

ISSUES IN SOCIAL PROTECTION

Discussion paper

9

Social security financing and investments in the Caribbean

Report of the Caribbean Sub-Regional Tripartite Meeting on Social Security

Financing and Investment Policies for Pension Funds

Bridgetown, Barbados, 24-25 October 2001

P. Plamondon and D. Osborne



Social Protection Sector

INTERNATIONAL LABOUR OFFICE GENEVA

The opinions and criteria of the authors do not necessarily reflect the views of the ILO.

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Foreword

This discussion paper series was conceived as a market place of ideas where social protection professionals could air their views on specific issues in their field. Topics may range from highly technical aspects of quantitative analysis to aspects of social protection planning, governance and politics. Authors may come from within the ILO or be independent experts, as long as they have something to tell concerning social protection and are not afraid to speak their mind. All of them contribute to this series in a personal capacity – not as representatives of the organizations they belong to. The views expressed here are thus entirely personal, they do not necessarily reflect the views of the ILO or other organizations. The only quality requirements are that the papers either fill a gap in our understanding of the functioning of national social protection or add an interesting aspect to the policy debates.

The ILO believes that a worldwide search for a better design and management of social protection is a permanent process that can only be advanced by a frank exchange of ideas. This series is thought to be a contribution to that process and to the publicizing of new ideas or new objectives. It thus contributes to the promotion of social security which is one of the ILO's core mandates.

This volume is a compendium of the papers presented at the Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment Policies for Pension Funds that was held in Bridgetown, Barbados in October 2001.

The resource persons who contributed to the material are: Dr. Karl Theodore, Professor of Economics at the University of the West Indies, Mr. Pierre Plamondon, Actuary at the Financial, Actuarial and Statistical Branch of the ILO, Mr. Derek Osborne, Actuarial Officer at the National Insurance Board of the Bahamas, Dr. Frank Alleyne, Professor of Development Economics at the University of the West Indies and Technical Adviser to the International Social Security Association with responsibility for the English-speaking Caribbean and Ms. Penelope Forde, Advisor to the Governor of the Central Bank of Trinidad and Tobago.

Contents

	<i>Page</i>
Foreword	viii
Introductory note	1
1. Social security systems and the macro-economy. A Caribbean perspective	1
Introduction	3
Section I: Social security and the macro-economy	4
Section II: Caribbean macro-economy	7
Section III: Filling the gaps	8
Section IV: The future of social security	10
2. Financing social security pensions	13
1. Financial systems: definition and objective	13
1.1. The size of the covered group	14
1.2. Financing rules	15
2. Overview of financing systems for pensions	17
2.1. Pattern of expenditure of a pension scheme	17
2.3. Objectives of the financial system	18
2.4. Types of financial systems	19
3. Financing Social Security – Options and Strategies	25
Increasing income	26
Containing expenditure	27
4. The Caisse de dépôt et placement du Québec (CDP Capital)	31
1. History	31
2. The corporate structure	32
3. The depositors	32
4. The asset mix	34
5. The return	35
5. Investing Social Security Surpluses in the English- speaking Caribbean	37
Introduction	37
Principles of social security investment	38
Instruments available for investment	39
Constraints on the investment decision	40
Recommended best practices	40
Appendix	43
6. Investing social security reserves in the Caribbean	51
1. Introduction	51
2. Investment policies for public and private pension plans	52
Bibliography	57

7. Guidelines on social security financing and investments in the Caribbean	59
Annex	63
Guidelines on the investment of social security funds	63
Determination of investment policy objectives, target rates of return, asset allocation and risk level	63
Approach concerning specific types of investments	63
Powers of the board of directors and the investment committee.....	64
Composition of the investment committee.....	64
Conflict of interest.....	65
Delegation of investment functions.....	65
Securities custody and record keeping	65
Reporting	65
Attitude towards political interference	66

Introductory note

This volume contains the Guidelines on social security financing and investments in the Caribbean as well as a compendium of the papers presented at the Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment Policies for Pension Funds, held in Bridgetown, Barbados, in October 2001. To put these materials in context, we summarize here some key features of this event.

The main purpose of this meeting was to discuss different forms of social security financing and investment strategies in order to safeguard the viability of public insurance schemes from the Caribbean countries in this era of globalization. In the context where a surge of public pensions reforms has taken place throughout the Americas, the meeting looked for a Caribbean response to these new trends and challenges.

The broad framework of the meeting was provided by the results of the general discussion on social security that took place at the International Labour Conference held in Geneva in June 2001, on one hand, and by the ILO «decent work for all» strategy, that includes the social protection for all as one of its essential features, on the other hand.

With this initiative, the ILO wanted to continue its assistance to the Caribbean countries and territories in establishing and improving social security provisions in the region. Technical assistance and technical advisory services have been provided for this purpose since the early 1960s and 1970s. A five-year regional umbrella programme for six countries, including Barbados, Dominica, Grenada, Guyana, St. Kitts-Nevis and St. Lucia as well as a feasibility study on the introduction of a catastrophic health insurance in the Commonwealth of the Bahamas are currently being implemented by the ILO, along with the completion of regular actuarial reviews of several national schemes.

The meeting was attended by approximately eighty persons from workers' organizations, employers' organizations, governments and social security boards from 19 English and Dutch-speaking Caribbean countries and territories, the Caribbean Employers' Confederation, the Caribbean Congress of Labour and the Caribbean Community Secretariat.

Two main issues were addressed by the meeting: social security financing and social security investments for the Caribbean. The discussions were organized around three types of activities: general presentations, panel discussions and group work. Acknowledging the fact that the social security financing and investment policies constitute crucial matters for social dialogue, the meeting was tripartite and so were the working groups and most of the panel discussions. As a matter of fact, the workers' organizations had held a Caribbean meeting on social security financing, in Port-of-Spain in June 1999. That meeting was co-organized by the Financial, Actuarial and Statistical Branch (SOC-FAS) and the ILO Caribbean Office, to serve as a preparation for workers' representatives for this tripartite meeting.

The main operational goal of this meeting was to discuss and produce a set of guidelines that could orient the Caribbean countries and territories on social security financing and investment issues. These guidelines were prepared on the basis of the discussions and, in particular, on the basis of the conclusions of the working groups that were oriented to that purpose. A working team, representing the main groups of participants, was identified in order to help SOC-FAS in drafting the guidelines in the form that is reflected in this volume.

The meeting was co-organized and cost-shared by SOC-FAS and the ILO Caribbean Office. Pierre Plamondon, Actuary at the Financial, Actuarial and Statistical Branch, and Luis Reguera, Deputy Director of the ILO Caribbean Office were responsible for the general co-ordination of the event.

As indicated at the beginning, besides the Guidelines on social security financing and investments in the Caribbean, this volume contains a compendium of the papers presented at the Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment policies for Pension Funds.

The resource persons who contributed to the material are: Dr. Karl Theodore, Professor of Economics at the University of the West Indies, Mr. Pierre Plamondon, Actuary at the Financial, Actuarial and Statistical Branch of the ILO, Mr. Derek Osborne, Actuarial Officer at the National Insurance Board of the Bahamas, Dr. Frank Alleyne, Professor of Development Economics at the University of the West Indies and Technical Adviser to the International Social Security Association with responsibility for the English-speaking Caribbean and Ms. Penelope Forde, Advisor to the Governor of the Central Bank of Trinidad and Tobago.

1. Social security systems and the macro-economy

A Caribbean perspective

by Karl Theodore,
Professor of Economics
University of the West Indies

Introduction

In the Caribbean when we think of the macroeconomic system invariably the balance of payments jumps to the fore. Alternatively, its macroeconomic cousin, the exchange rate comes to mind. This is because Caribbean people know that they have inhabited a globalized economy long before the term was invented. This reality has meant that Caribbean people know only too well that the very quality of their lives has always depended directly on what was happening on the international economic scene. Whether it was the price of sugar or the price of bauxite or the price of bananas, most people in the region could make the link between their own economic circumstances and events taking place thousands of miles away, events over which they certainly have no control. It is against this backdrop of macroeconomic uncertainty that the mosaic of Social Security Systems (SSSs) in the Caribbean must properly be contemplated.

The irony, however, is that as a general rule the citizens of the Caribbean region do not have a clear picture of how the SSSs fit into the development picture, and more directly into the macroeconomic picture. There is a sort of respectable or benign “distance” between the world of the macro-economy and that of the SSSs. This benign hiatus between the SSS and the macroeconomic system in the each country would not be important if it could not be associated with a welfare cost to the society - an avoidable cost at that. It will be the contention of this presentation that the “distance” between the SSS and the macro-economy is revealed in a tendency for performance levels to consistently fall short of robustness, and in a tendency for the adjustment experience of these economies to be a virtual horror story for certain segments of the society. These are no doubt very strong statements and ideally they should be supported by empirical as well as theoretical arguments. This presentation will emphasise the theoretical arguments. We need to understand the logic of the story that summarizes the experience of the Caribbean people. Hopefully, it will then become easier to identify the data that would be required to test the empirical propositions implied by the theoretical framework. A full empirical discussion will no doubt be the subject of a future presentation.

As a corollary, the paper will argue that although our discussion leads to a conclusion consistent with that of Martin Feldstein (1974, 1977) – vibrant SSSs are associated with lower national saving rates – the reasoning is quite different. In this case the result is a natural consequence of the ownership structure or plantation nature of Caribbean economies, and has little to do with the crowding out of private saving.

In the present context the paper therefore has three main objectives:

- (i) to explore a deeper understanding of the relationship between SSSs and the macroeconomic system, and by extension, between the SSSs and the development process;
- (ii) to clarify for managers of the economy and SSS managers the warranted role of SSS in the development of the Caribbean nations; and
- (iii) to provide SSS reformers in the Caribbean with a framework for evaluating the contending proposals for SSS reform in this region.

The paper itself will be presented in four sections. Section 1 will summarize the basic purposes of SSS in the Caribbean and point to related features of the macro-economy. Section 2 will present the

outline of the working of the Caribbean macroeconomic systems in a way which highlights the nature of the “distance” between the SSS and the economic systems. Employing a similar metaphor Section 3 will explore how the SSS could fill the gaps in the macroeconomic system. Finally Section 4 will discuss the implications of the theoretical findings of the study for the future of SSS in the Caribbean.

Section I: Social security and the macro-economy

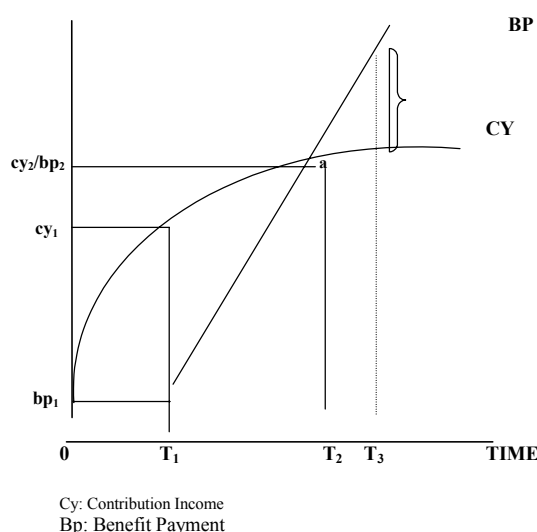
Most of the SSSs in the Caribbean were in place by the end of the decade of the seventies. This was a period of great expectations on the part of Caribbean people and their leaders. As small as our countries were, there was a sense that we could confront the range of development problems that faced us – persistent poverty, chronic unemployment, skewed income distributions and inconsistent growth – and deal with them successfully. One reason for this confidence was clearly due to the fact that our countries had been arming themselves with the kind of institutions which were meant to encourage the populations to sink their buckets in the West Indies. One such institution was the SSS. For with the establishment of a SSS the country in question would be saying to its labour force – we care what happens to you, over and beyond the income obtained from your employment. In principle, temporary income shocks would not mean a drastic lowering of living standards and poverty would not be the predictable experience of retired workers.

The SSS is anchored on two sources of income: the pooling of contributions by workers and employers and the yields from investing the operating surpluses of the system. In the early years of the system’s operations the normal expectation is for these surpluses to be relatively huge. As the system matures and long-term claims begin to dominate surpluses will generally be smaller and are likely to become more dependent on the flow of investment income as opposed to contribution income.

The general relationship between contribution income and benefit payments over time is depicted in Figure I and in the Table that follows, we report on the actual trends for a small selection of countries.

According to the diagram, in the initial stages of growth of the social security schemes, contribution income will generally tend to outstrip benefit payments. For example, in period T₁, while the value of benefit payments amount only to bp₁, inflows from contribution income are seen to be in the vicinity of cy₁. As the Scheme matures, the expectation is that equilibrium will be struck after which the general tendency will be for benefit payouts to exceed the level of contributions being received by the scheme, i.e., at points beyond T₂, (such as T₃).

Figure 1. Expected relationship between contribution income and benefit payments over time



Source: Theodore and La Foucade (1998).

Ratio of contributions to benefit payments in selected countries

Country	1998	1997	1996	1995	1994	1993	1992
Antigua-Barbuda	2.05	1.97	2.26	2.19	2.48	2.80	3.16
Barbados	1.20	1.17	1.19	1.17	1.20	1.07	1.06
Dominica	1.45	1.42	1.56	1.64	1.61	1.67	1.81
St. Lucia	2.69	2.77	2.98	3.14	3.43	3.64	0.77

Source: Annual Reports.

There is no question that there is a close relationship between the trends in key social security variables - such as contribution income, investment income and operating surplus - and the functioning of the macroeconomic system (Theodore and La Foucade 1998, Mesa-Lago 1990). It is the vibrancy of the labour market that will determine both the level of employment and the wage bills of the several businesses in the economy. These in turn will greatly influence the level of contribution income. This probably the most obvious link between the economic system and the SSS.

At this stage it is probably useful to review the general economic performance of the countries in the Caribbean region.

Based on a recent review (UNECLAC, 2000) the overall picture seems to be one of a region where although average growth rates over a long period have generally been positive the story is one of inconsistency and low performance. Interestingly, this type of performance has been excellently documented by Don Harris in the case of Jamaica, and this, over a period of more than a few decades!!¹

Some key indicators of growth and the balance of payments experience of selected countries of the region are show in the table below.

¹ "Export-Led Growth", *Jamaica: Preparing for the 21st century*, edited by Patsy Lewis, 1994.

Selected indicators (1992-2000)

	Change in real GDP (%)								
	2000	1999	1998	1997	1996	1995	1994	1993	1992
Antigua-Barbuda	5.2	4.4	3.7	5.3	5.7	-5.2	5.8	4.8	0.8
Bahamas	5e	5.9	3.0	3.3	4.2	0.3	0.9	5.2	
Barbados		2.5	4.4	3.0	3.8	2.9	3.9	0.8	-5.7
Belize		6.5	1.5	4.0	1.1	4.0	1.4	4.3	9.5
St. Lucia		3.4	2.6	0.6	1.4	1.7	1.8	1.0	6.9
Trinidad and Tobago	4.8	5.1	5.6	3.5	3.9	4.0	5.0	-2.6	-1.1
	Trade balance (US\$ Mn)								
	2000	1999	1998	1997	1996	1995	1994	1993	1992
Antigua-Barbuda	-313.8	-322.1	-327.0	-308.7	-301.6	-268.8	-267.0	-231.7	-219.9
Bahamas	-1354.9	-1249.3	-1,373.9	-1,301.8	-1,022.9	-931.3	-815.0	-737.3	-766.0
Barbados		-691.7	-644.1	-598.6	-456.2	-445.8	-354.8	-326.8	-277.8
Belize	-240.4	-165.5	-121.9	-86.4	-84.3	-94.2	-101.8	-146.7	-131.4
St. Lucia	-268.3	-256.3	-232.8	-231.1	-187.8	-160.3	-170.7	-144.3	-148.1
Trinidad and Tobago	663	64	-743.0	-493.4	346.5	592.2	597.7	163.4	434.0
	Current account balance (US\$ Mn)								
	2000	1999	1998	1997	1996	1995	1994	1993	1992
Antigua-Barbuda	-87.3	-62.4	-87.9	-64.4	-71.2	-0.5	-17.7	-0.7	-17.0
Bahamas	-414	-406	-996.0	-666.3	-271.1	-148.2	-41.6	49.7	37.5
Barbados		-125	-55.9	-49.4	104.5	90.1	134.7	70.3	143.4
Belize	-131.9	-67.2	-45.7	-14.4	2.3	7.4	-10.3	-49.0	29.1
St. Lucia	-80.1	-90.9	-66.0	-78.4	-54.4	-33.2	-48.4	-50.2	-56.0
Trinidad and Tobago	378	31	-645.3	-578.9	68.2	269.9	221.4	-107.8	32.5
	External public debt (US\$Mn)								
	2000	1999	1998	1997	1996	1995	1994	1993	1992
Antigua-Barbuda	365.4	387.9	382.6	348.2	275.8	286.8	277.6	263.7	249.0
Bahamas			379.2	384.5	357.2	392.6	409.6	453.4	440.5
Barbados		468.8	438.6	427.5	463.1	479.1	509.3	524.3	566.4
Belize			258.5	240.7	219.8	184.3	184.0	167.9	145.6
St. Lucia	146.7	155.3	144.1	138.6	128.3	116.0	105.4	99.4	96.4
Trinidad and Tobago	1,679.80	1,584.80	1,471.10	1,541.1	1,875.8	1,905.2	2,063.5	2,102.1	2,215.0

Source: IMF; ILO; ECLAC.

The picture portrayed in the tables does not unambiguously correspond to the considerable effort on the part of the governments of these countries, and certainly does not reflect the considerable hardship endured by the populations of these countries as efforts were made to correct fiscal and external imbalances. On the face of it, what we seem to be faced with is a situation of under-performance due to the structure of the macro-economy on the one hand, and to the structure of the social system on the other hand.

