



**A Review of the Evolution and Performance
of Social Security Schemes in the
English-Speaking Caribbean**

Althea Dianne La Foucade



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ABSTRACT

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The general trend seems to be that social security schemes are facing a crisis in which their future is threatened by actual or potential actuarial imbalances. The schemes in the English-speaking Caribbean have not been spared such crises.

It is within this context that a framework is established for the evaluation of the evolution and performance of social security schemes in general. Five major indicators for measuring and monitoring performance are employed: the width and composition of the base; the cost of administering the system; the diversification of the investment portfolio; the degree of actuarial robustness, and the social relevance of the schemes.

When the criteria are tested within the English-speaking Caribbean, it is found that the performance of the schemes has been largely influenced by the manner in which they were established and have since evolved.

The width and depth of population and benefit coverage is affected, among other things, by the degree of homogeneity of the population to be covered, and the strength of the formally employed within the labour market. Moreover, the expansion of coverage and the distribution of investments have been informed by a need for safety on the part of "risk averse" administrators.

The empirical evidence suggests that the real value of benefits has not been maintained, and as a result, the relevance of the social security schemes has become questionable.

In addition, actuarial imbalances have become a reality in the more matured schemes: Barbados, Guyana, Jamaica and Trinidad and Tobago. The less matured schemes are being faced with potential imbalances as unemployment rate increases and their pension schemes mature.

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DEDICATION

To my parents, Leo and Ophelia La Foucade, and my sister, Donna.

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INTRODUCTION

This study attempts to review and evaluate the social security schemes in the Caribbean. It identifies a set of performance criteria that is likely to impact upon their operations and the nature of the evolution. Although the definition used incorporates all aspects of social security, for practical purposes, the more comprehensive analyses have been limited to social insurance schemes. However, it soon becomes obvious that the evaluation of the social insurance schemes is at all times informed by the wider umbrella of social security.

The pattern of evolution of schemes in the Caribbean has not differed much from other countries including those of Latin America. The structure of the systems themselves, and the payment mechanisms have not changed much over the period under review. Moreover, the linkage of contribution and benefit rates to the macro-economy is yet to be established.

As early as 1974, Maurice Odle emphasised the need for research into the operations of social security systems in the Caribbean (*Odle 1974*). Judging from the available literature, it seems that to date there has been no comprehensive review of the social security schemes in the Caribbean. It is therefore useful to document the present status of these schemes as a prelude to establishing a coherent set of objectives and methods for the schemes in the future. In such a discussion, due regard would have to be given to the cultural, economic and social conditions of the individual nations, as well as the region as a whole.

If the findings of the various studies that have examined the issues facing the social security schemes worldwide are to be credited with any substance, then it is evident that difficult choices will have to be made. This will become necessary, if society is to cope with the escalating growth in expenditure in areas such as pension schemes, health care and unemployment benefit schemes. Incidentally, these three(3) types of schemes are now being proposed for the Caribbean Region. The remedies however, cannot simply be short-term, stopgap measures.

The present study identifies a need for the understanding of the social security objective within the context of regional development. As such it attempts to address the need for documentation of the schemes' structures and operations, and the establishment of a set of evaluative criteria. The study is by no means exhaustive, but hopefully it provides a foundation for future research in several areas.

Chapter 1 looks at the definition, goals and stages of development of social security. The chapter also examines the issues confronting contemporary

schemes. In chapter 2, a framework is developed with the express aim of assisting in the meaningful evaluation of social security schemes. Chapter 3 focuses on the characteristics and organizational structure of schemes in the Caribbean, while chapter 4 uses the set of evaluative criteria developed in chapter 2, to analyse the performance of the region's schemes. Policy recommendations and conclusions are presented in chapter 5.

CHAPTER I

SOCIAL SECURITY: A REVIEW OF CURRENT THINKING

1.1 Definition

The existence of social security is supported by the constitutions of most of the world's nations. Social Security was recognized as a fundamental right of the human being by the Universal Declaration of Human Rights adopted by the United Nations General Assembly in 1948 (*ILO 1984c*).

Not surprisingly, the interpretation of the term 'social security' varies from country to country. This variation is itself a reflection of the differences in administrative procedures, constitutions, legislation, statutory provisions and organizational structures (*Midgley 1984*). Definitions range from the very narrow, which recognize only the income-replacement function (*Mallet 1980*), to wider definitions that acknowledge social security as a possible policy variable for use in warding-off social and economic risks (*ILO 1984b*), and improving the quality of life (*Dreze et.al. 1991*).

According to ILO guidelines, social security can be taken to mean:

"...the protection which society provides for its members, through a series of public measures, against the economic and social distress that otherwise would be caused by the stoppage or substantial reduction of earnings resulting from sickness, maternity, employment-injury, invalidity, unemployment, old age and death; the provision of medical care; and the provision of subsidies for families with children." (*ILO 1984a*).

It is possible to identify four(4) major schemes that fall under the umbrella of 'social security': social insurance, social assistance, employer liability and social allowances. As shown in Table 1.1 overleaf, each type of scheme is characterized by three major features: source of funding, coverage and conditions of entitlement.

TABLE 1.1
BASIC FEATURES OF MAJOR SOCIAL SECURITY SCHEMES

Type of scheme	Primary source of funding	Coverage	Conditions of entitlement
Social Assistance	Public revenues	Low income persons in specific categories	Means test domicile
Social Insurance	Employer, employee	Employed persons	Contribution record
Employer Liability	Employer	Employees in designated categories	Employment criteria
Social Allowances	Public revenues	Persons in designated categories	Domicile

Source: Midgley 1984.

1.2 The Social Security Objective

A review of the literature shows that a fundamental goal of social security is to provide individuals and families with the assurance that their standard of living will not be totally eroded when they are faced with temporary or permanent loss of income (*ILO 1984a*).

Social security also has as its objective, the bridging of the gap between affluence and need. The aim of this bridging is to increase the wealth, of both individual beneficiaries and the nation. Without the latter consideration, it is quite possible that the adequate and efficient provision of welfare and social services will continue to defy social policy makers.

1.3 Quality of Life vs Growth Ethic

The manner in which schemes have since evolved, has been influenced by the underlying rationale accepted. Growth-mediated security dictated the policies of Hong Kong, Singapore, South Korea, Kuwait and the United Arab Emirates (*Dreze et. al. 1991*). Chile, Costa Rica, Cuba, China and Jamaica adopted Support-Led security (*Dreze et. al. 1991*). The former is committed to the promotion of economic growth on the assumption that the proceeds will

"trickle down" to those in need. The latter depends on state funds to provide wide-ranging support in health, education, income redistribution and a variety of income-support programs to ensure adequate access to basic needs.

The Quality of Life approach combines the concepts inherent in the growth-mediated and support-led approaches, to social security. Its main aim is the improvement of the quality of the individual's life.

Inherent in this approach is the recognition that the provision of some stipulated level of nominal income may not be adequate. Rather, the focus is placed on the maintenance and/or improvement of the standard of living. It recognises the need for sustainability of programs and with this, the necessity of smoothing the income stream. In terms of social security schemes, this may call for a greater involvement of the scheme in the macro-economy.

In the Lesser Developed Countries (LDCs) the concern with smoothing the income-consumption stream is paramount (*Deaton 1989*). Growth is expected to originate from structural changes, and not simply through the savings process.

In its historical evolution, social security has therefore had different rationales in different societies (*Midgley 1984*). In some parts of the world, for example in the Caribbean, it was designed with the simple aim of maintaining income, and thereby giving limited security. In others, linkages were made with the wider economy to prevent income loss.

In this study, social security is treated in the broad sense: utilizing the quality of life approach as a mechanism in the prevention of income loss, coverage of the various contingencies arising out of employment (whenever and in whatever form such contingencies occur), and the placement of the unemployed.

It follows therefore that, for the purposes of this study, three (3) main goals of social security have been identified, namely:

- i. The replacement of income of individuals and families, which allows for the provision of basic necessities; such needs arising from the existence of social risks, including ill health, births and deaths, and old age.
- ii. The progressive redistribution of income; and

- iii. The promotion of economic growth and development via coerced savings and capital accumulation.

(Mesa-Lago 1983)

1.4 Evolution of Social Security

In most countries, the decades following the Second World War saw the gradual development of social security schemes. The evolution and development of social security could itself be seen within the context of the developmental needs of society (*Mackenzie 1988*), with history pointing us to a conclusion that instruments must be put in place to strengthen and safeguard the schemes.

According to the literature, social security policy has passed through three (3) stages of development in most industrialized countries (*ILO 1984b*).

- (i) an era of paternalism: private charity and public poor relief provided for the poor, being often subject to harsh conditions that imposed stigma,
- (ii) an era of social insurance: following the procedures of friendly societies and Provident Funds. Under these schemes, employees in the public and private sectors received pensions and sickness benefits. Eventually, compulsory programs were developed, covering even more occupations and contingencies; and
- (iii) the present stage of development: when the concepts of prevention and universality have begun to be incorporated and the range of services is being extended, with the aim of maintaining and enhancing the quality of life of families and individuals.

It seems appropriate, and more than useful to add a fourth stage in the evolution of systems; the 'limbo' stage; when the systems' relevance is called into question and uncertainty hovers over their continued existence.

The growth in contingency coverage, was a manifestation of the acknowledgement that all individuals and families in wage-earning societies, could not realistically be expected to effectively and efficiently provide for their own security in all eventualities. As a result of this recognition, provision was first made for protection against employment injury and sickness (*Mesa-Lago 1983; ILO 1984b*). Pensions were later provided in an attempt to deal with

growing retirement. There was also a need for some minimum income for the elderly and the widows' benefits were a recognition of the rights of married women (*ILO 1984b*).

The experience of economic depression between the World Wars gave a major boost to social security policies. The extension of social security during the 1950s and 1960s was facilitated by political consensus (*Midgley 1984; ILO 1984b*). Political parties all tended to be partial to social protection. As a result, opposition to the development of, and use of funds for social security, was confined only to a few (*Midgley 1984*).

It was accepted that social security was more than an instrument for distributing and/or redistributing income based on notions of charity and equity. Social security was eventually acknowledged as an efficiency device, capable of doing things which private actuarial insurance would either not do at all or, would do inefficiently (*Barr 1990*).

Moreover, attempts were made to articulate a direct link between the developmental needs of society, the economy and social security. For example, there was increasing recognition that the lack of a job could not simply be blamed on the individual (*Novak 1984*). Long-term unemployment removed the ability of individuals to save and insure for the other risks of social and economic life. As such, social security was seen as a force which was capable of not only giving security to those covered, but also helping to give greater stability to unstable economic systems (*ILO 1984b*).

In the present stage of development, contemporary social security policy has attracted and continues to attract greater attention - a great deal being negative (*ILO 1984b*).

It is now clear that past political consensus was built upon the assumption of economic expansion. It should come as no surprise therefore, that the advent of declining economic growth following the oil crisis of 1973, has resulted in much criticism of social security schemes. It may well be that the heightened concentration of attention on social security, is part and parcel of the rising debate on the legitimacy of the **economically active state**. The debate is most probably a reaction to current economic difficulties; increasing unemployment, declining industries and high debt-service ratios with stringent conditionalities etc.. It is within this environment that the current accusations of irrelevance and wastefulness, by members of the public (both beneficiaries and contributors), administrators/policy makers and politicians, against social security schemes should be seen and addressed.

1.5 Issues Confronting Social Security

Among the studies which have focused on the problems facing social security schemes are those undertaken by, A.P. Diamond (1977), H. Aaron (1982), C. Mesa-Lago (1983, 1991b), ILO (1984a, 1984b), J.W. Cohen (1986) and, A.G. Mackenzie (1988).

A review of the literature shows agreement that in the long-term, the objectives of social security are more far-reaching than a mere fight against poverty and inequity. It aims at the maintenance of the level and quality of life and at the strengthening of the individual feeling of security.

To the extent that the above is true, then neither does increased prosperity nor declining fortunes justify the progressive dismantling of social security systems.

The need for the establishment of built-in preventative measures is also highlighted. Because of what social security aims to do, the question arises, whether it is good enough that it merely responds to needs as they arise. What may be desirable and may become increasingly necessary as schemes develop, is the ability to prevent the risks from arising (*ILO 1984b*).

A feeling of security in the face of social risks has traditionally been the privilege of a small minority of the population. The machinery of social security has made it possible for a larger section of the population to progressively benefit from the same guaranteed maintenance of their standards and ways of life irrespective of social contingencies (*ILO 1984b*). One view is that social security substantially reduces inequality in relation to such contingencies, so that one of the main factors responsible for the permanent distinction between social classes is to a large extent eliminated (*Midgley 1984*).

It seems reasonable to conclude that social security is an evolving concept and that the path of evolution depends upon the supportive mechanism that is erected to foster the growth and stability of the systems. An ILO 1984 study has described social security to be an instrument for social transformation and progress, which must be preserved, supported and developed as such (*ILO 1984a*). Furthermore, far from being an obstacle to economic progress, as is sometimes suggested (*Feldstein 1974b*), social security organized on firm and sound bases can promote such progress by, among other things, relieving anxiety for the future (*ILO 1984b*).

Yet another area of concern is the need for a genuine feeling of solidarity among those who participate in social security schemes (*McGreevey 1990*). It becomes increasingly clear that it is essential that beneficiaries of schemes play

an active role in the development process, consciously assuming responsibility for the system from which they benefit. Their responsibility must stem from a feeling of solidarity; fuelled by a clear understanding that a weak unstable economy will necessarily affect the fountain of their livelihood. This in turn may imply a need for increased contribution rates and reductions in benefits in some cases. This calls for an understanding of the inherent nature of schemes; social security acts upon and is acted upon by the macro-economy (*ILO 1984a; Jeanjean 1976*), and as such the foundation and strength of a scheme lie in its being rooted in the national economy.

The evidence suggests that a number of schemes are likely to be subjected to future actuarial imbalances (*Mackenzie 1988; McGreevey 1990; See also Section 4.4*). The operations of social security schemes have been subjected to rapidly increasing costs due to both horizontal and vertical expansions in coverage and benefit levels, the maturing of pension systems, increasingly aging populations, the growth of single-parent households, and improvements in the field of medicine (*Mackenzie 1988*). In addition, declining national economic fortunes have translated into financial burdens. Finally, social security schemes' reserves are being eroded by the loss of contribution income.

The present situation is that population projections show future increases in the dependency ratio (*Bourne 1988; Mackenzie 1988*). Together with maturing pension programs and further technological developments, this may mean that costs will continue on an upward spiral in the foreseeable future (*Mackenzie 1988*). These costs could more readily be met if unemployment declined and a reasonable rate of economic growth were once more attained. However, this is unlikely to be achieved in most countries, in the near future, and as such, it is important for administrators to operate with this in mind.

In this context it would be useful to consider the criteria which should inform the evaluation of the performance of social security schemes. We turn to this in the next chapter.

CHAPTER 2

EXPLANATION AND RATIONALE FOR CRITERIA

The political debate on social security is showing signs of shifting from a concern for expanding and improving the social security safety net (*Cockburn 1980*), to focusing on the stability of the system (*Gustafsson and Klevmarkon 1989*). With declining economic growth and rising unemployment, actuarial imbalances threaten to become the norm. Expenditure is expected to increase, alongside shrinking revenue bases, both in terms of contributions and investment opportunities.

The recent experience has been that the relevance of social security schemes is being frequently called into question (*ILO 1984a; McGreevey 1990*). In this context a major aim of the present study is to review and evaluate the schemes in the Caribbean. It is understood that any such evaluation will have to employ an acceptable set of criteria.

Many concerns, some of which have been previously mentioned (*Sections 1.3 and 1.4*), need to be addressed.

If such an effort is to prove adequate and effective, the analyses must, of necessity, be characterized by socioeconomic relevance. There is also a need to understand the factors which work together to determine the viability of schemes in the context of Caribbean society.

It is with these considerations in mind that this chapter undertakes the justification of the suggested evaluative criteria for social security schemes.

Social security schemes are seen as unique institutions with an arguably demanding task: providing various forms of protection in a context where the factors affecting their performance will be directly and indirectly affected by macro-economies (*Jeanjean 1976*). However, as chapters 3 and 4 illustrate, the very uniqueness of the schemes and their tasks, demand that an evaluative framework be established if scientific assessment is to inform public policy in this area. The present exercise identifies a number of factors as being likely to exert a significant influence on social security schemes.

2.1 Criteria of Social Security Performance

This study assumes that there are at least five (5) performance criteria that should guide our analysis of social security schemes. These can be listed as follows:

- (i) **the width and composition of the base:**
are schemes moving towards universalization of coverage? What degree of support is there from employers and employees? How homogeneous is the population to be covered?

- (ii) **the cost of administering the system:**
What percentage of expenditure is being allocated to administrative costs? What provisions are made for the upgrading of staff at all levels of administration? What arrangements are in place to foster cost-efficient administration?

- (iii) **the diversification of the investment portfolio and the related incidence of government "raiding":**
What instruments are funds invested in? What percentage of the schemes' investment in government securities is involuntary or forced?

- (iv) **the social relevance:**
What has been the general trend in the real value of benefits over the period?

It is being suggested that the five (5) factors outlined, and the extent to which administrators are able to wield control over them in both the long and short run, will determine the stability and growth potential of schemes.

We will discuss each of these criteria in turn.

2.2 The Width and Composition of the Base

Coverage of the Population

If social security is to become rooted in the society and economy, it must impact upon the lives of as many individuals and households as possible. Ideally, this is achieved by universal or near universal coverage.

Universalization of social security entails either:

- (a) the coverage of every member of the population against some or all risks; or
- (b) the coverage of some of the population for all welfare-related risks.

The former can be referred to as "universalization of population coverage" and the latter "universalization of benefit coverage."

Once again we consider the entire safety net of social security. Ideally, every citizen should either be a contributor; paying taxes, national insurance contributions, or a beneficiary; enjoying social insurance, health insurance, old age pensions and, public assistance. However, the reality is that the 'ideal' of universal and uniform coverage has not been widely attained. Close approximations may be the Seychelles and Singapore schemes. In the former, a comprehensive, universal social security scheme was established in 1979 with the unique feature - in the context of the developing world - of protecting the entire population against a wide range of risks (*ILO 1986*). Singapore, in turn, achieved near universality and uniformity by adopting a policy of 50 percent contribution rates on wages (*ILO 1986*).

