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INTERNATIONAL CAPITAL MOBILITY AND THE CARICOM ECONOMIES

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Introduction:

There has been a major increase in private capital flows to developing countries, since the end of the decade of the eighties. A small subset of developing countries in Asia and Latin America have experienced very large inflows over short periods of time. In early 1995, Mexico, one of the countries which had been a major recipient of capital inflows over the previous two years, experienced massive outflows. The volatility of these capital movements, is taken as one indicator of the extent to which global financial markets have become highly integrated. This integration permits investors to balance their portfolios to arrive at their optimal goals with respect to maximization of earnings and minimization of risk. The higher the degree of financial integration of a developing country with the outside world, the greater will be its success in attracting external capital. At the same time, the greater will be its vulnerability to surges in inflows an outflows of capital.

Inflows of foreign capital have, historically, played an important role in the economies of CARICOM countries. The ability of these countries to continue to attract and retain foreign capital will be determined by the degree to which they are integrated into global financial markets. In this paper, there will be an examination of the extent to which they are integrated into global capital markets and the implications of this integration in a context of very high capital mobility. The paper will be organised as follows. In the first section there will be an overview of the degree of dependence on external finance. This review will draw on the experience of the four larger countries, Barbados, Guyana, Jamaica and Trinidad and Tobago since the early seventies. This will be followed by and assessment of

the degree of integration of the respective countries with external financial markets. In conducting this exercise, we will rely on some of the measures used by Montiel(1994), in his wide ranging exploration of the integration of developing countries with external financial markets. In the third section, there will be an examination of the potential macro and micro economic implications arising from a high degree of integration.

The Dependence on External Finance:

External finance has, over the years, played an important role in the leading economic sectors in CARICOM economies, export agriculture and mining. In this section, we will review the role of external finance in supporting investment activity since the seventies. One might expect foreign finance to play an important role in these economies for two reasons. First, as developing economies, their low levels of income would impose a constraint on their level of savings. Secondly, as small open economies, foreign financing will be required to support adequate levels of consumption and investment, given their heavy dependency on imports.

The ratios of investment and national savings to GDP for Barbados, Guyana, Jamaica and Trinidad and Tobago, from 1972 to 1993, are set out in Table 1. With the exception of Trinidad and Tobago during the seventies, the savings ratios were very low. In the case of Barbados, the national savings ratio exceeded 20 percent on only two occasions over the period. The ratio was negative or close to zero, in Guyana, in most years during the decade of the eighties. In Jamaica, between 1974 and 1990, the savings ratio exceeded 20 percent on only one occasion and was 10 percent or less on seven occasions.

Given these very low national savings rates, it is then not surprising that the investment ratios for these countries, in most years, exceeded the savings ratio, by a substantial margin. The notable exception was Trinidad and Tobago during the

seventies, the period when that country experienced its petroleum boom. Afte 1980, in all of the countries, investment activity was to varying degrees, supporte by foreign savings. The country where foreign finance played the most importan role in supporting investment was Guyana, given the wide differential between th national investment and savings ratios. On the other hand, there was a very clos relationship between the investment and savings ratios in Barbados, after 1982. This was a period in which the investment ratio in most years was very low and there were also low growth rates. Indeed the investment ratio for Barbados, during this period, was substantially below that of Guyana and Jamaica.

