

*“Capital Account Liberalisation
and Exchange Rate Regimes –
Options for the Small Open
Economy.”*

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CAPITAL ACCOUNT LIBERALIZATION IN A CRISIS FREE ENVIRONMENT: CONSIDERATIONS FOR THE SMALL OPEN ECONOMY

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Abstract

This paper looks at issues related to the liberalization of the capital account, in the context of a small open economy such as The Bahamas. We consider some of the important economic goals that would be advanced from a further opening up of the economy to short and long-term capital flows, and the importance within more liberalized settings, to consider introducing more binding policy commitments to support of the stability of the exchange rate regime and sustainable balance of payments trends. The most binding of such commitments would be the unilateral adoption of a dominant international currency, even if this occurs outside of an optimal currency arrangement. It is argued that such currency prescriptions have relevance, notwithstanding the benefits from a single regional currency.

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November 2002

INTRODUCTION

This paper looks at issues related to the liberalization of the capital account, in the context of a small open economy such as The Bahamas. For our purposes, we define liberalization as a relaxation of the rules that govern the ability of residents either to make investments or to raise capital outside of the domestic economy, and the ability of non-residents to undertake similar transactions within the domestic economy. The Bahamas has selectively managed and channeled foreign direct investments into export generating activities that have facilitated more than three decades of economic growth and rising per-capita incomes. It has also done so without any serious threat to the fixed exchange rate which has remained at parity with the United States dollar, since the collapse of the Bretton Woods System. The fixed exchange rate regime and the controls that have been used to manage the system have therefore served the country well.

Nevertheless, both the domestic and international environments have changed significantly since 1973, when The Bahamas gained its independence from Britain. Globally, economies have become more integrated, with both short-term and long-term capital permitted to move more freely across borders. Moreover, with the staggering innovations that have occurred in financial markets, static regulations that govern financial flows have become increasingly less effective and costlier to enforce.

Internally, the Bahamas is now faced with the challenge of promoting higher levels of domestic savings, and in converting a greater share of existing savings into investments, both to ensure continued growth in the economy and to supplement resources provided from foreign investments. The pace at which advances can be made in these areas however, depends on the depth and level of development within domestic financial markets, and the issue therefore overlaps with policies that are targeted at the capital account and short-term flows in particular.

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Externally, The Bahamas is now voluntarily engaged in the two most important economic integration processes, the Free Trade Areas of the America (FTAA) and the World Trade Organization (WTO). As far as the access to and the provision of services are concerned, these liberalization initiatives are likely to impose long-term obligations that affect financial sector activities and would also therefore require a serious examination of many existing capital controls. There is therefore ample motivation for the economy to begin to study how further liberalization of the capital account can be approached, and the extent to which tradeoffs might be necessary in the structure of the exchange rate regime to accommodate this process.

However, from an optimality standpoint, both theory and the current structure of exchange rate arrangements among countries, lean more in favour of maintaining fixed exchange rates for smaller economies. Given this result, and the simultaneous desire of economies to have more liberal capital account regimes, then the regime credibility upon which such capital flows, (particularly short-term) depend, should enhance as opposed to weaken guarantees, implicit or otherwise, about the stability of the exchange rate. Such guarantees would entail movement in the direction of currency board arrangements, common currency area, and ultimately the unilateral adoption of a dominant outside currency like the dollar or euro. As is discussed later in this paper, we believe that liberalization pushes The Bahamas in the direction of the final option.

The core of this paper considers the economic and policy implications of such regime shifts, and argues that for sustainability, they reinforce as oppose to weaken, the level of discipline that has to be reflected in macroeconomic trends and policies. Section I of the paper explores some of the important economic rationales for liberalization. Although the issue is left open as to the extent to which regional economies should liberalize, the conclusion is nevertheless that a more relaxed posture could provide increased national benefits. Section II extends this analysis by making a distinction between the economic versus credibility issues that might influence move towards more binding exchange rate arrangements. In this case, the contrast is respectively drawn between choices made on the basis of optimal currency area theory versus common justifications advanced by contemporary advocates of dollarization. Although it turns out that within the Americas countries most suited for the unilateral adoption of the US

currency are those that have the least current basis for doing so on dollarization grounds, the latter motive does become more valid once the possibility of greater liberalization is admitted.

However it is difficult to readily quantify the adjustment costs that might permit a non-crisis country to make a binding commitment to a dominant international currency, where the tradeoff is between adjustments in macro-economic fundamentals and the conversion rate at which the national currency is to be extinguished. The implications of this and related issues are analyzed in Section III, where we sketch out a framework for cost analysis. The paper concludes in Section IV with some ideas on future research.

SECTION I: WHY LIBERALIZE?

The Benefits of liberalization

A review of the experience of Caribbean economies that pursued liberalization (of short-term flows in particular) shows that in none of the three familiar cases was the decision taken voluntarily, or in the context of a crisis-free environment.¹ Instead, liberalization and free floating of the exchange rates were important ingredients in IMF sponsored adjustment programs. Moreover, the extremity of the processes underscored the significance of the macroeconomic imbalances that had to be corrected and the short time frame in which they had to be done. Yet there are examples like Barbados, which also involved the IMF, but for which the exchange rate regime and most controls survived intact, because the macro-economic imbalances were less severe. For the majority of countries that are participating in the single currency initiative, such difficulties are also not an issue. The question then, is whether capital account liberalization is desirable and to what extent.

As far as long-term investments, which add to the productive capacities of economies are concerned, having access to foreign investment can allow an economy to achieve a higher level of output and income than would be possible if the dependence were confined to national

¹ A recent summary of the Caribbean Experience is found in Worrel et al (2000).

savings. Optimality should also apply in the converse situation. That is, from an outward looking perspective, when an economy's equilibrium level of investments fall short of its desired savings rate, the outcome should permit the excess savings to be invested externally. The Caribbean and developing economies invariably fall into the first category, drawing on foreign direct investment to supplement domestic savings.

Portfolio or short-term capital flows have been viewed with less enthusiasm than direct investments, because of the speculative risks that they pose for regional economies. Nevertheless, these are precisely the kinds of flows that are needed to assist with the development of regional capital markets. In particular, the issue of efficient allocation of domestic resources, which touches upon prices and whether an optimal share of savings that are concentrated within the banking sector are channeled into productive (business) activities, underlines the importance of having well functioning capital markets. This would assign a greater role to non-bank intermediaries in channeling domestic resources.

Many of the initiatives that would add to the depth of capital markets and hence their efficiency relate to the number and diversity of products and instruments available. Regional prescriptions (IABD 1995, & 1998) have therefore emphasized the importance of using public sector debt to increase the diversity of tradable market instruments, and of pursuing the privatization of state enterprises to achieve a broader investor base that could participate in the capital markets. However, going further, the private sector has perhaps the greater role to play in the creation of instruments.

As can be seen from Table 1, regardless of the approach that might be taken, The Bahamas, in the first instance, has scope for further liberalization of long-term transactions, as regards for example, the access of domestic private agents to foreign debt. On one level, this is not to suggest any deviations from criteria that might limit the use of external funding to activities that generate net foreign currency savings. Instead, it just points out that in the absence of this access to foreign capital, indigenous ventures remain restricted to strictly domestic debt sources, mostly concentrated in the banking sector. Yet, in the Bahamian experience, as elsewhere in the region, the banking sector is more justified in maintaining a bias towards personal lending, on the basis of profitability and the greater ease of managing the credit risk

exposure (see Clarke and Danns, •). This is typical of the reasons why consideration should be given to increased liberalization of this aspect of capital flows.

Non-Discriminatory Treatment of "Local" and "Foreign-Local" Investors

Unanswered up to this point is whether the approach to liberalization should discriminate between the treatment of investments made by natural residents and those undertaken by foreign interests which may be treated as "*resident for exchange control purposes*."² For various reasons the answer would seem to be no. That is, in terms of long-term flows, regional economies should permit domestic interests to have a similar direct access to foreign capital as would obtain for the funding of direct investments owned by foreign interests. To do otherwise would assume that one category of investments either poses greater risks, or costs, in the measures needed to establish policy credibility, in the aggregate ability of economies to attract FDI. What could result instead—and this is an area for future research—is a sub-optimal level of FDI, if one accepts that within certain sectors, domestic principals would have a superior knowledge of the markets and therefore undertake to attract risk capital for ventures that might be overlooked by the inward looking foreign investors.

In the case of portfolio transactions, another advantage of non-discriminatory treatment of flows, is that the exposure of the capital account to volatile flows would occur more on a net basis, given some offsetting level of domestic claims against the rest of the world. To the extent that this offsetting occurs, taking a net approach to the portfolio exposure issue would also minimize the impact on foreign reserves balances at the outset of liberalization³. A more interesting issue, which also hints at possible gains from a level treatment of local and foreign agents, is the extent to which limited portfolio diversification opportunities could constrain the outcome for domestic savings and therefore the long-term outcome for national incomes. This would be the case where greater uncertainty over the returns from a less diversified portfolio also reduces the resulting allocation of savings at the household level. Liberalization should,

² This is the terminology that is used in The Bahamas.

³ Although the Bahamian economy is highly dollarized in prices, nearly all of the domestic liabilities of the banking sector are in local currency. A concern if portfolio liberalization occurs is that the deposit holders might seek to convert these into foreign currency denominated assets at a faster rate that the financial system can sustain.

therefore, promote increased domestic savings. The region is already plagued by low savings ratios compared to much of Asia (IADB, 1995).