In most countries, however, population coverage is generally low, and tends to be unequal among occupational groups, economic activities and geographical areas. In some cases, it may be argued that coverage is positively correlated with income and a number of socioeconomic variables, including labour skills, the power of pressure groups, the degree of urbanization and the level of regional development (*Mesa-Lago 1983, 1991b*). The traditional Bismarckian model of social insurance¹ which predominates in the Caribbean, has not led to

¹ The Bismarckian model of social insurance separates areas of coverage (pensions, employment injury etc). Emphasis is placed on coverage of salaried employees and employers, employees and the state are expected to make wage based contributions. The method of financing is usually full or partial capitalization (*Mesa-Lago 1991b*).

universalized coverage (*Section 4.1*,) having been designed for a labour force, dominated by wage-earning urban workers. This design was adopted in a context where in most of the developing world, the majority of the labour force is composed of a growing informal sector of agricultural workers, the self-employed and unpaid family workers.

A number of researchers, following Lord Beveridge have argued in favor of universal coverage. More recently, N. Barr has shown that social insurance schemes, which for the most part adopt the principles inherent in private actuarial insurance, should be seen as fostering efficiency through lower unit cost as coverage expands, and as risks are spread over a larger number of the insured (*Barr 1990*.) Even more recent studies continue to lend credibility to this school of thought.

Table 2.1, which is largely adapted from C. Mesa-Lago, shows the expected impact of universal coverage on expenditure as a percentage of Gross Domestic Product (GDP) (*Mesa-Lago 1991b*) for Latin America and the Caribbean. As expected, total expenditure increases as population coverage tends toward universality (Column 3). It follows that if GDP is held constant, the percentage allocated to social security expenditure increases. Further manipulation of the data (Column 4) suggests that the cost of additional coverage varies across countries. For every additional 1 percent of GDP which is allocated to social security expenditure, the percentage of the population covered remains constant, regardless of the present size of coverage in four (4) of the countries reported in the table. The data suggest a more than proportionate increase in coverage as the percentage of the population covered moves toward universality in six (6) countries, including two (2) Caribbean countries (The Bahamas and Barbados).

TABLE 2.1

SOCIAL SECURITY EXPENDITURES AS A PERCENTAGE OF GDP

Countries	SS Expend. as a % of GDP (1)	% of Population covered (2)	Estimated expend. for 100% coverage (3)	Increase/decrease* (4)
Argentina	11.9	78.9	15	0.03
Bahamas	0.7	85.3	0.8	3.14
Barbados	1	79.8	1.2	3.2
Bolivia	2.9	25.4	11.4	0.01
Brazil	5.2	96.3	5.4	0
Chile	1.1	67.3	16.3	0
Colombia	2.8	15.2	18.4	0
Costa Rica	7.5	81.5	9.2	0
Mexico	2.9	53.4	5.4	0.11
Nicaragua	2.3	9.1	25.3	-0.01
Panama	6.1	49.9	12.2	0.02
Paraguay	1.2	18.2	6.6	-0.2
Peru	2.6	16.6	15.7	-0.01

Source: Mesa-Lago 1991b (Cols. 1, 2 and 3).

Column 4 Author's calculation based on Columns 1, 2, 3.

*: Proportionate change in population coverage for 1 percent increase in social security expenditure as a percentage of GDP.
Measured as: $((\text{Col } 2/\text{Col } 1) - (100/\text{Col } 3))$.

Turning to the relationship between financial viability and population coverage, the experience of the East Asian schemes (*Thompson 1979*) seems to suggest an inverse relationship. This relationship is most evident in cases where the demographic composition of the employed is highly skewed toward the self-employed, agricultural workers, and the informal sector or where a large percentage of the population resides and makes a living in rural areas (*Mesa-Lago 1983, 1991b*).

According to Amin, there are at least two equity-oriented arguments in favor of extension of coverage to the rural population (*Amin 1980*). Firstly, although the inhabitants of these areas make an important contribution to the national economy they consistently earn proportionately less than other sectoral workers. Secondly, their work is physically demanding and often performed in unpleasant conditions. Yet they are not the recipients of benefits which have long been enjoyed by other categories of workers.

We can add to the argument above yet a third efficiency-oriented consideration. Rural workers face great income uncertainty and it is relatively more difficult for them to obtain credit (*Deaton 1989*).

To the extent that structural transformation requires policy makers to decide on the appropriate size of the agricultural sector, then there is a strong case for providing some assurance of income support to those workers who will comprise the required agricultural labour force.

Nevertheless, as Table 2.1 has indicated, some countries have managed to achieve a fair coverage of their population. Moreover, in countries with a multiplicity of institutions, coverage data by regional and international agencies are normally limited to the main institution and hence, underestimation of total coverage is likely. Apart from underestimation, there is at least one other factor which makes it difficult to carry out a proper analysis of the effectiveness of the coverage of the social security system. We refer to the extent of abuse of the system.

Abuse of The System

Social security schemes are plagued by problems of abuse and misuse (*Cockburn 1980*). The dilemma is whether it matters and if it pays to monitor it.

The pay-as-you-go system of national insurance depends on the contribution of individuals to meet benefit payments. Once benefits fall due, an efficient social insurance scheme should effect payments with as little delay as possible. To facilitate such effective payments, employers are required to retain the contributions of the insured and punctually pay such, in addition to their own portion, to the social insurance office. In reality, neither contribution nor benefit payments are usually effected in such an efficient manner. Schemes are generally affected to some degree by evasion - avoidance of registration in the system - and by payment delays of those registered.

The attempts to address abuse are ongoing in many developed and developing countries. Ofori noted that the scheme in Ghana, for example, faced the problem of arrears of contributions (*Ofori 1976*). Defaulting employers were mainly government agencies, local, urban and municipal councils and educational institutions.

One way in which the Ghana administration dealt with the problem of employer delinquency was by introducing the "Social Security Clearance Certificate" (SSCC) (Ofori 1976). Employers were deprived of certain privileges unless they produced a SSCC showing that they had paid their contributions.

In addition, the problem of support of the system by employees also embraces the problems of both moral hazard - the fact that once benefits are proffered, they will be claimed and obtained by those who do not need them - and adverse selection - the fact that some individuals will present higher risks to any insurance institution.

On the surface, it seems obvious that the system is made weaker by the existence of abuse. Consequently, there is a need to minimize such abuse by way of establishment of competent monitoring systems. In recent times, however, the focus of attention has been on the question of whether abuse is such an extensive problem that resources can be rationally channelled to deter it (Lantto 1989).

Based on cost-benefit analysis, it is generally accepted that if the magnitude of the population abusing the system is small enough, the problem should be rationally ignored. This still begs the question of how small is "small enough". Lantto has added a new dimension to the issue. His study gives a criterion for what can be considered a small enough magnitude (Lantto 1989).

According to Lantto, the optimal policy would be either that of Diamond and Mirrlees, or one which allows a proportion of the population to abuse the system (Diamond and Mirrlees 1978; Lantto 1989). The main results of the study are formulated in terms of the critical proportion of honest people (k): a proportion such that if the proportion of honest people is greater than k then it is optimal to ignore the abuse.

In the final analysis, whether it is optimal to ignore abuse or not will depend on the measures available to the insurer. The greater the degree of risk aversion (of the insurer), the lower the critical proportion. Ultimately, schemes will have to determine on an individual basis, whether the commercial and social costs of tracking and preventing abuse is justified in terms of net revenues collected.

2.3 The Cost of Administering the System

Third World social security schemes are faced with numerous problems which continue to become more acute as world economic conditions worsen, due to

the combined effects of international recession, inflation, and the policies of international financial institutions. However, it would be incorrect to attribute all the failings of schemes to these exogenous forces. Some of the major problems are internal, not only to the domestic environment, but to the social security systems themselves. Administrative inefficiency can be regarded as one such failing (*Mesa-Lago 1991b*).

In the analysis of administrative efficiency there are two fundamental issues which must be considered in some detail:

- (i) the extent to which there exists a system of upgrading staff at all levels of administration: in the early life of the social security scheme this would make for increasing costs.
- (ii) the trend in administrative costs as a percentage of total expenditure for the system as a whole, and of contribution income, for social insurance schemes in particular: as the system matures this trend should be non-increasing.

Upgrading of Staff

As early as 1962, the ILO emphasized that of all the problems faced by social security schemes the problem of staffing needed special attention because of the specialized nature of their tasks.

"The fact must be faced that the administrative duties involved in operating a social security scheme are often highly specialized and are not always akin to those performed in other branches of public administration. Owing to the wide range of heavy responsibilities borne at various levels and the serious consequences for the beneficiaries of any shortcoming in administration, the staffing of the senior and medium ranks of social security bodies can hardly be improvised." (*Mouton 1975*).

Inefficiency is a natural result of inadequate staffing. One measure of efficiency is the ability of schemes to meet payment obligations as rapidly as possible. Wolfe noted that in one Latin American institution the delays in processing claims were so great that consultants had to be privately engaged, at a cost of as much as 40 percent of the benefits eventually paid (*Wolfe 1968*). According to Paillas, claims were taking approximately three (3) months to be processed in many of the LAC countries (*Paillas 1979*).

A grave problem in much of the developing world is the inadequacy of facilities and resources for the proper training and retraining of staff. Many of the senior staff are trained in Europe, and though this may have been useful, in as far as it exposed administrators to the operations and methods employed in other countries, it has been argued that such training may be insufficient and at times irrelevant (*Mouton 1975*). Trainees are attached to administrations which differ significantly in structure and size from their own, and make use of methods which either cannot be implemented or would not be relevant to their institutions' needs.

The personnel problem is not limited to quality or the need for training but extends to the quantum of staff employed. When employment decreases social security schemes are usually adversely affected. Actuarial imbalances have constrained the ability of the schemes to employ adequate numbers of staff (*Novak 1984*). In some cases the shortage of staff has been so chronic that the loss of files, the jamming of switchboards, the inconvenient location of offices and a poorly informed public are no longer considered problems, but rather, solutions which offer the staff a respite to cope with other tasks. Yet these "savings" may be a source of increasing social costs.

In summary therefore, once the expected benefits from training exceed the costs incurred, the latter by themselves cannot be regarded as indicators of inefficiency.

Costs of Administration in Relation to Total Expenditure

To the extent that social security aims at universal coverage, all citizens should fall under the label of either beneficiaries or contributors. Moreover, the latter should be assured that the resources they are channelling into such social security schemes are optimally allocated.

It is socially and economically acceptable that the schemes should cover the costs of administration. A fundamental objective of social security is to provide the

beneficiaries with benefits that are as comprehensive and realistic as possible at the lowest possible price. This translates into the sub-objective of keeping administrative costs as low as is realistically possible.

For the purposes of analysis, it is convenient to consider administrative costs as a percentage of total expenditure, in the case of social security taken as a whole and as a percentage of contribution income for social insurance. Both percentages retain the cost-benefit flavour required in any analysis of efficiency.

High administrative costs limit the ability of social security schemes to expand. Since the expansion of the system may be an important determinant of the optimal size of the labour force, these high administrative costs impact on the ability of schemes to create strong linkages within the economy.

Computerization is sometimes regarded as a panacea for multiple problems including lack of or delays in payments, multiple registration, processing of benefits and reduction of administrative costs. Ironically, the unit cost of social security (costs per claim processed) has also increased due to attempts to decrease costs. There is some evidence of unsuccessful attempts to improve administration through the introduction of new management techniques. Thompson noted that the introduction of computers in some East Asian schemes had led to greater inefficiency because staff were not properly trained in their use (*Thompson 1979*). In the African cases, Mouton also reported an upsurge in the use of electronic data processing methods and the high cost in terms of foreign currency, which tends to be more pronounced in countries with limited financial resources (*Mouton 1975*).

With the expectation of future actuarial imbalances, the reduction of the share of administrative costs in contribution income will have to be seriously addressed. High administrative costs limit the ability of schemes to engage in both vertical and horizontal expansion of coverage. Such high costs also hamper the achievement of universal coverage, the allocation of funds for staff training and the education of the public in the better use of the social security system.

2.4 The Diversification of the Investment Portfolio

It seems reasonable to posit that unless management is astute, with the aim of maintaining at least some minimum degree of future solvency, social security schemes can pose formidable threats to central governments' expenditure (*Mesa-Lago 1991a*).

There have been two(2) predominant solvency-related factors in most schemes. On the one hand, we see the use of social security funds to finance central governments' debts. On the other hand, we observe the need for major allocations by the State to the schemes. With expected future actuarial imbalances, and the unlikely prospect of improved state financing (*See Table 4.11*), the diversification of the investment portfolio can be expected to be a recurring theme.

Although data are limited, there is some evidence that social security funds seem to be typically invested in low yielding government securities, and social security institutions appear to perform poorly in achieving a reasonable real rate of return on invested funds (*Samuel 1990; McGreevey 1991; Mesa-Lago 1991a*).

There is evidence of a positive correlation between the distribution of investment among variable yielding assets and overall annual real yields. Mesa-Lago, in a study of the portfolio of eight countries, found that inflation and the insistence by governments that schemes invest in government paper, contribute to poor portfolio returns (*Mesa-Lago 1991a*). Findings for five(5) of the countries are reported in Table 2.2

TABLE 2.2
PERCENTAGE INVESTMENT IN GOVERNMENT BONDS AND
AVERAGE ANNUAL YIELDS (1980 - 1987)

Country	Government Bonds (% of investment)	Average Annual yields
Chile	45	13.8
Bahamas	66	2.7
Barbados	47	0.7
Jamaica	91	-4.8
Ecuador	83	-10.0

Source: Mesa-Lago 1991a.

The evidence indicates a need for reduction in the holding of government securities, which normally have a fixed interest rate, lower than that of commercial banks. If schemes are to continue making such sizable investments in government securities, rationality implies that such securities have variable yields which are indexed to inflation (*Mesa-Lago 1991a*). However, the reality of constraints facing governments in the developing world suggests that they just may not be in a position to willingly allow any further debt burden on themselves.

Personal and mortgage loans also appear to be bad investments for most social security schemes (*Mesa-Lago 1991a*). Their yields are low, they involve high administrative costs and difficulties in monitoring and collecting payments (*Trinidad and Tobago National Insurance Board 1993*).

The Incidence of Government 'Raiding'

The accumulated reserves of funds are usually invested to allow for the greater solvency of schemes. However, because they generally fall under the control of statutory bodies, administrators of funds lack autonomy in the use of funds. Central governments "borrow" social security reserves to cover the current or social infrastructure expenditure of the state budget and rarely ever repay in full.

Even the principle of autonomy does not prevent the seizure of Funds' reserves or surpluses in one form or another by the State (*Mouton 1975*).

Of course, it is acknowledged that social security schemes should coordinate policies with other public agencies. However, this is not to say that they should not be allowed more autonomy in the allocation of accumulated reserves. Moreover, opportunity cost considerations may not justify the use of funds to finance other government expenditure obligations. This is especially true when these funds are not channelled to public investment, but are used to cover certain items of current expenditure.

It was suggested earlier that one of the main goals of social security is the promotion of economic growth and development via coerced savings and capital accumulation. Our present concern is that government raiding, together with the allocation of the raided funds, may run counter to the above mentioned goal of social security.

We accept that autonomy is necessary but not sufficient for good investment performance. Still, it is likely to provide a better opportunity for optimal use of social security reserves, since decision making here is not likely to be pressured

by political exigencies. This would be even more true if the autonomy being advocated for social security is matched by the appropriate degree of accountability. The overall concern is the need to put the actuarial soundness of the scheme on a foundation that is more under the control of the managers of the scheme.

2.5 The Degree of Actuarial Robustness

Based on actuarial analysis, which uses demographic, employment and wage data, recommendations are made in respect of both the initial rates of contribution required for the various benefits and the appropriate financial structure of the social security system.

In nearly all cases, both employers and employees are held liable to contribute to the funding of social security expenditures, with the State providing additional funding when necessary (*Tables 1.1 and 4.1*).

In effect, the actuary is expected to recommend a system which will facilitate the sound operation of schemes. Such recommendations include rates of contribution and benefit. The projected actuarial imbalances - contributions being less than benefit payments - may serve to reflect either a lack of rigorous actuarial valuations or a failure of systems to implement the recommendations of actuaries. The latter is a possibility when political expediency or inertia is allowed to influence the operation of schemes, and recommendations include decreases in benefits and/or increases in contribution rates.

Actuarial valuations, which are intended to ensure that schemes continue to operate on sound financial bases, are generally statutory requirements to be fulfilled every three to five years. Ideally, they should be able to provide a means of ensuring that contributions are adequate to withstand future inflation and unemployment. There should also be some assurance of schemes' ability to pay as they become more and more mature. The ability of actuarial techniques to effectively achieve this has been questioned (*Feldstein 1974a; Munnell 1977*).

Social insurance schemes (especially those providing pensions) which function without periodic actuarial evaluations, have in the long run, disappointed the expectations of both beneficiaries and contributors (*ILO 1984b*). To the extent that there are changes in society and the economy, it is reasonable to expect that the demands on the system will change. It is quite possible then, that even a scheme which was established on a sound actuarial basis may become ineffective due to lack of actuarial adjustments.

For this reason, the ILO Convention No. 102 of 1952 requires governments to periodically re-evaluate the assets and liabilities of social security schemes.

This is one of the approaches used to help to ensure solvency and to adjust contribution and benefit rates.

As mentioned previously, the future of a number of schemes may be clouded by actuarial imbalances. This suggests that either contributions be increased, benefits be decreased or both. Within the present economic context, the option available however, will be a re-evaluation of the role of investments and the investment income of social security schemes (*Chapter 4*).

However, one should be wary of the conclusion that a lack of actuarial robustness is the only factor hampering an expansion of social security coverage. Indeed, even the most fervent sympathizers would be hard pressed to convincingly justify expansions in benefits where only a minority of the population enjoys coverage.

