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GOVERNMENT SIZE AND ECONOMIC GROWTH:
THE CASE OF LIBERIA

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North Carolina Central University

ABSTRACT

Since 1960, the size of the government in Liberia has grown considerably, while the rate of economic growth has declined. This study investigates whether growth in government size promotes or retards economic growth. The study finds that growth in the size of government has been associated with a slowdown in economic growth in Liberia over the period 1960-86. Thus, a lesser role of government in economic activity may be the best route towards economic growth and development in the country.

INTRODUCTION

A study of whether a large government size promotes or retards economic growth is important. The degree of the relationship between government and the economy can determine, inter alia, the degree of material progress of society, the degree of private versus public control of the means of production, the degree of equity versus efficiency, and the degree of state rights versus individual liberties.

One point of view suggests that a large government size can play a critical role in the process of development. A large government size, it is argued, is likely to be a more powerful engine of economic development. Arguments in support of this view include: “(i) role of the government in harmonizing conflicts between private and social interests, (ii) prevention of exploitation of the country by foreigners, and (iii) securing an increase in productive investment and providing a socially optimal direction for growth and development” (Ram, 1986, p. 191). The other point of view is that a large government size may be detrimental to efficiency and economic growth. Arguments in support of this point include: “(i) government operations are often conducted inefficiently, (ii) the regulatory process imposes excessive burdens and costs on the economic system, and (iii) many of government’s fiscal and monetary policies tend to distort economic incentives and lower the productivity of the system.” (Ram, 1986, p. 191).

Although determining the relationship between government and economic growth is an important issue and several country-by-country studies have been conducted, no direct empirical assessment of the subject in the case of Liberia has been conducted. This study, therefore, is designed to fill this void. In this regard, this study examines the relationship between government size and economic growth in Liberia over the period 1960-85 in the hope of providing insights into the role of government in economic development. The
sample period is determined by the availability of data. Because Liberia had a civil war from 1989 to 1996, there is a paucity of macroeconomic data over that period.

The next section presents a review of the literature on the impact of government size on economic growth. This is followed by an overview of the growth of government size and the economy of Liberia. The impact of government growth on the economy is analyzed in the next section. The final section presents the summary and conclusions.

REVIEW OF THE LITERATURE

Many studies have investigated the impact of growth in government size on economic growth. The results of these studies, however, have been contradictory. Ram (1986) and Rubinson (1977) concluded that a large government size promotes economic growth, while Landau (1983, 1986) and Barro (1991) concluded that it depresses growth of per capita income. Conte and Darrat (1988) reported that changes in economic growth are not affected by public sector expansion, but Gemmell (1983) found that nonmarket sector growth has adverse macroeconomic effects that vary strongly from country to country. Bairam (1990) found positive effects for some countries and negative effects for others. Grossman (1988, 1990) concluded that government contributes both positively and negatively to economic growth, but the net effect appears to be marginally negative. Finally, Guseh (1996) discovered that not only does greater government size take a toll on economic growth, but the type of political and economic systems present in a country affects the magnitude of the toll. He found that the adverse effects of government on economic growth are three times as great in nondemocratic socialist economies as in democratic market economies.

A debate in the literature centers on determining the appropriate specification of government size in assessing its impact on economic growth. According to Landau (1985), the correct approach would be to include government in a general model of economic growth, but he argues that such a model does not exist. He contends that "Economic research is still in an underdeveloped state [with] little known about the impact of public production" (1985, p. 460). Thus, Landau and others, such as Rubinson (1977), specified government size as the share of government consumption expenditure (G) in gross domestic product (Y) (i.e., G/Y). This specification has been found to be negatively correlated with economic growth.

Ram (1986), however, challenged this specification. He argued that the use of the variable G/Y in the production function lacks a theoretical foundation and thus would be ad hoc. Adapting a two-sector production function framework, he showed that the appropriate variable for investigating the effects of government size on economic growth is the growth rate of government spending (i.e., dG/G). His results showed a positive correlation between government size and economic growth.

