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Democracy, Political Stability, and Developing Country Growth: Theory and Evidence

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Abstract

This research project examines the hypothesis that democracy and political stability have significant effects on economic growth in developing countries. Previous empirical studies find rather ambiguous results when testing for the relationship between democracy and growth. This paper extends these past studies by focusing on the effects of democracy and political stability in developing countries. It also attempts to differentiate the effects of political stability and democracy on economic growth. The results suggest that democracy has a negative effect on economic growth. However the results also suggest that political stability regardless of the level of democracy has the greatest effect on a countries economic growth.

I) INTRODUCTION

Many studies have been conducted on the relationship between democracy and growth. The general understanding of the relationship between economic growth and democracy is that democracy fosters economic growth relative to non-democracies in a given country. Nevertheless this theory has come under the scrutiny of many economists, who point out that countries such as Hong Kong, Singapore and Taiwan, which achieved 'super growth' regardless of the fact that the governments of these countries are authoritarian in nature (Nelson and Singh 1998). However, the results of statistical studies conducted on this subject have been rather inconclusive. This paper argues that such inconclusive results stem from using reduced form models that pool data from developing and developed countries. This paper focuses on only developing countries to test the hypothesis that democracy can have a negative effect on their economic growth and that it is political stability regardless of the extent of democracy that would have the most significant effect on growth in developing countries.

Economic growth and Democracy are two terms that have often been heard used in the same context by public commentators, politicians, and popular media. Thus we are often faced with the question of whether the theory that democracy fosters economic growth is simply the wishful thinking of people who value both democracy and growth. The importance of looking at this question in greater detail lies in the fact that it is a key policy question for many international aid institutions such as the IMF and World Bank. This issue is particularly important to many developing countries due to the fact that one of the most important preconditions towards obtaining aid from these institutions is political liberalization. Thus, are policies of western countries that encourage the

installation of democracy to spur economic growth in countries like Somalia and Haiti of any practical use?

In many developing countries political liberalization can lead to economic policies that are detrimental to economic growth. As an example, countries that have a greater level of political freedom may not implement policies such as trade liberalization that could have a beneficial effect on growth. This can be illustrated by examining the situation that South Korea faced during the late 1980's when its government tried to move towards not only greater political freedom but also economic freedom. Thus with democratization in full swing, Korean interest groups, such as the farmers, agitated against free market policies, such as import liberalization, preventing the existing government from implementing free market policies.

Therefore, I will approach this topic by first looking at some of the theories and important literature pertaining to how democracy affects growth. In this section I shall also review some of the shortcomings of previous empirical studies with reference to this subject. The subsequent section lays out the four hypotheses relating the effect of the political variables used in this paper on economic growth. Section IV explains the data sets that are used to estimate the relevant hypotheses. Sections V and VI explore how democracy, political stability, economic growth and government effectiveness affect economic growth through their influence on variables such as investment, human capital, and government spending. This model, which is referred to as the 'indirect/direct effects model' estimates the direct and indirect effects that political stability and electoral system have on the rate of economic growth. In the results section, I will present the results of my empirical model and compare these results, with the results that I expected from

previous research. I will also discuss in this section the reasons why the results of certain explanatory variables differ from what was predicted by my model. And finally, I will conclude my paper by summing up what the important results of this study are and how these results apply to important policy choices made by governments and aid-institutions.

II) LITERATURE REVIEW

In the current literature there are two broadly opposing views pertaining to this link between growth and the degree of democracy, the "comparability perspective" and the "conflict perspective" (De Haan and Siermann, 1995) The 'comparability perspective' is espoused by a school of economists and political scientists that maintains that democracy has a beneficial effect on growth both directly and indirectly. On the other hand, the conflict perspective is defended by a second school of thought that maintains that democracy has an adverse effect on growth. Defenders of the conflict perspective point to countries such as Hong Kong, Singapore, and Taiwan, which achieved "super growth" regardless of the fact that the governments of these countries were authoritarian in nature (Nelson and Singh 1998). On the other hand, others point to the dismal performance of economies in authoritarian regimes in many African countries. The *Economist* states, "If dictators made countries rich, Africa would be an economic colossus" (Nelson and Singh, 1998). The arguments between these two views follow along the lines of which regime can maintain property rights, curtail current consumption, and implement timely and appropriate economic policies that both lead to and sustain growth.

Proponents of the comparability perspective argue that democratic institutions create a system of checks and balances that effectively control governmental power and

limit the potential for the implementation of unpopular policies. Secondly, it has also been argued that democracies are better able to protect private property, which many economists claim to be the "foundation of material progress" (De Haan and Siermann 1996). Also, human capital is another channel through which democracy could effect growth as democracies give greater weight towards the basic needs of the public. Barro(1996), in his empirical study investigating the relationship between democracy and economic growth, finds a non linear relationship in which more democracy enhances growth at low levels of political freedom but depresses growth once a moderate level of political freedom has been achieved.

Development requires large amounts of investment that requires substitution away from current consumption. Thus, proponents of the conflict perspective are wont to argue that a democratic government is unable to implement such policies for fear of being voted out of office. It has been stated that, "Such investment programs imply cuts in current consumption that would be painful at the low levels of living that exist in almost all developing countries...No political party can hope to win a democratic election on the platform of current sacrifices for a bright future" (Przeworski and Limongi, 1993). Authoritarian regimes have more centralized power with which to "orchestrate economic growth" than democracies, particularly in developing countries (Minier 1998). Neither is there a principle that claims that non-democratic governments cannot maintain private property. On the other hand, it has been argued by Przeworski and Limongi that democracies in developing countries may actually have an adverse effect on private property rights: "Democracy offers those who are poor, oppressed or otherwise miserable a consequence of the initial endowments an opportunity to redress via the state. Endowed

with political power in the form of universal suffrage, those who suffer as a consequence of private property will attempt to use this power to expropriate the riches...The widespread usage of democracy as a 'proxy' for guarantees of property rights...is thus unjustifiable" (Przeworski and Limongi 1993).

