External Debt, Capital Flight and Stabilization Policy.

The Experiences of Barbados, Guyana, Jamaica and

Trinidad and Tobago

by

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Introduction

This paper examines two issues.   The first concerns the role played by capital flight in the growth of the external debt of the four major CARICOM countries since the mid seventies.   The second concerns an evaluation of the potential effectiveness, in the Caribbean context, of the policy initiatives which are usually recommended to help curb capital flight.

Since the mid seventies there have been significant increases in the levels of public and publicly guaranteed external debt of the four major Commonwealth Caribbean countries, Barbados, Guyana, Jamaica and Trinidad and Tobago.   At the end of 1976 such debt for Barbados was insignificant, amounting to US $31 million.   However, by the end of 1985 the debt stood at US $460 million. Similar debt for Guyana rose from US $296 million at the end of 1975 to US $693 million by the end of 1983.   The Jamaican debt increased from US $993 million at the end of 1976 to US $3,499 million at the end of 1985.   The debt for Trinidad and Tobago which amounted to US $106 million at the end of 1976 had risen to US $1408 million at the end of 1984.

These broadly similar developments in terms of external indebtedness took place against a background of quite dissimilar developments in their respective economies.   Both Guyana and Jamaica experienced protracted payments difficulties and economic stagnation during the decade of 1975 to 1985.   The Barbadian economy, on the other hand, performed very well during the period from 1976 to 1980, recording annual average real growth rates of GDP in excess of 4 percent. Negative real growth was recorded in 1981 and 1982.   Positive real growth returned in 1983 and the 1984 growth rate of 3.5 percent began to approach the

rates of the late seventies. The economy of Trinidad and Tobago, stimulated by the boom in earnings from the petroleum sector, expanded at an annual average rate of almost 6 percent between 1975 and 1982. The collapse in petroleum prices after 1982 led directly to a major downturn in the performance of the economy.

Guyana, Jamaica and Trinidad and Tobago operated rigid exchange control regimes throughout the period. At the same time there were frequent allegations concerning illegal capital outflows from these three countries. Barbados operated a far less restrictive exchange control regime. Nevertheless, there appeared to be no official concern with the issue of capital flight.

The first section of the paper will be concerned with estimating capital flight from the four countries. In pursuit of this objective an estimation procedure was adopted which was derived from basic balance of payments accounting principles. Given these estimates consideration will be given to the implications of the potential contribution of capital flight to growth in external indebtedness. In addition, it might also be possible, given the differences in the exchange control regime operated by Barbados as opposed to the other three countries, to gain insights into the relationship between exchange controls and capital flight.

The second section of the paper is devoted to an analysis of the policy initiatives which are usually recommended to discourage capital flight. Specific attention will be directed towards an assessment of those policies which are designed to enhance the rate of return on domestic financial assets. In Caribbean economies the principal financial assets are bank balances. Consequently, our efforts in this regard will be directed towards estimating the demand for money narrowly and broadly defined, in the four countries.

Estimating Capital Flight

A popular method of estimating capital flight from developing countries is to combine reported estimates of short term private capital outflows with that of errors and omissions. This method is based on the assumption that errors and omissions reflect unrecorded short term capital transactions. Moreover, deficiencies in accounting procedures sometimes result in errors and omissions amounting to a significant percentage of the balance on current account. In essence, capital flight is presumed to be reflected in short term capital movements.

A more comprehensive method which has been used, incorporating both long and short term movements, involves subtracting from changes in gross external indebtedness the current account deficit and changes in the foreign assets of the central bank and commercial banks[1]. Data limitations precluded the use of this method. The method which was ultimately employed bears some similarity to the one just described. It attempts to arrive at estimates of capital flight by determining discrepancies between external financing requirements, as reflected in the balance of payments and changes in gross external debt. A deficit or surplus on the current account and private capital transactions must be off set by a decrease or increase in international reserves and, or, an increase or decrease in public debt. Hence capital flight will be held to have occurred when the increase in public debt is more than can be accounted for by the deficit on current account and private capital transactions, as well as, changes in official reserves. Capital flight would also have occurred if a surplus on current account and private capital transactions is not accounted for by an increase in official reserves and or a reduction in external public debt.

