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External Public Debt and Public Finance In OECS Member Countries and Belize: 1977-1982

INTRODUCTION

During the 1977-82 period, the economies of OECS member countries and Belize experienced a moderate aggregate average annual Gross Domestic Product (GDP) growth rate of 4.2 per cent at constant market prices. Given their 1.4 per cent average rate of population growth, GDP (constant market prices) per capita grew at an annual rate of 2.4 per cent during the same period. These rates of growth, if maintained, would make it impossible for these economies to attain self-sustained growth in the foreseeable future.

The available information suggest that the slow rate of growth took place in a context of basic macroeconomic disequilibrium. In most cases, the investment-savings gap of individual territories increased over the 1977-82 period. The growth performances of OECS member countries and Belize were associated with insufficient generation of savings, the situation being worse for individual country's public sector than for the private sector. On average, the deficit in public sector capital account was larger than the private sector deficit.

The subregional group also experienced substantial external imbalance. There were substantial deficits in their current accounts. In most cases, the bulk of the deficit was in the goods balance. However, this was not due solely to soaring imports and lagging exports. In some instances, export performances have been good so that the gaps were due, in the main, to deteriorations in the terms of trade. Given the openness of the OECS and Belizean economies, adverse movements in prices of traditional export crops can be crucial for their external balances. Another point worth noting is that although goods balances were positive in a few countries, factor services balances were negative and have become increasingly so. The main negative item has been the balance of investment income.

Together with domestic and external imbalances, two phenomena which emerged towards the end of the 1970s are likely to have deep effects on the performances of the OECS and Belizean economies in the ensuing years of the 1980s. The first of these is higher costs. The 1970-80 oil price increases were not the first energy shocks to OECS member countries and Belize, but just as these countries appeared to be recovering from the October 1973 shock, the 1979 shock was at hand. Moreover, although world market prices of oil have fallen since 1981, they are still high and are unlikely to fall further during the rest of the 1980s. Therefore, there is no reason to expect that the oil payment burden will ease.

The second phenomenon which had a profound effect on the OECS and Belizean economies since the end of the 1970s has been the sharp increase in external public debt and associated recurring debt servicing problems. Previously, grant-in-aid from the British government facilitated high rates of public expenditures in the various territories and helped to alleviate debt servicing burdens. Since the mid-1970s, there has been a substantial curtailment in British aid to its former colonies. In contrast, public expenditures have increased sharply with the attainment of independence in most of the territories. The increase in public expenditures alongside stagnation of public revenues has added to the other problems that OECS member countries and Belize face.

The problems of macroeconomic disequilibrium and high energy costs highlighted, can have strong adverse effects on the growth of the OECS and Belizean economies and on their future development. The logical questions that may be asked are (a) what precisely was the macroeconomic picture for individual OECS member countries and Belize in the 1977-82 period? and (b) what would be the picture in the medium term if the past trends continue? These lead to the issue of what kind of adjustments are needed to allow the economies to overcome past macroeconomic disequilibria and the adverse impact of oil price increases. The latter issue has, in fact, two parts. The first concerns what policy measures can help to alleviate macroeconomic disequilibria given the present (and past) structure of OECS member states and Belize. The second encompasses the kinds of structural changes that would allow the economies to overcome past, present and emerging problems in the long run.

The analysis in this paper only deals with the past trends in the external public debt, debt servicing capacities and public finances of OECS member countries and Belize. Questions of policy measures and the extent of structural changes that may be needed to surmount the problems that the countries may face during the ensuing years of the 1980s are not dealt with here.

The paper which also analyses trends in the external public debt of OECS member countries and Belize over the 1977-82 period provides a brief review of the financial performance of individual country's public sector, and estimate the magnitude and impact of public sector changes on the external public debt.

EXTERNAL PUBLIC DEBT AND SERVICING: PAST TRENDS IN OECS MEMBER COUNTRIES AND BELIZE

This section reviews a number of measures of the level and growth of debt outstanding and of the size of related flows, as well as the extent of debt roll over in OECS member countries and Belize.

Level of Indebtedness: Stock Measures

One measure of the level of indebtedness is the ratio of debt outstanding to GDP or exports. This ratio indicates the extent to which the borrowing country has been able, in the past, to command a new inflow of financial resources. It does not indicate whether or not there is a condition of dependency on the continuation of such an inflow.

Public external debt in the OECS and Belize increased sharply between 1977 and 1982. In 1977, the ratio of external public debt outstanding to GDP for OECS member countries and Belize averaged 17.9 per cent and exceeded 20.0 per cent in one-third of the countries examined. By 1982, the ratio rose to average 28.3 per cent, with more than 70.0 per cent of the countries having ratios in excess of 20.0 per cent (the exceptions being Montserrat and St. Lucia).

TABLE 1: OECS MEMBER COUNTRIES AND BELIZE: EXTERNAL DEBT OUTSTANDING AS A PERCENTAGE OF GDP

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	18.8	19.9	22.9	22.7	25.2	27.6
Standard Deviation	9.7	13.2	14.3	12.7	18.3	17.1
(a) Windward Islands						
Dominica	29.6	26.6	29.5	25.9	24.1	31.5
Grenada	14.3	10.9	12.4	12.4	17.9	22.2
St. Lucia	11.5	12.9	13.3	13.5	14.1	17.9
St. Vincent	15.9	17.2	24.8	29.2	24.4	24.4
Mean	17.8	16.9	20.0	20.3	20.1	24.0
Standard Deviation	8.1	7.0	8.5	8.5	5.0	5.7
(b) Leeward Islands						
Antigua	32.9	46.2	49.7	42.7	64.0	63.2
Montserrat	6.2	7.0	7.0	6.1	7.4	9.2
St. Kitts-Nevis	21.5	18.2	23.7	29.3	24.6	25.0
Mean	20.0	23.8	26.8	26.0	32.0	32.5
Standard Deviation	13.4	20.2	21.5	18.5	29.0	27.8
Belize	10.9	25.1	27.0	27.6	29.3	33.3
OECS and Belize						
Mean	17.9	20.5	23.4	23.3	23.2	28.3
Standard Deviation	8.8	11.5	12.4	11.9	17.4	15.0

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, Vol. II, May 1984.