Previous empirical studies

In conclusion it can simply be stated that the relationship between the extent of democracy and economic growth has, at best, been ambiguous. A survey article written by Przeworski and Limongi on the supposed link between democracy and economic freedom reports that out of 18 studies surveyed, only 7 found statistically significant relationships.(Przeworski and Limongi 1993) Another survey conducted by Borner reports that out of 16 empirical studies conducted on this link, only 3 had a positive and relatively robust association between democracy and growth. Also, three of these empirical studies discovered a negative association between these two variables, whilst the remaining 10 had ambiguous results (Tavares and Wacziarg 2001). Such results have led some economists to subscribe to what Haan and Siermann call the "skeptical view". This view doubts the existence of a viable statistical relationship between democracy and economic development. Instead they theorize that the kind of policies that are pursued by the government, institutional arrangements, and political stability are far more important than regime type (Haan and Siermann, 1996).

One of the biggest shortcomings of many of the studies (Barro,1991; Weede, 1996; Tavares and Wacziarg, 2001) conducted on the relationship between democracy and economic freedom is that they use samples that lump together countries that have

well developed democratic systems and recently democratized developing countries. Lumping these dissimilar countries together in one study, which is trying to discover the relationship between democracy and economic growth may result in rather biased results that indicate democracy as a significant variable that effects growth. As mentioned before, the importance of a study looking into the relationship between these two variables is its importance to developing countries. Also in many developing countries, productivity and democracy seem to come at the expense of each other. Therefore I will be limiting my sample size to include only developing countries.

Secondly, this paper argues that political stability is not necessarily a function of democracy. According to Tavares and Wacziarg, one of the characteristics of democracy is "transparent rules for the alternation of political forces in power" which discourages uncertainty. (Tavares and Wacziarg 2001) However, looking at the tyranny of majoritarian democracies, such as in democratic Sri Lanka, confirms that democracies do not automatically guarantee political stability (Gupta, Madhavan, and Blee, 1998). Therefore, this paper will use political stability as an exogenous variable. This paper basically puts forward the argument that the linkage between economic growth and political stability is robust regardless of the form of political regime existing in a given country.

III) RESEARCH HYPOTHESES.

The model presented here is an adaptation of the standard neoclassical one-sector growth model used by Barro in his paper, "Democracy and Growth". This model, like most models explaining the relationships between democracy and growth (Barro 1990; Gupta, Dipak, Madhavan and Blee 1998, Tavares and Wacziarg 2001), assumes that that governments provide law and order, enforce contracts, and defend private parties against external threats, as well as provide inputs for private production that are not efficiently supplied through the market. Therefore, these models begin with the assumption that governments are the locus of decision making, playing a significant role in optimizing efficiency, growth, and welfare (Przeworski and Limongi 1993). Consequently, it can be argued that variables such as physical and human capital are affected by the stability and type of government in a given country. Thus the political dimension that this paper addresses has been added to the neoclassical growth model using the following variables; level of democracy, level of political stability, level of government effectiveness, and level of economic freedom.

Hypothesis I) - Democracy has a significant negative impact on economic growth in developing countries.

The importance of the level of democracy can be illustrated using the following example. Let us first assume that the economy in a given country consists of a number of rent seeking groups. In a democratic country the government is then controlled by one of these groups or a coalition of different groups. Such environments automatically promote rent seeking as the government seeks to satisfy the ruling group or coalition of groups

with the hopes of gaining or staying in power. It can be stated simply that the government is selfish, in the sense that it is concerned purely with the welfare of its own members (Anthony Annett, 2001). The group that the government represents is important as the government must then choose between consuming or investing in physical capital. Thus the government faces a trade-off between implementing policies that build political capital through rent seeking activities that favor current consumption and growth oriented policies. Thus developing countries with democratic regimes are more likely to promote consumption at the cost of savings.

Hypothesis II) - Political stability is significant positive determinant of growth.

In this paper, the probability of losing power is associated directly with the degree of political instability in the country. Such instability can have serious consequences on economic growth as there is a direct connection between capital flight and political instability. When a political regime is unstable, saving rates decrease as instability compels consumers to increase spending as their savings could become worthless. Savings also become redundant when political instability leads to the displacement of people, depriving them of a source of living. Investors' demand for fixed capital stocks will also decrease with increasing political instability. Even when investors do invest, they tend to favor industries and investment opportunities that are liquid and speculative. Thus, investment in such countries tends towards low productivity industries that are not capital intensive which would provide the foundation for development. As a result, two of the most essential factors that sustain economic growth, investment and savings, are affected adversely by political upheavals (Y.Feng, 2001).

Hypothesis III) - The level of Economic freedom in a country is an important determinant of economic growth.