Estimates of capital flight for the four countries covering various time

periods since the mid seventies are reported in Table 1. Barbados, as reported earlier, was the country which operated the least rigid exchange control regime. Between 1977 and 1980, when the economy was growing rapidly there were, as reported in the Table, unrecorded capital inflows amounting to US $88 million. During this period there was also minimal growth in the external public debt. The economic performance of the country declined significantly in the post 1980 period. Between 1981 and 1985 unrecorded capital outflows amounted to US $132.2 million. At the same time the level of external public indebtedness rose by US $379 million. This then meant that capital flight offset 35 percent of the growth in the external public debt in that period. The Barbadian experience over the 1977/85 period appears to be in keeping with what one would normally expect. In a booming economy one would expect capital to be repatriated to take advantage of attractive investment opportunities. Such was the situation between 1977 and 1980. In a declining economy the reverse would be true. There would be an incentive to seek more attractive external investment opportunities. This would exacerbate the weak internal economic situation and work to offset some of the potential beneficial effects of the public borrowing.

Guyana, unlike Barbados, has experienced economic stagnation since the mid seventies. Between 1976 and 1984 unrecorded capital outflows were estimated to amount to US $228 million. This represented 59 percent of the cumulative change in gross external debt of the country over that period. There are certain aspects of the Guyanese experience over this period which are noteworthy. The government after 1980, experienced great difficulty in securing external loans. The growth in external public debt between 1981 and 1984 was less than 50 percent of that during the period from 1976 to 1980. The latter period was one during which the country was at a virtual impasse in its dealings with the

Table 1

Estimates of Capital Outflows: Barbados, Guyana, Jamaica, Trinidad and Tobago

US $ M

Country	Time Period	Cumulative Change in Gross External Public and Publicly Guaranteed Debt	Cumulative Change in External Reserves	Cumulative Balance on Current Account and Private Capital Transactions	Estimated Capital Outflows	Estimated Capital Outflows as a Percentage of Change in Gross External Debt
Barbados	1977-1985	428.7	140.8	- 243.8	44.1	10.3
	1977-1980	50.1	65.5	- 72.7	- 88.1*	
	1981-1985	378.6	75.3	- 171.1	132.2	34.9
Guyana	1976-1984	387.0	- 845.3	-1004.4	227.9	58.9
	1976-1980	270.7	- 261.9	- 446.2	86.4	31.9
	1981-1984	116.3	- 583.4	- 558.2	141.5	121.7
Jamaica	1977-1985	2506.5	- 517.5	-2517.6	506.4	20.2
	1977-1980	874.3	- 377.0	- 808.8	442.5	50.6
	1981-1983	1400.1	- 293.6	-1310.6	383.1	27.4
	1984	- 5.3	225.7	- 171.3	- 402.3*	
	1985	237.4	- 72.6	- 226.9	83.1	35.0
Trinidad/ Tobago	1976-1984	1248.9	532.8	343.2	1059.3	84.8
	1976-1980	462.5	1985.6	1814.8	291.7	63.1
	1981-1984	786.4	-1452.8	-1471.6	767.6	97.6

*Capital inflows

Sources
Central Bank of Barbados, Annual Statistical Digest, Annual Report, Balance of Payments of Barbados; Bank of Guyana, Annual Report; Bank of Jamaica, Annual Report, Statistical Digest Monthly; Central Bank of Trinidad and Tobago, Annual Report, Quarterly Statistical Digest; International Monetary Fund, International Financial Statistics

International Monetary Fund and hence faced great difficulty in securing external financing. Between 1976 and 1980, as reported in the Table, unrecorded capital outflows of US $86.4 million represented 32 percent of the cumulative increase in external public debt for the period. Between 1981 and 1985 there was a 64 percent increase in capital outflows at a time when the growth in external borrowing was only 43 percent that of the earlier period. The end result was that unrecorded outflows were 21 percent greater than the increase in public external debt. Capital flight was clearly an important factor in the country's payments crises during the period since the mid seventies. The experience is also in keeping with the conventional arguments concerning the limited effectiveness of exchange control regimes in preventing illegal capital outflows[2].

