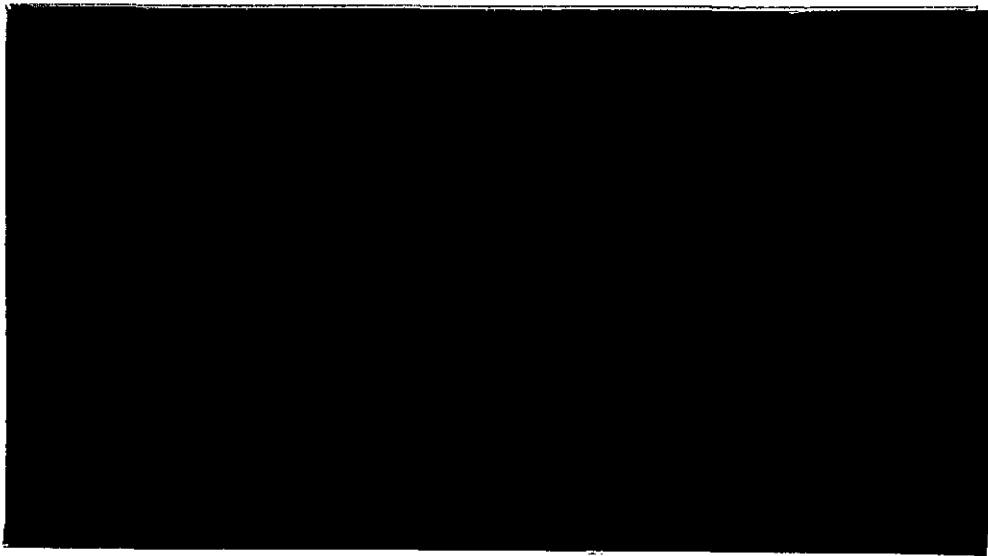




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**CENTRAL BANKING IN THE
CONTEXT OF A CURRENCY UNION:
A CASE STUDY OF THE
ECCB**

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CENTRAL BANKING IN THE CONTEXT OF A CURRENCY UNION.
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Abstract

The paper investigates the purpose of the ECCB given its particular operational framework. It describes the environment within which the Bank operates and critically appraises its performance. It also examines the costs and benefits of the Bank to its membership. Finally a number of future policy challenges are discussed.

Keywords: ECCB, Performance Factors and the ECCU

1. INTRODUCTION AND OVERVIEW

Central banks around the world have carved a unique role for themselves as inflation fighters. In this role, a target range for inflation is set and their performance is judged by the path of inflation relative to the target range. To facilitate this process, governments have bestowed a bout of independence on most central banks. In the context of a small open economy, with a fixed exchange rate regime, inflation is externally determined, hence the rasion'de'tre' for a central bank has to be different. What is the purpose of the ECCB? The role of the ECCB, as enshrined in its constitution is the protection of the external value of the domestic currency. The Bank has been given a particular operational framework, a currency board, which automatically forces the system to adjust in a fashion, which preserves the external value of the domestic currency. This monetary constitution has served the region well fostering confidence through stable domestic prices and long standing monetary and financial system stability. This framework has imposed limits on the Bank's ability to provide explicit credit to member governments and has thereby encouraged a particular type of fiscal discipline.

There have been several works on the role of central banks and central banking in both the developed and developing world context. There are two lines of thought in these works. First there are those studies, which uncritically accept a central bank as a useful tool and seek to resolve what to do with it. Within this group, there are three classes of work. The first set views the role of central banks as promoting price stability. A second class asserts that a central bank's role is promoting policy credibility. Thirdly,

are those works, which focus on the central bank as the ultimate source of liquidity. A second line of thought suggests that central banks are not a natural out growth of banking development, but instead an imposition by the political directorate to which it responds. In this paper, the role of the central bank as an agent of policy credibility is examined within the context of a currency union. The paper has three objectives, firstly to describe the operational framework and policy focus of the ECCB. Secondly, to identify the performance factors of the Bank and from these judge the costs and benefits to its membership. Finally, the paper addresses a number of emerging challenges to the sustainability of the ECCU and thereby the Bank. Using a stylised model of the ECCB, a number of indicators were evaluated and used to determine the performance of the Bank and also the net benefit obtained by its membership.

The Bank operates within a currency union of relatively impoverished, small and vulnerable countries. A main characteristic of these economies is the underdeveloped nature of the financial sector, and dependence on one or two main foreign exchange earners.ⁱⁱ In this setting the ECCB is responsible for financial policy, administered for the entire union. On the other hand fiscal policy is the preserve of individual countries and is conducted in an uncoordinated fashion.

The outline for the remainder of the paper is as follows. In section two, the historical background to the formation of the ECCU and the Bank is provided. A literature review on the purpose and functioning of central banks is provided in section three. A conceptual framework, for the analysis of the ECCB's case is developed in section four.

Section five, presents an evaluation of the performance factors of the central bank, whilst emerging challenges to the sustainability of the system are discussed in section six. A summary and conclusions are presented in section seven.

2. HISTORICAL BACKGROUND AND CONTEXT

The ECCB is a multinational central bank for eight Eastern Caribbean states. The institution emerged following the demise of the British West Indies federation and subsequently, the British Caribbean Currency Board (BCCB). The monetary institution in this phase of our history was known as the East Caribbean Currency Authority (ECCA) and included Barbados. Barbados left the arrangement in 1974 to set up its own central bank. Moreover, by 1983, most of the members, whom by then had achieved political independence from the United Kingdom (UK), decided to upgrade the monetary arrangement to full central bank status.

Traditionally the currency arrangements in the Eastern Caribbean have been underpinned by wider political intentions. The political basis of the ECCA was the West Indies Associated States of the Windward and Leeward Islands. The current central banking arrangement must be viewed within a particular economic and political context. The economic context is provided by the smallness and vulnerabilities of these countries individually and even acting together. The ECCU is essentially a group of eight vulnerable small island developing states (SIDS), see table 1.^{iii iv} The total population of the ECCU is approximately half a million people. St. Lucia is the largest country within the group, with a total population of 137,000, whilst Anguilla, a British dependency, with

{Table One, Near Here}

It is direct response to these economic realities, upon which the political context for the currency union was conceived and further reinforced in the form of the OECS treaty of 1981. This political context is succinctly captured by the preamble to the OECS treaty (p.3),

“... CONVINCED that the West Indies (Associated States) Council of Ministers since its establishment in 1966 has done much to further regional co-operation in many fields and has rendered valuable services to its member countries;

RECOGNISING that since the establishment of the said Council of Ministers significant constitutional and other changes have taken place in the region;

AFFIRMING their determination to achieve economic and social development for their peoples as enunciated in the Agreement of the 11th day of June, 1968, establishing the East Caribbean Common Market;

INSPIRED by a common determination to strengthen the links between themselves by uniting their efforts and resources and establishing and strengthening common institutions which could serve to increase their bargaining power as regards third countries or groupings of countries;

HAVING IN MIND the strong views expressed by the said Council of Ministers regarding the desirability of retaining and formalising the arrangements for joint action by its member countries;

DETERMINED to satisfy the legitimate aspirations of their peoples for development and progress;...”