Despite the two views on the specification of government size, Conte and Darrat (1988) have shown that both specifications are appropriate, with Ram’s specification measuring the short-run impact of government and the other specification measuring the
long-run impact.

This review of previous studies shows that the results have been diverse and contradictory. The diversity of results combined with the fundamental importance of the subject indicates the need for further research. Performing this research in the case of Liberia is the focus of the rest of this study.

GOVERNMENT SIZE AND THE ECONOMY OF LIBERIA: AN OVERVIEW

Since 1960, the size of the government in Liberia has grown considerably while the rate of economic growth has declined. The graph in Figure 1 and the summary statistics in Table 1 present an overview of the temporal growth of government and the economy. When measured as a share of government consumption expenditure in gross domestic product (GDP), the government size grew from 14.4 percent in 1960 to a peak of 28.0 percent in 1982. It remained high, declining only slightly to 26.8 percent in 1986. Growth in government size is also indicated by growth in the number of public sector enterprises that have been established over the years. The number increased from 8 in the 1960s to 35 in the 1970s and to 44 at the present (Guseh, 1998). When these 44 public sector enterprises are combined with 20 ministries and 24 autonomous and semi-autonomous agencies of the Liberian government, Liberia has developed a very large government size or public sector (Guseh, 1998).

The economy, on the other hand, grew from an annual rate of about 2 percent in 1961 to its highest rate of 7.3 percent in 1966. This impressive rate of growth reflects the rapid rate of economic expansion in Liberia during 1950s and 1960s. In fact, the rate of expansion of the Liberian economy during the decade preceding 1961 surpassed that of any other country in the world, except Japan (Clower, Dalton, 1966). By the mid-1970s, the growth rate of the economy began to slowdown. It declined to 2.7 percent in 1977 and to its lowest rate of -4.8 percent in 1980. The growth rate was negative throughout the 1980s, an indication of the critical economic crisis during that period.

As presented in Figure 1, the graphs clearly show that the period of rapid growth in government size, 1980s, is also the period of lowest economic growth. On the other hand, during the 1960s and 1970s when government growth was moderate, economic growth was quite high. Given the increasing trend in government size and the declining rate of economic growth, the issue becomes whether growth in government size accelerates or retards economic growth. This issue is addressed in the next section.
Government Size and Economic Growth

Figure 1. Government Size and Economic Growth

TABLE 1. Summary Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>G/Y</td>
<td>0.176</td>
<td>0.042</td>
<td>0.137</td>
<td>0.280</td>
</tr>
<tr>
<td>y</td>
<td>0.020</td>
<td>0.035</td>
<td>-0.046</td>
<td>0.073</td>
</tr>
<tr>
<td>g</td>
<td>0.039</td>
<td>0.126</td>
<td>-0.225</td>
<td>0.419</td>
</tr>
</tbody>
</table>

Note: y = the annual growth rate of GDP; G/Y = government size, measured as the share of government consumption expenditure (G) in GDP (Y); and g = the annual growth rate of government consumption expenditure.

The effects of other factors on the economy are also shown in Figure 1. The adverse effects of the OPEC oil embargoes imposed in 1973 and 1979 are clear as evidenced by the recessions during 1973-75 and in the early 1980s. Besides the impact of the 1979 OPEC oil embargo, the recession of the 1980s was exacerbated by other factors. One factor may have been the financing of the Organization of African Unity conference held in Liberia in 1979, with an estimated cost of $230 million with little or no economic development objectives (Kimble, 1990). Another factor may have been the rise to power of the military in 1980, which embarked on a policy of increasing government consumption expenditure.

Wages of the military forces were increased by 200 percent, and the size of the...
civilian labor force was doubled (Kimble, 1990). A third factor may have been the impact of the global stagflation crisis of the early 1980s. Thus, the 1980s was a period of critical macroeconomic crisis as indicated by the magnitude of the negative growth trend.