Nevertheless, the pricing and allocative efficiency of capital markets depends on the liquidity that exist in them, in terms of the frequency and volume of trading. This determines the marginal cost of capital for enterprises, and it is the standard by which markets should be judged. The limitation for regional capital markets is that, in the numbers that could obtain, local market participants may not be able to achieve these pricing outcomes. Other than numbers, another reason for this in the case of regimes such as The Bahamas is that capital controls effectively constrain the available portfolio of investments to the smaller domestic subset. More limited opportunities for portfolio reallocations therefore also limit the scope for market turnover and effective liquidity upon which the marginal pricing of capital is based. Liberalizing portfolio flows can therefore increase the number of participants and stimulate increase turnover. Considering a reciprocal treatment of both inward and outward flows can also motivate increases market turnover among domestic investors, given portfolio balancing activities that would encompass a larger pool of domestic and foreign securities, and domestic and foreign participants. This ability to achieve greater portfolio risk diversification on a micro-level can also act as an inducement to increased domestic savings.

Current Scope for Liberalization

As to the current regime and scope for liberalization, The Bahamas has a very liberal regime for inward flows. However, very rigid parameters govern outward flows, one of which is the 25 percent premium charged on purchases foreign currency to finance investments. In terms of the contracting parties, rules also govern inward flows. The evidence from selected regional countries indicate that although not always identical, qualified treatment also applies in the counterparties to foreign investment flows.

Table 2 gives a synopsis of exchange control regimes governing capital flows in 14 Caricom countries, based on the IMF's 2001 ARREARS report. If the Bahamas is any indication, the complete picture that could be developed from this information would also show how the administration of capital controls in most economies favour inward direct (long-term) investments over other flows and allow these to be directed mostly to export earning sectors, governed by national investment policies. As a practice policies also severely limit or prohibit

the access of local enterprises to international capital or debt. The public sector inevitably enjoys the greatest access to long term foreign capital, and in most countries amass the only significant amount of foreign liabilities, outside of those accumulated by foreign investors.

What is clear, nevertheless, is that the most liberal capital regimes are within the three economies with flexible exchange rates (Jamaica, Trinidad & Tobago and Guyana). The limited comparisons that are possible amongst the others suggests that, when compared to the policies in The Bahamas and Belize, up to a threshold level ECCB countries give their nationals more flexible access to portfolio facilities. The Bahamas nevertheless seems to be more flexible in allowing the repatriation of income and the amortization of debt for approved investments, when measured against the number of countries that impose quantitative restrictions. Such restrictions, as Benett (1996) points, out detract from what might appear otherwise as more open regimes.

Compatibility of Exchange Rate Regime

Up to this point we have underscored the benefits that can be derived from liberalizing both short and long term capital flows. In particular, having access to increased foreign direct investments for growth and development and the deepening of financial markets to improve the efficiency of resources allocation within an economy. We also suggest that regardless of whether policy makers decide to concentrate on both short and long-term capital, adopting a non-discriminatory reciprocal approach to the process would seem to be more optimal than having an uneven focus on either inward flows or on activities undertaken by non-nationals. This is to recognize the fact that the level of total domestic savings and investment also depends on the risk diversification opportunities available to nationals, and the fact that nationals might have superior knowledge of domestic markets that could give rise to a higher equilibrium level of investments (funded from outside means) than if only non-nationals had access to such external resources. However, it is true though, that liberalization increases the exposure to external risks, and economies therefore have to devise mechanism to effectively manage those risks. Binding commitments that support stable currencies help to counter such risks.

SECTION II:

STABILITY AND CREDIBILITY FROM THE CHOICE OF EXCHANGE REGIME

Having laid out a case for liberalization one has to make the connection between the optimal exchange rate regime that should exist to accomplish this. First it should be noted that liberalization does pose moral hazard and negative externality issues, given the potential in stable economies for foreign lenders to overextend credit to domestic agents. The tradeoff for policy is that although an economy might increase its aggregate access to capital, over borrowing can set the stage for unsustainable balance of trends. It is nevertheless, easier to manage these risk in comparison to those presented by short-term exposures, which can pose immediate liquidity and exchange rate risks, putting entire financial systems at risks.

The pursuit, of short-term liberalization in particular, therefore requires that countries devise proper mechanisms to promote financial markets stability. Whether supported by hard currency reserves or left to the forces of the market, the evolution of the exchange rate regime inevitably reflects the state of stability in financial markets. Policies which promote stability in these trends therefore serve economies best.

Although liberalization is most commonly associated with having flexible exchange rates, there are well-documented examples from Asia and Latin America where flows were unfettered even under conditions of fixed exchange rates. These systems were stable until beset by crises. In the extreme some countries have had to resort to and still maintain floating exchange rates. With its narrow services export base, and the bulk of consumption linked to imports a flexible exchange rate would not serve any use for The Bahamas, because the economic concept of smallness applies in both markets. In other words, the exchange rate is unlikely to function as an effective tool in influencing sustainable balance of payments trends.⁴ However, the economy would still be faced with the prospects of managing its exposure to short-term flows in a fashion that does not undermine the stability of the financial sector. Regardless of the situation, stability to a great extent hinges on market perceptions about the long-term

⁴ A good account of the challenges facing Caribbean economies in this regard is found in Desmond Thomas' (•)

sustainability of macroeconomic policies, and the ability of policy makers to establish credibility in this regard.

Policy Credibility versus Optimal Currency Areas Motives

Two approaches to credibility in order of increasing level of binding are to establish a currency board or to pursue dollarization. Proponents of dollarization view it as the most credible way to achieve stability and growth in the crises plagued economies of the Western Hemisphere, where monetary and fiscal indiscipline have been at the root of financial sector hardships, and price and exchange rate instability.⁵ It is true that this is the most extreme approach to achieving exchange rate stability, and hence minimizing the effects of currency movements on prices, with the alternative being the currency board. Currency boards establish more credibility than 'plain' fixed rate system because they remove all discretion in the ability of central banks print money. However, for proponents of full dollarization the currency board still poses credibility risks because it is easier to reverse, as long as the domestic currency continues to exist.

Similar to a currency board, one of the perceived benefits from dollarization is that it should lower exchange and default risks associated with external borrowing, and therefore cheapen the cost of external debt⁶—which would certainly be an attractive feature for heavily indebted countries. As another benefit for economies making the transition to a more stable environment, the reduced uncertainty could also be more conducive to domestic and foreign investments, and thus it is expected that a fully dollarized economy's growth prospects would improve.

Whether the conditions that justify the adoption of an outside currency are endogenous or exogenous, the optimum currency area theory stresses structural similarities—such as in real economic trends, inflation and in the disposition of monetary and fiscal policies—and the level

⁵ This section summarizes many of the ideas contained in Berg and Borenstein (2001).

⁶ Hernandez-Arias and Hausman (1999) findings in respect of Panama seem to bear this out.

of integration between markets and economies as the justification for adopting a single currency⁷.

As within individual countries, mechanisms must also exist within common currency areas to facilitate efficient adjustments between economically disparate regions. In this case, as the European Union model also illustrates, the unfettered mobility of labour provides one such flexible mechanism. Ultimately however, regional disparities, whether permanent or temporal in nature, would also require coordinated fiscal resources transfers between regions.

Significance of the FTAA

Because they promote greater economic interdependencies and therefore a stronger correlation of economic trends, trade integration agreements such as the FTAA strengthen the theoretical justifications for establishing common currency areas. The resulting deepening of regional interdependencies from diversions⁸ would also correspond to more specialization of economic activities at the national level according their respective competitive advantages. Taken together, these findings suggest that as a result of the FTAA, the economic cycles of countries within the Hemisphere should become more synchronized, lessening the need for, or the significance of, exchange rate base price adjustment mechanisms within the bloc, and strengthening the effectiveness of coordinated exchange rate adjustments vis-à-vis the rest of the world. However, the agreement's effectiveness in creating more optimal conditions for a common currency would only be enhanced in direct proportion to the degree of labour mobility achieved, as this is an important substitute for other adjustment mechanisms including exchange rates. Viewed in the context of the dollarization debate, it is clear therefore that, the main motivations for the dollarization policies that are being prescribed for the Western Hemisphere differ from those founded in the common currency area pursuits.

⁷ See Krugman and Obstfeld (1994), Chapter 21.

⁸ Patterns of trade diversion are well documented by the *WTO*, in the long-run trends of more accelerated growth in intra-regional trade (among *WTO* members and within sub regional arrangements such as those in Americas) than in aggregate global trade, for both goods and services (See *WTO,2000 Report*).

Costs considerations

Recognizing the benefits that could proceed from liberalization, it is important to weigh the significant of the cost that result for economies, as embodied for instance in the extreme of dollarization example. At the outset, a central bank would be expected to have at least sufficient resources either in terms of access to credit or foreign currency reserves to cover the replacement of the domestic currency in circulation. Otherwise, devaluation would have to occur. In the case of The Bahamas, moving from a situation of capital controls, where foreign currency deposits represent less than 3.0% of the financial system's domestic liabilities and capital controls still exist, this cost might also have to make extra allowance for portfolio adjustments by residents. This would take account of any existing portfolio imbalances, and whether, in offset to domestic outflows, replacement inflows are attracted from foreign portfolio investors.