TABLE 2: OECS MEMBER COUNTRIES AND BELIZE: EXTERNAL PUBLIC DEBT OUTSTANDING AS A PERCENTAGE OF EXPORTS OF GOODS AND SERVICES

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	37.5	35.5	36.0	35.2	46.5	44.7
Standard Deviation	20.7	23.1	29.2	34.0	27.9	37.1
(a) Windward Islands						
Dominica	70.4	62.4	65.3	98.1	71.3	79.5
Grenada	27.6	20.4	23.0	28.3	44.6	62.4
St. Lucia	19.9	19.7	21.0	17.9	22.3	29.3
St. Vincent	33.4	26.6	33.9	37.4	32.7	36.5
Mean	37.8	32.3	35.8	45.4	42.7	51.9
Standard Deviation	22.4	20.3	20.5	36.0	21.1	23.2
(b) Leeward Islands						
Antigua	63.3	75.1	85.9	65.1	97.8	99.5
Montserrat	20.6	21.1	26.3	27.1	26.4	30.5
St. Kitts-Nevis	27.3	23.5	29.4	32.6	30.7	35.0
Mean	37.1	39.9	47.2	41.6	51.6	55.0
Standard Deviation	23.0	30.5	33.6	20.5	40.0	38.6
Belize	13.1	27.8	31.3	29.4	33.0	45.0
OECS and Belize						
Mean	26.6	35.6	39.5	43.0	44.9	52.2
Standard Deviation	25.2	20.2	21.8	24.8	24.6	24.2

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize, 1977-82*, Vol. II, May 1984.

The ratio of external public debt outstanding to total export earnings also indicates that over the 1977-82 period the public sector external indebtedness of OECS member countries and Belize increased rapidly. The debt export ratio averaged 26.6 per cent for the eight countries in 1977 and 52.2 per cent in 1982. As in the case of the ratio of debt to GDP, the average debt to export ratio for subgroups varied substantially from those of individual countries. A more detailed examination of the external public debt-export ratios indicates that the high average ratio for 1982 resulted mainly from four countries *viz.*, Antigua and Barbuda, Dominica, Grenada and Belize having external debt-export ratio in excess of 44.0 per cent. In low average, public external debt-export ratio for 1977 can be attributed to the fact that only two countries – Antigua and Dominica – had ratios exceeding 45.0 per cent.

A further comparison of the ratio of public external debt to GDP and the ratio of external public debt to export in terms of Windward, Leeward and Belize subregional groupings as well as in terms of individual territories suggests three points. First, the external public debt-GDP ratio grew fastest for the Leeward Islands when compared to the other regional subgroups. Second, the external public debt-export ratios for both the Windward Islands and Leeward Islands grew at virtually the same rate, but the external public debt-export situation was worse in Belize. Third, that there were wide differences between the ratio of external public debt to GDP and the ratio of external public debt to export among the various economies in the three subregional groupings. Table 3 which contains a compound index, taking account of both the external public debt-GDP and external public debt-exports ratio, shows that countries such as Grenada, Montserrat and St. Lucia have had relatively low levels of indebtedness over the period 1977 through 1982. Countries such as Antigua, Dominica and Belize were in a different

situation since their indebtedness indices were the highest amongst OECS states and Belize.

TABLE 3: OECS MEMBER COUNTRIES AND BELIZE: INDICATORS OF MAGNITUDE OF INDEBTEDNESS WITH RESPECT TO GROSS DOMESTIC PRODUCTS AND EXPORTS OF GOODS AND SERVICES 1977, 1980 and 1982

	D/GDP[a]			D/XGS[a]		
	Rank	Index		Rank	Index	
Country	*1977*	1980	1982	1977	1980	1982
Antigua	4.05	4.30	4.61	1.58	4.09	3.97
Dominica	3.67	2.79	2.49	1.84	3.22	2.39
Grenada	1.92	1.57	1.86	1.84	2.35	3.04
Montserrat	1.00	1.00	1.00	1.21	1.40	2.11
St. Kitts	2.75	3.09	2.06	2.73	2.11	1.00
St. Lucia	1.60	1.67	1.58	1.26	1.24	2.48
St. Vincent	2.10	3.08	2.02	4.25	1.55	2.86
Belize	1.50	2.94	2.61	1.00	1.00	4.43

	D/GDP + D/XGS[b]		
	Compound	Rank	
Country	1977	1980	1982
Antigua	3.95	4.37	4.59
Dominica	3.65	2.86	2.45
Grenada	2.00	1.63	1.90
Montserrat	1.00	1.00	1.00
St. Kitts	2.96	3.03	1.94
St. Lucia	1.58	1.61	1.58
St. Vincent	2.67	2.96	2.03
Belize	1.46	2.77	2.71

a/ Calculated on the basis of the following formula: $V = \frac{(x - x)}{S}$

where V is a standardised rank variable in which:
x = the coefficient D/GDP *and/or D/XGS;*
x = the non-weighted mean of the coefficients of all the countries;
S = the standard deviation.

Minimum negative values were adjusted so as to equal 1 by adding a constant to the values derived *from the formula.*

b/ The Index is a compound of D/GDP and D/XGS.

Symbols: D = *Gross Disbursed* External Debt; GDP = Gross Domestic Product and XGS = Exports of Goods and Services.

Source: Caribbean Development Bank on the basis of official data.

The total external public debt of OECS member countries and Belize amounted to US$243.5 million at the end of 1982. The rate of growth for the year was 15.7 per cent which was substantially lower than the 33.0 per cent rate of 1981 and also much lower than the average rate of increase of around 23.7 per cent recorded during the 1977-80 period.