It was against this background that the governments of Antigua; Dominica; Grenada; Montserrat; St.Kitts and Nevis; St.Lucia and St.Vincent and the Grenadines transformed the associated state arrangement into a more formalised treaty designed to address emerging challenges for young vulnerable nations. This OECS agreement is

comprehensive in its coverage and in a way aims to create a single OECS state. The main purposes of the OECS as outlined in Article 3 of the OECS agreement are;

“(a) to promote co-operation among the member States and at the regional and international levels having due regard to the treaty establishing the Caribbean Community and the Charter of the United Nations;

(b) to promote unity and solidarity among the Member States and to defend their sovereignty, territorial integrity and independence;

© to assist the Member States in the realisation of their obligations and responsibilities to the international community with due regard to the role of international law as a standard of conduct in their relationship;

(d) to seek to achieve the fullest possible harmonisation of foreign policy among the Member States; to seek to adopt, as far as possible, common positions on international issues and to establish and maintain wherever possible, arrangements for joint overseas representation and /or common services;

(e) to promote economic integration among Member States through the provisions of the Agreement Establishing the East Caribbean Common Market; and

(f) to pursue the said purposes through its respective institutions by discussion of questions of common concern and by agreement and common action.”

The ECCB agreement of 1983, is for all intents and purposes one of the functional fields in which member states agreed to coordinate, harmonise and pursue joint policies necessary for the OECS to full fill the purposes (a to f) as outlined above. Within this context the OECS treaty conceives the role of the ECCB as dealing with the currency and central banking matters. The operationalisation of these roles, depends largely on the interpretation which the policy authorities ascribe to central banking. This is an issue to which the paper now turns.

3. LITERATURE REVIEW

The subject of what a central bank ought to do is a rather old one, which has haunted the economics profession. There are two main themes of thought on central banking. The first theme uncritically accepts the relevance of central banks. Within this theme, there are at least five classes of work. In the first class of work, Friedman (198?) stands out in his arguments that the focus of a central bank's main policy instrument - monetary policy ought to be geared towards promoting low inflation. The basis of this view rests with an assumed conceptual relationship between price macroeconomic instability. It is posited that high and unstable prices, is costly to economic agents, causes uncertainty and results in reduced long-term economic growth. This view is associated with developed economies, where the process of inflation is strongly associated with excess money growth. Carried to its logical conclusion this approach also envisaged an international coordination role for monetary policy among world central banks to keep prices stable or more precisely manage the gold standard. This concept of central banking naturally leads to an operational framework for the conduct of monetary policy. Indeed, a number of simplified rules on money growth and its relationship to national income have been proposed. Among the most famous is the rule proposed by Friedman (196?) on the growth of money relative to income. This view of monetary policy of course, obviates the need for stabilization policy once the money growth rule has been appropriately set. A main criticism of this however, is that it assumes a particular transmission process for monetary policy. This is especially so in the context of less developed economies, which either lack a developed financial sector or where the inflationary process is externally driven and causation runs from prices to money.

Bhatt (1980) and Chandavarkar (1988); have argued that central banks especially in developing countries must focus primarily on matters of development generally and particularly financial sector development. This focus is required precisely because the institutions, through which monetary policy affects the economy, are in most cases non-existing. This approach has also been advocated for transition economies, see Sundarajan (1991), where there is a need to build capitalist institutions from the ground. Khatkhate (1991) also advocates a developmental approach to central banking especially in the context of financial sector liberalisation. In his approach, however, stress is placed on the importance of balancing the variegated needs of savers and investors, within the limits of prudence, efficiency and effectiveness. In the Caribbean literature and experience, the developmental role of central banks has also been promoted relentlessly. Among the more famous works are those of McIntyre and Best (1961), and McClean (1975) who have all emphasized the need for a developmental bias in respect of central banks in the Caribbean. According to McClean, (pg. 14),

...the ECCA should concern it self with financial reconstruction. It should be pursuing policies designed to reduce the degree to which the financial system is integrated with North Atlantic systems, whilst imparting a regional bias to local financial institutions. It should also seek to promote the development of additional institutions as are necessary to cater fully to the present and future credit requirements of a developing region.

... It should seek to place itself in a position where it is able to exercise quantitative and qualitative control over the portfolio preferences of financial institutions.

In a sense the development and the price stability views of a central bank's purpose are not inconsistent as the arguments for an emphasis on development is merely to create an

environment where the central bank can eventually rely on indirect monetary policy instruments and more so focus on price stability.

From a totally different perspective, which obviates the need for a distinction between developed and developing economies, Blackman (1979), argued quite convincingly that the main function of a central bank is the provision of liquidity to domestic economic units. Moreover in its management of these powers the bank can either be functional or dysfunctional in promoting conditions for growth and sound economic performance. In Blackman's view the special role of central banks in developing economies is to pursue policies, which channel credit to investment activities in the productive sectors. There are at least two conceptual difficulties in implementing such a central banking strategy. First, the concept of investment in the context of developing economies, with high poverty mal-nourished people, must be appropriately determined. The second issue is the concept of 'productive sectors'. These terms are undefined in the special circumstances of developing economies. A further difficulty with Blackman's concept is that it excludes those arrangements (central banks), which have no powers to create liquidity, such as currency boards.

The main benefit of currency boards is that they provide policy credibility, which is a fourth way in which to classify a central bank's purpose. In a way the arguments as it relates to policy credibility is an outgrowth of the early literature, which focused on price stability. However, in this new role appropriate institutional frameworks; such as a functionally independent central bank is suppose to underpin policy credibility

(Blackburn and Christensen, (1989)). In general policy credibility means, choosing a particular economic strategy on which the policy authorities do not renege even where incentives exist for such. In the current policy debates credibility is couched within the inflation targeting framework and the central bank's ability to manipulate monetary policy to stay within the inflation target range. The current focus on inflation targets for monetary policy posits, inter alia, that low and stable inflation is good for economic growth. However, this flies in the face of empirical evidence, which suggests that countries with high inflation have also experienced reasonable economic growth. Moreover, some author's have argued that pushing inflation below a particular level may in fact be harmful to consistent and sustained economic growth. Policy credibility can also be judged by the ability of central banks to maintain the external value of the domestic currency, e.g. the Eastern Caribbean dollar against the US dollar at nominal exchange rates. A central bank's perceived commitment to policy credibility can be judged by both historical experience and also the institutional framework, which makes it difficult to renege on previously announced or adopted policy goals. In this scheme central banks which are closely aligned with the fiscal authorities can be perceived as least credible, and currency boards as most credible, with independent central banks somewhere in between these two extremes. However, in the institutional setting of a currency board, appendage of a central bank does not further contribute further to credibility, but may in fact weaken the perceived commitment. One interpretation of this may be that the existence of a central bank, alongside a currency board is an indication that the policy authorities have multiple objectives in respect of financial policy, all or some of which may be in conflict with the ultimate objective of the currency board.

