

# THE INSTITUTIONAL FRAMEWORK AND PUBLIC FINANCE IN DEVELOPING COUNTRIES: THE AFRICAN CASE

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## 1. Introduction

Traditionally, economists studying the behavior of governments have limited their work primarily to an examination of democratic regimes. Since Gordon Tullock's 1986 study, however, significant research has been devoted to the analysis of the behavior of nondemocratic governments (Tullock, 1986).

Most researchers agree that there is a significant relationship between the level of democracy in a country and its level of per capita income. The direction of causality, however, is not clear. Hayek (1960) argued that the economic growth in a country is related to the level of economic freedom existing in that country. Growth, he emphasized, requires a stable and democratic regime. Auster and Silver (1979) have indicated, however, that democracy is an income elastic good purchased primarily by wealthier nations. Less affluent countries, on the other hand, they argued, tend to purchase less efficient and inferior government apparatus. In 1984 Laband tested 11 variables to discover the determinants of democracy and found that only the number of telephones per capita were highly correlated with the presence of democracy in a country. This variable was found to be significantly and positively related to the level of democracy. In 1988, Scully presented results that showed that regimes with significant levels of civil, political, and economic liberty encountered greater levels of economic growth during the period 1960-1980 than those with significant restrictions on the liberty of their citizens.

The level of foreign debt under different kinds of political regimes has been studied by several researchers. In 1988, Anderson, using a dummy variable to measure the lack of democracy for countries in 1982, presented results that showed that, *ceteris paribus*, autocratic or dictatorial regimes have higher ratios of foreign debt to their overall public expenditures and their level of gross national product. In addition, he also found that democratic regimes financed smaller proportions of their expenditures through deficits than nondemocratic ones (Anderson, 1988).

In a 1980 study, Brennan and Buchanan argued that a democratic government may tend to raise the level of public sector debt according to its own discount rate, which may be quite different from that of voters. Anderson argues, however, that dictatorships "might tend to exhibit larger levels of external public debt than democracies" (Anderson, 1988, p. 26). He advances three reasons to support this view. First, lenders (banks and international lending agencies) may perceive dictatorships as generally more stable than countries with democratic regimes, *ceteris paribus*. Second, since lenders often require that certain austerity measures be imposed on the domestic economy as

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a condition for further extension of credit, dictators are better able to withstand the public pressure against the imposition of the required measures. Finally, since the dictator is the ultimate decision maker in his regime, the bargaining costs between him and international lenders for a loan may be lower than those that would prevail between lenders and democratically-elected legislatures. To be certain, a dictator may, from time to time, have to take the threat posed by competitive groups into account and relax austerity measures in order to improve the security of his regime. Loans to dictatorships, however, Anderson argues, "may be associated with lower risk to lenders than loans to democracies" (Anderson, 1988, p. 27).

Brough and Kimenyi argued in 1986 that the constant threat of entry by competitive groups (e.g. through a coup d'état) may force dictators to become involved in activities that reduce their long-run efficiency both in terms of the economy and the resources available to them. In Africa, dictators, like autocratic rulers in other parts of the world, are constantly under the threat of displacement by alternative elites and thus must continuously monitor the activities of these competitive groups in order to ensure that they do not develop enough violence potential to become a serious threat to the government. Anderson states, however, that since most dictatorships have a single ruler, "the preferences and behavior of such governments are likely to be more stable and predictable over time than those of a democratic government, which will tend to respond to voter pressure in unpredictable ways..." (Anderson, 1988, p. 27).

Anderson (1988) also argues that dictators have greater abilities to appropriate public resources for personal use than elected politicians in democracies. One may view both dictators and politicians in democracies as trustees of the people who manage public sector resources for the benefit of the country. While the politician in a democracy may be unable to appropriate public resources for his personal use, dictators are able to sell off large chunks of public property for their own use. In fact, the proceeds from state rent-seeking activities are needed to provide transfers to groups currently protecting the dictator's monopoly on power. In most dictatorships, Anderson argues, bribes or transfers to groups with significant violence potential are an important way of preventing coups or regime destabilization. If increases in public external debt levels provide the dictator with the funds needed to bribe competing elites and prevent overthrow of his regime, then higher public debt levels may have a functional relationship with the dictator's regime security. Anderson concludes that, *ceteris paribus*, "the demand for public debt by a dictator will tend to exceed that of a democratic regime" (Anderson, 1988, p. 28).