The rapid expansion of external public debt since 1977, a result of a persistent drop in net capital inflows, was especially marked in Belize and in countries within the Leeward Islands subgrouping. The share of the former in total external public sector debt outstanding rose from 15.3 per cent in 1977 to 21.2 per cent in 1982, whereas the share of the latter subgroup of countries rose from 38.4 per cent to 41.1 per cent in the respective years. The rate of growth of the external debt was highest in Antigua, averaging 27.9 per cent *per annum* between 1977 and 1982. Countries in the Windward Islands subgrouping displayed varied growth rates in external debt outstanding, but only in St. Vincent (25.3 per cent) was the growth rate close to the Leeward Islands average of 25.4 per cent. The growth rates of exports varied between individual countries and subgroup of countries.

LEVEL OF INDEBTEDNESS: FLOW MEASURES
DEBT SERVICE PAYMENTS

Debt service indicators are popular measures of the ability of a borrowing country to service its debt obligations. There are several reasons why these indicators are important. First, they indicate the extent to which an economy may be facing various kinds of structural problems. Second, they reflect the capability of a country to service its future debt obligations with respect to both its import capacity and its ability to earn foreign exchange.

The debt service ratio for OECS member countries and Belize was 2.2 per cent in 1982, and only three countries – Antigua and Barbuda, St. Vincent and the Grenadines and Belize – had ratios in excess of 2.0 per cent. Overall, the debt service ratio increased sharply between 1977 and 1982. In 1977, the average ratio was 1.0 per cent, only St. Kitts-Nevis and St. Vincent and the Grenadines had ratios greater than 2.0 per cent (see Table 4).

Two of the three islands in the Leewards sub-group had ratios larger than 2.0 per cent in four out of the seven years under review. The ratio exceeded 2.0 per cent for St. Vincent and the Grenadines in the Windwards subgroup in three years. In the case of Belize, the ratio only exceeded 2.0 per cent in 1981 and 1982.

TABLE 4: OECS MEMBER COUNTRIES AND BELIZE :DEBT SERVICE AS A PERCENTAGE OF EXPORTS OF GOODS AND SERVICES

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	2.5	2.3	1.8	2.6	2.1	3.0
Standard Deviation	2.0	1.1	1.3	1.3	1.2	1.0
(a) Windward Islands						
Dominica	2.0	2.4	3.4	3.6	3.6	2.8
Grenada	2.0	3.0	1.5	2.5	3.5	3.5
St. Lucia	0.9	0.9	1.0	1.1	1.4	2.9
St. Vincent	6.6	1.1	1.3	1.5	2.9	3.3
Mean	2.9	3.9	1.8	2.2	2.9	3.1
Standard Deviation	2.5	3.5	1.1	1.1	1.0	0.3
(b) Leeward Islands						
Antigua	1.5	3.9	1.7	4.7	1.4	4.5
Montserrat	0.8	1.8	1.0	1.3	1.0	2.5
St. Kitts-Nevis	3.7	3.2	3.8	2.2	1.1	1.3
Mean	2.0	3.0	2.2	2.7	1.2	2.8
Standard Deviation	1.5	1.1	1.5	1.8	0.2	1.6
Belize	0.4	0.8	0.8	0.8	1.6	5.0
OECS and Belize						
Mean	2.2	2.1	1.8	2.2	2.1	3.2
Standard Deviation	1.9	1.1	1.1	1.3	1.0	1.1

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, May 1984.

A major shortcoming of the debt service ratio is that it includes both amortisation and interest payments. During normal periods, amortisation payments on the debt can be refinanced more or less automatically by creditors. When circumstances deteriorate markedly, the tendency is for these payments to be rescheduled. This sort of guarantee of renewal does not exist for interest payments. As such, an attempt was made to separately identify the influence of interest payments on the external public debt and debt service of the selected countries.

Capital outflows from the OECS member states and Belize in the form of interest payments were insufficient to create difficulties in servicing their external debts. Between 1978 and 1982, interest payments by OECS member countries and Belize absorbed no more than 1.5 per cent of total export earnings to interest payments (see Table 5). The average interest-export ratio for all the countries was well below the coefficient of 20.0 per cent usually considered to be an acceptable maximum.

The global averages conceal significant differences in the external public debt situation of individual countries. The data in Table 5 highlight the fact that interest payments relative to total export earnings were higher for the Windward group of islands than for the Leeward Islands and Belize. The data also show that within the Windward Islands subgroup, the rate of increase of the ratio of interest payments to exports was highest for Grenada. Within the Leeward Islands subgroup, St. Kitts-Nevis showed the fastest rate of increase.

Net Transfers

Another ratio which is commonly used in measuring the benefits of resource transfers, and at the same time as an indicator of the continued dependence on subtransfers, is the ratio of net transfers to imports. The rationale for the use of the net transfer to import ratio is that any growth in the ratio increases vulnerability to changes in net capital inflows. Any shortfall in capital inflows which is not compensated for by use of foreign exchange reserves must result in a reduction in imports. The higher the ratio of net transfers to imports, the greater will be the reliance on domestic resources and, at the same time, the greater will be the benefit of capital inflows.

TABLE 5: OECS MEMBER COUNTRIES AND BELIZE: INTEREST PAYMENTS AS PERCENTAGE OF EXPORTS OF GOODS AND SERVICES

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	1.1	1.0	1.0	1.0	1.2	1.3
Standard Deviation	0.5	0.5	0.4	0.5	0.6	0.5
(a) Windward Islands						
Dominica	1.9	2.1	1.9	2.1	1.0	0.6
Grenada	1.1	0.9	0.9	1.2	1.8	1.9
St. Lucia	0.8	0.9	0.9	0.8	0.9	1.2
St. Vincent	1.2	0.8	0.9	1.0	1.4	1.5
Mean	1.3	1.2	1.2	1.3	1.3	1.3
Standard Deviation	0.5	0.6	0.5	0.6	0.4	0.5
(b) Leeward Islands						
Antigua	1.3	0.9	0.6	0.6	2.2	1.6
Montserrat	0.8	0.7	0.8	0.9	0.8	1.8
St. Kitts-Nevis	0.5	0.9	1.3	0.6	0.6	0.7
Mean	0.9	0.8	0.9	0.7	1.2	1.4
Standard Deviation	0.4	0.1	0.4	0.2	0.9	0.6
Belize	0.3	0.8	0.7	0.6	1.0	1.9
OECS and Balize						
Mean	1.6	1.0	1.0	1.0	1.2	1.4
Standard Deviation	1.4	0.4	0.4	0.5	0.5	0.5

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, Vol. II, May 1984.

