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DETERMINANTS OF GOVERNMENT EXPENDITURE: FRENCH-SPEAKING COUNTRIES OF AFRICA SOUTH OF THE SAHARA

By

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Introduction

The primary purpose of this paper is to identify and isolate the most significant determinants influencing the level and size of government expenditure in French-speaking countries in Africa south of the Sahara. In spite of rapid economic progress in recent years, these countries remain among the least developed in Africa.[1]

For this study, expenditure data, as well as other related data, were collected and five-year averages were computed for the period 1964-68. The period 1964-68 was chosen to minimize the influence of fortuitous factors. By definition, government expenditure includes the expenditure by all levels of government and closely related bodies. However, it was not possible to cover all levels due to lack of data. Therefore, the definition adopted for this study excludes expenditures financed by local governments themselves. Lack of data and difficulty of comparison also precluded the consideration of

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[1] French-speaking countries in Africa south of the Sahara included: Dahomey, Ivory Coast, Mauritania, Niger, Senegal, Upper Volta, Togo, Central African Republic, Chad, Democratic Republic of Congo, Gabon, Cameroon and the Malagasy Republic. Mali, Guinea, and former Belgian-administered areas were not included in this study. Note also that Cameroon is partly English-speaking. For the institutional background, see Appendix B.

annexed budget expenditures.[2]

Government expenditure data, as well as the other natio aggregates were, where necessary, expressed in the units of Uni States' currency to allow for a comparison with other studies. T use of exchange rate is grossly arbitrary and tends to understate level of income and other aggregates of low-income countries relat to that of high-income countries. The exchange rates only reflect relative prices of the goods and services entering into foreign tr but not the goods and services produced and consumed domesti ly.[3]

There are certainly inter-country and inter-temporal differences the legal concepts of government expenditures as well as institutio arrangements which may have influenced the size of such expen tures. Serious questions can also be raised concerning the quality the basic data in many countries. Because the countries und consideration belong to the group of low-income countries, use t same currency, and have similar institutional history and adminis tive background, it is assumed that neither the conversion of so data into US dollars nor the different legal concepts of expenditu and quality of the basic data led to serious distortions of the result

Gross Domestic Product (G.D.P.) at market prices was selected the relevant national income aggregate for this study since gover ment purchases are made at market prices.[5] The G.D.P. in this gro of countries was subject to a wide margin of error for many reaso including the difficulties of estimating the subsistence sector.

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[2] See J. Van de Ven and D.J. Wolfson, "Problems of Budget Analysis a Treasury Management in French-speaking Africa," *IMF Staff Papers*, Vol. 1 1969, pp. 140-156.

[3] See S.P. Gupta, "Public Expenditure and Economic Development — Cross-Section Analysis," *Finanzarchiv*, October 1968, p. 31.

[4] See African Department Group, "The CFA Franc System," *IMF St Papers*, Vol. 10, 1963, pp. 345-394; A. Abdel-Rahman, "The Revenue Structu of the CFA Countries," *IMF Staff Papers*, Vol. 12, 1965, pp. 74; African Depa ment Study Group, "Financial Arrangements of Countries Using the C Franc," *IMF Staff Papers*, Vol. 16, 1969, pp. 289-387.

[5] See S.P. Gupta, *op. cit.*, p. 29.

In some instances where the picture of the real growth of public expenditure was sought, the problem of choosing a suitable price index arose. The choice was limited by the data available; thus, either the cost-of-living index or an index of wholesale prices was used.[6]

Determining Factors of Government Expenditure

To suit the purpose of this study, the variables influencing the level and size of government expenditure were arranged into groups of predominantly economic factors, demographic factors, and socio-political factors. They represented variables affecting demand for expenditure and/or supply of necessary funds.

It can be argued that among many others, economic factors exerting a strong direct or indirect influence on the level of government expenditure are as follows: per capita income, aggregate level of income, income distribution, proportion of income generated in the agricultural sector, proportion of income generated in the secondary industries, degree of "openness" of the economy, supply of funds, variation in price levels, and degree of unemployment.

From a number of relevant demographic factors, this study attempted to measure the influence of population size, population growth and density, and degree of urbanization and its growth on the level of government expenditure.

The relationship between the level of government expenditure and socio-political and cultural factors can be indirectly explained by considering the impact of some of the economic and demographic factors since these factors obviously portray the social and cultural changes accompanying the process of economic development.[7] However, it can be assumed that the change in cultural values accompanying the general process of modernization of economic and social life has acted as an important factor in influencing the public

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[6] See, for example, S. Andic and J. Veverka, "The Growth of Government Expenditure in Germany since the Unification," *Finanzarchiv*, January 1964, p. 177.

[7] For example, the share of the agricultural sector in G.D.P. and the degree of urbanization may help in depicting the process of social change. The decreasing weight of the agricultural sector and a rapid growth of urbanization can be also explained as an overall indicator of the extent to which attachments to traditionalism have lost their influence.

goods supply. It can be also argued that the political factors and the changes are of great significance in many developing countries. Political leadership, its ability and credibility, the political system methods of changing the leadership and the frequency of change might all have been major and important factors affecting the level and growth of government expenditure. Of special importance have been the prevailing political philosophy of the leadership, especially the ideas on the role of the state sector in economic development. Because of difficulties in quantifying cultural and political factors no attempt in this study, however, was made to measure the effect of these variables on government expenditure level and growth.[9]

Income represents a basic constraining influence on total community resources which are expected to be available for all private and government uses. The assumption of a close relationship between the level of income and government expenditure can be related both to the demand and the supply sides. A higher level of per capita income is indicative of a higher level of organization, higher literacy rate, etc., but it has also its effect on the ability to pay taxes. This kind of reasoning may be correct in the case of advanced countries but in countries where the income distribution is inequitable, such reasoning may again lead to incorrect conclusions. It should be also noted that the income-expenditure relationship is in fact a two-way interdependence. Income not only influences expenditure but expenditure also generates income.