This takes us back to the importance of rigorous actuarial analysis. If we accept the social security model in use, and the actuaries are aware of the goals of the system, then with appropriate actuarial analysis it should be possible to find some way of achieving such goals, including universality of coverage and a more comprehensive system. Of course, this presupposes some degree of administrative and political will to implement actuarial recommendations.

2.6 Social Relevance

The case has been made that social security schemes should not only offer protection, but that such protection should be effective (*ILO 1984c*). In principle, there is generally a need for benefits to grow as needs change and as prices change. Cash benefits may be linked to previous earnings, in order to guarantee the maintenance of beneficiaries' previous standard of living.

Alternatively, it is possible to link benefits to the cost of living as is done in Sweden and the United States, or to the general wage levels, as in France, the Federal Republic of Germany and the Netherlands (*ILO 1984c*). This is more possible in the case of long-term benefits and counters the effects of inflation. In some countries, such adjustments for increases in the cost of living are done on an ad hoc basis (*ILO 1984c*). In others, there is a process of automatic indexation. In Canada, an accelerated adjustment process is in place, whereby adjustments are made on a quarterly basis.

The usefulness of benefits can be assured by:

- the imposition of minimum benefits
- increases in the maximum period during which benefits are payable; and
- diversification of benefits

What is being suggested, is that the social security scheme be perceived to have the potential for making a genuine difference to the quality of life of its contributors. If benefits become a smaller and smaller fraction of required income-protection, the relevance of the social security scheme will disappear. In these circumstances, the political pressure to deal with the problem of financial viability may be neutralized.

CHAPTER 3

BASIC CHARACTERISTICS OF SCHEMES IN THE CARIBBEAN

3.1 Historical Background

The socioeconomic problems experienced by the Caribbean peoples continued into the late 19th century and thereafter, with the advent of the first World War and the collapse of a number of European merchant banks (*Carter, Digby and Murray 1979*).

Estates were abandoned and/or allowed to become dilapidated while the incidence of absenteeism increased (*Dookhan 1979*). Agricultural workers, who comprised the majority of the population, were seriously affected.

Meanwhile, as in the case of Trinidad, where oil was being extracted, 'white' expatriates were living under conditions which were much better than other workers. This led to discontent during the 1930s, which was a period of general unrest in the West Indies (*Dookhan 1979*). In 1936, the average worker in the oil industry was earning less than the previous decade. Labour leaders mounted a call for better conditions for workers and nationals as a whole, (*Augier and Gordon 1977*). The result was the appointment of a Royal Commission: Moyne, 1938 - 1939.

The Commission found that there were good grounds for the demand for better conditions. The demands were fuelled by the effects of education, the press, wireless, disparities in standards of living of blacks and whites, and the reports of those who had lived and worked abroad (especially in America). A number of other documents had dealt with the existing socio-economic conditions in the West Indies. These included the 1937 Foster Commission Report and the Labour (Minimum Wage) Ordinance 1935 (*Dookhan 1979*).

During slavery, the slave owners and colonial administrators had provided for their chattels. After emancipation in 1838, the metropolitan government had taken up an increasing share of this burden. One important manifestation of this responsibility was the provision of funds for education (*Dookhan 1979*). However, as the pressures on the metropolitan coffers increased with war, and the colonies moved toward independence, local authorities were forced to acknowledge the need for their role in publicly administered programs which would provide for the 'less fortunate.'

Informal organizations, such as lodges, friendly societies, denominational groups and other charitable bodies, though providing some measure of assistance, proved inadequate (*Gobin 1969; Dookhan 1979*). Even the workmen's compensation, which existed in some of the islands tended to fall below the required levels (*Gobin 1969*). No compensation was due unless injury had resulted in at least partial disability for a minimum of 10 days. In England the minimum was 3 days (the present waiting period for sickness benefit in most of the Caribbean (*See Table 3.6*). The Ordinance did not apply to agricultural workers except those employed with engines or machinery.

Governments became increasingly concerned when in the 1950s and 1960s, private pension schemes in some islands ran into financial difficulties (*Gobin 1969*). In Jamaica, for example (*Table 3.1*), actuarial projections for the Sugar Workers' Pension Scheme (SWPS) showed a steady decline in reserve of 26.27 per cent in 1964/1965, followed by 63.56 percent in 1965/1966. Projections indicated that the scheme's reserve would be in deficit by 1967/1968.

Efforts to introduce a more comprehensive social security system manned by the state were accelerated.

TABLE 3.1

**PROJECTION OF FINANCIAL DEVELOPMENT OF THE
JAMAICAN SUGAR WORKERS PENSION SCHEME
(£000)**

Financial year	Reserve of deficit (beginning of year)
1963/1964	1340
1964/1965	988
1965/1966	628
1966/1967	260
1967/1968	-115
1968/1969	-497
1969/1970	-885
1970/1971	-1279
1971/1972	-1680
1972/1973	-2087

Source: Ministry of Labour and National Insurance 1967

3.2 Introduction of National Provident Funds and Social Security Programs

Social Security and National Provident Funds were implemented in most of the Caribbean amidst the backdrop of ILO's prodding of governments. The ILO provided the technical expertise in the structuring and implementation of systems.

The social security approach in the Caribbean has been largely informed by the Support-Led strategy (Section 1.3), placing emphasis on state funds. As such, although social insurance has been able to expand coverage to most of the working population, the comprehensiveness of benefits and contingencies covered, and the drive to expand the safety net, by moving away from the insurance principle, has been defeated by the inherent revenue-income bottlenecks created by the ups and downs of the governments' fiscal position.

It is possible that this is one of the fundamental limitations of the social security mechanism in the Region. Uncertain incomes are by no means limited to individuals and households. To the extent that governments depend on taxes from individuals and firms, and on the proceeds of exports of a small number of commodities which are faced with fluctuating prices, then governments' revenues become vulnerable.

If, as this study postulates, there is a positive relationship between the stability of government revenue and social security systems in the region, then a vulnerable government revenue foundation translates into a vulnerable social security system.

Moreover, it can be argued that this can be traced back to the Support-Led strategies which have been adopted, as opposed to a combination of the Growth-mediated and Quality of Life approach. It is also arguable that a social security system will be of limited effect if the significance of its impact on the individual's life remains indeterminate. In these circumstances the name "social security" may even represent a misuse and a misapplication of the term.

The Legislative Framework

Jamaica's Social Security Act was passed in 1965, followed by Barbados in 1966 and St. Kitts-Nevis-Anguilla and Grenada in 1968 and 1969, respectively, with National Provident Fund Acts and Guyana's Social Security Act in 1969. By 1979, all islands had introduced either Social Security or National Provident Fund Acts.

Jamaica was the pioneering country for social security in the English-speaking Caribbean, having begun operations since 1966. Barbados followed in 1967, Guyana in 1969, Trinidad and Tobago in 1972 and Antigua-Barbuda in 1973. The full picture is shown in Table 3.2.

TABLE 3.2
ENACTMENT OF NATIONAL PROVIDENT FUND
AND SOCIAL SECURITY/SOCIAL INSURANCE ACTS

Country	NPF Act	SS Act	Inception of SSS
Jamaica	na	1965	1966
Barbados	na	1966	1967
St. Kitts-Nevis-Anguilla	1968	1977	1978
Grenada	1969	1983	1983
Guyana	na	1969	1969
St. Vincent	1970	1986	1987
Antigua-Barbuda	1970*	1972	1973
Trinidad & Tobago	na	1971	1972
Dominica	1970	1975	1976
Bahamas	na	1972	1974
Monsterrat	1972	na	na
Belize	na	1979	1981
British Virgin Islands	na	1979	1980

Source: Samuel 1990; U.S. Department of Health and Human Services 1990.

na: Not applicable

* : Never implemented

While the larger islands favoured the social security approach, countries in the Eastern Caribbean, with smaller populations and resources, tended to opt for the Provident Fund approach (*Fletcher 1976; Jenkins 1981*). Reflective of the initial lack of commitment to the maintenance of the quality of life, no allowances were made for fluctuations in the cost of living. With the exception of the Bahamas and Guyana, social insurance schemes do not yet have mechanisms for automatic adjustments of pensions (See Section 3.5).

Although administration of these Provident Funds tends to be fairly uncomplicated, Leonard P. Fletcher has argued that there were inherent administrative and other structural weaknesses in the National Provident Funds of the Eastern Caribbean (*Fletcher 1976*). The legislation of Antigua, Dominica, Grenada, Monsterrat, St. Kitts-Nevis-Anguilla, St. Lucia and St. Vincent and the Grenadines, all made provision for the contingencies of old age, survivorship and incapacitation. The exception was Grenada, which did not cover survivorship (Appendix I). Some countries also made provisions for grants to emigrants, and the coverage of unemployment.

As Table 3.2 shows, Provident Funds evolved into social security programs either when they matured or when they no longer seemed relevant to the needs of society. The provisions for sickness, incapacitation and unemployment benefits were never implemented and there was continued lack of public support (*Fletcher 1976; Jenkins 1981*). This support only materialized after nine (9) years of operation in St. Kitts-Nevis-Anguilla and as many as fourteen (14) years in Grenada.

Similar characteristics were present in social insurance schemes in the rest of the region. Most Social Security and National Insurance Acts made provisions for eventual coverage of the self-employed and the introduction of unemployment insurance. However, after two (2) to three (3) decades of social insurance, only one (1) country (Barbados) has managed to introduce unemployment insurance. Coverage against unemployment was provided in Barbados after more than a decade of social insurance in that country. Guyana began covering the self-employed rather early, in 1971, and provided coverage for primary health care as early as 1969 (Table 3.5). Antigua-Barbuda and the Bahamas began providing medical coverage under social insurance in 1978 and 1984 respectively. Trinidad and Tobago is only now making serious attempts to provide health care under a national insurance system, and is yet to cover the self-employed after more than two (2) decades of 'national' insurance. A growing self-employed and informal labour force now seems to suggest that the oil boom was apparently not taken advantage of by administrators of the social insurance scheme in that country. The savings which were possible then could have been used today to upgrade and extend the present system.

The extent of the apparent lack of a full commitment to a social security objective, including the provision of a safety net capable of catching those who become vulnerable, is clearly visible in the Trinidad and Tobago experience of the 1970s and 1980s. The failure to patch existing holes in the net when funds were available, invites criticism of a system which took as its primary obligation the provision of only basic income-needs replacement. In fact, the present situation seems to be one where the rational, utility maximizing consumer and worker, in all plans including retirement, just cannot, and will not consciously depend on the social security scheme. The emergence of a number of private pension plans in the financial system lends support to this conclusion.

While we acknowledge the need for individuals to accept some responsibility for making provisions for loss of income, the above mentioned trend is somewhat worrying.

The concern here is that, there is a need to aim for an optimal private-public section mix in the provision of social security. In so doing, one should never forget the rationale behind the public provision of these types of services. According to Barr, social security should be seen as an efficiency device, capable of doing what the private sector would either not do at all, or would not do as efficiently, all things being equal (*Barr 1990*). Any suggestion of the possibility of private provision of social security, should then take into consideration, the fact that this is a market in which perfect knowledge does not exist.

On the one hand then, the absence of the maintenance of the quality of life seems to be prevalent in the Caribbean, where the bulk of social security provision is focused on minimal replacement of incomes. On the other hand, the rest of this chapter hopes to show that schemes have achieved some modest level of growth, expansion of benefits offered over time and expansion of coverage. However, the development of social security in terms of solidarity, a national commitment and the creation of linkages between the macro-economy and the social security institution, has continued to elude the region (Chapter 4). Moreover, there is a persistent suggestion that the problem is rooted in the social security approach which was originally adopted and which continues to guide policies.

3.3 Legal Coverage of Population and Labour Force

Under all systems, social insurance legislation provides for the coverage of most of the formally employed. Exceptions include St. Vincent and the Grenadines, and St. Lucia, where apprentices and public servants are not covered, respectively. According to the U.S. Department of Health and Human Services, it is not unusual to exclude apprentices, family and casual workers (*U.S. Department of Health and Human Services 1990*).

The speed with which schemes mature and grow is likely to impact on the level and composition of benefit payments. Pensions have increasingly accounted for a growing portion of benefit payments in the Caribbean (Appendix II). The start-off point of social insurance schemes is thus of utmost importance. The level of both population and labour force coverage upon inception of the schemes will, to a large extent, determine the rapidity of growth of the general schemes and the evolution into pension schemes (*Mesa-Lago 1991b*).

To the extent that social security, and in particular social insurance, is recognized as an evolving system of protection, the rapidity and pattern of growth of schemes could threaten the entire system if the institutional structure, the structure of the contribution base and method of collection of income, do not evolve along with systems. Infrequent changes in insurable ceilings, stagnated contribution rates and unchanging collection methods, all suggest the lack of strategic planning.

The empirical evidence (Section 4.1) suggests that social insurance schemes which cover the self-employed have approached, or are approaching, complete coverage of the labour force. The Guyana case though, illustrates that universality of coverage, may be threatened when those individuals outside the net are unwilling to receive coverage for fear of the possible additional financial burden implied by contributing to such schemes.

At least eight (8) countries (including Bermuda) cover the self-employed (Table 3.7) and eight (8) make provisions for coverage of voluntarily insured persons (Table 3.5). All countries impose a ceiling on earnings from which contributions are made and benefits paid (Table 3.3). To the extent that incomes remain fairly stable or ceilings are adjusted as incomes fluctuate (attempts have recently been made to achieve such adjustments in Guyana), such ceilings may be acceptable. However, there are potential problems in the presence of fluctuating incomes and infrequent reviews of such ceilings. In Trinidad and Tobago for instance, where 51.5 percent of employed persons were earning above the established maximum insurable ceiling in 1990 (*Trinidad and Tobago Central Statistical Office 1993*), the loss of contribution income was to be expected.

Belize and the British Virgin Islands have the lowest ceiling on insurable earnings. Although Barbados, Dominica, Guyana, St. Lucia and St. Vincent and the Grenadines revised their ceilings within the last few years, benefits, contributions and ceilings are rarely adjusted.

TABLE 3.3

BASIC FEATURES OF SOCIAL INSURANCE SCHEMES IN THE CARIBBEAN (1991)

COUNTRY	AGE OF INSURED	SALARIED EMPLOYEES		SELF EMP.	VOL. IN-SURED	MAX. INSURABLE EARNINGS (COUNTRY CURRENCY) \$	CONTRIBUTION RATES %		
		ALL	SOME				EMPLOYER	EMPLOYEE	SELF EMPLOYED
Anguilla	16-59	x			x	24,000/yr	5	5	
Antigua-Barbuda	16-59	x				2,500/mth	5	3	
Bahamas	16-59	x		x	x	13,000/yr	5.4-	1.7- 3.4	6.8- 8.8
Barbados	16-54	x		x		2,600/mth	4.9- 6.8	4.65- 6.55	8
British Virgin Islands		x		x		10,400/yr	5	5	8.5
Dominica	16-60	x		x		3,000/mth	7	3	7
Grenada*	16-59	x		x	x	15,000/yr	4	4	6.75
Guyana	16-59	x		x	x	105/wk	7.2	4.8	10.5
Jamaica	18-64/69	x		x	x	15,000/yr	2.5	2.5	5.0
St. Lucia	16-59		x		x	12,000/yr	5	5	

TABLE 3.3 (Cont'd)

BASIC FEATURES OF SOCIAL INSURANCE SCHEMES IN THE CARIBBEAN (1991)

COUNTRY	AGE OF INSURED	SALARIED EMPLOYEES		SELF EMP.	VOL. INSURED	MAX. INSURABLE EARNINGS (COUNTRY CURRENCY) \$	CONTRIBUTION RATES %		
		ALL	SOME				EMPLOYER	EMPLOYEE	SELF EMPLOYED
St. Kitts-Nevis	16-59	x				16,800/yr	5	5	
St. Vincent & The Grenadines	16-59		x			20,000/yr	2.5	3.0	
Trinidad & Tobago	16-59	x			x	230/wk	5.6	2.8	

Source: U.S. Department of Health and Human Services 1990; Mesa-Lago 1991b*

: Self-employed maximum insurable earnings is \$228. per week

a : 6.8% for self-employed persons in Class A (not entitled to industrial benefits) and 8.8% for self-employed persons in Class B (taxi-drivers, straw-vendors, fishermen, who are entitled to industrial benefits).

b : 1990

3.4 Revenue Sources and Determinants

The major source of social insurance revenue derives from payroll contributions, with rates ranging from 5 percent in Jamaica to 12 percent in Guyana. Both employees and employers are required to make contributions. Jamaica's contribution rate was last revised in 1979. On the whole, contribution rates have remained unchanged since inception of schemes. There are at least three(3) related factors which work against changes in these rates:

- (i) rates are politically sensitive;
- (ii) parliamentary approval is needed to revise Acts; and
- (iii) payroll deductions have similar effects to a tax which reduces disposable income.

Social security becomes a political issue only when authorities/administrators do not deliver. To the extent that governments are put in place to protect the rights of citizens, and to the extent that social security is a right of every citizen (*ILO 1984c*), then social security contribution rates and benefits become, not just political, but national issues for public debate.

Administrators of social insurance schemes are faced with the problem of contribution income no longer being able to cover expenditure (Table 4.10). Actuaries have continued to recommend changes in insurable ceilings and increases in contribution rates. The dilemma remains however; on what grounds do one propose an increase in individuals' contributions? Certainly not merely on the basis of actuarial imbalances, which are partly accounted for by rising administrative costs and overall administrative inefficiencies. Social insurance schemes need first of all, to ingrain themselves as delivery systems delivering on time, in times of need and more importantly, preventing need whenever possible.

One cannot reasonably expect the commitment of workers to social security, in the midst of operational inefficiencies, which include high administrative costs (See Tables 4.8 and 4.9). The rational individual will not be willing to place his hard-earned money in a system which does not make his income any more stable, than if he took measures to secure stability himself.

3.5 Expansion of Benefits Old Age, Disability and Survivorship

Financial constraints and the need for more effective monitoring systems have rendered some benefits and individuals more difficult to cover.