For the eight countries examined, the ratio of net transfers to imports rose from 37.2 per cent in 1977 to over 75.0 per cent in 1982, suggesting substantial net capital inflows from the rest of the world (See Table 6). Furthermore, the dependence on resource transfers was greater in the Leeward Islands subgrouping when compared to the Windward Islands subgroup: the rate of growth of the ratio was 20.1 percentage points *per annum* in the former as compared to 11.9 percentage points in the latter. Belize's dependence on foreign capital inflows was the least among the three subgroupings, increasing by only 6.5 percentage points *per annum* over the review period.

Looking next at the performances of individual countries, the data suggest that up to 1982, Dominica depended the most on foreign capital inflows among the Windward Islands and Grenada the least. In the case of the Leeward Islands, Antigua exhibited the most rapid increase in the foreign capital dependency ratio and St. Kitts-Nevis the lowest. Interestingly enough, the rate of growth of the foreign capital dependency ratio for Antigua was almost twice that of Dominica.

The Roll-Over Ratio

An additional indicator of the flows associated with foreign borrowings is the ratio of debt service payments to disbursements. This ratio, which is also termed the roll-over ratio, indicates the quantum of loans disbursement absorbed by scheduled debt service payments. The higher the ratio, the greater is the level of disbursement required to secure a given net transfer. As has been pointed out by Dhoute [3], if short term movements in the annual resource flows are disregarded, the growth rate of disbursements and the terms of loans will be determinants of the long term value of the ratio.

The evidence from the 1977-82 period presented in Table 7 indicates that for OECS member countries and Belize, the average debt service–disbursement ratio for the

TABLE 6: OECS MEMBER COUNTRIES AND BELIZE: NET TRANSFERS AS A PERCENTAGE OF IMPORTS

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	29.6	37.0	–	60.9	62.6	67.5
Standard Deviation	16.0	22.6	–	34.5	46.4	39.8
(a) Windward Islands						
Dominica	21.9	28.4	22.2	47.7	49.7	47.5
Grenada	32.3	35.7	43.7	50.2	54.3	56.4
St. Lucia	59.3	82.7	101.1	123.8	129.2	118.0
St. Vincent	30.3	36.9	50.0	57.1	58.2	60.9
Mean	36.0	45.9	54.3	69.7	72.9	70.7
Standard Deviation	16.2	24.8	33.4	36.3	37.7	32.0
(b) Leeward Islands						
Antigua	34.4	41.0	–	86.5	120.0	126.4
Montserrat	7.0	10.0	12.0	16.5	18.9	18.6
St. Kitts-Nevis	22.0	24.2	32.1	44.8	47.8	44.5
Mean	21.1	25.1	–	49.3	62.2	63.2
Standard Deviation	13.7	15.5	–	35.2	52.1	56.3
Belize	90.0	106.4	131.9	149.8	162.0	131.4
OECS and Belize						
Mean	37.2	38.9	–	72.1	80.0	75.5
Standard Deviation	24.3	37.7	–	41.9	46.9	40.4

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, Vol. II, May 1984.

period 1977-82 varied between 24 per cent and 57 per cent (See Table 7). Only one country – St. Kitts-Nevis – had a ratio in excess of 100.0 per cent. Moreover, the Leeward Islands sub-group had higher average ratios than the Windward Islands subgroup. In as much as the OECS member countries and Belize did not have excessively high rates of external indebtedness during the review period, it may be concluded that the moderate sizes of the disbursement-debt service ratios resulted from borrowing on favourable terms from official and multilateral institutions such as CIDA and the Caribbean Development Bank. Furthermore, the preceding statements are, to a large extent, substantiated by an examination of the ratios of debt service to debt outstanding and interest payments to debt outstanding measures of loan terms presented in Tables 8 and 9.

A Summary of the Trends

Certain characteristics of OECS member countries and Belize over the period 1977-82 have been revealed by an examination of selected debt indicators. Overall, countries in the Windward Islands are much more heavily indebted than countries in the Leeward Islands group or Belize. Most of these within the Windward Islands subgroup become highly dependent on large net transfers, not only to finance "maturing obligations" but also to finance imports. Typically, debt service obligations, though small in relation to GDP, grew rapidly between 1977 and 1980. Invariably, the countries sought substantial capital inflows, even though some, e.g. St. Kitts and Nevis, Montserrat and Grenada, accumulated debt on much more favourable terms than others. In spite of the concessionality and generous terms which all countries received on loans, debt continued to grow faster than exports. Up to 1982, both OECS member countries and Belize maintained satisfactory roll-over ratios, but these seemed to have resulted from increased reliance on foreign capital inflows, rather than from judicious policies on

TABLE 7: OECS MEMBER COUNTRIES AND BELIZE
DEBT SERVICE AS A PERCENTAGE
OF DISBURSEMENTS

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	55.3	34.6	26.5	33.2	43.2	47.8
Standard Deviation	66.6	45.4	18.9	17.5	33.1	68.5
(a) Windward Islands						
Dominica	18.2	25.6	64.0	28.8	26.8	10.2
Grenada	29.2	135.7	24.3	52.8	17.0	17.6
St. Lucia	18.6	19.1	23.0	50.7	38.1	31.6
St. Vincent	125.0	13.5	10.5	13.3	79.2	52.7
Mean	47.8	48.5	30.5	36.4	40.3	28.0
Standard Deviation	51.8	58.4	23.2	18.8	27.3	18.7
(b) Leeward Islands						
Antigua	7.0	13.0	8.0	50.1	27.2	42.6
Montserrat	14.4	30.0	20.0	19.2	14.4	30.0
St. Kitts-Nevis	175.0	175.0	36.0	17.5	100.0	200.0
Mean	65.5	72.7	21.3	28.9	47.2	90.9
Standard Deviation	94.9	89.0	14.0	18.4	46.2	94.7
Belize	8.6	5.1	12.0	14.0	28.8	70.4
OECS and Belize						
Mean	49.5	52.1	24.7	29.6	41.4	56.9
Standard Deviation	59.7	60.8	17.1	18.0	29.1	57.0

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, May 1984.