While the conversion costs occur only once, a country also loses its ability to earn seignorage, of which the most important component for The Bahamas would be the income earned from external reserves.⁹ Real transfers of money balances as a result of inflation, which is the second component, would be less significant, because the inflation has been historically low for The Bahamas. Nevertheless, whether any of these are significant has to be determined in the dynamic long-term context of economic trends, relative to the gains that the economy might attract from liberalization.

Often cited as a more significant long-term concern is the loss of monetary policy independence, from not having either a unique currency, or adhering to a fixed exchange rate in the case of a currency board. However, such independence is largely imagined, founded in the Bahamas for example only because of use of exchange controls. There is also evidence that the practical importance of independence has been over overstated, particularly in the case of developing countries with of flexible exchanges, which have instead pursued procyclical

⁹ This is a departure from the standard definition of Seignorage, the real increase in the money supply (money base). However, money base creation in the Bahamas is directly connected with the foreign currency flows to the Central Bank by virtue of narrow net foreign currency exposure that commercial banks are to allowed to maintained. In the first round seignorage is created from increases in the base and it is sustained, secondly, because of earnings from the investment of the foreign currency reserves. This second round treatment recognizes the captive nature of the domestic foreign currency market, given exchange controls and the non-convertibility of the domestic currency.

monetary policies. In particular, Hausman et al (1999) showed that the developing countries with flexible exchange rates, including those in Latin America, had to maintain higher domestic real interest rates, in comparison to fixed rate regimes. While lower interest rates may have seemed plausible as a way to promote growth, the policies had to focus instead on maintaining credibility, to minimize the effects of potential exchange rate volatility on the real purchasing power of domestic incomes and wealth. This policy approach however, was effective in many European economies, which managed to reduce real interest rates and depreciate their exchange rates to stimulate growth.

Identifying the level of exchange rate pass through in domestic prices is another way of evaluating the importance policy independence. For depressed economies with balance of payments difficulties, the optimal monetary policy response could be to depreciate the exchange rate, increasing the relative price of net imports. However, to be effective, the induced price change would have to be sustainable long enough to curb net import demand. In a situation where domestic prices are highly correlated with foreign prices, as would be the case for countries with sizeable foreign (import) content in consumption, investments and exports, a depreciation in the exchange rate would have little sustaining effect on relative prices. A good measure of these so called "pass through" effects, which limits the efficacy of the exchange rate as a balance of payment policy tool is how rapidly domestic and export prices adjust after a depreciation. As such effects increase, the forcefulness of the policy independence argument weakens, and countries instead appear as more suitable candidates for aligning their currency with another, either through a fixed exchange rate or dollarization.

Low levels of exchange rate pass through would imply greater structural differences between the domestic and major trading partners. However, this alone would not raise concerns about policy inflexibility, provided the timing in the need for macro-economic adjustments were similar. For example, as an economy highly dependent on the United States for tourism and other trade, The Bahamas already enjoys close structural linkages with the US. However, for economies that are more internally driven, as is the case for many in Latin America, the economic cycles are not as closely matched and therefore policy inflexibility would be a more legitimate long-term concern. This also brings out some of the invalidity would be a more establishing a common currency area with the US, short of obtaining convergence among key

macro-economic trends. Political preconditions also have to be met, most notably the institution of fiscal federalism between sovereign hemispheric states and the US; and commitment on the coordination of monetary and fiscal policies.

Some statistical comparisons

Ignoring the issue of fiscal federalism, we now consider the issue of whether, in comparison to The Bahamas, full dollarization is more timely for some countries than others. We consider some comparisons from a subset of countries from the Caribbean, the Americas and Asia. The data, covering the period 1991-2000, was drawn from the official website of the IDB, and the IMF's International Financial Statistics.

Examination of GDP growth and US\$ equivalent price level trends since 1990 (see Table 4) reveal significantly high positive correlations against the US for The Bahamas, Barbados and Canada. Even for countries that experienced negative correlation, including Jamaica, these were less than 40% in absolute terms. Chart 1 shows how tight this relationship was for the highly correlated set; and surprisingly that, with the exception of Jamaica, countries whose growth rates were negatively correlated with the US were in fact growing at the fastest pace. Nevertheless, all correlations appear closer for the second half of the decade.

Suggesting a high amount of exchange rate pass through, correlations against the US in the index of exchange rate adjusted/US dollar equivalent consumer prices was positive for all the sampled countries, except Canada. While it would appear that The Bahamas and Barbados led this group because they maintained fixed exchange rates, the results also suggest significant homogeneity in consumption with the US. The fact that Jamaica and all of the other floating exchange rate countries sampled from Latin America countries had high correlations (only Mexico was less than 50%), also points to significant pass through effects. Indeed, Chart 2 shows that the respective price levels in these economies recovered rather swiftly from the sudden drops which followed major currency devaluations. However, the considerable dispersion in most of these indices from the US, underscore extreme price volatility and elevated inflation that most of these countries experienced. As regard cumulative inflation, the price level

in the three more stable, centre countries (US, Bahamas, Barbados¹⁰) rose only by about a third over the decade, while those in Jamaica and Mexico averaged about four-fifths more and Peru's was 100 times higher (not shown). These price level differences would have to reflect important structural differences in the composition of domestic consumption between the countries and the US.

The GDP/M1 ratio is a proxy for the velocity of money (Chart 3). All other factors considered, a larger velocity measure signals more reluctance on the part of the population to hold money, and therefore a necessarily higher currency turnover to purchase the GDP. Price and exchange rate uncertainties would justify such fear. Money velocity for The Bahamas lied within the mid to lower range of the countries sampled. Nevertheless, consistent with the declining and converging expectations about inflation, velocity was also declining and converging in most of the countries sampled.

Compared to Latin America and the Caribbean (LAC), external debt to GDP ratio was consistently the lowest for The Bahamas, decreasing to less than 10% in the second half of the decade (Chart 4). One could infer from this that The Bahamas has the least to gain from cheapening the cost of its debt. For Jamaica, Peru and Chile the ratio has been above 40% on average, although Jamaica's has declined by more than half since its peak in 1992. The ratio of domestic credit to GDP is also a relative measure of the health of the financial sector, and confidence (Chart 5). Only the Latin American and Caribbean subset of countries are represented for this variable, which consistently places higher within those countries with the more stable financial sector indicators including The Bahamas.

The Bahamas experienced external reserves growth along with all of the other countries (US not sampled) but, like Canada, did not meaningfully join this process until during the second half of the decade (Chart 6). Given that the corresponding trend is not as divergent in the measures of reserve coverage relative to the monetary aggregates, some of the reserves accumulation would appear to be linked therefore to money supply growth in the respective countries. In terms of foreign reserve coverage to the domestic currency and other central bank

¹⁰ The two Asian countries were also in this group at the end of the decade, although this appears to have been the result of significant exchange rate depreciation, which occurred during 1996-1998. It is therefore not clear whether this positioning is just temporary.

demand liabilities (the money base). The Bahamas was grouped among the majority of countries with an average ratio of less than 100 percent (Chart 7). The coverage only exceeded 100% at the ends of 1998 and 1999¹¹.

For money supply coverage, the Bahamian ratio for reserves to M3 fluctuated within the 10% range during decade, the lowest of all the LAC countries sampled (Charts 8 & 9). Coverage was also lowest on average for M1, within the 50% range. Chile and Peru enjoyed the highest coverage, exceeding 100% of M1 for most of the decade and more than 50% for M2, generally. However Chile and Peru's elevated holdings may have been forced upon the respective central banks, in to gain some credibility in the face of significant price and exchange rate uncertainties.

Comparison, have also been made against the full sample of countries using the two important structural ratios: namely fiscal and current account balances as a percentage of GDP (Charts 10 & 11 respectively). Both measures are difficult to interpret because they evolved under different economic circumstances. What is more relevant however is the extent to which the trends are correlated across countries, and with the United States in particular. For the fiscal imbalances the Bahamian measure shows negative correlation with the US. While the current account relationship is positive, it is not of the same magnitude as GDP growth or price level changes, suggesting that even for The Bahamas, the timing of necessary macro-economic adjustments could vary from that of the United States.

A sparser analysis against the full subset of Caricom countries also ranks the Bahamas highest in correlation of trends versus the US. Most of the other economies also exhibit significant correlation in prices with the United States. However fewer of these display significant real output correlation, underscoring important differences in the sources of export earnings and export markets, relative to a more common origin of imports which influences domestic prices.

Initial results from the exercise suggest that in terms of the ease of doing so, as a group, The Bahamas, Barbados, and Canada are more suited to dollarization, than most of the countries sampled, with Jamaica also having some promise. Nevertheless, the finding is only justified on

¹¹ Using the average monthly level of reserves would have extended the 100% coverage for the Bahamas through 2000, but it would not have significantly altered the comparative trends.

the grounds that these countries more closely meet the criteria for establishing a common currency area with the US. It is more difficult to speculate about overall costs, other than to note that if it were to occur today, The Bahamas would have more difficulties than others in meeting the direct currency conversion costs for central bank liabilities. Meanwhile, the prospects of immediate benefits from increased financial sector stability and enhanced policy credibility would be greater for some of the Latin American countries and Jamaica.