The contingencies covered did not expand as rapidly in the Caribbean as in Latin America. Appendix III shows that according to the U.S. Department of Health and Human Services, and Carmelo Mesa-Lago, by 1980 all the countries in Latin America and the Caribbean had some form of pension program regardless of how rudimentary (*U.S. Department of Health and Human Services 1990; Mesa-Lago 1991b*).

However, although it is true that by 1979 all countries had some provision for pensions in law, at least one (1) country (Belize) did not actually provide such protection until 1981 (Table 3.5), with the implementation of the 1979 Social Insurance Act (Table 3.2). Moreover, it was not until 1987 that all (with the possible exception of Monsterrat) had started offering such protection under social insurance (Table 3.2), with the actual implementation of the laws.

The qualifying age requirement for receipt of social insurance retirement pensions ranges from 60-65 years in all cases except Jamaica, where the normal retirement age for men is 70 years.

With the exception of the Bahamas, where pensions are pegged to the cost of living index with an automatic adjustment for every 10 percent increase in the cost of living (*ILO 1989*), no other scheme in the region makes a conscious effort to maintain the real value of pensions. In the absence of such adjustment mechanisms, it is not surprising that rising inflation has effectively eroded the value of pensions. According to the annual reports produced by Belize, Guyana and Barbados, the minimum pension is determined in such a way as to adhere to the minimum standards set by Paragraph 23 of ILO Recommendation No. 131 (*ILO 1989*). In Trinidad and Tobago, the law states that adjustments may be made depending on changes in economic and social conditions without specifying actual procedures (*ILO 1989*). According to the ILO, the Grenada scheme claims that benefits are reviewed every year under Article 19 of the Constitution, but does not detail the nature of the adjustments, and there is some evidence that adjustments are not actually made (*ILO 1989*).

TABLE 3.4
SOCIAL INSURANCE OLD AGE/RETIREMENT PENSIONS (1991)

COUNTRY	A G E		CONTRIBUTIONS (WEEKS)	BENEFITS * (%)	
	MIN.	MAX.		MIN.	MAX.
Bahamas	60	65	150 pd. or 750 pd/cr.	40	60
Barbados	65	65	500 pd./cr; 150 pd.	Bds\$76/wk.	60
Belize	60	65	500 pd/cr; 150 pd.	30	60
British Virgin Islands	65	65	500 pd./cr.	B\$15/wk	60
Dominica	60	60	500 pd./cr. 150 pd.	30	60
Grenada	60	60	500 pd./cr 150 pd.	EC\$25/wk	60
Jamaica	60F 65M	65F 70M	312 with min. yearly of 13	J\$30/wk	-
St. Kitts-Nevis	62	62	500 pd.	EC\$910./yr.	60
St. Lucia	60	60	520 pd/cr.	40	1/6
St. Vincent	60	60	500 pd./cr.	30	60
Trinidad & Tobago	60	65	750 pd./cr.	\$30/wk.	75

Source: U.S. Department of Health and Human Services 1990; Mesa Lago 1991b

* : Percentage of insurable earnings unless otherwise specified

F: - Female M: Male; pd: paid; cr: credited.

It is arguable that some of the features/qualifying conditions for retirement pensions tend to distort the labour market with possible effects on productivity. In Jamaica, if a person continues to work after the retirement age, he/she is not entitled to any benefits, but will receive full benefit upon complete stoppage of work. The Trinidad and Tobago case is also interesting. If an individual continues in employment which pays TT\$5. or more per week, he is not eligible for pensions, even at a reduced rate. It may well be that such minimum rates were acceptable at the onset of schemes. The evidence seems to be indicating a need for monitoring and adjustment of regulations as they outlive their usefulness.

The regulations governing these schemes may not only negatively affect the macro-economy, but may deprive the society of the advantage of invaluable experience. Moreover, these regulations seem geared to making dishonest citizens of honest, ambitious, individuals.

TABLE 3.5

PERIOD OF INTRODUCTION OF NATIONAL INSURANCE BENEFITS

Country	OADS	Sickness/ Maternity	Employment Injury	Un- Employment	Self Employed	Voluntary Coverage	Medical
Antigua- Barbuda	1973	1973	-	-	-	-	1978
Bahamas	(1956) 1974	(1972) 1974	(1943) 1978	-	1984	X	1984
Barbados	(1937) X	(1966) X	(1916) 1971	(1982) 1982	1974	1984	-
Belize	(1979) 1981	(1979) X	(1981) X	-	-	X	-
Dominica	(1970) 1976	(1975) 1976	(1937) X	-	1989	X	-
Grenada	(1969) 1983	(1983) 1983	-	-	(1983) 1988	(1983) 1988	-
Guyana	(1944) 1969	(1969) 1969	(1916) 1970	-	(1969) 1971	X	1969
Jamaica	(1958) 1966	(1979) 1979	(1937) 1970	-	X	X	-
St. Lucia	(1970) 1979	(1978) 1979	(1964) 1979	-	-	-	-
St. Vincent & the Grenadines	(1970) 1987	(1986) 1987	(1939) X	-	-	-	-
Trinidad & Tobago	(1939) 1972	(1971) 1973	(1926) 1976	-	-	X	-

Source: U.S. Department of Health and Human Services 1990; Mesa-Lago 1991b

(): First law

*: Maternity for domestic servants only

X: Coverage provided but year of introduction not known by author

Employment Injury

The evolution of contingencies covered have generally followed the established pattern in the Latin American and Caribbean countries, as suggested by Carmelo Mesa-Lago (*Mesa-Lago 1991b*). Employment Injury was usually the first risk to be covered, followed by old age, disability, survivorship, sickness and maternity (Table 3.5).

Employment injury has largely been covered in countries where there was such provision before the inception of social insurance. In Belize, Trinidad and Tobago and St. Lucia, provision was made for the legal coverage against employment injury at the very inception of the schemes. However, in the Trinidad and Tobago case, the benefit was not effected until 1976. In others, including the Bahamas, Barbados and Jamaica, social insurance coverage did not extend to this contingency until many years after operations began.

Of note is the fact that employment injury has been covered by social insurance in those countries where previous laws had provided coverage. Belize is the only exception. Although no previous law existed, social insurance coverage was provided from inception of the scheme (Table 3.5). Only Barbados has managed to provide protection against unemployment, whereas the self-employed are covered in eight (8) countries including Bermuda (Table 3.7).

Sickness and Maternity Benefits

With the exception of Jamaica and Trinidad and Tobago, social insurance systems have provided old-age disability and survivorship (OADS), sickness and maternity benefits from inception. Such benefits take the form of cash payments. Trinidad and Tobago began offering sickness and maternity benefits in January 1973 whereas Jamaica began in 1979 after thirteen (13) years of social insurance (See Table 3.5). Even then, Jamaica only offered limited protection to domestic servants at the minimum wage rate (Table 3.6).

Qualifying contributions usually range from 10 weeks (Trinidad and Tobago) to 50 weeks (The Bahamas and Guyana), with a waiting period of 3 days for entitlement to payment of sickness benefits (U.S. Department of Health and Human Services 1990).

In Barbados, as long as an employed person is working immediately before illness (the self-employed must have 39 paid contributions), payment will be made. In Grenada and St. Lucia, the individual only has to be insured the day

before onset of illness or must have paid 13 weeks contributions, including eight(8) in the thirteen(13) weeks immediately preceding illness. Since 1987, when the three(3) day waiting period was abolished, Grenada is the only country not requiring a waiting period.

Interestingly enough, most schemes pay 60 percent of the insured average wage which is, in a number of cases, higher than the insurable income. Jamaica is the only country in the region not providing sickness benefit. Sickness benefit usually takes the form of cash. However, since 1987, the Guyanese insurance and medical care scheme was amended to make provision for all recipients of old age pensions to receive free eye-care (*ILO 1989*).

Maternity benefits are payable in all countries in the Region, with qualifying contributions ranging from 10 weeks in Trinidad and Tobago to 7 months in St. Lucia. The maximum duration of benefits is approximately 13 weeks with possibilities of extensions to 26 weeks in Guyana. In Jamaica, where maternity benefits were introduced in 1979, only domestic workers are covered, and must have paid at least 26 contributions during the 52 weeks before confinement or before the date of claim.

Maternity grants are payable in most countries. Qualifying conditions vary and some only pay for delivery of live children. In some countries, for example Guyana, no benefit is paid if full wages continue during confinement, and adjustments are made if some percentage of wages continue to be paid. In Barbados, and some of the Eastern Caribbean States, maternity benefits are unaffected by whether or not the insured person continues to receive normal wages during the period of confinement. Up to 1987, the British Virgin Islands followed a similar policy. However, in 1987, the Minister responsible for social security gave employers consent to vary wages during confinement to avoid 'overpayment' of employees.

It is possible that the 'profitability' to the worker of being ill or becoming pregnant has placed an unnecessary burden on benefit payments in some countries. To the extent that there are work-shy persons in those countries, social security maternity benefits, by providing disincentives to work, create undesirable distortions in the market for labour (*Feldstein 1974b*).

Barbados is among eleven (11) countries in Latin America and the Caribbean which provide 100 percent income replacement in the case of maternity benefit. Such payments are made even if the individual continues to receive normal wages. The negative impact of distortions, created by improper management systems and policy implementation, on the maintenance and/or improvement of the quality of life cannot be over emphasized. Table 3.6 summarizes the regional picture in respect of sickness and maternity benefits.

TABLE 3.6
SICKNESS AND MATERNITY BENEFITS
PAYABLE IN THE CARIBBEAN (1992)

COUNTRY	SICKNESS				MATERNITY			
	Qualifying Contribution	% Av. Wage	Weeks Duration	Waiting Period (days)	Qualifying Contribution	% Av. Wage	Weeks Duration	Grant Country Currency (\$)
Antigua-Barbuda	26	60	26	3	26	60	13	40
Bahamas	40	60	156-240 days	3	50	60	13	250a
Barbados*	b	66-2/3	26-52	3	26	100	12	500c
Belize	50	60	13	N/A	50	60	12	50
British Virgin Islands	26	60	26	3	26	60	12-13	75
Dominica	13	60	26	3	26	60	12	100
Grenada	d	60	26-52	0	30	60	12	None
Guyana*	50	70	26	3	15	60	13-26	300
Jamaica	-	-	-	-	26	Min. Wage	8	None
St. Kitts-Nevis	26	60	26	3	39	60	13	100
St. Lucia	d	6	26	2	7mths.	60	12	200
St. Vincent	26	60	26	3	30	60	13	50
Trinidad & Tobago	10	66-2/3	26-52	3	10	60	13	500

Source: U.S. Department of Health and Human Services 1990; Mesa-Lago 1991b.

a: If child is born alive

b: An employed person only has to satisfy the condition of having worked immediately before becoming ill. The self-employed has to pay 30 contributions

c: Only women who do not qualify for maternity benefits but whose husbands are covered by social insurance.

d: The only condition is to be insured or employed the day before onset of illness or 13 weeks of contributions including 8 in 13 weeks preceding illness.

e: 1991

*: Benefits are not affected by whether or not insured continues to receive normal wage during confinement

The Self-employed and Voluntarily Insured

Eight (8) countries in the region offer coverage for the self-employed, the British Virgin Islands being the most recent (January 1991).

Registration is generally compulsory, except in Grenada. The self-employed person generally pays a higher rate of contribution on insurable earnings. The maximum insurable income is equivalent to that paid by formally employed persons.

From an administrative point of view, it is generally more difficult to extend coverage to the self-employed. It is also true that there is a higher risk of adverse selection and moral hazard.

In Caribbean economies, where the self-employed are largely found in the informal sector, the uncertainty attached to incomes (*Deaton 1989*) and the problems of compliance and payment delays, lead to higher administrative costs while imposing a disproportionate burden on the benefit side. Surprisingly enough, of the eight(8) countries offering coverage to the self-employed, only two (2), Grenada and Dominica, do not provide short-term benefits.

With the exception of Jamaica and the Bahamas, the self-employed are not required to pay a rate of contribution equivalent to the combined employee/employer payment for other workers. In fact, they usually pay less (Table 3.7).

This is not different from other countries, including those of Latin America (*Mesa-Lago 1991b*). The self-employed do not always receive all short-term benefits, nor are they necessarily covered for industrial contingencies (See Table 3.7). Only the British Virgin Islands provides industrial coverage for the self-employed in the Caribbean. In addition, the qualifying conditions for benefit payments are usually more stringent than that of the self-employed person (*U.S. Department of Health and Human Services 1990*).

However, these conditions may not necessarily be relevant in the context of Guyana and Barbados, where the self-employed are covered for short-term contingencies. It is not unusual for administrators to complain of the high and rising cost of monitoring and enforcing compliance of self-employed persons. It is also possible that the general scheme may be faced with financial crisis.²

²This latter point was made at the workshop "The Theory and Practice of Social Security", conducted by the NIB, Trinidad and Tobago and the IACSS (September 1992).

TABLE 3.7
BASIC FEATURES OF SELF-EMPLOYMENT COVERAGE
IN THE CARIBBEAN
(1992)

Country	Year Implemented	Registration		Contribution Rate	Frequency Payment	Benefits		Industrial
		Vol.	Comp.			Short	Long	
Bahamas	1984		X	6.8/8.8 ^a	M	X	X	
Barbados*	1974			8	-	X	X	
Bermuda			X	\$12.45/\$24.9 ^b	M	X	X	
British Virgin Islands	1991		X	8.5	M	X	X	X
Dominica	1989		X	7	Q		X	
Grenada	1988	X		6.75	M		X	
Guyana ^c	1971		X	10.55	A	X	X	
Jamaica	-		X	5	-	X	X	

Source: U.S. Department of Health and Human Services 1990; Mesa-Lago 1991b

A: Annually

M: Monthly

Q: Quarterly

X: Coverage Provided

*: All contingencies except in Class A (not entitled to industrial benefits)

-: Information not known to writer.

a: 6.8% for persons in Class A(not entitled to industrial benefits). 8.8% for persons in Class 8 (taxi drivers, straw vendors, fishermen, who are entitled to industrial benefits).

b: Self-employed under age 65 pays \$14. per week, those over 65 pay \$7. per week

c: 1989

Unemployment Insurance

The first Beveridge Report, which advocated the expansion of social security benefits to cover all contingencies and each individual, implicitly assumed full employment, if the coverage envisaged was to be achieved while maintaining the financial stability of schemes (ILO 1986). As such, expansion of benefits to the self-employed and to the unemployed, took place in developed countries when only frictional unemployment existed (ILO 1986).

On the other hand, unemployment insurance was introduced in Barbados in 1982 when the rate of unemployment was 13.3 percent and on the increase. No other Caribbean country has introduced coverage in the event of unemployment although Trinidad and Tobago has seriously considered its introduction. A few studies have already been done with the aim of determining the feasibility of such coverage.

TABLE 3.8

UNEMPLOYMENT INSURANCE IN BARBADOS (1990)

Year of Legislation	Persons Covered	Exceptions	Qualifying Contributions	Reference Period	Basic Benefit
1982	Employed Persons	Employed persons < 16 and those 65 +	52 wks of Ins. 20wks. pd. or cr. in 3 consecutive quarters 7wks.pd. or cr.	52wks.immediately preceding wk. of unemployment 13wks.immediately preceding wk. of continuous un- employment.	60% for first 10wks 40% for rest(16wks)
Waiting Period	Duration of Payment Max.	Suspension/Withdrawal of Benefit		Source of Funds	
3 days* earnings	26 weeks	Suspensions (Max.6 wks): -Voluntary departure from work without good reason -Dismissal for willful misconduct -Failure to use employment or training service -Failure to accept a suitable job Withdrawal: Payment of a social security cash benefit 1		Employees: 2.75% of Insurable Employers: 2.75% of insurable earnings State: None	

Source: ILO 1986; Barbados National Insurance Board 1990

*: If the condition of having been insured for 52 wks. is not fulfilled the waiting period begins to run from the time when 52 wks. had elapsed since the start of Insurance, and is accordingly extended by this period.

CHAPTER 4

THE PERFORMANCE OF REGIONAL SOCIAL SECURITY SCHEMES

4.1 Statistical Coverage of Population and Labour Force

Statistical data on the extent of population coverage by social security in the Caribbean are largely unavailable. Due to problems of poor record keeping, improper and multiple registration of the insured and the fact that annual reports are not systematically circulated within the region, data on the number of registered persons under social insurance and the number of actively registered persons are generally unavailable and/or unreliable. As a direct result, we have had difficulties in obtaining more accurate estimates of the size of the population actually covered by social insurance systems in the region. As such, although it is acknowledged that social insurance coverage extends beyond the contributor, to dependents, the data presented here have not been able to capture this aspect of coverage. For purposes of analysis therefore, it would be reasonable to assume some mark-up on population coverage for the figures presented here.

The limited data available indicate that at least four (4) countries in the region began social insurance operations below the ILD's convention minimum of 20 percent population coverage: Antigua-Barbuda 18.4 percent, Dominica 17.4 percent, Guyana 12.3 percent and Jamaica 18.4 percent (*Annual Reports*). By 1985, however, Antigua-Barbuda had attained 45.9 percent coverage, and by 1989 the Dominican and Guyanese social insurance schemes were covering 41.9 percent and 58.0 percent of the population respectively (*Jenkins 1981; Mesa-Lago 1991b*).

According to the annual reports, St. Lucia seemed to have attained the highest level of population coverage in the Region by 1989, with 65.3 percent of its population being covered. Trinidad and Tobago and St. Vincent and the Grenadines were covering less than 30 percent of the population in 1990.

The universality of social security involves the extension of coverage to 100 percent of the population. On the other hand, universalization of social

insurance (a component of social security) involves 100 percent coverage of the labour force.

The uncovered population U can be estimated as $U = C^* - C$, where C^* equals potential coverage and C is actual coverage. U can be taken to represent numbers uncovered or benefits not provided.

In the latter case, C^* becomes the universal set of benefits which could be provided under social security. C will be benefits actually provided. C then is a subset of C^* in both cases. When C is equal to C^* , universalization has been achieved.