Numerous studies have documented a robust positive effect of economic freedom on economic growth. Economic freedom can be described simply as a measure that characterizes the degree to which an economy is a market economy. In other words, it is a measurement of the ability to enter into voluntary contracts with limited government intervention in the form of regulation, taxes, and rule of law which upholds contracts and protects private property (N. Berggren, 2003). So how does economic freedom affect growth? Economic freedom increases growth through its effects on the neoclassical growth factors, physical capital and human capital. According to Douglas North, the type of institutions in place has an important effect on the incentives of economic actors to be more efficient or inefficient. Thus, theoretically, institutions that promote economic freedom also have the capacity to promote incentives which in turn promotes productivity. Consequently, it can be claimed that economic freedom has the capacity to promote efficiency by encouraging competition due to fewer regulations and government enterprises. It also enables specialization and economies of scale, as economic freedom "enables talent to be allocated to where it generates the highest value" (N. Berggren, 2003). Thus, economic freedom may constitute an explanatory factor for growth in developing countries.

Hypothesis IV) - Ceteris Paribus the level of Government effectiveness has a positive effect on economic growth.

It has been argued that the neoclassical result of efficient markets holds up only when there are no transaction costs. However, when it is costly to transact, then institutions matter. According to Douglas North, "Institutions form the incentive structure of a society, and the political and economic institutions, in consequence, are the underlying determinants of economic performance" (North, D.C, 1994). Thus, the government effectiveness indicator denotes the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies (Kaufmann, Kraay and Mastruzzi, 2004). In other words, government effectiveness measures the competence of government institutions. Thus, theoretically, if government institutions were functioning efficiently by reducing the costs of transactions, there would be an increase in the productivity of the neoclassical growth variables. This in turn would stimulate economic growth.

IV) DATA.

My model will utilize cross sectional data from 112 developing countries This study uses data from a number of sources including the 2003 edition of the World development Indicators, Heritage index, Polity IV project as well as the World Bank government indicators. My variables measuring the quality of governance such as political stability and the effectiveness of governance were obtained from the World Bank government indicators. The variable measuring the level of democracy in each country was obtained from the Polity IV index. Most of the variables, including growth and the democracy index, enter as four- five year averages, which limit the potential for measurement error and business cycle effects driving our results.

The dependent variable used in this paper, GDP_Growth, will be defined as simply the average annual growth rate in real GDP, expressed as a percentage change in a countries GDP based on constant 1995 U.S Dollars. This variable has been averaged between the years 1999 and 2002 to eliminate business cycle effects. These particular years have been chosen as they are more representative of the state of the present-day world economy and they avoid the effects of the Asian financial crisis. All variables used in this study are defined in Table 1 along with their means and standard deviation.

Table 1 -Variable Definitions

Variables	*Type*	*Standard Deviation*	*Mean*
GROWTH_GDP	Average GDP rates of countries between the years 1999-2002	2.615	3.063
System variables			
POL_STABILITY	Political instability between the years 1998-2002	.828	-.332
DEMOCRACY	Level of Democracy between the years 1998-2002	5.886	2.343
EC_FREEDOM	Level of Economic freedom between the years 1998-2002	.604	3.2
GOV-EFFECTIVNESS	Average of the year 1998-2002	0.817	-.192
Other variables			
Ln(GDP)	Initial GDP in the year 1998	1.899	23.26
POP_GROWTH	Average population growth rates between the years 1999-2002	.626	1.902
Production function variables			
INVESTMENT	Average Investment rates in the years 1998-2002as % of GDP	5.979	21.125
ILLIT	Illiteracy rates between the years 1990-2001	20.144	27.075
GOV_CONSUMPTION	Average Government spending as % of GDP between 1998-2002	5.984	13.784

This paper seeks to define and calculate the direct and indirect effects of the extent of democracy and other governance indicators on economic growth. I have used several distinct measures, which I shall define as system variables to approximate the effect of decisions made by the government on economic growth. The first system variable I use is democracy. The indicator for democracy I will be using is complied by the Polity IV project. In this index democracy consists of three elements: the presence of institutions and procedures that allow citizens to express effective preferences, existence of institutionalized constraints on the exercise of power by the executive, and the guarantee of civil liberties to all citizens in acts of political participation (Marshal and

Jaggers, 2002). On the other hand, an autocracy is defined as a regime that sharply restricts or suppresses competitive political participation. Thus the democracy index ranges from a scale of +10 (strongly democratic) to -10 (strongly autocratic)

The next system variable that I use is an index for political stability compiled by the World Bank. This index measures the likelihood that the government in power will be destabilized by unconstitutional means, including domestic violence and terrorism. This index captures the idea that the likelihood of wrenching changes in government can affect the quality of governance by affecting the continuity of policies (Kaufmann, Kraay and Mastruzzi, 2004).

Next, this paper uses economic freedom as a system variable, because the openness of an economy depends primarily on the decision of the government. This variable has been chosen as a system variable since the extent of democracy has little effect on the openness of an economy. To illustrate, China is totalitarian and India is a democracy, but they both have roughly the same level of economic freedom. Economic freedom measures the number and/or effectiveness of trade barriers such as trade restrictions, monetary policy, and restrictions on capital flows and investments in a particular country.

The final system variable this paper uses is the variable "Government Effectiveness" made available by the World Bank to indicate the ability of the government to formulate and implement policies. This variable measures, the quality of public service provision, the quality of the bureaucracy, and the competency of civil servants. In other words, this variable measures the government's ability to produce and implement policies and deliver public goods. Like the democracy index, economic

freedom index, and the political stability index, this index is also averaged over a period of 5 years.

The production function variables were obtained via *The World Development Indicators.* Due to the lack of data for government final consumption in the years 1998-2002, I have used an average of government consumption as a percentage of GDP between the years 1996-2001. This variable includes all government current expenditures for purchases of goods and services but excludes expenditures on government capital formation.