TABLE 8: OECS MEMBER COUNTRIES AND BELIZE: DEBT SERVICE AS A PERCENTAGE OF DEBT OUTSTANDING

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	7.7	7.8	5.6	6.0	7.2	6.2
Standard Deviation	6.5	4.6	3.5	1.9	3.7	2.5
(a) Windward Islands						
Dominica	3.0	3.8	5.2	3.7	5.0	3.6
Grenada	7.2	14.6	6.5	9.0	8.0	5.7
St. Lucia	4.3	4.8	4.9	6.3	6.2	10.0
St. Vincent	19.8	4.0	3.9	4.0	9.0	7.9
Mean	8.6	6.8	5.1	5.5	7.1	6.8
Standard Deviation	7.7	5.2	1.1	2.7	1.8	2.8
(b) Leeward Islands						
Antigua	2.3	5.2	2.0	7.3	14.3	4.5
Montserrat	4.0	8.4	4.1	4.9	3.9	8.3
St. Kitts-Nevis	13.5	13.7	12.9	6.7	3.7	3.7
Mean	6.6	9.1	6.3	6.3	7.3	5.5
Standard Deviation	6.0	4.3	5.8	1.2	6.1	2.5
Belize	2.9	3.0	2.7	2.9	4.8	11.1
OECS and Belize						
Mean	7.1	7.2	5.3	5.6	6.9	6.9
Standard Deviation	6.4	4.3	3.2	1.9	3.3	2.7

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, Vol. II, May 1984.

TABLE 9: OECS MEMBER COUNTRIES AND BELIZE: INTEREST PAYMENTS AS A PERCENTAGE OF DEBT OUTSTANDING

	1977	1978	1979	1980	1981	1982
OECS Member Countries						
Mean	3.2	3.4	3.1	2.8	3.0	3.0
Standard Deviation	1.0	1.1	1.3	1.2	1.2	1.7
(a) Windward Islands						
Dominica	2.8	3.3	2.9	2.1	1.3	0.8
Grenada	4.0	4.3	3.7	4.2	4.1	3.0
St. Lucia	4.2	4.6	4.5	4.2	3.9	4.2
St. Vincent	3.7	3.0	2.7	2.7	4.4	3.6
Mean	3.7	3.8	3.5	3.3	3.3	2.9
Standard Deviation	0.6	0.8	0.8	1.1	1.4	1.5
(b) Leeward Islands						
Antigua	2.0	1.3	0.7	0.9	2.3	1.6
Montserrat	4.0	3.3	3.0	3.4	3.0	5.8
St. Kitts-Nevis	1.9	3.9	4.3	1.9	1.9	1.9
Mean	2.6	2.8	2.7	2.1	2.1	3.1
Standard Deviation	1.2	1.4	1.8	1.3	1.1	2.3
Belize	2.0	3.0	2.1	2.2	2.9	4.3
OECS and Belize						
Mean	3.1	3.3	3.0	2.7	3.0	3.2
Standard Deviation	0.9	0.9	1.2	1.1	1.0	1.5

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, Vol. II, May 1984.

the terms and conditions of new loans. Countries including Belize and Antigua, which have resorted increasingly to commercial bank loans in order to meet persistent imbalances in their fiscal accounts are likely to be faced with a bunching of loan maturities in the short run. Because the total external public debt obligations that are due over the longer run is not large, there was still scope at the end of 1982 for pushing earlier maturities to a later date. Not all of the countries, however, had such an option.

PUBLIC SECTOR DEVELOPMENT AND IMPACT ON THE EXTERNAL PUBLIC DEBT SITUATION

Our examination of external debt and debt servicing problems has established that both the *quantum* of net foreign capital inflows and the burden of debt servicing had increased sharply. The question that arises now is "what were the factors responsible for those increases?" In providing answers to this question, the general approach adopted in the literature is to utilise the traditional categories of economic analysis, focussing on domestic policies on the demand side and external policies on the supply side. With particular reference to domestic policies, a number of factors contributing to public expenditure growth have been identified. They range from demographic change in the form of a rapid increase in the birth rate; urbanisation; relative price effects; a high income elasticity of demand for public and quasi-public goods, especially in the area of social welfare; the long term effect of Keynesian-type antirecessionary policy; the Peacock-Wiseman displacement effect relating to periods of racial upheaval, a number of political/budgetary influences such as electoral competition, the budget maximising activities of the bureaucracy and an incremental approach to budgeting. The relative importance of these factors, in the context of developing and developed economies, has been investigated in detail by researchers such as Peacock and Wiseman [13]; Gould and Roweth [6]; Howard [9]; and

Jones-Hendrickson [10].

There are considerable difficulties in modelling and testing the effects of these internal factors. They are at different levels of generality; they are not all mutually exclusive; some are particularly difficult to quantify; there is clearly a rather complex, multidimensional process at work. Nonetheless, as a result of some or all of these factors there appears to have been a continuing upward pressure on Government expenditures pushing the average for OECS member countries and Belize up from 31.8 per cent of GDP in 1977 to 36.8 per cent in 1981 (See Table 10).

