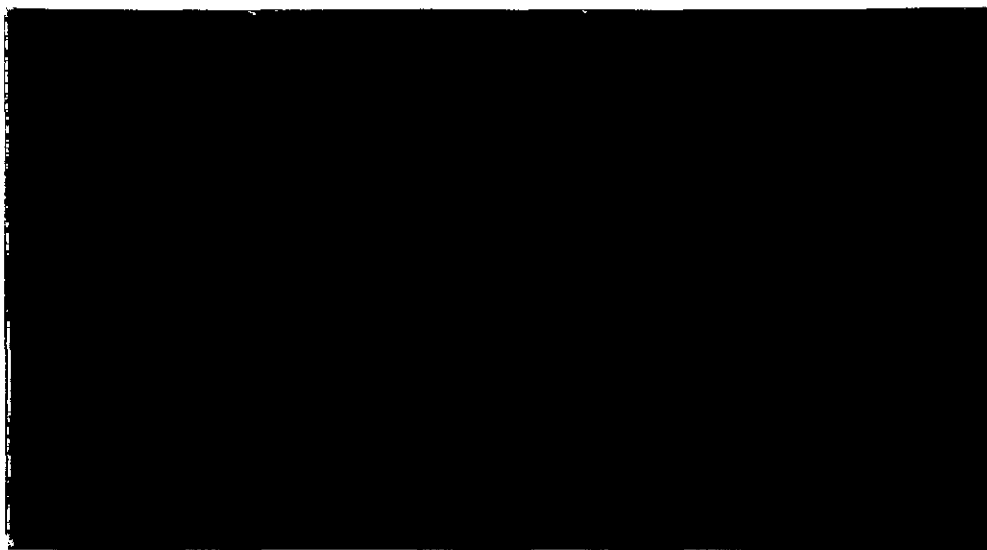




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**INSTITUTIONAL DEVELOPMENTS
AND PROSPECTS FOR THE
21ST CENTURY**

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Institutional Developments and Prospects for the 21st Century

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A. Introduction

The turn of the millennium seems an appropriate moment to discuss institutional developments and prospects for the 21st century for central banks and monetary institutions in the Caribbean. Globally, the past century has seen the rise of central banks. Indeed, in 1900 there were only 18 countries with central banks and in 1999 that number was 172 or well over 90% of the countries represented at the United Nations.¹ The era of central banking in the Anglophone Caribbean, inaugurated with the founding of Bank of Jamaica in 1961, has been with us for a generation.² Central banks were later set up in Trinidad and Tobago (1964), Guyana (1965), Barbados (1972), The Bahamas (1974), Belize (1982) and eventually in the organization of Eastern Caribbean States (OECS), when the Eastern Caribbean Currency Authority (ECCA) graduated into the Eastern Caribbean Central Bank (ECCB) in 1983.³

The **first section** of this paper briefly reviews the level of Caribbean central banks' independence. The **section second** looks at issues relating to a Caribbean Monetary Union and the link between monetary arrangements - monetary union in particular- to supply-side growth. The **third section** examines whether or not the financial sector supervisory function should be separated from central banks in the Caribbean.⁴

¹ *The views expressed represent those of the author and not the views of the Cayman Islands Monetary Authority. I am indebted to Owen Henry and Paul Byles of the Cayman Islands Monetary Authority and Francis Arana of the Cayman Islands Office for Economic, Research and Development for their many helpful discussions and comments. Please address any comments to the author at Cayman Islands Monetary Authority, P.O.Box 10052 APO, George Town Grand Cayman, The Cayman Islands. Telephone: 345-949-7089 ext 1567 or fax: 345-949-2532. Email: m.mckenzie@cimoney.com.ky*

B. Independence of Central Banks

The definition of “independence” is as much a matter of practice as of legal status. Pollard (1993) examined empirical and theoretical studies of central bank independence. As a broad generalisation, interest in central bank independence was motivated by the belief that, if a central bank were free of political pressure, it would achieve lower and more stable inflation.⁵ Cukierman (1992) found that central bank independence affects the rate of inflation in the expected direction.⁶ The degree of economic and financial influence on the central bank is determined by⁷:

- the government’s ability to set salary levels for members of the governing board of the central bank,
- the government’s ability to control the central bank budget and to allocate its profits,
- the government’s ability to determine the conditions under which it can borrow from the central bank, and
- the monetary instruments under the control of the central bank.

The degree of policy influence is determined by⁸:

- the government’s ability to appoint members to the governing board of the central bank,
- whether or not government representatives sit on the board,
- whether the central bank is the final policy authority, and
- whether the “price stability” objective is explicitly and prominently part of the central bank statute⁹.

Some studies examined the link between independence and economic output. If an independent central bank can produce lower inflation than a dependent central bank, does this come at a cost of lower output? Conversely, are dependent central banks attempting to exploit a short-run Philip Curve relationship, accepting higher inflation in order to achieve higher output?

Grilli, et al, (1991) and Alesina and Summers (1993) found no systematic effect of central bank independence on the growth rate of real output. In addition, Alesina and Summers (1993) also found no correlation between the variability of growth and the

level of central bank independence. De Long and Summers (1992) looked at the relationship between central bank independence and output per worker while trying to eliminate differences between countries that were due solely to convergence effects.¹⁰ To do this, they examined the growth rate of real gross domestic product (GDP) per worker during 1955-90, controlling for the level of GDP per worker in 1955. This procedure showed a positive relationship between central bank independence and economic growth. More precisely, they found that holding constant the 1955 level of real output per worker, a unit increase in their index of central bank independence was associated with a 0.4 percentage point increase in growth per year.

In contrast, Cukierman, Kalaitzidakis, Summers and Web (1993) found that output growth in industrialised countries was unrelated to central bank independence even after controlling for structural factors that might influence growth.¹¹ They did find, however, using turnover rate of central bank governors as a proxy for independence, that central bank independence did have a positive effect on growth in developing countries.

Another area of empirical study has been the relationship between central bank independence and fiscal deficits. The motivation for these studies is the belief that independent central banks should be better able to resist government efforts to have them monetise deficits. Thus governments realising that there may be some limit on their ability to issue bonds continuously to finance deficits may decide to limit deficit spending. Parkin (1987), found that there was some evidence of a negative relationship between central bank independence and the long-run behaviour of government deficit as a percent of gross national product (GNP).¹² Grilli, et al, (1991) found that there was generally a negative correlation between the deficit to GNP ratio and the degree of central bank independence. However, when political factors, as well as central bank independence, was included in their regression, the latter variable was insignificant.¹³ Thus they concluded that an independent monetary authority apparently does not discourage the government from running fiscal deficits.

Pollard (1993) found there is some evidence of a negative correlation between average deficits as a percentage of GDP and central bank independence.¹⁴ The degree of independence, however, was not statistically significant (at $\alpha = 0.05$) determinant of

the deficit/GDP ratio. The variability of deficits as a percentage of GDP is also negatively correlated with central bank independence and this relationship is statistically significant.

Pollard (1993) analysis of studies on central bank independence, indicates weaknesses that highlight the need for further evidence before one should believe that creating an independent central bank will improve a country's economic performance. The following four weaknesses are considered:

- 1) the difficulty in measuring central bank independence;
- 2) the possibility of a spurious relationship between independence and economic performance;
- 3) the possible endogeneity of central bank independence; and
- 4) the inclusion of the fixed exchange rate period in the sample data of some of the studies.

In contrast to the empirical studies, the theoretical studies of central bank independence and economic performance concentrate on the conflict that can arise when monetary and fiscal policy are delegated to independent institutions.¹⁵ Pollard (1993) also examined the theoretical implications of central bank independence with a focus on models in which the policymaking process is decentralized. The theoretical studies indicate that non-coordination of fiscal and monetary policies will result in a sub-optimal economic performance from the perspective of both the government and the central bank.¹⁶ Policy targets are more closely met when coordination occurs. Thus an independent central bank is not conducive to achieving better policy outcomes.

However, the theoretical work, like the empirical studies, has its weaknesses. The following weaknesses are identified:

- The models are too simplistic. Neither the preference structures of the two authorities, nor the models of the economy, are completely specified.
- Most of the models operate in a world of certainty. Policy, however, is not made in a world of certainty.¹⁷
- The models also omit one important player in these policy games, the public.¹⁸

- Another deficiency of this literature is its failure to address the feasibility of the policymakers' goals.¹⁹

Several Caribbean scholars have commented on the level of central independence in the region. For example, in 1983, G. Arthur Brown, suggested that central banks in the Caribbean cannot act out of harmony with the mandate of the government in power.²⁰ Blackman (1993) suggested that in the past the political directorates abused the money-creating powers of some central banks in the region, thus promoting inflation, currency depreciation and economic decline.²¹

Farrell (1995) noted that the circumstances of the late 1970s and 1980s were complex and unprecedented in the history of the Caribbean.²² He noted that in the face of severe external shocks, summed up in sharply declining terms of trade, central banks would have had great sympathy for some attempt to mitigate the worst effects of those shocks by the stimulation of domestic demand, while attempting to protect the balance of payments by tighter exchange control and/or changes in the exchange rate. However, having stepped on the slippery slope of money creation, neither the central banks nor the governments found it easy to recover without the assistance of the Washington institutions.