Figure 1 also provides information on the intertemporal dynamics of the economy. Applying long wave analysis, there is evidence of an overarching 25-year Kuznets long wave growth cycle. According to Kuznets, economies boom and bust every 22-30 years (Byrns & Stone, 1989). If one extrapolates backwards, this cycle seems to have begun in the 1950s, peaked in the mid-1960s to the 1970s, and descended to a low during the global stagflation crisis of the early 1980s.

**IMPACT OF GOVERNMENT SIZE ON ECONOMIC GROWTH IN LIBERIA**

For the purpose of this study, national economic output (Y) is measured as gross domestic product (GDP), which is the market value of all goods and services produced in the economy within a year. Government size is measured as the share of government consumption expenditure (G) in GDP (i.e., G/Y). For many countries, government consumption expenditure consists of the sum of (i) outlays for wages and salaries of civil servants and the military, (ii) outlays on nondurable goods and services, including those for public sector employees, maintenance, and all spending on military equipment, (iii) interest payments on the government debt, (iv) transfers to subnational governments, and (v) subsidies and other transfers to individuals. The annual growth rates of the variables G and Y are also obtained, by first differencing the logarithms of the variables for successive years. Lower case letters denote the annual growth rates of the relevant variables.

To test the relationship between growth in government size and economic growth, the Pearsonian correlation coefficients are analyzed. Table 2 presents these results. The correlation between government size and economic growth is negative $\rho = -0.5$ and statistically significant at the 1 percent level. This indicates that as the size of government increases, the rate of economic growth decreases. The coefficient of determination ($r^2$) of 0.26 also means that growth in government size explains or accounts for 26 percent of the variation in economic growth in Liberian during the period under review. Thus, growth of government appears to be associated with a decline in economic growth.
Government Size and Economic Growth

TABLE 2

Correlation Coefficients Between Economic Growth and Measures of Government

<table>
<thead>
<tr>
<th></th>
<th>G/Y</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>-0.51**</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>(2.84)</td>
<td>(1.45)</td>
</tr>
<tr>
<td>R²</td>
<td>.26</td>
<td>.08</td>
</tr>
<tr>
<td>N</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

Note: See Table 1 for the definitions of the variables.

The absolute values of the t statistics are in parentheses.

* = Significant at .05
** = Significant at .01

The correlation between the growth rate of government consumption expenditure (g) and economic growth is positive, but is not statistically significant. This indicates that growth in government spending has not been strongly associated with economic growth in Liberia. This finding is also reflected in the low coefficient of determination of .08, which suggests that government consumption expenditure accounts for little or no variation in economic growth. Thus, those costs of government that are labeled as government consumption expenditure imply that such outlays do not increase the productive capacity of the economy (Gillis, Perkins, Roemer, & Snodgrass, 1987).

Based on these findings, it appears that growth in government size has been associated with a slowdown in economic growth in Liberia. Economic theory suggests that government may be inefficient in the provision of Pigovian goods and services and may also create distortions in the economy through its taxing and spending mechanism and unproductive rent-seeking activities. These activities tend to impede the productive capacity of the economy thereby leading to a slowdown in economic growth. The turbulent economic period of the 1980s, indicated in Figure 1, may be an indication of the impact of the growth in government size through the provision of Pigovian goods and services and rent-seeking activities. For example, when the military assumed power in 1980, government consumption as a share of GDP increased from 16.3 percent in 1979 to 28 percent in 1982.
As noted earlier, this increase resulted from many factors such as increased military expenditures and salaries for civil service personnel. The period was also characterized by fiscal mismanagement which led to an agreement whereby the United States government provided financial experts to assist the Liberian government in managing its economy (Martin, 1989). These results indicate that the increase in the share of government consumption expenditure in GDP may have greatly interfered with productivity, leading to a decline in the performance of the Liberian economy, especially in the 1980s.