On the revenue side, governments, have been able to finance rising levels of public expenditures (albeit with increasing difficulties in the case of some countries) from

TABLE 10: TOTAL GENERAL GOVERNMENT EXPENDITURES AS A PERCENTAGE OF GDP, 1977–1981

	1977	1978	1979	1980	1981
Windward Islands					
Dominica	39.4	31.5	47.0	46.6	47.6
Grenada	27.2	33.4	44.4	39.3	28.4
St. Lucia	28.1	25.1	30.1	36.8	37.0
St. Vincent	34.8	33.0	33.1	36.8	36.7
Leeward Islands					
Antigua and Barbuda	28.6	26.6	25.4	36.8	36.9
Montserrat	40.7	31.3	35.0	32.2	36.2
St. Kitts-Nevis	38.2	41.8	50.0	55.7	53.4
Belize	32.0	30.1	37.4	29.6	32.7
OECS and Belize	31.8	30.3	36.0	37.2	36.8

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, Vol. II, May 1982.

the increasing tax revenues from economic growth, grant-in-aid, from borrowing and, to some extent, from monetary expansion. Over the review period, average total tax revenues for the OECS member countries and Belize rose marginally from 83.0 per cent of GDP in 1977 to 83.7 per cent in 1981.

Studies by Francis [5] of the budgetary procedures of a number of OECS member states together with evidence from other studies indicate that OECS member states and Belize have been guided, to a very great extent, in their short term expenditure plans by tax revenue projections on the basis of estimated increase in GDP and exports. Individual governments may decide as a matter of policy to overshoot or undershoot the estimated tax revenues. Alternatively, on some occasions, undershooting or overshooting may occur as a result of inaccurate GDP forecasts or as a result of expenditures outturns differing from planned expenditures. The overall outcome is also affected by inflation rates and the degree of error in their estimation. However, the widespread tendency for such budgetary procedure to operate is evidenced by the high positive statistical correlation found between annual changes in public expenditures and changes in the GDP and export earnings respectively.

Turning to the comparative data, the findings of this and other studies show a considerable variation in growth rates of public expenditures relative to GDP and export earnings, respectively, in the OECS member states and Belize. It might, therefore, be asked whether, in addition to internal factors; external factors might also have been in operation, influencing the growth of public expenditures and, in turn, external public debt.

This section of the paper, thus, focusses on the comparative data at the aggregate level to investigate whether a study of variations in public expenditures and external public debt between countries enhances our understanding of the dynamics of public expenditures – external public debt developments – and brings to light any patterns of development common to all or most of the countries in the sample.

The bulk of the analysis presented in this section of the paper uses the concept of the ratio of public expenditures growth to GDP growth, both in current prices, although some attention is paid to the relationship between public expenditure growth and the growth in external public debt. The reasons for this emphasis are first that such a ratio provides one measure of the size of the public sector; second, that from the point of view of economic management it is the level of expenditure in current prices which has to be financed and which, through the government's budget constraint, has implications for individual governments borrowing, interest rates, investment, economic growth, monetary expansion and inflation. Our approach is quite similar to that adopted by Peacock and Wiseman [13], among others.

The rest of the discussions on public expenditures in OECS member countries and Belize are undertaken along the following lines. First, the variations in public expenditure growth between countries are examined at the aggregate level. This aggregate is composed of the consolidated total current and capital expenditures of central governments on goods and services and on transfers. The relationships between various components of public expenditures and the external public debt are then analysed.

Public Expenditure at the Aggregate Level

Growth in General Government Expenditure

In Table 11, average growth rates of general government expenditures are shown as a ratio of the corresponding growth rates of GDP for the period 1977 through 1981. The first point of interest is that for every single observation for every single country, the ratio of public expenditure growth to GDP growth is less than unity, indicating that over the review period, total public expenditures for all countries grew slower than GDP, which implies only marginal changes in the size of the public sector.

The expenditure ratio for the whole period ranged from between 0.55 for Dominica (the slowest growing) to 0.99 for St. Vincent and the Grenadines (the fastest growing). There seems to be no obvious clustering among the countries and they are distributed over a fairly wide range.

Actual percentage shares of total public expenditures in GDP are presented in Table 11. By 1981, St. Kitts-Nevis emerged as the country with the largest public sector,

TABLE 11: RATIOS OF AVERAGE ANNUAL GROWTH RATES OF PUBLIC EXPENDITURE RELATIVE TO GDP; RATE OF INCREASE OF EXTERNAL DEBT AND RATE OF INCREASE OF BUDGET DEFICITS

Country	Rate of Public Expenditure Relative to GDP	Rate of Increase of External Public Debt	Rate of Increase of Overall Budget Deficits
	(1)	(2)	(3)
(a) Windward Islands			
Dominica	0.55	0.91	1.27
Grenada	0.77	1.07	1.62
St. Lucia	0.62	1.04	0.47
St. Vincent	0.44	1.16	1.39
(b) Leeward Islands			
Antigua	0.68	1.12	1.04
Montserrat	0.44	1.13	–
St. Kitts-Nevis	0.60	1.01	1.67
(c) Belize	0,93	1.12	1.37

Correlation coefficients: (1) and (2) r = 0.84
(1) and (3) r = 0.27
(2) and (3) r = 0.02

followed closely by Dominica. Grenada's sector was the smallest. The data from the Table provide an alternative measure of the growth of the public sector in individual OECS member countries and Belize – first order difference.

The Variations in Growth Rates Between Countries and Wagner's Law

The growth rates of public expenditures, relative to the growth rates of GDP, are, *in all OECS member countries* and Belize, lower than unity. This appears to refute Wagner's law of expanding state activity (the earliest formulation of a predictive statement on the growth of public expenditure) although a full test of the "law" would require data over a much longer period than the years of this study.

In spite of its apparently very wide appeal, there are, however, quite properly, much concern about the applicability of Wagner's law. First, as pointed out by Beck [1], there appears to be some consensus in the literature that Wagner's original formulation was intended to imply a rising share of public expenditure in GDP, not simply an increase in the absolute level of public expenditure in GDP. Second, it has been argued by Michas [12], among others, that the numerous attemtps to estimate the changes in economic growth on the growth of public *expenditures have* been handicapped by incorrect elasticity measures. More specifically, he felt that the use of the growth of GNP as a measure of economic growth was inappropriate and a better measure of per capita GNP. More recently, Bird [2] has argued that the interpretation of Wagner's law to imply that the size of the public sector, across countries, will positively be related to the level of economic development was invalid.