Against this background, we conducted a survey to determine the level of central bank independence in the CARICOM region. Jamaica, Barbados, ECCB, Guyana, Trinidad and Bahamas responded to our survey. Belize was the only non-respondent. We have identified several factors in legislation governing central banks in the Caribbean that suggest that they do not meet the classical definition of independent central banks. (See Appendix A). Central bank law or other legislation in most CARICOM countries require/permit the government (or minister of finance) to do one or more of the following:

- Appoint members to the central bank's board
- Appoint the central bank's senior management staff, i.e. the Governor
- Set salary levels for Board Members and Senior Officers
- Determine the central bank's budget or the allocation of central bank's profits or surplus

- Approve the central bank's monetary policy decisions and
- Access central banking financing.

In addition, in CARICOM countries legislation requires central banks to report to the minister of finance. In the case of the ECCB, the minister of finance is synonymous with the Monetary Council, the highest decision-making body of the ECCB. The members are the Ministers of Finance of the various OECS.

Monetary policy framework within CARICOM countries revolves around preserving the value of local currencies, maintaining price stability (in some instances through explicit inflation targeting) and maintaining adequate reserves to cover at least three months worth of imports. **(See Appendix B)**. It is important to note that in small open economies such as those in the CARICOM region, price levels are strongly influenced by exchange rates, at least in the short-to medium-run. The core problem is that for economies with imperfectly developed financial markets the exchange rate is the most important assets price and jumping asset prices can badly disrupt the markets on which the economic well-being of the majority of residents depend.²³

In 1988, Blackman outlined four minimal reforms that would be required to suppress the intrinsic tendency of Caribbean central banks to drift towards the wrong end of the independence continuum:

1. First the tenure of the Central Bank directorate must be rendered more secure. The Governor and directors should serve on good behaviour, the Governor for at least seven years certain, with one Director retiring each year. The Governor's tenure would routinely bridge administrations and so promote the public perception of the office as professional-technical rather than political.
2. Secondly, the operations of the central bank should be made truly autonomous. The Ministerial veto of staff appointments below the level of deputy governor should be discontinued. Since political considerations are irrelevant in the selection of central bank personnel, the involvement of the Minister is inappropriate.

3. Third, the central bank, as in the U.S.A., should be made responsible to Parliament rather than to the Minister of Finance, thus ensuring that the viewpoint of the Central Bank is at all times known to the public. This would promote the education of the electorate in economic matters and greatly enrich the democratic process.
4. Fourth, the powers of the Administration to resort to central bank financing should be more rigorously circumscribed-ideally by enrichment in the constitution.

Our position is quite simple, macroeconomic stability is a prerequisite for sustainable economic growth and development. It may be difficult, for example, to prove the extent to which the lack of independence of the BOJ contributed to the demise of the Jamaica economy in the 1990s. However, an independent central bank shielded from political pressures is more likely to give priority to price stability and as a result its policies are seen by financial markets as more credible. An independent central bank can therefore deliver both lower inflation and more stable growth.²⁴ Since history shows that institutional arrangement changes frequently, either voluntarily or involuntarily, why not create independent central banks? It is easier to create truly independent central banks as a step to move towards independent monetary policy as in the case of a monetary union.

C. Institution of Macroeconomic Stabilization: CARICOM

Monetary Union

Giving a central bank a clear remit of maintaining price stability, and holding it accountable for achieving that, is seen as a requirement for credible monetary policy regime.²⁵ The view that price stability is the overriding objective of monetary policy is now common to both industrialised countries and emerging markets. A commitment to price stability is now seen as the key to achieving broader economic stability. In recent times, some countries have either delegated monetary policy to another country – as with a currency board – or have determined to decide monetary policy collectively – as in a monetary union.²⁶

In the Caribbean, the institutional arrangements of the Eastern Caribbean Central Bank serves as a model for removing from Caribbean governments both the temptation and the options of runaway fiscal deficits, loose monetary policies, and unwarranted wage settlements.²⁷ Blackman notes that: The distribution of political control over the ECCB among seven governments produces a system of automatic checks and balances within the OECS. No individual member state possesses the licence to monetise its deficits through the ECCB, and all are forced to conduct their financial, fiscal and incomes policies within the iron constraints of their national income and any available foreign loans and grants.

In 1990, the Conference of Heads of Government of the Caribbean Community mandated the Governors of CARICOM central banks to commence a study on the transformation of the Common Market into a Monetary Union. In 1992, the Governors presented a report entitled Caribbean Monetary Integration to the Thirteenth Meeting of the Conference. The CARICOM central bank governors made independence from political direction the centrepiece of the proposed CARICOM Monetary Authority.²⁸ However, Blackman (1992) argued that it is not tomorrow that we need to decide on the independence of central banks, but today. Implying that the independence of various central banks in the region should be a prerequisite in the transition period before the establishment of a CARICOM Monetary Union.

A CARICOM Monetary Union implies a new central bank and a new currency to cover the range of CARICOM countries and currencies, as in the case of the European Monetary Union and OECS. Currency unions are generally formed as part of a larger strategic push to integrate countries entering the currency union, often a combination with free trade agreements, harmonization of legal standards, and liberalized migration laws.²⁹ The decision to enter into a CARICOM Monetary Union requires political will and commitment.

A monetary union is typically defined as an area where a single currency circulates. The bilateral exchange rates are fixed and cannot be change without a country quitting the union and reintroducing its own currency. Within such a regime capital mobility constrains monetary policy independence.³⁰

The rest of this section covers the link between monetary arrangements - monetary union in particular- to supply-side growth. According to the December 1999 CCMS Report economic growth rates of the CARICOM region have generally been converging over the period 1991 to 1999, as evidenced by a generally declining coefficient of variation statistics for the period. The coefficient of variation has moved from 2.2 percent in 1991 to 0.7 in 1999. The average growth rates have also generally increased over the same period, moving from an average of 1.7% in 1991 to 3.5% in 1999.³¹ (See **Table 1 and Chart 1**).

Vickers (2000) in discussing monetary union and growth in the EU concluded that there exists no monetary magic that can conjure up growth. Growth and prosperity depend ultimately on how well the real economy works. But monetary arrangements are part of the foundations for the real economy. The prime contribution that monetary policy can make to conditions for sustainable growth is to secure and maintain price stability. If monetary union has the effect of extending the domain of price stability, that should, other things being equal, be supportive of conditions for growth. If, moreover, monetary union has the effect of deepening the single market, that too should be positive for growth.

Inflation is a tax on real money balances, and taxes affect private behaviour and have implications for government behaviour. Inflation can also have significant negative effects - especially on saving and capital accumulation - through interactions with the tax system.³² A credible commitment to price stability reduces uncertainty and risk. More broadly it relieves financing decisions from the plague of large inflation uncertainty, and diminishes inflation risk premium in borrowing costs - to the benefit of households, businesses and government. Only when inflation is low and stable, and expected to remain so, are economic decisions free from such uncertainties and distortions.

The coefficient of variation statistic indicated that for Caribbean economies, inflation rates have not been converging over the period 1991 to 1999. (See **Table 2 and Chart 2**). Vickers (2000) states that monetary union helps to contain the costs of high and uncertain inflation if it brings price stability to countries that would otherwise find

that harder to secure and maintain. The challenge for Caribbean leaders is to create institutions - domestic or regional - to achieve and maintain price stability.

What is the relationship of monetary union to the issues of exchange rate volatility?

One of the key eligibility convergence indicators for the proposed CARICOM Monetary Union is exchange rate fluctuation within a maximum of 1.5% band for 36 months. This criterion applies directly to the countries with floating exchange rates, that is Guyana, Jamaica, Suriname, and Trinidad and Tobago. Based on the last CCMS report on economic performance and convergence, Trinidad has been the only floating rate country to meet this eligibility criteria. (See **Table 3a-b and Chart 3a-d**).

Mussa, et al (2000) note that for developing and transition countries, especially with limited involvement in the global financial markets, pegged exchange rates retain important advantages. Exchange rate pegs can provide a useful and credible nominal anchor for monetary policy and avoid many of the complexities and institutional requirements for establishing an alternative anchor (such as functional and credible inflation target backed by an operationally independent central bank). Moreover, in the absence of sophisticated financial systems, many developing and transition countries lack the financial infrastructure to support a relatively deep and broad market for foreign exchange, which could provide reasonable stability in the absence of official guidance concerning the exchange rate and policy support for that guidance.

In a monetary union nominal exchange rate movement no longer exist. Moreover, domestic monetary policy is unavailable as an adjustment mechanism. Other equilibrating mechanisms therefore become all the more important in monetary union. If they function poorly, the nominal exchange rate stability gains of monetary union may be offset, at least to some degree, by other kinds of macroeconomic instability. Vickers (2000) concludes that the effect of monetary union on growth therefore depends in part on how well other institutions and policies support economic flexibility.