The information in the Table indicates that there were substantial unrecorded capital outflows from Jamaica. Between 1977 and 1985 these outflows were estimated to amount to US $506.4 million, which represented 20.2 percent of the cumulative increase in gross external public debt for the period. It is interesting however, to examine developments in Jamaica over a number of sub periods, which were associated with either changes in government or changes in economic policy. The period from 1977 to 1980 covers the second term of the Manley government. This was a period during which there was a considerable degree of animosity toward the government expressed by the business and professional classes in the country. It was also a period of severe economic decline. In this climate one would expect capital flight. Capital flight was estimated to amount to US $442.5 million, representing 50.6 percent of the growth in external debt for that period. There was a change in government in 1980. The new Seaga government initially enjoyed the strong support of the

the business sector.   At the same time, a major effort was initiated both
domestically and internationally to promote investment. It might be argued that
developments of the late seventies gave rise to a permanent change in the
attitude of the country's wealth holders as to the appropriate distribution of
holdings between domestic and foreign assets.   Hence the continued outflows
after 1981 reflected an effort on the part of those who had not previously
realized their desired distribution to achieve their targets as quickly as
possible.

The substantial inflows in 1984, a year during which exchange rate
depreciation and interest rate increases would work to enhance the rate of
return on domestic asset, appears to be consistent with orthodox theory[3].
However, the reversal of the trend in 1985, in the face of a continued decline
in the exchange rate and further increases in interest rates casts some doubts
on the significance attached to the role of the rate of return on domestic
assets relative to foreign assets in contributing to capital flight. One might
surmise that a basic loss of confidence in the ability of the government to
manage the economy effectively would offset the impact of efforts to manipulate
the rate of return on domestic assets by changing interest rates and exchange
rates.

In the case of Trinidad and Tobago the estimated unrecorded capital outflow
between 1976 and 1984 exceeded US $1 billion.   This was more than twice the
amount estimated to have left Jamaica over a comparable time period.   In the
period between 1976 and 1980 when the economy of the country experienced rapid
growth reflecting the boom in the petroleum sector, capital outflows amounted to
US $291.7 million. This represented 63 percent of the growth in external public
debt during that period.   What might account for such capital flight in the

business and professional classes which the previous government had alienated. Of equal if not greater importance to its prospects for initiating economic recovery, was the strong endorsement it received from the then new Republican administration in the United States. The government experienced little difficulty in raising external funds. In the three year period from 1981 through 1983 an additional US $1.4 billion was raised. This represented a 60 percent increase over the amount raised from 1977 to 1980. However, unrecorded capital outflows during this period, as reported in the Table, amounted to US $383.1 million. There was then only a rather modest decline in capital flight as the estimated outflow amounted to, approximately, 87 percent of the outflows for the earlier period.

The 1984/85 period was associated with radical changes in the administration of exchange rate and monetary policies. The exchange auction was associated with a massive depreciation of the exchange rate. At the same time the application of highly restrictive monetary measures gave rise to dramatic increases in interest rates. In 1984 there was virtually no additional external borrowing by the public sector. At the same time there was a massive unrecorded capital inflow exceeding US $400 million. However, in 1985, even though the policies introduced in 1984 were applied with increased stringency there was, once again, a substantial outflow of US $83.1 million, representing 35 percent of the growth in external public debt in that year.

The flight of capital from the country between 1977 and 1980 is consistent with what one would expect in a situation where influential members of the community had lost confidence in the government. The continued outflows between 1981 and 1983 are somewhat more difficult to rationalize. This was into the early stage of a government which, at the time, had considerable support from

context of a buoyant economic situation? This might be attributed to a combination of limited domestic absorptive capacity along with the maintenance of fairly rigid exchange controls.

Between 1981 and 1984 capital flight was estimated to be US $767.6 million, more than twice that of the earlier period. This was the period during which the economy had to adjust to the slump in the global market for petroleum. Massive balance of payments deficits accompanied by reserve losses were experienced from 1982 through to 1984. The government attempted to stem the reserve losses by introducing more stringent exchange controls at the end of 1983. The new EC-0 system was designed to place the government in a position where it would be able to monitor more closely the uses of foreign exchange. In addition, it would enable the Central Bank to play an active role in the allocation of foreign exchange. This would come about from the authority which the regulations provided in allowing the Bank to establish ceilings for the amount of foreign exchange which would be allocated in support of specified activities.

Estimated capital flight virtually offset the cumulative change in gross external public debt between 1981 and 1984. These outflows are in keeping with what one might expect in a declining economy. In addition, the possibility of an official devaluation of the currency in the face of the deteriorating international payment position of the country would also have provided a further incentive for such outflows.