The countries for which data are available were all covering upward of 50 percent of the labour force by 1980. According to Michael Jenkins, between 1976 - 1980, 85 percent of the labour force in the Bahamas were covered, 78 percent in Barbados, 74 percent in Belize, Guyana 56 percent, and Jamaica 57 percent (*Jenkins 1981*). William McGreevey has estimated that between 1985-1988, 85.9 percent of the economically active were covered in the Bahamas, 96.9 percent in Barbados and 93.2 percent in Jamaica (*McGreevey 1990*). According to the NIB annual report (*July 1991 - June 1992*), there was an estimated 266,965 active insured population in Trinidad and Tobago. This was representative of 54 percent of the labour force and 76 percent of the economically active population.

Table 2.1 of Chapter 2 (Section 2.2) reproduced Mesa-Lago's hypothetical example of expansion of coverage of 100 percent of the population in selected LAC countries. It was illustrated that a 1 percent increase in social security expenditure, as a percentage of GDP, was likely to lead to a constant increase in the population covered under universalization in many instances. In others, increased expenditure was expected to lead to a more than proportionate increase in coverage.

Of note though, was Mesa-Lago's implicit assumption that conditions remained constant as coverage was spread to the entire population. Such an assumption (as he rightly acknowledged) may not be realistic and/or acceptable, being dependent on the demographic structure of the population which is currently covered, and that portion yet to be covered. The more heterogeneous the population, the less credible the results. An analysis of the trend of coverage in the Caribbean shows that coverage is first informed by safety (Table 3.5)-safety in benefits provided and/or contingencies covered; safety in population covered.

Any attempt to estimate the increased cost of universal coverage should include an appropriate risk factor in recognition of the fact that, as the schemes move into more risky areas of population and contingency coverage, financial viability

is likely to be threatened. This conclusion is not much different from that of Mesa-Lago's 1983 study of social security in Latin America.

According to the U.S. Department of Health and Human Services, those excluded from social insurance coverage in the region tend to be high-risk individuals and sectoral workers, for whom the probability of adverse selection and moral hazard is usually greater eg. casual, agricultural workers, and family workers (*U.S. Department of Health and Human Services 1990*). In addition, as Table 3.5 bears witness, the evolution of the regions' schemes has generally followed the pattern of gradual movement from lower risks to higher risks coverage.

Figures 4.1 to 4.4 illustrate the general relationship between population coverage and financial viability, using empirical data for Barbados, Guyana, Jamaica and Trinidad and Tobago (See pages 48 and 49).

A simple measure of financial viability is used: the ratio of present stream of income to present expenditure. This indicates the ability of present income to meet present expenditure obligations (number of years). Because of the paucity of data on statistical coverage, it is assumed that the percentage of the population covered increases with time. The empirical evidence suggests that the viability of social insurance schemes is a function of:

- the age of the scheme;
- the level of population and labour force coverage;
- the range of contingencies covered; and
- the income earning capacity of the scheme.

As we have already seen, the general trend seems to suggest that financial viability declines as coverage is extended to a larger segment of the population, entailing a greater risk factor when the indigenous poor and sick, and those with volatile incomes are touched by social security. Expenditure moves out of line with income since contributions are infrequently adjusted.

According to figures 4.1 to 4.4, Jamaica is the only reported country showing increases in financial viability upon inception of the scheme. While total expenditure increased by 62.3 percent over the period 1968 to 1973, total income showed growth rate of 122.4 percent. The range of risks covered was limited to OADS until 1970, when employment injury was covered; and it was not until 1979 that limited coverage was provided for maternity. After the

Fig. 4.1
Financial Viability of the Barbados Social Insurance Scheme

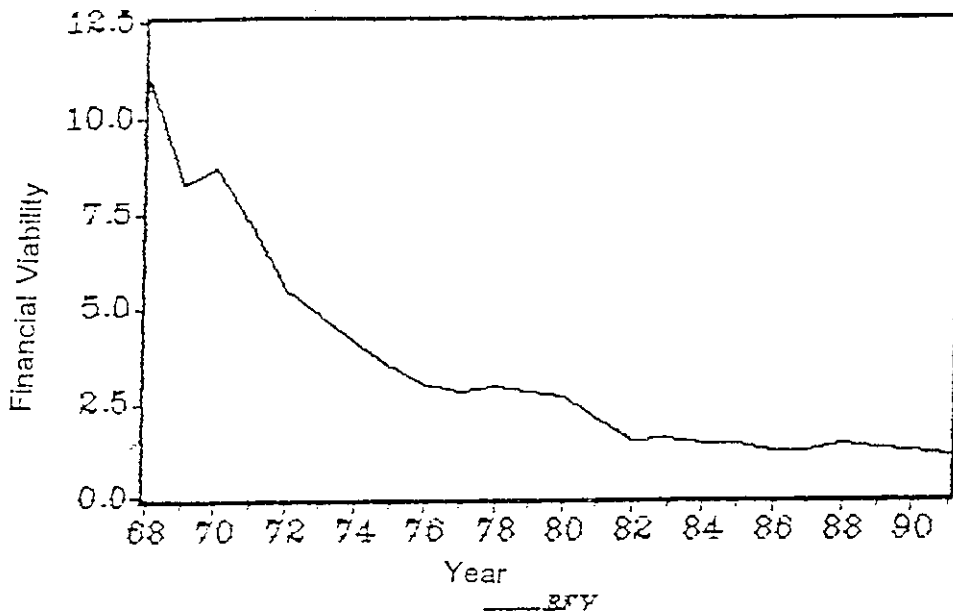


Fig. 4.2
Financial Viability of the Guyana Social Insurance Scheme

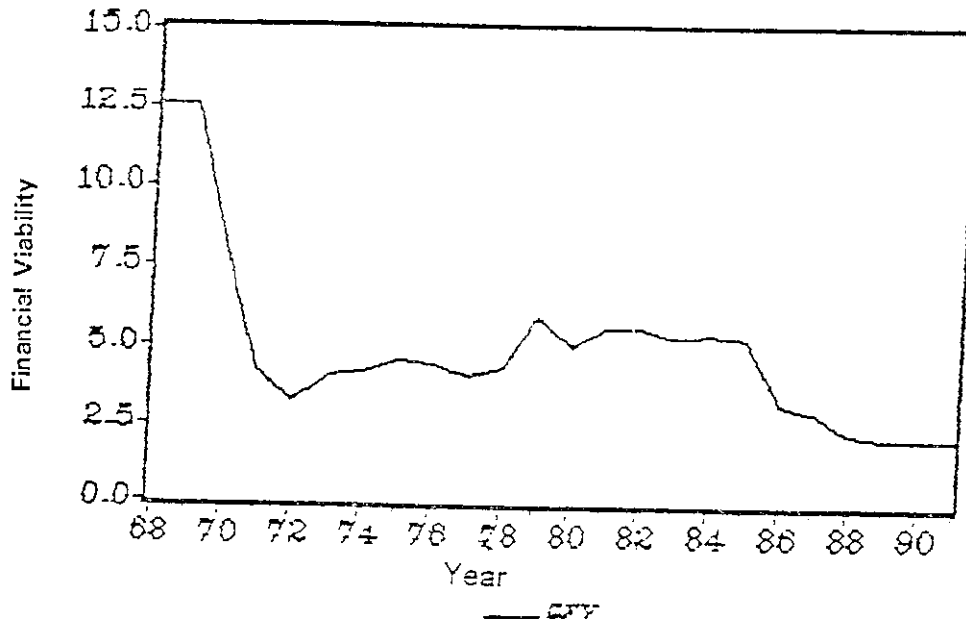


Fig. 4.3
Financial Viability of the Jamaica Social Insurance Scheme

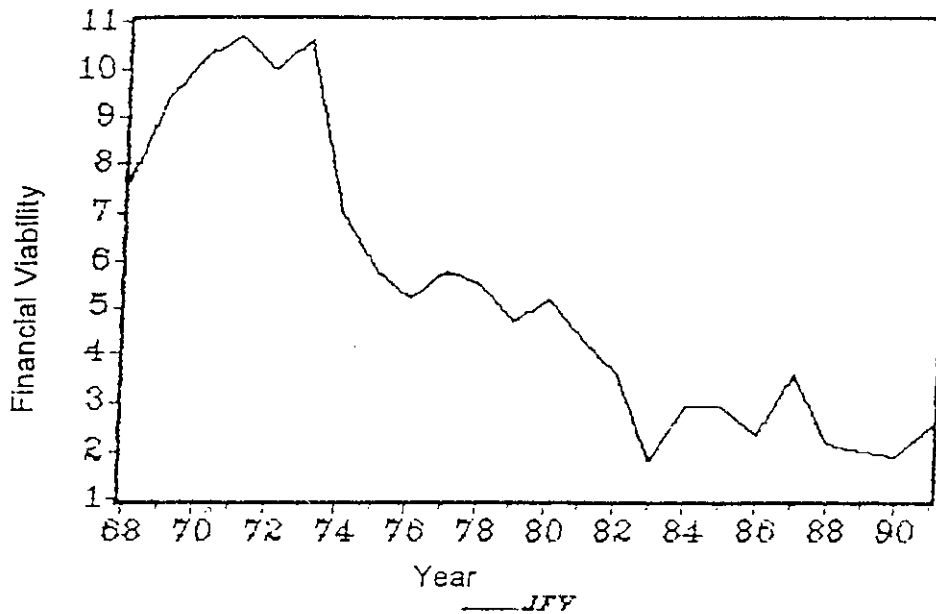
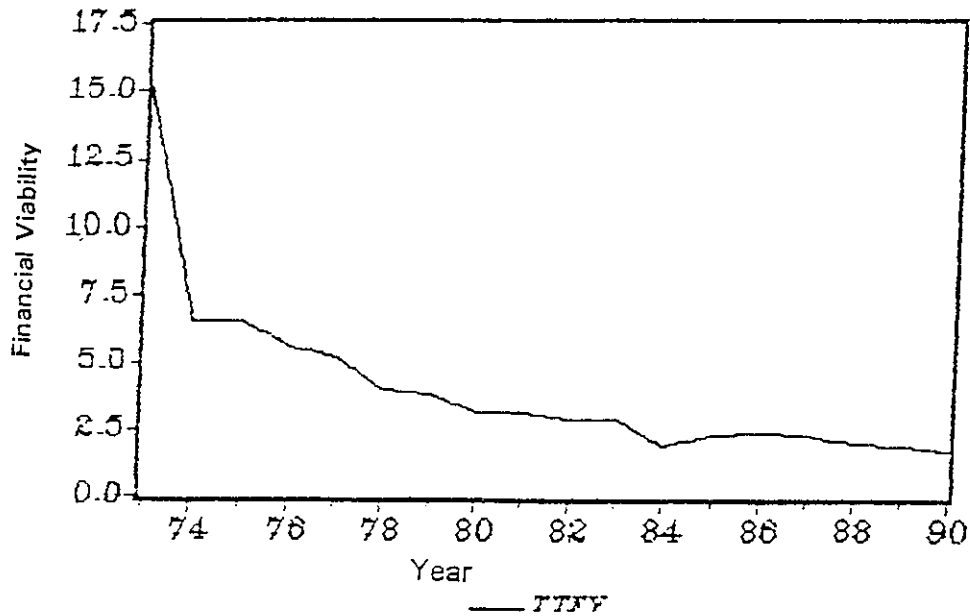


Fig. 4.4
Financial Viability of the Trinidad and Tobago Social Insurance Scheme



period 1970 to 1973, with expansion of benefits (employment injury, maternity) and population coverage (self-employed), the trend in financial viability tended to follow that of the other countries.

Financial viability of the Guyanese scheme declined steadily over the first five (5) years of operations. A wide range of risks was then being covered including employment injury (1970), provision of medical care (since 1969) and early coverage of the self-employed (1971). However, increases in nominal investment income exerted a positive effect on financial viability over the period 1973 to 1985. Since benefits have not been pegged to inflation, whereas total income increased 864.5 percent over the period, expenditure increased by only 483.4 percent.

On the other hand, while benefit commitments showed growth rates of 526.3 percent between 1986 and 1990, contribution grew by only 195 percent. Moreover, whereas investment income grew by 3270 percent over the first period (1973 - 1985), growth rate fell to 117.5 percent between 1986 and 1990.

Similar reasons accounted for the steady rates of decline in financial viability from inception of the schemes in Barbados and Trinidad and Tobago. Theodore and Pantin have suggested a relationship between the percentage of peoples' incomes collected by social security schemes, the financial viability of schemes and real benefit payments (*Theodore and Pantin 1991*).

The Dominican scheme, beginning operations in 1976, collected 10.8 percent of that country's total income. This was the highest start-off point for the countries reported in Table 4.1. However, because of the existence of a ceiling on insurable income (Table 3.3) and fixed rate of contribution, this percentage has declined as GDP increased. Although the scheme began operations after Trinidad and Tobago, it was already covering the self-employed in 1989. It is also at an advanced stage in the computerization of its operations.

Since 1984, the Barbadian scheme has collected the largest percentage of national income (Table 4.1) and required the largest per capita contribution to social insurance (Table 4.2). Moreover, with consistent increases in collection since 1980, this scheme was able to cover unemployment in 1982.

The evidence suggests a relationship between the percentage of incomes collected and financial equilibrium. In 1988, with a decline in percentage income collection, the Barbadian and Guyanese schemes experienced, for the first time, a disequilibrium between contribution income and total expenditure (Table 4.10). In 1989, with a 20 percent decrease in the percentage of GDP collected, via contributions, the Jamaican scheme was faced with its first imbalance with contribution income amounting to TT\$73.9 million compared to total

TABLE 4.1

**SOCIAL INSURANCE CONTRIBUTIONS AS A PERCENTAGE OF GDP
(Start of Scheme to 1990)**

Country	Start*	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Barbados	2.5	1.8	2	2.2	3.3	3.9	4	4.1	4	4	3.9	4	3.9
Dominica	10.8	-	2.4	2.5	2.4	2.4	2.8	3.3	3	2.9	2.7	na	na
Grenada	1.4	-	-	-	-	-	1.4	2.1	1.8	2.4	2.4	2	1.9
Guyana	0.5	1.7	4.1	4.5	5.1	4.3	3.7	3.3	3.2	2.1	1.8	1.6	1.9
Jamaica	1.1	0.7	0.9	1	1.3	1	0.8	0.6	0.6	0.5	0.5	0.4	5
St. Lucia	1.9	-	1.9	2.6	2.1	1.6	2.1	1.7	2.4	1.6	1.8	2.3	1.7
St. Vincent & the Grenadines	1.5	-	-	-	-	-	-	-	-	1.5	1.5	1.7	1.5
Trinidad & Tobago	1.8	-	0.6	1.2	-	1.4	1.4	1.4	1.4	1.4	1.3	1.1	0.9

*: See Table 3.2

Source: National Insurance Boards' Annual Reports, start of schemes to 1990; Central Bank of Barbados, 1992.

expenditure of TT\$83.8 million. In Trinidad and Tobago, where the percentage of GDP collected was falling since 1988, in 1990, with only 0.9 percent of all incomes collected, contribution income amounted to TT\$202.3 million while total expenditure stood at TT\$208.2 million.

According to Table 4.2, per capita contribution to social insurance ranged from TT\$2.75 per month in Jamaica to TT\$91.17 per month in Barbados in 1990. In effect citizens in Jamaica, are being called upon to contribute as little as J\$4.67 or TT\$2.75 per month to secure coverage against old age, sickness, maternity and disability for themselves and their survivors. This, combined with the small percentages of total income being collected, most probably accounts for the fact that the schemes have not made a greater impact on peoples' lives. Not only have they been unable to effectively extend coverage, but they were also not able to improve even nominal benefit levels. The evidence would suggest that, at the present rate of collection, social insurance schemes cannot afford to maintain the level of real benefits.

Unemployment Insurance

As has already been mentioned (Chapter 3), the first Beveridge Report advocated the universalization of benefits and population coverage, under specific conditions, which would ensure the feasibility of the scheme. Even so, there was no automatic extension of benefits to the self-employed or the unemployed even in the developed countries.

Almost in contravention of the conventional wisdom, the social security scheme in Barbados extended coverage to the contingency of unemployment in 1982, against the backdrop of a rising unemployment rate of 13.3 percent.

A total of 5.5 percent of insurable earnings is deducted from employers and employees for financing of the unemployment benefit branch. This compares favourably with rates charged in other countries (*ILO 1986*). However, the overall social insurance contribution rate in Barbados is low compared to other countries offering unemployment coverage (*ILO 1986; Mesa-Lago 1991b*).

The unemployment branch is heavily dependent upon contributions for funding (more than 85 percent of total income). Meanwhile, investment income continues to make a modest contribution to overall revenue. In the face of overall rising unemployment (which stood at 20 percent at the end of 1991, with average urban unemployment of 15.0 percent in 1990), in a country whose social insurance scheme is skewed in favour of the urban employed and is heavily dependent upon the contributions of such, the situation (Table 4.3) is somewhat disturbing and does not augur well for the future equilibrium of the scheme.

TABLE 4.2

SOCIAL INSURANCE PER CAPITA CONTRIBUTIONS (\$TT)
(Start of Scheme to 1990)

Country	Start	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Barbados	na	60	163	198	314	398	442	484	761	833	932	1128	1094
Dominica	10	-	49	56	52	58	76	99	155	167	187		
Grenada	35	-	-	-	-	35	58	56	112	105	168	170	176
Guyana	4	24	67	80	76	64	50	47	75	34	36	8	na
Jamaica	-	21	27	32	46	40	20	12	23	23	29	31	33
St. Lucia	44	-	44	60	52	40	59	50	119	105	137	216	172
St. Vincent & the Grenadines	69	-	-	-	-	-	-	-	-	69	83	102	102
Trinidad & Tobago	45	59.9	82	176	na	226	228	205	199	195	188	168	158

Source: National Insurance Boards' Annual Reports, start of schemes to 1990.

TABLE 4.3
UNEMPLOYMENT INSURANCE BRANCH
(BDS\$ MILLIONS)

	1988	1989	1990
Income			
Net Contributions	10.0	10.8	10.4
Investment	2.7	1.4	1.8
Other	3.0	0.0	0.0
Total	15.7	12.2	12.2
Expenditure			
Benefits	11.5	11.2	14.5
Other	14.6	0.0	1.0
Total	26.1	11.2	15.5

Source: Barbados National Insurance Board 1990.