Public Sector Growth and Fiscal Deficits

Another indicator of economic performance which has been associated with the growth of the public sector is the rate of growth of fiscal deficits. It has been argued that one of the consequences of a rapidly growing or "too large" public sector will be additional pressure on the rate of growth of the fiscal deficit which then led to an increase in the external public debt burden. There are two possible channels for such hypothesized fiscal deficit and external public debt effects: through inappropriate levels of internal demand, and through inappropriate international competitive positions. However, there is a real problem of two-way causation: the growth of the public sector may, itself, be affected positively by the competitive strength of countries, and by deficient domestic demand (OECD, 1966).

The data on ratios of average annual growth rates of public expenditures relative to GDP and subsequent external public debt and overall budget deficit ratios were correlated. The result shows only a weak statistical association between the growth rates of public expenditures relative to GDP and rates of increase of budget deficit ($r = 0.27$). Thus, there appears to be no statistical evidence to support the view that countries with either faster growing public sectors or with larger public sectors at the onset of the period of analysis experienced faster increases in overall budget deficits. On the other hand, the result shows a strong positive statistical relationship ($r = 0.84$) between the rates of increase of public expenditures relative to GDP and rates of increase of external public debt, suggesting that the rate of growth of public expenditure relative to GDP is an important factor in the rate of growth of the external public debt of OECS member countries and Belize.

The Catching-up Hypothesis

It is plausible to hypothesize that initial intracountry differences in the relative size of the public sector influence the growth of the external public debt. That is, countries with relatively small public sectors at the onset of the study might be expected to experience faster subsequent growth of the public sector and, in turn, more rapid rates of growth in external public debt than those commencing the period of study with relatively larger public sectors because the former are "pressured" into trying to catch up with the latter. This, reasonably, is a variant of the international demonstration effect idea. Countries with relatively smaller public sectors at the onset can be expected to have, generally, a smaller level of public sector provision, perhaps particularly in the social welfare areas. With the attainment of independence during the 1970s, governments in the lagging countries possibly found themselves pressured by the electorate into making extra efforts to provide comparable services. Evidence of such an international demonstration effect, resulting in increases in public expenditures and, in turn, external public debt have been provided by several authors including Gupta [8]; Lotz [11]; and Goffman and Mahur [7].

The relative sizes of OECS member countries and Belize in 1977 were correlated with the average annual growth rates of general government expenditures relative to GDP and subsequent external public debt rates in the period 1977 to 1981. However, at this level of aggregation, only a weak association appeared in the data (coefficients of correlation were 0.07 and –0.25 respectively).

This part of the study of general government expenditures at the aggregate level and other possible related variables over the period 1977 to 1981 has revealed the following: differences in the level of growth rates of the public sectors between countries do not seem to be significantly related to differences in the level of economic development, or to initial differences in the relative size of public sectors.

Relating the level and growth of the public sector to some economic indicators of economic performance over the period 1977 to 1982, it appears that the rate of growth of the public sector, but not level, does show a positive relationship with rates of growth of external public debt among countries. Neither the level nor rate of growth of the public sector shows a relationship with the rate of growth of overall public sector budget deficits. Perhaps, the results obtained may be due to the use of a too highly aggregated concept of public expenditures since its components may be affected by different factors or affected by the same factor in differing degrees. Consequently, public expenditures were analysed at a disaggregated level to see whether the growth of its components provide any further insights into the dynamics of public expenditure and external public debt growth.

Public Expenditures Disaggregated

Expenditures on Goods and Services

In Table 12, ratios of average annual growth rates of general government expenditures on goods and services relative to the corresponding growth rates for GDP and external public debt, respectively, are shown for the period 1977 through 1981. The wide variation between the country with the fastest growth in government expenditure on goods and services relative to GDP (St. Kitts-Nevis) and the slowest growing (Antigua) is to be noted – a difference of 0.41 percentage points. However, overall, there seems to be no clustering of countries, but a fairly even distribution over a whole range. It can also be observed from the table that almost every observation was greater than unity suggesting that for most OECS member countries and Belize, even the resource consuming component of public expenditures has tended to grow faster than GDP. This finding is contrary to what is often claimed, namely, that in developing economies it is only the transfer component of public expenditures which had expanded faster than GDP during the 1970s and early 1980s.

When the data on the ratios of the annual growth rates of general government expenditures on goods and services are correlated with the growth rates of external public debt and overall budget deficits, the correlation coefficients are small,

suggesting very little relationship between the variables.

Expenditures on Transfers

Table 12 also shows that among the eight countries, expenditures on transfers relative to GDP increased considerably faster than expenditures on goods and services (2.52 compared to 1.14). Only in Montserrat was this not the case, but the difference between the two component growth rates was small. For all of the other countries, where the growth of transfers exceeded that of goods and services, the differences in some cases were very large. All ratios are greater than unity, indicating a general tendency for transfers to increase their share of GDP.

TABLE 12: RATIOS OF AVERAGE ANNUAL GROWTH RATES OF GENERAL GOVERNMENT EXPENDITURES ON GOODS AND SERVICES AND TRANSFERS RELATIVE TO CORRESPONDING GROWTH RATES OF GDP

(Correlation of each ratio with rates of increase in external public debt and Budget deficits)

Country	Ratio of Government Expenditure in Transfers to GDP	Ratio of Government Expenditure on Goods and Services to GDP	Rate of Increase of External Public Debt	Rate of Increase of Overall Budget Deficits
	(1)	(2)	(3)	(4)
Windward Islands				
Dominica	1.97	1.17	0.91	1.27
Grenada	1.66	1.07	1.07	1.62
St. Lucia	2.44	1.17	1.04	0.47
St. Vincent	2.31	1.09	1.16	1.39
Leeward Islands				
Antigua	3.39	0.95	1.12	1.04
Montserrat	0.53	0.99	1.13	-
St. Kitts-Nevis	4.97	1.36	1.01	1.67
Belize	2.86	1.31	1.12	1.37
(Unweighted Average)	(2.52)	(1.14)		

Correlation coefficients: (1) on (3) r = -0.18
(1) on (4) r = 0.21
(2) on (3) r = -0.41
(2) on (4) r = 0.28

The relative importance of transfers in total public expenditures should not be underestimated. Table 13 shows total transfers as a percentage of GDP and total transfers as a percentage of general government total expenditure. On average, transfers reached 6.4 per cent of general government expenditures and 2.5 per cent of GDP. Correlation analysis of external public debt and overall budget deficits revealed weak statistical, relationships between the variables.