In summary, it does appear that for each of the four countries growth in external indebtedness was associated with capital flight of significant proportions. This was particularly true in the case of Barbados and Trinidad and Tobago in the post 1981 period. The experiences of Guyana and Jamaica from

the mid seventies was characterized by both growth in external debt and capital flight. It is not possible to establish a direct causal relationship between the two phenomena in any of the countries. Given the magnitude of the outflows one might draw the following tentative conclusions. The levels of foreign borrowing by all countries, in the absence of such capital flight, would have resulted in the achievement of higher levels of economic growth. This conclusion rests on the basic proposition that, specifically, in the cases of Guyana and Jamaica, the foreign exchange shortage which severely constrained economic activity would have been lessened. On a more general basis, there would have been the potential for an overall higher level of investment activity in all countries. Alternatively, it might be argued that there would have been less foreign borrowing in the absence of such capital flight. Consequently, although in the case of Guyana and Jamaica, economic performance over the decade might not have been markedly different from that which occurred, there would not be the problem of coping with the debt burden.

Stabilization Policies and Capital Flight

In this section we will treat capital flight as reflecting a decision on the part of residents of a country to substitute foreign monetary and non-monetary assets for domestic monetary assets. Currency substitution over a particular time period might be largely determined by non-economic considerations such as, a general lack of confidence in the government of the day by wealth holders. One might argue that non economic considerations will likely, in varying degree, play a role in the currency substitution decisions of wealth holders in developing countries. However, perceived deficiencies in the administration of economic policy would normally be a major determinant in the formulation of attitudes towards government. Consequently, what might be deemed

to be decisions based on non-economic factors might reflect an entrenchment of attitudes based on past economic decisions of government. This could give rise to a situation where individuals might not react in the normal way to certain policy initiatives. Studies which have been conducted on currency substitution in developing countries have tried to account for the phenomenon by emphasing the importance of such factors as, negative real rates of interest and over valued exchange rates, in making foreign assets attractive. The conclusion is usually drawn that a change in policies geared towards the realization and maintenance of positive real interest rates, and exchange rates which more accurately reflect purchasing power parities, would discourage substitution. This approach does not take into consideration the potential significance of non economic factors in delaying changes in behaviour and the consequent potential limited short term effectiveness of such policies. In what follows, an attempt will be made to determine the extent to which non economic consideration might limit the effectiveness with which orthodox policies, of the type described, might be applied in these four Caribbean countries.

Capital flight reflects a decision to substitute foreign financial assets for domestic financial assets. Attention will be directed towards the determinants of demand for domestic financial assets. Since money balances comprise the major portion of financial asset holdings, we will be concerned with the determinants of the demand for money. Quarterly money demand functions were estimated for each of the four countries. The periods covered for Barbados and Jamaica were the second quarter of 1977 through the fourth quarter of 1985. Guyana and Trinidad and Tobago from the second quarter of 1977 through the third and fourth quarters, respectively of 1984. Since M_2 incorporates a variety of interest earning deposits, the demand for M_2 could be thought of as representing

a demand for domestic financial assets. Nevertheless, for comparative purposes, estimates were made for both M_1 and M_2. The demand for domestic monetary assets would be directly related to income as well as the yield on such assets in a closed economy. In an open economy one would also have to incorporate the yield on foreign financial assets. The yield on foreign assets will depend in part on interest rates in foreign financial centres, as well as, expected changes in the exchange rate. Consequently, foreign interest rates and expected depreciation in the exchange rates are used, in addition to income and domestic interest rates, as independent variables, in currency substitution studies.

Data limitations necessitated certain changes in our choice of independent variables. None of the countries published quarterly estimates of National Income or Gross Domestic Product. It was then necessary to find an income proxy. The availability of quarterly estimates of export sales and the close correlation between changes in exports and income in such open economies led us to conclude that exports would be a suitable proxy. Since our concern is with the demand for real money balances, this raised the matter of selecting an appropriate deflator for exports. Indices of export unit values would have been ideal deflators. However, a quarterly series was not available from the IMF publication, International Financial Statistics, on which we had to rely. As a result, we used as a deflator, the US wholesale price index. The premium or discount on the 90 day forward rate has been used as an indicator of expected changes in the exchange rate in currency substitution studies involving developed countries[4]. In the Latin American studies various proxies have been employed, such as, differences between official and real exchange rates and differences between changes in domestic and foreign price indices and black market exchange rates[5]. In this study we employ changes in the domestic rate of

inflation for the same reason that a proxy for expected devaluation was used in other studies. Inflation lowers the value of domestic financial assets and, as a result, encourages capital flight. Furthermore, given that most domestic products are substitutes for foreign products, as well as, a general public preference for foreign products, an increase in the rate of inflation would encourage residents of these Caribbean countries to make a greater effort to secure foreign exchange to support their general spending.