Section II: Caribbean macro-economy

Following the work of Best and Levitt (1966), Thomas (1990) and more recently, Harris (1994) and Best (2000) we can summarize the working of the Caribbean macroeconomic system as one where all the key doing parts – management and resources - of the system reside or originate outside of national boundaries. Moreover, the essential purpose of these economies, according to the authors mentioned, has been to produce for some export market, with production taking place within an enterprise which is owned and managed abroad. These hinterland sites then seek to find ways of retaining surplus from an economic system not geared to generate surplus either for the benefit of the population or as a basis for production in the future.

In this context, the governments of these countries, almost by default, have always seen themselves as having a key role both in the retention and use of surplus. The use of the surplus was either for stabilization of the economies or for bolstering the well-being of the less fortunate in the society.

If Don Harris is correct in his assessment of the predicament of Caribbean economies, the problem would seem to be one of “missing parts”. In fact, this may be what underdevelopment may mean in the Caribbean context. The point is made that what these economies need is a public policy framework which encourages the emergence of “national” institutions which play the role now executed by expatriate agents. ***This is not a xenophobic recommendation.*** It is a really a quest for sustainability and consistency of economic performance by relocating a greater share of the doing parts within the economic system. After all, this is the normal situation in the developed economies of the world.

The claim of this presentation will be that the SSS could well be one of the “missing parts” referred to by Harris. For when we consider the characteristics of these parts it would seem that the SSS is almost tailor-made to fill the role identified by Harris. For not only must such “parts” have consistent access to resources, but they must also have access to managerial skills.

From a theoretical point of view this suggestion can be made in a simple manner if we modify an earlier framework portraying the macroeconomic impact of social security (Theodore, ILO, 1999). In the previous framework the emphasis was on a Keynesian-type system where the role of the SSS was seen in the contribution to the key propensities – consumption, investment and imports. The issue raised in the 1999 presentation was the small social security contribution required of workers and employers in the Caribbean. The regional average for contributions was shown to be ***less than 3.5 per cent*** of total compensation to workers. This, it was argued, suggested that the replacement share of income provided on retirement would be correspondingly miniscule.

While this issue of the size of the income share put aside for social security purposes remains an important one, the point being made at present is more qualitative and more structural in nature. We begin by postulating a two-way dependence between social security and the macroeconomic system *in small countries*. While the traditional focus has been on the impact that the economic system can have on the SSS, the case being made now is that in the search for national institutions to fill the macroeconomic breach identified by Harris the SSS must see itself as a prime candidate.

The position can be summarized by focusing on the equilibrium statement for macroeconomic income determination in the short run:

$$Y = [1/(1-c-i+m)]*(G+X) \quad (i)$$

Here *c*, *i* and *m* are the marginal propensities to consume, invest and import, respectively. *G*, government spending and *X*, exports, are the exogenous influences on the macro-economy. *Y* refers to national income.

In a sense, the Harris comment can be interpreted as saying that each of these three propensities comprises two elements, one driven by the origin of the doing parts of the economy and one driven by national agents. So we can rewrite the expression in (i) as:

$$Y = [1/1 - c_1 - c_2 - i_1 - i_2 + m_1 + m_2] * (G + X) \quad (ii)$$

Here the subscript 1 refers to the propensities associated with the presence of the overseas agents within the economy while the subscript 2 refers to the decisions of the national agents.

The claim being made is that because of institutional underdevelopment c_2 and i_2 tend to be very small and that m_2 is larger than necessary, reflecting a bias in the composition of domestic output. It is then easy to conclude that the level of income as portrayed in (i) will tend to be biased downwards. The impact of providing the “missing parts” would be to strengthen the base of the economy and to bias national income upwards.

Section III: Filling the gaps

In their capacity as leading social institutions the SSSs will certainly need to consider how they could play a role in supplying some of the missing parts of the economic system in the Caribbean. Of course, this new role would have to be considered in the context of the dominant responsibility of the SSSs to provide income replacement cover for workers during, and at the end of, their working lives. The point has been previously made that in an economic system where the dominant activity is surplus retention and distribution, and not surplus creation, the public sector will naturally see itself as having a very important role.

There are two issues that arise here. On the one hand, it might seem that the most reasonable response would be to change the character of the economic system by “growing” surplus-creating entities. On the other hand, a contingent situation may arise where the government is no longer able to perform all of the surplus distribution activities. This would then call for other agents within the economy to fill the breach.

On both fronts there would seem to be a case for the SSSs to step forward and define a new role for themselves. With respect to the “growing” of surplus-creating entities the call here would be for a different type of investment activity by the SSS. The idea would be that SSS investment would no longer be mainly in the form of holding government paper but in the form of direct additions to the capital stock of the country. Such investment will be directed at specific sectors of the economy. There is emerging evidence that some countries in the region have already started to move in this direction². Using the modified equation for the equilibrium of short run income the SSS will be making an attempt to lift the national investment propensity, i_2 , to a higher level.

Complementary to this, if the proposed investment is in a sector which is producing import-replacing goods and services the investment will have the ultimate effect of reducing the value of the import coefficient, m_2 . Apart from the direct result of improving the balance of payments of the country, this will also bias the level of short run income upwards.

In respect of the loss of the government’s capacity to perform surplus distribution activities, Mesa Lago (1996) has previously made a call for SSSs in Latin America to see the post-Structural Adjustment period in their countries as a time when they will have to provide services in areas where the government has become weak. In the context of the theoretical framework used earlier, this would amount to an

² Reference to Belize and others.

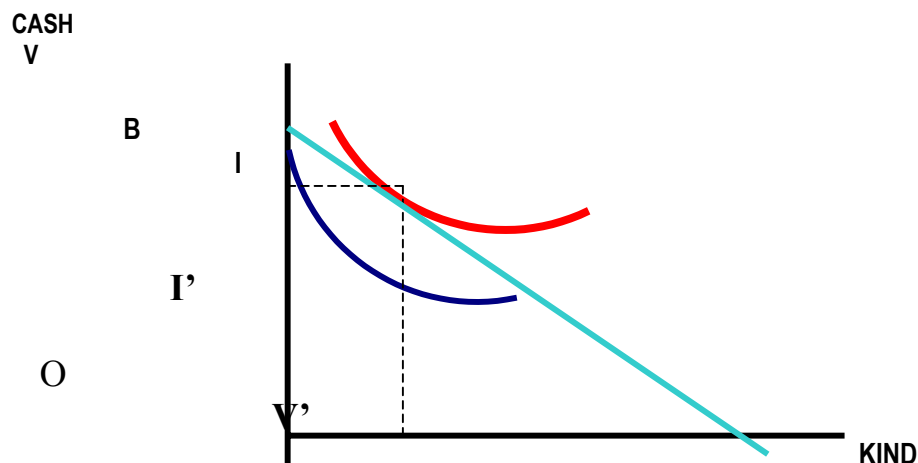
increase in the marginal propensity to consume, by an increase in c_2 , arising from a redistribution of income to lower income workers. This would have the impact of increasing the level of national income.

The general point is that with a change in its approach to investment – making direct additions to the capital stock, as opposed to indirect additions through government spending or other financial activity – the SSS will become one of the agencies in the economy directly involved in surplus creation activity. To the extent that the SSS undertakes more of the basic welfare activities previously undertaken by the government this will amount to redistributive actions which will also bias income upwards.

In some countries the SSS has already moved in this direction by taking on a greater role in the provision and financing of health services. The experience here has not been altogether positive, especially where SSSs have become responsible for health institutions. However, the issue here maybe that in the countries concerned there are some activities of this sort which are better carried out by other agencies. However, it would be a mistake to discourage SSSs from extending their reach into the area of health. This is particularly true in today's world where HIV/AIDS threatens to decimate the labour force in many countries.

The HIV/AIDS situation in the Caribbean is particularly grim, with the region showing the highest incidence of the disease in the Western Hemisphere. Since the persons within the age group 15-44 constitute the main target of the disease, the SSSs have to be very concerned that the core of their contribution base is being attacked. Moreover, since it has been estimated that the disease will weaken the economies of the Caribbean – with a loss of close to 5% of GDP annually – the SSSs will certainly need to take the epidemic seriously. It may be necessary to finance support for the prevention activities that are necessary as well as for the treatment of contributors who have contracted the disease.

A second important reason why the SSSs will have to consider operating in areas not traditional to them concerns the need for them to see themselves as protecting and enhancing the well-being of their contributors, and not simply as agencies providing cash support once certain eligibility conditions have been met. In the particular case of elderly beneficiaries it is important to understand that support of a given value may do more for the individual when provided in the form of a combination cash and kind as opposed to purely cash. The point is made very simply in the diagram below.



We assume that the welfare of the individual depends on both cash and on services that may be provided to meet the individual's needs. Any particular level of welfare can then be represented by a utility indifference curve like I , in the diagram. We also assume that the value of support targeted can be represented by an opportunity set, VoV' , as portrayed. The best that the individual can do for himself or herself is to occupy a position like B , where there is a combination of positive cash and kind values. Were

the individual to be offered only cash he or she would be on a welfare line like I' which represents a lower level than enjoyed at combination, B.

In practical terms the issues that will have to be settled will concern the pace, the scale and the targeting of the SSS investments, keeping in mind the need to maintain the confidence and the liquidity necessary to fulfil its basic mission. *Clearly there are many technical matters that will have to be taken into account and there is an obvious need for serious research on the part of the SSS.* The proposed regional research programme being drafted for the social security systems should reflect these requirements.

The obvious question which arises is why should the SSS take actions of the kind indicated above. Here, all we need to recall is the two-way dependence between the SSS and the economic system. For to the extent that the SSS strengthens the economic system, to that extent it will put the long-term viability of the SSS itself on a firmer footing. We can make the point that in a sense the benefits derived by SSS contributors really comes in two forms – a direct form which reflects the administrative efficiency of the SSS and an indirect form which reflects the performance of the overall economic system. In contributing to the working of the economic system, the SSS is contributing to its own well-being and that of its contribution.

Section IV: The future of social security

In recent times there has been a flurry of activity in respect of Social Security Reform. Initially triggered by the very interesting developments in Chile in the early 1980s, this activity has been elevated for national consideration by governments seeking support from the international financial institutions operating within the Caribbean. While the present discussion does not seek to explore the fundamental philosophical issues that the debate has raised, there is no question that the future of SSSs in this region will depend on the extent to which the development role of these institutions is understood.

The contention of this paper is that the SSSs in the regions cannot adopt a posture of business as usual. Not only, do they sit on one of the largest asset bases within the region, but the objective requirement of support in various sectors of the economy suggests that if they do not respond the SSSs themselves will be at risk. The task is how to convert the investment and management potential of the SSSs into a stronger economic foundation for SSS in the future.

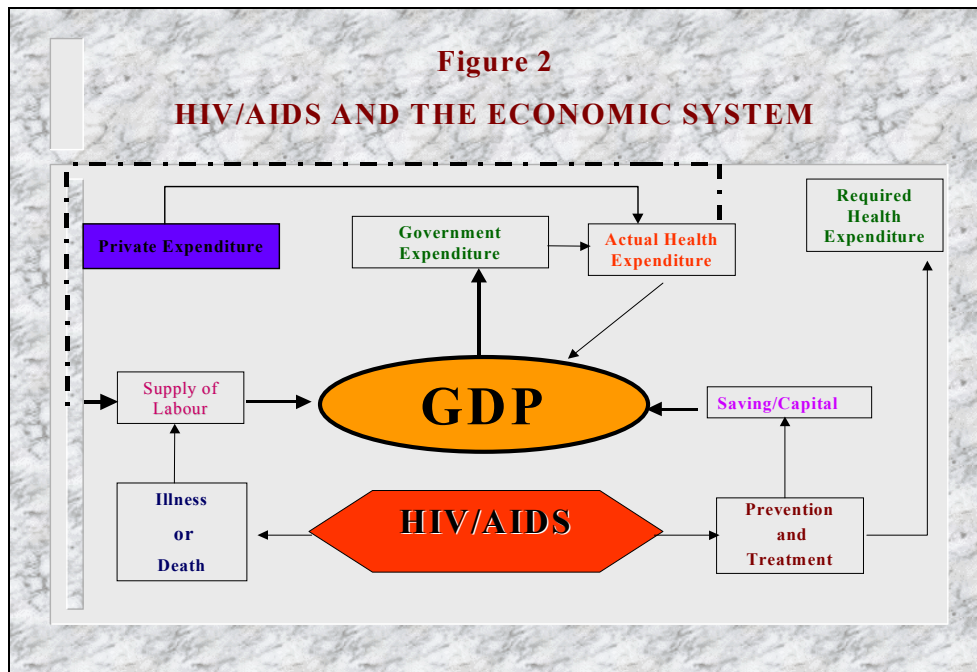
What this suggests is that social security reform in the Caribbean needs to concentrate on making the proper economic interventions, using the resources of the system, rather than on experiments with privatising these systems. The income distribution of the region suggests that the social insurance component of social security pensions will have to remain dominant. However, in a context where the share of contribution income in total income of the system is not likely to increase, the role of the investment divisions becomes critical. The important consideration for the future must then not be seeking to place investments in safe areas of the economy where yields are reasonable, but to find those areas of the economy which can be so strengthened that social security investment yields of the future will be on a firmer foundation.

The second major thrust of SSS reform in the Caribbean will have to be in expanding the scope of these systems in meeting the social needs of the population. Not only will this be necessary because of the enforced withdrawal of the governments from certain areas, but also because the welfare of some of the groups targeted by the SSS will be less sensitive to benefits that are only in cash and more sensitive to benefit packages that include both cash and kind.

Finally, in the light of the potent economic threat now posed by the HIV/AIDS epidemic in the region the SSSs will have to find a way to upgrade their involvement in the battle against the disease. As

the diagram below indicates, the disease is systematically gnawing away at the main pillars of the economic system. This is very bad news for the social security systems.

Economic impact of HIV/AIDS



2. Financing social security pensions

by Pierre Plamondon,
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Financing social security has to deal with the following questions:

- (1) Who pays
- (2) From what income
- (3) Which amounts of contributions or taxes
- (4) At what point in time

... given a certain expected expenditure development.

In order to make sure that resources are always available when needed societies decide the above questions through the selection of financing systems. Before we analyse the financing systems that societies have at their disposal, we start with a set of crucial definitions.

1. Financial systems: definition and objective¹

The level of annual expenditure determines the amount of necessary financial resources required to finance a pension scheme, but it does not determine how this income is generated, i.e. the financing system. There are various financing options available (ranging from tax to contribution financing over a variety of mixed financing systems and within contribution financing they range from fully to zero funding).

Financing systems are defined as a set of legal provisions which aim at ensuring that at each point of the schemes' life cycle the amount of expenditure is matched by equal financial resources, i.e. the financing systems ascertain that the schemes are in financial equilibrium. Financing systems are fully described by four parameters:

- (1) the size of the covered group,
- (2) the financial rules under which the operate,
- (3) the definitions of the actuarial equilibrium which is synonymous to the level of funding of the scheme, and
- (4) the type of resources (i.e. the resource base) which are earmarked for the financing of benefits.

The expected expenditure developments and the choice of the financing system then determine the financial burden of each generation of contributors/beneficiaries. Before alternative financing systems are explored, the notion of the financial equilibrium has to be introduced.

¹ This section is an extract from Cichon et al., Financing Social Security (forthcoming) (ILO, Geneva).

The fundamental objective of a financing system is to keep a social protection scheme in financial equilibrium. Actuarially, a scheme is in financial equilibrium if the present value of all future expenditure is equal to the present value of all future income of the scheme at a given point in time. This general long-term equilibrium does not automatically guarantee liquidity at each specific point in time. In the case of PAYG systems the scheme is per definition in equilibrium on a year-to-year basis, where as under other options temporary financial imbalances are theoretically possible (which would have to be closed by borrowing) provided they will be covered by later annual surpluses. The rules and regulations of the concrete financing system have to translate the financial equilibrium and the annual liquidity requirement into an “actuarial equilibrium” (which is a close cousin of the general financial equilibrium) which ascertains the provisions of cash flow to cover the benefit expenditure at each point in time.

The financial equilibrium of a benefit scheme is influenced by three sets of determinants. The first is the relative size of the active and financing generation to the non-active and benefiting generation (i.e. the demographic determinant), the second is the ability of the different financiers to honour their contractual arrangements which largely depends on the economic development (the economic determinant), and the third is the actual nature of the contract, i.e. how much is promised to the inactive generation and how well the financial flows are managed, i.e. the quality of the governance of the scheme (the governance determinant). The following table summarises in a telegraphic style the impact of the different influence factors on the income and expenditure of a social protection benefit scheme.

Table 1. Summary of factors affecting the financial equilibrium of a pension scheme

	Impact on income items	Impact on expenditure items
Economic factors		
(1) Growth	Insured persons and wages	Entitlements and numbers of beneficiaries
(2) Employment (most likely depends on (1))	Number of contributing or taxpaying persons	Number beneficiaries (invalidity, the sick, the unemployed the poor immediately old -age, survivors in the long run
(3) Wage share and wages (might depend on (1))	Insurable earnings	Benefit amounts (after time lag)
(4) Wages/ inflation	Insurable earnings	Benefit amounts
(5) Interest rates increase	Investment income	
Demographic factors		
(1) Initial population age structure	Relationship of actives to beneficiaries	Same
(2) Mortality changes		Increase of the number of beneficiaries and average length of service
(3) Fertility increase	Number of contributors (long run) if economic development permits	Number of beneficiaries (long run)
Governance factors		
(1) Design	Contribution or tax provisions	Pension formula and entitlement conditions determining the number and amounts of benefits
(2) Maintenance (adjustment)	Ceiling on insurable earnings	Benefit levels
(3) Administration cost		Total expenditure
(4) Registration compliance	(Short-term) insurable earnings	(Long-term) number of beneficiaries
(5) Wage compliance	(Short-term) insurable earnings	(Potentially long-term) level of benefits

1.1. The size of the covered group

The smallest group within which social transfers occur is obviously the nuclear family. The next biggest group is the extended family or a neighbourhood, followed again by a community or occupational groups. Unless mandated by specific legal provisions (such as alimony provisions in family law) transfers within families and or small communities are often of an informal nature. The extent of solidarity within the nuclear groups varies greatly depending again on values and specific family or community

circumstances. There are generally no clear entitlements to benefits, even in community based schemes. Just as in informal family settings community based transfers levels are often income defined, i.e. actual levels of social protection depends on the level of income of the group as a whole rather than on the objective need of potential transfer recipients. The reliability of benefits and certain benefit level increases - at least in theory - with the size of the group that is covered by a specific transfer arrangement. National schemes or at least social insurance schemes with a wide coverage generally have a more stable income than smaller groups. All social transfer systems are based on resource pooling to cope with certain contingencies, such as invalidity, poverty, old age, sickness etc. The variance of the benefit experience of big groups (i.e. their financial risk) is inevitably more stable than that of smaller groups, which in turn stabilizes their financial position. Small group also often face joint risks, such as unemployment in an occupational group, poverty in a family, epidemics in communities. In other words bigger schemes usually can cope better with most risks provided they are well governed. Disaggregating national solidarity into smaller solidarity groups inevitably leads to a wider disparity of benefit levels.