SECTION III: ASSESSING THE ADJUSTMENT COSTS

Given that it is a matter of credibility, the question is whether either dollarization or the currency board option would impose any less discipline on economies, than is the heralded case with flexible exchange rates. If the desire were to maintain exchange controls, and hence some policy independence, dollarization would not be a worthwhile consideration for The Bahamas. Equally, for practical reasons, capital controls would have little use in an officially dollarized setting. To see this it should be noted that with official dollarization, all domestic financial assets and liabilities would be denominated in foreign currency. While the net foreign liabilities of the banking system might be controlled, local private sector interests would still have unfettered access to external capital, even though they would have to circumvent the banking system to do so. Moreover, these capital flows would be virtually intractable in a system where conversions did not occur. Such circumvention would, nevertheless, constrain the balance sheet financing activities of domestic banks, fuel a process of disintermediation, and possibly greater instability as far as these institutions are concerned. While it is also conceivable that with an appropriate level of administrative controls the economy might be able to thwart such activities, the cost of doing so could be prohibitive.

Pairing dollarization with liberalization therefore frames both the transitional and long-term issues relevant for an economy such as The Bahamas. Macro-economic policies therefore have to be framed to ensure a similar level of balance of payments stability and sustainability as if under fixed exchange rates with perfect capital mobility. Beyond the transition to this state, this also amounts to ensuring the sustainability of (net external) credit/investment trends,

affecting both the public private and sectors, and influencing financial markets expectations in a non-destabilizing manner in these regards. Indeed once key variables evolve beyond "safe" thresholds, they would still trigger speculative portfolio adjustments. Although not currency attacks, the responses would still be characterized by a cutoff of credit, alongside higher cost for credit, and liquidity and other difficulties for the financial sector. Sovereign states cannot avoid the adjustments imposed by mounting international credit risks, or a cutoff of these resources. Dollarization therefore, when net foreign savings are important to an economy, would place no lesser strain on good governance, than either fixed exchange rates or currency boards.

To prevent speculative adjustments, it is equally important to ensure that the official or cutover rate at which financial assets would be dollarized was sustainable. Here, there is a tradeoff in that, if a country wishes to avoid a lead-in devaluation it would either have to bring about an advance deflation of the domestic economy, or accumulate sufficient international liquidity before hand. If no preparation occurs, and the dollarization occurs at an overvalued rate, the financial system would be subjected to the same level of portfolio adjustments and consequent liquidity needs, as at any other time during a speculative attack.

Examining any initial movement towards the hemispheric currency from the perspective of misaligned economic fundamentals is the first step in determining the kind of policies that a country like the Bahamas would have to pursue in making itself more suited to the anchor currency. The statistical summary presented in Table 4 already suggests that the Bahamas would endure less real adjustment costs than most, if not all Hemispheric countries. In particular, despite the low correlation of fiscal balances relative to the US', more a feature of the earlier commencement the consolidation efforts in the US, the Bahamas is now also in a better position to sustain medium term consolidation. To have sustainable worth however, the resulting fiscal savings rate would probably have to trend ahead of the United States, given the economic vulnerabilities posed by size, openness and exposure to natural disasters and external shocks.

Nevertheless, the implied adjustment costs are likely to be greatest in The Bahamas' need to accumulate international liquidity, in the form of improved ratios of external reserves to imports and in relation to broad money (M2). This view is in keeping with the added financial sector liberalization that is expected to accompany a hemispheric currency. In addition to the currency liabilities of the central bank, M2 comprises the domestic deposit liabilities of the

banking system which are an equally liquid component from the perspective of the private sector's ability to undertake portfolio adjustments, particularly at the onset of the adoption of a single currency. On the critical assumption that some degree of liberalization of short-term capital movements precedes the official dollarization, this liquidity measure also becomes important during transition.

The financial system could also supplement its liquidity needs through external borrowing. In this case, in addition to a more general weighting of country risk, which would also apply to the central bank, each bank's access to credit would be determined based on the quality of its loan portfolio. For the latter, the central bank can establish prudential norms to manage the health of financial institution's balance sheet. Responsible fiscal policies will also matter for more general country risks.

A Regional Currency Alternative?

It might seem odd that the subject of dollarization should be raised for The Bahamas when a regional option for a common currency is already being pursued. However, it raises questions that the Caricom as a whole too might confront after successfully ushering in a stable currency. The intensified efforts by regional governments to give greater functional meaning to the CSME have also placed more intense focus on the goal of having a single Caribbean currency. If realized the single currency also seems likely to function within a setting of completely liberalized capital flows. It is also being proposed that the Caribbean dollar, as it would be called, would be fixed in parity against the US dollar.

One of these issues that has to be confronted is whether the loss of monetary policy independence should be a serious concern. If the objective is to maintain a fixed exchange rate and if capital is freely mobile, then policy independence needs disappear. Moreover for flexible exchange rates, in the small open economy of the Caribbean genre, where inflation becomes an imported phenomenon (Rolle, 1994), the issue of policy independence is also relegated in importance. The optimal policy would be to maintain a stable exchange rate, which would in the limit produce the equivalence of a fixed exchange rate regime. This is not to cast doubts on the Caribbean currency initiative. Instead this seems like a natural progression towards enhanced policy credibility on a regional scale. Once the gains from this arrangement have been

exhausted, policy makers should rightfully question whether alternative, more binding structures could sustain further long-term gains.

Indeed, Kendall's (2000) research into macro-economic convergent record of Caricom countries, painted a troubling picture, where the optimal currency arrangement appeared to be satisfied more for subsets of the regional countries, which excluded the some of larger economies. His convergent group of countries also differed depending on whether the nominal or real exchange rate was use as the reference base. More interesting, was the fact the US dollar was the convergent currency. This means that some regional economies are already in a stronger position than others to consider the third currency option (dollarization). For this subset, it is not surprising that there would be more structural convergence with North America given the importance of this market for tourism and international services. Indeed the convergence that is being sought in the Caricom is, above all, structural, and is likely to hinge on the successful transformation of natural resources and primary commodity exporters more towards services.

A more recent acknowledgement of the difficulties that Caricom's structural divergences could pose for monetary union, has been the recommendation in some technical group¹² that the interest rates should be excluded from the list of convergence indicators. This, effectively, is almost an admission that conditions for common currency are unlikely to be realized soon. Progress with the CSME would accelerate the necessary conditions for the common currency, providing greater flexibility in intra-regional adjustments. However, it is questionable whether this would significantly alter the outward dependence of Caricom. In particular the dependency on exports as engine of growth is likely to increase, alongside greater specialization in services. If the hemispheric integration efforts continue the dependency is also likely to be more centered on the Americas. Hence the questions would remain in the long-term about the appropriate exchange rate arrangement even given the political economy of the current efforts¹³.

¹² Information required.

Although the EU example might have suggested more endogenous conditions might be created to justify a common currency area, this is not the best parallel for Caricom, as the majority of the individual member economies (GDR, FR, SP, ITL) exceed the consolidated Caricom market. Neither trade the diversion or trade creation that has occurred within the EU is likely to be replicated on the same scale within Caricom, to extent that it significantly reduces the external trade dependence of the regional bloc.

Quantifying the adjustment costs to liberalization

In order to benchmark the sustainable level for key economic variables, that would be necessary to prevent a run on domestic sector assets, a proper assessment has to be made of the extent of portfolio imbalance, which currently exist in the system because of exchange controls. This exercise could proceed on the basis of a portfolio balancing approach, measuring the gap between the net international demand for portfolio and direct investments in The Bahamas, relative to net outward investment demand of residents. The interest rate/return differential would be one factor in balancing the portfolios, and ultimately linked to the long-term prospects for economic growth. A second factor would be the risk diversification needs of investors, while others would relate to the liquidity and depth of the capital markets in providing access into or out of investment opportunities. The sustainable economic and policy variables set, would be that which would in the least, eliminate the gap between desired domestic and foreign portfolio adjustments, or maintain a bias in favour of net inward capital flows. Quantifying this gap therefore frames the both adjustments and ongoing costs of a hemispheric currency.

Interest rates and the costs of foreign capital

Operating within a controlled environment might give a false impression as to where interest rates would settle in a post-liberalization environment, because country risks assessments are also likely to change. Indeed, the equilibrium level of domestic interest rates, both from the standpoint of the public and private sectors' ability attract foreign capital, and from the point of deposit inflows into the banking system will not necessarily matched those of the anchor currency. This point is often ignored in ad hoc assessments of the perceived distortions caused by exchange controls, where interest rate differentials appear to favour borrowing in foreign opposed as domestic currency. In the first instance the liberalized rates could, and most likely would, still reflect a positive spread over the US term structure to reflect higher aggregate credit risks for The Bahamas. Moreover, spreads might widen afterwards, to reflect increase country risks from greater net foreign liabilities exposure on the part of the private sector. **A snapshot of the effective spreads on The Bahamas government foreign currency debt is shown in Chart 12. Indications of real domestic interest rates of selected regional economies relative to the US are show in Chart 13.**

This adds some credibility to the view that, on a long-term basis, domestic interest rate could settle at higher level in a post liberalization setting. Increased country risks would also widen spreads on the public sector's costs of borrowing. Such assessments would be imposed irrespective of whether the borrowing occurs through local or "resident" financial institutions, since the same localized economic risks that would have bearing on debt servicing. Country risks would be similarly captured in the pricing of local capital market instruments.

In the short run, dollarization of the public sector's debt could result in lower overall interest costs for The Bahamas, although the marginal costs of borrowing is likely to increase. The domestic currency component of the existing debt attracts a higher effective interest rate than the foreign currency portion. However, the majority of both components are variable interest rate obligations. Given this variable rate feature on the higher yielding domestic portion of the debt, dollarization by causing lower base rate to be applied could result in reduction the total servicing costs. This would also obviate the need for any significant refinancing, that a fixed rate debt structure might have required, and to the extent that the refinancing might have involved greater foreign participation it could postpone increases in country spreads attached to the converted debt.