Table 1
Investment and National Savings as a Percent of GDP

	Barbados		Guyana		Jamaica		Trinidad	
	Inv.	Sav.	Inv.	Sav.	Inv.	Sav.	Inv.	Sav.
1972	23.3	11.1	18.0	14.9	27.4	19.2	31.3	18.4
1973	24.5	14.1	24.0	5.3	31.5	22.1	25.9	24.6
1974	24.1	18.2	20.7	22.6	24.3	17.9	21.8	32.0
1975	19.2	10.6	29.5	29.4	25.8	17.0	27.3	41.3
1976	27.0	11.2	33.3	6.2	18.2	6.3	24.6	35.5
1977	19.5	7.0	25.7	6.7	12.2	10.7	26.6	32.6
1978	22.9	17.9	19.1	15.4	15.0	14.8	30.2	31.8
1979	23.5	16.2	24.5	15.8	19.1	12.9	29.1	28.8
1980	24.5	21.5	26.8	12.4	15.9	9.5	30.6	36.4
1981	27.4	15.0	31.3	-1.5	20.3	10.6	27.6	33.3
1982	22.5	17.7	26.3	-5.9	20.9	8.6	28.2	20.7
1983	19.9	14.8	26.9	-13.0	22.3	10.0	26.5	13.5
1984	16.2	17.4	22.9	1.5	23.1	9.2	22.1	15.1
1985	15.4	19.4	20.9	-0.8	25.3	7.3	19.4	17.9
1986	16.0	16.8	26.6	2.3	18.5	14.9	22.2	9.1
1987	16.0	14.8	33.5	0.6	22.3	16.4	19.9	15.1
1988	17.5	18.5	21.5	-1.4	25.7	28.1	13.1	10.6
1989	19.2	19.3	34.2	14.8	28.8	12.7	16.6	15.1
1990	18.8	18.2	42.3	5.2	28.0	10.0	12.6	21.2
1991	17.1	13.0	35.3	7.7	27.4	13.7	13.4	13.1
1992	9.5	17.5	53.7	24.4	28.5	30.5	12.3	14.7
1993	13.8	15.2	52.0	22.0	34.7	29.7	13.1	15.3

Sources: World Bank, World Tables, 1993. International Monetary Fund, International Financial Statistics Yearbook, 1994.

The data in the table indicates, that over the period, investment was supported to a significant degree by external finance, in Guyana and Jamaica and was important in Barbados on those occasions, when the investment ratio exceeded 20 percent. If these countries are to make a sustained recovery from the period of stagnation experienced during the eighties, the national investment ratios would have to be maintained at levels of around 30 percent. Although it would appear that there should be some scope for raising national savings rates, it is clear that a combination of a successful national savings effort, combined with attracting foreign finance would facilitate the realization of the investment effort required to optimize growth.

The Degree of Financial Integration:

In this section, we will use two popular methods for estimating the degree to which a country is integrated into international capital markets. The first, involves an investigation of the relationship between the propensity to save and the propensity to invest. In so doing, our analysis will be based on the hypothesis formulated by Feldstein and Horioka (1980). Their effort was directed at assessing the degree of financial integration in the world economy, by measuring the extent to which national saving and investment rates, were correlated. They estimated cross section regressions of the following form

$$(I/Y)_i = a + b(S/Y)_i + e \qquad (1)$$

where I/Y is the ratio of gross domestic investment to gross national product(GNP), and S/Y the ratio of national savings to GNP. They argued that the higher the degree of financial integration, the lower should be the value of b.

The second method involves an examination of the relationship between rates of return on comparable domestic and foreign financial assets. The argument here, is that if capital is mobile, arbitrage will result in an equalization in the rates

of return on assets, which embody a comparable degree of risk. In those countries in which there are properly functioning forward foreign exchange markets, this would imply a condition of covered interest parity. This might be expressed as follows

$$(1 + i_1) = F/S(1 + i_2) \qquad (2)$$

where i_1 and i_2, are the domestic and foreign interest rates, respectively, and F and S are the domestic currency price of foreign currency in the forward and spot markets.

In the absence of a forward market, as is the case in most developing countries the relevant criterion would be that of uncovered interest parity (UIP). If UIP holds

$$(1 + i_1) = (1 + i_2)E(S_{t+1})/S \qquad (3)$$

where E is an expectation operator with respect to the relationship between the future and current spot rate.

The Savings Investment Relationship

Equation (1) was estimated in time series form for Barbados, Guyana, Jamaica and Trinidad for the years 1972 to 1993. Gross domestic product(GDP) was substituted for GNP. The coefficients were estimated using ordinary least squares in levels and first differences. The estimates are set out in Table 2.

Table 2.
Coefficient of the Savings Ratio: 1972 - 1993

Country	Levels	First Differences
Barbados	-0.18*	0.13*
Guyana	0.27^	0.06*
Jamaica	0.47*	0.08*
Trinidad	0.41*	-0.02^

* Different from one at the 1 percent level.
^ Different from both zero and one at the one percent level.