At the macroeconomic level, the frameworks for fiscal and monetary policy are inter-related, since fiscal stability is a necessary complement to monetary stability. This is recognised in the proposed architecture of a CARICOM Monetary Union by the external debt service ratio criterion of under 15%. The average debt service ratio of the CARICOM Region declined over the period 1998 to 1999, moving from 10.6% in 1998 to 9.5% in 1999. This is consistent with the general decline recorded in the debt service ratio of the region over 1990s. (See Table 4 and Chart 4). In the case of a fiscal balance to GDP ratio, the coefficient of variation statistics does not indicate a consistent pattern towards convergence. It moved from -3.3% in 1991 to -0.8% in 1999, but within that time frame there was tremendous volatility with this statistics. (See Table 5 and Chart 5). Over the medium term, if regional governments can exercise fiscal discipline and commit to monetary stability, this should contribute to processes of fiscal consolidation, and that in turn is likely to foster conditions for economic growth in the region if a Monetary Union is formed.

We end this section by noting that a monetary union would be good for growth in CARICOM. However, a greater level of commitment is required to move towards independent monetary policy. It requires a commitment to fiscal discipline. Another important factor is that the region will need to foster a greater level of integration in the regional capital market and financial system in order for a regional central bank to effectively execute monetary policy. In fact we attempted to test the extent to which financial markets are integrated in the region by looking at intra-regional cross-border financial services, specifically banking, and trading of bonds.

We note that intra-regional financial services is either non-existence or at a very early stage of development. Regarding intra-regional trading of bonds the data received suggested that this aspect of the region's capital market is in the early stage of development. While we were able to get information on the amount of government bonds outstanding, we were unable to determine the extent of trading of government bonds in an intra-regional market. This in my mind is an area that needs further research to determine the level of private non-financial institutions, credit institutions and government bonds outstanding in each country and the amount of intra-regional trading. The information is also important to look at the risk of contagion in the region, especially if a monetary union is formed.

D. Institution of Regulation: Separation of the Prudential Supervision Function

For the central banker and for the users of the new currency, the success of a Monetary Union is measured by the quality of the currency itself, and such quality will be measured in the first place in terms of price stability.³³ Less fundamental but still important is the question of what will happen to banking supervision? Financial sector, more specifically commercial bank supervision is generally the responsibility of the central banks in the CARICOM region.

In 1992, the Thirteenth Meeting of Heads of CARICOM agreed that the Council of Central Bank Governors would co-ordinate prudential supervision and regulation, including the harmonization of financial legislation. In addition, the Thirteenth Meeting agreed that the CARICOM Monetary Authority should, amongst other things, be responsible for prudential supervision and regulation within Member States. This section examines whether or not the financial sector supervisory function should be separated from central banks in the Caribbean.

In all CARICOM countries the central bank is responsible for dealing with problems that may arise in the financial sector. With the exception of the Bahamas, all the central banks in the region have an internal unit, which is responsible for overseeing the central banks' work in monitoring the stability of the financial system as a whole. In the case of the ECCB there is a management committee, the Financial Institutions Regulatory Committee, which is co-ordinated by the ECCB's Supervision department that monitors the stability of the financial system. Where a threat to the stability of the financial system is perceived to be present, the central bank can intervene to stand between an intermediary and the market place in order to facilitate payments and settlements, which might otherwise not be completed.

The CARICOM Central Banks are the lenders of last resort for domestic banks. With the exception of Guyana, CARICOM Central Banks are required to justify their use of the lender of last resort function in terms of the damage that would result to the financial system and the wider economy if intervention did not take place. In most

cases, central banks are required to co-operate with other agenc(ies), including the Minister of Finance, when problems emerge in the financial sector. As part of their responsibilities for ensuring the stability of the financial system, CARICOM Central banks also monitor developments in both international and regional financial markets and possible impact on the domestic banking sector.

There is plenty of scope to improve the efficiency of banking systems in the region and to reduce the cost of financial intermediation.³⁴ One way is to bring the performance of the domestic financial system closer to international best practice by monitoring the system and its performance in light of international codes and standards such as:

- The Basel Committee on Banking Supervision “Core Principles for Effective Banking Supervision,”
- The International Association of Insurance Supervisors “Core Principles for Insurance Supervisors,” and
- The International Organisation of Securities Commission “Objectives and Principles of Securities Regulation.”

The region has taken encouraging steps by adopting and implementing appropriate prudential standards as evidence by their self-assessments against the BCBS Core Principles. (See Appendix C). However, much remains to be done to improve capital adequacy and commercial practices. In some cases bankruptcy laws and accounting standards also need tightening. The CARICOM Bank Supervision Harmonization Project and the Caribbean Financial Action Task Force are making important contributions here. But more can and should be done.

The origin and developments of modern central banks are closely linked to key changes undergone by monetary systems over the past two centuries.³⁵ The fact that a large, now a predominant, component of the money stock was in the form of commercial bank money made banking supervision necessary. Just as money has three well-known economic functions - means of payment, unit of account and store of value - so there are three public functions related to each of them. Operating and supervising the payment system refers to money as a means of payment; ensuring

price stability relates to money as a unit of account and a store of value; and pursuing the stability of banks relates to money as a means of payment and a store of value. Within the CARICOM region, in each of the three function commercial banks plays a crucial role and accounts for the largest portion financial sector assets, approximately 80% of total financial sector assets in Jamaica, 86% in Belize, 91% in the OECS and 82% in Barbados³⁶. Non-banking institutions, excluding credit unions and development banks, accounted for the rest of financial sector assets.

In an increasing number of countries the original triadic task entrusted to the central bank has now been abandoned in favour of a "separation approach", according to which banking supervision has been assigned to a separate institution.³⁷ In all systems, however, whether or not it has the task of supervising the banks, the central bank is deeply involved with the banking system precisely because banks are primary creators of money, providers of payment services, managers of the stock of savings and counterparties of central bank operations. No central bank can ignore the need to have a concrete and direct knowledge of "its" banking system, i.e. the banking system that operates in the area of its monetary jurisdiction.

Traditionally, the structure of financial supervision was based on the functional divisions in the financial services sector and the perceived differences in risk profiles. In the Caribbean, like most other places, supervision in banking has been more pronounced than in other financial institutions (such as insurance, credit unions and building societies).³⁸ (See Appendix D). The non-banking financial sector is growing at over a rate of over 10% in Belize, OECS and Barbados.

Noteworthy, however, is the fact that financial institutions falling outside the regulatory net of the Region's central banks have been growing at a fast pace. These institutions have also been expanding services and products, competing directly with the traditional banking sector. For example in the early 1990s, the proprietary type building societies, the insurance companies and later the credit unions in Jamaica started offering investments and savings-related products that competed directly with traditional products of commercial banks. They created untenable mismatched positions and unbalanced portfolio that led to liquidity problems and ultimately

playing a critical role in the financial meltdown of the 1990's. In some cases, their relationships with related commercial banks were questionable to say the least.

The regulatory supervision of these institutions lagged behind the banking sector in most cases despite the fact that, depending on their size, nature of activities and involvement in other economic sectors, they have the potential to pose serious risks to the economy. A good example of this is Mutual Life in Jamaica, an insurance giant before the financial sector meltdown in the late 1990s. It is also worth noting that this sub-sector, which is either unregulated or under-regulated, can create opportunities for both regulatory arbitrage and money laundering.

Generally speaking, the arguments in favour of combining monetary policy and banking supervisory functions revolve around the fact that it is the central bank's role to ensure the stability of the financial system and prevent contagious systemic crises.³⁹ The performance of bank supervisory and regulatory functions by the central bank should contribute to better control of overall financial stability. Through its role as lender-of-last-resort (LOLR), the central bank should, it is argued, be involved in supervision as well.

At the same time, however, the possibility that a conflict of interest arises argues against combining both functions. The central bank's participation in bank rescues may endanger price stability and increase moral hazard.⁴⁰ It may create competitive distortions if central bank money is allocated at preferential rates to a bank in trouble as compared to other banks. Finally, it may raise the expectation in the private sector that the central bank would be influenced by considerations of financial system stability when determining monetary policy. This would seriously undermine the central bank's reputation.

In recent years, however, there has been a general trend among central banks to retreat from supervisory functions. This was exemplified in the UK by the breakaway of the supervisory functions from the Bank of England in May 1997 and the establishment of the Financial Services Authority (FSA), a single financial supervisor. Several reasons can be advanced for this trend. First banking is becoming an increasingly complex business and less clearly defined. Leading banks are active in several

jurisdictions as providers of a whole series of financial services. Linked to this are new developments in financial supervision, which increasingly emphasise the role of self-regulation and internal risk management in financial institutions.

Experienced supervisors in the CARICOM region also raise concerns about the budgetary constraints when supervision falls under the central bank. They also consider whether or not the treasury and national reserves are risk if banks or financial institutions' clients are successful in litigations against the supervisor. They also note that central bankers in the region are usually economists and not financial sector supervisors. They argue that this tend to be more in favour of economists thus influence the direction of training and development. It also leads to a concentration of resources on the monetary and economic side of the central bank than on supervision.