Net investment in physical capital enters this model as an average of the percentage of GDP between the years 1998-2002. This variable consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. The final measure I use as a production function variable is a proxy for changes in human capital formation. For this I have used the average in illiteracy rates between the years 1990 and 2001. Adult literacy rate measures basic reading and writing skills of adults and a portion of these adults then comprise the workforce. The lag in this variable is justified as it can be argued that human capital does not affect productivity and thereby increase growth rates instantaneously. Conversely, it must also be pointed out that this measure captures only very basic skills and may not be the best approximation to capture worker productivity.

The rest of the independent variables were obtained via *The World Development Indicators* as well. To compare results of this regression with that of Robert Barro, I have used some of the same variables he uses in his estimation of the neoclassical growth model. Therefore I used the log of initial GDP, in the year 1998 to represent the

conditional rate of convergence of these developing countries. Next, I use the average of population growth between the years 1999-2002, to capture the effects of population growth on economic growth. It has been argued that population growth effects economic growth by affecting the portion of capital available to each worker. In other words, an increase in population tends to reduce the share of capital per worker reducing the marginal productivity of each worker.

V) INDIRECT/ DIRECT AFFECTS MODEL.

This paper will be utilizing an intervening variables framework to examine the effects of democracy and political stability on economic growth. In this model background variables such as democracy, political stability, economic freedom, and government effectiveness can have direct and indirect effects on a countries economic growth. Diagram 1 shows the above mentioned relationship schematically:

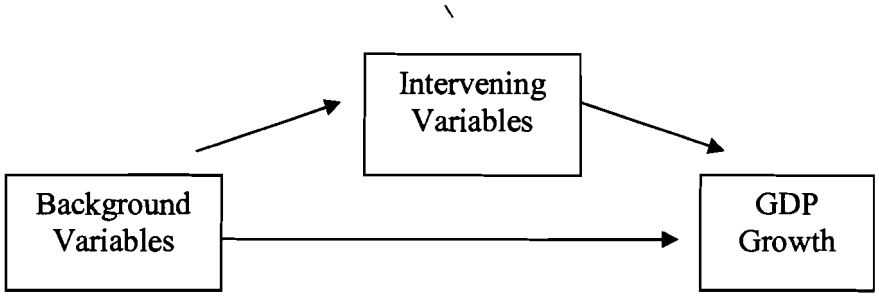

Figure 1

Thus each of these background variables will exert a direct effect on the GDP growth in a particular country. However, as mentioned before, this paper hypothesizes that these variables can affect GDP indirectly by affecting a number of intervening

variables. As can be seen in Figure 2, political instability, democracy, economic freedom and government effectiveness can effect growth directly, but they could also affect growth indirectly by increasing the level of investments in a country, spending on education, and/or increasing the productivity of physical or human capital

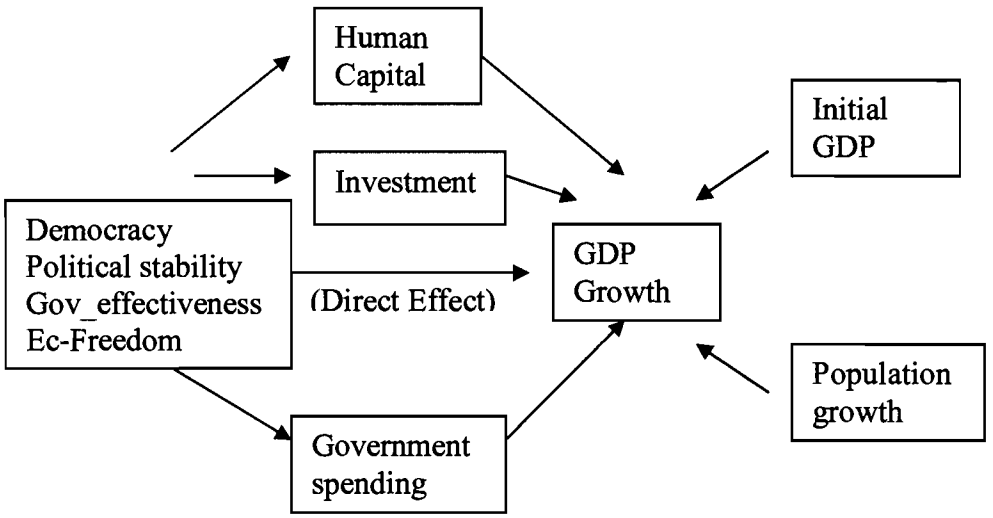

Figure 2. Illustration of Direct and Indirect Paths

In this model there are 3 paths in which democracy and political instability can affect the rate of growth. Firstly, it can be argued that political stability has a significant effect on the level of investment as it increases investor confidence in a particular country. The effect of democracy on investment is tentative. Tavares and Wacziarg claim that democracy effect growth is political instability: "Political instability creates an incentive for rulers to adopt predatory behavior vis-à-vis the private resources of the economy". In a democracy such predatory behavior is discouraged due to the fact that decision making is more open to public debate. This in turn also facilitates a smooth

transition of power through public elections. Therefore a more stable democratic government gives investors an assurance of the safety of their investments. On the flip side in a democratic country where income redistribution is widely endorsed, it is unlikely that investors will be willing to invest. However, as mentioned earlier, government effectiveness and economic freedom set up the institutions necessary to increase the productivity of investment. Trade liberalization and effective government institutions encourage more secure property rights, thereby increasing investor confidence.