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Balkan and Greene state that Anderson's reasoning may be inconsistent with some empirical evidence. For example, organizations such as Institutional Investor and Euromoney have attempted to provide international lenders with country risk rating services for use in deciding the default probabilities of countries they intend to lend to. In a 1988 study, Balkan showed that if the economic variables used in these country risk rating studies are controlled for, political democracy is seen to have a significantly negative effect on the probability of default. He further demonstrates that the interest rates charged borrowers for these international loans have a positive relationship with these default probabilities. It appears, then that "while nondemocratic regimes might have a higher demand curve for debt, they also have a higher supply curve and no *a priori* prediction about the level of debt issuance is forthcoming" (Balkan and Greene, 1990, p. 203; Balkan, 1988). Other empirical findings, thus, tend to suggest that the international lending community prefers democratic regimes for extension of credit because of the smaller chances of default associated with loans to the latter. Loans to autocratic regimes are made at higher interest rates to account for the increased levels of default risk associated with lending to this groups of countries (Balkan and Greene, 1990, p. 203).

Using methods similar to those employed by Anderson, Balkan and Greene attempted to study the relationship between foreign debt and the nature of a country's political regime. They were unable to find any empirical support for the hypothesis that democracy or dictatorship determine foreign debt levels in a country (Balkan and Greene, 1990, pp. 209-210).

This paper examines the relationship between democratization and debt in Africa. Specifically, an attempt shall be made to see if the process of democratization in Africa has any effect on the ability of African governments to increase their public external debt levels. In Section 2, I shall briefly describe the measures of democracy that shall be employed in this study. Empirical results are reported in Section 3. The summary and concluding remarks appear in Section 4.

## 2. Measures of Democratization

The measures of democracy to be used for this study are the index of democratization (ID) reported in *The new book of world rankings*, and Bollen's (1980, 1991) political democracy index (PDI). The former index is based on two variables: political competi-

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tion and the degree of electoral participation. The ID used here is based on data for the period, 1970-1979.

It should be noted that there are significant problems with any democracy measure, especially one based on election participation. Many African dictators allow elections to take place periodically, with most citizens encouraged to participate. Unfortunately, in most of these countries, opposition parties have been declared illegal and as a result, the electorate can only vote for candidates belonging to the state-sanctioned party. In designing the index of democratization, an attempt was made to address this problem by including the share of votes obtained by smaller parties and independents in parliamentary and/or presidential elections in the calculation of the index (Kurian, 1984, pp. 65-66).

Although the index of democratization (ID) does reveal differences in political systems across countries, these distinctions are more apparent among states with higher levels of democracy. The majority of African countries have an ID of zero even though they exhibit differences in their political systems. A more comprehensive measure of political democracy, developed by Bollen (1980, 1991), thus, will also be in this study. This measure, called the political democracy index (PDI) is based on the concepts political liberty and popular sovereignty. Political liberties are indexed by freedom of the press, freedom of speech, and the rights of citizens to form political parties and compete for capture of the apparatus of government. Popular sovereignty is indexed by fairness of elections, method of legislative selection and effectiveness. The PDI ranges from 0 to 100, with higher values indicating greater levels of political democracy. Since its development, the PDI has been analyzed thoroughly by several researchers (Muller, 1988; Bollen, 1983; Bollen and Grandjean, 1981).

### 3. Empirical Evidence

#### 3.1. *The Model*

The main purpose of this paper is to test for any significant relationship between the level of democratization in a country and the ability of the government to raise the level of public external debt. To test the relationship between levels of democratization and debt, the following OLS model was estimated:

$$\text{DEBT} = \beta_0 + \beta_1 \text{ID} + \beta_2 \text{INCOME} + \beta_3 \text{GOVSIZE} + \beta_4 \text{DENSITY} + u$$


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where,

- DEBT = the level of external public debt divided by central government expenditures, 1981; also public external debt as a percentage of GDP;
- ID = index of democratization (based on political competition and election participation, 1970-1979), used as a measure of political democracy; the political democracy index (PDI) will also be used to measure political democracy;
- INCOME = per capita income, 1981;
- GOVSIZE = central government expenditures divided by GDP, 1981;
- DENSITY = population per square kilometer, 1981; and
- u = randomly distributed error term.

The dependent variable, DEBT, has been discussed above. The first independent variable, ID, the index of democratization, measures the level of democracy in a country. The PDI is also used to measure political democracy. If dictatorships are viewed as being more stable, and thus preferred by international lenders, then increased democratization should decrease the ability of a government to borrow internationally. The variable ID (as well as PDI) should be negatively related to debt in Africa. If, however, dictatorships are viewed as riskier borrowers, then increased levels of democratization should, *ceteris paribus*, lower the risk of default and improve the ability of the governments of these countries to increase national debt. Measures of political democracy, then should have a positive relationship with DEBT.

The second explanatory variable in this study is INCOME or per capita income, which is included as a measure for the level of economic development in the country and also as a proxy for wealth. This variable is expected to have a negative sign. The prediction of a negative sign of INCOME is based on the belief that poorly developed capital markets in Africa or the nonexistence of these markets implies that most borrowing will be undertaken in the international markets. In addition, the expectation of a negative sign is based on the fact that there is a significantly high demand for debt finance in Africa, as is the case in most developing countries.