Until recently, it was generally believed that the share of government expenditure in G.D.P. tends to rise with an increase in G.D.P. per capita. The statistical findings of some of the cross-section studies listed in the footnote suggested the hypothesis that there is a strong positive correlation between government expenditure as a share of national output and the degree of economic development.[10]

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[8] See, for example, A.T. Peacock and J. Wiseman, *The Growth of Public Expenditure in the United Kingdom*, (N.B.E.R., Princeton 1961), p. 24.

[9] See, for example, I. Adelman and C. Taft Morris, "A Factor Analysis of the Interrelationship Between Social and Political Variables and Per Capita Gross National Product," *Quarterly Journal of Economics*, Vol. 79, 1965.

[10] See, for example, A.M. Martin and W.A. Lewis, "Patterns of Public Revenue and Expenditure," *The Manchester School of Economic and Social Studies*, September 1956; J.G. Williamson, "Public Expenditure and Revenue: An International Comparison" *Ibid.*, January 1961; A Wagner, "Three Abstracts on Public Finance," R.A. Musgrave and A.T. Peacock (eds.), *Classics in the*

On the other hand, more recent studies including this one have revealed that the relationship between expenditure ratio and per capita income is statistically either weak or insignificant. This study also found that no relationship exists between the ratios of various individual functional or economic categories of government expenditures and G.D.P. per capita.[1 2]

By relating government expenditure to G.D.P., the cost aspect of government services may be brought into focus. Some countries in this study, though apparently less developed than others, may have absorbed an equal or higher share of G.D.P. for government consumption than the more advanced countries not because of the higher supply of public goods but because of the relatively higher per unit cost of goods supplied and services rendered.

The expectation that the overall expenditure ratio should increase with development was based on two presumptions.[1 3] The first states

Theory of Public Finance, (New York 1962); H.H. Hinricks, "Determinants of Government Revenue Share Among Less-Developed Countries," *Economic Journal*, September 1965; R.S. Thorn, "The Evolution of Public Finances During Economic Development," *The Manchester School of Economic and Social Studies*, January 1967; A.R. Roe, "The Government-Revenue Share in Some African Countries — A Comment," *Economic Journal*, June 1968; S.P. Gupta (cited in footnote 3), *Finanzarchiv*, October 1968.

[1] See, for example, F.L. Pryor, *Public Expenditures in Communist and Capitalist Nations* (George Allen & Unwin, London 1968); I.J. Goffman, "On the Empirical Testing of Wagner's Law: A Technical Note," *Public Finance/Finances Publiques*, March, 1968; L. Lall, "A Note on Government Expenditures in Developing Countries," *Economic Journal*, June 1969; R.A. Musgrave, *Fiscal Systems* (Yale University Press, New Haven 1969); V.P. Gandhi, "Wagner's Law of Public Expenditure, Do Recent Cross-Section Studies Confirm It? " *Public Finance/Finances Publiques*, January, 1971.

[2] See, for example, J. Veverka, "The Growth of Government Expenditures in the United Kingdom Since 1970," in A.T. Peacock and D.T. Robertson (eds.), *Public Expenditure: Appraisal and Control* (Edinburgh 1963); S. Andic and J. Veverka, "The Growth of Government Expenditure in Germany Since the Unification," *Finanzarchiv*, January 1964; S. Lall, *op. cit.*

[3] The level of government expenditure is usually judged in terms of the expenditure ratio. It is the share of government expenditure of the measure of aggregate economic activity and it can be regarded as an index of the size of the state sector. The overall expenditure ratio shows the proportion of income used for public purposes. As such, the ratio gives an idea of the division of the responsibilities between the public and private sectors and the degree of control that the government can exercise over the allocation of resources in the economy. Throughout the study, the expenditure ratios used are as follows: current expenditure ratio, capital expenditure ratio, and expenditure ratio (total).

that the economic and institutional factors corresponding to certain level of development induce a significant effect on the le and composition of government spending. The second states that level of development can be properly represented by an index of capita income.

The question on whether or not differences in expenditure ra between countries were associated in a systematic way with degree of development, expressed as per capita income, was answe by having two sets of regression analysis carried out.

Per capita income explained about 48 per cent of the variation the total expenditure ratio when constant prices were used, but not found to be significant at the 5 per cent level when market pr were used.

The coefficients of correlation for per capita G.D.P. and curr expenditure ratios in market and constant prices were not signific at the 5 per cent level. On the whole, the only significant correlat coefficient was rather weak, so that changes in per capita inco explained a relatively small part of the changes in governm expenditure.

The validity of this finding also suffered due to the small numb of countries in the group. Moreover, the group was composed alm entirely of countries from the same level of socio-econom development, where per capita income mainly depends on natural wealth, its exploitation, and external factors. These cumstances partly explain the inter-country differences, considera in terms of per capita income but negligible in the expenditure leve and vice versa. (See Appendix A, Tables 4 and 5.)

The statistical analysis of the relationship between per cap income and the economic categories of current expenditures such wages and salaries, material and maintenance, and transfers exper tures were not found to be statistically significant.

The statistical analysis carried out failed to establish G.D.P. capita as a strong determining factor for the level and changes government expenditure. These findings show that per capita G.D may either be the wrong parameter to relate to governm expenditure in developing countries, or it may not be a v significant indicator of the level of development for poor co

tries.[14] However, the aggregate income appeared to be a very significant determinant of the absolute size of government spending. Income itself seemed to explain about 96 per cent variation in government expenditure.

It can be assumed that the pattern of income distribution can exercise an important influence, through varying consumption forms and tax bases, in determining the level of government expenditure. On the other hand, the level and composition of government outlays have been recognized as important instruments in income redistribution.