However actuarial arguments for large risk pools might be in contradiction with the political preferences in a society. A society might chose wide risk pooling in one social protection subsystem (like the NHS in the UK) while at the same time opting for a very heterogeneous pension system (like the mixed public private pension system in the UK). Others may opt for strong basic protection against poverty in old age, while leaving the guarantee of adequate income replacement rates to group based schemes (like the pension system in the Netherlands). Worldwide, a trend to greater disaggregation of solidarity groups can be observed, down to full individualization in Mandatory Retirement Savings Schemes. This inevitably creates greater benefit inequalities.

1.2. Financing rules

Statutory public social security schemes operate on the basis of financial rules or principles which are fundamentally different from private arrangements for income security. Private insurance companies, for example, finance pensions on the basis of one financial rule: individual equivalence, which stipulates that the present value of the contributions of each individual contributor entering the scheme has (on average) to equal the present value of all expected benefits (plus administration cost). In case of defined benefit schemes, in practice this generally leads to pension insurance contribution rates which are calculated for cohorts defined by the age of entry into the insurance. Individual premiums might be charged for persons with certain handicaps. In principle, there are no transfers between generations or income groups, the only risks insured being longevity, premature death or invalidity (in case the latter two contingencies are included in the insurance contract). In the case of defined contribution schemes, the principle of individual equivalence is automatically fulfilled if each participant's account balance is determined solely by his or her contribution and the associated investment earnings.

The rules governing social security financing systems are more discretionary than those dictated by private sector financial requirements, but can be deduced from the general principles governing social security. One may identify three main rules of social security financing. In practice, all three are hardly ever fulfilled at the same time and almost inevitably political compromises are made in reality.

The financial solidarity² rule

The rule requires that contributions or taxes for pension purposes are charged on the basis of the individual ability to pay and regardless of a member's risks or circumstances (i.e. for example existing health impairments or the existence of eligible dependents). In social insurance schemes this principle is

² It should be noted that this solidarity rule or principle refers to the financing side of a pension scheme only, the expenditure side, embodied in a pension formula, might have more solidarity elements.

generally embodied in uniform contribution rates charged as a fixed percentage of insurable earnings. This might even be modified for lower contribution rates for low income earners. In the case of pension financing from direct taxation this rule generally automatically applies due to the usual progressiveness of tax rates.

The rule of collective financial equivalence

Requiring that, at any point in time, the total present value of all expected future expenditure of the pension scheme is equal to the present value of all future income of the scheme (plus the initial reserve at the respective point in time, if existing). This has three implications. First, it simply demands the scheme to be in financial equilibrium (which is equivalent to the principle of individual equivalence in the private sector). Secondly, it permits the redistribution of income between groups as long as the long-term financial equilibrium is secured. It also stipulates that over the long-run income has to cover expenditure regardless of whether reserves are built up or whether the scheme runs on a pure pay-as-you-go basis. Third, it implies that social security resources should not be used to finance non-social security expenditure (which might happen if governments borrow resources and either do not return them or return them at a substantially lower real value). Nor should there be an external subsidy to the scheme. The latter can occur if a scheme does not cover the full population, but is subsidized from general revenues. Both situations raise serious equity questions with respect to whether one specific group of the society should be asked to pay extra taxes (which occurs if social security contributions are used for other than social security requirements) or whether the general public can be forced to subsidize the standard of living of a specific group (which occurs when a scheme is subsidized from general revenues).

The rule of inter-generational equity

This principle requires that members of all generations (i.e. successive generations) pay roughly the same share of their disposable income during their active life in order to earn equal benefit entitlements (in terms of replacement rates).

This principle is the most contentious one, least clear and most open to diverse interpretations. In pay-as-you-go or partially funded systems, early generations normally pay lower contribution rates than the generation at, or near, the maturity stage of the scheme, while often earning similar pensions. This might be called a windfall profit when a new pension scheme is started in an economy with a roughly constant high standard of living. For developing economies one might argue that a lower contribution rate for early generations is justified on the grounds that their living standard is normally only a fraction of that of the following generations and it is thus only equitable to transfer some of the benefits of the growth backwards to early generations. If one were to finance a pension system on a theoretically eternally constant contribution rate, then most of the contributions of the early generation would go into the building up of reserves. At the maturity stage of the scheme, the income from investments would help to finance the scheme and keep the contribution rate at its eternal level. If the early generations had not contributed to the building-up of reserves then the missing investment income in the later stages is equivalent to the redistribution of income from later (normally richer) to earlier (normally poorer) generations. Such an income redistribution might still be regarded as socially equitable even if it is not in a strict sense actuarially equitable.

In most cases these rules are not applied in their pure form. There are often tax subsidies for pension schemes which do not cover the total population or on the contrary pension reserves are borrowed and consequently written off. Both cases violate the rule of collective equivalence. In the case of defined contribution schemes survivor's benefits might depend to a crucial extent on time the breadwinner dies, which would violate the financial solidarity rule. The concept of inter-generational equity is much debated but not often clearly defined. It might even be in conflict with reality, if there are no capital markets which could absorb the initially high reserves under "eternally" constant contribution rates, or if the scheme lacks access to experienced investment management skills. The extent to which societies

adhere to the different rules, and their priorities between the principles, is a matter of political preferences. The choice of a concrete financing system reflects these preferences implicitly.

2. Overview of financing systems for pensions³

The financing of a pension scheme refers to the orderly mechanisms by which resources are raised to support the scheme's expected future expenditure. This chapter shows how the financing of a public pension scheme can be organized. It starts by explaining the pattern of expenditure generally encountered under this type of scheme, followed by a description of the sources of revenue on which the financing may be based. A number of financial systems whereby an equilibrium between revenue and expenditure can be reached are presented in this section.

2.1. Pattern of expenditure of a pension scheme

From the early years of its existence and until a pension scheme reaches a state of maturity, it experiences a pattern of increasing expenditures, resulting from the following factors:

- the number of pensioners increases each year as new cohorts qualify;
- the average length of service of new pensioners increases;
- the earnings on which pensions are based increase;
- longevity increases, affecting the average duration of payment;
- pensions are indexed.

The choice made concerning the sources of revenue of a specific scheme may depend on the structure of the economy, the fiscal environment as well as political considerations. The weight of each of these sources of revenue may vary over time.

This chapter does not discuss cost sharing, for example, between workers and employers. Rather, the discussion of the financial systems in this chapter takes into consideration a global contribution rate that will be shared later among different groups according to economic and political considerations.

When the government is involved in the financing of social security, it is important that the actuary carefully describes the impact (direct and indirect) of that involvement. In some cases, the contribution of the government to the scheme consists of paying a direct percentage of the covered payroll, to which must be added the contribution of the government as an employer of the civil servants covered by social security. If, in addition, social security reserves are invested in government securities, positive cash flows to the government will result from the fact that annual surpluses of the scheme purchase new government securities. However, negative cash flows will result from the payment of interest by the government to the scheme on the securities held by social security. As part of establishing a financing strategy, the actuary may have to recommend particular action to avoid any excessive future financial burden on the government budget.

³ This section is an extract from *Plamondon et al., Actuarial Practice in Social Security (forthcoming)* (ILO, Geneva)

2.3. Objectives of the financial system

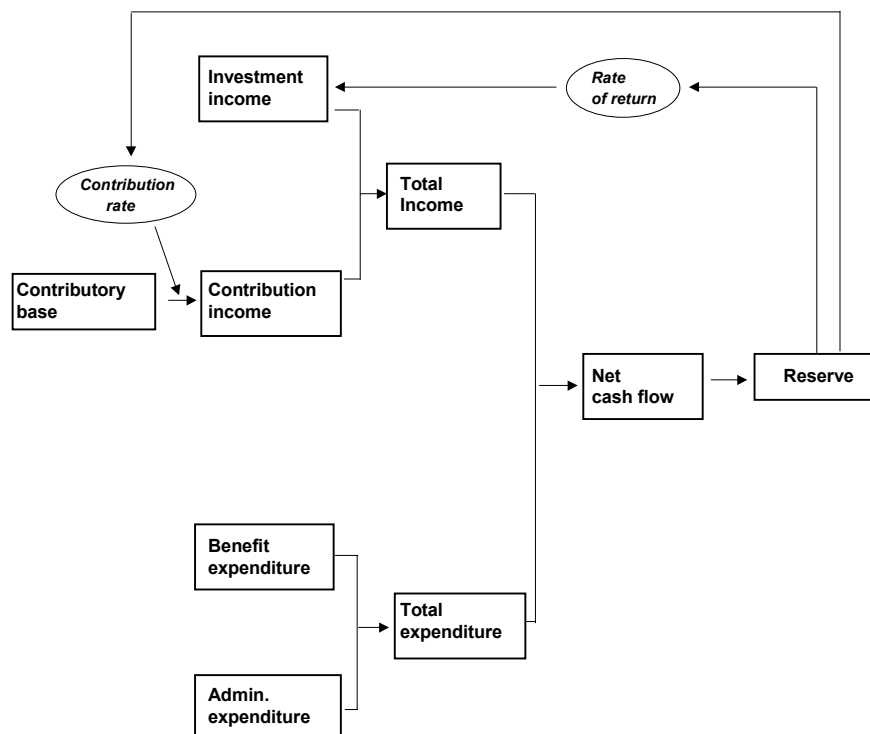
The fundamental objective of the financial system of a pension scheme is to accumulate revenue systematically to provide security for the benefits provided by the scheme and to allocate this income in an orderly and rational manner over time. Under an appropriate financial system, a scheme ensures that financing resources will be available to meet the projected benefits and administrative expenditure. The financial system determines the manner by which contributions will be collected and accumulated over time.

The choice of an appropriate financial system for pension schemes must reflect the long-term nature of the benefits and the desire to reach, in the long run, a stable contribution rate. As a consequence, the financial system will determine the pace and amount of accumulation of reserve funds.

There is sometimes confusion between the contribution rate of a scheme and its cost. The cost of a scheme refers to its level of expenditure, which can be expressed in nominal amounts, as a percentage of earnings or as a percentage of GDP, for example. However, the cost itself is not affected by the choice of a financial system. The cost of a scheme and its contribution rate will only be equal in the particular case of the PAYG financial system, as will be seen later.

In the context of a new scheme, the financing of long-term benefits must take into account the fact that a certain period is required for the build-up of entitlements. An insured person usually needs to contribute to a scheme for a minimal period (usually ranging from ten to 15 years) before the individual is able to draw a pension. The career pattern of insured persons is of particular importance for the financing of pensions.

Figure 2. Reserve accumulation in a public pension scheme



Reserve funds are usually allowed to develop because they are necessary for maintaining a stable contribution rate. The financing method will be directly determined by the funding objective, if any, which can take various forms depending on the expected level and stability of the contribution rate. Figure 2 presents the factors contributing to the accumulation of the reserve, and shows that the level of the contribution rate will affect the reserve accumulation. However, if the financial system is designed so that the reserve level is the fixed parameter (reserve ratio system), then the contribution rate becomes the variable that assures the equilibrium. The figure also reveals that the level and characteristics of the reserve will determine the rate of return and the investment income that it will generate. In some financial systems aiming at higher funding, investment income is a critical element of the equilibrium.

2.4. Types of financial systems

Financial systems for public pensions can ensure actuarial equilibrium in a variety of ways. As already mentioned, public pension schemes are assumed to be indefinitely in operation and there is generally no risk that the sponsor of the scheme will go bankrupt. The actuarial equilibrium is based on the open-group approach, whereby it is assumed that there will be a continuous flow of new entrants into the scheme. The actuary thus has more flexibility in designing the financial system appropriate for a given scheme. The final choice of a financial system will often be made taking into consideration non-actuarial constraints, such as the capacity of the economy to absorb a given level of contribution rate, the capacity of the country to invest productively social security reserves, the cost of other public schemes, etc.

This section presents a comparison of the most common financial systems in application, with a description of systems currently in operation in a selection of countries.

2.4.1. Pay-as-you-go

Under the PAYG method of financing, no funds are, in principle, set aside in advance, and the cost of annual benefits and administrative expenses is fully met from current contributions collected in the same year. Given the pattern of rising annual expenditure in a social insurance pension scheme, the PAYG cost rate is low at the inception of the scheme and increases each year until the scheme is mature. Figure 1 showed the evolution of the PAYG rate for a typical public pension scheme.

Theoretically, when the scheme is mature and the demographic structure of the insured population and pensioners is stable, the PAYG cost rate remains constant indefinitely. Despite the financial system being retained for a given scheme, the ultimate level of the PAYG rate is an element that should be known at the onset of a scheme. It is important for decision-makers to be aware of the ultimate cost of the benefit obligations so that the capacity of workers and employers to finance the scheme in the long term can be estimated.

2.4.2. Full funding

Full funding is not a very common financial system in social security schemes. One example of the application of this system is the actuarial valuation performed periodically for the Kuwait Public Institution for Social Security. Under the financial system adopted for Kuwait, an actuarial balance sheet is established with the following components: the present value of payments to existing pensioners, plus the present value of future pensions and benefits to active insured persons, is compared with the value of the reserve on the valuation date, plus the present value of future contributions on behalf of active insured persons based on the legislated contribution rate. From this equation, an actuarial surplus or deficit emerges. Any deficit is then amortized either by way of an increase in the legislated contribution rate or by a decrease in benefit expenditure. The duration of the amortization period for the deficit (by way of an increase in contributions) normally depends on the nature of the deficit (experience deficit, modifications

to the law, etc.). The actuarial balance sheet defined here follows the principles of the aggregate cost methods used for the valuation of certain private pension schemes.

The Kuwaiti valuation presents the actuarial balance sheet on two bases: the closed-group and the open-group approach. Under the closed-group approach, only those insured persons that are present on the valuation date are considered in the present value of contributions and benefits. Present values are computed over the total expected lifetime of the closed group of contributors and pensioners. Under the open-group approach, present values also consider new cohorts of participants entering the scheme after the valuation date. Deciding on the number of cohorts to consider in the present value calculations is important when using the open-group approach.

Box 1. Actuarial balance sheet of the Kuwait Public Institution for Social Security as of 30 June 1995

Assets (in \$)		Liabilities (in \$)	
Reserve fund	2 356 054	PV of future payments to existing pensioners and survivors	3 762 431
PV of future contributions with respect to active insured persons	1 190 350	PV of future pensions and benefits with respect to active insured persons	7 062 251
PV of contributions from the Treasury	3 396 514		
Actuarial deficit	3 881 764		
Total	10 824 682	Total	10 824 682
Note: PV = present values.			

2.4.3. Partial funding

Between these two opposing financing methods – PAYG and full funding – there is a wide range of partial funding approaches. The system chosen by the actuary depends on a variety of factors, such as the history of the scheme's financing, the state of the scheme's maturity and the capacity of the stakeholders to absorb a given level of contributions.

Classical scaled premium

One system based on partial funding is the scaled premium system, which was initially formulated by Valentin Zelenka (then Chief of Social Security at the ILO) in 1958 and was widely used by the ILO between 1960 and 1980 in the valuation of social security schemes in developing countries. The concept was generalized by Thullen to indicate a system characterized by steadily increasing level contribution rates in successive control periods, with a non-decreasing reserve fund.

According to this system, the contribution rate is established so that, over a determined period of equilibrium, say 15 or 20 years, contribution and investment income will be sufficient to meet benefits and administrative expenses, with the constraint that the reserve does not decrease. This condition allows reserve funds accumulated over previous periods to be sunk into long-term investments.

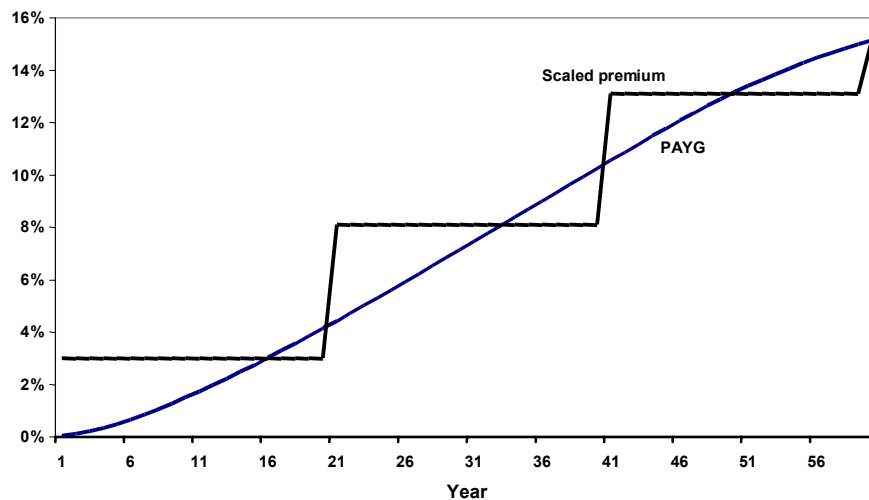
The scaled premium method makes it possible for a new scheme to charge an initial contribution rate lower than under the General Average Premium system (described below), and the level of contribution can be more easily absorbed by workers and employers. Another advantage of the scaled premium is that

it possible to maintain stable contribution rates for relatively long periods of time. For political reasons, adjusting the contribution rate every three years may prove difficult. The scaled premium assures the stability of the contribution rate for an extended period and gives the government time to plan for the next increase.