The estimates in levels, with the exception of Barbados, were significantly higher than those derived using first differences. In all cases, the estimated coefficients were significantly different from one, the autarky condition, for all countries, at the 99 percent confidence level. The estimated coefficients, whether based on levels or first differences, suggest a high degree of capital mobility for all of the countries. Indeed, the estimated coefficients were significantly below the value of 0.6, deemed to be representative of the value for small industrial countries derived by Murphy and Caprio and Howard cited in Montiel(1994).

The regression in levels could lead to a spurious correlation, if the savings and investment ratios are non stationary variables and are not cointegrated. As Montiel points out, if each of these variables possess a single unit root, then first differencing would render them stationary, and regressions based on changes would not exhibit the spurious correlation problem. In his estimate of the coefficient for 62 developing countries, he found that in many cases a country's status would change from being relatively open to being closed, depending on whether the estimate was based on first differences or levels. This was not the case with respect to these CARICOM countries. In three of the four cases, the first difference estimates provided stronger support to the notion of a high degree of capital mobility.

Comparative Rates of Return

The greater the degree of financial integration, the closer would be the relationship between expected rates of return on comparable domestic and foreign financial assets. Since the expected spot rate is not observable, empirical measures of rates of return on foreign assets, usually rely on actual ex post exchange rates. The foreign interest rate, adjusted by the exchange rate for the relevant period, is then a guide to what domestic interest rate would have been, in the absence of

financial repression, transaction cost differentials and unexpected changes in the exchange rate.

In this section, a comparison was made between the interest rate on three month Treasury bills, in each of the countries, with that of similar bills in the United States, adjusted by the exchange rate, on a monthly basis, from January 1991, to December 1994. The following differential was estimated

$$d_t = (1 + i_{us}) - (1 + i_t)S_{t-1}/S_t \qquad (4)$$

where S_{t-1} represents the actual spot rate after three months, d_t and f_t the domestic and US three month Treasury bill rate and S_t the current spot rate. The greater the degree of financial integration, the smaller should be the differential. A change in the differential could come about from a widening in the nominal negative, or positive differential, in domestic and foreign interest rates, as well as a depreciation, or appreciation in the exchange rate. The greater the degree of financial integration, the smaller should be the differential, since arbitrageurs would transfer funds between centres whenever the opportunity for profits arose.

Figure 1 shows the monthly deviation of the three month Treasury bill rate in Barbados and Trinidad, from the corresponding US Treasury bill rate, adjusted for changes in the exchange rate, in the case of Trinidad. In the case of Barbados, which maintained an unchanged exchange rate over the period, the differential, except for 1992, fluctuated between two and five percentage points. The differential in Trinidad was also stable over the period. In 1991 and 1992, it was in the range of two to six percentage points. The sharp negative differential in the first three months of 1993, reflected the impact of the depreciation in the exchange rate arising from the move to a floating exchange rate regime, on the realised US Treasury bill rate. The overall relative stability of the differential in both countries, suggest that the yields were set with a view to maintaining a stable

Figure 1.