In analysing the character of income distribution in seven countries of the group, it was observed that the greater income equality tended to appear in the very least developed, predominantly agrarian economies while the countries with growing modern industries tended to experience higher inequalities in income distribution.[15] This observation indicates that the economic development was most likely achieved at the expense of the lower income groups relative to those with higher incomes. To counterbalance the tendency towards such a skewed income distribution pattern, income redistribution by means of tax and expenditure policies appeared to be the only feasible solution under existing political and economic institutions.

The analysis of the relationship between government expenditure and the shares of various income groups in total income suggested how significant a determining factor income distribution was, and also how the governments acted in income redistribution.[16] It could

[14] See A.R. Prest, "Government Revenue and the National Income," *Public Finance/Finances Publiques*, March, 1951; R.L. Marris, "A Note on Measuring the Share of the Public Sector," *Review of Economic Studies*, March, 1955; I.J. Hoffman (cited in footnote 11).

[15] Data on income distribution based on Table 1: Income Distribution Estimates in I. Adelman and C.T. Morris, "An Anatomy of Income Distribution Patterns in Developing Countries," *Development Digest*, Vol. 9, No. 4, October 1971, p. 27 and Table 1: Income Distribution Estimates in V.C. Nwaneri, "Income Distribution Criteria for the Analysis of Development Projects," *Finance and Development*, Vol. 10, No. 1, March 1973, p. 17.

[16] In order to maintain comparability with the income distribution data, the expenditure ratios were adjusted for two of the seven countries as follows: Ghad (11.4 per cent- current expenditure ratio; 12.3 per cent- expenditure ratio), and Dahomey (16.5 per cent-current expenditure ratio; 17.3 per cent-expenditure ratio).

be assumed that a government making income redistribution part o its expenditure policy should spend more if the share of the upp income groups is greater than the share of the lower income group. I should spend less if the share of lower income groups is greate Although the correlation analysis was limited to comparable dat the results obtained indicated that the expenditure policy ha generally counterpoised the penalizing of the poorest segments of th society in the course of economic progress. There was a stron positive relationship (R = 0.85) between the current expenditur ratio and the share of the wealthiest population groups (highest and 20 per cent) in the total income. This means that the larger th share of the upper income groups in total income, the greater th likelihood of a higher level of government activity and vice versa.[17] It should be also noted that the government is one of the primar sources of income for the upper income groups, often the onl source. Thus the correlation can run both ways. On the other hand the correlation analysis between the relative share of the poore group (lowest 20 per cent) in total income and the level of curren government expenditure revealed a negative relationship (R = -0.92 which indicated in accordance with a welfare policy assumption, tha the larger the share of the poorest group, the lower the level o government expenditure.[18]

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[17] I. Adelman and C.T. Morris in "An Anatomy of Income Distributio Patterns in Developing Countries" (cited in footnote 15), p. 36, argued tha ". . . . the larger the government's share in total investment, the smaller is th share of income of the wealthiest 5 and 20 per cent and the larger is the share o the middle income groups". Even if the concept of capital expenditure used i this study were far from being identical with government investment, th validity of the argument was tested. The findings of this study, however, sho that the larger is the share of the wealthiest 20 per cent, the larger is capita expenditure (R = O.71). The correlation coefficients for the poorest 20 per cent the wealthiest 5 per cent, upper middle 61-79 per cent, and the highest 40 pe cent were not found to be significant at the 5 per cent level of significance. Th difference in Adelman-Morris and this study's conclusion could stem from th distinction in concepts used, since a substantial portion of government investment financed directly by foreign sources is not recorded in the capita budget.

[18] In the absence of a detailed analysis of disaggregated government expenditure and taxation, it would be improper to clarify the system a "redistributive" in the sense that it tends to decrease the inequality in the income distribution among individuals. See, J.M. Buchanan, "The Pure Theory of Government Finance. A Suggested Approach," *The Journal of Political Economy*, Vol. 57, 1949, p. 502.

The proportion of income generated in the agricultural sector was found to have a significant negative relationship to the level of government expenditure. It can be argued that a high share of the agricultural sector in G.D.P. is generally associated with a lower per capita income, a large subsistence sector, a lower degree of industrialization, and a traditional organization of the society. The share of income generated in the agricultural sector may affect the level of government expenditure in two ways. Firstly, the low income of the agricultural sector influences the taxable capacity directly and indirectly because the higher the share of agriculture in G.D.P., the less the demand for imports and other activities which are the conventional sources of government revenue. Secondly, the structure of the economy also affects the level of demand for public goods and services. The higher the share of the agricultural sector, the higher is the proportion of population living in this traditional area of occupation, the less is the degree of literacy, political and social consciousness and consequently, the less is the demand for government spending.[19]

On the other hand, the share of income generated in the secondary industries is presumably positively related to the expenditure ratio, because domestic production generates a broader tax base and also creates a demand for the collectively provided goods and services. The results of the analysis confirmed the reasonableness of the above assumption. The correlations of the expenditure ratio with the share of the agricultural sector in total G.D.P. and the share of secondary sector in total G.D.P. brought the following results: $R = -0.77$ ($R^2 = 0.59$) and $R = 0.67$ ($R^2 = 0.45$), respectively.