In practice, the setting of the premium in a way that takes into account the capacity of the economy to absorb available funds has not been successfully applied. Furthermore, the rule for raising the contribution rate for a subsequent period of equilibrium has very often been ignored by governments. So the theoretically satisfying scaled premium system has not really been much of a success.

Figure 3. Contribution rates under the scaled premium system

Reserve ratio system



The financial system may stipulate that, over a given period, the projected reserve should never be lower than a certain reserve ratio. The latter is the ratio of the reserve at the end of a given year divided by the annual expenditure of the scheme for that year. The target reserve ratio should vary according to the degree of maturity of the scheme. In the early years of a pension scheme's existence, the reserve ratio is normally high, since the number of pensioners is very low in comparison with the number of contributors and the contribution rate is more than sufficient to meet the annual expenditure on benefits. On the other hand, when the scheme is mature, the ratio of pensioners to contributors stabilizes and there is no more need to maintain important reserves. The contribution rate then approaches the PAYG cost for the scheme.

The ideal level of reserve ratio is not given by any mathematical formula but it is normally based on the following considerations:

- the level of maturity of the scheme;
- the ultimate PAYG cost of the scheme;
- the expected smoothness of contribution rate increases;
- the timing of actuarial reviews and the subsequent timing of contribution rate increases.

When determining the reserve ratio, the actuary also needs to take into account other considerations. The contribution rate should not exceed the capacity of insured persons, employers and the economy in general to support it. The reserves generated should not exceed the capacity of the country to absorb the investments profitably. Depending on the capacity of the government to amend the law governing social security regularly, it may be desirable that the contribution rate remains stable for sufficiently long periods of time. After considering all these factors, the actuary may recommend a schedule of reserve ratios to be reached at specific points in time. The contribution rates will result directly from the application of the target reserve ratios to the financial projections of the scheme.

The ultimate reserve ratio may be determined at a very low level, such as one or two years of expenditure, just to cover any unexpected economic downturn, which could affect contributions or benefits, and to give the government enough time to adjust the contribution rate. It may also be set in order to obtain a stability of the contribution rate over a long period of time. This was the approach taken by the Canada Pension Plan in 1997, when it was decided to establish the reserve ratio at five times the annual expenditure to be able to maintain a contribution rate under 10 per cent indefinitely, even if the PAYG rate of the scheme is expected to exceed 12 per cent in the long term. Investment earnings are expected to fill the gap.

Usually, this method of determining the contribution rate is applied once a scheme has been in operation for a certain period of time, since fixing a reserve ratio at 40 or 50 times annual expenditure in the early years of a scheme is not justified. What is often the case is that the initial contribution rate was determined some 20 to 30 years earlier and the rate has gone on unrevised because of good reserve accumulations. The reserve ratio system is then adopted so that the ultimate cost of the scheme can be reached in an orderly manner.

Box 2. Application of the reserve ratio system to the Demoland case

The social security scheme of Demoland has been in operation for some 30 years. The present contribution rate is 8.3 per cent and the long-term PAYG cost is projected to stabilize at around 27 per cent after 2040. The current reserve ratio of the scheme is equal to four times the annual expenditure and, if the contribution rate remains unchanged, it is projected that the reserve will be completely exhausted 17 years from now.

In the actuarial valuation of 31 December 1998, it was decided to apply the reserve ratio system, given the following constraints:

- The contribution rate would increase every three years in order to coincide with the timing of periodic actuarial reviews;
- Each contribution rate increase would be approximately of the same magnitude;
- The ultimate reserve ratio would be 2;
- The ultimate reserve ratio would be met 40 years after the valuation date (70 years after the start of the scheme).

According to these constraints, the actuary specifies the reserve ratio objectives as follows. The contribution rate of the pension branch is established such that the reserve ratio of the branch is equal to 4 in 2010, 2.5 in 2030, and 2 after 2040. A recommendation is made for the financing rule to be included in the law governing social security. Figure 4 shows the contribution rates that result from the application of that rule. Reserve ratios resulting from the application of these contribution rates are illustrated in figure 5.

Figure 4. Contribution rates for Demoland (actual versus recommended)

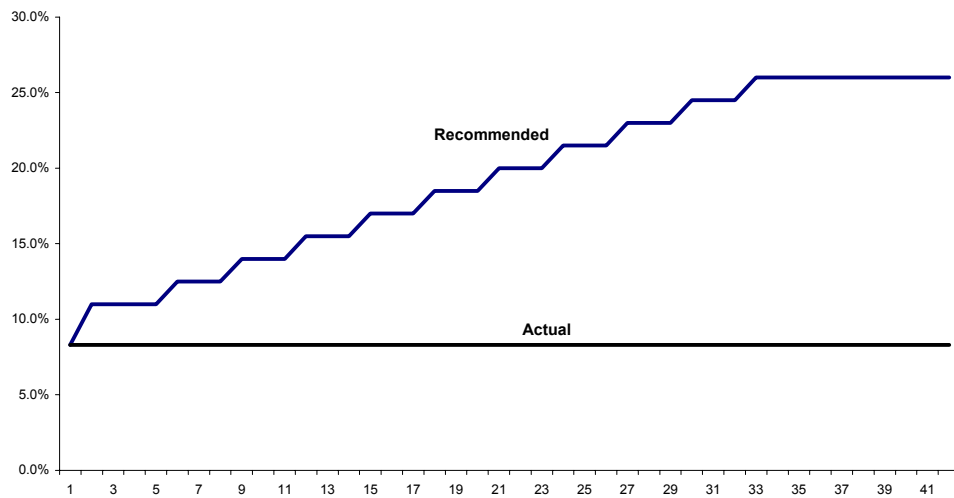
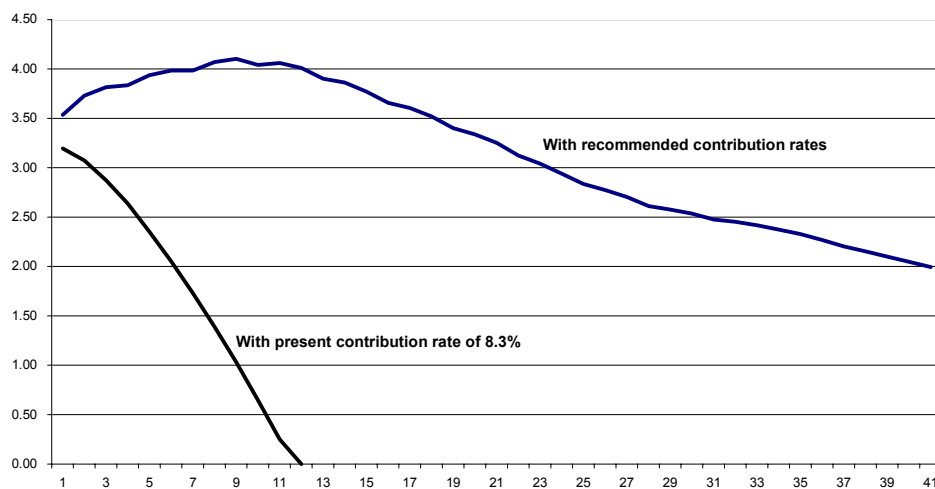


Figure 5. Reserve ratios for Demoland (with actual and new contribution rate schedules)



The General Average Premium (GAP)

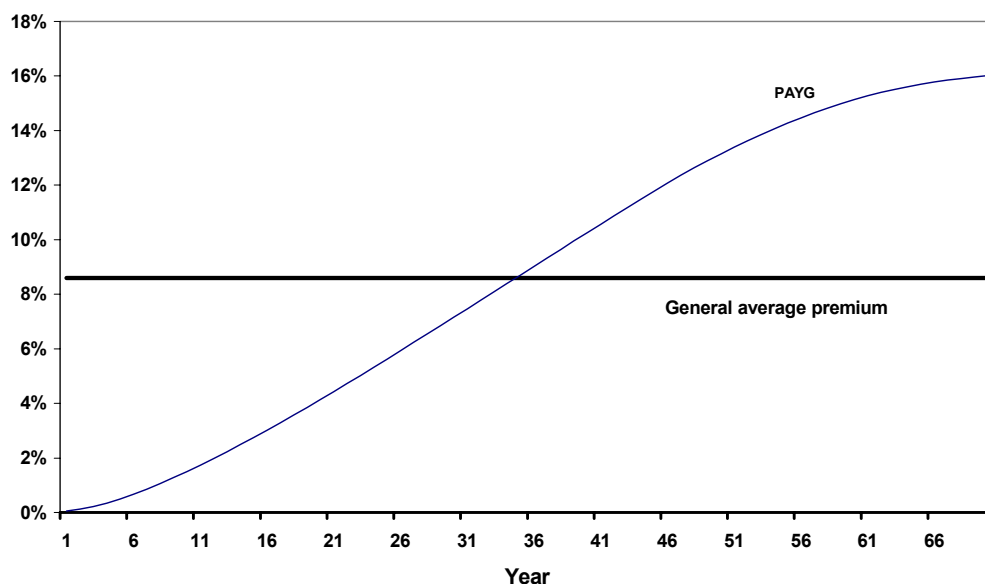
The GAP represents the *constant* contribution rate that would be adequate to meet the disbursements of the scheme over a specified period. It is calculated by (1) equating the present value of projected future benefits and administrative expenses for existing and future insured persons and beneficiaries minus the value of the existing reserve at valuation date to (2) a factor multiplied by the present value of projected future insurable earnings of insured persons (present contributors and new entrants).

$$(PV \text{ of future expenditure}) - (Initial \text{ reserve}) = Factor \times (PV \text{ future insurable earnings})$$

Solving the equation for the “factor” in the right portion of the equation provides the estimated annual contribution rate as a proportion of insured earnings, which would, in theory, be adequate to meet disbursements of the scheme over the determined period. If the length of the period is long enough (between 50 and 75 years depending on the scheme’s maturity), the GAP then represents the constant contribution rate, which could be immediately enforced and maintained unchanged in order to ensure the permanent financing balance of the scheme.

In the early years following the implementation of a pension scheme, the GAP exceeds the PAYG cost rate. Consequently, if the GAP was used in practice, it would mean that the annual revenue of the scheme (contributions plus investment income) during the period just following inception would exceed its annual expenditures. This would lead to the accumulation of a technical reserve. This accumulated reserve would eventually be necessary to meet growing the benefit expenditure of the maturing scheme.

Figure 6. Contribution rate under the GAP system



The GAP is a theoretical financial system rarely used in practice for the financing of public pension schemes. It is, nevertheless, still calculated and presented in the actuarial report. Its key advantage is that it is possible to compare the costs of different benefit packages or alternative assumption scenarios by using a single value instead of a stream of contribution rates varying over time.

For example, if the authorities want to know the consequences of different retirement ages, or of different eligibility criteria, the actuary can easily calculate the GAP for the various options. This allows the authorities to make their decision based on the relative financial weight of alternative solutions.

3. Financing Social Security – Options and Strategies

by Derek Osborne

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Presented at the Caribbean Sub-Regional Tripartite Meeting on Social Security Financing & Investment Policies for Pension Funds (October 24-25, Barbados)

In all Caribbean social security schemes income from contributions and investments currently exceed total expenditure. (In most cases contributions alone cover expenditure.) As the schemes age and the number of pensioners increases faster than the number of contributors, these cash flow surpluses will get smaller and eventually turn to deficits. Unless contribution rates are increased or benefits revised downwards, assets will then have to be sold to meet current expenditure. If reserves eventually deplete, the scheme will enter what is often called a “pay-as-you-go” state where current expenditure will have to be met by current income. This will require higher contribution rates to meet each year’s expenditure.

The following charts show projected reserves and contribution rates of a typical Caribbean social security scheme. While the timing of key events and the contribution rates will vary from country to country, projections of partially funded schemes, as all Caribbean schemes are, produce results like those shown below.

Chart 1. Projected Reserves

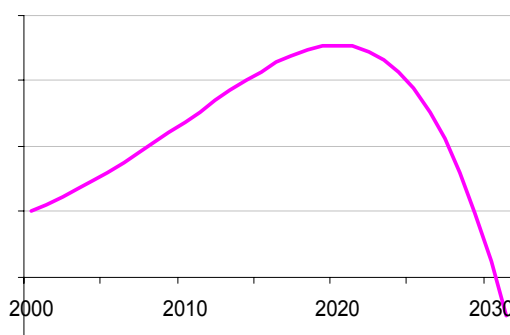
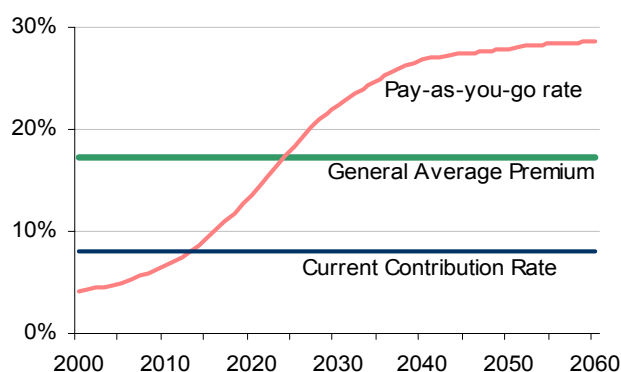


Chart 2. Projected Contribution Rates



In Chart 1, reserves increase for 20 years and then deplete quickly thereafter, a direct result of a maturing scheme that has a contribution rate lower than the average cost of benefits. This is shown in Chart 2, where the current contribution rate is much less than the general average premium, or the average cost of benefits payable for the next 60 years. The pay-as-you-go rate is the contribution rate that will produce income that is just sufficient to meet current expenditure. In this example, current contribution income exceeds current expenditure and so the reserve continues to grow.

Given the projections for reserves and contribution rates as shown above, policy-makers will have to decide how best to prevent either depletion of reserves or excessive contribution rates in the future. Although the crisis may seem far away, the longer governments take to make appropriate changes the more drastic those reforms will have to be.

Improving the long-term sustainability of Caribbean schemes, or extending the life of reserves, can be enhanced in two main ways – increasing income and containing expenditure. The following lists summarise the main ways by which each may be achieved.

Increasing income	Containing expenditure
Contributions: <ol style="list-style-type: none"> 1. Increase the contribution rate 2. Increase the earnings base: <ul style="list-style-type: none"> ➢ Increase coverage ➢ Increase compliance ➢ Increase the ceiling on wages Investment earnings: <ol style="list-style-type: none"> 1. Enforce payment of interest 2. Reduce management costs 3. Review investment policy <ul style="list-style-type: none"> ➢ Longer duration ➢ Investments in equity ➢ Overseas investments 	Benefits: <ol style="list-style-type: none"> 1. Thorough claims administration 2. Stricter eligibility conditions <ul style="list-style-type: none"> ➢ Contribution requirements ➢ Definition of invalidity ➢ For survivors' pensions 3. Change pension formula <ul style="list-style-type: none"> ➢ Review accrual rates ➢ Re-define reference earnings 4. Increase retirement age 5. Review how pensions are indexed Administrative expenses: <ol style="list-style-type: none"> 1. Reducing administrative costs <ul style="list-style-type: none"> ➢ Staff levels ➢ Other operating costs

Increasing income

Contributions represent the major source of funds to finance benefit expenditure and rate increases will be the most direct way of increasing contribution income. Unless benefit eligibility and formulae are revised significantly downwards contribution rate increases are inevitable. The following table shows current contribution rates in CARICOM member social security/national insurance schemes. (Premiums for unemployment benefit and severance payment schemes are not included.)

Table 1. Combined employer & employee contribution rates

Country	Total contribution rate
Barbados	14.25%
Guyana	12.0%
St. Kitts-Nevis	11.0%
Anguilla, Dominica, St. Lucia	10.0%
Grenada	9.0%
Bahamas	8.8%
British Virgin Islands	8.5%
Trinidad & Tobago	8.4%
Antigua, Turks & Caicos Islands	8.0%
Montserrat	7.5%
Belize	7.0%
St. Vincent	6.0%
Jamaica	5.0%

The other ways by which contribution income can be increased to help meet current benefit expenditure are:

- expanding coverage to include self-employed persons and pensionable civil servants in those countries in which they are presently excluded;
- improving compliance, especially by governments who in a few countries owe significant sums;
- increasing the insurable wage ceiling – this should not be done simply to increase income but increases should occur to ensure that insurance coverage remains relevant to higher paid persons.

Unlike contribution rate adjustments, contribution income increases due to each of the three methods mentioned above will result in increased benefit payments in the future.

With significant amounts of reserves on hand, investment income will play a major role in meeting the cost of future benefits. As shown in Chart 2 on the previous page, if there was no fund and no investment income, annual contribution rates would increase steadily reaching highs of 30% or higher in most countries. Therefore, increasing returns on investments is another way of financing future expenditure.

To achieve this, National Insurance and Social Security Funds should secure investments that meet accepted social security objectives (yield, security, liquidity and societal value) and match the nature of liabilities. In practice, these criteria call for long-term investments and adequate portfolio diversification. Target long-term rates of return should be in the range of 3% to 4% above inflation. How funds are managed and the stringent limitations often placed on investments also affect the overall performance of invested assets. The level of government's involvement in the investment process could also hinder rates of return, as investments directed by governments may not be in the best interest of the Fund. In countries where governments have been late or delinquent in paying rent, interest and face amounts of maturing bonds, improvements in this regard will enhance the scheme's long-term sustainability.