Corbett, and Mitchell (2000), Sleet and Smith (2000), Repulla, (2000) and Freixas, Parigi and Rochet (2000), has identified the main role of a central bank, especially in emergent technologically advanced economies as one of providing services to the rest of the financial system so as to promote a safe and efficient financial system and thereby prevent dislocation and promote economic growth and development. The basis of the services, which the central banks' provide is information, which is deemed superior to that, held by private agents. In this scheme, therefore, central banks engage in such functions as supervision of the banking system to obtain inside information on the balance sheet quality of banks. In the same breath the lender of last resort function is seen as a form of government intervention in the private market using information obtained during bank supervision to assist banks to prevent bank failures and thereby macroeconomic instability. A similar argument is put forward for the central banks' involvement in the payments system. The central banks' superior information, is used to coordinate payments and thereby prevent gridlock. Part of the coordination role may be if needed to provide liquidity to effect timely payments through the lender of last resort facility. A main challenge of this approach is problems posed by asymmetric information and how best to resolve them. For example, where the argument is put forward that a central bank is best placed to operate as a lender of last resort, it assumes that the Bank can easily and on average distinguish between a liquidity problem, which needs a lender of last resort, and an insolvency problem, which requires a fiscal solution. Moreover, such a view of the central bank to effectively operate, necessitate the creation of networks, to capture information, even where participants finds it profitable to hide from the central bank. In effect the central bank must find a way to deal effectively with

opportunistic behaviour on the part of agents. To be effective the central bank would have to strike a balance between regulating quality and quantity of the financial services industry. In addition, this must be done in an environment where the policy authorities are unsure of the value of the future output.

Finally, Smith (1936), among others have viewed central banks as political animals, connected with the exigencies of state finance, and no economic reason for their monopoly status as it relates to money, i.e. note-issuing trade. It is this monopoly to issue notes, which is the basis of the other functions, which has since characterised central banks. In effect, in this conceptualisation central banks are not a natural product of banking development, but an imposition. It owes its existence to government favours, which has influenced the evolution of the entire monetary and credit structures. The conceptual framework for Smith's work is, the controversy between the banking and currency schools of thought on monetary management and secondly the historical development of central banks in England, Continental Europe and North America.

This section has reviewed two broad themes of work as it relates to the purpose of central banks. The first branch uncritically accepts the relevance of central banks to the proper functioning of modern societies. Within this theme, there are at least five different interpretations as to the role of a central bank in the economy. The spectrum of central bank roles, starts with enforcing price stability and at the other end stresses development. In between, these two extremes are roles such as the ultimate provider of liquidity, enforcement of credibility and an agent to deal with information asymmetries

in financial networks. The second theme on central banking does not accept the notion of a central bank as a natural development of banking, but instead as a political animal to which no economic basis can be ascribed. In other words, a central bank's existence and therefore, its functions emerge largely because of the monopoly power, which has been ascribed to it by the government. This is where it derives its importance and therefore, the relevant question is whether an alternative mechanism - no central banks - would yield a more efficient outcome for macroeconomic performance.

4. CONCEPTUAL FRAMEWORK

The primary policy focus of the ECCB is the maintenance of, as far as possible, the external value of the domestic currency. This is judged by the ability of the authorities to maintain at fixed parity, the nominal exchange rate of the EC dollar to the United States (US) dollar. This rather basic requirement has some very significant policy implications for the currency arrangement. In particular, it implies that domestic financial policies must be consistent with the external policy objective, that is, the fixed exchange rate. The ECCB operates under a rule which requires it to maintain a target level for the foreign assets which it holds (FRM) at all times, as some proportion^v of the reserve money (RM), implying a target for foreign assets of the monetary authority.

$$\Sigma FRM_i^T = \Sigma \delta_i * RM_i \quad (1)$$

Hence, changes in foreign asset target (FRM_i^T) could come about from changes in the policy parameter δ or from changes in RM_i . The level of FRM chosen automatically affects the extent of domestic liquidity, which the Central bank can provide to the domestic economy.

In the ECCB arrangement, lending to member governments (MLG) is determined in a series of steps. The following provides a stylistic view of the process. The monetary authority allows credit to government but it operates under a rule which limits the extent of that credit (see, Nicholls, 1996). The credit limit is determined δ , which implies that the targeted credit pool (ΣMLG_i^P) of the ECCB can be represented as:

$$\Sigma MLG_i^P = \Sigma [1 - \delta_i] * RM_i \quad (2)$$

Hence, by choosing a particular target for its foreign assets, the monetary authority, by implication, determines its targeted credit pool as the residual. Moreover, in this set up by implication, each country is an individual currency system with its own distinct pool of credit, that is, its credit quota. The allocated quota of ECCB credit for each particular member can be represented by their individual δ_i . Then the ECCB's overall target represents the summation of these δ_i over its membership. Hence, the ECCB represents a system of individual country currency boards. This is a crucial result, for it determines the effect members' actions has on the ECCB's balance sheet and hence, on the other members of the ECCB arrangement. For instance, this assumption effectively allows some members to be rationed out of the ECCB's credit pool without this process affecting other members' access to ECCB credit. So at any one time, there are some members constrained and others unconstrained.

The individual governments right of access (MLG^R) to the ECCB's credit pool is calculated in the following manner. The first set of rights is for short-term borrowing. This consists of two elements: first, members have rights to advances based on 5 per cent

of the average of the past three year's current revenue of the particular member government. In the case of treasury bills, their access is based on 10 per cent of current revenue of the individual government. There are also provisions to allow member governments to access long-term credit. This is determined as a proportion of reserve money issued by the ECCB. The holding of these long-term securities at any one time cannot exceed 15 per cent of the RM issued by the ECCB. Therefore, the individual member government right under this facility is a proportion of the overall 15 per cent for the region as a whole.^{vi} These can be represented symbolically as:

$$MLG^R = [\varphi * ((T + T_1 + T_2) / 3) + \Phi * T + \varepsilon * RM_i] \quad (3)$$

Hence, $\varphi = .05$, $\Phi = .10$ and $\varepsilon = .15$. Each member is assumed to have a demand function for credit from the credit pool, which is a proportion σ of their rights of access. This credit demand function (MLG_i^D) can be represented as:

$$MLG_i^D = \sigma * MLG_i^R, \quad 0 \leq \sigma \leq 1. \quad (4)$$

The variable σ determines the actual level of credit that is demanded by the government at any particular period. The level of credit actually transacted (MLG_i^a) between the regional central bank and the individual member country depends on the status of the member's quota.^{vii} In general,

$$MLG_i^a = \min\{MLG_i^d, MLG_i^p\} \quad (5)$$

where $MLG_i^p = [MLG_i - \Sigma MLG_i^a]$

In the first situation, the amount demanded by a member government is less than its quota, so its demand is satisfied. We can write this symbolically as,

$$(a) \quad MLG_i^a = MLG_i^d, \quad \text{iff } MLG_i^d \leq MLG_i^p.$$

In the alternative situation, the amount demanded is greater than the amount in its quota, so the government's demand is constrained. It will receive only what is in the pool. Symbolically,

$$(b) \text{MLG}_i^a = [\text{MLG}_i^p / \text{MLG}_i^d] * \text{MLG}_i^d, \text{ iff } \text{MLG}_i^d > \text{MLG}_i^p.$$

which implies therefore, $\text{MLG}_i^a = \text{MLG}_i^p$.

Underpinning these arrangements is an institutional framework, which distributes decision making power equally across its membership. The basic elements of this institutional framework includes, a monetary council, which is the policy making body, a board, which is charged with the overall management of the Bank, and the Governor and Deputy Governor, who are charged with the overall responsibility of the day to day operation of the Bank. In addition the governor is required on a semi-annual basis to report on the credit and monetary conditions in the ECCU to the Council. The rules of unanimity apply in the decisions of currency peg and foreign asset cover adjustment in respect of the Board and Council, otherwise decisions only require a quorum. In the day to day operation of the Bank, the Governor is fully and solely responsible to the Board of which he is Chairman.