However, much more important to the region is the fact that international standards such as the BCBS "Core Principles" and IAIS "Core Principles for Insurance Supervisors" requires that the regulatory authority be operational and financial independent from government and political interference. In light of the fact that we concluded that our Central Banks are not independent, the region would fail to meet this requirement. Failure to meet international standards has implication for our integration in the global financial system and our efforts to attract direct foreign investments.

Finally, there is increasing acceptance that only the government, and not the central bank, can take responsibility for ultimate financial support. In the CARICOM Region, deposit insurance (protection) schemes are available in Trinidad, Jamaica and the Bahamas. In Trinidad, not all deposits are covered and the maximum level of deposits covered is \$50,000. In Jamaica, coverage is available to all depositors, (excluding Government of Jamaica and other public sector entities, and inter-bank deposits) up to a maximum level of J\$200,000. In Bahamas, coverage is available only to Bahamian dollar deposits up to a maximum of B\$50,000. There is no other form insurance (protection) scheme for clients in the financial sector in CARICOM countries. In the liquidation of failed financial institutions in the CARICOM region, government and central banks typically has first priority of claims against assets. (See **Appendix E**).

The ability of central banks to organise and co-ordinate bank rescues has been slipping, and bank rescues have become more expensive, going beyond the sums, which the central bank can provide, from its own resources.⁴¹ There has consequently been no alternative but to rely on taxpayer funding, leading to more demand for political control of supervisory functions. Close co-operation between the supervisors and the central bank remains crucial, however, since only the central bank can provide immediate liquidity to the market in case of trouble, and price stability cannot be achieved without financial stability. In Jamaica, the decision to bailout the financial sector in the late 1990s has contributed significantly to current budget deficit.⁴²

A second issue to be addressed is whether financial supervision should be assigned to one entity or whether it should be determined by the function of business of the institutions under supervision. With the current growth in the non-bank financial institutions, the question is whether or not CARICOM countries should move to a single financial supervisory authority. A single authority is seen to generate economies of scale (and probably economies of scope) in supervision, as well as some practical and political advantages. It offers one-stop shopping for authorisations of conglomerate financial groups, and eliminates any confusion over who exercises lead supervision and final control. Expertise is pooled and cooperation between the different functional supervisors is guaranteed. Unnecessary overlaps are avoided and support services such as personnel, administration and documentation can be merged. A single authority should thus lead to lower supervisory fees, at least in these countries where the financial sector contributes directly to the cost of supervision, and to a lower cost of supervision in general.

The most important argument against a single supervisor is the high profile, and the related increase in moral hazard. The perception is created that the whole financial sector is under control, which may reduce the incentives for providers to prudently manage their business, and for users to carefully choose their financial services' provider. On the other hand, the failure of one institution could have devastating effects, and lead to a far-reaching loss of confidence in the supervisors.

In 1997, the Cayman Islands Monetary Authority was established under the Monetary Authority Law, 1996. As an omnibus or mega regulatory body the Monetary Authority is responsible for the supervision and regulation of banks, trust companies, insurance companies, company managers and investment services in the Cayman Islands.⁴³ In September 2000, the Cayman Islands enacted legislation to capture the activities of non-bank financial institutions such as credit unions, building societies and money services providers in the Monetary Authority's regulatory net. The Cayman Islands is also in the process of drafting legislation for the regulation of the securities industries.

Is there a case for specialist supervisor? The advantages of a specialist supervisor are a lower profile and a clearer focus on the sector under supervision. It should allow higher proximity to the business, more specialisation and better awareness of the problems of the sector. Two arguments stand out: a growing need for specialisation in supervision and inter-agency competition. Very distinct skills are required from supervisors, ranging from monitoring potentially dangerous exposures in increasingly globalised financial markets and validating statistical models in a bank's value-at-risk models to supervising complex financial groups or tracking market behaviour of investment funds, as well as a large degree of specialisation. There is no guarantee that a single supervisor can better perform these functions than a specialised supervisors.

The second argument, inter-agency competition, is relevant, although often difficult to advance. Where several agencies work side-by-side, institutional competition can work and create incentives for each agency to work efficiently (Fender and von Hagen 1998). An example is the US structure of banking supervision, where banks can be chartered at either the state or national level. Many will argue, however, that inter-agency competition does not make sense. Competition between regulatory regimes runs the risk of reducing rather than improving quality, and it may better serve the interests of the supervised than of the public.

An outcome of the conglomeration trend is that supervision will become more objective-driven, since the functional divisions of the business will be increasingly blurred. Financial supervision could be carried out separately by agencies that have

different objectives. For example, one agency could be responsible for systemic stability, a second for prudential supervision, and a third for consumer protection and conduct-of-business considerations. Conduct-of-business supervision looks after transparency, disclosure, fair and honest practices, and equality of market participants. The "stability" agency should concentrate on systemic problems while the prudential agency controls the solvency and soundness of financial institutions and enforces depositor protection.

An advantage of supervision by objective is that it is well adapted to conglomeration in the financial sector while remaining sufficiently focused. It combines certain advantages of single and specialised supervisors. It could furthermore be argued that a separate conduct-of-business supervisor could make easier distinctions between retail and wholesale business, contrary to what is often asserted. The result of a single supervisory authority could be that the different objectives of supervision are merged and later disappear, which would ultimately lead to more regulation, also for the wholesale business. This fear was raised in discussions on the new financial services and markets bill in the UK (Clifford Chance, 1998).

No matter what alternative structure is used, the pressures to enhance regulatory and supervisory frameworks to deal with the integration of financial markets will continue. The International Financial Institutions have already recognized this trend and thus the convergence of standards across various industries, even if the regulatory bodies applying them remain separate.

E. Conclusions

An independent central bank shielded from political pressures is more likely to give priority to price stability and as a result its policies are seen by financial markets as more credible. It is easier to create truly independent central banks as a step to move towards independent monetary policy as in the case of a monetary union.

A monetary union would be good for growth in CARICOM. However, a greater level of commitment is required to move towards independent monetary policy. It requires a commitment to fiscal discipline. Another important factor is that the region will

need to foster a greater level of integration in the regional capital market and financial system in order for a regional central bank to effectively execute monetary policy.

There is plenty of scope to improve the efficiency of financial systems in the region and to reduce the cost of financial intermediation. One way to bring the performance of the domestic financial system closer to international best practice is to monitor the system and its performance in light of international codes and standards. No matter what alternative structure is used, the pressures to enhance regulatory and supervisory frameworks to deal with the integration of financial markets will continue.

F. Appendices

Appendix A

Indicators of CARICOM countries government (or minister of finance) Influence on Central Banks

	Bahamas	Barbados	ECCB	Guyana	Jamaica	T & T
Appointment of Board Members	Government representative, Governor, Deputy Governor & other senior officers	Government representative & Governor	Government representative, Governor & Deputy Governor	Government representative, Governor, Deputy Governor	Government representative, Governor, Deputy Governor & other senior officers	Government representative
Appointment of Senior Management Staff	Governor, Deputy Governor & other senior officers	Governor	Governor & Deputy Governor	Governor, Deputy Governor & other senior officers	Governor	No
Set Salary Levels	Governor, Deputy Governor & other senior officers	Board members & Governor	Board members, Governor & Deputy Governor	Governor, Deputy Governor & other senior officers	Governor, Deputy Governor & other senior officers	No
Determine central bank's budget or allocation of profit/surplus	No. Profit credited to general reserve. At the end of the year, if the amount in the general reserve exceeds twice the authorized capital of the Bank or 15% of the demand liabilities	No.	No.	Yes. Only on the allocation of profits.	Yes	Yes

	of the Bank, which is greater, the excess will be paid to the Consolidated Fund, unless the MOF otherwise determines.					
Approve monetary policy decisions	Yes	Yes	Yes	No	Yes	No
Access to central bank financing	Yes. Limit explicit in law	Yes. Limit explicit in law	Yes. Limit explicit in law	Yes. Limit exist.	Yes. Limit exist.	Yes. Limit explicit in law

Appendix B

Synopsis of Monetary Policy Framework

Bahamas

The Bahamas has a fixed exchange rate and thus, the central bank must ensure that reserves are adequate. To do this, the Central Bank relies on selected credit controls. For example, the Central Bank controls the rates charged by commercial banks for loans.

Barbados

Monetary policy is aimed at preserving the value of the Barbadian dollar by maintain low inflation and enough reserves that can cover at least three months worth of imports.

Eastern Caribbean

There is a fixed exchange rate policy with the United States Dollar fixed at EC\$2.70 to US\$1.00.

Guyana

Monetary policy is implemented primarily through the targeting of reserve money that is contingent on targeted nominal income growth. Government treasury bills are sold and purchased to achieve the intermediate target.

Jamaica

The main aim of monetary policy is to ensure price stability in accordance with macroeconomic targets.