The following equation was estimated for each of the countries for M_1 and M_2.

$$Ln\ M/P = B_0 + B_1 Ln\ Exp + B_2\ Ln\ R + B_3 LnR_{us} + B_4 InFL + B_5\ Ln\ M/P_{-1}$$

In keeping with the tradition when using quarterly data the lagged dependent variable was included. This variable was highly significant in all cases. The normal expectation would be that for M_1, B_1 and B_5 would be positive and B_2, B_3 and B_4 would be negative. In the case of M_2 we would expect B_1, B_2, and B_5 to be positive and B_3 and B_4 to be negative. Low values for B_2 and B_3, the coefficients for the rate of return variables, or more specifically, the coefficients of elasticity, would suggest that rates of return are not important determinants of capital flight. Moreover, if the coefficients of elasticity for the rate of return variables and the income proxy are low (and, or, insignificant), this might be indicative of the fact that traditional economic considerations did not play an important role in capital flight.

Table 2 reports various money demand equations for Barbados. Regressions 1 and 2 are for real M_1. In regression 1 the coefficients for the rate of return variables, inflation and the lagged dependent variable are all significant. The coefficient for the export variable, the income proxy, is marginally significant, and, in addition, has the wrong sign. The coefficient for the US

Table 2

Barbados Demand for Money 1977 (2) to 1985 (4)

Regression	Estimation Technique	C	LnEXP	LnRB	LnRUS	INFLB	LnM/P_{-1}	AR_1	R^2	H
(i) LnMI/P	CORC	1.84 (2.54)	−0.04 (−1.57)	−0.07 (−2.67)	0.11 (2.07)	−1.55 (−2.59)	0.68 (4.40)	−0.18 (−0.92)	.58	0.44
(ii) LnMI/P	OLS	1.08 (1.77)	−0.06 (−1.95)	−0.04 (−1.36)		−1.23 (−2.10)	0.86 (7.15)		.58	−0.25
(iii) LnM_2/P	OLS	1.13 (1.38)	−0.01 (1.91)	−0.02 (−1.32)	0.03 (1.48)	−0.93 (−3.85)	0.84 (6.29)		.74	−0.87
(iv) LnM_2/P	OLS	0.63 (0.83)	−0.02 (−1.39)	−0.01 (0.72)		−0.83 (−3.50)	0.92 (7.56)		.73	0.06

Table 3

Guyana Demand for Money 1977 (3) to 1984 (3)

Regression	Estimation Technique	C	LnEXP	LnRG	LnRUS	INFLG	LnM/P$_{-1}$	AR$_1$	R^2	H
(i) LnMI/P	OLS	1.81 (1.32)	0.20 (2.61)	-0.04 (-0.27)	-0.17 (-2.24)	-1.63 (-2.38)	0.59 (3.66)		.86	-0.72
(ii) LnMI/P	OLS	2.44 (1.68)	0.11 (1.57)	-0.21 (-1.35)		-1.78 (-2.40)	0.57 (3.23)		.84	0.22
(iii) LnM$_2$/P	CORC	0.71 (0.88)	0.06 (2.18)	0.09 (1.93)	-0.10 (-3.38)	-1.08 (-3.88)	0.85 (8.33)	-0.44 (-2.24)	.81	0.58
(iv) LnM$_2$/P	OLS	0.78 (0.63)	0.05 (1.24)	0.02 (0.44)		-1.41 (-3.59)	0.85 (5.37)		.71	-1.71

Did you Correlate X with Y ?