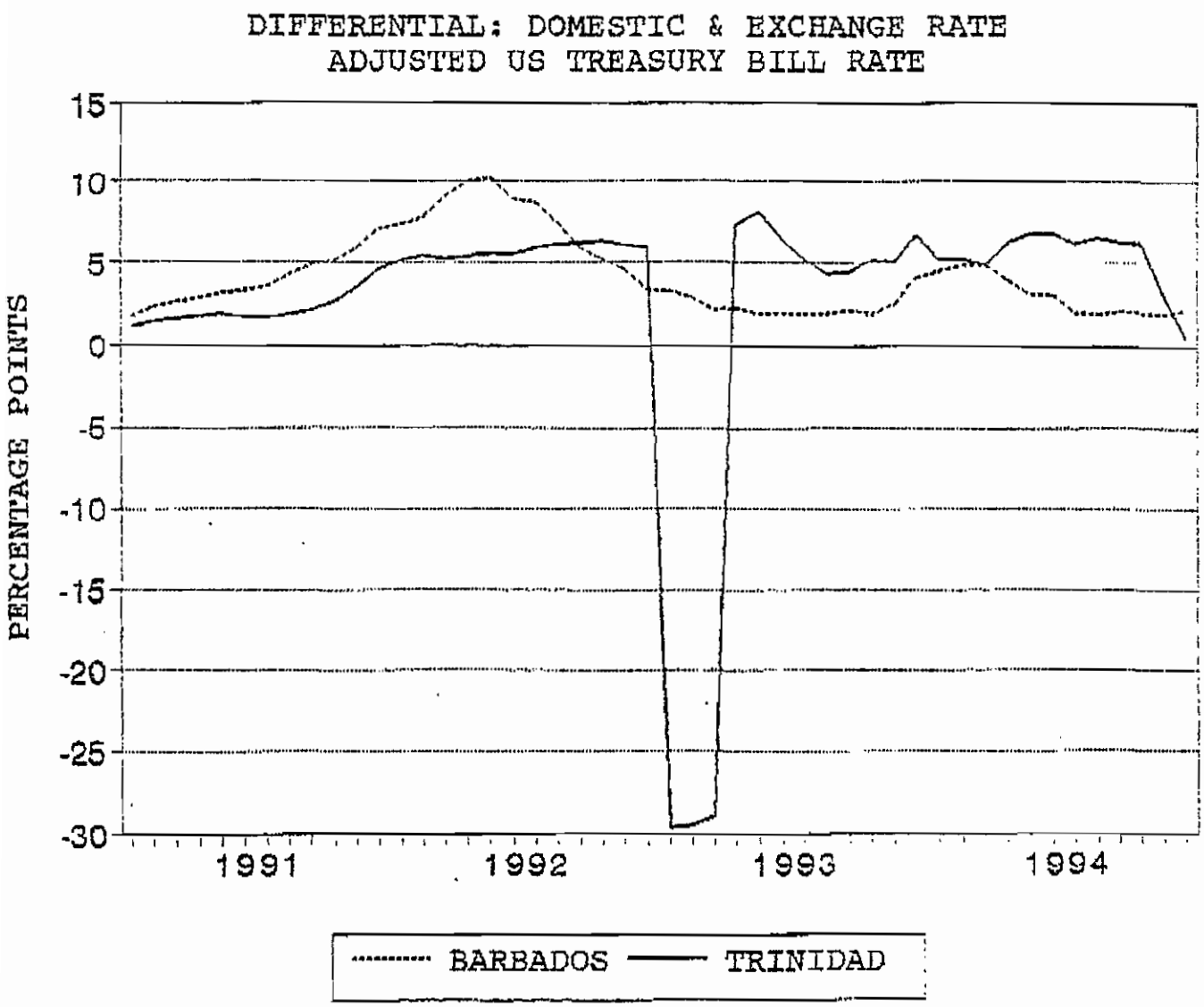
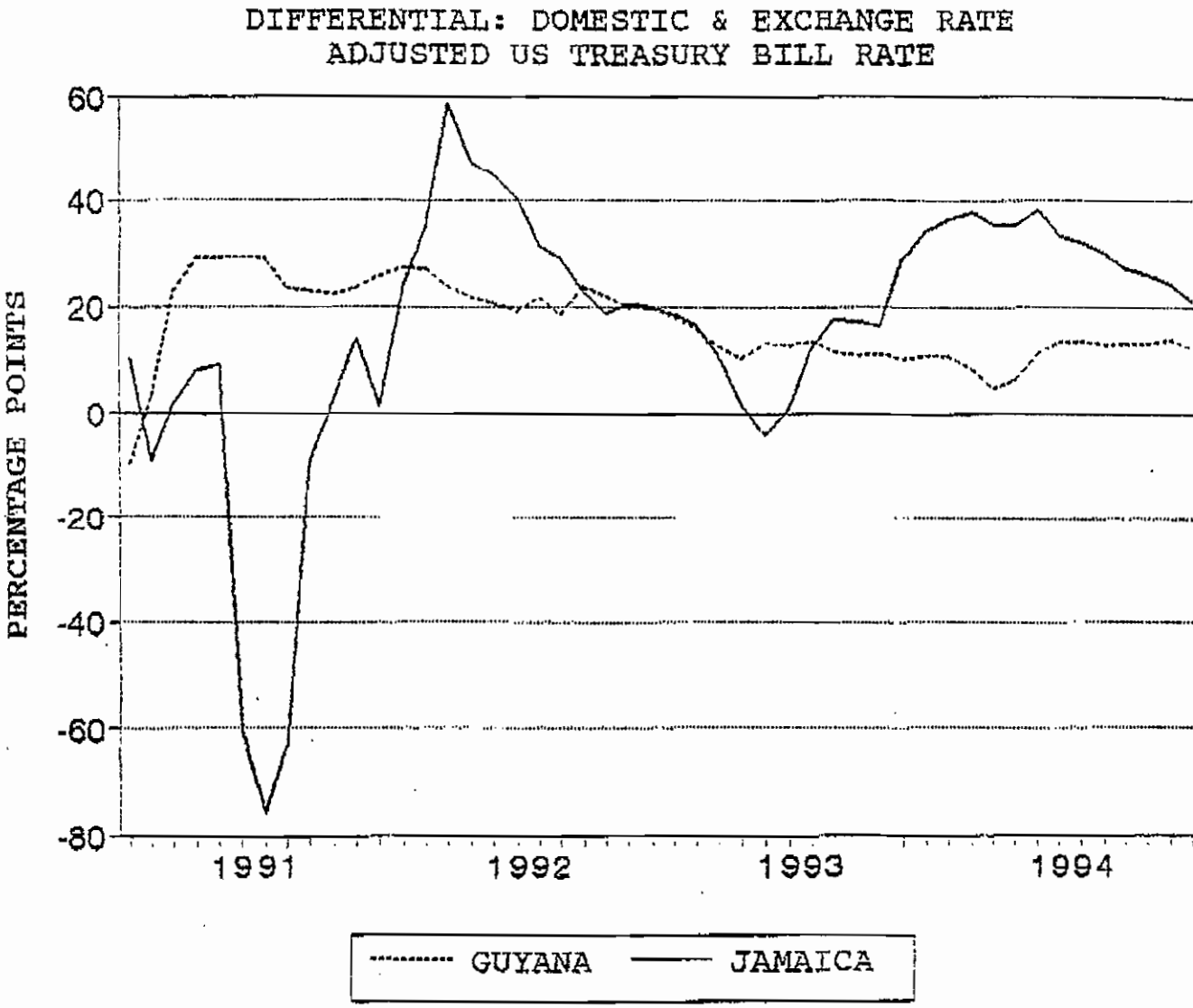