Appendix C

BCBS Core Principles Self-Assessment Based on the Core Principles Methodology

	Bahamas	Barbados	ECCB	Guyana	Jamaica
1	Policies regarding the Core Principles are currently under review and changes in the laws and procedures are being drafted.	NR	LC	Self-assessment is still continuing.	LC
2		C	C		C
3		C	C		C
4		C	LC		LC
5		NR	LC		LC
6		C	C		LC
7		C	C		C
8		C	LC		LC
9		C	LC		C
10		C	LC		C
11		NR	NC		C
12		NR	NC		MC
13		NR	NC		LC
14		C	LC		C
15		C	LC		C
16		C	C		C
17		C	C		C
18		NR	LC		C
19		C	C		C
20		NR	NC		LC
21		NR	C		LC
22		C	LC		LC
23		NR	NC		C
24		C	NC		C
25		C	LC		C

To achieve a “Compliant” assessment with a Principle, all essential criteria generally must be met without any significant deficiencies. A “Largely Compliant” assessment is given if only minor shortcomings are observed, and these are not seen as sufficient to raise serious doubts about the authority’s ability to achieve the objective of that Principle. A “Materially Non-Compliant assessment” is given when the shortcoming are sufficient to raise doubts about the authority’s ability to achieve compliance, but substantive progress had been made. A “Non-Compliant” assessment is given when no substantive progress towards compliance has been achieved (e.g., for Principle 20 if banks do not report on a consolidated basis, or when insufficient information was available to allow a reliable determination that substantive progress had been made towards compliance).

Non Response.

Appendix D

Financial Institutions' Supervisors¹

	Commercial Banks	Insurance Companies	Credit Unions	Building Societies	Merchant Banks	Other Financial Institutions
Bahamas	Central Bank	Insurance act Registrar	Dept. of Co-operative/Credit Union League		Central Bank	
Barbados	Central Bank	Supervisor of Insurance	Registrar of Companies	N/A	Central Bank	Central Bank
ECCB	Central Bank	Currently, the ECCB liases with the regulators in these sectors.				Central Bank
Guyana	Central Bank	Commissioner of Insurance	Credit Union League		Central Bank	Central Bank
Jamaica*	Central Bank	Superintendent of Insurance	Central Bank. Specified by Minister in 1999 and legislation is now being drafted to facilitate their supervision by the BOJ with assistance from the Credit Union League.	Central Bank	Central Bank	Securities Commission supervises securities dealers.
Trinidad & Tobago	Central Bank	Supervisor of Insurance	Commission for Co-operative Development			

¹ For a more detail description see Simms, Maurene "Widening of Supervisory Net: Focus on Credit Unions, Building Societies and Other Non-Bank Financial Institutions" paper presented at the XVIII Annual Conference of the Caribbean Banking Supervisors Group, May 2000.

*Letter of Intent to the IMF in July 2000 stated that the regulatory and supervisory framework for non-deposit-taking financial institutions (including insurance companies, pension funds, and money market funds) will also be strengthened. To rationalize oversight of the financial services industry, a "Financial Services Commission" (FSC) for

integrated supervision of Securities, Pensions, and Insurance industries will be established in 2001. Moreover, in 2000/01, the Securities Commission will undertake a self-assessment of its compliance with IOSCO Principles, and the Office of the Superintendent of Insurance will undertake a self-assessment on compliance with IAIS standards of insurance supervision. Fit and proper criteria for non-deposit-taking financial institutions will be broadened, and licensing requirements will be strengthened. Formal mechanisms will be developed to consolidate supervision of financial groups, involving effective coordination between the Bank of Jamaica and the FSC (once established).

Appendix E

Ranking of Claims Against Financial Institutions in Liquidation

	Bahamas*	Barbados	ECCB	Guyana	Jamaica
Demand depositors	2	4	See Section 52 (1) of Banking Act	4	** See below.
Fixed depositors	2	3		4	
Savings Depositors	2	3		4	
Government	1	1		2	
Central Bank	1	2		3	
Short-term creditors	2	5		5	
Long-term creditors	2	5		5	
Others	2	5		1	
Share holders	Last	Last		Last	

Section 52 (1) of Banking Act

PREFERENTIAL AND OTHER CLAIMS

52. (1) Notwithstanding any law to the contrary in a compulsory liquidation of a financial institution, the following claims shall have priority against the general assets of the financial institution as follows:

- (a) necessary and reasonable expenses incurred by the receiver and subsequently by the Official Liquidator;
- (b) wages and salaries of officers and employees of the financial institution in liquidation for the six-month period preceding the appointment of the receiver for the financial institution;
- (c) national insurance contributions for officers and employees due but not paid;
- (d) balances of three hundred dollars and less in saving and time deposits;
- (e) other deposits;
- (f) taxes, rates and deposits owed to () and local authorities concerned;
- (g) fees and assessments due to the Central Bank.

* The Central Bank and the Government would be paid any fees or taxes owed twelve (12) months before liquidation. All others would be next with the exception shareholders, who would be last to have their claims satisfied.

** All eligible depositors are paid up to \$200 000 by Jamaica Deposit Insurance Corporation, after which they will prove in the liquidation as unsecured creditors for any excess. In the liquidation, government taxes, staff payments etc are given first priority and all other unsecured amounts outstanding will rank as unsecured credit. Shareholders are the last to be paid in a liquidation.

G. Charts and Tables

Table 1. CARICOM: Growth Rates of Real GDP (%)

Countries	Actual								Projections			
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bahamas	-2.7	2.1	-2.1	2.0	1.1	4.2	3.3	3.0	6.0	3.5	3.3	na.
Barbados	-3.9	-7.2	0.8	4.0	2.3	2.5	3.4	4.4	2.8	2.8	2.1	2.1
Belize	3.1	9.5	4.3	1.4	4.0	1.3	4.0	1.5	6.2	na.	na.	na.
Guyana	7.8	7.7	8.3	8.5	5.1	7.9	6.2	-1.3	3.0	3	na.	na.
Jamaica	0.9	1.6	1.7	1.1	0.7	-1.3	-2.0	-0.5	-0.4	na.	na.	na.
ECCB Area	2.3	4.2	2.1	3.0	0.7	2.7	3.2	3.9	3.9	na.	na.	na.
Suriname	3.5	5.8	-4.5	-1.2	-3.8	7.0	5.6	2.7	0.8	2.2	2.7	3.6
Trinidad & Tobago	2.9	-1.1	-2.6	5.0	2.6	2.9	2.9	4.0	5.1	5.3	5.8	6.2
AVG.	1.7	2.8	1.0	3.0	1.6	3.4	3.3	2.2	3.4	3.4	3.5	4.0
Std Dev	3.7	5.3	4.1	2.9	2.7	3.0	2.5	2.1	2.4	1.2	1.6	2.1
Co-eff of Var	2.1	1.9	4.1	1.0	1.7	0.9	0.7	1.0	0.7	0.4	0.5	0.5

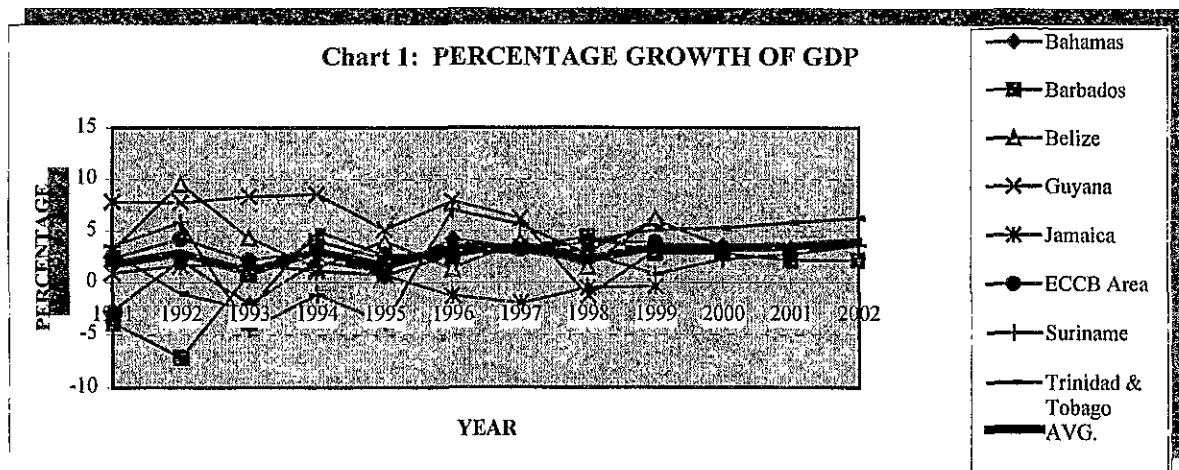


Table 2. CARICOM: Inflation Rates (%)
Annual Averages

Countries	Actual						
	1991	1992	1993	1994	1995	1996	1997
Bahamas	7.4	5.6	2.7	1.3	2.1	1.6	0.5
Barbados	6.0	6.1	1.1	0.7	1.9	2.4	7.7
Belize	4.5	2.4	1.5	2.6	2.9	6.4	1.0
Guyana	70.3	14.2	7.7	16.8	8.1	4.5	4.1
Jamaica	51.1	77.3	22.1	35.1	19.9	26.4	9.7
ECCB Area	4.4	3.0	2.1	1.7	3.4	2.3	2.5
Suriname	26.0	43.7	143.5	368.5	235.8	-1.0	7.2
Trinidad & Tobago	3.8	6.6	10.7	8.8	5.3	3.3	3.7
AVG.	21.7	19.9	23.9	54.4	34.9	5.7	4.5
Std Dev	25.7	26.9	48.8	127.4	81.4	8.6	3.3
Co-eff of Var	1.2	1.4	2.0	2.3	2.3	1.5	0.7