5. PERFORMANCE FACTORS OF THE ECCB

5.1. EFFICIENCY MEASURES

5.1.1 Sources of seigniorage

On average, over the period 1980 to 1996, the ECCB earned approximately \$30.0m or 1.3 per cent of GDP of total monetary seigniorage (TMS) see table 2. The majority of

this was earned in two sub-periods, 1980-1986 and 1992-1996. In these two sub-periods, TMS averaged \$31.9m or 1.38 per cent of GDP a year. The main source of TMS for the ECCB, given its particular institutional arrangement, is earnings from the foreign assets, which backs the domestic currency.

{Table Two, near here}

Between 1985 and 1987, the ECCB's monetary base increased. However, this was counterpoised by the fact that this was matched by a sizeable jump in the foreign assets of the Central Bank. During this period, domestic assets of the Central Bank also increased but this was outperformed by the increase in foreign assets, which removed liquidity from the domestic financial system. In general therefore, the movements in the monetary base of the ECCB are largely related to movements in the foreign assets. When the Central Bank accumulates foreign assets, this increases its future TMS earning potential. Conversely, the decumulation of foreign assets not only impairs the quality of the Central Bank's balance sheet, but also its future TMS earning potential. Over the period the main source components of seigniorage were foreign investment income, and currency debasement. Income from foreign assets accounted for the majority of TMS earnings to the Bank. It is important to note that the extent of foreign income depends on other things, the stock of foreign assets, which is directly related to the monetary base of the ECCB.^{viii}

{Table Three, Near here}

5.1.2 Distribution of Seigniorage

Table three provides information on the distribution of ECCB's seigniorage among its membership. An important factor which emerges, is that the countries for which the

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ECCB hold debt tend to gain more seigniorage, 'other things equal', than those which reduce their ECCB debt over time. By implication therefore, those countries, which rarely issues debt to the ECCB, depend much more on the ECCB's dividend payments to obtain a portion of the generated fiscal seigniorage. If fiscal seigniorage, is taken as an approximation to each country's access to seigniorage, Antigua and Barbuda obtained the largest proportion of total seigniorage from money creation and maintenance. This is a reasonable assumption, where the ECCB does not systematically lend to other sectors within the domestic economy. Hence, 'a priori' one would expect that the majority of the seigniorage to accrue to the participating governments. However, the fact that the ECCB operates as a service center to member governments means that the seigniorage that they obtain is understated by that amount. These flows are recorded as operating expenditure, and are difficult to allocate across member countries. Therefore, those countries, which use the services of the ECCB more sparingly, gain less seigniorage. Indeed, augmented fiscal seigniorage is higher than pure fiscal seigniorage. It has become much more important in the 1992-1996 period, as pure fiscal seigniorage flows to governments has declined. This in a sense is seigniorage substitution. That is, where one source of fiscal seigniorage is substituted for another. A straightforward result of this analysis is that, the ECCB's policy stance can be used as a mechanism to redistribute revenue from money creation and maintenance to particular countries within the arrangement.

5.1.3. Reserve Pooling

One of the key reasons for joining a currency union is the potential gain as it relates to greater insurance coverage against payment imbalances. This gain or loss is usually judged on the basis of the average foreign reserve balances divided by its standard deviation. Where this ratio is smaller than the individual country ratio, then it may be beneficial for this country to join the union, other things equal. Information on the parameters of reserve pooling within the context of the ECCU is presented in table four.

{Table Four, Near Here}

Over the entire period of analysis, 1985 to 1998, all countries within the currency union gained greater foreign asset coverage compared with the coverage, afforded by individual countries. However, there were two sub-periods 1985 to 1990 and 1990 to 95, when the pooling arrangement was inferior to the coverage available to two countries. In the first sub-period, 1985 to 1990, St.Kitts and Nevis enjoyed a higher foreign asset cover relative to the entire currency union. That is SKB had a coverage ratio of 3.83 compared with a ratio of 3.82 for the entire union. In the second sub-period, 1990 to 1995 SKB with (7.7) and SVG with (10.7) had higher coverage ratios compared with the pooling solution at a ratio of 7.5. On an overall basis, Antigua and Barbuda and Montserrat gained most from the reserve pooling arrangement within the ECCU. On the other hand, SVG and to a lesser extent SKB gained the least from participation within the reserve pool.

5.1.4. Operational efficiency of the Central Bank

Operating cost was the second largest user of TMS at 0.48 per cent of GDP over the period 1980 to 1996, see table 4. The highest usage (0.51 per cent of GDP) occurred in

the period 1980 to 1986. Over the entire period, operating cost grew on average by 24.4 per cent per year. On the other hand, net profit has averaged approximately \$13.3m or 0.65 per cent of GDP over the period 1980 to 1996. The majority of this profit, 1.37 per cent of GDP, was earned in the period 1980 to 1986.

{Table Five, near here}

In the early years of the period (especially 1980-1982), operating expenditure represented approximately 0.8 per cent of GDP. The main factor in this high expenditure ratio was interest expense of the ECCB. However, in mid 1980s (1983-1989), as a per cent of GDP, operating expenditure declined appreciably in line with a fall in interest expense. During the period 1980-1986, interest expense represented 0.27 per cent of GDP, however, in the final period 1992-1996, interest expense represented 0.065 per cent of GDP. Since the 1990s, the operating cost of the ECCB jumped, especially in 1995 and remained high in 1996 as a per cent of GDP. Operating expenditure in the 1990s as a share of GDP is still less than its share of GDP in 1980-1984 period.

As a proportion of TMS earned, total operating cost represented approximately 56.7 per cent over the entire period. In general, operating costs appear to be trending upwards. Its highest level was \$43.9m in 1996. There was a significant jump in operating expenses in the period 1992 to 1996.

{Chart One, near here}

An examination of the table (4) suggests that administrative expenditure has expanded quite rapidly between 1992-1996 as a per cent of GDP. In the period 1980-1991,

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administrative expenditure represented approximately 0.15 per cent of GDP. However, in the final period of the study, 1992 to 1996, administrative expenditure as a share of GDP represented 0.37 per cent. Moreover, as a share of TMS administrative expenditure represented 71.5 per cent over the period 1992-96, but 30.3 per cent over the entire 1980-1996 period.

Presumably one of the main benefits of a common central bank for a group of small countries is the perceived savings in operating cost and the implied efficiencies therein. To examine this claim closely the administrative cost of operating the ECCB is compared against two benchmarks, the central bank of Barbados and the indigenous commercial banks in the ECCU.^{ix}

On average over the period 1980 to 1996, administrative cost to total assets for the ECCB amounted to approximately 45.8 per cent. This ratio appears good, when compared with a ratio of 67 per cent for the central bank of Barbados over the same period. However, against the ratios for the indigenous commercial banks, it is relatively inefficient. On average the administrative cost to total costs of the indigenous commercial banks were for the region as a whole 44.8 per cent. On an individual country basis, it varies a bit, with Grenada being the highest at 56.3 per cent and St.Kitts and Nevis at 34.4 per cent the lowest. Compared with the ECCB's administrative cost efficiency, all indigenous banks, except those in St.lucia, Grenada and Antigua, were more efficient - less than 45.8 per cent of total cost.