Both the primary and secondary sectors can be considered the explanatory variables of medium efficacy. The somewhat weaker correlation between the share of the secondary sector in G.D.P. and government expenditure can be explained by the uneven structural composition of the primary and secondary sectors. While the primary sector represents a more or less homogeneous group of activities with similar impact on the supply and demand side of the government expenditure function, the secondary sector is still in the early stages of development and is, with some exceptions, made up of small-scale facilities for the processing of agricultural and forestry products and

[19] See I. Adelman and C. Taft Morris (cited in footnote 9), p. 562; R.W. Bahl, "A Regression Approach to Tax Effort and Tax Ratio Analysis," *IMF Staff Papers*, Vol. 18, 1971, p. 589; R.T. Chelliah, "Trends in Taxation in Developing Countries," *Ibid.*, Vol. 18, 1971, p. 295.

of consumer goods industries aiming at import substitution. Fo these and other reasons, the impact of a secondary sector (of th same magnitude but of different composition) on supply of fund and demand of government goods and services would differ.[20]

It could be interesting to estimate the extent to which the degre of "openness", measured either as ratio or in per capita terms affected the size and level of government expenditure.[21] In othe words how significant a factor like foreign trade, and its respectiv components, had been in determining the levels of governmen spending.[22]

In examining the relationship, both aggregates and ratios of tota expenditure and current expenditures were used. According to the expectation, imports were the most significant factor. They ex plained slightly less than two-thirds of the variation in the rise o current expenditures ($R = 0.80$) and 59 per cent of variation in the rise of total expenditure ($R = 0.77$). On the other hand, exports were not found to be a statistically significant determining factor. As a result, the relationship between the openness ratio and the size o government expenditure was rather weak. Imports may influence the level and size of government spending in two ways: firstly, in most countries, the receipts from imports formed a very significant part o government revenue; and secondly, a large proportion of governmen capital and current expenditures was usually spent directly o indirectly on imports. The minor influence exports had on the size o government expenditure could be partly explained by its relatively inferior role in supply of funds.[23]

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[20] See IMF, *Surveys of African Economics*, Vol. 1 (IMF Washington 1968) IMF, *Ibid.*, Vol. 3 (IMF Washington 1970); IMF, *Ibid.*; Vol. 4, pp. 109-197 (IMF Washington, 1971).

[21] The openness ratio is the ratio of imports plus exports to G.D.P.; the ratio of exports to G.D.P. is referred to as the export ratio, and the ratio of imports to G.D.P. as the import ratio.

[22] See T.R. Lotz and E.R. Morss, "Measuring 'Tax Effort' in Developing Countries," *IMF Staff Papers*, Vol. 14, 1967, pp. 478-99; T.R. Lotz and E.R. Morss, "A Theory of Tax Level Determinants for Developing Countries," *Economic Development and Cultural Change*, Vol. 18, 1970, pp. 328-41; R.T. Chelliah (cited in footnote 19), pp. 293-4; R.W. Bahl (cited in footnote 19), pp. 585-87.

[23] In countries of the sample, the revenue from export taxes varied from 1 per cent of total tax revenue to 16 per cent, whereas the import taxation

An attempt has also been made to use imports and exports on per capita basis to analyse the influence of the various degrees of "openness" on the level of government expenditure. However, the correlation coefficients were not significant at the 5 per cent level.

Regression analysis was used in order to throw light on the degrees of relationship between price changes and changes in the level of government expenditure. The correlations were found not to be significant.[24]

The size of government expenditure in French-speaking countries of Africa south of the Sahara was predominantly determined by the size of government revenue. The supply of the funds was found to be the most important determining factor of government spending policy.[25] Evidence was demonstrated statistically by a very strong correlation coefficient (R = 0.99). This result also confirmed the observation that the increasing government outlays were not undertaken by incurring deficits which had to be met by borrowing from the central banks.[26] The strongest impact upon the size of current expenditures had revenue raised by taxation alone (R = 0.86), above all by import taxation. It also indicated the orthodox budget philosophy which the governments, voluntarily or not, had been pursuing.[27]

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contributed more significantly toward the funds supply and brought in from about 23 per cent to 70 per cent of the total tax revenue. For similar observation in African and other developing countries, see, for example, R.W. Bahl, "A Representative Tax System Approach to Measuring Tax Effort in Developing Countries," *IMF Staff Papers*, Vol. 19, 1972, p. 103; R.T. Chelliah (cited in footnote 19), pp. 254-327.

[24] For similar conclusions see, for example, I.J. Goffman and D.J. Mahar "The Growth of Public Expenditures in Selected Developing Nations: Six Caribbean Countries 1940-65" *Public Finance/Finances Publiques*, Vol. 26, 1971, p. 67.

[25] For similar findings, see, for example, A.T. Peacock and J. Wiseman (cited in footnote 8), p. 25.

[26] See African Department Study Group, "Financial Arrangements of Countries Using the CFA Franc," *IMF Staff Papers*, Vol. 16, 1969, pp. 319-21.

[27] In the early 1960's, all countries of the group faced heavy current expenditures obligations associated with independence and also incurred large development expenditures. Government ordinary revenues, although generally increasing, lagged in many instances behind expenditures and were in part supplemented by foreign budgetary grants. Domestic financing was obtained

Economic factors worthy of mention with respect to the analy of determinants of the level of government expenditure should a include unemployment and welfare.[28] While both of these facto by their association with cyclical or intermediate period change income, may exert influence on the level of government spendin advanced countries, their role in the countries under consideratio most probably not significant due to the different economic a institutional structure. Therefore, no attempt to estimate statistica the significance of these factors was made.

The overall effects of population growth on the level government expenditure are very difficult to ascertain.[29] Certai there is no *a priori* argument for the share of government spendin some national aggregate to rise as population rises. On the oth hand, it is clear that some types of expenditure are related to the s of the population and to its growth more closely than others. T composition of the population appears to have significant bearing the structure and magnitude of government expenditure. Even if t precise effects of demographic factors such as the size of t population, its growth, age structure, density, trends towa urbanization etc., are uncertain, they can be ascribed a signific influence. Therefore, an attempt was made in this study to carry o a few sets of regression analysis to ascertain the degree dependence of the level and size of government expenditure on so demographic factors.