TABLE 13: GENERAL GOVERNMENT TRANSFERS AS A PERCENTAGE OF TOTAL GENERAL GOVERNMENT EXPENDITURES AND AS A PERCENTAGE OF GDP

GENERAL GOVERNMENT EXPENDITURE ON TRANSFERS

	% of General Government Total Expenditure					Percentage of GDP				
	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
Windward Islands										
Dominica	7.37	11.08	8.29	4.53	6.73	2.91	3.50	3.89	2.45	3.65
Grenada	9.96	7.61	5.97	9.40	13.32	2.71	3.64	4.31	6.70	6.14
St. Lucia	7.10	6.03	6.16	8.06	10.13	1.90	1.41	1.94	2.95	3.64
St. Vincent	4.68	4.41	4.17	7.14	8.93	1.62	1.46	1.38	2.47	3.11
Leeward Islands										
Antigua	3.03	3.12	3.94	4.31	8.43	0.87	0.83	1.00	1.59	3.07
Montserrat	6.70	6.08	5.34	5.52	4.43	3.28	2.43	2.28	2.61	2.15
St. Kitts-Nevis	4.82	3.97	5.68	5.63	14.17	1.83	1.37	2.13	2.36	6.36
Belize	2.42	2.33	1.99	6.41	4.69	0.86	0.71	0.78	1.98	1.66
(Underweighted Average)	(5.76)	(5.78)	(5.21)	(6.44)	(8.85)	(1.96)	(1.92)	(2.21)	(2.89)	(3.72)

Source: Caribbean Development Bank, *External Public Debt in the OECS and Belize*, 1977-82, Vol. II, 1984.

In summary, it would seem that the increases in external public debt cannot, in the main, be attributed to either component of general governments overall expenditure. Thus, it may be concluded that the growth of external public debt in OECS countries and Belize over the 1977–81 period was due to a multiplicity of factors, all related to the expansion of the public sector.

CONCLUSIONS

A few OECS member countries, notably Antigua and Dominica, faced growing external public debt problems over the 1977-82 period. So too has Belize. While the observed external public debt situation in other OECS member countries does not appear to be serious, there is the potential danger that commercial banks which have been supplying substantial amounts of capital to individual OECS countries, in the form of balance of payments support, may choose to reduce their exposure. Such a development could, possibly, prevent debtor countries from rolling over the principal on outstanding debts and, so, greatly increase the probability of default.

A positive association between the growth of individual countries public sector and external public debt was identified. It was also established that there was generally only a poor, or even reverse, association between the growth of individual countries public sectors and overall budget deficits.

The relative importance of the growth of public expenditures relative to GDP was also examined by economic categories. The growth of transfers emerged as a faster growing component of overall general government expenditure growth when compared to expenditures on goods and services. Additionally, the analysis showed that the association of the two components of public expenditures and both external public debt and overall budget deficit was weak in all of the countries examined. The inability to identify, precisely, the relationships between these two major components of public expenditures and external public debt clearly suggests the need for further research.

We also attempted to establish the seriousness of the external public debt problem in OECS member countries and Belize by the application of an econometric debt rescheduling function. However, the result obtained was poor, but this can be attributed, in the main, to data and computer software constraints. Thus, with the elimination or minimisation of these constraints, it may be possible to anticipate, to some extent, the problems that may be caused by external public debt service payments in OECS member countries and Belize in the ensuing years of the 1980s.

REFERENCES

[1] BECK, M., "Public Sector Growth: A Real Perspective", *Public Finance*, Vol. 34, No. 3, 1979.

[2] BIRD, R., "Wagner's Law of Expanding State Activity", *Public Finance/Finance Publiques*, Vol. 26, No. 1/1971.

[3] DHOUTE, Pierre, "Describing External Debt Situations: A Rollover Approach", *IMF Staff Papers*, Vol. XXII, No. 1, 1975.

[4] FEDER, G. and R. JUST, "A Study of Debt Servicing Capacity Applying Logit Analysis", *Journal of Development Economics*, Vol. 4, No. 1, 1977.

[5] FRANCIS, F., "Government Financing in the Associated States", *Social and Economic Studies*, Vol. 26, No. 4, 1977.

[6] GOULD, F., and B. ROWETH, "Politics and Public Spending", *The Political Quarterly*, Vol. 44, No. 2, 1978.

[7] GOFFMAN, J.J. and D.J. MAHUR, "The Growth of Public Expenditure in Selected Developing Nations: Six Caribbean Countries 1940-65", *Public Finance*, Vol. 26, No. 1, 1971.

[8] GUPTA, S.P., "Public Expenditure and Economic Development: A Cross-section Analysis", *Finanzarchiv*, Vol. 26, 1968.

[9] HOWARD, M., "Post-War Public Policy in Barbados, 1946-1979", *Social and Economic Studies*, Vol. 31, No. 3, September 1982.

[10] JONES-HENDRICKSON, S., "The Disassociation Factor in Revenue Production: St. Kitts-Nevis-Anguilla, 1950-1973", *Social and Economic Studies*, Vol. 27, No. 3, September 1978.

[11] LOTZ, J.R., "Patterns of Government Spending in Developing Countries", *Manchester School*, Vol. 38, 1970.

[12] MICHAS, A.N., "Wagner's Law of Public Expenditures: What is the Appropriate Measurement for a Valid Test?" *Public Finance/Finance Publiques*, Vol. 30, No. 1, 1975.

[13] PEACOCK, A. and J. WISEMAN, *The Growth of Public Expenditure in the United Kingdom*, 2nd ed., Allen and Unwin, London: 1967.

[14] PEACOCK, A., "Approaches to the Analysis of Government Expenditure Growth", *Public Finance Quarterly*, Vol. 7, 1979.