Chart 2: CARICOM ANNUAL INFLATION

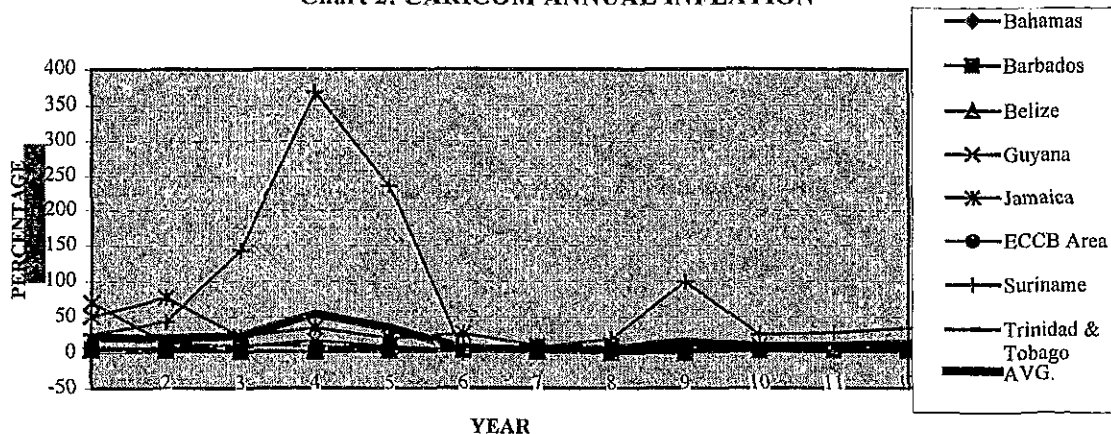


Table 3a: CARICOM Exchange Rates
Selling Rate (National Currency per US\$)
(End of Period)

Countries	Actual									Projections		
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bahamas	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Barbados	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	na	na	na
Belize	2.00	2.00	2.00	2.00	2.00	2.00	2.02	2.02	2.02	na	na	na
Guyana	122.75	126.00	130.75	144.52	141.65	142.70	144.00	166.91	181.90	na	na	na
Jamaica	21.53	22.20	32.70	33.37	39.80	35.03	36.59	37.16	41.42	na	na	na
ECCB Area	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	na	na	na
Suriname	1.8	1.8	ms	41.90	41.20	40.60	40.60	39.60	86.70	120.00	120.00	120.00
Trinidad & Tobago	4.29	4.29	5.90	5.93	5.99	6.24	6.30	6.30	6.30	6.30	6.30	6.30

Table 3a: Period Average

Countries	Actual									Projections		
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bahamas	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Barbados	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	na	na	na
Belize	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	na	na	na
Guyana	111.80	125.00	130.16	140.14	143.42	141.80	143.65	151.98	178.89	na	na	na
Jamaica	12.85	23.01	25.68	33.35	35.54	37.02	35.58	36.68	39.33	na	na	na
ECCB Area	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	na	na	na
Suriname	1.80	1.80	ms	206.40	450.60	398.30	406.00	na	na	na	na	na
Trinidad & Tobago	4.29	4.29	5.70	5.92	5.95	6.04	6.28	6.30	6.30	6.30	6.30	6.30

Chart 3a: EXCHANGE RATE VARIABILITY QUARTERLY CHANGES
(Jamaica, Guyana, Trinidad and Tobago)

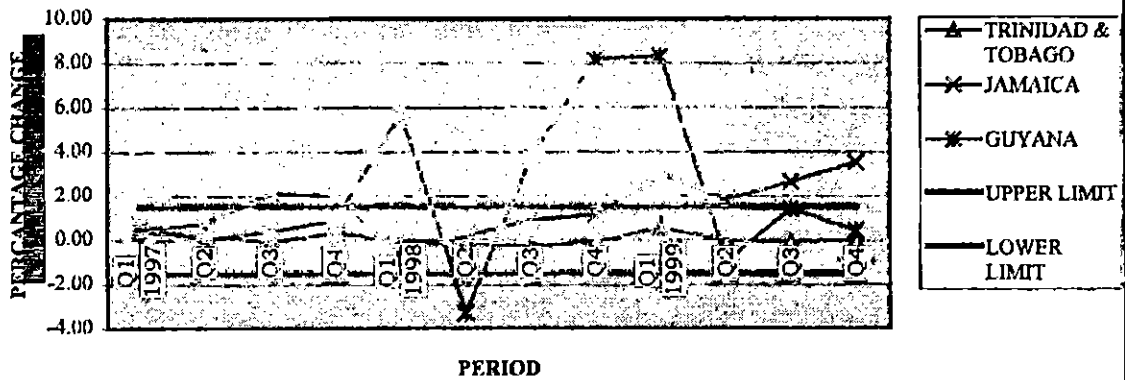


Chart 3b: PERCENTAGE DEVIATION FROM THE 1ST QUARTER
(Jamaica, Guyana, Trinidad and Tobago)