Table 4

Jamaica: Demand for Money 1977 (2) to 1985 (4)

Regression	Estimation Technique	C	LnEXP	LnRJ	LnRUS	INFLJ	LnM/P$_{-1}$	R^2	H
(i) LnMI/P	OLS	0.92 (0.86)	0.01 (0.09)	-0.02 (-0.19)	0.10 (-1.29)	-1.62 (-3.36)	0.88 (6.14)	.84	-0.22
(ii) LnMI/P	OLS	0.14 (0.16)	-0.03 (-0.31)	0.19 (0.18)		-1.68 (-3.47)	1.00 (9.25)	.84	-0.28
(iii) LnM$_2$/P	OLS	0.61 (0.80)	-0.04 (-0.67)	0.01 (0.22)	-0.02 (-0.47)	-1.19 (-4.67)	0.94 (12.67)	.93	0.77
(iv) LnM$_2$/P	OLS	0.36 (0.66)	-0.03 (-0.63)	0.17 (0.33)		-1.20 (-4.78)	0.97 (19.60)	.93	0.62

Table 5

Trinidad/Tobago: Demand for Money 1977 (2) to 1984 (4)

Regression	Estimation Technique	C	LnEXP	LnRT	LnRTD	LNRUS	INFLT	LnM/P_{-1}	AR_1	R^2	H
(i) LnMI/P	CORC	1.10 (0.97)	0.05 (1.20)	-0.36 (-1.69)		-0.06 (-1.34)	-1.76 (-2.57)	0.87 (8.85)	-0.34 (-1.76)	.86	0.68
(ii) LnMI/P*	OLS	1.37 (1.14)	0.03 (0.62)	-0.27 (-1.40)			-2.03 (-3.11)	0.82 (7.54)		.92	-1.30
(iii) LnM_1/P	CORC	-0.94 (-1.70)	0.10 (3.05)		-0.13 (-1.62)		-1.83 (-2.68)	1.08 (13.89)	-0.41 (-2.22)	.86	0.88
(iv) LnM_2/P	OLS	1.19 (1.75)	-0.01 (-0.47)	-0.11 (-1.05)		0.01 (0.37)	-0.96 (-2.78)	0.87 (15.63)		.96	0.31
(v) LnM_2/P*	OLS	1.26 (2.07)	-0.01 (-0.54)	-0.14 (-1.67)			-0.97 (-3.10)	0.88 (17.94)		.98	0.22
(vi) LnM_2/P	CORC	0.78 (1.32)	0.01 (0.22)		-0.05 (-0.61)		-0.88 (-2.55)	0.89 (11.68)	0.09 (0.48)	.95	-0.12

* 1976 (2) TO 1984 (4)

interest rate also has the wrong sign. The values of the coefficients for the income proxy and rate of return variables are all extremely low. It would appear that the significant determinant of demand for M_1 is the rate of inflation. A one percent increase in the rate of inflation would be associated with a 1.5 percent decrease in demand for real M_1. Regression 2 which omits the US interest rate, highlights, to an even greater degree the importance of the inflation variable. Regressions 3 and 4 are for real M_2. In this instance, only the coefficients for the inflation rate and lagged dependent variable are of significance. The values of the coefficients for the rate of return variables and for exports have the wrong signs and are not significantly different from zero. In all four regressions, the value of the Durbin H statistic, the statistic for serial correlation in a model with a lagged dependent variable does not reveal the presence of first order auto correlation.

Table 3 reports the results of estimates of demand for real M_1 and M_2 for Guyana. The findings are similar to those reported for Barbados with the rate of inflation being the most important determinant of demand for M_1 and M_2. Although most of the coefficients in regressions 1 and 3, which incorporate the US interest rate are significant and have the right sign, the elasticity coefficients are extremely low. The H statistic does not reveal the presence of first order autocorrelation.

Tables 4 and 5 report the estimates of the determinants of the demand for real money balances for Jamaica and Trinidad and Tobago, respectively. In the case of Jamaica, apart from the coefficient for the lagged dependent variable, only the coefficient for inflation is of statistical significance and of meaningful value. The estimated values of the export coefficients are not significantly different from zero. The values of the Durbin H statistic does

not reveal the presence of first order serial correlation in any of the equations.

The results reported in Table 5 for Trinidad and Tobago underscore to an even greater degree the importance of inflation as a determinant of the demand for M_1. In the three M_1 regressions the lowest value estimated for the inflation coefficient was 1.76. The two domestic interest rates used, the treasury bill rate, RT and the weighted average deposit rate, RTd, were both of marginal statistical significance. The coefficient for the US interest rate was not of statistical significance in any of the equations and had estimated values which were not significantly different from zero. The estimated values of the coefficients for exports, the income proxy, was in most instances very close to zero.