The results of the regression analysis revealed that while the size population was not significantly correlated with the value of t expenditure ratio, the absolute size of government expenditure mig have been influenced to a certain extent by the population si ($R = 0.57$). Apart from the impact of the size of population up aggregate government spending, an attempt was made to clarify t

mostly from non-inflationary sources, such as deposits in the postal savi system, local governments deposits with the treasury, and by the use of rese funds in foreign exchange representing surpluses from earlier years. However, was mainly due to the position of the Central Bank as an independe institution. (See Appendix B.) Except for temporary advances, the governme of these countries have not resorted to borrowing from the Central Bank or fr commercial banks to finance their deficits as was frequently the case in oth developing African countries.

[28] See A.T. Peacock and J. Wiseman (cited in footnote 8).

[29] See, for example, A.T. Peacock and J. Wiseman, *op. cit.*, p. 23; J Goffman and D. J. Mahar (cited in footnote 24), p. 68.

possible effects population growth may exert on government expenditure. Population growth can act as a direct and indirect determinant of the effective demand for government expenditure since it signifies the increasing demand for public goods and services. It is also related to the size of the labour force, the growth of potential output, and to the growth of actual production given sufficient aggregate demand. The results of the regression analysis were unsatisfactory with respect to the expenditure ratio. It was found that there was no statistically significant relationship between the population growth and the aggregate expenditure ratio. On the other hand, when the absolute increase in numbers was considered with respect to changes in absolute aggregate government expenditure, the absolute average growth of population over the period explained about 41 per cent of the variation ($R = 0.64$).

It can also be argued *a priori* that the density of population may influence the level of government expenditure. For example, the provision of the same quality of government services in countries of the group, where there are vast, sparsely inhabited areas, would certainly be more costly per capita in money terms than in more densely populated areas. The higher the population density, below congestion level, the lower is the expenditure per capita, all other factors being the same. However, the statistical findings did not confirm this hypothesis. Rather, in a skewed expenditure distribution pattern, the findings acknowledged the continuance of the situation whereby the major part of government outlays was spent in urban and a few privileged rural areas, while vast areas of country where the majority of population resides were, in many instances, completely ignored. The correlation between the expenditure ratio and density was found to be meaningless.

Many countries experienced a significant migration of population from traditional rural to urban areas in the past decade. There were already a few countries where the percentage of the population living in urban areas exceeded 10 per cent. On the other hand, there were also countries with less than 2 per cent of the total population living in the urban areas (see Appendix A, Table 8). This situation may exert an effect on both the demand and supply sides of government expenditure.[30] In many countries, the growing urbanization usually

[30] See, for example, R.S. Thorn, "The Evolution of Public Finances During Economic Development," *The Manchester School of Economics and Social Studies*, January 1967, p. 17; H.B. Chenery, "Growth and Structural Change," *Finance and Development*, March 1971, p. 18.

is connected with an increase in money incomes, thus provid directly and indirectly increased revenue potential. The growth in t size and importance of large urban centers reinforces the demand f government expenditure to deal with the growing complexity economic and urban life. Since the size of the tradition sector w found to be negatively related to the share of government expen ture in G.D.P., it can be assumed that the growing urbanization c be positively related to the expenditure ratio. Two sets of corre tions to test this relationship were carried out with encouragi results. The results of the analysis proved that urbanization, defin as the proportion of the total population living in urban areas, cou act as a factor of great significance in determining the level government spending expressed as the per cent of G.D.P. (R = 0.8

The absolute growth of government expenditure also showed tendency to be associated with an increasing population in the urb areas (R = 0.71). The absolute number of people living in urban are had had a much stronger influence upon the size of governme expenditure (R = 0.74) than had the size of population. Th substantiated what had been said previously on the territori distribution of government expenditure.

Urban population may be considered as one of the most importa determining factors influencing the level of government expenditur The findings of this study illustrated the situation ignored b government spending programmes. In this situation beneficiarie taxpayers-voters were mostly concentrated in the urban areas, wh the majority of population who lived in the traditional economy were poor in money incomes, and thus were constrained i contributing towards government revenue, and lacked both economi and political bargaining power. Regional allocation of governme expenditure thus followed the general pattern of modern privat sector activities. Any remedial considerations from the decisio makers have yet to come. This sort of attitude was gleaned from record of a conversation with a former president of Ghana. When was pointed out to President Kwame Nkrumah that he was planni to spend 50 per cent of the government expenditure in Accra, whic had only 5 per cent of the population, he vindicated his decision a follows: "Why not? When you think of England, you think o London; when you think of France, you think of Paris; when yo think of Russia, you think of Moscow."[31] The uneven distributio

[31] Quoted from an open lecture delivered by Professor Sir W. Arthur Lewi on the subject "Unemployment in Developing Countries" at Legon o Wednesday, 26th October 1966. *University of Ghana Reporter*, Vol. 6, No. 8 25th November, 1966.

of government expenditure between urban and rural areas intensified the migration to cities and this in turn led to a further demand for government expenditure.

By its very nature, government expenditure is bound to be also affected by the political situation and by a decision-maker's view about the role of the state in the process of economic development.

Shifts in political power may sometimes bring about changes in the preference function either between public and private goods and services or within the sphere of public goods. Thus, replacement of the leadership may bring changes in both the size and composition of government expenditure and revenue. However, frequent changes in political leadership by way of elections or by military coups in the post-independence era (see Appendix A, Table 9) resulted in only a few moderate changes in the overall trend of aggregate government spending even though there might have been important changes in the composition. A possible explanation could be the great importance of constraining external factors, limitations of an economic nature, and a negligible difference in preference function, as between private and public consumption and investment, between the old and new leaderships.

Forced changes in the political leadership, political and social instability, and personal insecurity can have detrimental effects upon the economic activity of the private sector, households and foreign investment.[3 2] If the conditions of instability prevail for a longer period of time, the government may be forced to provide more and more activities previously provided by the private sector. Thus, political and social instability can in the long run necessitate increases in the size as well as changes in the composition of government expenditure.