Containing expenditure

The payment of benefits is guided by regulations that set out who qualifies and how much they are entitled to. Therefore, other than ensuring that these regulations are applied properly so that the right benefit is paid to the right person for the right period, schemes by themselves have little control over benefit costs. Revising benefit provisions is thus the main way of significantly containing benefit expenditure.

Social security schemes were instituted to award benefits to persons at different times in their life when there is a presumed need, for example, sickness, maternity, retirement, invalidity or death of a breadwinner. Therefore, reducing benefit promises should not be made arbitrarily but should be consistent with socio-economic conditions and established objectives of each benefit.

Compared to social security schemes in the US and Canada, benefit provisions in the region are generous. The key provisions that result in relatively costly pensions are:

- a lifetime pension is payable after contributing for a relatively short time – 10 years in most but as low as 3 years in The Bahamas and as high as 15 years in Guyana and Trinidad & Tobago;
- a maximum pension in most schemes of 60% of highest average insurable wages, 70% in Dominica;
- the period over which best wages are averaged for pensions is short – 3 years in most schemes, now 5 in St. Lucia;

- benefits are heavily weighted to those with short service – e.g. 30% of average insurable wages after 10 years of contributions, plus 1% per year of contributions thereafter, gives those with short service higher pensions per year of contributions;
- higher paid persons often receive pensions that reflect greater returns on their contributions than lower paid persons (this occurs because ceiling increases have been infrequent and large resulting in higher paid persons, who retire shortly thereafter, having their pensions based on higher wages than what they were paying on prior to the ceiling adjustment;
- retirement ages have not changed while people are healthier, living longer and working to older ages;
- the payment of non-contributory pensions from National Insurance/Social Security funds;
- pension increases are not legislated and so actual adjustments either overstate or understate the effects of inflation.

In most countries there is a need to review benefit provisions for reasons other than to reduce long-term costs. Changes should relate to how benefits accrue over one's career and the wages used so that pensions bear a closer relationship with lifetime earnings.

Another way of containing expenditure is controlling increases in administrative costs, which for most Caribbean schemes consume a significant portion of contribution income. While most schemes are overstaffed they are also often under-skilled, do not have efficient procedures and systems, and do not make maximum use of available technology. (Staff costs often make up 55% or more of administrative expenditure.) The following table shows administrative costs relative to contribution income and contributions plus benefits. It also shows staff complement and compares this to the country's total population.

Table 2. Comparison of administrative expenditure ratios & staff complements

Country	Population	Staff size	Staff per 1,000 population	1999 admin exp as % of cont. inc.	1999 admin exp as % of cont. inc. + benefits
Bahamas	305,000	470	1.54	21.2%	11.8%
Barbados	269,000	232	0.86	5.7%	3.1%
Dominica	71,000	64*	0.90	20.3%	13.0%
Grenada	100,000	67	0.67	13.5%	9.7%
Guyana	750,000	520	0.69	14.4%	8.9%
St. Kitts-Nevis	41,000	86	2.15	20.0%	14.6%
St. Lucia	150,000	64	0.56	12.7%	8.7%

* Dominica Social Security is presently undergoing a staff reduction exercise through a Voluntary Separation Plan. It is anticipated that 23 workers (out of 73 prior to the offer being offered) will be separated.

To improve the long-term financing of Caribbean social security schemes all potential sources of income and expenditure items should be looked at. As expected, the most effective ones will be the most difficult to implement – increasing the contribution rate or reducing benefit promises. If future benefits are to be financed in a predictable and acceptable manner, without excessive burdens being placed on future generations, changes to both sides of the cash-flow spectrum will be required.

October 16, 2001

4. The Caisse de dépôt et placement du Québec (CDP Capital)

by Pierre Plamondon,
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CDP Capital manages the largest portfolio of Canadian stocks, is the major holder of Quebec public sector bonds and has the largest real estate portfolio in Canada. CDP is also Canada's leading private equity and venture capital investor.

CDP seeks to preserve capital under management and to obtain an optimal return on its investments while contributing to the vitality of the economy wherever it invests.

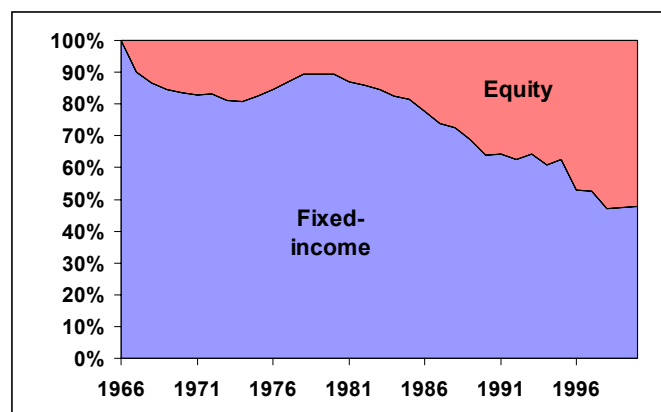
The institution is active on five continents. As the largest Canadian investor in foreign markets, CDP Capital has become a major financial partner in many investment funds worldwide. The total assets under management of CDP Capital is 125 billion CAD at the end of 2000, of which 113 billion CAD represent assets of its depositors, and 12 billion CAD are assets managed by CDP subsidiaries on behalf of clients-owners.

1. History

The Caisse de dépôt et placement du Québec was created in 1965 in order to receive and invest excess reserves of the Quebec Pension Plan. It was seen at that time by the Quebec government as a guaranteed market for Quebec bonds and an opportunity to gain or keep under Quebecers' control some important enterprises in Quebec. This was the main reason for the creation of the Quebec Pension Plan (distinct from the Canada Pension Plan) and for the creation of an institution responsible for the management of the assets of that public pension plan and of the assets of other Quebec public bodies.

The investments of the Caisse gradually moved from 100% investments in fixed-income investments to a diversified portfolio with a growing proportion in equity investments (see Figure 1). Between 1966 and 1998, the Caisse could not invest more than 30% in shares. That percentage was increased to 70% in 1998.

Figure 1. Evolution of equity and fixed-income investments in the Caisse's portfolio, 1966-2000



2. The corporate structure

The Caisse de dépôt is a public body that owns the usual powers of a corporation. By law, public pension plans in Quebec must deposit their assets with the Caisse.

The Caisse is under the supervision of a Board of Directors composed of 13 members:

- the CEO of the Caisse, Chairman of the Board;
- the CEO of the Régie des rentes du Québec, Vice-chairman of the Board (depositor);
- the president of the commission administering the public service pension plans (depositor);
- the CEO of the public automobile insurance plan (depositor);
- the president of the CSN (labour union);
- the president of the FTQ (labour union);
- the president of the main cooperative movement in Quebec (Desjardins);
- 3 representatives of the business community;
- 3 representatives of the government (associate members with no voting right).

CDP's three major categories of activity are portfolio management, negotiated investments and real estate investments.

CDP Global Asset management is responsible for managing specialized portfolios of fixed-income securities and currencies, stocks and tactical investments. It is the largest portfolio of CDP Capital (82 billion CAD under management).

The other activities of the Caisse are handled by subsidiaries of the Caisse divided into two groups: CDP Private Equity (negotiated direct participation in enterprises) and CDP Real Estate (negotiated direct real estate and mortgage investments). CDP Private equity offers a broad range of financial vehicles and various types of support to small, mid-sized and large businesses in all industries. CDP Real Estate manages diversified real estate portfolios, conventional and innovative mortgage financing, at the local, national and international levels.

3. The depositors

CDP Capital manages the assets of various public pension and insurance plans in Quebec. Following is a list of the depositors.

Pension plans

The retirement plan of Québec government and public sector employees (RREGOP) is CDP's largest depositor; contributions are made by unionized employees as well as by permanent and casual staff in the public and parapublic sectors. Contributions made by management level staff go into a plan called PPM. Both plans are administered by the *Commission administrative des régimes de retraite et d'assurances* (CARRA).

The *Fonds du Régime de rentes du Québec* (RRQ) is the second-largest depositor. This fund, administered by the Régie des rentes du Québec, provides income security for Quebecers, including benefits paid to pensioners.

The *Régime supplémentaire de rentes pour les employés de l'industrie de la construction du Québec* (CCQ) oversees the application of collective agreements in the Québec construction industry, as well as laws and regulations governing worker placement, hiring and mobility. It also administers accounts of supplemental social benefit plans.

The *Fonds d'amortissement des régimes de retraite gouvernementaux* (FARRG) was established to generate the funds required for the Québec government to make its contributions, as an employer, to various pension plans.

The *Régime complémentaire de rentes des techniciens ambulanciers oeuvrant au Québec* (RRTAQ) is a pension plan for ambulance workers.

CARRA administers the *Régime de retraite des élus municipaux*, for elected municipal officials in Québec, as well as nine other pension plans for contributors affiliated with the federal government, various Crown corporations, municipalities, hospitals and the like.

Insurance plans

The *Commission de la santé et de la sécurité du travail* (CSST) primarily compensates workers who are victims of industrial accidents and facilitates their rehabilitation.

The *Société de l'assurance automobile du Québec* (SAAQ) is responsible for reducing risks associated with road use; it oversees road transportation and controls access to the highway system, promotes safety and compensates victims of traffic accidents.

The *Régie de l'assurance-dépôts du Québec* governs the solicitation and reception of deposits from the public, guarantees the deposit of payments and manages the deposit-insurance fund.

The *Régie des assurances agricoles du Québec* contributes to the prosperity of Québec's agricultural sector by protecting income against natural or market-generated risks.

The *Fonds d'assurance-prêts agricoles et forestiers du Québec* (FAPAF) guarantees repayment of loans granted under laws governed by the Société de financement agricole.

The *Fonds d'assurance-garantie*, administered by the *Régie des marchés agricoles et alimentaires du Québec* (RAAMQ), is an economic regulatory body. Its main role is to optimize the marketing of agricultural, food and fish products.

The *Fédération des producteurs de bovins du Québec* is an agricultural association dedicated to the study of problems associated with cattle production and marketing.

The *Régime de rentes de survivants* pays a monthly pension to the spouse and children of any person eligible under the plan; it covers management personnel in the public and parapublic sectors.

Other depositors

The *Office de la protection du consommateur* (OPC) manages the *Fonds des cautionnements des agents de voyage* and the fund of *Protégez-Vous* magazine, which publishes the OPC's test results.

The *Centre de recherche industrielle du Québec* (CRIQ) acts as a partner in the commercial, industrial and public sectors to stimulate Québec's economic development.

The *Société des alcools du Québec* (SAQ) is responsible for the sale of alcoholic beverages in Québec.

The *Commission des valeurs mobilières du Québec* (CVMQ) oversees the securities market.

Table 1. CDP Capital depositors and assets at the end of 2000

Depositors	Depositors' holding (Canadian \$)	% of total
Quebec pension plan	18 599	21.1%
Construction Commission of Quebec	8 084	9.1%
Gvt employees' pension plans (CARRA)	43 887	49.7%
Workers' compensation plan	9 183	10.4%
Public automobile insurance plan	7 663	8.7%
Others	847	1.0%
Total	88 263	100.0%

Each depositor owns units in the Caisse's assets, like the investors in a mutual fund. The units may be redeemed at any time at their current value.

CDP Capital establishes with each depositor an investment policy suited to its particular needs and objectives in terms of risk and expected return. The investment policy is revised at regular intervals and adapted when necessary.

4. The asset mix

On 31 December 2000, 36.6% of the total portfolio was invested in bonds, 45.8% in shares, 6.5% in real estate, 2.2% in mortgages, 6.1% in Quebec international bonds and 2.8% in short-term securities. The nature, quality and diversification of the funds managed by the Caisse are specified in the law.

Bonds

CDP may acquire and own without restriction bonds issued and guaranteed by the Quebec government, the government of another Canadian province or by the federal government. This right extends to bonds issued by public bodies offering rated public services (e.g. Hydro-Quebec).

Mortgages

CDP may acquire and own without restriction mortgages guaranteed by the Quebec or Canada governments. For any other mortgage, the value of the loan may not exceed 75 per cent of the value of the asset backing the mortgage. No single mortgage may have a value exceeding 1 per cent of the total assets of the Caisse.

Real estate

CDP may acquire and own real estate. No single real estate investment may exceed 1 per cent of the total assets of the Caisse. In addition, the total investments outside the territory of the North American Free Trade Agreement may not exceed 5 per cent of the total assets of the Caisse.

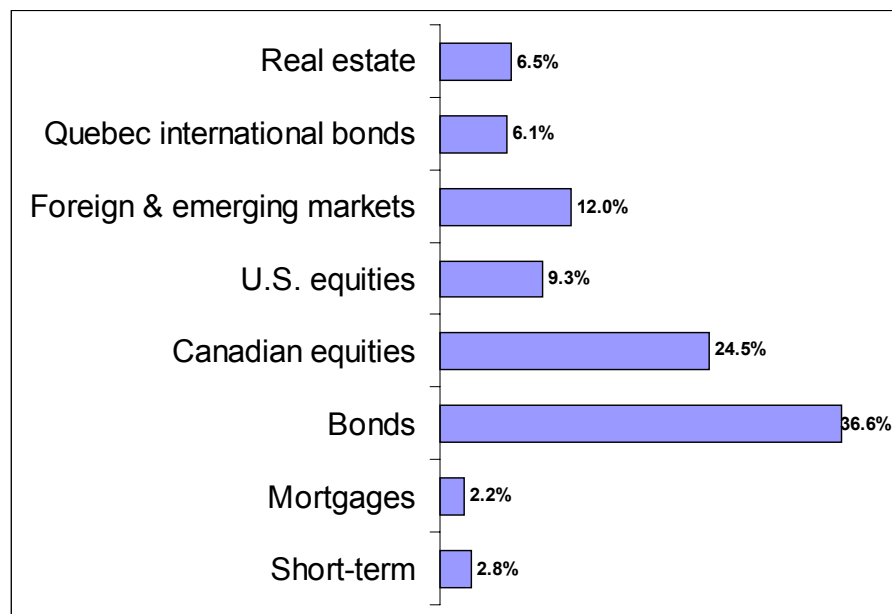
Stocks, indexed funds and private placement

CDP may acquire and own ordinary and preferred shares. This right extends to units of indexed funds. However, CDP may not own more than 30 per cent of the ordinary shares of a corporation. CDP may not invest more than 5 per cent of its total assets in shares and creditor's rights in a single corporation. Finally, CDP may not invest more than 70 per cent of its total assets in shares or in units of indexed funds.

Other investments

CDP also has the power to trade derivatives. It may go into any other type of investment, as long as the total of these other investments do not exceed 10 per cent of the total assets of the Caisse.

Figure 2. CDP capital asset mix on 31 December 2000



5. The return

The historical rates of return of the Caisse are presented in Table 2. Over the last 10 years, the average rate of return has been 11.7%. During the same period, the inflation rate averaged 2% in Canada, thus resulting in a substantial real rate of return. The total return in 2000 was positive (6.2%), despite a negative return on the equity portfolio.

Table 2. Historical rate of return of CDP capital by type of investment

Type of investment	2000	1996-2000 (5 years)	1991-2000 (10 years)
Short-term securities	5.8	5.1	6.1
Mortgages	12.3	7.5	9.2
Bonds	10.2	8.5	10.8
Canadian equities	12.5	18.7	14.6
U.S. equities	(4.8)	17.7	-
Foreign and emerging markets equities	(8.6)	12.3	11.1
Quebec international bonds	(5.5)	-	-
Real estate	18.3	15.0	4.0
Total	6.2	12.2	11.7

5. Investing Social Security Surpluses in the English-speaking Caribbean

by Frank Alleyne,
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Technical Advisor to the International Social Security Association
with responsibility for the English-speaking Caribbean

Introduction

Social security systems in the English-speaking Caribbean are structured along the lines of ‘scaled-premium’, partially funded defined benefit models. The model assumes that successive generations of contributors will generate the resources required to pay benefits promised by the social security administration to the current generation of retirees. The financial and other challenges encountered by governments that have opted for partially funded systems are well documented by Gillion.¹ In a critique of funded and ‘pay-as-you-go’ (PAYG) defined benefit schemes Gillion concluded that the critical issue that determines the viability of PAYG schemes is governance. In practice PAYG systems have been impaired by over-promising of benefits, and a general reluctance to implement timely adjustments to eligibility criteria, the scale of benefits and contribution rates. Because contribution revenue exceeds benefits expenditure in the early life of PAYG schemes they generate surpluses in their early life until they attain maturity when maximum benefits are payable and revenue inflows equal benefit outflows.

Effective management of the Investment of social security surpluses is one of the key factors that can determine the viability of ‘PAYG’ schemes in a post-equilibrium era. In this regard the current seminar dealing with investment management practices in the English-speaking Caribbean is timely. Caribbean social security schemes face similar constraints with respect to the investment of social security surpluses. Options for investment of surpluses in the domestic financial and capital markets are extremely limited because of the small size of the respective economies. In addition to the limitations imposed through the existence of micro economies, several large businesses finance their expansions by contracting debt rather than equity financing. Foreign businesses do not acquire additional finance for expansion by way of issuing new equities. The financing practices pursued by the corporate sector reduce the scope for investment in domestic equities and by a process of elimination government debt has become almost the sole avenue for domestic investment of social security surpluses. Particular problems associated with social security investment in government debt issues pertain to low yields, and the requirement by government (in reality it is an order) to roll over short-term investments. Schemes confronted with this situation are forced to lend long-term at short-term rates of interest. Another important issue pertains to the high level of vulnerability to which a scheme can be exposed by concentrating its investments in a small domestic economy or even the small CARICOM region.