In terms of total cost to assets the ECCB scored an average of 4.3 per cent, whilst Barbados had a ratio of 4.04 per cent. The commercial banks were again much more efficient, with an average cost to assets of 1.9 per cent. Nevertheless administrative cost expressed in per capita terms, the ECCB is much more efficient than the central bank in Barbados. The ECCB over the 1980 to 1996 period achieved a per capita total cost of approximately \$32.4 compared with a ratio of \$91.3 for Barbados.

5.1.4. The ECCU Payments System

The potential for systemic risks and thereby generalised instability in the banking system provides a strong rationale for the central bank's involvement in the payments system and also supervision of commercial banks. In the current setup of the ECCU the Bank is at the center of the payments system. Up to June 2000, the Bank operated a multi-lateral netting – end of day batching. Under this regime, the Bank as the network manager had to calculate each bank's surplus or deficit as a result of their transactions with other banks in the system. These net surplus/ deficit balances were then presented to the individual banks for settlement. Banks in a net debit position paid this to the net work manager, who transferred these to the net creditors in the network. The amount of funds required for settlement under this arrangement was one half multiplied by the net debt/credit positions of the banks in the net work. There was therefore, a certain amount of economy from the deployment of a netting system as it related to the use of liquidity balances. However, because of technological difficulties, the Bank never knew the true balance of the commercial bank until the next day, and therefore on many occasions provided free overdrafts to them and thereby faced an involuntary credit risk.

Since June 2000 the Bank switched its payments system to a real time gross settlement platform. In this new arrangement payments are only processed if the individual bank has the necessary funds and has paid any cost associated with acquiring liquidity. The main advantage in this payments system reform is the perceived benefits as it relates to systemic risk management, although there appears to be an efficiency cost as it relates to required liquidity balances for settlement. In this new regime (gross settlement) the ECCB as network manager has no calculations to make only to verify that transactions are effected. In this scheme each bank is required to transfer the total amount of funds required to effect its outward transaction to other banks. That is total funds required for market clearing must be equal to the gross value of total transactions. Therefore, under the gross settlement, the maximum number of transfers necessary to settle is the number of banks in the network multiplied by the number of banks in the network less one.

An additional factor for the development of the new system is the requirements of the money and capital markets initiative of the ECCB. With a RTGS system it would facilitate delivery vs. payments type settlement. This new system, however, puts added focus on the central bank as the main agent of liquidity information and management for the ECCU. Currently the increased demand for intra-day liquidity is being managed through the inter-bank money market, which has showed signs of liquidity shortfalls. At a later stage, when the system becomes fully automatic, the Bank intends to introduce a queuing mechanism and peak load pricing to manage liquidity use in the system.

Significant problems remain, however, in the discharge of inter-currency union payments. It is fair to say that the Bank in the past had not fully grasped the importance of an efficient small value payments system as a mechanism for fully integrating the disparate economies within the ECCU. This is especially in cases where cheques are involved; the cost of effecting payments is very high, as there is usually an explicit charge and a significant float. Several studies have been conducted which has unmasked significant inefficiencies and bottlenecks in the small value system as currently constituted. One of the main difficulties identified consistently is the astronomical cost of telecommunication services between the member countries of the ECCU.^x It is in this light that the Bank in conjunction with the commercial banks has commenced a process of small value payments system upgrade in a coordinated approach.

5.2. POLICY MANAGEMENT

5.2.1. *Liquidity Management*

There are of course two aspects to this function. The first relates to the management of the foreign reserves of the ECCU, whilst the second aspect relates to the management of domestic liquidity. In respect of the first, the ECCB and the commercial banks share this responsibility. The foreign assets of the commercial banks are essentially used by individual countries to finance trade. The ECCB's role in this is to provide foreign exchange cover for any short falls, which usually amounts to approximately 20 to 30 per cent of the portfolio on average.^{xi} The majority of the ECCB's reserves are long term funds, geared basically for backing the EC dollar. These funds, therefore, do not

directly finance trade or payments and are invested long and serves as the basis for much of the Bank's income. Potentially the duration on these funds can be as long as the currency union survives, since as long as people hold EC dollars, these funds would remain. These long-term funds are held under management, with duration of approximately two years. The ECCB does not directly regulate the quantity of domestic liquidity in the system. However, primarily through its management of an inter-bank money market for the commercial banks it plays an important role in redistributing liquidity from surplus units to deficit units within and across countries. The Bank effectively underwrites the operation of the market. The precise mechanism for the Bank's participation is through its matching of bids and offers for a small fee. The interest rate on this market is fixed by the ECCB. This market has been used for warning signals on those banks, which are likely to be facing liquidity difficulties.

The Bank also provides liquidity to the commercial banks in a limited way through discounting of treasury bills of those member governments that issue bills up to a statutory limit.

5.2.2. *The monetary implications of fiscal policy.*

5.2.2.1 Direct lending to member governments

As mentioned above there are statutory provisions for the Bank to lend to member governments on direct terms. In practice, the amounts available to each government is relatively small compared with their usual financing requirement. Moreover, each member appear to have divergent preferences for foreign assets, reflected both in the

negotiations to set up the Bank and in their actual use of available credit. Therefore, much of the available credit is not usually taken up and by implication the foreign asset ratio has remained relatively high at approximately 90 per cent for the majority of the 1990s. However, this restriction on direct credit access has not generally resulted in a constraint on public expenditure plans. Instead it has shifted the financing of governments' borrowing requirement to other institutions, sometimes in ways which may pose future financial sector management difficulties for the Bank. One of the methods by which this has evolved over time is that an increasing proportion of work conducted on behalf of member governments is being subsumed under the budget of the central bank. This of course, has implications for liquidity creation by the Bank. Another important avenue for public sector substitution of debt instruments is through the commercial banking system in various ways. The discussion below deals with each of these issues.

5.2.2.2. Required reserves.

The required reserves, which exist, are uniform across the union since 1985. Before 1985, required reserves existed at different rates in all countries. The highest rate was 20 per cent in Grenada and the lowest was at 6 per cent in St.Kitts and Nevis. The unification of the required reserves involved the central bank in a major quasi-fiscal operation. In effect the previous reserve balances in excess of the 6 per cent (a liability to member governments) was transferred to the balance sheet of the central bank. This debt is now an asset of the central bank and a liability to member governments.

The reserve requirement is now applied uniformly at 6 per cent of deposits, with an averaging period of one week. Originally these reserve requirements were introduced to finance member governments. In the new reserve regime under the ECCB, the purpose is a bit less transparent. However, it can be argued, that the purpose is largely the same, i.e. revenue generation, since the larger the reserve balances the larger is the potential seigniorage flows.