Conclusions

In summary, it can be stated that the level of government expenditure during the early stages of economic development seems to be determined by complex factors the most significant of which are urbanization and income distribution and to a lesser degree, per

[3] Over the period 1960-72, there were eleven successful and five unsuccessful coups plus one civil war in progress in countries of the group. Only one country in mid-60's still had a multi-party government whereas other countries were ruled either by a single party or by a military junta.

capita income. It can be hypothesized that the greater the share of population living in towns and the more unequal the distribution of income, the higher is the level of government expenditure likely to be. However, it should be noted that this relationship is by no means a one-way relationship. Just as the uneven allocation of government investment and spatial differences in quality of public services and goods provided may initiate a large-scale migration of population from rural to urban areas, so may government tax and expenditure policies contribute to the existing or growing inequality in income distribution. The policies may be designed to favour the rich at the expense of the poor, bringing not only inequalities in incomes, in general, but also widening the gap between the rural and urban incomes with all the negative social and economic consequences.

In considering the size of government expenditure, a reasonable hypothesis is that the amount of aggregate government spending is likely to grow with the increase in government revenue as a result of trade expansion and modernization of the economy.

It must be acknowledged that, in the final analysis, it is the decision-making body of the government which determines the size and structure of expenditure. It has to be realized that the control of the general public over the composition, size, and distribution of government expenditure is rather limited in French-speaking countries of Africa south of the Sahara. On the other hand, the freedom of the leaders to spend public money is likely to be also severely constrained by the scarcity of funds with respect to size, and, with respect to composition and regional distribution, by growing social and political awareness of the masses and by the influence of competing interest groups.

APPENDIX A: Statistical Information

Table 1: Correlations Between Government Expenditure and Other Variables

Number of Observations	Types of Expenditure	Types of Variables	R	R^2	F
10	Expenditure Ratio	G.D.P. per capita (Constant Prices)	0.69	0.48	7.38
13	Total Expenditure	G.D.P.	0.98	0.96	263.74
7	Current Expenditure Ratio	Percentage Share of Total Income going to the Highest 5 per cent	0.85	0.72	12.87
7	Expenditure Ratio	Income Level Group ditto	0.70	0.49	4.79
7	Current Expenditure Ratio	Percentage Share of Total Income going to the Highest 20 per cent	0.85	0.72	12.87
7	Capital Expenditure Ratio	Income Level Group ditto	0.71	0.50	5.02
7	Expenditure Ratio	ditto	0.78	0.61	7.80
7	Current Expenditure Ratio	Percentage Share of Total Income going to Poorest 20 per cent	−0.92	0.85	290.00
7	Expenditure Ratio	Income Level Group ditto	−0.79	0.62	8.19
13	Expenditure Ratio	Share of Primary Sector of G.D.P.	−0.77	0.59	15.83
13	Expenditure Ratio	Share of Secondary Sector of G.D.P.	0.67	0.45	9.00
13	Current Expenditures	Import Ratio	0.80	0.64	19.55
13	Total Expenditure	Import Ratio	0.77	0.59	15.83
13	Current Expenditure Ratio	Openness Ratio	0.64	0.41	7.64
13	Expenditure Ratio	Trade Ratio	0.72	0.52	11.92
13	Total Expenditure	Total Revenue	0.99	0.97	355.31
13	Current Expenditures	Tax Revenue	0.86	0.74	31.30
13	Current Expenditures	Import Taxation Receipts	0.59	0.35	5.92
13	Total Expenditure	Population (absolute numbers)	0.57	0.33	5.42
13	Total Expenditure	Absolute Increase in Population	0.64	0.41	7.64
13	Expenditure Ratio	Share of Urban Population of Total	0.83	0.69	24.48
13	Total Expenditure	Absolute Increase of Urban Population	0.80	0.65	20.43
13	Total Expenditure	Urban Population (absolute numbers)	0.74	0.59	15.83
13	Increase of Total Expenditure	Increase in Urban Population	0.71	0.50	11.00

Note: All correlation coefficients in this Table are significant at the 5 per cent level of significance.

The supporting tables and diagrams were too many to be all included in the Appendix. They can be however, provided to interested persons upon request.

Table 2: Revenue and Expenditure 1964-68 (in million of U.S. dollars)

Country	Total Expenditure	Total Revenue	±	Current Expenditure	Ordinary Revenue	±
Upper Volta	34.4	34.2	−0.2	32.0	31.4	−0.6
Chad	24.8	24.5	−0.3	24.8	24.5	−0.3
Dahomey	30.5	27.0	−3.5	30.5	24.3	−6.2
Niger	38.2	37.1	−1.1	34.3	35.3	+1.0
Malagasy	122.3	115.0	−7.3	101.6	110.0	+8.4
Togo	23.4	22.9	−0.5	20.7	21.5	+0.8
CAR	30.1	23.7	−6.4	23.5	22.0	−1.5
Cameroon	121.9	122.1	+0.3	110.7	120.1	+9.4
Mauritania	20.5	20.3	−0.2	18.9	19.5	+0.6
Congo	36.1	34.1	−2.0	33.1	32.7	−0.4
Senegal	164.2	146.3	−17.9	137.7	146.3	+8.6
Ivory Coast	221.3	198.4	−22.9	157.6	161.3	+3.7
Gabon	50.2	48.4	−1.8	41.3	48.4	+7.1

Table 3: Imports, Exports, and Openness Ratios 1964-68

Country	Imports as % of GDP	Exports as % of GDP	Total Trade as % of GDP
Upper Volta	16.0	6.8	22.8
Chad	13.5	10.6	24.1
Dahomey	19.2	7.2	26.4
Niger	12.2	8.6	20.8
Malagasy	35.7	19.1	54.8
Togo	22.8	16.4	39.2
CAR	13.8	12.2	26.0
Cameroon	18.2	16.9	35.1
Mauritania	16.0	38.0	53.9
Congo	49.1	26.8	75.9
Senegal	21.9	17.5	39.4
Ivory Coast	24.3	30.1	54.4
Gabon	27.4	46.9	74.3