These constraints which are rooted in the structure of the region’s economies, throw into sharp focus the necessity for determining an appropriate mix of foreign, regional and domestic investment of social security surpluses to provide an acceptable level of security, liquidity and yield. At the level of domestic and regional investments, scheme managers may wish to consider the desirability of adopting a proactive strategy of investment as opposed to the current passive approach which allocates the majority of surpluses into government paper. A proactive strategy of investment targets the key tradable goods sectors and injects investment funds into those areas. This strategy by focusing on channeling new

¹ Gillion Colin, ‘The Development and Reform of Social Security Pensions: The Approach of the International Labour Office. *International Social Security Review*, Vol. 53, 1/2000.

investment into the high linkage sectors propels other less robust sectors to higher levels of economic activity. The transmission process will generate higher levels of productive employment, income, savings, social security contributions, and productivity. There are definite advantages of a proactive strategy over the current passive approach. Firstly, management of the social security scheme exerts direct influence on the determinants of its contribution base. Secondly, a wider set of investment options is available for investment of social security surpluses. Finally, the current pattern of commercial bank loans with highest priority to distribution that does little to generate sustainable employment is circumvented.

Historically, investment of social security surpluses in the Caribbean has been viewed as an important reservoir of financial resources available for financing national development. The objective of providing for retirement income has not always been accorded the highest priority. This perception by the State is undergoing review as Schemes approach maturity. At the world level more attention has been focused on the efficient management of social security surpluses during the last three decades.² Increasingly questions are being raised about the ability of Schemes to meet their promises to the growing population of retired persons. Demographic projections that forecast substantial increases in the percentage of the elderly in Caribbean populations by the year 2025, intensify pressures on governments to permit effective management of social security surpluses in order to serve the purposes for which the Schemes were established.³

Principles of social security investment

Commencing in the early 1980's with the Chilean experiment of privatization there has been a marked increase in public discourse pertaining to the merits and demerits of private and public sector management of social security pension funds. The seminal World Bank study 'Averting the Old-Age Crisis' has fueled the debate pertaining to the investment of social security surpluses in the Caribbean. In 1999 the International Social Security Association (ISSA) conducted a study of investment management in the English-speaking Caribbean. This paper draws on the data collected by the ISSA study.

Four basic principles should guide the investment of social security surpluses with respect to defined benefit schemes that are managed by the State or parastatal bodies.⁴

- Safety.
- Liquidity.
- Yield.
- Economic and social utility.

All of the above principles are not necessarily relevant to defined contribution and privately managed schemes.

² Castro-Gutiérrez, Alvaro. 'Investment Strategies and Quality Fund Management'. Meeting of Directors of ISSA member organizations in the English-speaking Caribbean. Providenciales, Turks & Caicos, November 29 – 1 December 1999. Regional Training Course on Investment Management. Caribbean Social Security Organizations, Barbados, 1999.

³ Bos, Edward. Vu, M. T. Levin, A. Bulatao, A. R. 'World Population Projections 1992-1993 Edition, Estimates and Projections with Related Demographic Statistics'. John Hopkins University Press.

⁴ ISSA/ILO. 'Social Security Financing'; Module 4: Investment of Social Security Funds; Training Manual No. 3; Geneva, ILO, 1997.

Safety

Pensions are concerned with providing a certain minimum quality of life in the future. Arising out of this objective is the need to allocate investment surpluses in a manner that protects the real value of the investment over time and attempts to enhance it. Schemes that fail to achieve this objective face certain solvency problems in the future. The emphasis is placed on real values.

Liquidity

In order to generate public confidence Schemes must be able to pay benefits promptly to persons who qualify. Satisfying the primary goal for which Social Security Schemes are established requires that the investment portfolio should be so organized as to achieve a balance between four financial instruments.

- Cash.
- Short-term instruments (Treasury Bills, Call Money).
- Medium term – Treasury Notes, Commercial Fixed deposits.
- Long term – Bonds, real estate.

Yield

A rate of return on investment that exceeds the current rate of inflation is essential to the future viability of a Scheme. Schemes that are successful in achieving real rates of return that are substantially in excess of the inflation rate will be afforded the pain of increasing the cost of social security to the public. Efficient management of policy and strategy by reducing pressures for rate increases reduce the incidence of non-compliance, and by keeping payroll costs to employers relatively low they contribute to creation of a climate that is conducive to investment, employment and expansion of the contributions base.

Economic and social utility

Social security surpluses constitute the single largest pool of investment funds in the vast majority of Caribbean countries. The allocation of these resources possesses the potential to make a fundamental difference to the performance of national economies. A passive investment strategy that fails to consciously influence the direction of the economy will produce inferior results to a carefully crafted proactive strategy that targets the key growth generating sectors to the economy. Because of the significance of the pool of social security reserves there needs to be a coherent national policy framework that coordinates strategy pertaining to investment of social security surpluses and strategy pertaining to national economic policy and strategy. This is not to suggest that the goals that inform the establishment of social security should take second place to national priorities, but rather is an explicit recognition that coordination has the potential to advance both interests.

A key tool in the kit of economists is optimization analysis. This method of reasoning views the future as an array of infinite possibilities. With respect to investment management of social security surpluses it is essential that the management process attempt to optimize yields in an environment that is constrained by the principles outlined above.

Instruments available for investment

Table 15 presents information pertaining to the main types of investment available to social security institutions in the Caribbean.

- Fixed income securities.
- Ordinary shares.
- Real estate.
- Government bonds.
- Corporate bonds.
- Fixed term deposits.

Most Caribbean social security schemes are confined to hold domestic instruments. The British Virgin Islands and the Turks and Caicos Schemes are exceptions to the rule. These two Schemes hold the major portion of their investments in developed money and capital markets. The current pattern of investment satisfies the demand for cheap money by the public sector, but the down side to the equation is an imposition of excessive risks on Schemes. These risks include investment risks (ability of governments to redeem their indebtedness to Schemes, and income risks (lower yields compared with available options in external markets). In essence the existing pattern of investments in some countries constitutes a partial abandonment of the primary purpose for which the social security schemes were established. Easy access to social security surpluses can discourage fiscal discipline by the State and deprive capital markets (local and regional) of a much needed demand stimulus.

Constraints on the investment decision

The main constraints on the investment of social security surpluses are presented in Table 14. A chronic shortage of appropriate instruments at the domestic and regional levels was identified as the principal constraining factors. The single most important strategy for alleviating this bottleneck is relaxation of regulations that govern investments abroad. This solution reduces investment risks and could generate a substantial increase in yields. While diversification reduces investment risks it introduces foreign exchange risks and this raises the need to strike the optimum balance between investing to enhance the productive capacity of regional economies and pursuing a strategy of diversified investment abroad. Diversification of foreign investment should be guided by a strategy that attempts to achieve optimum yields in multiple markets and currencies.

Recommended best practices

Investment guidelines

An absence of clear guidelines is one of the factors impeding the efficient management of the investment process. In order to correct this deficiency the Ministry responsible for social security should in consultation with the management of social security establish clear investment guidelines bearing in mind the need for safety, liquidity, and optimization of yields. Benchmarks could be provided that indicate what portion of surpluses may be invested in short-term, medium and long term instruments. It would be helpful to state what portion of the portfolio could be held in foreign investments.

Investment Committee

In the vast majority of cases the Investment Committee is central to the decision making process (see Table 10). It is absolutely essential that the Committee be provided with the required technical expertise to evaluate investment options, and submit analyses and recommendations to the Investment Committee. The Chief Investment Analyst should be an ex officio member of the Committee. It is desirable that the

Ministry responsible for Finance and Planning should be represented on the Monitoring and Evaluation Committee.

Networking with Government institutions

Social security reserves constitute the single largest source of funds in several Caribbean countries. The investment of social security funds has the potential to make a significant impact on the society and economy. It is interesting to note that several responses to the ISSA survey indicated that there was no formal arrangement established for networking with other departments of government dealing with national planning (see Table 3). In order to correct this anomaly a representative of the Schemes management, preferably the Executive Director/Manager should be invited to serve on the National Planning and Priorities Committee, or its equivalent.

Enhancing the effectiveness of the Investment Committee

The principle of tripartite representation on the Investment Committee does not necessarily improve its decision-making. The quality of decision-making depends on the technical competence and professionalism of those hired to provide advice. Employers and workers' organizations should be given the option of nominating a representative to the Committee who possesses the technical skills required to analyze an investment decision.

Monitoring and evaluation

No specific arrangements are established for monitoring and evaluation of the investment portfolio. This situation needs to be addressed in order to enhance the strategic planning and implementation of policy. Periodic reviews of performance in relation to targets need to be done, and where necessary adjustments implemented. The monitoring and evaluation function should be the responsibility of the Investment Analyst or the unit responsible for advising on investments. The Unit should be required to submit monthly reports to the Committee through the Executive Director/Manager of the Social Security department.

Appendix

Table 1. Final authority of the investment decision

Country	Final authority on investment	Role of Minister of Finance
Anguilla	Social Security Board – Local Minister- Foreign	Minister may or may not have the social security portfolio. He appoints the Board and Investment Committee and is only involved when foreign investment is being considered.
Dominica	Board of Directors	None. However the Minister of Health and Social Security may seek advice from the Minister of Finance on any matter relating to investment referred for sanctioning.
Barbados	Minister of Finance	Determines the manner and securities in which any money forming part of the National Insurance Fund is invested.
Bahamas	Board of Directors in respect of investments permitted by the Third Schedule of the Act, otherwise the Board of Directors and the Minister pursuant to Section 41(6) of the Act.	Consulted by the Minister responsible for National Insurance prior to his directing certain investments be made outside of the Third Schedule.
Belize	The Board of Directors	To appoint the members of the Investment Committee.
BVI	Board of Directors	The Minister is consulted, but the institution is not bound to abide by his decision.
Grenada	Board of Directors	Recommends the Chairman of the Investment Committee.
Guyana	Board of Directors or Senior Minister of Finance	To set policy guidelines and framework.
Jamaica	Financial Secretary	
St. Kitts	The Minister	The Minister nominates a person to sit on the Investment Committee.
St. Lucia	Board of Directors	The Minister does not play a role as Finance Minister per se but in the capacity of Minister responsible for National Insurance. The Minister may give general direction to the Board.
Trinidad & Tobago	Board of Directors	May from time to time by Order amend the securities set out in the First Schedule of the Act
St. Vincent & Grenadines	Board of Directors	

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association 6, 1999.

Table 2. Investment guidelines

Antigua	Not specific
Barbados	Detailed and specific enough to provide effective guidance to the Investment Committee and the Board.
BVI	The Ordinance does not provide specific guidelines, but the Board has established an Investment Policy statement that provides specific guidelines for the effective investment of each section of the fund.
Jamaica	Not applicable
St. Lucia	The legal provisions are not specific enough to provide effective investment guidelines.
St. Vincent & Grenadines	Section 13(6) of the Act states that the 'Investment Committee shall consider and make recommendations to the Board on the investment of monies in the fund surplus to current needs and the Director shall give the Investment Committee any information necessary for the proper discharging of its function'. The provisions are open-ended and non-specific.
Turks & Caicos	Specific guidelines are set out to guide the mix of social security investments.
St. Kitts-Nevis	Specific but not comprehensive.
Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.	

Table 3. National development planning and social security investment

Antigua	No link exists
Barbados	There is no formal relationship between the national development plan and the Fund's investment plans. There are established channels of communication to ensure that the Fund's strategy is supportive of national development planning.
B.V.I.	
Jamaica	No formal linkage exists.
St. Lucia	There is no formal relationship between the national development plan and the Fund's investment plans. There are established links of communication to ensure that the organisation's investment strategy does not conflict with that pursued by government. The Act requires that the Chairman of the Investment Committee be an official of government.
St. Vincent & Grenadines	No formal linkage exists
Turks & Caicos	*
St. Kitts-Nevis	Ministry of Finance and Planning consults with the Board
*Denotes not available.	
Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.	

Table 4. Participation of representatives of workers and employers in investment decisions

Antigua & Barbuda	No
Barbados	No specific provision exists. The Investment Committee includes a representative of each interest group.
B.V.I.	No provision exists, however there are representatives of workers and employers on the Board to which the Investment Committee reports.
Jamaica	Workers and employers are represented on the Board which sets guidelines for investment of social security funds.
St. Lucia	The First Schedule to the Act mandates that two representatives of each group must be members of the Board
St. Vincent & the Grenadines	No specific provision exists, but representatives of workers and employers sit on the Board and may be selected to serve on the Investment Committee.
St. Kitts-Nevis	Representatives of workers and employers sit on the Investment Committee and participate in decision making.
Turks & Caicos	No specific provision exists.

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 5. Rules and regulations regarding the evaluation of investment operations and performance

Antigua & Barbuda	No specific rules and regulations exist. The market is investigated for best opportunities.
Barbados	The investment operations and performance are evaluated in accordance with the investment guidelines outlined in the Board's investment strategy.
B.V.I.	The evaluation of investment operations and performance is governed by the Board's Investment Policy Statement. The independent managers and each individual asset class is measured by a set of benchmarks developed in the US market.
Jamaica	The rules and regulations give priority attention to minimizing risks, specifying a rate of return, protecting cash flow, and identification of main sectors for investment of funds.
St. Lucia	There are no rules and regulations within the Act regarding the evaluating of investment operations and performance.
St. Vincent & the Grenadines	Guidelines which have been developed by the Eastern Caribbean Central Bank are used by the Investment Committee.
St. Kitts-Nevis	There are no specific rules and regulations regarding the evaluation of investments. A set of guidelines is being considered which propose a 2% real rate of return on investments.
Turks & Caicos	No comprehensive regulations exist, but policy dictates that the investment return should be 2% above the long-term inflation rate.

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 6. Fundamental criteria for investments

Antigua & Barbuda	To maintain a positive real rate of return.
Barbados	To maximize returns while avoiding speculative investments and paying due regard to liquidity requirements; to pursue investments which generate social and economic benefits; to minimize investment portfolio risk through diversification of investments.
B.V.I.	Investments shall be diversified so as to minimize risk and maximize the rate of return.
Jamaica	Preservation of capital; economic impacts; rate of return.
St. Lucia	To achieve a real rate of return.
St. Kitts-Nevis	Protection of capital; attainment of a real rate of return.
St. Vincent & Grenadines	To achieve optimum yields without compromising safety, and with due regard for liquidity.
Turks & Caicos	Maximizing returns while pay due regard to safety.

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 7. Target rate of return specified

Antigua & Barbuda	An average rate of 7% on the overall portfolio.
Barbados	A minimum real rate of 3%.
B.V.I.	The minimum real rate of return is 4% for the overall fund.
Jamaica	The yield on investments is related to the class of asset. For example, money market instruments and bonds, the yield is the current market rate; real estate investments – 10% per annum; equities – a minimum of 15% per annum.
St. Lucia	The Sixth Actuarial Review established a minimum rate of 5.67% on new investments or not less than the inflation rate.
St. Kitts-Nevis	2% real rate of return
St. Vincent & Grenadines	A rate adequate to meet the current and future needs of the Scheme.
Turks & Caicos	2% above the long-term rate of inflation

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 8. Investment decisions and the requirement of social and economic utility

Antigua & Barbuda	If it does not conflict with attainment of the specified rate of return.
Barbados	All investments must satisfy the requirement of social and economic utility in keeping with the objectives of the Investment Strategy of the National Insurance Board that states "to pursue investments which generate economic and social benefits".
B.V.I.	Investment guidelines make not explicit reference to social and economic utility considerations.
Jamaica	Economic and social concerns are major factors in the investment decision.
St. Lucia	Social investments account for a maximum of 10% of the Fund's portfolio.
St. Kitts-Nevis	Social and economic factors are important considerations in the investment decision, bearing in mind the minimum target rate of return to be achieved.
St. Vincent & Grenadines	Social and economic factors are major considerations in the investment decision. Social security is one of the single largest stock of funds in the domestic economy and the allocation of these funds will influence the direction of development in the economy.
Turks & Caicos	Provision is made for allocating a maximum of 10% of investments in socially desirable projects.

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 9. Investment decisions and diversification considerations

Antigua & Barbuda	The Board is aware of diversification as a major concern, but in reality it is not a major consideration.
Barbados	Yes
B.V.I.	Diversification is an implicit concern in the investment decision.
Jamaica	Diversification is fundamental to the Board's investment decisions.
St. Lucia	Diversification is fundamental to the Board's investment decisions.
St. Kitts-Nevis	Portfolio diversification is a major consideration of the Investment Committee.
St. Vincent & Grenadines	Diversification is a fundamental consideration to developing a portfolio that satisfies the guidelines established by the Board.
Turks & Caicos	Yes. Overseas fund managers perform a vital role in managing investments that are distributed between US government securities, equities, corporate securities and mutual funds.

Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 10. Formulation and review of the policy on investments

Antigua & Barbuda	Two Board members, secretary and one other skilled in banking. The committee is charged with responsibility identifying avenues for investing surplus funds. The committee reports to the Board.
Barbados	Investment Committee. The committee reports to the Board.
B.V.I.	Investment Manager who reports to the Director and the Investment Committee.
Jamaica	Investment Committee. The committee is comprised of eight persons who are members of the Board.
St. Lucia	Investment Committee. The committee is responsible for continuous review of the Fund's portfolio. The composition of the Committee is as follows: An officer of the Ministry of Finance as chairperson, a member of the National Insurance Board other than the Director, the Director, and two other members experienced in finance, accountancy, business administration, industrial relations or other related subjects. The Committee reports to the Board.
St. Kitts-Nevis	Investment Committee. The composition of the Committee is as follows: Chairman of the Board, Chief Accounting Officer, Representative of Government, employer and employee. The government representative is selected by the Minister of Finance. The committee reports to the Board.
St. Vincent & Grenadines	Investment Committee. The Committee is as follows: Chairman of the Board as chairperson, the Director, three persons nominated by the Minister with the approval of cabinet from among the members of the Board. The committee reports to the Board.
Turks & Caicos	Investment Committee. The Committee monitors the Board's investment portfolio and recommends adjustments as necessary to meet the goals set out by the Board. The Committee reports to the Board which is responsible for approving final recommendations pertaining to investment strategy.
Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.	