Human capital is another indirect channel through which democracy affects growth. As mentioned earlier most democracies place great weight on providing the basic needs of the public. This leads to higher spending by democracies towards education. This public funding of education decreases the cost of education, which increases the number of people who are able to receive an education. This in turn leads to a growth in human capital, which according to the neo-classical growth model is one of the main factors that increase the level of growth in an economy. It can also be maintained that human capital is indirectly affected by instability. According to A. Annett, political instability leads to higher government consumption aimed simply at reducing the risk of losing office, thus leaving little room to spend on human capital development (Annett, 2001). Conversely, economic freedom and government effectiveness promote human capital development as they encourage specialization, thereby increasing the productivity of human capital.

The third path shows the indirect effect democracy and political instability have on economic growth via government spending. The reason for this lies in the fact that the

larger the size of the government, the larger the costs that the government accrues, which leads to a lower fiscal residuum. A fiscal residuum is the property of the citizens of that country, meaning that no member of the government can use it for private purposes. Przeworski and Limongi maintain that who has rights to the fiscal residuum depends largely on the type of regime. In a democracy citizens have the right to decide the size of the government and have the right to the fiscal residuum (Przeworski and Limongi, 1993). Therefore, a democracy that gives more influence to the poor in policy making has a tendency to increase government interventions for such purposes as income redistribution funded by higher taxation. The implementation and administration of such policies requires a large government. This leads to increased government spending which has adverse affects on growth. Political instability also increases government spending which is aimed at placating the opposition.

Thus this paper hypothesizes that democracy and political instability have both direct and indirect effects on the rate of growth achievable by a country. The estimation of direct and indirect effects of the background variables on economic growth involves estimating several OLS regression models. The first is the background model, which regresses growth against four political background variables.

Equation 1: Background Model

$$\mathbf{GROWTH\_GDP} = \alpha_1 + \beta_2\,\mathbf{(DEMOCRACY)} + \beta_3\,\mathbf{(POL\_STABILITY)} + \beta_4\mathbf{(EC\_FREEDOM)} + \beta_5\mathbf{(GOV\_EFFECTIVENESS)}$$

Next, we regress economic growth against the four background variables and the 6 intervening variables.

Equation 2: Overall Model

$$\mathbf{GROWTH\_GDP = \alpha_2 + \beta_{21}\,(POL\_STABILITY) + \beta_{22}(DEMOCRACY) + \beta_{23}(EC\_FREEDOM) + \beta_{24}(GOV\_EFFECTIVENESS) + \beta_{25}(INVESTMENT) + \beta_{26}(Ln\ GDP) + \beta_{27}(POP\_GROWTH) + \beta_{28}(ILLIT) + \beta_{29}(GOV\_SPENDING) + \beta_{30}(EC\_FREEDOM)}$$

After estimating the background and overall models, 4 auxiliary OLS regressions are run for the intervening variables. These are necessary to determine how the two background variables influence each of the intervening variables.

Auxiliary Equations for Intervening Variables:

Equation 3

$$\mathbf{INVESTMENT = \alpha_3 + \beta_{31}(POL\_STABILITY) + \beta_{32}(DEMOCRACY) + \beta_{33}(EC\_FREDOM) + \beta_{34}(GOV\_EFFECTIVENESS)}$$

Equation 4

$$\mathbf{ILLIT = \alpha_4 + \beta_{41}(POL\_STABILITY) + \beta_{42}(DEMOCRACY) + \beta_{43}(EC\_FREDOM) + \beta_{44}(GOV\_EFFECTIVENESS)}$$

Equation 5

$$\mathbf{GOV\_SPENDING = \alpha_5 + \beta_{51}(POL\_STABILITY) + \beta_{52}(DEMOCRACY) + \beta_{53}(EC\_FREDOM) + \beta_{54}(GOV\_EFFECTIVENESS)}$$

To illustrate how these models can be used to evaluate the total, direct, and indirect effects of democracy and political instability on GROWTH_GDP, let us look at the effects of a change in (POL_STABILITY) on GROWTH_GDP. By taking the total derivative of the overall model with respect to political instability, we can isolate the direct and indirect effects.

Equation 6

$(\Delta GROWTH\_GDP/\Delta POL\_STABILITY) = (\partial GROWTH\_GDP/\partial POL\_STABILITY) + (\partial GROWTH\_GDP/\partial INVESTMENT) * (\partial INVESTMENT/\partial POL\_STABILITY) + (\partial GROWTH\_GDP/\partial ILLIT) * (\partial ILLIT/\partial POL\_STABILITY) + (\partial GROWTH\_GDP/\partial GOV\_SPENDING) * (\partial GOV\_SPENDING/\partial POL\_STABILITY)$

The derivative on the left hand side represents the total effect of a change in political instability on GDP growth. The first partial derivative on the right hand side of the equation, (∂GROWTH_GDP/∂POL_STABILITY), represents the direct effect (β_{21}). The products that follow this direct effect correspond to an indirect effect through each particular intervening variable, and the sum of these is the total indirect effect. The first term, (∂GROWTH_GDP/ ∂INVESTMENT), is the coefficient of that particular intervening variable on GDP growth (β_{25}). The next term, (∂INVESTMENT/∂POL_STABILITY), represents the coefficient of the relevant background variable and the intervening variable (β_{31}). The product of these two coefficients serves as an estimate of the indirect effect of political instability through the intervening variable, investment. The remaining indirect effects are computed in a similar manner. The sum of the four indirect effects is the total indirect effect.