The third independent variable is GOVSIZE or central government expenditures as a percentage of the GDP. This variable is included to control for the fact that the size of the central government sector as a percentage of the GDP may differ significantly across countries. *A priori*, GOVSIZE should have a positive sign. The final variable is DENSITY, which is a measure of the level of economic development. This variable supplements INCOME. It allows us to distinguish "between poor countries without a substantial urbanized sector, without the collinearity problems associated with a direct measure

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of urbanization'' (Anderson, 1988, p. 32). Anderson has argued that since poor countries with significant levels of urbanization are likely to have relatively developed internal markets, the public sectors in these countries may prefer to borrow locally and reduce their reliance on international lenders. A negative sign is thus, predicted for population density (Anderson, 1988, p. 32).

The main purpose of this study is to determine the effects of the process of democratization on the ability of African governments to raise public external debt levels. Specifically, we intend to establish whether a statistically significant relationship exists between democratization and the level of public external debt in the African countries. Countries used in the study are given in Table 1.

Table 1

COUNTRIES USED IN THE STUDY AND THEIR RESPECTIVE ID AND PDI VALUES

Country	Index of Democratization (ID, 1970-1979)	Political Democracy Index (PDI, 1980)
Algeria	0.0	17
Benin	0.0	11
Botswana	3.1	83
Burkina Faso	1.1	6
Burundi	0.0	0
Cameroon	0.0	17
Central African Republic	0.0	0
Chad	0.0	6
Congo	0.9	11
Côte d'Ivoire	0.0	17
Egypt	1.4	33
Ethiopia	0.0	0
Ghana	0.6	83
Guinea	0.0	11
Kenya	0.0	33
Lesotho	0.0	39
Liberia	0.0	6
Madagascar	1.1	28
Malawi	0.0	17
Mali	0.0	0
Mauritania	0.0	0
Morocco	0.8	61
Niger	0.0	0
Nigeria	0.2	83
Rwanda	0.0	0
Senegal	1.0	39
Sierra Leone	3.7	22
Somalia	0.0	11
South Africa	2.5	56
Sudan	0.2	22
Tanzania	1.7	28
Togo	0.0	11
Tunisia	0.0	28
Uganda	0.0	44
Zaire	0.2	17
Zambia	3.7	22

Source: Kurian, G. T. (1984). *The new book of world rankings*. New York: Facts on File, Inc., pp. 65-66. Bollen, K. A. (1991). Liberal democracy: Validity and source biases in cross-national measures. Working paper, Department of Sociology, University of North Carolina, Chapel Hill. Also see, Bollen, K. A. (1980). Issues in the comparative measurement of political democracy. *American Sociological Review* 45: 370-390.

### 3.2. The Results

The study employed OLS regression methods using 1981 data for 36 African countries. The results are reported in Tables 2 and 3. In Table 2, the dependent variable is total foreign debt divided by the gross domestic product (DEBT/GDP) for equations (1) and (2) and total foreign debt as a proportion of central government expenditures (DEBT/CGE) for equations (3) and (4). Table 3 contains determinants of foreign debt with all variables, except ID and PDI, logarithmically transformed. These results, show in general, that the process of democratization inhibits the ability of the African state to increase national foreign debt levels. In Table 2, the estimates of the coefficients of the democracy measures (ID and PDI) are negative and significant at the 10% level of significance or better. In Table 3, the coefficient of index of democratization is of the correct sign, but is not significant at the traditional confidence levels. When political democracy is measured by the PDI, however, the results are of the expected sign and are significant at the 1 percent level of significance.

**Table 2**  
DETERMINANTS OF FOREIGN DEBT IN AFRICA (N = 36)

	1 DEBT/GDP - 0.0647 (- 1.66)*	2 DEBT/GDP —	3 DEBT/CGE - 0.2021 (- 1.59)*	4 DEBT/CGE —
Political democracy				
ID				
PDI	—	- 0.0052 (- 3.41)*	—	- 0.0152 (- 2.96)*
DENSITY	- 0.0023 (- 2.46)*	- 0.0018 (- 2.10)*	- 0.0086 (- 2.79)*	- 0.0070 (- 2.45)*
INCOME	- 0.0001 (- 1.67)*	- 0.0001 (- 1.05)	- 0.0005 (- 2.01)*	- 0.0003 (- 1.47)
GOVSIZE	0.9510 (2.95)*	0.9849 (3.47)*	- 1.4205 (- 1.35)	- 1.3422 (- 1.40)
INTERCEPT	0.3333	0.3618	2.6218	2.7065
R-SQUARED	0.3983	0.5237	0.3529	0.4548
ADJ. R-SQUARED	0.3419	0.4790	0.2922	0.4037
F	5.1305	8.5207	4.2259	6.4642

Notes. Asterisks denote significance at the 10% level or better. ID is the index of democratization; PDI the political democracy index; DENSITY is population per square kilometer; INCOME is per capita GNP; GOVSIZE is central government expenditures divided by the GDP.

