficient because a popularly elected government shows more concern toward the welfare of their people's as compared to dictatorship. As they are accountable to people so they are more likely to work harder to improve economic development. Secondly by doing so they are in a position to maintain the supports of majority of electorate.

Most of societies throughout history are ruled by extractive institution. Based on the literature discussed and finding of study it can be concluded that a country can grow better if it has inclusive political institution which is supported by inclusive economic institution i.e. investments in education and infrastructure. In addition to that three door steps are required for a transition from extractive institution toward inclusive institution.

1. Rule of law
2. Consolidation of military power.
3. Perpetually living organization.

Therefore democracy plays a much better role in economic growth of country as compared to autocracy. This is supported by the example of Botswana which is a developmentally successful African country. It manages to maintain democratic process. As democracy strengthens their economic institution, country attained a high level of growth and provided resource to finance health care, education and infrastructure improvement. It ranked at Medium HDI countries valued at 0.61 in term of HDI as compared to Uganda, which stand far

behind, placed at Low HDI countries. Similarly, after Korea split, South Korea transformed in to Asian Tiger showing huge economic prosperity while North Korea growth remain stagnant and level of per capita income is approximately similar Sub- Saharan African countries. Despite of same geography, culture and other determinants, their different economic performance can be possibly explained because of difference in political institution.

This research demonstrates that absolute power leads to bad economic policies and negative effect on economic development. A possible explanation for the result of study can be that dictators who stay in office for a long time period tend to become increasingly corrupt, involves in rent seeking activities, deliver poor governance. All this have negative impact on economic growth. So this research can also be read as another contribution to big debates that link between autocratic institution and economic development. But there is a belief that more future research is required for policy recommendation

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## Appendix

**Table A1: Results of the Sargan Test for Over-identifying Restrictions.**

### HUMAN DEVELOPMENT INDEX

Specification	Sargan Results	
	Sargan Chi-Square Values	P -values
I	1.16886	0.2796
II	2.374	0.315
III	.085	0.77
IV	.254085	0.6142
V	3.675	0.118
VI	1.39	0.124
VII	1.941	0.163

**Table A2 Regional Divide of Countries**

Regions	No. of Countries	List of Countries
Europe	18	Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom
Asia	18	Bangladesh, Sri Lanka, China, India, Indonesia, Iran, Japan, Kuwait, Malaysia, Oman, Pakistan, Qatar, Saudi Arabia, Vietnam, Syria, Turkey, South Korea, UAE
Sub- Saharan Africa	24	Angola, Botswana, Cameroon, Central African Republic, Chad, Democratic Republic, Ethiopia, Gabon, Ghana, Guinea, Kenya, Madagascar, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Zimbabwe, Togo, Uganda, Tanzania, Burkina Faso, Zambia, Mali
Neo- Europe	4	Australia, Canada, New Zealand, United States of America
Others	28	Algeria, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Libya, Mexico, Morocco, Nicaragua, Panama, Papua New Guinea, Paraguay, Peru, Sudan, Trinidad and Tobago, Uruguay, Venezuela, Tunisia, Egypt



**Table A3: Summary of the Definitions and Sources of Variables**

<b>Variable</b>	<b>How to measure</b>	<b>Source</b>
Human Development Index	HDI is geometric mean of the three dimension indices $HDI = (1/3health + 1/3education + 1/3 income)$ . These three dimension are further comprises of four indicators.	Human Development Report published by UNDP
Dictatorship1	Polity IV project data on Polity which is formed by democracy-autocracy mean a nation polity score has been constructed by subtracting its autocracy score from democracy score. It ranges 0 to 1, average from 1960 to 2009	Polity IV, (Marshall and Jaggers, 2000)
Dictatorship2	Variable is measured by introducing a dummy variable where democracy takes a value 0 while dictatorship takes a value of 1. Then their averages are taken from 1960 to 2000.	The data on Yearly regime type is taken from Golder (2005)
Industrial value added	Average industry value added as a percentage of GDP. It is a net output of manufacturing sector after adding and deducting intermediate product.	World Development Indicators, World Bank
Social infrastructure	we used average of education expenditure along with health expenditure as % of GDP as a proxy of social infrastructure.	World Development Indicators, World Bank
Population density	Population density is defined as midyear population divided by land area in square kilometer.	World Development Indicators, World Bank
Openness	It is measured as the sum of imports and exports of goods and services as percentage of GDP. It is averaged from 1960 to 2013.	World Development Indicators, World Bank
Remittances	The average of personal remittances as a percentage of GDP. Personal transfers consist of all current cash transfer or in kind received by resident households to or from nonresident households. Data is taken from 1960 to 2013.	World Development Indicators, World Bank
Urbanization	Average of urban population as percentage of total population from 1960 to 2013.	World Development Indicators, WorldBank
Ethno-Linguistic Fractionalization	It is the likelihood that the two randomly selected individuals from a particular country not belonging to the same ethno-linguistic group. The greater probability implies more ethno-linguistically diverse society.	Easterly and Levine (1997)
Area	Total Area in Square Kilometers. Data is taken from 1960 to onward.	World Development Indicators, World Bank
Share of Natural resource	It has been measured as the per cent share of natural resources exports (including agricultural and raw material exports, fuel exports, food exports, and ores and metals exports) in GDP, averaged from 1960 to 2000.	World Development Indicators, World Bank
Aid Per capita	Total aid Received by a Country. It represents Official Development Assistance (ODA) and other official aid received in constant US dollars.	World Development Indicators, World Bank
Sub Saharan Africa	Dummies are introduced. It takes value 1 if country belong to Sub Saharan Africa continent, 0 otherwise.	Taken from (khan,shah)
English Common law	Dummies introduced, It takes a value of 1 if the country's legal origin is based on British common law and 0 otherwise.	La Porta et al.(1999).
Muslim	We have taken percentage of population in a country belonging to Islam in 1999. La Porta et al. calculated these values for 1999.	La Porta et al.(1999).