DIFFERENTIAL: DOMESTIC & EXCHANGE RATE
ADJUSTED US TREASURY BILL RATE
PERCENTAGE POINTS
15
10
5
0
-5
-10
-15
-20
-25
-30
1991
1992
1993
1994
BARBADOS
TRINIDAD

Figure 2.


DIFFERENTIAL: DOMESTIC & EXCHANGE RATE
ADJUSTED US TREASURY BILL RATE
PERCENTAGE POINTS
60
40
20
0
-20
-40
-60
-80
1991
1992
1993
1994
GUYANA
JAMAICA

relationship with respect to rates in the United States.

The differentials, as shown in Figure 2, were much larger for Guyana and Jamaica. In Guyana, the differential remained fairly stable over the period. There was, however, a significant narrowing of the differential in 1993 and 1994. In 1992 and 1993, the differential remained in the 20 to 30 percentage point range. In the later period, it remained for the most part, in the 12 to 15 percentage point range. Although the relative stability of the differential might suggest a limited degree of international financial integration, the narrowing of the differential in the last two years, might be indicative of a trend towards greater integration.

In Jamaica, not only were the differentials large, but it was also the country in which the largest month to month variation in differentials occurred. The monthly deviations followed a fairly consistent cyclical pattern. The negative differentials in the last quarter of 1991, were in large part due to the decision taken to liberalize the foreign exchange market in the face of a weakening in the country's balance of payments position. The subsequent large depreciation in the exchange rate, caused the exchange rate adjusted US Treasury bill rate to exceed the domestic rate. The large positive differential in the first quarter of 1992, was a reflection of the impact on the foreign interest rate of the revaluation of the dollar in the second quarter. The sharp depreciation of the exchange rate, which occurred over the last half of 1993, once again caused the exchange rate adjusted US Treasury bill rate to rise, relative to the domestic rate. However, this trend was quickly reversed, when there was sharp increase in interest rates to deal with the deterioration in the international payments position of the country. The Treasury bill rate rose from 23.5 percent in July, to 33.6 percent in August. The rate rose steadily over the succeeding months, peaking at 42.7 percent in May 1994.