As with previous studies (e.g. Anderson, 1986), density has a negative effect on the ability of governments to increase debt. The estimate of the coefficient of density is negative and significant at the 1 percent level of significance as shown in Table 2. In Table 3, the coefficient estimate of density is also of the correct sign and significant at the 10 percent level of significance or better. The results presented in both Tables 2 and 3 also show that rising per capita incomes have a significantly negative effect on debt. The size of the government, in general, has a significantly positive impact on debt as seen in Tables 2 and 3. When the dependent variable is foreign debt as a percentage of central government expenditures (DEBT/CGE), however, the relationship between the size of government and debt is negative but not significant. In general, however, the results show that increasing levels of democratization in Africa inhibit the ability of governments to raise their foreign debt levels.

Table 3

DETERMINANTS OF FOREIGN DEBT IN AFRICA (N = 36) All variables, except ID and PDI are logged

	1 DEBT/GDP - 0.1470 (- 1.45)	2 DEBT/GDP —	3 DEBT/CGE - 0.1470 (- 1.45)	4 DEBT/CGE —
Political democracy ID				
PDI	—	- 0.0172 (- 4.48)*	—	- 0.0172 (- 4.48)*
DENSITY	- 0.1718 (- 2.06)*	- 0.0885 (- 1.29)	- 0.1718 (- 2.06)*	- 0.0885 (- 1.29)
INCOME	- 0.2639 (- 1.80)*	- 0.0567 (- 0.44)	- 0.2639 (- 1.80)*	- 0.0567 (- 0.44)
GOVSIZE	0.9431 (4.62)*	0.8452 (5.16)*	- 0.0569 (- 0.28)	- 0.1548 (- 0.94)
INTERCEPT	2.3425	1.0466	2.3425	1.0466
R-SQUARED	0.5046	0.6788	0.2898	0.5396
ADJ. R-SQUARED	0.4582	0.6487	0.2233	0.4969
F	7.8945	16.3816	3.1630	9.0833

Notes. Asterisks denote significance at the 10% level or better. ID is the index of democratization; PDI is the political democracy index; DENSITY is population per square kilometer, logged; INCOME is per capita GNP, logged; GOVSIZE is central government expenditures divided by the GDP, logged.



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#### 4. Summary and Conclusion

The present study presents a simple empirical examination of the effects of democratization on the ability of African governments to increase the levels of public external debt. The results show that there is preliminary evidence of a significantly strong negative relationship between increasing levels of democracy in Africa and the ability of governments to raise levels of public debt. The study confirms what has been suspected about public finance in the continent, and that is, that African dictatorships are better able to increase their national debt levels than governments in countries in which there are greater levels of political democracy. Thus, any attempts to confront the existing African debt problem must include efforts to increase the level of political democracy in each country.

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**Abstract**

*Since the 1970s, the level of external borrowing by developing countries, especially those in Africa, has risen significantly. Researchers have become interested in examining the impact of the institutional framework on the ability of governments to borrow externally. In 1988, Anderson found preliminary evidence to support the hypothesis that political democracy constraints the ability of governments to raise their external debt levels. The present study uses data from Africa to test the hypothesis that the institutional framework has a significant effect on the ability of governments to increase their national debt levels. The results show that there is preliminary evidence of a significantly strong negative relationship between increasing levels of political democracy in Africa and the ability of continental governments to raise levels of public debt. African dictators appear better able to increase their national debt levels than governments in countries in which there are greater levels of political democracy.*

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## STRUCTURE POLITIQUE ET FINANCES PUBLIQUES DANS LES PAYS EN VOIE DE DEVELOPPEMENT: LE CAS DE L'AFRIQUE

### RESUME

*Depuis les années 70 le taux d'emprunt externe a considérablement augmenté dans les pays en voie de développement, surtout dans les pays africains. Les spécialistes cherchent de plus en plus à cerner le lien qui pourrait exister entre le système gouvernemental et le penchant vers les prêts de l'extérieur. En 1988, Anderson a trouvé de l'évidence soutenant l'hypothèse que sur le plan politique, la démocratie apporte des restrictions à la tendance à accumuler des dettes externes de la part des gouvernements. Notre analyse se sert des données touchant à l'Afrique pour démontrer qu'il y a en effet un lien assez étroit entre la démocratisation et la limitation des dettes nationales. Les gouvernements dictatures africains semblent plus libres à contracter des dettes tandis que cette tendance va en décroissant plus un pays est démocratisé.*