VI) RESULTS

The results and findings of direct and indirect effects discussed above are presented in this section. Table 3 presents the results of the OLS regression estimation of GROWTH_GDP for the background model and the overall model. The background model, as mentioned above, includes only democracy, political stability, economic freedom, and government effectiveness as independent variables. The overall model adds the remaining independent variables to the background model.

Table 3 - Regression Estimates of GROWTH_GDP

Variables	*Background Model*	*Overall Model*
Constant	.563	.544
	(.329)	(.108)
DEMOCRACY	-.085	-.077
	(-1.76)*	(-1.49)
GOV_EFFEVTIVNESS	.487	.651
	(1.44)	(2.00)**
EC_FREEDOM	.951	-.106
	(1.79)*	(-.178)
POL_STABILITY	.685	.464
	(1.86)*	(1.205)
Ln (GDP)		.018
		(.113)
POP_GROWTH		-.440
		(-.829)
INVESTMENT		0.150
		(3.29)***
ILLITERACY		0.050
		(2.96)***
GOVSPENDING		-0.059
		(-1.31)*
Adjusted R2	.071	.255
Sample Size	91	81

Note: * Indicates significance at the .10 level; ** indicates significance at the .05 level; and *** indicates significance at the .01 level.

Including political stability, democracy, economic freedom and government effectiveness in the background regression (Table 3) produced a large and significant coefficient for POL_STABILITY, DEMOCRACY and EC_FREEDOM. These coefficients represent the "total effects" of these political variables on growth in the direct/indirect model. All three of the results are consistent with the hypotheses stated earlier. They suggest that political stability and economic freedom lead to higher growth rates, and that democracy leads to lower growth rates. The coefficient for government effectiveness, however, was insignificant even though it proved to have the correct sign.

Subsequently, the overall model was estimated after controlling for the three intervening variables, initial GDP and population growth (Table 3). Recall that the coefficients to the four political variables in the overall model are the "direct effects" of these variables on economic growth. In the overall model the coefficient for political stability, democracy, and economic freedom was insignificant, even though they proved to have the predicted sign. On the other hand, GOV_EFFECTIVENESS, which had been insignificant in the background model, turned out to be significant. The variables Ln(GDP), Ln(POP_GROWTH) and intervening variable GOV_SPENDING have the correct sign but prove to be insignificant. The coefficient for the intervening variables INVESTMENT was significant with the correct sign.

The theory presented in Section II leads us to the hypothesis that an increase in human capital will increase the productivity of existing inputs, thereby increasing growth rates. Illiteracy rates were used as a proxy for human capital. However, the results show that the proxy for human capital, ILLIT, has an unexpected positive sign, suggesting that greater illiteracy leads to higher growth. Initially this unexpected result was attributed to

using the wrong proxy. However, even when other proxies for human capital were used, such as literacy rates, government spending on education, and the HDI education index, there was, in every case, an unexpected inverse relationship between human capital and growth rates.

Conventional wisdom maintains that "The education and training of men and of women contributed directly to economic growth through its effects on productivity, earnings, job mobility, entrepreneurial skills, and technological innovation" (Easterly, W.72). However, in William Easterly's article "Educated for what?" Easterly points out a number of reasons as to why educational expansion in developing countries has had distinctly disappointing results. First, he argues that schooling pays off only when government actions create incentives for growth rather than redistribution: "In an economy with extensive government intervention, the activity with the highest returns to skills might be lobbying the government for favors." Finally, he also claims that in a country with an economy which creates no incentives to invest in the future, administrative targets for "universal primary education" are of little value to growth (W. Easterly).

The regression analysis was also carried out separately for each of the intervening variables to estimate the effects of the background variables on the intervening variables. The auxiliary regression results for the 3 intervening variables appear in Table 4. The results in this table have been obtained by regressing the three intervening variables (INVESTMENT, GOV_SPENDING and ILLIT) against each of the four background variables (DEMOCRACY, POL_STABILITY, EC_FREEDOM and GOV_EFFECTIVENESS.) \

Only POL_STABILITY and EC_FREEDOM had significant coefficients in the three auxiliary equations. POL_STABILITY had the expected significant effect on INVESTMENT but had an unexpected and significant positive effect on government spending. EC_FREEDOM has one significant coefficient in the 3 auxiliary regressions (Table 4). Thus, EC_FREEDOM had a large, unexpected and significant negative effect on ILLIT.

Table 4 - Regressions of the four intervening variables on background variables DEMOCRACY and POL_STABILITY.

Variable	INVESTMENT	GOV_SPENDING	ILLIT
Constant	20.272	17.842	-8.424
	(4.716)***	(-4.552)***	(-.645)
DEMOCRACY	0.004	-0.124	-.519
	(.032)	(-1.098)	(-1.408)
GOV_EFFECTIVENESS	-1.014	0.207	2.854
	(-1.205)	(.269)	(1.104)
EC_FREEDOM	0.436	-0.976	11.460***
	(.328)	(-.805)	(2.829)
POLITICAL STABILITY	1.893	1.617	-2.666
	(2.041)**	(1.904)*	(-.937)
Adjusted R2	.02	.035	.170
Sample Size	90	89	86

Note: * Indicates significance at the .10 level; ** indicates significance at the .05 level; and *** indicates significance at the .01 level.

There are several results in the auxiliary regressions that deserve note. First economic freedom had a rather surprising effect on illiteracy rates, as the coefficient shows an unexpected positive sign, suggesting that greater economic freedom would lead to higher illiteracy rates. Second, as hypothesized, political stability had a positive effect on investment. The countries in our sample that had greater political stability were much more likely to attract greater investment. This result is consistent with the earlier work of Y. Feng (2001). Third, political stability unexpectedly increases government spending. All three of these results imply that there could be significant indirect effects since economic freedom and political stability both influence intervening variables.