CONCLUSIONS

The purpose of this study has been to investigate the relationship between government size and economic growth in Liberia. The results suggest that growth in government size has been associated with a slowdown in economic growth in Liberia over the period 1960-86. This may stem from government’s inefficiency in providing Pigovian goods and services and government’s distortion of the economy through its fiscal policy and unproductive rent seeking activities. While the results obtained neither establish a causative relationship nor can be generalized to all countries, they do provide guidance for policy decisions including strategies for development. Thus, it appears that a small or moderate role of government in economic activities may be an appropriate policy prescription for economic growth and prosperity in Liberia.

The results of this study are consistent with those of some of the previous studies, but contradict those of others. This leads to the issue of the diversity of results raised earlier in this paper. An examination of the models employed in previous studies reveal that the differences in results depend on the specifications of the government-size variable. Studies that employed the ratio of government expenditure to GDP (G/Y), as in this study, obtained a negative relationship between growth in government size and economic growth (Landau, 1983, 1985, 1986; Guseh, 1997). On the other hand, those that employed the growth rate of government expenditure (\(dG/G\) or \(g\)) obtained a positive relationship (Conte & Darrat, 1988; Grossman, 1988, 1990; Ram, 1986). Following the conclusions of Conte and Darrat, both specifications are valid: The variable \(dG/G\) tests for the short-run impact of government on economic growth, and the variable G/Y tests for the long-run effects (Conte and Darat, 1988). In the case of Liberia, while the short-run impact of government on the economy has been positive, it is not statistically significant. With respect to the long-run effects, government has had a significantly negative impact on the underlying rate of economic growth.

The conclusion of this study is also consistent with those of the study conducted by the World Bank (1981) on sub-Saharan Africa, in which Liberia is located. According to the Bank: "It is now widely evident that the public sector is overextended ... This has resulted in slower growth than might have been achieved with available resources ... "(World Bank, 1981). Thus, it appears that the pursuit of a policy based on a minimal role of government in economic activity may be one of the best routes towards economic growth.
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and prosperity in Liberia.

As a result of over seven years of civil war (1989-1997), the socio-political institutions and the physical and economic infrastructure were largely destroyed. There was almost a complete collapse of the state and society until June 1997 when presidential and legislative elections were held. In post civil-war Liberia, the need for creating social overhead capital for economic recovery is greater than ever before. Massive financial capital is required to accomplish this task. Liberia cannot afford to maintain a large government size that has become a burden on the economy. A policy based on a minimal role of government in economic activity may be the best route towards economic growth and prosperity. It is therefore urgently necessary to critically review and reconsider the traditional emphasis on government as the major source of employment and on State monopoly and control over productive assets and a wide range of economic activity. To translate this new awareness into an effective policy constitutes one of the major challenges in the political economy of Liberia.

NOTES

1. Assuming that the economy consists of two broad sectors—the government sector and the nongovernment sector—Ram showed that

\[ Y = b_1(1/Y) + b_2P + b_3G, \]

where, y is the growth rate of GDP (Y); 1/Y is the growth of capital, measured as the ratio of investment to GDP; p is the growth rate of the labor force; g is the growth rate of government spending; b_1 is the marginal product of capital; b_2 and b_3 elasticities of nongovernment output with respect to labor and government size, respectively.

In the equation, the government-size variable, g, equals \( dG/G \). This variable can be manipulated so that its coefficient becomes the marginal product of government, instead of elasticity. In such a case, the government-size variable becomes \( dG/Y \), which is growth in the relative size of government. Thus, Ram concluded that the appropriate variable for investigating the impact of government size on economic growth is either \( dG/G \) or \( dG/Y \).

2. Ram's model and conclusions have, however, been challenged. According to Rao (1989), the model is based on assumptions whose validity has not been adequately established. Additionally, Carr (1989) noted that Ram's specification of government size, \( dG/G \), is not superior to the other specification, \( G/Y \). With respect to the positive impact of government reported by Ram (1986), Carr (1989) warned that empirical results that show a positive effect of government size on economic growth must be viewed with caution.
REFERENCES


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