5.2.2.3. Moral suasion

Moral suasion is used to push the commercial banks in particular directions, which is deemed to be useful from a central banking perspective. Much of the moral suasion practiced by the ECCB is related to the enforcement of the prudential regulatory and supervisory practices. The only penalty for a commercial bank in breach of the uniform banking act is the withdrawal of its banking license. However, this is a rather blunt policy instrument, and therefore, before that stage is arrived, moral suasion significant private arm-twisting is usually required. A main challenge in the use of this particular instrument is that on many occasions the root cause of a commercial bank's difficulties lies with the fiscal authorities. The usual approach for resolving this is to employ a tripartite committee, whereby the ECCB, the commercial bank and the particular government negotiate a reasonable adjustment path. Thus far this has worked, as the relevant parties have been credible in their commitment, aided by a relatively stable external sector, which has ensured reasonable economic growth. In another environment, it may not always prove easy to maintain fiscal discipline.

To adequately address these concerns the Bank has embarked on a more fundamental issue of economic management in member countries. In this regard, the Bank is promoting the use of the financial programming framework as a basic tool of policy making at the macroeconomic level. It is hoped that through this framework the consequences of individual member government's fiscal plans will be transparent and thereby allow governments the opportunity to change course.^{xii}

5.2.2.4. Lender of last resort

The Bank is legally obliged to act as a lender of last resort for the commercial banking system. This instrument has been rarely used presumably because of the structure of the banking system in the ECCU. The majority of the commercial banks are branches of foreign banks and in a sense can and do rely on the resources of its parent. The lender of last resort facility is more geared towards the indigenous commercial banks. However, there are a number of difficulties in the use of this instrument in the current environment. The first difficulty rests with the fact that the fiduciary issue of the Bank upon which any lender of last resort facility must be based is usually preempted by the participating governments. Secondly even if this was not the case, because of the foreign asset rule of the central bank, the lender of last resort facility is limited and may not be sufficient if a true crisis emerged. Thirdly a number of the difficulties of the banks which may lead them to seek assistance would reasonably classify them as cases for the fiscal authorities. That is, liquidity is not usually the difficulty, but more so the overall solvency of the institutions. At least one such case has emerged, where the Bank of Montserrat, at the request of the Government of Montserrat, had to be

supported by the Bank, as a result of significant bad debt due to mismanagement. The doubtful loans (EC\$15m) were acquired by Caribbean Assets and Liabilities Management Services limited, an ECCB subsidiary^{xiii} – in effect a contingent liability to the ECCB.^{xiv} A further difficulty in the operation of the lender of last resort is that it rewards imprudent behaviour. For example, countries with problem banks, which require significant borrowing from the central bank, would, other things equal, gain more seigniorage than countries with a relatively sound banking sector. There has, therefore emerged a problem of policy credibility on the part of the ECCB as it relates to the bailing out of financial institutions - too big to fail!

5.2.3. Regulation Policy

The regulatory policy framework of the ECCB has thus far only focused on the commercial banks. Even in this regard the Bank's policy stance is circumscribed by the difficulties of working with eight principals. The Bank's role in regulation is largely reporting. Moreover, in this role it has focused its efforts on the indigenous commercial banks. The powers of the Bank to regulate the financial system is outlined in the Uniform Banking Act (UBA), which allows the Bank to supervise institutions engaging in banking business. Banking business in this context is defined as deposit taking and money lending. Therefore, in a general sense, the act appears to cover the entire financial sector. However, the powers under the act resides essentially with member governments. Indeed the Bank has only been invited to supervise the commercial banks by all government. Some governments have recently also asked the ECCB to supervise their offshore financial sector. Under this UBA the Bank is entitled only to examine

and report. Each member government has the essential powers as contained in the act. An example is the issuance of a banking license or approvals of mergers. Member governments can issue licenses or approve mergers with or without the assistance of the central bank as the record has revealed.

Nevertheless, precisely because of the monetary and exchange rate operational framework of the Bank, the ECCU has been virtually free of any generalised banking sector panic and crisis up to this point. Therefore, from an overall perspective, it may be argued that the record of the Bank on regulation has been reasonably good. There is however, much more work to be done and the ECCB along with member governments continue to enhance the regulatory framework and enforcement mechanisms to further safeguard the soundness of the financial sector. These efforts span the entire financial sector from the commercial banks to non-bank financial sector, including offshore institutions, which holds a reputation risk to the jurisdiction. However, progress on these regulatory initiatives has been extremely slow.

5.2.4. Policy Independence

If policy independence is defined as the state of affairs, where once a policy stance has been decided, the Bank is left 'free' to implement that policy until it changes, then the ECCB is generally independent. The Bank enjoys a particularly high degree of policy independence as regard to the exchange rate regime, the foreign asset rule and the government's access to ECCB credit. However, in other aspects of the ECCB's operation, such as regulation and supervision, the policy independence may not be as

clear cut. Therefore, on an overall basis it may be reasonable to suggest that the Bank enjoys some level of independence, however, as it ventures away from its traditional activities, new challenges emerge. This is especially the case with regulatory framework, by its very nature is a political process full of compromises, which then opens the Bank to the potential of subtle manipulation. Moreover to further support this independence the Bank is essentially self-financing and more importantly is profitable. More, its Board and Monetary Council are representing different political interest, therefore, unless there is collusion their self interest ought to protect the institution against political business cycle type policy intervention. However, in the context of SIDS, the concentration of expenditures in particular jurisdictions at the expense of the rest of the arrangement can raise eyebrows and may compromise the future effectiveness of the institution.

5.3. DEVELOPMENT AGENDA

5.3.1 Financial Sector Development.

The role of the Bank in this aspect has been geared mainly at two levels. First creating institutions to trade in long term instruments and secondly at creating the environment, within which a regional money and capital market can emerge^{xv}. The main challenge and therefore, focus of the Bank's efforts on the environment has been the legal issues as obtained across the currency union. The Bank's role in this effort has been one of coordination and direction. The speed at which the entire process moves lies with the promptness with which legal amendments and other legal reforms are passed in the member countries. There are of course a myriad of legal deficiencies which characterise the policy environment within the currency union, and these in no small way hinders the

speed at which the regional money and capital markets can become fully functional in an efficient way. The legal drafts on which Bank is focusing as a minimum set of rules to effect the commencement of the project are^{xvi}; uniform securities law; uniform corporate law; uniform Bankruptcy Law; uniform trust legislation; nominee ownership status and uniform commercial code. The Bank as coordinator and in a real sense originator of this program has had to put in substantial resources to get the project moving forward.^{xvii} However, the project has fallen behind schedule mainly because of legal reform issues, and also mid stream changes in project design.

The main regional capital market institutions which has been launched by the Bank has been the Eastern Caribbean Home Mortgage Bank. The initial activity in this institution was slow, however, in recent times as liquidity has tightened the ECHMB has been able to increase its profile.

6. EMERGING CHALLENGES FOR THE SUSTAINABILITY OF THE ECCU

6.1 *Intergenerational inequity of fiscal plans*

The essence of this hidden time bomb lies in the generosity of the pay as you go social security programmes and the fiscal expansionary programs of regional governments' in respect of large social investments financed at high commercial rates. These problems are going to put severe fiscal strains on the ability of member governments to remain within the straight jack imposed by the monetary arrangement. This is even more challenging where the inter-generational deficits of the various countries are different.