To determine the magnitude of the Total, direct and indirect effects of political background variables on economic growth, this paper followed the procedure described in Section V. The results are presented in Table 5. The "total effect" of each background variable on GROWTH_GDP is the coefficients of each of these variables in the "background model" presented in Table 3. Recall that this model includes only the four political variables but not the three intervening variables. Therefore, the total effect should be interpreted as the influence of each political variable on the growth rates of a country after controlling for the effects of the other political variables.

The direct effects reported in Table 5 are the effects of each political background variable on GROWTH_GDP after controlling for all other political variables and the intervening variables. Each of the direct effects is the coefficient to the background variables (DEMOCRACY, POL_STABILITY, EC_GROWTH and GOV_EFFECTIVENESS) in the overall model presented in Table 3. The indirect effects in Table 5 are the total effects minus the direct effects.

Table 5- Total, Direct and Indirect Effects of Background Variables DEMOCRACY and POL_STABILITY on GROWTH_GDP.

Background Variable	*Total Effects*	*Direct Effects*	*Indirect Effects*
DEMOCRACY	-0.085	-0.077	-0.008
	(-1.761)*	(-1.491)	
GOV_EFFECTIVENESS	0.487	0.651	-0.164
	(1.443)	(2.000)*	
EC_FREEDOM	0.951	-0.106	1.057
	(1.787)*	(-.178)	
POL_STABILITY	0.685	0.464	0.221
	(1.860)*	(1.205)	
Sample Size	91	85	

Note: * Indicates significance at the .10 level; ** indicates significance at the .05 level; and *** indicates significance at the .01 level.

As mentioned above, each indirect effect reported in Table 5 consists of the sum of three paths. The indirect effect paths are computed from the coefficient in the auxiliary regressions and the overall model. Each indirect effect can be thought of as the total influence of the political variables on GROWTH_GDP through the intervening variables. For example, the indirect effect of political stability on growth is the sum of the indirect effects of POL_STABILITY on GROWTH_GDP through INVESTMENT, ILLIT, and GOV_SPENDING. As can be seen in Table 5 there are only two significant indirect effects on EC_GROWTH. Each of these significant indirect effects are computed as the product of the coefficient to the POL_STABILITY and EC_FREEDOM variables found in the appropriate auxiliary regression in Table 4 multiplied by the intervening variable coefficient from the overall model in Table 3. Table 6 presents the computed indirect effects.

Table 6 - Estimated Indirect Effects of Political Stability and Economic Freedom Variables on GROWTH_GDP through Intervening Variables*

Background Variable	INVESTMENT	GOV-SPENDING	ILLIT
EC_FREEDOM	N/A	N/A	0.576
POL_STABILITY	0.284	-0.097	N/A

The subsequent paragraphs examine the total, direct, and indirect effects of each of the four political background variables. As can be seen in Table 5, democracy proves to have a significant total effect on GROWTH_GDP. This coefficient is negative, which is consistent with our hypothesis that democracy has a negative impact on the growth in developing countries. Virtually all of this comes through the direct effect of democracy on growth. The indirect effect is very small. From the auxiliary equations we see that democracy is not a significant predictor of any of the intervening variables. (Table 4)

Table 5 shows that government effectiveness (GOV_EFFECTIVENESS), on the other hand, did not have a significant total effect on economic growth. However, the significant coefficient for GOV-EFFECTIVENESS in the overall model proves that government effectiveness has a significant direct effect on economic growth. Thus, holding all other intervening variables and background variables constant, GOV_EFFECTIVENESS affects economic growth positively. The indirect effect of government effectiveness on economic growth proved to be negative and rather small. From the auxiliary equations we see that government effectiveness is not a significant predictor of any of the intervening variables.

Economic freedom proved to have a significant total effect on economic growth. (Table 5) The results suggest that economic freedom has an insignificant direct effect on economic growth. However, economic freedom has a large positive indirect effect on growth. The results from the auxiliary model show only one significant indirect path through which economic freedom affects growth. Unexpectedly, this path is through the effect of economic freedom on illiteracy rates. (Table 6) Thus, the results of the auxiliary models suggest that greater economic freedom leads to greater illiteracy rates, which subsequently leads to greater economic growth.

Political stability has a robust and significant total effect but an insignificant direct effect on growth. These results suggest that political stability affects economic growth indirectly by its influence on particular intervening variables. From the auxiliary equations we see that political stability is a significant predictor of both investment rates as well as government spending. (Table 4) The most important indirect path through which political stability affects GROWTH_GDP is the level of investment in a country. For example, growth rates will increase by 0.28 units solely through the influence of a one-unit change in political stability on investment rates. A scatter diagram plotting the data points of investment rates on the Y-axis and political stability on the X-axis is provided below.