There is some prima facie evidence that the scheme is running into difficulties and the authorities have had to revise contribution rates at least twice (2) within as many months in 1991 alone. On the 7th October, 1991, the rate of contribution for the unemployment branch increased from one (1) percent to 2.75 percent of insurable earnings, only to be further increased to 5.5 percent on 2nd December, 1991 (*Barbados National Insurance Board 1990*). As of December 1991, the rate of income replacement was reduced from 60 percent over the entire period of 26 weeks maximum, to 60 percent for the first 10 weeks and 40 percent thereafter.

Unemployment benefit payment has been generally higher than contribution income paid into the scheme (Table 4.3), with the average benefit-income ratio for the period 1988-1990 being 1.28. According to the 7th Actuarial review of the National Insurance Board, 73 percent of those claiming unemployment benefits are between the ages 20-39. In addition, 35 percent of beneficiaries receive support for less than two weeks with only 12 percent receiving benefits for the full 26 weeks maximum.

4.2 Investments

The concerns surrounding investment of funds are not vastly different from the concerns expressed by schemes outside the region (*McGreevey 1990; Mesa-Lago 1991a*). The Acts which established the regional schemes and outlined the basic administrative machinery also provided for investment of funds.

Except for Barbados, Montserrat, Guyana, St. Kitts-Nevis, Trinidad and Tobago and the Bahamas, social insurance administrators are restricted to investments within the geographical boundaries of their countries.

Underdeveloped capital markets, and limited options and/or opportunities for feasible investments, lead to bottlenecks in the system. This results in very conservative investment policies and undertakings in which fixed deposits, Treasury Bills, bonds, debentures and loans to governments have accounted for the major share of investment activities (*Appendices VIII - IX*).

Case studies have been conducted on the investment performance of three of the regions' social security schemes: Guyana (1975-1990), Barbados(1968-1991) and Jamaica(1968-1991). Nominal and real yields on investments were calculated (*Appendix IV*) and the distribution of the portfolios was analysed. Results are reported in Appendices VII - IX.

Analyses of the investment portfolios suggest three (3) major determinants of real yield:

- (i) the level of inflation;
- (ii) instruments comprising the portfolio; and
- (iii) the percentage distribution of financial instruments within the portfolio.

It is also possible to identify at least three (3) indirect factors which impact upon the rate of returns:

- (i) lack of investment autonomy;
- (ii) "forced" investments in government bonds and debentures; and
- (iii) underdeveloped capital markets.

The evidence suggests a high negative correlation between real investment yields and the level of inflation (*Appendices VII - IX*).

TABLE 4.4
AVERAGE INFLATION RATES AND INVESTMENT RETURNS

	Average rate of Inflation (%)		Average Real Yield (%)	
	1974-1982	1983-1991	1974-1982	1983-1991
Barbados	14.95	4.32	-5.72	4.9
Guyana^a	14.43	35.84	-5.61	-13.75
Jamaica	19.54	20.26	-7.87	-4.53

Source: (*Appendices VII - IX*)

a: 1975 - 1982 & 1983 - 1990

Nominal investment returns have increased over the years in all three countries. As schemes mature, payment obligations increase, particularly with respect to expected future pension obligations. This necessitates increases in the size of funds. High levels of unemployment have also made it necessary to place less reliance on contribution income and more on investment returns (Table 4.11). However, such increases in nominal returns have largely been eroded by inflation. In the first half of the period, with average rate of inflation standing at 19.54 percent, real yields in Jamaica were -7.87 percent³. An increase in inflation to 20.26 percent in the second period was followed by an increase in the real yield, moving from -7.87 to -4.53 percent. This apparent contradiction of the relationship between inflation and yields is probably explained by the shift in the distribution of assets.

³ Mesa-Lago reported even lower yields for Jamaica between 1980-1987 using investment income actually received by the Board from the Ministry of Finance (See Table 2.2). The present study uses investment returns earned whether retained or not by the Ministry.

After 11 years of not appearing on the Jamaican social security scheme's portfolio, Treasury Bills, with an approximate rate of return of 25.99 percent, accounted for 10.8 percent of the scheme's assets in 1990 (*Appendix IX*).

In Barbados, where the commercial bank rate is higher than the Treasury Bill rate (Approximately 4.68 percent), the scheme reports the highest percentage holding of fixed deposits and the lowest in Treasury Bills.

The data in Appendix V reveal the similarity of the St. Kitts-Nevis National Provident Fund's portfolio to that of the country's present social security system (Table 4.7). Fixed deposits and government lending still account for the bulk of investments.

Some schemes have ventured into real estate and mortgages, as in the case of Trinidad and Tobago, Dominica, Grenada and St. Lucia. With the decline in real, (and, in some cases, nominal wages, the increase in unemployment and interest rates, the experience has not been generally rewarding. Jamaica is a possible interesting exception.

Delinquency is high and adds to administrative cost with the need for establishment of additional mechanisms for monitoring and collecting payments. Trinidad and Tobago's social insurance scheme, with an investment portfolio which is dominated by mortgages, is now attempting to move out of this area and into less risky areas.

The influence of non-economic factors on investment practices is apparent when one considers that social insurance schemes moved into mortgages and real estate, on the tail-end of the boom in the construction sector and the general boom in real estates. It is quite possible that the managers of the schemes allowed the social pressures, in respect of housing for middle-income workers, to be a dominant factor in their decision making.

Even in those countries in which it is possible for schemes to invest abroad, the prevailing norms may have dictated that funds be used to bridge the gap in local investments and to do so in such a way as to promote socio-economic development and growth. In Barbados, for instance, the National Insurance Board invested only nominally in foreign assets while making funds available on the local market. Guyana's social security scheme held only G\$310,228 or 0.02 percent of its investments in foreign assets in 1990, while 68.25 percent were held in debentures from the government of Guyana. In Trinidad and Tobago there was no holding of foreign assets.

Although the percentage of total government Treasury Bills and debentures held by the NIB of Barbados has fluctuated since 1985 (Table 4.5), the nominal value has continued to increase. The quantum of Treasury Bills and Debentures moved from \$170.4 million and \$32.6 million respectively in 1985, to \$192.2 million and \$82.2 million in 1990. The respective nominal growth rates were 12.8 and 15.2 percent.

TABLE 4.5
PERCENTAGE OF GOVERNMENT OF BARBADOS
TOTAL OUTSTANDING TREASURY BILLS
AND DEBENTURES HELD BY THE NIB

Period	Treasury Bills	Debentures
1972	12.9	22.1
1975	9.7	26.9
1980	17.4	21.1
1981	24.4	20.7
1982	29.0	21.5
1983	38.3	21.2
1984	43.0	19.8
1985	42.1	21.1
1986	41.4	22.9
1987	42.9	18.8
1988	40.7	21.5
1989	43.0	24.8
1990	38.0	24.1

Source: Central Bank of Barbados, 1990

TABLE 4.6
LIABILITY OF THE BAHAMAS DEVELOPMENT BANK
(B\$000)

Year	Total Liability	NIB	Central Bank	CDB
1984	13,475	1,515 (11.2)	2	2,336 (17.3)
1985	12,070	1,519 (12.6)	961 (8.0)	1,842 (15.3)
1986	13,591	1,513 (11.1)	2,078 (15.3)	2,449 (18.0)
1987	14,530	1,436 (9.9)	2,523 (17.4)	2,080 (14.3)
1988	18,551	5,428 (29.3)	2,524 (13.6)	1,490 (8.0)
1989	21,109	8,335 (39.5)	2,524 (12.0)	1,633 (7.7)
1990	26,244	8,160 (31.1)	2,398 (9.1)	1,260 (4.8)
1991	30,066	7,973 (26.5)	2,270 (7.6)	9,84 (3.0)

Source: The Central Bank of The Bahamas 1992

() : Percentage of total liability.

In the Bahamas, of a total liability of B\$30.1 million in 1991, the Bahamas Development Bank owed B\$8.0 million or 26.5 percent to the NIB, with the Central Bank and Caribbean Development Bank accounting for only 7.6 and 3.0 percent respectively (Table 4.6).

The evidence suggests that investment in government securities can be divided into components:

- a voluntary component; and
- an involuntary or 'forced' component.

In Monsterrat, a small country with limited scope for local investment of funds, 57.4 percent of social security funds was invested in foreign assets, 28.92 percent in government bonds, and 9.28 percent in fixed deposits, with 3.96 percent held in cash (Table 4.7).

According to Table 4.7, of total investments of EC\$47.37 million in six(6) OECS countries, EC\$256.38 million or 46.84 percent was channelled into fixed deposits, and EC\$168.65 million or 30.81 percent loaned to the government. Overall 10.32 percent of investment funds went to Treasury Bills, with 20.51 percent in Dominica and 34.66 percent in Grenada, where the Bill rate was 6.50 percent. In Grenada, where the insurance scheme has been subject to borrowing from government since the inception of the scheme, 74.15 percent of investments were allocated to government lending. Such borrowing may be termed 'forced' to the extent that administrators are pressured into lending governments who do not repay.

In small countries, it is reasonable to suppose that social insurance schemes have the potential to become powerful institutions. By all indications, a large portion of the nations' finances passes through these institutions. However, the effectiveness of investments in both social security terms and purely commercial terms is not always obvious. There is a tendency to view social security schemes as charitable organizations, existing to provide for the less fortunate. This may lead to a lack of vision, which in turn imposes limitations on investment activities.

TABLE 4.7
ABSOLUTE AND PERCENTAGE DISTRIBUTION OF INVESTMENTS
OF SELECTED OECS SOCIAL INSURANCE SCHEMES (1991)

Investment Portfolio	Dominica	Grenada ²	Montserrat	St. Kitts-Nevis	St. Lucia	St. Vincent	Total (\$EC Mn)
Cash	0.54	0.05	0.26	1.9	1.4	n.a	4.15
Fixed Deposits	26.35	4.22	0.61	67.83	86.16	71.21	256.38
Direct Loans	11.65	9.54	0	2.05	53.37	4.85	81.48
Statutory Bodies	3.5	7.84	0	2.05	23.86	1.55	38.8
Private	8.15	1.7	0	0	29.51	3.3	42.66
Government Lending	35.9	45.36	1.9	66.94	11.8	6.65	168.7
Treasury Bills	15.87	21.2	0	7.55	11.87	0	56.49
Bonds	20.06	14.86	1.9	3.34	0	1.42	41.58
Loans	0	9.3	0	56.05	0	5.23	70.58
Land and Buildings	2.52	2	0	0	25.6	0	30.12
Equity	0	0	0	0	0	0	0.4
Foreign	0	0	3.8	2.41	0	0	6.21
Total	77.39	61.17	6.57	141.13	178.4	82.71	547.4
Percentage Contribution to Portfolio							
Cash	0.7	8.08	3.96	1.35	8.78	0	0.78
Fixed Deposits	34.05	8.9	9.28	48.06	48.3	86.1	46.84
Direct Loans	15.05	15.6	0	1.45	29.91	5.86	14.88
Statutory Bodies	4.52	12.82	0	1.45	13.37	1.87	7.09
Private	10.53	2.78	0	0	16.54	3.99	7.79
Government Lending	46.43	74.15	28.92	47.44	8.65	8.04	30.81
Treasury Bills	20.51	34.66	0	5.35	6.65	0	10.32
Bonds	25.92	24.29	28.92	2.37	0	1.72	7.6
Loans	0	15.2	0	39.72	0	6.32	12.89
Land & Buildings	3.26	3.27	0	8	14.35	0	5.5
Equity	0.52	0	0	0	0	0	0.07
Foreign	0	8	57.84	1.71	0	8	1.13
Total	100	100	100	100	100	100	100

Source: National Insurance Boards' Annual Reports, 1991

1: Data for Dominica is for 1989

2: Grenada's data is for 1990

4.3 Administration

As Table 4.8 indicates, with the possible exception of Barbados, administrative costs are fairly high in the region. Of total expenditure of TT\$208.2 million in 1990, the NIB of Trinidad and Tobago spent 23.8 percent administering the system. In Guyana, administrative expenses accounted for as much as 35.2 percent of total expenditure in 1990.

It is to be expected that the initial infrastructure needed to operate schemes will entail high levels of administrative costs relative to total expenditure. Generally, this should decrease as the scheme matures, with benefit payments accounting for a growing portion of expenditure. The operation of Trinidad and Tobago's scheme has largely reflected this phenomenon since 1981. We observe a steady decrease in the percentage of administrative expenses to total expenditure, from 41.9 percent in 1981 to 23.8 percent in 1990.

The ratio has fluctuated over the corresponding period in Guyana, showing consistent increases since 1987, when it moved from 19.5 percent, to 35.2 percent in 1990. The increase is partly reflective of the increase in the cost of monitoring contributing employees, especially the self-employed. Salaries have also accounted for large portions of administrative costs. In St. Lucia salaries comprised at least 45.7 percent of administrative costs in 1990, whereas staff training accounted for as little as 0.1 percent. In Guyana, 21.4 percent of administrative cost was allocated to payment of salaries including acting allowances in 1990, while 0.64 percent went to training.

In an attempt to improve efficiency, a number of schemes have computerized operations. The initial costs of acquiring equipment, training staff and the general reorganization of operations, along with salaries which are indexed to inflation, led to increased administrative costs.

Computerization of operations has not led to a decrease in staffing needs. This may have been due to backlogs and the existing inefficiencies, including poorly managed data systems (acquisition, compilation and storage). Thus, while there may have been increased efficiency in terms of decreased waiting periods etc., computerization has not meant decreased salary obligations. As a result, claims processed per employee decreased from 66.8 in 1980 to 47.4 in 1985 and 35.6 in 1990, in Trinidad and Tobago. Similarly, there was a decrease in the number of claims processed per employee, from 73.3 in 1976 in Dominica, to 64.8 in 1980 and 57.2 in 1989.

An interesting indicator of the efficiency of administration in the region would be the number of employees per 1000 insured persons. However, the limited data available do not allow for a comprehensive report on this within the present study. Indications from Trinidad and Tobago, Guyana and Dominica,

TABLE 4.8
SOCIAL INSURANCE ADMINISTRATIVE COSTS
AS A PERCENTAGE OF TOTAL EXPENDITURE
(1980 - 1990)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Barbados	na	10.4	5.2	5	5.1	na	na	5	5	5.8	6.3
Dominica	54.8	53.8	49.7	43.1	28.8	26.3	29.7	25.2	22.3	na	na
Guyana	26.9	32.9	31.3	29.8	27.6	35	19.5	24.1	31.6	33.2	35.2
Trinidad & Tobago	39.3	41.9	34.3	32.5	31.7	27.8	27.5	26.3	25.9	25.4	23.8

Source: National Insurance Boards' Annual Reports 1980 - 1990

suggest that the figure may stand at about two (2), which is fairly good in relation to both Latin America and developed countries.

The percentage of contribution income allocated to administrative expenses is shown in Table 4.9 overleaf. The Barbadian scheme began operations with the lowest percentage share of administrative expenses to contribution income (0.93 percent), followed by Trinidad and Tobago (5.5 percent) and Grenada (5.8 percent).

Increases in the percentage of contribution income used for administering the systems may have resulted from the fact that either:

- (a) contribution income has fluctuated or declined in some countries; or
- (b) while both administrative expenses and contribution income continue to increase, the former has experienced higher rates of growth.

The data allow us to compare the situation in two countries, Trinidad and Tobago and Guyana. In Trinidad and Tobago, for example, contribution income has generally declined since 1984, while administrative expenses have continued to increase. The former decreased from TT\$267. million in 1985 to TT\$202. million by 1990. Administrative expenses increased from TT\$44.59 million to TT\$49.52 million over the same period.

The Guyanese scheme experienced growth rates of 195 percent between 1985 and 1990 for contribution income and 531 percent for administrative expenses. It is not surprising then, that the percentage of administrative expenses to contribution income has increased by 114 percent in that country (1985-1990).

4.4 Actuarial Considerations

Total expenditure in all or most countries is increasing at a faster rate than contribution income. It is not unusual for contribution income to even show negative rates of growth as has generally been the case in Trinidad and Tobago for most of the decade ending 1990. The year 1991 was an exception with an increase from \$202.31 million to \$218.08 million (Table 4.10).

The schemes in the Caribbean are relatively heavily burdened with benefit payments. Although contribution income has generally continued to show

TABLE 4.9

**ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF SOCIAL INSURANCE
CONTRIBUTION INCOME IN SELECTED CARIBBEAN COUNTRIES
(1980 - 1990)**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Barbados	na	6.5	4.8	4.4	4.6	na	na	5	5.3	5.9	7.1
Dominica	17.8	17.7	16.5	17	15.6	13.1	15.1	13.5	14.9	20.4	na
Grenada	-	-	-	5.8	6.1	8.4	6.4	8	7.3	9.5	11.9
Guyana	7.4	8.3	9	11	11.3	16.5	15.8	23.7	41.2	40	35.3
St. Lucia	7.7	9.7	13.3	15.5	12.5	16.2	10.5	13.1	11.2	10.9	12.2
St. Vincent	-	-	-	-	-	-	-	23.1	20.2	17.1	na
Trinidad & Tobago	17.2	16	13.9	15.4	16.7	17.8	18.9	18.9	21.4	23	24.5

Source: National Insurance Boards' Annual Reports 1980 - 1990; Central Bank of Barbados 1992

positive growth rates, total expenditure has been increasing at a more than proportionate rate. Table 4.10 indicates a trend in which total expenditure has begun to outstrip contribution income. In Barbados and Guyana, total expenditure exceeded contribution income for the first time in 1988 and in Jamaica and Trinidad and Tobago in 1989.

This is most probably due to the negative impact of high and rising unemployment among the young, the impact of increases in the dependency ratio (Appendix II) and consequent increases in demands upon the schemes on the benefit side. Schemes are becoming increasingly top-heavy, with pension payments accounting for more than half of all benefit expenditure in the Bahamas and Grenada, and over 75 percent in Barbados, Guyana, Jamaica and Trinidad and Tobago. One option may be an increase in the retirement age in those countries where it is currently 60 (See Table 3.4).