Table 4: GDP per capita and Industrial Origin of G.D.P. 1964-68

Country	GDP per capita in US$		Primary Sector as % of GDP	Secondary Sector as % of GDP
	Market Prices	at 1964 Prices		
Volta	48	45	48.3	9.8
	67	56	60.0	9.0
oney	76	n.a.	47.2	9.6	
	92	84	59.7	11.6
gasy	108	104	31.6	10.9
	120	n.a.	48.2	16.2
	120	101	39.6	16.2
roon	151	118	41.3	12.5
itania	154	n.a.	40.0	12.1
	172	143	23.4	17.0
gal	225	212	29.1	17.0
Coast	246	231	30.8	19.1
	499	368	25.6	31.6

Table 5: Expenditure Ratios and Expenditure Per Capita (1964-68)

Country	Expenditure Ratio (E/GDP)						Per Capita Total Expenditure in US$ (Market Prices)	Per Capita Current Expenditure in US$ (Market Prices)
	Total	Current	Wages & Salaries	Material & Maintenance	Transfers	Public Debt		
Upper Volta	14.3	13.4	7.1	3.2	2.3	0.8	6.8	6.5
	11.4	11.4	6.0	3.5	1.4	0.5	7.7	7.7
Dahomey	16.5	16.5	10.0	4.2	n.a.	n.a.	12.7	12.7
Niger	12.0	10.8	← 8.5 →		1.9	0.4	11.0	9.9
Malagasy	16.9	14.2	n.a.	n.a.	n.a.	0.5	19.7	17.1
Togo	11.8	10.5	6.6	1.4	2.0	0.5	14.0	12.4
CAR	15.8	12.8	5.9	4.3	1.9	0.7	19.2	17.8
Cameroon	15.3	13.8	n.a.	n.a.	n.a.	0.3	22.8	20.6
Mauritania	12.3	11.2	6.5	2.8	1.1	0.8	18.9	17.3
Congo	25.7	23.7	← 16.4 →		4.6	0.5	44.0	40.6
Senegal	20.6	17.3	8.6	4.0	2.8	0.4	45.9	38.5
Ivory Coast	19.9	14.2	6.2	5.0	2.8	0.2	48.9	34.9
Gabon	22.4	17.7	6.2	5.5	3.8	n.a.	111.0	87.9

Table 6: Composition of Government Revenue 1964-68

Country	Total Revenue as % of GDP	Total Tax Revenue as % of Total Revenue	Taxes on International Trade as % of Total Taxes	Taxes on Imports as % of Total Taxes	Income Taxes as % of Total Taxes
Upper Volta	14.6	90.8	n.a.	—	n.a.
Chad	11.4	76.6	37.1	22.8	13.1
Dahomey	14.5	79.4	66.4	63.9	20.1
Niger	11.7	94.6	45.2	42.6	8.4
Malagasy	16.7	93.8	38.1	32.1	16.2
Togo	11.4	83.9	83.8	70.2	n.a.
CAR	15.0	80.0	43.6	36.0	7.5
Cameroon	15.0	87.7	55.2	43.6	20.5
Mauritania	12.2	91.6	32.7	31.6	19.5
Congo	24.4	81.9	38.8	37.8	n.a.
Senegal	18.4	92.1	55.5	46.5	17.0
Ivory Coast	17.8	94.7	58.7	—	13.2
Gabon	20.6	88.7	59.0	43.1	14.0

Table 7: Income Distribution Estimates: Percentage Shares in Total Income Going to Population Groups of Different Income Levels

Country	Poorest 0-20%	Low Middle 21-39%	Middle 40-60%	Upper Middle 61-79%	Highest 20%	Hi
Chad	12	11	12	22	43	
Dahomey	8	10	12	20	50	
Gabon	2	6	7	14	71	
Ivory Coast	8	10	12	15	55	
Malagasy	7	7	9	18	59	
Niger	12	11	12	23	42	
Senegal	3	7	10	16	64	

Note: Data refer to late fifties and through the sixties; income distribut do not change very rapidly, however.

Table 8: Selected Population Statistics 1964-68

Country	Population in millions	Population Growth Rates	Absolute Increase in 000's	Density per km²	Urbanization			
					% of Total Population	Absolute numbers living in urban areas in 000's	Growth rate	Absolute increases 1964-68 in 000's
Upper Volta	4.961	2.2	102	18	1.6	78	3.8	20
Chad	3.220	1.8	56	3	3.0	94	3.5	11
Dahomey	2.430	2.8	64	22	7.8	190	2.9	40
Niger	3.448	2.9	109	3	2.2	75	7.8	20
Malagasy	6.975	2.7	183	10	4.6	300	n.a.	39
Togo	1.677	2.2	35	31	5.0	86	1.0	12
CAR	1.313	2.6	28	2	10.9	111	4.3	40
Cameroun	5.370	1.7	85	11	1.9	105	1.8	10
Mauritania	1.078	2.1	20	1	1.4	18	24.1	9
Congo	.812	1.9	14	3	17.0	143	n.a.	12
Senegal	3.577	2.4	84	18	15.4	477	3.4	180
Ivory Coast	4.445	3.4	143	14	5.4	290	3.4	150
Gabon	.469	0.9	4	2	12.1	57	9.9	20

Table 9: Political Systems and Its Changes 1960-72

Country	Party System	Elections	Groups	Civil Wars
CAR	Military Rule	1960, 1964	1966, 1968	
Cameroon	Single Party	1961, 1970		
Chad	Single Party	1962, 1963, 1969		Northern areas (in progress)
Congo	Single Party	1963	1963, 1968	
Dahomey	Military Rule	1960, 1964	1963, 1965, 1967, 1969	
Gabon	Single Party	1961, 1964, 1967, 1969		
Ivory Coast	Single Party	1960, 1965, 1970		
Mauritania	Single Party	1965		
Niger	Single Party	1965, 1970		
Senegal	Single Party	1963, 1966, 1970		
Togo	Single Party	1961, 1963	1963, 1967	
Upper Volta	Multi-Party	1965, 1970	1966	

Note: Only successful coups have been listed, but further unsuccessful coup have been attempted: CAR 1, Congo 2, Gabon 1, Togo 1.