Table 11. Reconciliation of conflicting goals

Antigua & Barbuda	Policy is guided by the highest yield associated with minimum risk.
Barbados	In the vast majority of cases these issues do not arise. Investments that are high yielding and risky are not considered. Currently yield is accorded preference over liquidity because monthly inflows are adequate to satisfy current financing needs.
B.V.I.	These issues are dealt with by contracted Fund Managers.
Jamaica	The guidelines are clear and discrete and therefore conflicts are easily resolved.
St. Lucia	A positive correlation exists between safety and yield. Safety of capital is a paramount concern. No investment proposal will be accepted if the probability of loss exceeds 40% irrespective of the projected return. Liquidity is not a major concern because monthly inflows exceed outflows. Social projects generate a relatively lower rate of return than other investments. The Board has placed a ceiling of 10% on social investments in the institution's portfolio.
St. Kitts-Nevis	Safety of capital is a paramount concern at all times. Liquidity is not a major concern because monthly inflows are more than adequate to satisfy current operating needs. With respect to yield versus social utility the ultimate decision is biased in favour of yield.
St. Vincent & Grenadines	The potential problem of conflicts between safety, yield, liquidity, and social utility are dealt with by conduct of due diligence and with regard for the current and future needs if the scheme.
Turks & Caicos	The Accountant and Director resolve conflicts as they arise.
Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.	

Table 12. Investment management

Antigua & Barbuda	The Investment Committee and co-opted individuals assisted by the Financial Controller and Accounting staff.
Barbados	The Investment Committee is required to adhere to comprehensive investment guidelines approved by the Board.
B.V.I.	Subject to the terms and conditions of the Investment Policy Statement, the Investment Fund Managers shall have full discretionary power to direct the investment, exchange and liquidation of assets of the independently managed accounts within compliance of the terms of the investment policy statement.
Jamaica	The Investment Secretariat of the National Insurance Fund is responsible for the management of investments.
St. Lucia	The need to liquidate investments seldom arises. Where a potential investment opportunity is identified, it is referred to the Investment Committee for evaluation. The Committee's recommendation will be referred to the Board for decision.
St. Kitts-Nevis	The viability of investment proposals is evaluated. There has been no concerted effort to seek out investment opportunities.
St. Vincent & Grenadines	Decisions to invest or liquidate an investment are the sole prerogative of the Board. The recommendations of the investment staff and the Executive Director form the basis of the Committee's decisions.
Turks & Caicos	Investments are managed externally by Fund Managers (Merrill Lynch). The fund manager is given authority to buy and sell shares at its discretion provided these activities conform to the investment policy guidelines.
Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.	

Table 13. Management guidelines on investment

Antigua & Barbuda	Not written, but in general terms.
Barbados	Comprehensive guidelines exist.
B.V.I.	Each class of asset has specific guidelines pertaining to the maximum percentage of the asset class that can be invested in any particular asset.
Jamaica	Management guidelines are set by the NIB and the Financial Secretary as follows: a) management has full discretion in the acquisition/disposal of bonds/notes issued by the Government of Jamaica; b) there is a limit of J\$10M per month of listed equities; c) all other investments are referred to the Investment Committee. The Board and Financial Secretary exercise final authority.
St. Lucia	Investment guidelines approved by the Board and Minister are adhered to.
St. Kitts-Nevis	Investment guidelines inform decision-making.
St. Vincent & Grenadines	Guidelines are included in the Scheme's strategic plan and the annual budget.
Turks & Caicos	The investment policy sets out guidelines.
Source. Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.	

Table 14. Main constraints on investment

Antigua & Barbuda	Insufficient domestic investment instruments and outlets.
Barbados	Insufficient domestic investment instruments and limits on foreign exchange available for investing.
B.V.I.	No major constraints exist.
Jamaica	1. Insufficient and inadequate domestic investment instruments especially equities.
St. Lucia	1. Inadequate domestic investment instruments. 2. Limited expertise of officials charged with recommending investments.
St. Kitts-Nevis	1. Government policy. 2. Small domestic market. 3. Lack of expertise in the Organisation and the Investment Committee.
St. Vincent & Grenadines	1. Limited opportunities at the local level. 2. Non-existent capital markets. 3. Limited opportunities to hedge portfolio risk. 3. Absence of a regional securities exchange to provide information on regional businesses. 4. Government policy.
Turks & Caicos	1. Insufficient domestic investment instruments and outlets. 2. Limited expertise of those charged with analysing, recommending and managing the investments especially in terms of internal personnel.

Source: Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

Table 15. Principal types of investment available to social security organisations

Antigua & Barbuda	Fixed-income securities; ordinary shares; real estate. There is no prescribed distribution.
Barbados	Fixed-income securities (government bonds; Treasury bills; corporate bonds; fixed term deposits); Local and regional listed equities; global equities; real estate. The allocation is stipulated in the investment policy approved by the Board.
B.V.I.	US. Government fixed-income securities; United States and International Equity; Convertible Securities; Cash equivalents. Section 13 of the Social Security Ordinance of 1979 sets out the distribution of investments.
Jamaica	Equities both common and preferred – (quoted on the Jamaica stock exchange and unquoted in private companies). Real estate; Fixed income securities; loans.
St. Lucia	Section 20(2) of the Act allows for investments in; Real estate; Loans; Fixed income securities; corporate bonds. The investment policy stipulates the following distribution – Cash 1%; Fixed deposit 20-25%; Loans and other debts investments (non-Govt. 20-25%; Government lending 25-30%; Real estate 10-15%; Local equities 5-10%; Foreign investment 5-10%.
St. Kitts-Nevis	Fixed income securities (government, quasi-government bonds; fixed-term bank deposits) Loans; Equities; Real estate. The following distribution is recommended by the Committee: Government Securities – 20-40%; Corporate Securities – 5-15%; Treasury Bills – 5-10%; Real estate – 3-5%; Term Deposits – 20-4%; Equities – 5-20%; Other - maximum 5%.
St. Vincent & Grenadines	Fixed-income securities (Government bonds – Local and Regional; Corporate bonds – regional; loans to staff; corporate loans – regional; Loans to statutory corporations; Fixed-term deposits; equities). Ordinary shares – local and regional institutions.
Turks & Caicos	Fixed-term deposits (local banks); External investments (government securities; equities; corporate securities and mutual funds) managed by Merrill Lynch; loan to statutory corporation.

Source: Survey of Investment Management Practices in the English-speaking Caribbean. International Social Security Association, 1999.

6. Investing social security reserves in the Caribbean^{*}

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1. Introduction

Social insurance programmes and occupational pension systems are essentially a twentieth century phenomena. Starting in the 1930's in the United Kingdom and spreading to many industrialised countries social insurance programmes and different types of pension systems (public and private) became a norm by the end of the 1990's. In the English speaking Caribbean national insurance legislation was first enacted in Jamaica (1965), Barbados (1966), Trinidad and Tobago (1971) and most recently St. Vincent (1986). Alongside these developments however, there has also been the rise of occupational pensions, private annuities and a variety of retirement savings vehicles such as individual retirement accounts, etc. This upsurge in regional activity in the area of retirement savings can be linked to several factors:- the view that the *raison d'être* of a pension is to enjoy retirement rather than endure old age; or that pensions serve important functions such as tax protection, deferred incomes or compulsory employee saving. The growth of the industry in the CARICOM region has resulted in different effects on the economy e.g. the rise of institutional investors, micro-macro linkages, balance of payments effects and the development of the domestic capital market.

If we consider the process of social security and pension fund accumulation one can identify at least four distinct pension systems. Schematically this can be described in Table 1 below.

Table 1. Structure of retirement incomes

	Individual/private provision	Collective provision
Contributory	4	1
Non-contributory	3	2

Type 1 Includes current mandatory National Insurance Systems (NIS)

Type 2 Covers present public sector PAYG system

Type 3 Covers Old Age Pensions (OAP)

Type 4 Occupational pension systems and individual retirement accounts, private annuities, other pension products (UTC, banks)

*

The views of the author are not necessarily those of the Central Bank.

Types 2 and 3 which are non-contributory are usually funded on a current basis by general tax receipts and clearly have no reserves for which there are investment decisions to be made. Interestingly enough however in Jamaica and Trinidad and Tobago there are instances of Type 2 arrangements which are partially funded by the public sector employee's e.g. military personnel and Parliamentarians in Trinidad and Tobago (TT) and military personnel in Jamaica. The employers' liability is not funded but met out of current revenues. In respect of the Type 3 variety some proportion of OAP in Barbados and to a lesser extent Belize is funded by the NIS system.

Types 1 and 4 are contributory systems whose investment portfolios will be the focus of the discussion in this paper. The paper considers some governance issues in respect of the investment decisions and mandates faced by managers and concludes with an examination of rates of return in some systems. Examples will be drawn from Trinidad and Tobago and across CARICOM. The rest of this section comments briefly on some macro aspects of private and social insurance systems.

Both private and social insurance affect economic activity at the micro and macro levels. At the micro level private insurance reduces the risks for individual economic agents while social insurance allows for the pooling of risks without any reference to health or other conditions of the insured person. Indeed with respect to the latter social insurance seeks to secure near-universal coverage of the population at hazard. At the macro level the insurance industry creates value added, contributes to employment by providing financial services and impacts the capital market by its role in the mobilisation of savings. The activities of insurance companies have a balance of payments impact if insurance companies are allowed to transfer most of their risks abroad and invest their reserves outside of their home base.

The existence of social security and pension fund arrangements in the Caribbean impacts the macro economy through the effects of savings and the institutional investments of both private and public sector investor agencies. As institutional investors with funds available for investments in real estate, equities, mortgages, etc. these institutions have the potential to contribute to the development of the capital market.

2. Investment policies for public and private pension plans

Philosophy

Some analysts have argued that the investment function of public (social security) and private pension arrangements is an important area of performance because good management of reserves will preserve and add value to contributions. This allows pension benefits to be guaranteed and maximised without the need to increase contributions in an ad hoc manner. Iglesias and Palacios (2001) distinguish between several regulatory approaches towards the investment of reserves of both public and private pension funds. At the one extreme is the so called "draconian" regulatory regime which gives governments a large degree of control over private funded pension plans of the Type 4 variety. At the other extreme as exists in Jamaica, for example, government regulation of occupational pension plans is very light and is mainly dependent on some sections of the Income Tax Act. In such a situation the fund managers set out the guiding principles and these may be monitored by from time to time by the supervisory authority. In the CARICOM region the two approaches coexist side by side within countries and across countries. As a general rule, however the guiding philosophy appears to be that of

restriction on certain classes of assets for the NIS systems, while in the case of occupational pension plans there exists a variety of approaches in respect of investment regulation.

Size of private and public funds

As Table 2 suggests, the value of the investment portfolio for the social security systems in the region amounted to just over US\$3,000 million at the end of 2000. In Barbados and the East Caribbean Currency Union (ECCU) area the portfolios account for well over 20 per cent of GDP but this is substantially smaller than in Trinidad and Tobago (TT) where the retirement income market has other important players. Indeed in TT the single largest investment portfolio is that of the self administered group of occupational pension plans which accounts for more than one half of all institutional investments.

Table 2A. Value of investment portfolios for selected NIS systems for selected years

	1990		2000 ^e	
	\$m	% GDP	\$m	% GDP
Barbados (\$B)	513	14.9	1,100	22.1
Belize (\$Be)	76	11.2	214	18.1
ECCU (\$EC)	547	14.4	1,553	26.4
Guyana (\$G)	1,640	10.5	13, 000	10.7
Trinidad and Tobago (\$TT)	2,067	9.8	4, 900	9.7
E – estimate				
Source: Osborne (2001) and authors' calculations				

Table 2B. Value of funds for selected private sector pension funds in Trinidad and Tobago (\$TTM)

	1990	1997
Group Pensions	474	1,342
Insured Plans	539	1,608
Self Administered	2,189	5,671
Annuity	<u>14</u>	<u>15</u>
	<u>3,216</u>	<u>8,636</u>

Source: *Annual Reports*, Supervisor of Insurance, Trinidad and Tobago.

Governance issues

Caribbean practice in respect of social security and pension fund regulation encompasses a wide variety of approaches both within a country and between countries. In Trinidad and Tobago all occupational pension plans and other insurance-annuity type products are regulated under the Insurance Act of 1980 which specifies a local asset ratio (80 per cent) as well as limits to

investments in real estate (20 per cent) and equities (40 per cent).¹ In sharp contrast insurance annuity-retirement income products which are promoted by those mutual funds, which are commercial bank related, are not subject to any form of asset regulation. This situation has developed however in an industry which has no overarching regulatory legislation. In Jamaica however occupational pension funds are not regulated by a specific Insurance Act but rather the Income Tax Act. In this regard fund managers are not guided by any official investment policy. In the absence of 'asset regulation' prudent management is dependent on the expertise of individual managers whose strategy could expose funds to excessive risks and/or high returns.

In considering the social security systems (NIS systems) there are many similarities and differences in respect of investment strategy throughout the region. Good governance suggests that these systems should each have an Investment Committee that determines the parameters for successful investment strategies in each country. Typically these committees are tripartite in nature and reflect the composition of the NIS Board – business, labour government. While the composition of the Board and the investment policy of the NIS may appear to be independent, in reality there has been a marked tendency towards investment in government securities. Indeed some analysts have suggested that in several jurisdictions the public sector views these funds as ready sources of budgetary finance.

Once the Investment Committee is established a set of rules, restrictions and mandate may govern or limit the investment choices. Campbell (1995) noted that in Belize the scope of the Investment Committee, which hitherto had been responsible for all investment decisions, was amended in 1986 so that the Committee became an advisory body to the Board of Directors on investment matters. By 1992 however the Board established a subsidiary company with responsibility for managing housing investment for the Board. In Trinidad and Tobago for example, quantitative limits are set on equity investment by the NIB and this must not exceed 25 per cent of total funds without explicit approval from the Ministry of Finance. This approach is consistent with international experience whereby explicit restrictions or implicit mandates are given to Boards to pursue developmental objectives in the area of housing, health and education. In TT during the boom years, the mandate was given to the NIB to provide mortgage financing for first time homeowners at interest rates well below private sector agencies. This policy led to a skewing of the investment portfolio such that mortgages which had accounted for 4 per cent of the portfolio in 1972/73 peaked at 63.5 per cent by 1985/86. The manner in which the policy was implemented, the subsequent recession and collapse of the real estate mortgage market contributed to the low rate of return on investments for the NIB in the 1980's.

In some instances restrictions have been used to force NIS systems to lend money to the quasi public sector entities either directly or indirectly. In the latter scenario the approach taken is usually in the form of private placements for public sector bonds or by simply requiring that a proportion of government bonds be held in the institution's portfolio to reinforce safety considerations. In some countries however government securities may be the most dominant type of security given the thinness of the capital market and relatively limited investment

¹ Following a recent revision to the Act (November 2000) investment in equities are set at a maximum of 50 per cent.

opportunities. One measure of the size of the domestic capital market is stock market capitalisation. With capitalisation ratios of 58 per cent for Trinidad and Tobago (2000) and 35.8 per cent for Jamaica (1999) compared with 128.4 per cent for the United States (1998), there are few opportunities to diversify the portfolios into equities.

At this juncture it is important to note that all the social security systems in CARICOM were established in a period of fixed exchange rate regimes and exchange controls. In this environment it would be the rule rather than the exception to prohibit investments outside the home country. As far as this writer is aware only The Bahamas, Barbados, Montserrat, Guyana and Trinidad and Tobago allow for investments of NIS reserves outside of their home countries. In practice however the NIS systems tend to favour domestic and or regional rather than foreign investment.

Observed portfolios

Within CARICOM observed investment portfolios for both NIS systems and occupational pension funds show interesting trends over time. For the NIS systems there is a clear bias towards domestic investments rather than foreign investment. Within domestic investments government securities and bank deposits dominate the portfolio. In the ECCU area, Nicholls (2001) shows that, except for Montserrat, on average (1980-1988) member countries' portfolios were dominated by domestic investments in deposits (40 per cent) and government paper (19 per cent). In the case of Montserrat however foreign securities represented just over one half of the portfolio. This appeared to be a deliberate policy choice of the institution. Government paper was more important in some countries (Grenada) than in others. For the ECCU sub region government paper and commercial bank deposits are the two most important financial instruments in these economies. In the larger CARICOM economies by contrast, mortgages also play an important role and as already mentioned accounted for well over 50 per cent of the portfolio in the 1980's. In Barbados, however, the foreign investment component of the portfolio which was relatively negligible (0.1 per cent) in the early 1990's had grown to 6.4 per cent by 1999.

How do these trends for social security systems differ from those of privately managed funds e.g. occupational pension plans. Data for both Jamaica and Trinidad and Tobago show some interesting contrasts. In Jamaica between 1989 and 1994 Foga (1997) shows that investment in real estate had peaked at 69 per cent of the investment portfolios of private pension funds, while government securities and mortgages accounted for less than 10 per cent. This period coincided with the accelerated growth in the financial sector which led to the asset bubble and subsequent problems in the economy. In TT however over the same period mortgages declined in importance relative to government bonds, deposits and equities. At the same time most pension funds approached the upper limit for foreign assets (20 per cent) as a proportion of total investments. Over the past several years many actors in the industry have sought to have the local asset ratio changed especially since the floatation of the TT dollar in 1993. A subsequent amendment to the legislation in 2000 however has not really addressed the upper limit.