6.2 *Regulation of the financial sector*

External sector liberalisation has opened these economies to competition and new ways of doing old things. The area where this is most immediately apparent is in the financial sector. Except for the commercial banking system, the regulatory provisions and enforcement, which guide the operation of the financial system, is specific to each country. This situation does not raise any difficulties where there is a clear distinction between bank and non-bank financial institutions in terms of operations their potential impact on the payments systems and thereby financial stability^{xviii}. However, as the lines of distinction become blurred, the risks of contagion would also rise and with it risks in the financial system. The tasks for the policy authorities within such an environment is to be clear on what the policy options are and their rationale for regulation. Regulation is expensive and difficult at the best of times, and therefore the focus must be on striking an optimal balance between efficiency and stability.

6.3 *Living with openness*

As these economies further liberalise their capital and financial action the limited degrees of policy freedom which currently now exist would be further eroded. In this environment, the policy authorities must be sure that they do not create perverse incentives for artificial capital flows. The development of the regional money and capital markets, would ultimately create opportunities for the financial sector to contribute to growth, however, it also further opens and exposes these economies to spillover effects of financial policies and difficulties elsewhere in the world. In effect, the full liberalisation of the capital account would require that the authorities rectify

structural fiscal imbalances where they exist and most certainly abandon any pretensions of conducting monetary policy.

7. SUMMARY AND CONCLUSIONS

The paper provided several insights into the operational framework, functioning and threats to the ECCU. The first insight was the explicit modeling of the credit and pooling arrangements as it relates to the ECCB. Secondly, the paper provided estimates of the extent of seigniorage generated by the arrangement and its distribution. Thirdly, the operational efficiency of the Bank was analysed and as a benchmark compared with the largest commercial bank in the currency union. Estimates of the gainers and losers from foreign asset pooling within the context of the ECCU were also presented. The analysis revealed that the regulation of the financial system within the context of the ECCU is a particular challenge, even where it is focused only on the commercial banking sector. A main factor is the issue of multiple principals. The quality of the Bank's policy, judged by its ability to restrain domestic liquidity creation has thus far been sound. Finally the Bank is largely independent, with an all-powerful Governor.

There are a number of implications, which emerges from this paper. Among these are the management and distribution of seigniorage to member governments. Should the bank distribute all or any seigniorage to governments, while at the same time providing free services. Another implication is the role of quasi-fiscal expenditures and their implications for central bank policy credibility. A central bank can create liquidity where it finances the expenditures of government on its budget, and not only by lending

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to governments. Another important issue is the cost efficiency of central banks and the need for benchmarks to judge performance overtime. A further implication is whether a central bank is desirable when a currency board already exists.

The paper can be extended in at least two directions. The first is to look at the role of the central bank in the regulation of the financial system in the context of a currency union of small-underdeveloped states. A second line of inquiry is into the role of the currency arrangements in the Marco economic performance of the member countries.

A main weakness of the paper is that it did not contrast the results obtained on the performance of the ECCB with those yielded by similar arrangements, else where in the world. An example of such a comparison is with the West African and Central African monetary unions or even the more recently launched European Central Bank. However, it was felt that a number of studies were already available on these other arrangements, while there was a dirth of research on the ECCU and the ECCB. Therefore, a case study of the ECCB within the context of the ECCU was deemed to be most useful as an initial effort.

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Table 1
ECCB Currency Union: Member Country Statistics
(ECSM)

Country	Population Thousands	Area km ² Thousands	Annual Income ^{xix}	Real GDP Factor Cost
Anguilla	9	0.09	17,850	156.4
Antigua & Barbuda	6	0.44	19,196	034.5
Dominica	72	0.75	8,495	425.5
Grenada	91	0.34	5,507	542.9
Montserrat	11	0.10	12,184	97.5
St Kitts & Nevis	42	0.36	10,560	459.7
St Lucia	137	0.62	7,114	1050.7
St Vincent & The Grenadines	109	0.39	4,696	522.2
ECCB Area	557	3.09	8,974	4,289.4
Liberia	2,580	111.00	1,350	--
Panama	2,515	77.10	5,751	--

Table 2: Sources of TMS in the ECCB Currency Union
(In per cent of GDP)

Period	Investment Income	Seigniorage	Diminution of Securities	Total Seigniorage
1980-1986	1.37	0.63	0	1.99
1986-1992	0.938	-0.33	-0.0008	0.612
1992-1996	1.01	-0.26	-0.00036	0.76
1980-1996	1.135	0.159	-0.00015	1.29

Table 3: The Geographical Distribution of Fiscal Seigniorage
(In per cent of individual country GDPmp, period average 1984-1996)^{xx}

	Total	ANG	ANT	DM	GRN	MNT	SKN	SLU
Participating Government Debt	-0.051	0.0038	0.0514	0.064	-0.020	0.11	-0.15	-0.062
Brought outright Net Payments ^{xxi}	2.6	0.246	0.236	0.296	0.36	0.38	0.34	0.333
Change in government's deposits with the Bank	0.34	0.071	-0.012	0.021	0.055	0.097	0.03	0.033
Fiscal Seigniorage	2.2	0.18	0.289	0.341	0.28	0.39	0.17	0.24
Memo:								
Country Shares as a per cent of total monetary seigniorage	49.4	1.2	11.89	6.79	7.3	2.7	2.05	10.09

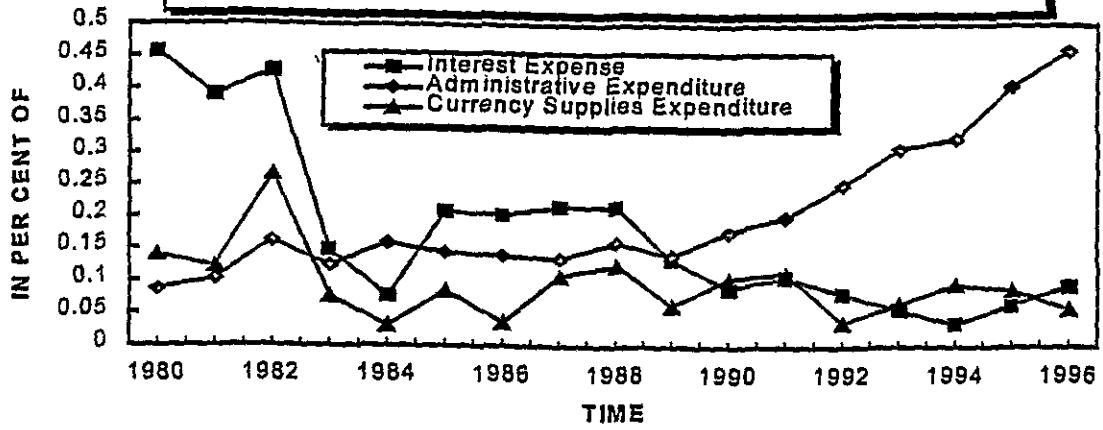
Table 4: Reserve Pooling Record in the ECCU