APPENDIX B: Institutional Background

Until after World War II the French territories in Africa were regarded by the French government as integral parts of France. Before 1956 when the Loi Cadre was accepted, French policy aimed at integrating her overseas territories constitutionally with France. For administrative purposes French territories in both French West Africa and French Equatorial Africa were governed on a federal basis. Although each of these territories had its own governor, aided by a local advisory body, each region as a whole had only one administration and was headed by a Governor-General. The federations were accorded financial autonomy by 1900. France took responsibility only for the federations' military expenditures and guaranteed a few loans in time of economic crisis. The federal fiscal organization was based on the principle that all purely administrative expenditures must be borne by the budget of the colony where they were incurred, and that the federal budget should take over both the revenues and expenditures of the services common to all of the colonies. Each year the French parliament decided what sum would be allocated to the federations and the federal budgets determined annually what subsidies would be granted to the colonial budgets. Besides the subsidies received from the federal budgets, the colonial budgets were financed by purely local revenues, mainly from direct taxes.

When the Loi Cadre was passed and self-government awarded to French territories, the federal administrations came to an end. Since that time, French territories in Africa have developed constitutionally as separate political entities. The Loi Cadre also altered financial relations between France and the overseas territories and between the federations and their component parts. With the dissolution of the federations and the creation of elected territorial governments, the colonies received a share of the revenues that had been formerly used to finance the expenditure of the federal budgets and also gained direct control over more taxes. Most of the increased revenues, however, were absorbed by the rapid expansion of current expenditures, brought about mainly by the taking over of services that had previously been provided by the colonial administration, by the expansion of existing services, and by the creation of new ones. As a result, a majority of countries have had to rely on the financial assistance from France to tide them over during the period of adaptation after the granting of self-government and independence. Before independence, these countries had had almost identical

institutional arrangements regarding budgetary and treasury operations modelled after the French financial system. Subsequently, individual countries introduced various modifications in their financial systems, but the underlying principles remained similar.

The most distinctive feature of their financial systems is the high degree of centralization of financial transactions of the public sector in the Treasury. The Treasury also performs banking functions for the public sector. The strategic position of the Treasury provides the government with a powerful instrument for economic, fiscal and monetary policy.

The public sector in the French-speaking countries under consideration consists of the central government, local authorities and public and semi-public enterprises. Due to this institutional set up, three categories of budgets are distinguishable: central government budgets which often include ordinary and investment (development or capital) budgets; budgets of the territorial administrations and municipalities; and annexed budgets which are those of public agencies without financial autonomy. In addition, certain operations of a budgetary nature are executed by means of special accounts which are not subject to the normal budgetary procedures. To this group of operations belong certain important sources and outlays of an investment nature, such as FAC (*Fonds d'Aide et de Cooperation*) and the European Development Fund.

The form of government budgets and treasury records is still geared primarily to the requirements of accountability and administrative control rather than to the needs of macroeconomic and monetary analysis.

Another distinctive feature common to French-speaking African countries south of the Sahara is their membership in the CFAF monetary system. These countries have established monetary arrangements with France through so-called Operations Accounts with the French Treasury.[1] Membership in this monetary system and the special relationship with metropolitan France has great importance for the operation of the fiscal systems of all member countries. For example, in order to prevent the emergence of strong inflationary pressures, the public sector is limited in the amount of its borrowing from the Central Bank (no more than 10 to 15 per cent of the previous year's fiscal revenue). The duration of the credit is also strictly limited (usually 240 days). Without these measures limiting

to some extent the public sector's activities, the respective governments could not succeed in maintaining the stability of CFA system.

The third characteristic feature of this group of countries is that all of them maintain a special economic and financial relationship with France and among themselves,[2] and they are all "associated" with the European Economic Community. Close financial ties with France enable African treasuries under certain circumstances to obtain financing from the French Treasury. The French government today regards foreign assistance as an instrument of foreign policy which is to be used to fortify the political, economic and cultural ties between France and her former colonies. France still provides most of the investment funds and substantially helps to balance the African countries budgetary deficits. On the other hand, France still to some extent controls their monetary and trade policies.

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[1] All countries belong to one of three monetary systems. The countries of former French West Africa and Togo share one common CFAF issued by a common Central Bank — *"Banque Centrale de Etats de l'Afrique de l'Ouest"*. The four countries of former French Equatorial Africa and Cameroon also share a common CFAF issued by a common Central Bank — *"Banque Centrale des Etats de l'Afrique Equatoriale et du Cameroun"*. In Madagascar the *"Institut d'Emission Malagache"* was established to exercise the central banking functions. The relationship between CFAF and the French franc is F1 = CFAF 50, thus giving the rate in relation to US dollar of CFAF 246.85 = $1.00 for 1958-1968; CFAF 277.71 = $1.00 for 1969-1970; and CFAF 255.79 = $1.00 for 1971-1972.

[2] West African countries of the sample are members of the West African Customs and Economic Union and countries of Equatorial Africa and Cameroon are members of the Central African Customs and Economic Union. The unions aim at harmonizing customs, fiscal and investment policies.

important sources of data used for these statistical data were as follows:

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