Let us now turn to consider the potential implications of these findings for the suitability of the polices which are usually proposed to curb capital flight, in the context of these Caribbean economies. The low interest elasticities of demand for money balances suggest that even dramatic increases in interest rates would have a limited impact on such demand. In addition, the extremely low values of the coefficients for the income proxy, especially for M_2, suggests that domestic money balances are considered inferior goods. Consequently, a call for interest rate increases to help establish a more competitive relationship between domestic and international interest rates would then likely be of limited effectiveness in the short run.

The rate of inflation was found, in all instances, to be a highly significant determinant of demand for real money balances. As indicated earlier, the rate of inflation plays a role similar to that of an expected devaluation in that it undermines the capital value of domestic assets and thus

encourages capital flight. In addition, since a great many domestic products are simple replicas of imports, inflation provides an incentive for holding foreign currency balances to finance spending. In Caribbean economies, where the size of the tradeable goods sector is large relative to the overall economy, governments are constrained in pursuing inflationary policies by the availability of international reserves. Consequently, with the exception of Trinidad and Tobago, between 1976 and 1982, when it experienced dramatic increases in its international reserves, inflationary trends in the region were largely determined by external developments. These were, for example, the direct and indirect effects of the oil price increases during the seventies. In addition, in the case of Jamaica, the devaluations of the currency over the periods between 1977 and 1979 and from 1983 through the end of 1985 were associated with major price increases.

This raises the question as to the suitability of that other major element in the standard set of policy initiatives recommended for dealing with capital flight, exchange rate depreciation. A devaluation, given the openness of these economies, will have an impact on the price level, but not, on the rate of inflation. However, in most instances a major devaluation is recommended. The immediate negative consequences of such a devaluation on lower income groups usually generates considerable resistance to such a policy initiative. In recent years, a number of countries have used exchange auctions as a means spreading out over time the impact of a major realignment of their exchange rates. Since such auctions involve an open ended downward movement of rates the impact on the economy is not a once and for all change in the price level but a change in the rate of inflation. Given the significance of inflation as a determinant of the demand for money in the Caribbean, it would seem that

depreciation of the exchange rate by means of an auction would not discourage capital flight.

In summary, the findings from the study indicate, that for the period covered, the rates of return on financial assets did not play an important role in contributing to capital flight. It would appear that it is the retention of asset values which is of significance to individuals. These findings lend support to the notion that noneconomic considerations, which might be summarized as a lack of confidence in governments to manage the economy effectively, were the main determinants of capital flight. Since such government deficiences are based on a perceived record of failure over time, a simple initiation of policy changes is not likely to have a meaningful impact on public behaviour in the short run. Policy initiatives, such as, increases in interest rates and currency devaluation are expected to impose costs on an economy. Such costs can be justified to the extent that the desired policy objective, in this instance a reversal of capital outflows, is realized. However, our findings suggest that while the economy is certain to bear the adjustment costs in the short run, the ultimate policy objective is not likely to be realized.

Appendix

Data Definitions

Tables 2-5

RB	=	90 day Treasury Bill rate, Barbados
RUS	=	90 day Treasury Bill rate, United States
INFLB	=	$\text{Log CPI}_B - \text{Log CPI}_{B-1}$ (CPI 1980 = 100)
RG	=	90 day Treasury Bill rate, Guyana
INFLG	=	$\text{LogCPI}_G - \text{LogCPI}_{G-1}$ (CPI 1980 = 100)
RJ	=	90 day Treasury Bill rate, Jamaica
INFLJ	=	$\text{LogCPI}_J - \text{LogCPI}_{J-1}$ (CPI 1975 = 100)
RT	=	90 day Treasury Bill rate, Trinidad/Tobago
RTD	=	Weighted average deposit rate, Trinidad/Tobago
INFLT	=	$\text{LogCPI}_T - \text{LogCPI}_{T-1}$ (CPI 1975 = 100)

Footnotes

1. See, for example, Mohsin S. Khan and Nadeem UL Haque [1980], pp. 609-612.

2. See, for example, Nowak, M. [1984].

3. Vito Tanzi and Mario I. Blejer [1982].

4. See, for example, John T. Cuddington [1983], pp. 111-133.

5. C.L. Ramirez-Rojas [1985].