The ratio of the differential to the exchange rate adjusted foreign interest rate

might also be used as an indicator of how far the domestic rate deviated from what would have been observed under strong financial integration. In Table 3, estimates of the mean absolute monthly differential and the ratio of the mean differential to the mean exchange adjusted US Treasury bill rate are provided.

The ratio of the mean absolute differential to the exchange rate adjusted US three month Treasury bill rate for the entire period is reported in the third column of the table.

Table 3
Interest Differentials

	Mean Absolute Differential	Mean Adj. US T.Bill Rate	Ratio of Mean Absolute Differential/ Mean Adjusted US Treasury Bill Rate		
			J'91 - D'94	J'91 - D'92	J'93 - D94
Barbados	4.19	4.04	1.04	1.28	0.74
Guyana	16.70	6.20	2.70	3.10	2.20
Jamaica	16.03	15.02	1.07	0.44	2.50
Trinidad	2.60	6.48	0.40	0.90	0.14

Over the four year period, Trinidad recorded the lowest ratio. To place these values, which ranged from 0.4 to 2.7, in perspective, one can compare them with the estimates derived by Montiel for 48 developing countries for a period from January 1985 to December, 1990. Only Colombia, Costa Rica and Uruguay, had lower ratios than Trinidad. In addition, the ratios for Barbados and Jamaica fell within the mid range for the 39 non CFA countries(Montiel 1994, pp. 336 - 337).

The last two columns of the table provide estimates of the deviations for the first and second half of the period. In the case of Barbados, Guyana and Trinidad, there were significant reductions in the ratio in the second half of the period. This would suggest a trend towards greater integration. The widening of the Jamaican differential should not be interpreted as a lessening in the degree of financial

integration. Rather, it might be linked to the necessity of offering a higher interest premium, to offset the expectation of a substantial depreciation in currency values. The sharp depreciation in the exchange rate, immediately following the liberalization of the foreign exchange market and the limited success of the revaluation effort of 1992, all contributed to a heightened expectation of further depreciation in the exchange rate.

Implications for CARICOM

In this section we turn to a consideration of the implications of high capital mobility for CARICOM countries. These countries have not been major recipients of inflows of capital during this period of enhanced flows to developing countries. These flows were highly concentrated. In 1993, for example, over 80 percent of the portfolio flows through bonds to Latin America, were directed to Argentina, Brazil and Mexico. Over 75 percent of the equity flows going to Latin America in that year went to Argentina and Mexico. There was a similar high degree of concentration in the flows to Asia, with China, Korea and Thailand, being the principal recipients(Claessens and Gooptu, 1994).

Given the high degree of capital mobility, the issue arises as to what are the types of policy initiatives, which might enable a country to attract and retain capital. In countries, such as Mexico and Argentina, such flows were facilitated by initiatives like the privatization of public sector entities and debt conversion schemes. Of possible greater importance, were those initiatives perceived as creating an environment favourable to private investors. These included, reforms to the tax system, the reduction of trade restrictions and deregulation of the economy. These were for the purpose of effecting structural reforms, which were aimed at improving supply conditions and liberalizing financial markets. In addition, steps taken to reduce the debt/ GDP ratio, combined with a nominal

depreciation in the exchange rate, contributed to a significant improvement in the international competitiveness of these economies(Schadler et al; 1993)

The governments of all CARICOM countries, now subscribe to the types of policy initiatives pursued by those countries, which have been successful in attracting substantial capital inflows. Attention is also being directed towards what can be done to address the structural weaknesses in regional capital markets, to facilitate more portfolio capital flows. However, the dominance of closely held family owned businesses, in the respective economies, limits the volume of tradable securities, which would be of interest to foreign investors. Consequently, there is little likelihood of a major infusion of portfolio capital in the near future. One area in which foreign exchange and financial market liberalization might have some impact in the short term, is on the repatriation of flight capital. The remarkable growth in foreign currency deposits in the Jamaican banking system, following the steps taken to liberalize the foreign exchange market in 1991, would seem to lend support to this notion.