An immediate increase in the marginal cost of the public debt would be consistent with elevated country risks assessments arising from greater private sector access to foreign capital, and the market's expectations about how domestic holdings of the dollarized debt might shift over time in the normal course of rollovers and maturities. This higher marginal cost would filter into the overall structure in line with the rollover rate for existing Bahamian dollar bonds. These, according to the latest data, have an average age to maturity of approximately 10 years.

As to how the banking system would fare? Unless banks are able to diversify their credit exposure beyond the domestic borders, their ability to attract deposits would reflect a higher cost of doing so relative to the more diversified exposures that might enjoyed by external financial institutions from which the private sector might be able borrow. Local or indigenous institutions would therefore be at competitive disadvantage, and those marginal ones could eventually fail. To have a chance at survival therefore, the balance sheet structure of these institutions would have to be comparable to that of the external entities to which the private sector obtain credit access.

Replacing monetary instruments with fiscal tools

Once a common currency is adopted the Bahamas has to be just as effective with the replacement fiscal policy tools used to manage domestic demand, as is the current situation with monetary policy. It is true that even with capital account liberalization and unobstructed access to foreign capital the country will not have face an unlimited supply of foreign capital. In particular, the markets will continue to assess potential credit risk exposure, based on the servicing capacity for foreign capital generated by economic activities within The Bahamas, which therefore maintains a link with the sustainability of the current account of the balance of payments. If the perceived risks of the current account increase (deficits in particular), both the private and public sectors would be affected, through a combination of reduced access to credit and increase costs or required rates of return on invested foreign capital.

Fiscal policy would have usefulness even if the markets seemingly regulate the net access to foreign capital because market triggered adjustments could impose greater short-term costs and instability on the financial sector, which it would be in the interest of the economy to avoid. In particular, the short-term regulation of the country's net foreign capital or credit exposure, is likely to induce shifts from highly liquid portfolio components such bank deposits and traded capital market instruments, both of which could impose serious liquidity strains on the economy. The utility of fiscal policy would be in demand management, as a preemptive tool to such destabilizing triggers.

The fiscal tools, employed should provide the same level of incentives in influencing aggregate spending, irrespective of whether the expenditures occur within or outside of The Bahamas. This makes income taxes the most plausible option! Consumption taxes would be less effective, because they would only apply on the expenditures undertaken within the domestic borders, whereas households could arbitrage such situations by shifting more of their spending abroad. The income tax however, would constrain disposable income under all cases. By directly affecting the level of free or disposable cash flows within the private sector, income taxes would also regulate the level of creditor financing provided to the sector and therefore the country's net foreign (credit/capital) exposure.

SECTION IV: PRELIMINARY CONCLUSIONS AND FUTURE WORK

For many of the reasons cited in this paper, being confronted with the prospects of liberation, whether to pursue such policies, and the optimal policy regime to install thereafter are not easy choices countries to make, because the normative prescriptions of economics overlap and very often conflict with the political expediency of policies. There is considerable national pride and cultural identity embodied in national currencies, and these complicate decisions over participation in either optimal currency areas or the unilateral adoption of an outside currency. However, since developing countries, including The Bahamas and those of the region, aspire to higher level of prosperity they should be prepared to consider all available means to these ends, presented by capital account liberalization. Good economic management is important under any exchange rate regime, but equally so is the perceived credibility from the market perspective, which if country experiences are indications, requires more outward "tying of the hands" for developing country policy makers.

Our discussion of liberalization issues in this paper recognizes that despite the internal efficiencies that might be realized from the CSME and currency, Caribbean dependency will remain to largely external to the region, and long-term monetary policies have to be framed with this reality in mind. We have suggested that the region is on a path that will bring it closer to the question of dollarization. The alternative is to maintain insulated financial markets of limited effectiveness consequently in allocating domestic financial resources.

There is already a well established literature and research on the subset of macro-economic variables to which economies will have to monitor and manage to ensure stability in more open and exposed financial market, and many of these are already among the currency convergence criteria for the Caricom. Research on the causes for currency crises have helped to rank the importance of these variables¹⁴. A starting advantage for The Bahamas and Caricom is

¹⁴ See for example Dornbusch et al (1995) and Sachs et al (1996), Calvo et al (1996), Osband and Rijckeghem (2000). See also Kaminsky et al (1998) *on how the threshold levels for macro-economic variables which trigger for crises can be scalable on a country specific level.*

their high degree of openness already positions them to have significant flexibility in coping with crises and in extracting lesser some credibility from the markets.¹⁵

Some inferences can already made about the impact of official dollarization as equivalent to financial sector and capital account liberalization. One of these is that it will likely require a higher degree of discipline in fiscal policies and in private sector consumption, both geared towards generating more net domestic savings. Making a contrast between existing conditions under capital controls, the market-imposed component of this discipline should reflect in a higher country risk credit spread on foreign currency borrowing and investment inflows. Internally, there is suggestion that the optimal mixture of demand management tools should include income taxes, however this has implications for the approach that countries takes in attracting foreign investment and in the long-term development of international financial services. There are also prudential issues involved, in managing the balance sheet quality of domestic financial institutions, under more competitive and volatile conditions. Although not yet quantified these conclusions are being driven by assumptions about the degree liberalization (especially from a financial sector perspective) that would be optimal under either a single hemispheric currency or unilateral changes in a similar direction. The economy would still have to be competitive in the long-term.

As to further research, there still has to be some quantification of the required adjustments needed to bring about this liberalization, in a manner that provides the optimal tradeoff between the initial exchange rate adjustment and the pre-requisite alignment of macro-economic fundamentals. As indicated, this can research can be approached as a net portfolio adjustment exercise, first estimating the extent of any sub-optimal net foreign and domestic allocations which might exist and then determining the set of economic policy and variables that would eliminate the imbalance. This would also shed light on the adjustment costs involved with dollarization.

¹⁵ For a discussion of this significance see the work by Berg et al (1999), which discusses the model by Sachs, Tornell and Velasco (1996).

APPENDIX OF TABLES AND CHART

Table 1
The Bahamas: Summary of Capital Account/Foreign Investment Regime
(Preliminary)

| | | External Sources/Recipient | | | |
|---------------------------|-----------------------|----------------------------|---------------------------|---------------------------|---------------------------|
| | | Bilateral Debt | Multilateral Debt | Private ^[d] | |
| | | | | Debt | Equity |
| Domestic Source/Recipient | Short-term/Portfolio | | | | |
| | Public Sector* | ↔ | ↔ | Inflows | n/a |
| | Foreign Resident (**) | n/a | Inflows ^[a] | n/a | n/a |
| | Domestic Resident | Outflows ^[b,c] | Outflows ^[b,c] | Outflows ^[b,c] | Outflows ^[b,c] |
| | Long-term | | | | |
| | Public Sector | ↔ | ↔ | Inflows | n/a |
| | Foreign Resident (**) | Inflows ^[a] | Inflows ^[a] | Inflows ^[a] | Inflows ^[a] |
| | Domestic Resident | Restricted | Restricted | Restricted | Restricted |
| | | | | | |

Notes

- * Includes investments of foreign currency reserves
- ** Once approved as an investment a foreign controlled entity is designated as resident for exchange control purposes
- Inflows Inward investment permitted with counterpart domestic party (domestic party permitted to raise capital through this means)
- Outflows Outward investment permitted by counterpart domestic party.
- ↔ = Flows permitted both ways (Can be issued or held by domestic agent to or from the external agent)
- a = Registration (formal approval) required by Exchange Control
- b = Approval required from exchange control
- c = Must be funded with investment currency at premium over maker exchange rate
- d Instruments may not be issued in the local market.

Table 2: Summary of Caricom Countries Exchange Control Regulations on Capital Flows

| | St. Kitts & Nevis | Dominica | St. Lucia | St. Vincent & the Grenadines | Grenada | Suriname | Trinidad & Tobago |
|---|---|--|---|---|---|---|--|
| Investment-related payments (Profits dividends, etc.) | May be remitted in full, subject to confirmation of registration for income tax purposes. | QR's apply | May be remitted in full, subject to confirmation by tax authorities. Remittances may be phased. | Information is not available on the payment of amortization of loans or depreciation of direct investments. | QRs apply. Approval granted if all related liabilities have been discharged and the investment was registered with the MOF. | Profits must be transferred within 3 years; otherwise, in annual installments of 20%. | No Restrictions |
| Controls on capital and money market instruments | Outward transfers exceeding EC\$250,000 require approval | Outward transfers exceeding EC\$250,000 require approval | Outward transfers exceeding EC\$250,000 require approval | Outward transfers exceeding EC\$250,000 require approval | Outward transfers exceeding EC\$250,000 require approval | Under specified conditions Surinamese corporate shares may be purchased or sold | Cross-border trading of shares of companies listed stock exchanges of B'dos, J'ca, and TT. |
| Purchase locally by nonresidents | Alien's Land Holding license is required, for equity purchases | not indicated | N/R | [Not permitted?] | MOF approval is required | not indicated | Governed by Financial Institutions Act |
| Sale or issue locally by nonresidents | Approval required for amounts over EC\$250,000 | not indicated | Transactions over EC\$250,000 require approval | [Not permitted?] | Controlled | not indicated | not indicated |
| Purchase abroad by residents | Approval required for amounts over EC\$250,000 | Yes | Transactions over EC\$250,000 require approval | Normally not permitted for equity. Restrictions apply for all other transactions | Controlled | not indicated | not indicated |
| Sale or issue abroad by residents | Approval required for amounts over EC\$250,000. Sellers of collective investments securities must be licensed under the Bank Act. | not indicated | Transactions over EC\$250,000 require approval | Normally not permitted for equity. Restrictions apply for all other transactions. | Controlled | not indicated | not indicated |
| Controls on Direct Investment | | | | | | | |
| Outward direct investment | Approval required for amounts over EC\$250,000 | Yes | Transactions over EC\$250,000 require approval | Yes | Controlled | Exceptions may permitted when considered beneficial to Suriname's interests | not indicated |
| Inward direct investment | Investments in equity require an Alien's Land Holding license. | Alien landholding license required | not indicated | | Cabinet approval normally required | Controlled | Subject to the provisions of the Foreign Investment Act |