Rates of return

Table 3 below contains selected data on rates of return for some regional NIS portfolios over the last three decades. In the first two decades of their existence real rates of return for the sample of countries tended to be negative especially during the 1970's and early 1980's. Over these years there was an inflationary environment worldwide following the oil shocks of the 1970's and

many institutions may have been forced to hold low yielding government paper. In addition the structure of the portfolios and lack of investment autonomy contributed to results such as these. How well do these rates of return compare to commercial bank deposit rates and yields on treasury bills. More recently in TT for example real rates of return have been positive and well above commercial bank deposit rates and the return on loans, but in some years the return may have been lower than that obtained in the treasury-bill market. The more positive results may also have reflected a change in philosophy by the NIB. The disappointing results of the late 1980's together with a rethinking of investment rationale led to a change in focus at the start of the 1990's. The 1988/89 Annual Report of the NIB outlined the ILO's general principles (and presumably the NIB's) governing the investment of social security funds. These principles were as follows:- safety, liquidity, yield and social and economic utility and suggested a movement away from those investments whose values would be maintained during periods of inflation e.g. real assets (equities, property). The 1980's experience of the NIB had dictated a retreat from investments in mortgage such that by 2000 mortgages accounted for 5.3 per cent of the portfolio compared with 7.2 per cent in the previous year. Over the longer term however social security systems need to balance considerations of safety with the maintenance of real values of their assets.

Table 3. Average real yields for selected years for selected NIS systems (%)

	1974-1982 (Avg.)	1983-1991 (Avg.)	1992-2000 (Avg.)
Barbados	-5.7	4.9	5.8*
Guyana	-5.6	-13.7	12.24*
Jamaica	-7.8	- 4.5	n.a.
Trinidad and Tobago	-5.6	- 2.3	4.2
*Data for 1992 for Guyana and 1992-1994 for Barbados			
Source: La Foucade (1995) Theodore and La Foucade (1998), and author's calculations			

Medium term prospects

Over the medium term initiatives to develop the CARICOM capital market especially the regional stock exchange imply a wider variety of investment paper would be available. In addition the movement towards a CARICOM Single Market and Economy (CSME) also implies a single economic space and the removal of barriers to capital exports. In this regard both public and private pension systems should have a greater ability and opportunity to diversify their portfolios outside their home countries but within CARICOM region. This process may be delayed somewhat if important institutional developments do not take place e.g. the establishment of a regional credit rating agency. Good economic performance and macro economic management over this period would also help to maintain positive real rates of return.

This paper contains a discussion on the investment practices of public and private pension funds. Most investment portfolios are skewed to domestic assets and government paper in particular. Over time some of the more mature systems have diversified away from mortgages towards government bonds and deposits. Over the medium term as CARICOM moves towards the completion of a single economic space there will be new challenges for both private pension funds and social security systems.

October 23, 2001

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7. Guidelines on social security financing and investments in the Caribbean

The following guidelines are the result of discussions that took place during the working group sessions of the Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment Policies for Pension Funds, Bridgetown, Barbados, 24-25 October 2001. They outline a series of approaches for improving the financing of social security schemes in the Caribbean, including specific guidelines on the investment of social security reserves in the region. The guidelines have been submitted to a team of reviewers representing the various groups represented at the meeting.

Social security schemes and in particular pension schemes are long-term commitments of a society to its contributors and beneficiaries. People's lives may be affected by the schemes from the day they are born till they die. Promises made to people entering the labour force in their late teens today have to be honoured fifty to seventy years later. To maintain long-term viability of such long-range commitments it is critical to ascertain that the schemes remain in financial equilibrium, i.e. that the financing system and the structure of expenditure are set in such a way that future generations will (a) receive adequate benefits and (b) are not overburdened by financing cost. In the early days of a scheme's lifecycle, when contributions are much higher than benefit expenditure, financial resources appear abundant and benefit promises are easily made and easily met on a short-term basis. However, when schemes are approaching maturity – as many Caribbean schemes are or will within the next decades – the full weight of the financial obligations will become more and more obvious. At this time, long-term financing plans – as a means of good governance – have to be developed to ascertain the long-term financial equilibrium.

Long-term societal commitments are only politically viable if they are underwritten by solid societal consensus. Societal consensus has to include the long-term financing plan. The Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment Policies for Pension Funds thus recommends the following instruments to the consideration of the tripartite constituency of national social security schemes when long-term national financing plans for social security are to be developed. The actual choice of instruments are inevitably subject to national financial situations, preferences, demographic developments and economic potentials. National financing plans are not cast in stone; they require periodical review in the same spirit of consensus.

Measures to stabilize or increase revenues

The sources of revenue of national pension systems in the Caribbean come generally from contributions by workers and employers, and investment income. There are various ways to affect the level of these income sources:

- Increase contribution rates
 - It is necessary to consolidate the long-term financing of a national pension system. This means that long-term actuarial projections are required to have a view of the cost of the scheme at maturity. This gives a scientific rationale for contribution rate increases.
 - A rule should be determined as to specific funding levels (reserve levels relative to annual expenditure) to be reached at specified times in the future. This would guide the contribution rate determination and would provide, as a by-product, the resulting levels of reserves to be reached in the future and the resulting investment income.
 - Any contribution rate increase should be gradual in order to be acceptable for the financiers of the scheme (workers and employers).
 - The financing plan must be communicated to the public with a period of time sufficiently long for consultation and preparation. The support of the population and the confidence on the social security financial planning is highly dependant on this advance consultation.
- Increase the insurable wage ceiling
 - This should not be done simply to increase income but also in order that the insurance coverage remain relevant to higher paid workers.
- Review the investment policy to increase investment income
 - Too often, social security schemes in the region are bound to invest their reserves in government securities with short duration, uncertain payment of interests and lack of liquidity. The lack of clear investment policy prevents, over the long run, the attainment of adequate returns on those assets.
 - Social security schemes should charge market rates of interest and rents to all borrowers and tenants (including governments), match assets and liabilities of the scheme (use long-term investments), and consider gradually increasing their investments in equities and overseas.
 - The annex to this section provide specific guidelines on the investment of social security funds.
- Improve compliance
 - Enforce penalties for the late payment of contributions
 - In some countries, the government as employer owes contributions to the social insurance scheme. The government should be seen as any other employer in that regard.

- Expand coverage
 - Most schemes cover the self-employed, but in practice very few of them actually contribute. In some countries, civil servants, presently excluded from coverage, could be included.
 - Steps must be taken to move workers from the informal to the formal sector in order to enlarge the contributory base of the system.

Measures to stabilize expenditures

- Pension formula (replacement rate)
 - In some countries maintaining the pension formula devised for the early years of the scheme might lead to very high and unsustainable replacement rates in the stage of maturity when most pensioners retire after a long career. Average replacement rates may have to be contained as schemes mature.
 - A move towards a fully proportional formula (same percentage accrual for all years of contribution) or a career average formula would represent ways to achieve that end and pensions would also more adequately reflect the totality of contributions paid during a career.
 - On the other hand, putting more weight to the early years of one's career could help avoid people with short careers (often women) being adversely affected by the consolidation of the scheme; so the move to a fully proportional formula should be made after considering the impact on the income of certain specific groups.
- Regular indexing of scheme parameters
 - Pensions in payment must keep their purchasing power over time. Indexing at regular intervals (according to a price or wage index) is essential.
 - For the scheme to preserve its relevance over time, the earnings' ceiling must be adjusted regularly in line with increases in the average wage of the insured persons. Otherwise, pensions will become less and less relevant and the contributory base will shrink over time.
 - Those adjustments may take various forms, from semi-annual to annual or triennial adjustments. Ad hoc adjustments should be based on actuarial advice. But ideally, the indexing mechanism should be included in the law governing social insurance to avoid ad hoc adjustments dependent on political will.
- Eligibility criteria
 - The number of years required to be eligible to a benefit should be set in a manner that preserves a fair relationship between contributions paid by an individual and the value of the benefit he/she will eventually collect. Too short periods of contribution encourage non-compliance and increase the cost of the scheme.

- The number of years of contributions necessary for eligibility to an old age pension should be generally established at 15 or more years as most careers will reach that number of years in a mature scheme and incentives for people to minimize their period of contribution payment should be avoided.
- Reference earnings
 - The amount of the pension should be calculated with reference to the earnings on which contributions were paid. In many cases, a replacement rate is applied to the average earnings over a very short period preceding immediately the start of the pension. While this may be justified in the context of limited historical data on contributors and the absence of reliable data processing systems, social insurance schemes should increase the number of years taken into account in the average and ideally use the entire career earnings of the individual.
- Increase of the normal retirement age
 - The increase of the normal retirement age could have a double beneficial impact on the finances of a pension scheme: it may increase the period over which persons will contribute and it reduces the period during which the average pensioner receives the pension. Considering the increase of life expectancy observed in most countries, the increase of the normal retirement age constitutes a legitimate option for helping the financing of a pension system.
 - In order to facilitate the transition to a higher retirement age, it is normally appropriate to introduce at the same time a measure allowing early retirement with an actuarial adjustment to the amount of the pension. This reduces the impact of the increase of the retirement age on the labour market and the unemployment of younger workers without putting undue pressure on the expenditure of the pension scheme.
- Reducing administrative expenses
 - In most Caribbean schemes, administrative expenses consume a significant portion of contribution income. There is a need to review the number of staff and their skills. It is necessary to adopt efficient procedures and systems.

Annex

Guidelines on the investment of social security funds

Determination of investment policy objectives, target rates of return, asset allocation and risk level

The National Insurance or Social Security Board should, in consultation with the government, establish an Investment Policy Statement which sets out the general societal and financial objectives of the social security investments and the basic investment policy principles.

A target rate of return for the whole investment portfolio should be established with reference to the rate of return assumed in the actuarial valuation of the scheme. To this regard, communication should take place between the actuary and the investment committee to establish the actuarial assumptions and the investment policy for both the short and long-term.

The Investment Policy Statement should also include an asset allocation with maximum and minimum limits for each major category (and possibly sub-categories) of investments. These limits will ensure that the portfolio mix remains consistent with established objectives.

After reviewing the long-term performance and risk characteristics of various asset classes and balancing the risks and rewards of market behaviour, an asset allocation is selected in order to achieve the target rate of return of the fund. The optimization process in determining this asset allocation should consider the rate of return of each asset class, the standard deviation of the return and the correlation between the various asset classes.

Consideration must be given to the impact of asset allocation rebalancing in relation to the existing investments held at the time of determination of the investment policy, as well as to the prevailing market conditions at the time of this determination. A transition period before reaching the target asset allocation might be advisable.

Depending on the level of risk that the scheme may bear (relative to its size and location), the real rate of return should be in the order of 3% to 5%.

The reserve should be invested to ensure preservation of capital and to provide sufficient liquidity to meet cash flow requirements. Actuarial projections should be used to identify future liquidity needs.

The investment policy should be revised every three years.

Approach concerning specific types of investments

1. Government securities

In small countries, where the economy may be dependent on a single industry supported by the government, the investment of social security funds into government securities may bear a high level of risk. As a maximum benchmark, government or government backed securities should not exceed 50% of the investment portfolio of a social insurance scheme. It is also important to measure the ability of the scheme to redeem government bonds to be able to meet its liquidity needs.

In many cases, the government never pays interest to the social insurance scheme. Government should pay interest in cash instead of rolling over the principal and interest. Maturities of government

securities should be matched against the projected cash flows of the scheme. Hence the choice to invest in government securities should be based on sound investment principles and not only on the need of the government for an easy access to capital funds.

2. Overseas investments

Overseas investments represent a measure of diversification. Depending on the stability of the national currency, overseas investments in strong currencies may be used as a way to reduce the currency risk.

It is important to distinguish between regional and extra regional overseas investments. There are differences between investments in other countries of the Caribbean and investments in the U.S. for example, as regards:

- the levels of risk in terms of variability of return
- the currency risk, and
- the social and economic impact of the investment

In the context of overseas investments, there is a need for training in house investment managers and, in most cases, for hiring international fund managers.

3. Investments of economic and social utility

This type of investment includes private sector initiatives, state enterprises, student loans, low cost housing, old age facilities, culture, health infrastructure, tourism, recreation and sport, human resource enhancement.

Since those types of investments contribute to the national development, technical development of human resources and employment creation, they may contribute to increase the economic growth and consequently improve the financial status of the social security scheme in terms of the number of contributors, the size of their insurable earnings and the rate of return of the fund.

A study must show the profitability of each such investment before the investment is made. In addition, continuous monitoring is necessary. Hence the Social Security Board should have a seat on the board of directors of major projects funded by the social security scheme.

Powers of the board of directors and the investment committee

The Board of Directors of the Social Security Scheme should have full discretionary power to direct, allocate, rebalance and liquidate the investments of the scheme, in compliance with the investment policy.

The Investment Committee is responsible for the application of the investment policy and must refer to the Board for the approval of any investment over a certain ceiling to be determined by the Board.

Composition of the investment committee

At least two members must possess financial/investment expertise. All members must be exposed to business practices or have strong financial background.

The investment committee should at least include the following persons:

- the Chairman of the Social Security Board, who would act as the Chairman of the Investment Committee;
- the Director of the Social Security Board;
- the Investment Manager of the Social Security Scheme;
- one person nominated by the Minister of Finance to ensure that the Social Security Board is aware of the development planning for the country; care must be taken, however, that this person is not the same person advising the Minister of Finance on government-financed projects;
- a member of the Board of Directors nominated by the Minister responsible for Social Security.

The presence of representatives from worker and employer organizations on the Investment Committee could contribute to a better control over political interference in investment decisions.

Conflict of interest

At the time of appointment, members should disclose all business interests or affiliation and they are expected to disclose any affiliation developed after his/her appointment. If a member has an interest, he/she should withdraw from the meeting dealing with a specific issue related to his/her interest and not vote on the issue. The member's position must be recorded. The fact that the person removed from the meeting must also be recorded.

Any analysis conducted by advisors or staff should be circulated to all members including the one with interest.

Delegation of investment functions

Day-to-day investment decisions may be delegated to external investment managers. Those managers should have full discretionary power to direct investment, exchange or liquidate the assets in their accounts in compliance with the terms of the investment policy.

Securities custody and record keeping

Regular reports should be provided by the custodians and include a transaction summary of all activity in the account for the period, as well as cost analysis of each security within the portfolio at the end of the period.

The custodians should provide safekeeping of all securities in a segregated account.

The Social Security Fund should not permit the lending of its securities by banks, brokers or trust companies without authorization in writing by the Board. The custodian bank or investment dealer should make affirmative representation as to its willingness to comply with this policy.

Reporting

The investment managers should provide the following reports:

- a quarterly analysis of each security within the portfolio, showing both the initial cost and the current market value;

- a monthly transaction history of all activities since the previous report;
- the rate of return of the portfolio on a quarterly and annual basis;
- quarterly written statements including actions taken in the portfolio, current outlook and expectations;
- all pertinent changes affecting the investment manager, including but not limited to:
 - changes in key personnel ;
 - major changes in area of responsibility ;
 - significant changes in assets under management ;
 - material changes in investment policy or strategy.

Attitude towards political interference

Political influence cannot be completely avoided. However, a difference must be made between political influence and political interference.

Rules may be adopted to minimize political appointments to the Board. Tripartite representation is normally efficient in reducing political interference.

Annexes

Agenda — Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment Policies for Pension Funds (24-25 October 2001)

Wednesday, 24 October

8:00	Registration of participants
9:00	Opening Ceremony
10:00	Coffee break
10:30	Introduction: Pierre Plamondon, Social Security Specialist of the Finance, Actuarial and Statistical Services Branch (SOC/FAS), ILO, Geneva
10:45	Presentation: Macroeconomic impact of social security systems in the Caribbean – An overview
	Chairman:
	• Mr. Ian Carrington, Executive Director of the Barbados National Insurance Office
	Presenter:
	• Professor Karl Theodore, Professor of Economics, University of West Indies
11:30	Discussion
12:00	Lunch
13:30	Presentation: Financing social security – Options and strategies
	Chairman:
	• Mr. Patrick Martinborough, General Manager, National Insurance Scheme, Guyana
	Presenters:
	• Mr. Derek Osborne, Actuary, ILO Umbrella Programme
	• Mr. Pierre Plamondon, SOC/FAS, ILO
14:30	Panel discussion: Financing social security - The administrator's view
	Panellists:
	• Mrs. Sephlin Lawrence, St. Christopher and Nevis Social Security Board, St. Kitts and Nevis
	• Mr. Maurice Christian, President, Antigua and Barbuda Workers' Union, Antigua and Barbuda
	• Mr. Arthur E. Lo Fo Wong, Employers' Representative, Suriname Trade and Industry Association, Suriname
15:45	Coffee break
16:00	Working groups
	Key points for leading the discussion prepared by SOC/FAS
17:00	Plenary session
	Presentation and discussion of the conclusions of the working groups
17:30	End of working session

Thursday, 25 October

- 8.30 **Presentation:** *Investing social security reserves in Quebec – The experience of the Caisse de depot et placement*
- Chairman:
- Mr. Isaac Anthony, Accountant General, Ministry of Finance and Economic Affairs, Saint Lucia
- Presenter:
- Mr. Pierre Plamondon, SOC/FAS, ILO
- 9:00 **Panel discussion:** *Investing social security reserves in the Caribbean*
- Panellists:
- Dr. Penelope Forde, Advisor to the Governor, Central Bank of Trinidad and Tobago
 - Mr. Derek Osborne, Actuary, ILO Umbrella Programme
 - Professor Frank Alleyne, International Social Security Association
- 10:30 Coffee break
- 11:00 Working groups
- 12:00 Lunch
- 13:30 **Panel discussion:** *Accountability, administrative governance and role of members on social security boards in a dynamic investment environment*
- Chairman:
- Mr. Evelyn Greaves, ILO Caribbean Multidisciplinary Team
- Panellists:
- Mr. Jeffrey McFarlane, Executive Director (Ag.), National Insurance Board, Trinidad and Tobago
 - Mr. Joseph E. Goddard, General Secretary, National Union of Public Workers, Barbados
 - Mr. David Greaves, Employers' Representative, National Insurance Scheme, Grenada
 - Mr. Royston Jones, Financial Controller, National Insurance Board, Bahamas
- 15:00 Coffee break
- 15:15 Working groups
- 16:15 Plenary session
Presentation and discussion of the conclusions of the working groups
- 17:00 Closing ceremony
- 17:30 End of the meeting

Caribbean Sub-Regional Tripartite Meeting on Social Security Financing and Investment Policies for Pension Funds (24-25 October 2001, Barbados)

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