The question arises, as to whether particular emphasis should be placed on trying to attract more portfolio inflows. This is related to the widely held view, that such flows are easily reversible and hence likely to be more volatile than, for example, direct investment flows. The substantial portfolio outflows from Mexico in the first quarter of 1995, following the devaluation of the peso and the spill over effects on other hemispheric financial and currency markets, highlights the problems arising from the short term reversibility of this type of investment. However, the findings of a recent study, has challenged the widely accepted notion, that one can necessarily draw any conclusions with respect to the volatility of different capital flows(Claessens, Dooley and Warner,1995). The authors estimated means, standard deviations and coefficients of variation, for various

kinds of capital flows, broken down by type, for a sample of five industrial countries (France, Germany, Japan, United Kingdom, United States) and five developing countries (Argentina, Brazil, Indonesia, Korea, Mexico), from the mid seventies to 1992. They found that there was no systematic pattern in volatility, as measured by the coefficient of variation of various types of flows across countries. In three of the five developing countries, Argentina, Indonesia and Korea, foreign direct investment had a substantially higher coefficient of variation, than portfolio investment. There was, however, a significant degree of variability in capital flows for all of the countries.

There are potential destabilizing consequences arising from variations in capital flows, irrespective of whether such variability is associated with direct or portfolio investment. An increase in inflows, will under normal circumstances be associated with the emergence or widening of the deficit on current account. If this deficit, is in large measure a reflection of an increase in consumption, as opposed to investment expenditure, the deficit will not be sustainable. Furthermore, the monetary consequences of the inflow, in the absence of sterilization initiatives, could lead to higher rates of inflation and an appreciation in the real exchange rate. Countries, such as Chile and Colombia, when faced with a surge in capital inflows, have found it necessary to introduce measures designed to dampen the inflows. These have included such initiatives as changes in withholding taxes on interest payments to non residents. In addition, there were changes in reserve requirements designed to make it less attractive for banks to compete for non resident deposits.

Given that portfolio flows are likely to be inconsequential for the foreseeable future, emphasis will have to be placed on devising and implementing policies, which are likely to be successful in attracting and retaining foreign direct investment. A country's success in attracting such investment, will be determined by its

international cost competitiveness. In addition, investors' decisions will be influenced by the access to markets provided by a particular location. The former will be determined by the quality of government conduct of economic policy. Specifically, this will require a concerted effort to limit the size of the fiscal deficit. Success in this regard, will make it easier for the Central Bank to pursue a non inflationary monetary policy. This in turn will reduce the frequency of balance of payments crises and exchange rate misalignment.

The issue of market access will be, by and large, beyond the control of governments. External developments, such as the pace of advance towards trade liberalization on a global basis, as well as progress towards the establishment of a hemispheric free trade area, will be the ultimate determinants of the situation for CARICOM countries in this regard.

Conclusions:

The increase in capital mobility and in particular, the increased interest on the part of international investors in investing in developing countries creates an opportunity for CARICOM countries to attract a greater share of international capital flows. This would make a positive contribution to the countries, in that it would help to ease the balance of payments constraint, lower interest rates and stimulate investment and growth.

The increased integration of capital markets and the fact that investment decisions by firms are now frequently based on global considerations, has contributed to a high degree of volatility in investment flows. This volatility imposes severe constraints on governments in their conduct of economic policy. Investment flows will be attracted to countries where investors perceive the investment climate to be attractive. In order for their countries to be perceived as attractive locations, governments in the region will, at a minimum, have to pursue policies

geared to the liberalization of commercial and financial markets. Moreover, as the capital flight from Mexico in the first quarter of 1995 illustrated, governments have to be concerned with investor perception of the credibility of policies being pursued. A perception of credibility is likely to be enhanced, when policies are seen to be working in a consistent manner to control and reduce the fiscal and current account deficit, inflation rates and the stabilization of the real exchange rate.

The external constraints on government policy do not represent a new development for CARICOM countries. As small open economies, they could never isolate themselves from global developments. The increase in capital mobility, in recent years, can be thought of as intensifying the nature of the external constraint, to which they have always been subject.

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