Source: IMF Annual Report on Exchange Arrangements and Restrictions (2001)

Table 2: Summary of Caricom Countries Exchange Control Regulations on Capital Flows

| | Bahamas | Antigua & Barbuda | Barbados | Belize | Guyana | Haiti | Jamaica |
|---|---|---|--|---|-----------------|---|--|
| Investment-related payments (Profits dividends, etc.) | For all investments with approved status, permission is given upon application for the transfer | | QR apply: Interest pymts BDS\$50,000 individuals profits & dividends \$250,000 | Approval is subject to clearance by the Commissioner of Income Tax | No Restrictions | No restrictions indicated | No Restrictions |
| Controls on capital and money market instruments | Approval required. Outflows of resident-owned capital restricted. | No-restrictions reported | N/A | Controlled | No controls | N/A | Yes |
| Purchase locally by nonresidents | Approval required. Must fund acquisition from foreign currency sources. | Not permitted | Approval, is freely given provided that sufficient foreign currency is brought in for purchase | Controlled | No controls | N/A | No controls on equity & bonds |
| Sale or issue locally by nonresidents | Not permitted | Not permitted | [Not permitted?] | Controlled | No controls | N/A | No controls on equity & bonds. Money mkt transactions are subject to ministerial approval; a prospectus is required under the Companies Act. |
| Purchase abroad by residents | Must be purchased with investment currency, (25% premium) and must be held by, or to the order of, an authorized agent. | Not permitted | Exchange control approval is required | Controlled | No controls | N/A | No controls on equity & bonds For financial institutions and pension funds, money Mkt. purchase must accord with directions issued by the MQR. |
| Sale or issue abroad by residents | Proceeds from securities, are eligible for sale in the investment currency market (20% premium); unregistered may be offered for sale at the official rate. | Not permitted | Exchange control approval is required | Controlled | No controls | N/A | Same as for purchases |
| Controls on Direct Investment | | | | | | | |
| Outward direct investment | Limited funding at official exchange rate; subject to no adverse BOP effect. | Large transfers abroad for investment purposes may be phased over time by the Financial Secretary | EC Approval Required | Controlled | No controls | N/A | No |
| Inward direct investment | Approval is required | N/A | EC approval required | Must be registered with the CBB if the profits are to be repatriated in the future. | No controls | Investments require prior government approval | No |

Source: IMF Annual Report on Exchange Arrangements and Restrictions (2001)

Table 3
 CARICOM Inflation and GDP Correlations versus the US
 1989-2001

| | Inflation Rate Current | Inflation Rate Lagged | GDP Growth |
|--------------------------------|---------------------------|--------------------------|---------------|
| Antigua | 0.53 | 0.57 | 0.41 |
| Barbados* | 0.44 | 0.56 | 0.71 |
| Bahamas | 0.72 | 0.88 | 0.72 |
| Canada | 0.86 | 0.72 | 0.83 |
| Dominica | 0.65 | 0.70 | -0.16 |
| Dominican Republic | 0.88 | 0.78 | 0.65 |
| Grenada | 0.64 | 0.60 | 0.28 |
| Guyana | 0.81 | 0.83 | -0.01 |
| Haiti | -0.03 | 0.17 | -0.06 |
| Jamaica | 0.34 | 0.71 | -0.43 |
| Netherlands Antilles | 0.70 | 0.49 | 0.05 |
| St. Kitts & Nevis | 0.10 | 0.18 | 0.59 |
| St. Lucia | 0.41 | 0.41 | 0.11 |
| Suriname | -0.26 | -0.27 | 0.23 |
| St. Vincent and the Grenadines | 0.66 | 0.71 | 0.10 |
| Trinidad and Tobago | 0.34 | 0.20 | 0.13 |

Significance of r : 5% = 0.531

Data source: IMF IFS data base.

Note: *Differences between this and the correlations in Table 4 are being investigated.

Table 4
 Selected Country Data Comparisons
 Correlations Versus the United States

| | Real GDP Growth | US\$ Price Index | Current Acct Balance/GDP | Budget Deficit to GDP |
|-------------|--------------------|---------------------|-----------------------------|--------------------------|
| Bahamas | 0.79 | 0.96 | 0.43 | 0.05 |
| Barbados | 0.70 | 0.97 | 0.43 | -0.26 |
| Canada | 0.90 | -0.72 | -0.63 | 0.33 |
| Chile | -0.30 | 0.90 | 0.08 | -0.30 |
| Jamaica | -0.40 | 0.89 | -0.08 | -0.53 |
| Mexico | 0.24 | 0.48 | -0.28 | 0.63 |
| Peru | 0.25 | 0.87 | 0.16 | 0.39 |
| Philippines | 0.46 | 0.53 | -0.70 | -0.26 |
| Singapore | -0.08 | 0.59 | -0.77 | 0.38 |

Source data: IADB and IMF IFS database.

Chart 1

Real GDP Index (1990 = 1.0)

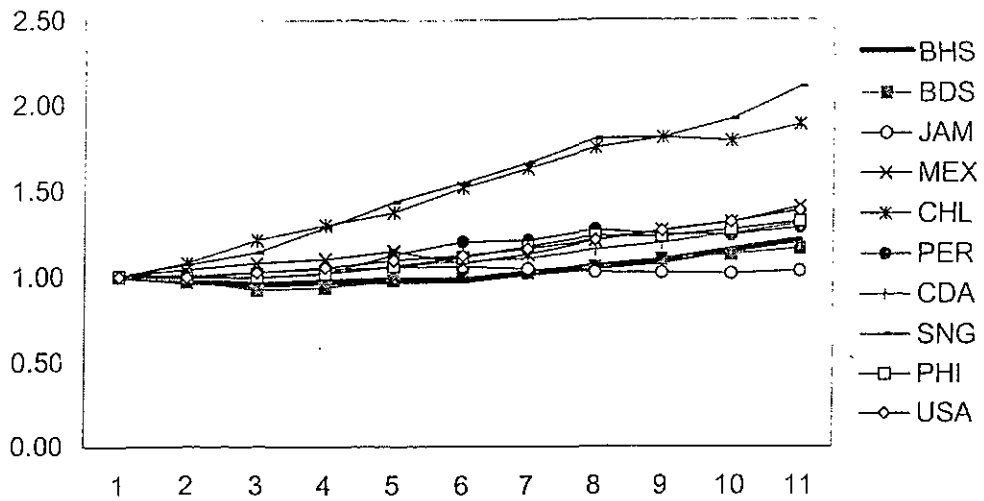


Chart 2

US\$ Equiv. Price Index (US\$: 1990=1.0)