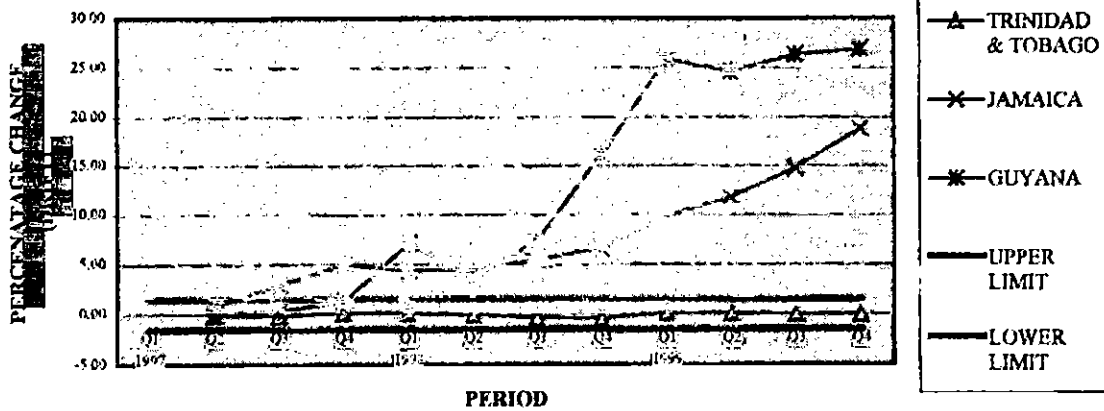


Chart 3c: EXCHANGE RATE VARIABILITY QUARTERLY CHANGES

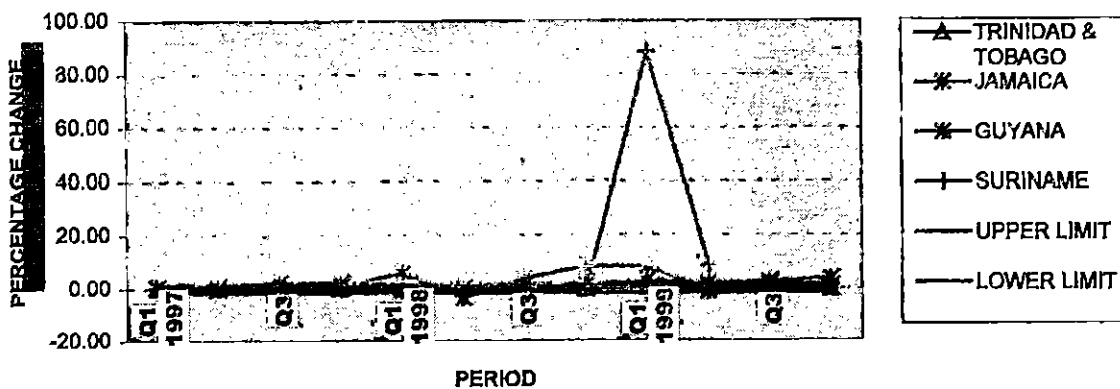


Chart 3d: PERCENTAGE DEVIATION FROM THE 1ST QUARTER

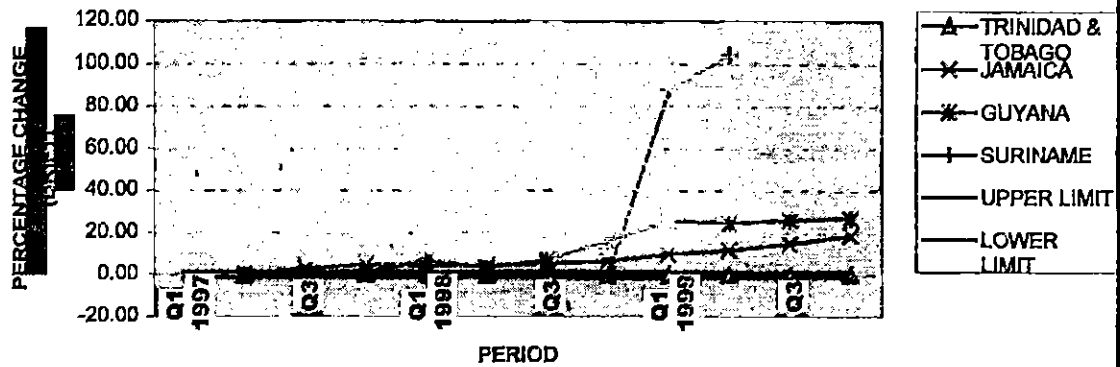


Table 4 CARICOM Debt Service Ratio

Countries	Actual								Projections			
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bahamas	4.6	4.9	5.0	5.6	5.0	5.4	5.4	3.8	3.2	na	na	na
Barbados	20.0	23.2	15.7	16.1	15.0	14.8	13.0	9.7	10.8	7.4	6.3	7.6
Belize	5.8	4.7	5.3	8.1	9.9	9.6	9.0	9.8	9.4	na	na	na
Guyana	20.3	19.9	20.5	22.2	22.6	18.1	22.1	23.8	13.4	na	na	na
Jamaica	27.3	27.1	22.6	20.0	18.8	16.3	14.2	20.0	18.0	na	na	na
ECCB Area	3.5	4.3	4.0	3.6	4.4	4.0	3.6	5.4	5.9	na	na	na
Suriname	na	5.9	2.0	3.5	1.7	4.0	4.0	3.4	7.4	6.1	4.6	4.3
Trinidad & Tobago	20.0	26.7	30.3	25.2	15.0	13.4	15.4	9.9	8.0	11.0	5.9	6.0
AVG	14.5	14.6	13.2	13.0	11.5	10.7	10.8	10.7	9.5	8.2	5.6	6.0
Std Dev	9.6	10.5	10.6	8.9	7.5	5.7	6.5	7.5	4.6	2.5	0.9	1.7
Co-eff of Var	0.7	0.7	0.8	0.7	0.6	0.5	0.6	0.7	0.5	0.3	0.2	0.3

Chart 4: DEBT SERVICE CRITERION

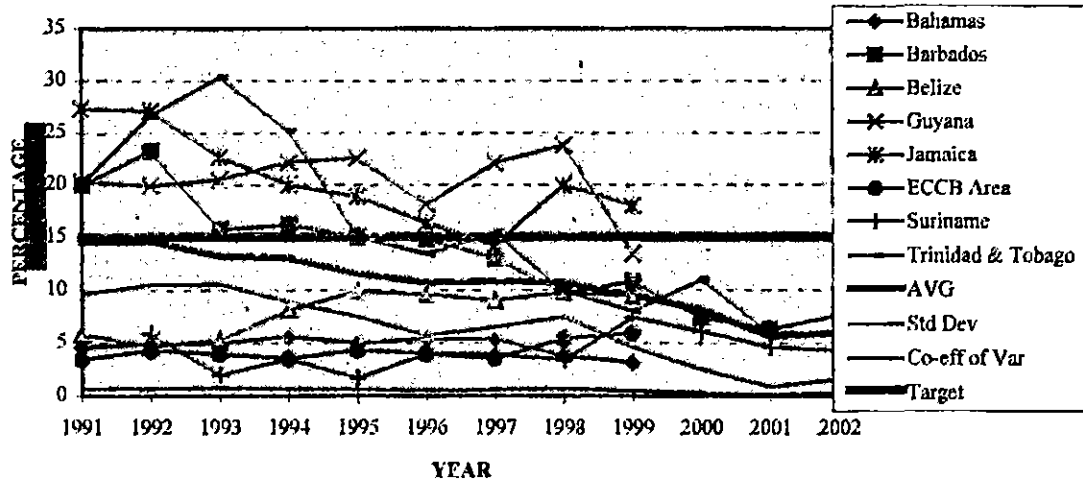
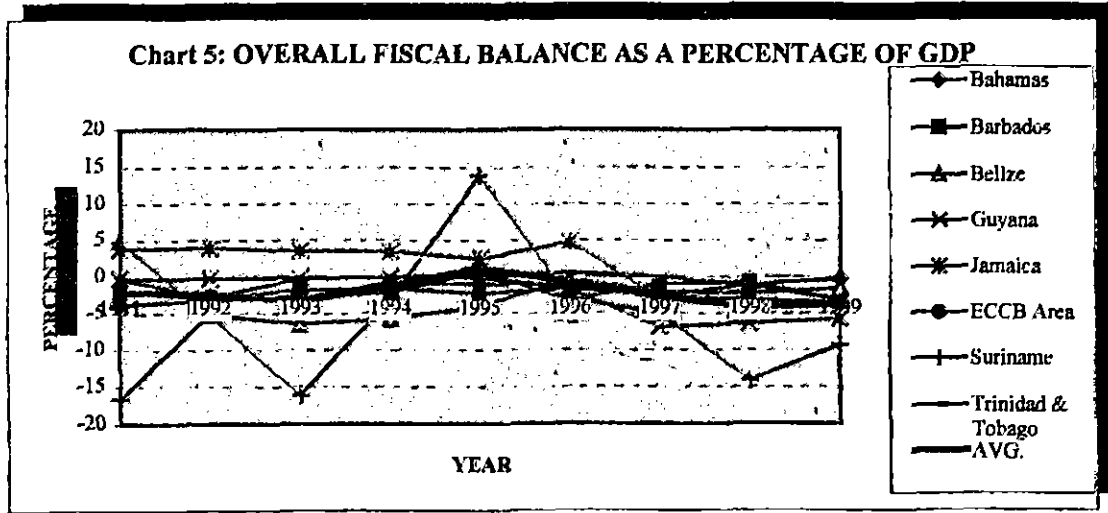


Table 5: CARICOM: Overall Fiscal Balances in Millions of National Currencies (A)
Overall Fiscal Balances (% of GDP)

Countries	Actual							
	1991	1992	1993	1994	1995	1996	1997	1998
Bahamas	-3.9	-3.1	-3.0	-0.7	-1.0	-0.9	-2.6	-1.1
Barbados	-1.9	-2.8	-2.8	-2.1	0.8	-3.2	-0.9	-0.8
Belize	4.9	-5.2	-6.5	-5.8	-4.0	-0.4	-2.0	-2.3
Guyana	-0.2	-0.2	-0.1	0.0	0.0	-1.6	-6.9	-6.4
Jamaica	3.8	3.9	3.5	3.4	2.4	4.7	-2.7	n.a.
ECCB Area	-2.1	-2.8	-1.8	-1.6	-2.3	-1.5	-2.6	-3.2
Suriname	-16.6	-5.2	-16.1	-3.3	13.9	-3.0	-5.0	-14.1
Trinidad & Tobago	-0.2	-2.8	-0.2	0.0	0.2	0.5	0.1	-1.2
AVG.	-2.0	-2.3	-3.4	-1.3	1.3	-0.7	-2.8	-4.2



H. Bibliography

- Aninat, Eduardo “**Growth and Stability in Latin America and the Caribbean: Challenges for the Epoch of Globalisation,**” Paper presented at the 14th Eric Williams Memorial Lecture in Port of Spain, May 2000.
- Bank of Jamaica “**The Central Bank: An Appropriate Institutional Framework for Macroeconomic Stability,**” November 1997
- Blackman, Courtney N. “**Central Banking in Theory and Practice: A Small State Perspective,**” Caribbean Centre for Monetary Studies, 1998
- Caribbean Centre for Monetary Studies “**Report on the Economic Performance and Convergence of the CARICOM Region (For The Year Ending December 31, 1999),**” CARICOM Central Bank Governors’ Meeting, Jamaica, May 2000
- CARICOM Secretariat “**Brief on Progress Towards Monetary Union in CARICOM,**” Macroeconomic and Trade Policy, February 1996
- Goodhart, Charles, Philipp Hartmann, David Llewellyn, Liliana Rojas-Suarez and Steven Weisbrod “**Financial Regulation Why, how and where now?**” Publish in association with the Bank of England, Routledge London and New York, 1998
- Hargreaves, David and McDermott, John “**Issues relating to optimal currency areas: theory and implications for New Zealand,**” Reserve Bank of New Zealand, Bulletin Vol. 62 No. 3
- King, Melvin “**Reforming the International Financial System: the Middle Way,**” Speech delivered to a session of the Money Marketeters at the Federal Reserve Bank, September 1999
- King, Melvin “**Challenges For Monetary Policy: New and Old,**” Paper prepared for Symposium on “New Challenges for Monetary Policy” sponsored by the Federal Reserve Bank of Kansas City, Aug 1999
- Lannoo, Karel “**Challenges to the Structure of Financial Supervision in the EU,**” Working Party Report No. 30, Centre For European Policy Studies, July 2000
- McCaw, Sharon and McDermott, John “**How New Zealand adjusts to macroeconomic shocks: implications for joining a currency area,**” Reserve Bank of New Zealand, Bulletin Vol. 63 No. 1

McKenzie Mark-Anthony “**Domestic Interest Rates**” Financial Gleaner, The Gleaner Company of Jamaica, September 1999

McKenzie Mark-Anthony “**A Critique of Banking Regulations in the Cayman Islands**” Project submitted in partial fulfilment of MBA in Banking and Finance, Manchester Business School and University of Wales, 2000.