	Ang	Ant	Dom	Gn	Mon	Skb	SLU	SVG	ECCB
Average	69.4	67.8	53.1	70.8	40.1	81.5	108.8	115.2	678.3
SD	53.7	73.1	28.7	39.1	38.1	36.2	62.3	34.6	168.4
CV	0.77	1.08	0.54	0.55	0.95	0.44	0.57	0.30	0.25
Coverage ratios (sd)	1.29	0.93	1.85	1.81	1.05	2.25	1.75	3.33	4.03
Coverage ratios (cv)	89.64	62.93	97.98	128.20	42.16	183.42	190.04	384.00	2732.82
Gain/loss (sd)	2.74	3.10	2.18	2.22	2.98	1.78	2.28	0.70	0.00
Gain/loss (cv)	2643.18	2669.89	2634.83	2604.62	2690.65	2549.39	2542.77	2348.82	0.00
1985-1990									
Average	36.8	10.0	54.1	42.5	24.0	58.7	128.2	93.5	555.1
SD	14.1	9.6	35.3	18.0	20.1	15.3	47.7	37.6	145.1
CV	0.38	0.96	0.65	0.42	0.84	0.26	0.37	0.40	0.26
Coverage ratios (sd)	2.60	1.04	1.54	2.36	1.19	3.83	2.69	2.49	3.82
Coverage ratios (cv)	95.68	10.35	83.10	100.08	28.55	224.92	344.51	232.43	2123.24
Gain/loss (sd)	1.22	2.79	2.29	1.47	2.63	-0.01	1.14	1.34	0.00
Gain/loss (cv)	2027.57	2112.90	2040.14	2023.17	2094.69	1898.33	1778.73	1890.81	0.00
1990-1995									
Average	42.1	117.9	39.3	79.9	25.2	76.8	134.8	130.5	744.0
SD	38.3	81.5	17.3	44.9	19.0	9.9	48.0	12.2	99.2
CV	0.91	0.69	0.44	0.56	0.75	0.13	0.36	0.09	0.13
Coverage ratios (sd)	1.10	1.45	2.28	1.78	1.33	7.73	2.81	10.66	7.50
Coverage ratios (cv)	46.15	170.52	89.49	142.21	33.53	593.48	378.44	1390.40	5579.31
Gain/loss (sd)	6.40	6.05	5.22	5.72	6.17	-0.23	4.69	-3.16	0.00
Gain/loss (cv)	5533.16	5408.80	5489.82	5437.10	5545.78	4985.83	5200.87	4188.91	0.00
1995-1998									
Average	127.2	107.6	67.8	113.3	85.3	122.0	47.8	132.8	817.6
SD	27.3	99.4	19.7	32.8	37.4	43.8	53.0	32.9	167.5
CV	0.21	0.92	0.29	0.29	0.44	0.36	1.11	0.25	0.20
Coverage ratios (sd)	4.67	1.08	3.45	3.46	2.28	2.78	0.90	4.04	4.88
Coverage ratios (cv)	593.44	116.44	233.55	391.93	194.22	339.48	43.08	536.42	3991.48
Gain/loss (sd)	0.22	3.80	1.44	1.42	2.60	2.10	3.98	0.84	0.00
Gain/loss (cv)	3398.04	3875.04	3757.92	3599.55	3797.25	3652.00	3948.40	3455.06	0.00

Table 5: Categories of Expenditure
(As a per cent of GDP and total extended monetary seigniorage (TMS))

Category of Expenditure	1980-1996	1980-1986	1987-1991	1992-1996
GDP:				
Administrative	0.21	0.13	0.16	0.37
Currency	0.094	0.11	0.10	0.07
Depreciation	0.0064	0.0	0.004	0.02
Interest	0.18	0.27	0.15	0.065
Total	0.49	0.51	0.41	0.52
TMS:				
Administrative	30.3	8.1	24.3	71.5
Currency	10.3	5.9	14.7	13.1
Depreciation	1.2	0.0	0.6	3.7
Interest	16.0	15.2	20.9	12.6
Total	56.7	29.2	59.9	97.3

CHART 3
TOTAL OPERATING EXPENDITURE DISAGGREGATED IN PER CENT
OF GDP



End Notes

ⁱ The Eastern Caribbean Central Bank (ECCB) is the central bank operating within the context of the Eastern Caribbean Currency Union (ECCU). The membership of the ECCU is as follows; Anguilla (ANG), Antigua and Barbuda (ANT), Dominica (DOM), Grenada (GN), Montserrat (MON), St.Kitts and Nevis (SKB), St.Lucia (SLU), and St.Vincent and the Grenadines (SVG).

ⁱⁱ Most of the member states are undergoing a process of transformation, whereby tourism is becoming much more important, than agriculture or manufacturing.

ⁱⁱⁱ See Birguglio (1995) for a definition and distinguishing characteristics of Small Island Developing States.

^{iv} Per capita income is also used as a measure of economic sizes, however, this measure alone may distort the true picture. Therefore, some authors have suggested the use of an index that incorporates all three measures.

^v For the ECCB, the specific percentage is 60.0 per cent. Of course this arrangement amounts to monetary policy by a simple rule.

^{vi} In this work, it is based on 15.0 per cent of the notes and coins in circulation or belonging to the particular member country. This is an implication of the individual member currency board structure of the arrangement.

^{vii} The level of credit demanded and transacted can be quite easily sub-divided into short-term and long-term credit. At that stage, it provides some insight into the processes involved and the different effects of ECCB's long-term and short-term debt on member countries.

^{viii} The foreign investment income would also depend on the interest rate movements, the value of the foreign currency to which the domestic currency is pegged, relative to other international currencies. In general therefore, it depends on the nature of the international monetary system.

^{ix} A criticism, which may be made of this benchmark, is that the commercial banks and the central bank do different things and have different objectives. These statements are of course generally accurate in the abstract, however, from experience the indigenous commercial banks in these countries have at one time or the other functioned in a capacity of quasi-central banks in each country.

^x There has however, been a shift in the policy stance as it regards telecom monopoly in the ECCU. In law the monopoly may have been broken, but consumers are yet to experience the rewards of greater competition. There is still only one supplier.

^{xi} To gauge the likely liquidity demands on the ECCB, the foreign assets are forecasted twelve months ahead and updated quarterly. These forecasts are usually supplemented by other information, such as the performance of the main foreign exchange earners, government's borrowing requirement and a large dose of judgement.

^{xii} In this role however, the Bank is faced with a particularly difficult task of instructing its principals on the way forward. This is a conceptually difficult challenge as it is the Bank which ought to be told what to do, being the agent of the eight governments. However, herein lies the uniqueness of the arrangement, whereby those member governments with good practices can side with the Bank and in the interest of good public policy urge the other countries to improve fiscal management.

^{xiii} The Volcanic eruption in Montserrat has further complicated the asset recovery process.

^{xiv} To effect this intervention by the ECCB member governments were required to pass emergency legislation.

^{xv} The Bank's capital markets project has several components. The main ones are the establishment of an ECCU government securities market; the stock exchange, a venture fund and the ECHMB.

^{xvi} There are other rules, which need to be fixed in all member states. These include the law of evidence, and consumer protection legislation especially as it relates to financial products.

^{xvii} There are plans to recover some of these resources, when the various institutions become operational. For example, the stock exchange is to be capitalised and share sold to the private sector. Without a policy of cost recovery the Bank would in fact be transferring real resources to a wealthy section of the private sector – a regressive policy – unintended effects.

^{xviii} However, there is a potential reputational risk to the entire jurisdiction if difficulties arise in one sector and thereby creates a poor perception (image problem – reputation contamination) for the entire system.

^{xix} The annual income is the Gross National Product at market prices per capita in EC dollars.

^{xx} This period of analysis was chosen because it was the only years for which data on the individual member countries were available.

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^{xxi}This contains dividends paid to the governments by the ECCB, plus interest payments on government fixed deposits, less interest payments on government debt with the Central Bank.