However, it would be necessary to consider this within the context of the macro-economic environment and policies of individual countries. It may well be that this is not feasible in a number of cases, where governments are presently embarking on voluntary retirement/separation packages and early retirement, in an attempt to trim the wage bill. In effect, an increase in the retirement age may be considered as being more costly in the long-run.

Increases in absolute administrative expenses have also contributed to the present trend. According to Table 4.11, with the exception of Jamaica (38.5 percent) and Guyana (38.7 percent), all the countries surveyed were heavily dependent on contribution income. Income from contribution accounted for more than 50 percent of receipts in 1986 in all cases, with the only exceptions being the aforementioned countries.

In 1986 Barbados depended on contributions for 81.6 percent of receipts, Dominica 73.5 percent and Grenada 80.8 percent. Such heavy dependence on wage-based income could prove explosive. Unemployment rates were as high as 17.1 percent in Barbados in 1991, and 17.7 percent in 1986, with corresponding rates of 17.5 percent in Dominica in 1985.

State participation has decreased over the period and has been replaced by either heavier dependence on:

- contribution from the insured and employers;
and/or
- income from capital.

In Barbados for instance, where state participation accounted for as much as 63.9 percent of income in 1975, with contributions 26.5 percent and investments 10.6 percent, by 1986 the state was no longer providing funds

TABLE 4.10
SOCIAL INSURANCE CONTRIBUTION INCOME AND TOTAL EXPENDITURE
FOR SELECTED COUNTRIES
(TT\$1980 - 1990)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Contribution Income											
Barbados	40.9	49.6	78.7	99.6	110.3	121.2	190.3	208.5	233.1	293	284.3
Dominica	3.5	3.9	4.2	4.6	6.1	7.9	12.4	13.3	15	na	na
Guyana	57.8	61.4	58.5	50	39.7	37	59.7	27.3	28	22.4	-
Jamaica	57.4	71.5	100.2	90.3	45.7	28.4	53.4	54	69.4	73.9	82.5
Trinidad & Tobago	83.3	192	245	257.9	276	242.2	238.5	336.1	227.1	211.5	202.3
Total Expenditure											
Barbados	20.6	30.8	73.3	86.3	98.4	107.6	188.5	207.6	248.6	298.5	318.9
Dominica	1.2	1.3	1.4	1.8	3.3	4	6.3	7.2	10	na	na
Guyana	15.9	15.6	16.7	18.4	16.2	17.5	48.5	26.9	36.5	27	na
Jamaica	18.6	29.2	47.3	70.3	30.9	na	33.7	37.3	52.3	83.8	93.8
Trinidad & Tobago	38.6	73.3	99.6	122.4	140.8	155.1	164.2	170	187.4	192.2	208.2

Source: National Insurance Boards' Annual Reports 1980 - 1990; Central Bank of Barbados 1992

(except as employer). Reliance had shifted to contributions (81.63 percent) and investments (21.7 percent).

With the exception of Trinidad and Tobago where there was a slight increase in state participation between 1983 and 1986, with a correspondingly slight decrease in contribution and an increase in investment receipts, the state has provided less support to social insurance and assimilated schemes over the period.

The states' contribution is higher though, if indirect transfers are taken up. For example, In Trinidad and Tobago, there is a transfer of the national insurance payment burden from employees to the state, in terms of the 70 percent tax exemption on national insurance contributions.

Of interest, is the fact that three (3) countries, Guyana, Jamaica and St. Lucia, have noticeably been moving away from dependence on state and employer/employee contributions, to greater reliance on investment proceeds. There seems to be a similar tendency in Belize and Grenada.

The data seem to suggest a cloudy financial future for schemes. Yet, the experience has been that the major actuarial recommendations are not implemented. This could either be due to:

- (i) the unsuitability of such recommendations to the national and/or regional environment, including the macro-economy;
- (ii) political inertia;
- (iii) administrators not being in agreement with recommendations; and/or
- (iv) the difficulty in implementation, including lack of technology and relevant resident expertise/technical support staff.

4.5 Social Relevance

To the extent that social security aims at reducing vulnerability, by guaranteeing some acceptable minimum standard of living, then the maintenance of the real

TABLE 4.11
SOCIAL INSURANCE AND ASSIMILATED SCHEMES
PERCENTAGE DISTRIBUTION OF RECEIPTS
(SELECTED YEARS)

Country	Year	Contribution		State	Capital	Other	Absolute Ma\$
		Insured	Employer				
Antigua- Barbuda	1983	29.3	48.8	-	19.2	-	13.02
Bahauas	1980	26.3	44.6	3.1	26.1	-	32.59
	1983	23.2	38.0	5.2	33.6	-	48.9
	1986	26.8	40.7	1.4	30.7	-	73.56
Barbados	1971	43.0	-	48.4	8.7	-	19.15
	1975	12.2	14.3	63.9	10.6	-	53.64
	1980	27.7	28.8	31	17.5	-	66.13
	1983	36.2	37.5	-	22.3	-	130.96
	1986	39.9	41.7	-	21.7	-	139.68
Belize	1981	6.0	87.1	5.5	1.3	-	6.2
	1983	11.5	69.1	-	14.3	-	7.35
	1986	9.4	56.4	-	33.9	-	11.24
Dominica	1980	29.3	48.6	-	21.3	-	4.98
	1983	27.4	45.6	-	26.2	-	7.11
	1986	22.6	50.9	-	25.5	-	12.29
Grenada	1983	40.4	40.5	-	2.8	-	4.32
	1986	40.4	40.4	-	1.9	-	10.36
Guyana	1972	21.0	27.8	41.3	10	-	31.12
	1983	20.6	30.9	-	48.5	-	123.41
	1986	15.5	23.2	-	61.3	-	184.57
Jamaica*	1970	12.6	26.4	48.8	7.7	-	48.31
	1975	9.1	10.6	72.0	8.3	-	137.51
	1980	19.2	22.9	27.6	30.3	-	135.62
	1983	27.1	33.2	3.2	36.3	-	124.23
	1986	27.3	21.2	2.8	58.5	-	213.23
St. Lucia*	1981	37.3	37.3	-	25.3	-	8.25
	1983	43.5	43.5	-	13	-	6.87
	1986	28.6	28.6	-	42.7	-	14.63
Trinidad & Tobago	1970	4.3	15.0	72.0	-	-	54.27
	1975	11.2	23.2	60.5	5.1	-	182.26
	1980	18.2	36.0	26.9	18.9	-	196.12
	1983	18.1	36.2	27.2	18.5	-	475.52
	1986	16.9	33.9	29.9	19.3	-	469.53

Source: ILO, 1981; 1988; 1990

*: Financial year 1982/1983 and 1985/1986

value of benefits should be of paramount concern.

The social relevance of social security schemes in the region have been called into question (*Theodore and Pantin 1991*). Theodore and Pantin have suggested a definite link between the percentage of total incomes collected, and the social relevance of schemes. They have suggested that inadequate collection levels have been necessarily translated into minuscule benefit payment levels. The result has been that social security schemes have been unable to maintain the quality of the lives of their beneficiaries. It is further suggested that the erosion of the power of benefit payments signals the imminent erosion of the relevance of schemes and their ability to grapple with poverty and basic need requirements.

On the one hand, contribution obligations have remained fairly constant over the period under review, as has the level of wages since the mid 1980s. On the other hand, inflation rates have increased. This has meant that the real value of compensation to employees has generally deteriorated. To the extent that this is true, it may be easier to understand and empathize with the dilemma of social security administrators. The real value of workers' contributions to the social security schemes has been on the decline while the demand for maintenance of the real value of benefits has continued.

This brings us to yet another consideration. To what extent should the real value of benefits to beneficiaries, especially those out of work, match the changes in the real value of income of the economically active population? It would seem that the rates have been more or less tracking each other. To argue for increases in the real value of benefits then, translates into a suggestion that the proportionate increase in benefits be greater than the proportionate increases in wages. There may well be adverse implications for the market for labour.

It may not be realistic nor acceptable then, to peg benefits to movements in the price index. To the extent that wages are not indexed to inflation, benefits should be indexed to movements in wage levels rather than prices.

TABLE 4.12
GROWTH IN REAL BENEFIT PAYMENTS
(1982 - 1990)

Year	Trinidad & Tobago	Guyana
1982	37.7	-
1983	9.6	12.7
1984	2.8	11.6
1985	8.1	3.7
1986	-1.3	15.4
1987	-5	3.8
1988	2.8	0.6
1989	-7.2	5.1
1990	-0.6	5.3

Source: National Insurance Boards' Annual Reports 1982 - 1990

CHAPTER 5

CONCLUSIONS AND POLICY RECOMMENDATIONS

Conclusions

An effective social security system, like an effective, efficient national security system, should be all embracing ready to ward off socio-economic ills which threaten the well-being of citizens. Society, contributors, beneficiaries, and the economy, should be made better off, for the existence of social security. It is a protective barrier through which any threat of poverty, deprivation and destitution, must pass before attacking individuals. Moreover, an effective social security system will not allow such ills to permeate the erected barrier.

This all embracing nature of social security, which requires the state, administrators, denominational groups, other institutions, individuals and families to play an active role, is not yet existing in the Caribbean.

This is not to deny that social welfare programs in the region may sometimes represent the only or major source of income to some individuals. It is also true that reforms are either ongoing or are being seriously considered for a number of the social security schemes. However, the issue at stake is whether these systems, which are representative of hope and vision, will be allowed to become responsive to the needs of their beneficiaries.

Some schemes may be described as 'tiptoeing' schemes: coming into existence without their presence being felt, continuing to exist without impacting on the lives of many, and now possibly facing a crash without much of a noise being heard.

What is of even greater concern is the fact that the regional social insurance schemes have not evolved much, since being led by the ILO officials who assisted in their initial implementation. There seems to be a general consensus to work within the framework provided decades ago, presumably until something dramatic takes place.

The picture as developed is more than a little disturbing. There is a common set of problems in the region as a whole in respect of the administration of social

security. The problems are neither new nor hard to recognize. They generally stem from the implicit link of these schemes with the respective macro-economic systems.

The interdependent nature of this link is itself a subject for future research.

Social security systems were certainly not just afterthoughts or appendages. Rather, their establishment and patterns of development indicate an early recognition of the requirement to seek a bridge between equity and affluence. But it is the pattern of the search for this link which gives each national social security scheme its peculiar set of characteristics.

One of the objectives of this study was to demonstrate that a strong, stable social security system is but one side of the coin. There is little doubt that the support systems which come to the aid of workers when their wages are interrupted by sickness, injury, pregnancy, and which provides support for widows, orphans and invalids and the elderly, are essential in any modern society.

However, to forget or ignore the importance of the other side of the coin - a stable, healthy economy - will be detrimental to the system. The rate of economic growth and transformation is intimately linked to the rate at which social security systems progress.

Given the long period of economic adjustment that is before us, it will become increasingly necessary to choose priorities carefully. In order to achieve the required balance, both within and among various social programs, it may well be that the setting of priorities will have to be done at each stage of development. As such it is necessary that social security systems be designed in such a way as to enhance the stability of the economies within which their foundation lies. Positive action to promote employment, personal and public health, the well-being of mothers, children and strong family ties will have to be addressed by social policy makers, within the context of a well formulated social security framework, if strong schemes and strong economies are to develop.

Here the recognition and/or warning is that social insurance is one(1) component of social security and it may be somewhat unreasonable even, to the point of being unacceptable, to expect that these schemes could be a "cure-all" or a "provide-all" mechanism.

RECOMMENDATIONS

Coverage

Our study has argued that the Bismarckian model, operational in the Caribbean, has failed to deliver social security to the entire population. This model is based on the existence of large percentages of salaried employees, whose incomes are not plagued by uncertainty and who are relatively easy to reach.

We have also seen that a question which is frequently faced by administrators of social programs is that of the efficiency of such programs. One of the measures of efficiency used, is the extent to which programs achieve what they initially set out to do: the realization of goals within the operational framework. Thus, to the extent that universal coverage is an aim of social security, it is important that some way be found to cover, if not the entire population, at least an acceptable percentage. In so far as social insurance schemes are concerned this would entail coverage of the economically active population, their dependents and/or survivors.

If universality is to be achieved within the regional context, while maintaining financial viability, major policy changes may have to be made. Economics teaches us that there is nothing like a free lunch: benefits are always paid for by someone, somewhere along the line. If contributions cannot be readily increased by:

- (a) high percentage deductions from employees and employers; and /or
- (b) removal of, or raising of insurable income ceiling.

then, the onus necessarily falls on administrators to increase investment returns to such an extent that increased demands are met, while leaving enough assets free for investments.

However, astute investment practices by themselves are unlikely to keep the social security schemes viable, if there are no corresponding increases in income collected at source (contributions).

Countries like Anguilla, Antigua-Barbuda, Belize, St. Lucia, St. Kitts-Nevis, Trinidad and Tobago, and eventually, St. Vincent and the Grenadines, will have to give serious consideration to the coverage of the self-employed. The

increased risks involved will necessitate increased vigilance on the part of compliance officers and more cost-efficient and effective monitoring systems. There might also be need for removal or raising of the insurable ceiling and a general increase in contribution rates.

It is not generally recommended that attempts be made to boost contribution income via increased tax rates. In addition to this, running counter to the fact that governments have more or less accepted a move to reduce direct taxes, the macroeconomic environment may not be in a position to allow for such increases. It is also well known that indirect taxation is regressive in nature and as such, goes against the principles inherent in social security programs.

Unemployment Benefits

Clearly, in the absence of a national social security drive in which individuals are willing to contribute more, and the NIB in Barbados is capable of efficiently delivering, the Board may have to seriously consider not paying unemployment benefits for the first 2 or 3 weeks of unemployment. To the extent that this second best solution promotes the survival of the coverage of unemployment, forces individuals to save more in anticipation of possible uncovered income loss and reduces the incidence of moral hazard, it is quite likely that the net benefit may be positive.

The Board should also take steps to play a more direct role in the reduction of unemployment. Options may include the establishment of training programs, in conjunction with the Ministries of Labour and Education, for displaced workers and those seeking jobs for the first time.

It is not generally recommended that other countries opt to extend coverage to the contingency of unemployment, in the face of high levels of unemployment and the precarious financial positions of social insurance schemes. Schemes should instead opt for universalization of population coverage, beginning with the self-employed, and provision for voluntary insurance coverage. In those countries where these are already provided, schemes should concentrate on tidying up and tightening up their systems. In other words, it would seem that key in the policy direction of schemes should be a conscious effort to mend existing holes in the safety-net.

Investments

While underdeveloped capital markets admittedly limit the flexibility of investments, the portfolio of schemes reflect a combination of legal restriction, risk aversion and probably a lack of experience in financial matters.

The problem is two-fold: on the one hand most social security schemes are investing in low yielding, government bonds, with the obvious implications for long term financial viability. On the other hand, the unfunded obligations of social security institutions represent an obligation of governments analogous to internal debt. In view of adverse economic circumstances, governments need to acquire funds from somewhere. To the extent that limited foreign reserves are saved, it may well be in the interest of individual economies to acquire such finances on the domestic markets.

It might be beneficial to the social security schemes to invest funds in higher yielding assets - including foreign assets - and where possible to make loans to governments at reasonable rates of interest. The problem remains unresolved, however, if the statutes are not modified to allow for investment of funds in foreign assets, and if autonomy is not given to schemes over their investment portfolio. The fact remains that governments will still have power to gain access to loans from the social security institutions and they may feel no immediate obligation to repay.

Business and common sense should guide investments into risky areas. Investment in real estate, though extremely risky, does not always offer high returns, being presently subjected to high delinquency rates in many countries.

Social security systems should place more emphasis on hiring qualified personnel to manage their investment portfolio. Badly managed investments could lead administrators to indulge in practices contrary to the ethics of the institutions' machinery and which hurt the people whom they were established to help. Wolfe, and more recently Novak, observed that, in some cases, obstacles were deliberately placed in the way of claimants (*Wolfe 1968; Novak 1984*). In one Latin American social insurance institution, applicants were purposely delayed for as much as three years, in a bid to protect the solvency of the institution. When poor investment policies lead to situations such as this, the whole purpose of the organization becomes questionable. The shortage of qualified personnel points to the need for the social security schemes in the region to pool technical resources, both in respect of operations and in respect of investments abroad.

Information Exchange

Greater effort should be placed on the systematic exchange of Annual Reports and in-house research papers. The evidence suggests that schemes have not generally circulated information beyond their own national boundaries. The ILO has complained that studies conducted by that body have not benefitted from analyses of a number of countries in the region because schemes fail to make

Annual Reports available on a regular basis and/or to provide information upon request(IILO 1989). Inter-regional information exchange is also critical to institutional development where financial resources are scarce.

Because data are scattered, it becomes extremely difficult, and not inexpensive, to engage in meaningful comparative examination of the schemes' development. It is also unfortunate that because of this, the opportunity to learn from the experience of neighbours is severely limited.

Actuarial Analyses

A firm stand has to be taken concerning actuarial reviews. This may include:

- timely implementation of more of the recommendations; and
- tapping alternative sources for actuarial expertise.

As long as the actuarial analysis made use of realistic assumptions, then it may be in the best interest of the survival of schemes for administrators to make every attempt to secure implementation of recommendations, however unpalpable.

To the extent that recommendations are continually being rejected, administrators have an obligation to determine why such is occurring and probably to enlist public opinion to deal with the problem.

If the credibility of the actuarial analysis is questionable, then good business sense, combined with a genuine social security vision, dictates that alternative sources be tapped for such expertise. This does not seem to be the problem in the Caribbean. However, administrators should be wary of eroding contributors' and beneficiaries' confidence, in both the actuaries and the schemes, by continued engagement of the services of actuaries whose recommendations are either consistently rejected, or accepted but not implemented.

Social Relevance

The real value of benefits have declined over the period under review. In most of the region, pension payments are determined based on past incomes in a stipulated number of years before retirement.

It may be possible to maintain the real value of pensions by basing payments on the real value of earnings in the years considered for calculation of benefits.