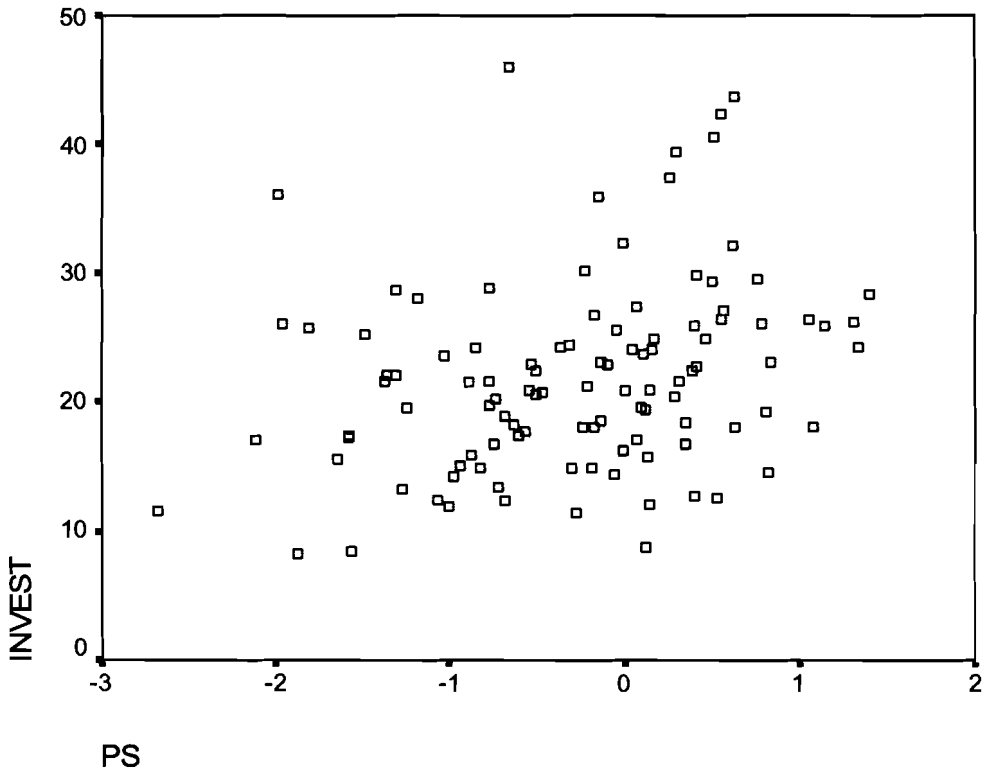

Figure 3 - Scatter diagram between political stability and investment rates

On the other hand regression results show that growth rates will decrease by 0.097 units exclusively through the influence of political stability on government spending. However, it can be stated that the negative impact that political stability has on government spending is offset through its positive effects on investments. These results substantiate the hypothesis that it is political stability, regardless of the level of democracy, which would have the most significant effect on growth.

CONCLUSION

In order to substantiate the hypothesis that democracy has a negative effect on economic growth in developing countries, this study explored the effects of four kinds of political indicators and their impact on economic growth. The political dimension that this paper addressed was then subsequently added to the neoclassical growth model using the following variables: level of democracy, level of political stability, level of government effectiveness and level of economic freedom. Using a sample consisting of data from a number of developing countries from the years 1998 and 2002, this paper found that all the political indicators did in fact affect the economic growth through a set of direct and indirect effects (Section V). These findings give a new perspective to existing literature, as this paper regards democracy and political stability as independent variables. The results have revealed a number of mechanisms that give an advantage to countries that enjoy greater political stability.

Political instability has a significant indirect effect on economic growth through its positive effect on investment rates. The results also suggests that, counter to theory if political stability increases by one unit, government spending will increase. However it is important to note that this negative effect that political stability has over government spending rates is more than compensated for by the positive effect this variable has on investment rates.

Also, as hypothesized, democracies in developing countries were shown to have significant negative direct and indirect effects. Thus the non-linear relationship between democracy and growth, predicted by Barro (1996) does not seem to exist when the sample is limited to developing countries. Government effectiveness did have a

significant direct effect on economic growth but proved to have little effect on the intervening variables.

Therefore to address the question that I posed at the beginning of this paper, are policies of western countries that encourage the installation of democracy to spur growth in countries like Somalia and Haiti of any practical use in promoting growth? No. As can be seen in this paper, it is the level of political stability within a given country, regardless of regime type, that results in economic growth. Thus governments and aid institutions should give greater weight to political stability as a pre-requisite in the provision of aid packages. Does this mean that democracy is redundant? No, for democracy is very valuable as it guarantees basic human rights. However, this paper suggests that democracy cannot be justified as an agent for economic growth.

APPENDIX I

Algeria
Angola
Argentina
Azerbaiján
Bahamas,
Bahrain
Bangladesh
Barbados
Belize
Benin
Bhutan
Botswana
Brazil
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central
Chad
Chile
China
Colombia
Comoros
Congo, D
Congo, R
Costa Rica
Cote d'Ivore
Cuba
Djibouti
Dominica
Dominica
Ecuador
Egypt
El Salva
Eritrea
Ethiopia
Fiji
Gabon
Gambia,
Ghana
Guatemala
Guinea
Guinea-B
Guyana
Haiti
Honduras
Hong Kong
India
Indonesia
Iran
Israel
Jamaica
Jordan
Kenya
Korea, Republic
Kuwait
Lao PDR
Lebanon
Lesotho
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Mauritania
Mauritius
Mexico
Mongolia
Morocco
Mozambique
Myanmar
Namibia
Nepal
Niger
Nigeria
Oman
Pakistan
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Puerto R
Rwanda
Samoa
Sao Tome
Saudi Arabia
Senegal
Sierra L
Singapore
South Africa
Sri Lanka
Sudan
Suriname
Swaziland
Syrian A
Tanzania
Thailand
Togo
Trinidad
Tunisia
Turkey
Uganda
Uruguay
Venezuela
Vietnam
West Bank
Yemen, R
Zambia
Zimbabwe

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