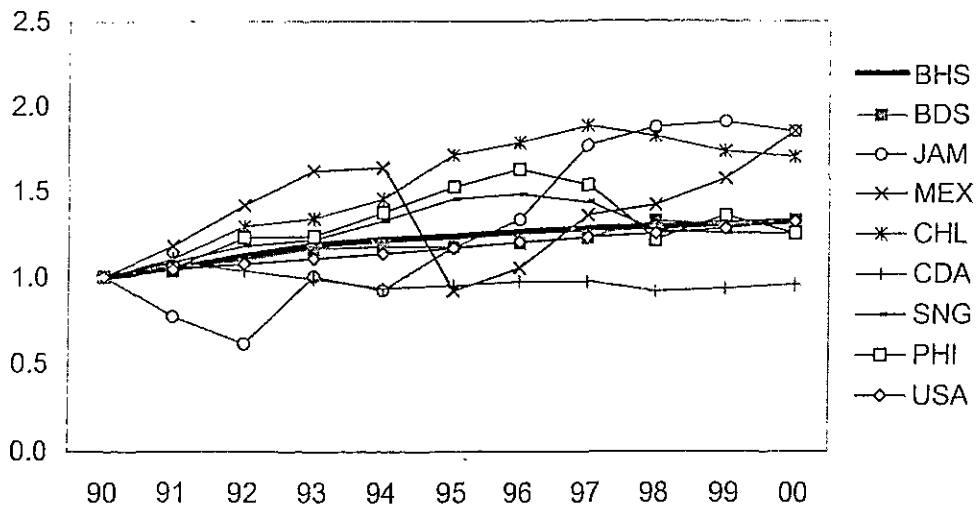


Chart 3

GDP/M1 Ratio

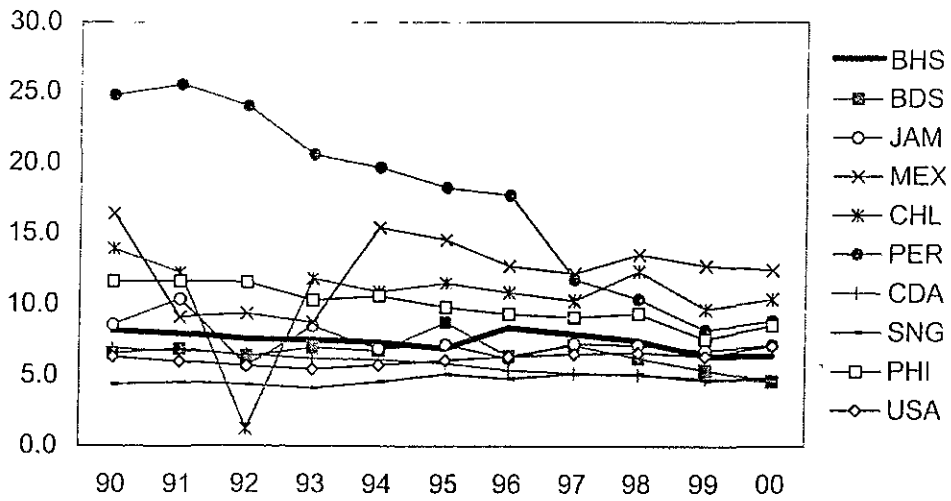


Chart 4

F/C Debt to GDP Ratio

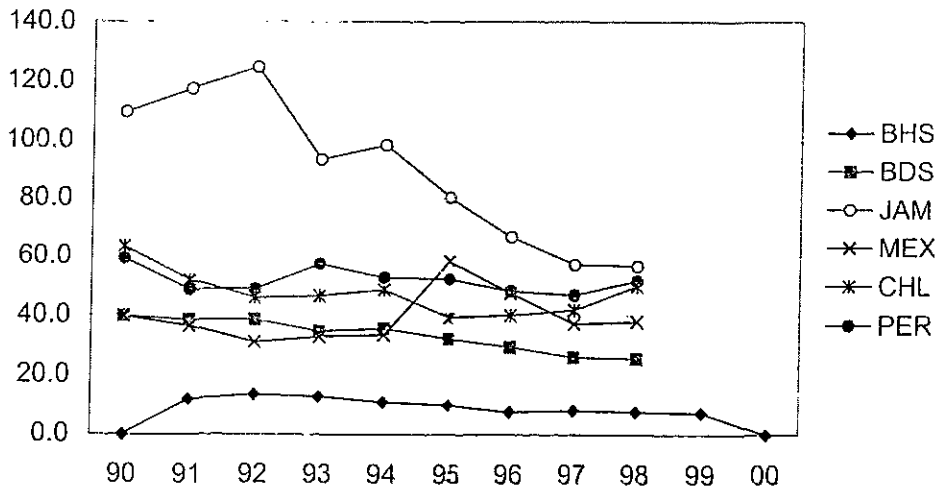


Chart 5

Domestic Credit/GDP (%)

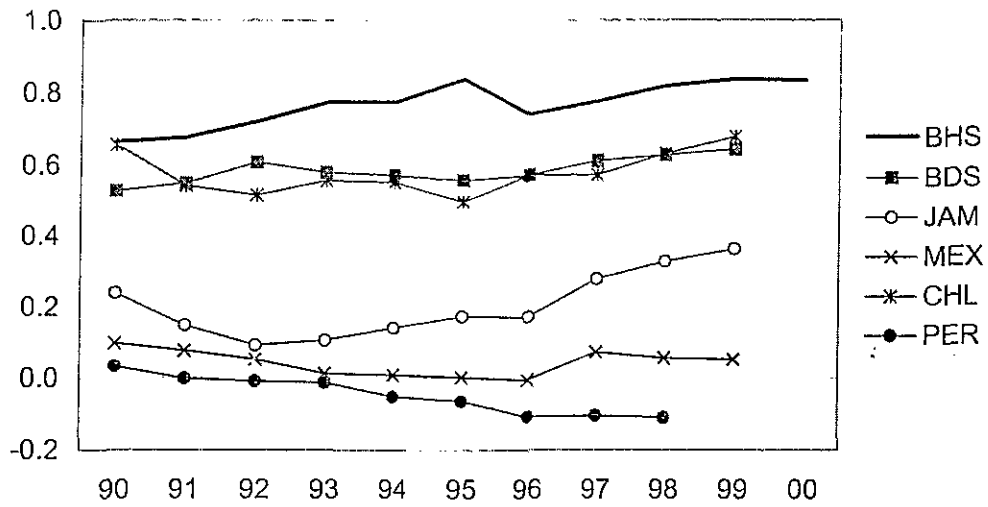


Chart 6

External Reserves Index (1990=1.0)