FUTURE RESEARCH

Supply vs Demand

Since actuarial analyses have raised the question of the continued relevance of some social security schemes, it would be interesting to estimate the demand for social insurance versus the supply of such services within the region. The empirical evidence seems to suggest an existing social insurance dilemma of declining revenues (supply) as against increasing demand. On the one hand the impact of benefit obligations, external debt repayment, structural adjustment and unemployment on the ability of individuals to provide protection for themselves, has led to increases in the demand for comprehensive social security systems which address the maintenance of the quality of life.

On the other hand, the income earning capacity of schemes has diminished as employment fell, governments as employers became delinquent in payments, investments became more risky, forced borrowing increased, and inflation escalated.

Indicators For Monitoring

In addition to the traditional data collected and analysed it would seem that social security schemes should engage in additional routine monitoring. Analyses of the operations and relevance of social insurance, in the context of the Caribbean, should benefit from routine monitoring of certain key indicators:

- (i) the real value of benefits:
 - (a) upon the inception of schemes;
 - (b) at the time of each revision of the insurable earnings ceiling;
 - (c) at present;
- (ii) the percentage of employed persons whose earnings are:

-
- (a) above the maximum insurable earnings at the beginning of the schemes;
 - (b) above the maximum insurable earnings at present;
 - (c) equal to or less than the maximum insurable earnings at present.

It would seem that the region now faces a choice - to give in totally to the pressures of market forces and allow the social security schemes to fold up one by one, or to seek an appropriate balance between private and collective provision of economic security. What is certain is that the social security schemes cannot continue without serious reform and without refocussing on the important objective of an improved quality of life for every citizen of this Region.

What this may mean, is that the social security schemes will have to give high priority to the way they use the resources available to them and to marketing themselves in a way which would make rational change more politically feasible.

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APPENDIX 1

NATIONAL PROVIDENT FUND SCHEMES IN THE CARIBBEAN

Country	Year of Act	Benefits	Contributions	
			Employee	Employer
Antigua*	1970	OADS, grants to emigrants	3 % wages; ceiling \$8000./yr.	5 % wages; ceiling \$8000./yr
Dominica	1970	OADS, sickness, unemployment	5 % wages; ceiling \$3000./yr.	5 % wages
Grenada	1969	OADS, sickness, earnings loss	None	15 cents per day employed for each daily paid agricultural worker
Monsterrat	1972	OADS, grants to emigrants	5 % wages; ceiling \$3600/yr.	5 % wages
St. Kitts-Nevis	1968	OADS, grants to emigrants	5 % wages; ceiling \$3000./yr.	5 % wages
St. Lucia	1970	OADS, sickness, unemployment	5 % wages; ceiling \$3600./yr	5 % wages
St. Vincent		OADS, grants to emigrants	5 % wages; ceiling \$3000/yr.	5 % wages

*: Never implemented
Source: Fletcher 1976

APPENDIX II

DISTRIBUTION OF BENEFIT EXPENDITURE BY SOCIAL SECURITY
(SOCIAL INSURANCE AND ASSIMILATED SCHEMES)

Country	Financial Year	Sickness Maternity	Employment Injury	Pensions	Total amount (millions)
Bahamas	1980	27.4	0.1	72.5	5.41
	1983	18.2	0.7	81.1	15.30
	1984	17.2	2.4	80.4	17.82
	1985	30.8	2.2	86.9	21.39
	1986	24.1	22.9	53.1	30.12
Barbados	1971	65.4	9.4	25.2	1.28
	1975	31.4	5.4	63.2	5.00
	1980	22.0	3.7	74.3	14.80
	1983	12.9	1.4	82.5	68.53
	1984	10.9	1.1	82.0	82.00
	1985	11.3	1.1	78.1	91.69
	1986	9.8	0.9	75.0	113.26
Belize	1981	-	100.	-	0.12
	1983	52.7	41.4	5.8	0.89
	1984	53.8	37.5	6.7	0.94
	1985	41.9	47.2	10.9	1.22
	1986	40.0	33.0	26.2	1.25
Dominica	1980	69.1	-	30.9	0.57
	1983	59.2	-	40.3	1.15
	1984	61.4	-	38.5	2.17
	1985	58.5	0.9	40.5	2.57
	1986	50.3	3.8	45.4	2.97
Grenada	1983	100.	-	-	0.01
	1984	-	-	21.4	0.12
	1985	-	-	36.6	0.32
	1986	-	-	58.6	0.68
Guyana	1972	25.6	69.1	5.3	3.55
	1975	32.2	49.7	18.1	3.09
	1980	18.7	21.5	59.8	12.38
	1983	15.1	25.2	59.6	16.44
	1984	13.9	24.8	61.3	18.79
	1985	12.5	23.8	63.7	19.32
	1986	6.5	16.3	77.2	46.67
Jamaica	1970	-	2.5	97.5	1.26
	1975	-	7.2	92.8	6.37
	1980	0.2	8.2	91.6	21.66
	1983	0.1	5.9	94.0	38.31
	1984	0.1	5.9	94.0	41.49
	1985	0.1	5.6	94.2	46.14
	1986	12.6	4.9	82.4	56.95
Trinidad & Tobago	1970	-	13.0	87.0	4.83
	1975	21.4	7.2	71.4	16.66
	1980	13.1	7.9	79.0	42.51
	1983	7.3	3.3	89.4	211.77
	1984	6.6	3.2	90.2	231.12
	1985	6.8	3.5	89.7	225.32
	1986	5.6	3.0	91.3	259.39

APPENDIX III

PERIOD OF INTRODUCTION OF SOCIAL INSURANCE
PENSION PROGRAMS IN LATIN AMERICA
AND THE CARIBBEAN

Year of Introduction	Number	Cumulative	% of Countries
1921-1930	4	4	12
1931-1940	3	7	20
1941-1950	6	13	38
1951-1960	2	15	44
1961-1970	14	29	85
1971-1980	5	34	100

Source: Mesa-Lago 1991b

APPENDIX IV
MEASUREMENT OF REAL YIELDS

The following measure of real yields was employed:

$$Y_r = [(1 + Y_n / 1 + i) - 1] 100$$

Where:

Y_r = Real yield

Y_n = Coefficient of nominal yield

i = Coefficient of inflation

and:

$$Y_n = [2I_n / F_{t-1} + F_t - I_n] 100$$

Where:

I_n = Nominal investment return at end of period t

F_{t-1} = Fund at beginning of period t .

F_t = Fund at end of period t .

APPENDIX V

COMPOSITION OF INVESTMENT PORTFOLIO
ST. KITTS NATIONAL PROVIDENT FUND (1969 - 1972)

Assets	1969	1970	1971	1972
Bank Deposits	63(22.5)	1,449(6.4)	2,05(45.4)	2,231(6.6)
Foreign Investments	1,933(66.2)	354(19.0)	336(15.)	685(11.3)
Loans to Government	6(11.)	1,33(44.6)	1,988(9.2)	2,916(49.6)
Fixed Assets	-	-	3(0.1)	3(0.1)
Total	2,986(100)	,936(100)	5,036(100)	5,839(100)

Source: Fletcher 1936.

APPENDIX VI

**LEGAL COVERAGE OF OLD-AGE, DISABILITY AND
SURVIVOR BENEFITS (PENSIONS) BY
SOCIAL INSURANCE 1992**

Country	Initial Law	All	Part	Self Employed	Domestic Servants	Others
Antigua Barbuda	1972	X				
Bahamas	1974	X		X	X	X ^a
Barbados	1976	X		X		
Belize	1979	X		X ^b		
Dominica	1970	X				
Grenada	1969-83	X		X		
Guyana	1969	X		X	X	
Jamaica	1966	X		X	X	
St. Kitts-Nevis	1970-1977	X		X ^c		
St. Lucia	1970	X				
St. Vincent	1970		X			
Trinidad & Tobago	1971	X			X	

Source: Mesa-Lago 1991b

- a: Welfare(non-contributory) pensions for the non-insured are paid by social insurance; in Barbados only available for old age.
- b: Voluntary continuation of coverage is available to those who shift from salaried to self-employment.
- c: Voluntary

APPENDIX VII
BARBADOS NATIONAL INSURANCE BOARD INVESTMENT YIELDS AND PORTFOLIO DISTRIBUTION
(1968-1991)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total Assets (\$Bds mn)	17.34	13.43	20.2	28.69	37.14	46.69	60.3	74.44	88.83	104.9	126.1	153.4
Invest. returns* (\$ Bds mn)	0.25	0.65	1.13	1.67	1.97	2.76	4.64	5.69	5.97	6.45	6.8	6.3
Nominal Yield (%)	-	6.33	6.96	7.08	6.17	6.78	9.04	8.82	7.59	6.89	6.07	4.6
Rate of Inflation(%)	7.49	5.85	7.29	7.45	11.88	16.86	38.92	20.3	4.99	8.34	9.48	13.17
Real Yield(%)	-	0.45	-0.3	-0.34	-5.1	-8.63	-21.5	-9.54	2.48	-1.34	-3.11	-7.57
PERCENTAGE DISTRIBUTION OF PORTFOLIO												
Cash	0.43	0.42	0.37	0.53	0.69	0.43	1.87	1.33	0.66	1.55	0.65	0.23
Fixed Deposits	69.83	79.41	60.4	61.81	52.53	35.48	37.94	46.37	46.05	38.11	44.01	53.28
Treasury Bills	10.7	0	0	5.02	3.9	20.27	15.11	8.1	15.06	20.59	19.65	16.83
Debentures	12.89	14.82	24.3	17.11	28.89	27.53	30.23	29.35	27.06	27.92	23.23	19.1
Foreign Investment	6.19	5.44	6	5.05	3.9	3.09	2.4	1.95	1.63	1.73	1.44	1.19
Other	0.1	0	8.92	10.46	10.1	13.2	12.44	12.9	9.24	9.9	11.01	9.38
Total	100	100	100	100	100	100	100	100	100	100	100	100

APPENDIX VII (Cont'd)
BARBADOS NATIONAL INSURANCE BOARD INVESTMENT YIELDS AND PORTFOLIO DISTRIBUTION
(1968-1991)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Assets (\$Bds mn)	181.8	209.5	244	288.9	323.8	362.5	390.3	412.2	452	486.9	513.2	526.6
Invest. returns*(\$ Bds mn)	11.6	12.2	28.1	33.6	23.2	26	23.3	26.6	55.4	38	45.2	53.4
Nominal Yield (%)	7.1	6.4	13.2	13.5	7.9	7.9	6.4	6.8	13.7	8.4	9.5	10.8
Rate of Inflation(%)	14.4	14.6	10.3	5.2	4.7	3.9	1.3	3.3	4.9	6.2	3.1	6.3
Real Yield(%)	-6.4	-7.1	2.6	7.8	3	3.8	5	3.4	8.4	2.1	6.2	4.3
PERCENTAGE DISTRIBUTION OF PORTFOLIO												
Cash	2.8	0.9	2.9	1.4	1.2	1	1.8	0.8	2.1	2	1.3	1.1
Fixed Deposits	55.2	50	48.5	40.6	37.2	35.8	35.1	39.2	38.3	38.9	38.1	34.9
Treasury Bills	14.8	24.9	29.3	39.6	45.5	46.3	55.1	41.7	38.1	36.8	36.6	36.3
Debentures	15.1	14	12.3	10.2	8.5	10.1	11.1	11.9	14.3	16	17.1	18.6
Foreign Investment	1	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2
Other	10.8	9.5	9.1	7.8	7.2	6.6	7.6	5.6	7	6.2	7.5	9
Total	100	100	100	100	100	100	100	100	100	100	100	100

* : Interest and other revenue

Source: Central Bank of Barbados 1992

APPENDIX VIII

GUYANA NATIONAL INSURANCE INVESTMENT YIELDS AND PORTFOLIO DISTRIBUTION (1975 - 1990)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
NIS Fund	87.3	109.1	132.9	170.1	236	303.1	389.6	486.5	586.5	101.5	830.7	957.3	1091.6	1213	1358.2	1640
Invest. returns (SGMn)	5.3	6.3	8	10.1	14.9	22.4	33.1	44.6	59.8	7.2	95	113.1	133	143.7	167.8	206.7
Nominal Yield(%)	7.1	6.6	6.8	6.9	7.6	8.7	10	10.7	11.8	12.8	13.2	13.5	13.9	13.3	14	14.8
Rate of Inflation(%)	8	9	8.2	15.3	17.8	14.1	22.1	21	14.9	25.2	15	7.9	28.8	39.9	90	65
Real Yield(%)	-2.3	-2.2	-1.3	-7.3	-8.6	-4.8	-9.9	-8.5	-2.7	-9.9	-1.6	5.2	-11.6	-19	-40	-30.4
PERCENTAGE DISTRIBUTION OF PORTFOLIO																
Fixed Assets	2.5	2.5	2	1.6	1.2	0.9	0.9	0.91	0.9	0.8	0.8	0.8	0.9	1.2	2.4	7.9
Gov't of Guyana Debenture	86.5	83.5	87.2	86.2	88.9	90.3	89.6	91.2	94	94.5	93.3	82.1	88.5	81.7	77.7	68.3
Overseas Gov't Debenture	0	0	0	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0	0	0	0	0
Shares	0.1	0	0	0.1	0	0	0	0.1	0.1	0.5	0.4	0.4	0.4	0.3	0.3	0.2
Treasury Bills	1.2	5.9	3.3	4	2.1	3.4	1.9	0.5	0	0	0	0.1	1	1.5	1.7	1.7
Fixed Deposits	7.3	6.2	5.4	4.5	3.5	3	3.4	3	2.9	2.7	3.4	12.5	9.2	9.6	9.4	10.9
Cash at Bank	0	0.2	0.2	0.1	0.5	0.5	0.8	0.5	0.4	0.1	0.1	3	0.1	0	0	0.4
Cash in Hand	0.1	0.8	0.2	0.1	1	0.2	0.9	2.3	0	0	0	0.2	0	1.7	0	0
Other	2.4	1.1	1.79	3	2.5	1.4	2.4	1.4	1.7	1.4	1.9	1	0	4	8.5	10.6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: National Insurance Board Annual Reports 1978-1990

APPENDIX IX

**JAMAICA NATIONAL INSURANCE INVESTMENT YIELDS AND PORTFOLIO DISTRIBUTION
(1968-1991)**

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
NIS Fund (\$J Mn.)	17.3	26.7	37.6	50.3	65.3	84.3	104	126.6	155.7	196.6	235.7	288
Invest. Assets (\$J Mn.)	16.2	28.8	36.7	49.5	65.9	84.3	104.1	126.6	156.6	197.2	241.6	285.1
Invest. returns (\$J Mn.) b	0.7	1.1	1.9	2.8	3.9	5.2	6.8	9.0	11.4	14.8	18.5	23.6
Nominal Yield (%) c	-	5.3	6.2	6.7	7.0	7.2	7.5	8.1	8.4	8.7	8.8	9.4
Rate of Inflation(%)	5.9	6.4	14.7	5.3	5.4	17.7	27.1	17.4	9.8	11.2	34.9	29.0
Real Yield(%)	-	-1.0	-7.4	1.3	1.5	-8.9	-15.4	-7.9	-1.3	-2.2	-19.3	-15.2
PERCENTAGE DISTRIBUTION OF PORTFOLIO												
J'ca local register'd stocks	90.7	92.6	95.1	89.5	85.5	99.1	99.0	99.0	99.6	99.1	95.7	98.8
J'ca Unit Trust	0	0	0	0	0	0	0.1	0.1	0	0	0	0
Loans to Gov't	0	0	0	0	0	0	0	0	0	0	0	0
Shares	0	0	0	0	0	0	0	0	0	0	0	0
Treasury Bills	5.0	0	1.6	2.8	0	0	0.1	0.4	0	0	1.9	0
Cash at Bank	1.3	0.9	1.2	1.0	4.4	0	0.1	0	0.3	0.4	2.4	0.5
Other	2.8	6.3	1.8	6.6	9.9	0.7	0.8	0.5	0.1	0.5	0.1	0.7
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: National Insurance Board Annual Reports 1970-1991

a: Mesa-Lago 1991a

b: Income from investments before deductions for expenses

c: based on investment returns

e: includes contributions outstanding and special deposits (Bank of Jamaica)

APPENDIX IX(Cont'd)

**JAMAICA NATIONAL INSURANCE INVESTMENT YIELDS AND PORTFOLIO DISTRIBUTION
(1968-1991)**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NIS Fund (\$J Mn.)	345.1	487.1	567.6	555.2	690.6	822.5	899.8	912.9	1003.0	1188.6	1259	1081.3
Invest. Assets (\$J Mn.)	345.1	403.7	506.8	661.8	609.7	712.3	899.8	912.9	1003.0	1189.0	1201.0	1214.8
Invest. returns (\$J Mn.) b	29.1	41.1	51.8	30.6	70.9	126.3	38.8	124.8	138.1	0.3	159.6	281.3
Nominal Yield (%) c	9.7	11.6	12.1	5.4	11.8	21.1	4.9	14.8	15.5	12.2	14.3	26.4
Rate of Inflation(%)	27.63	12.7	6.5	11.6	27.8	25.7	15.1	6.6	11.5	11.0	21.9	51.1
Real Yield(%)	-13.8	-1.0	5.3	-5.6	-12.5	-3.7	-8.9	7.7	3.6	1.1	-6.2	-16.3
PERCENTAGE DISTRIBUTION OF PORTFOLIO												
J'ca local register'd stocks	97.8	97.6	99.9	114.0	98.6	98.0	86.3	91.0	82.4	68.0	66.3	57.4
J'ca Unit Trust	0	0	0	0	0	0	0	0	0	0	0	0
Loans to Gov't	0	0	0	0	0	0	7.9	8.8	13.4	16.8	16.2	17.5
Shares	0	0	0	0	0	0	0	0	0	0	3.1	4.5
Treasury Bills	0	0	0	0	0	0	0	0	0	0	10.8	13.9
Cash at Bank	2.2	2.4	0.1	-14.0	1.4	2.0	5.8	0.2	4.1	11.9	3.6	6.4
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: National Insurance Board Annual Reports 1970-1991

a: Mesa-Lago 1991a

b: Income from investments before deductions for expenses

c: based on investment returns

e: includes contributions outstanding and special deposits (Bank of Jamaica)