Mussa, Michael, Paul Masson, Alexander Swoboda, Esteban Jadresic, Paolo Mauro and Andy Berg “**Exchange Rate Regimes In An Increasingly Integrated World Economy,**” International Monetary Fund, April 2000-09-27

Padoa-Schioppa, Tommaso “**EMU and Banking Supervision,**” Lecture London School of Economics, Financial Markets Group, February 1999

Cooper, Richard N. “**Exchange Rate Choices,**” Harvard Institute of Economic Research, Harvard University Cambridge, Massachusetts, Discussion Paper Number 1877, July 1999.

Stiglitz, Joseph E. “**Knowledge for Development: Economic Science, Economic policy and Economic Advice**” Annual World Bank Conference on Development Economic, 1998

The Economist “**Fiscal Flexibility,**” November 27th 1999

Vickers, John “**Monetary Union and Economic Growth,**” Conference to mark the 150th Anniversary of the National Bank of Belgium, May 2000

¹ King, Mervyn, “Challenges for Monetary Policy: New and Old” Aug. 1999.

² Blackman, Courtney N. “Central Banking in Theory and Practice: A Small State Perspective 1998” Caribbean Centre for Monetary Studies, 1998.

³ See Blackman Courtney “New Direction for Central Banking in the CARICOM Caribbean”

⁴ The question of whether the central bank or another agency should supervise the commercial banks has been extensively discussed (see for example paragraph 83 – 103 of Volume 1 of the Treasury and Civil Service Committee report “The Role of the Bank of England., London, HMSO, 1993. The weight of the evidence supports the view that the supervisory function should remain with the central bank, but the issue is not crucial.

⁵ Buchanan, James and Wagner, Richard E. “Democracy in Deficit” Academic Press, 1977 point out that even in an independent may not be immune from political pressures and thus exhibit an inflationary bias.

⁶ Cukierman (1992) did not actually used the rate of inflation, but the rate of depreciation of the real value of money, defined by the following formula:

$$d_t = \frac{\pi_t}{1 + \pi_t}$$
 where π_t is the inflation in period t, The use of d, as noted by Cukierman, moderates the effect of hyperinflation on the results.

⁷ See Bade and Parkin (1985), Alesina (1988), Grilli, Masciandaro and Tabellini (1991), Alesina and Summers (1993), and Cukierman, Web, Neyapti (1992)

⁸ See Bade and Parkin (1985), Alesina (1988), Grilli, Masciandaro and Tabellini (1991), Alesina and Summers (1993), and Cukierman, Web, Neyapti (1992)

⁹ See McCaskie, Patricia W. “Central Bank Independence and Fiscal Conservatism” Presented at the annual Review Seminar, Central Bank of Barbados, July 1998.

¹⁰ Standards neoclassical growth models suggest that growth rates of economies tend to converge over time. Thus given two countries, the one with the lower capita output will have a higher growth rate than the other until their levels of real output per capita converge.

¹¹ The factors they considered were the initial level of a country's GDP, its enrolment in primary and secondary education, and changes in its terms of trade.

¹² Masciandaro and Tabellini (1988) looked at fiscal deficits as a percent of GDP

¹³ These political factors include the frequency of government changes, significant changes in government and the percentage of governments in a given period by a single majority party.

¹⁴ This study was consistent with the work done by Alesina and Summers (1993) and De Long and Summers (1992), and used the same index of central bank independence and the same 16 countries.

¹⁵ In this literature an independent central bank is one that does not cooperate with the fiscal authorities in setting economic policy. A dependent central bank is one that cooperates with the fiscal authority in setting policy.

¹⁶ See Andersen and Scheider (1986), Alesina and Tabellini (1987), Petit (1989), Tabellini (1987) and Loewy (1988)

¹⁷ Extrinsic uncertainty: shocks to the economy can drive a wedge between the implementation of policy and its outcome. Intrinsic uncertainty: lack of knowledge of the preferences of a policymaker is incorporated only in Tabellini (1987) and Loewy (1988) models. As these two models illustrate, adding uncertainty can increase the policy conflict between an independent central bank and fiscal authority.

¹⁸ Public perception of the credibility of a macroeconomic programme is important to its results because the public can limit the ability of policymakers to take advantage of an inflation/output trade-off. If an independent central bank can increase the public perception of the credibility of policy, this in turn should produce better economic results.

¹⁹ The output goals set by the government, for example, may not be sustainable without accelerating inflation. Tax and expenditures plans, which lead to a stream of deficits, may also raise questions about the sustainability of fiscal policy. In this environment, an independent central bank could be useful if its credible commitment to price stability forced the government to evaluate the sustainability of its policy goals. In contrast, centralisation of policies might reduce the long-run economic performance of a country when the government's focus is short-run performance.

²⁰ Blackman, Courtney "New Directions for Central Banking" 1988

²¹ See Blackman Courtney "Financial Policy and Institutional Reforms: The Central Bank"

²² See The Experience of Central Banking With Special Reference to the Caribbean edited by Ramesh Ramsaran, Regional Programme of Monetary Studies, 1995

²³ Cooper, Richard "Exchange Rate Choices," Harvard Institute of Economic Research, Harvard University Cambridge, Massachusetts, Discussion Paper Number 1877, July 1999.

²⁴ The Economist, Nov. 27, 1999

²⁵ King, Mervyn "Challenges for Monetary Policy: New and Old", Bank of England, 1999

²⁶ King, Mervyn "Challenges for Monetary Policy: New and Old", Bank of England, 1999

²⁷ See Blackman, Courtney "New Directions for Central Banking" 1988

²⁸ The first Caribbean economist to put forward the theoretical case for a Caribbean Monetary Union with the ECCB as the model for its organisation was Blackman (1988) "Towards a Monetary Union", Caribbean Affairs and Blackman (1989) New Directions for Caribbean Central Banking", Social and Economic Studies, Vol. 38, No. 4.

²⁹ Brash Donald T. "The pros and cons of currency union: a Reserve Bank Perspective", Reserve Bank of New Zealand, 2000

³⁰ Hargreaves, David and McDermott "Issues relating to optimal currency area: theory and implications for New Zealand", Reserve Bank of New Zealand: Bulletin Vol. 62 No. 3, 1999

³¹ Caribbean Centre for Monetary Studies "Report on the Economic Performance and Convergence of the CARICOM Region (For the year ending December 31, 1999)" CARICOM Central Bank Governors' Meeting, Jamaica, May 2000

³² Feldstien (1999), Bakhshi, Haldane and Hatch (1997)

³³ Padoa-Schioppa, Tommaso "EMU and Banking Supervision" Member of the Executive Board of the European Central Bank at the London School of Economics, Financial Markets Group, February 1999

³⁴ Sugisaki, Shigemitsu "Challenges and Opportunities: The IMF and the Caribbean" At the High Level Seminar on the Caribbean. Barbados, February 2000

³⁵ Padoa-Schioppa, Tommaso (1999) noted that such changes could, very sketchily, be summarised as follows. First, paper currency established itself as a more convenient means of payment than commodity currencies. Second, commercial bank money (bank deposits) spread as a convenient substitute for banknotes and coins. Third, the quantity of money was disconnected from the quantity of gold.

³⁶ See Simms, Maurene (2000) for an excellent discussion on “Widening the Supervisory Net to include Credit Unions, Building Societies and Other Non-Bank Financial Institutions” paper presented at the XVIII Annual Conference of the Caribbean Banking Supervisors Group, Curacao, May 2000.

³⁷ Padoa-Schioppa, Tommaso (1999) noted that following the recent adoption by the United Kingdom and Luxembourg of the separation approach, only two of the 12 countries represented in the Basle Committee on Banking Supervision (Italy and the Netherlands) have the central bank as the only authority responsible for banking supervision.

³⁸ See Simms, Maurene (2000) for an excellent discussion on “Widening the Supervisory Net to include Credit Unions, Building Societies and Other Non-Bank Financial Institutions” paper presented at the XVIII Annual Conference of the Caribbean Banking Supervisors Group, Curacao, May 2000.

³⁹ Goodhart, et al., (1998) “Financial Regulations: Why How and Where, Now” Routledge London and New York in Association with the Bank of England.

⁴⁰ There is a potential conflict between controlling money creation for the purpose of price stability and for the purpose of bank stability.

⁴¹ This was demonstrated earlier this decade in Finland, Norway and Sweden, but also more recently in Italy and France.

⁴² McKenzie (1999) “Domestic Interest Rates” Financial Gleaner, The Gleaner Company of Jamaica

⁴³ McKenzie (2000) “A Critique of Banking Regulations in the Cayman Islands” Project submitted in partial fulfilment of MBA in Banking and Finance, Manchester Business School and University of Wales.