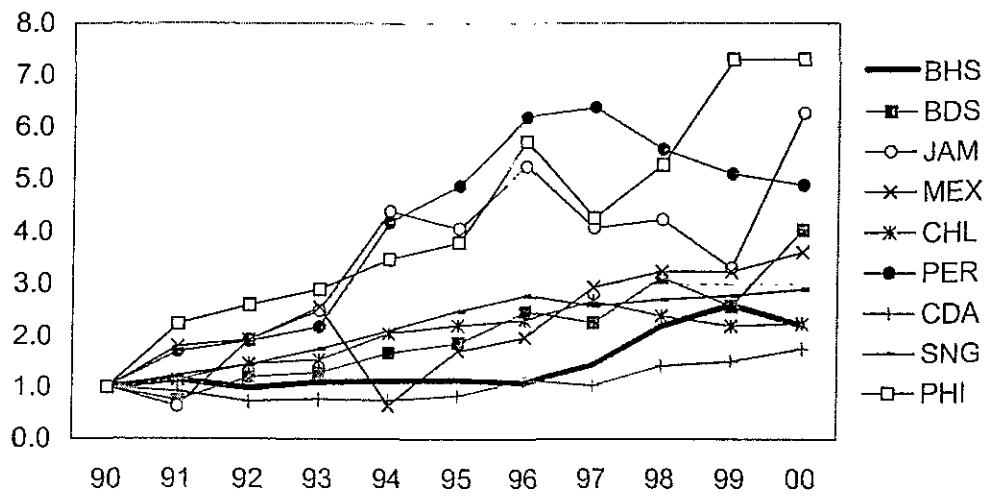


Chart 7

External Reserve/Money Base Ratio

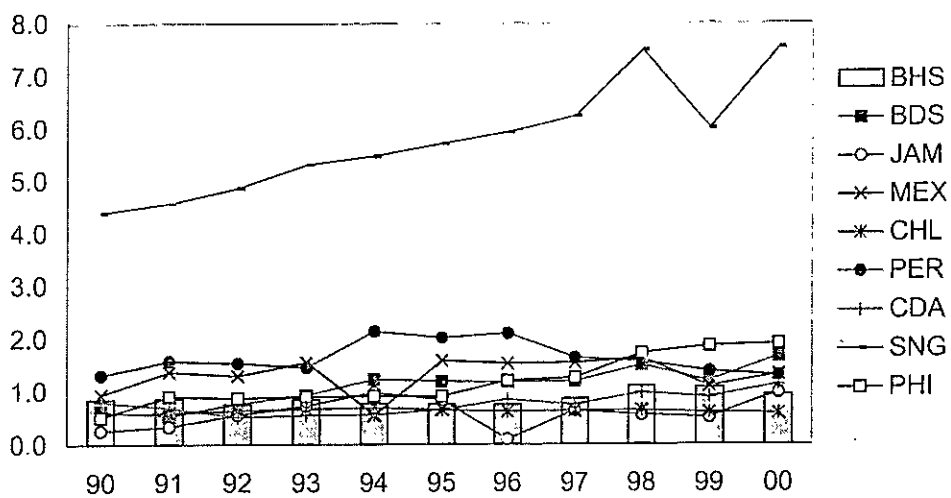


Chart 8

External Reserves/M1 Ratio

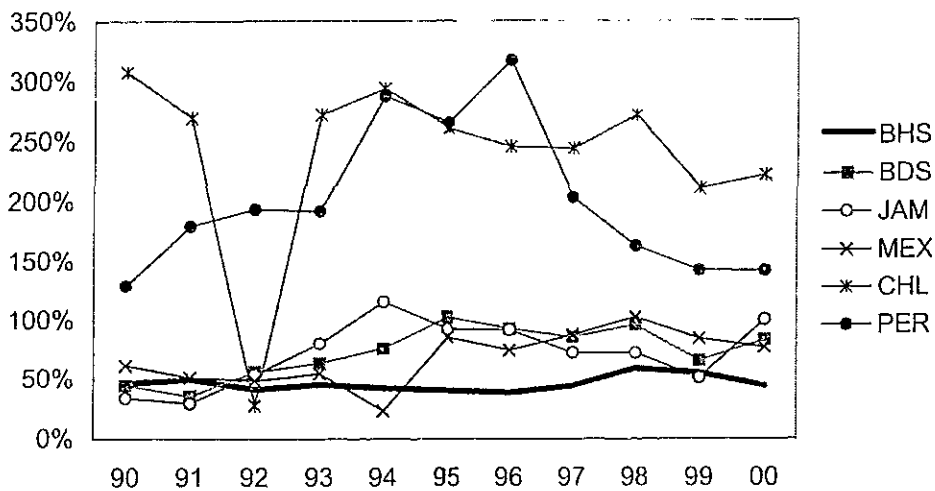


Chart 9

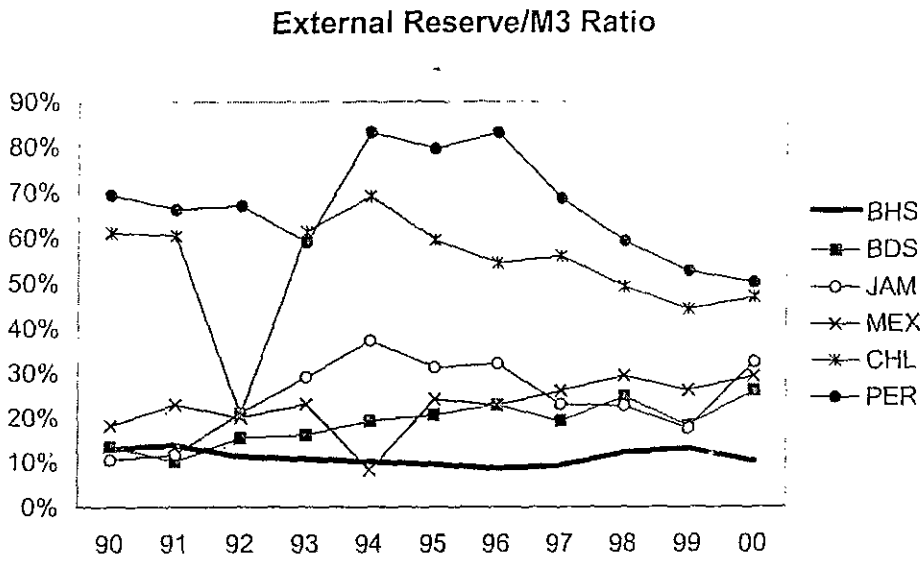


Chart 10

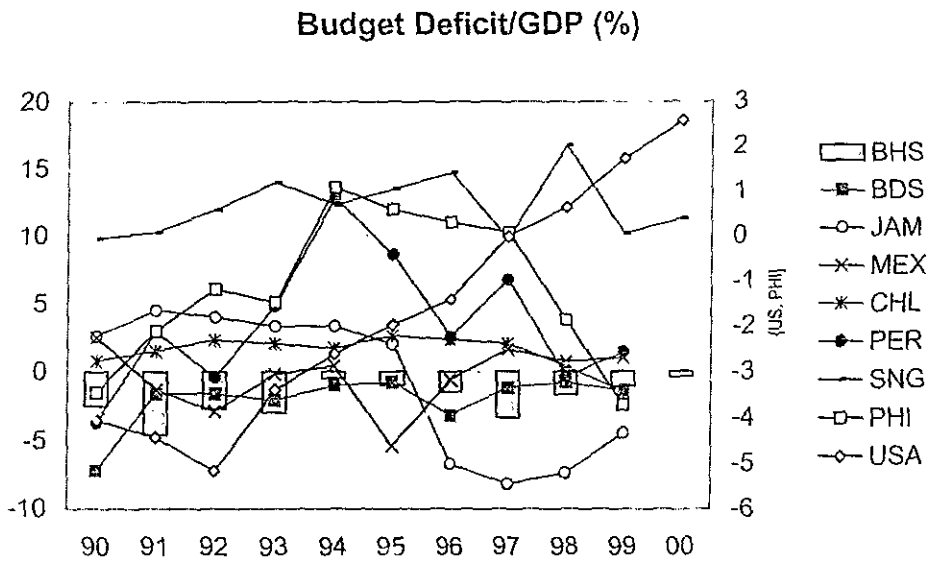


Chart 12
Bahamas: Effective Interest Spread
F/C Deb: vs 6mth US\$ Libor (%)

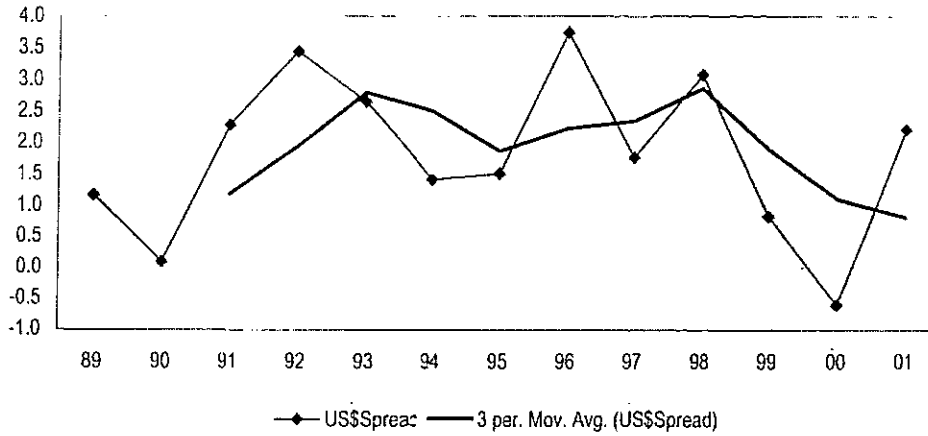
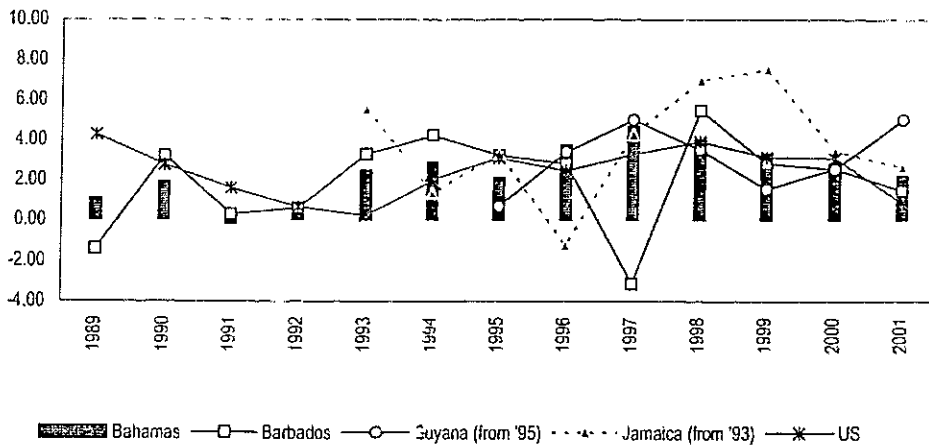


Chart 13
Comparative Real Deposit Interest Rates
(Inflation adjusted %)



REFERENCES

- Bennet, Carl M. (1996), "International Capital Mobility and CARICOM Economies," *Social and Economic Studies*, 45 (2&3), 127-46
- Berg, Andrew and Eduardo Borenstein (2001), "The Pros and Cons of Full Dollarization," IMF Working Paper (WP/00/50), IMF (Washington DC).
- _____ (2000), "The Choice of Exchange Rate Regime and Monetary Target in Highly Dollarized Economies," IMF Working Paper (WP/00/29), IMF (Washington DC).
- _____ and Carmen Reinhart (1999) "Capital Flow Reversals, the Exchange Rate Debate and Dollarization," *Finance and Development*, 36 (3).
- _____ and Enrique G. Mendoza (1996), "Mexico's Balance of Payments Crisis: A Chronicle of a Death Foretold," *Journal of International Economics*, 41 (3/4), 235-64.
- Clarke, Lawrence and Donna Dadds (eds.) (199-), *The Evolution of the Financial Sector in the English Speaking Caribbean*, (ISER/CCMS: Trinidad & Tobago).
- Dornbusch, Rudiger, Ilan Goldfan and Rodrigo O. Valdés (1995), "Currency Crises and Collapses," *Brookings Papers on Economic Activity*, (Brookings Institution) 2 (1995), 219-295.
- Hausman, Ricardo, Micheal Gavin, Carmen Pages-Serra and Ernesto Stein (1999), "Financial Turmoil and the Choice of Exchange Rate Regime," IADB, Working Paper #400.
- Hernandez-Arias, Eduardo and Ricardo Hausman, (1999), "International Initiatives to Bring Stability to Financial Integration", IADB Available online.
- IADB (1995), "Capital Market Development in Latin America and the Caribbean: A strategy Proposal." Available online.
- _____ (1998), "Financial Market Development: Issues, Strategies and Inter-American Development Bank Group Activities " Available online.
- Kaminsky, Graciela, Saul Lizondo and Carmen M. Reinhart (1998), "Leading Indicators of Currency Crises," IMF Staff Papers. 45 (1), 1-48.
- Krugman, Paul R. and Maurice Obstfeld (1994), *International Economics: Theory and Policy*, 3rd Edition, (HaperCollins: New York).
- Kendall, Patrick (2000), "Exchange Convergence in CARICOM", *Social and Economic Studies*, (2 & 3), 139-66.
- Osband, Kent and Rijckeghem, Caroline (2000), "Safety From Currency Crashes," *IMF Staff Papers*, 47(2), 238-58.
- Rolle, John (1994), "Fixed Exchange Rates and Exchange Controls in the Small, Undiversified Open Economy," *Social and Economic Studies*, December 1994
- Sachs, Jeffrey, Aaron Tornell and Andrés Velasco (1996), "Financial Crises in Emerging Markets: Lessons from 1995," fs, 1:1996, 147-198.
- Savastano, Miguel (1996), "Dollarization in Latin America: Recent Evidence and Some Policy Issues," IMF Working Paper (WP/96 4-EA), IMF (Washington DC).

Worrel, Delisle, Don Marshal and Nicole Smith (2000). "Political Economy of Exchange Rate Policy in the Caribbean," IADB Working Paper No.R-401.