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Project Document

Social Security in the English-speaking Caribbean

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Abstract

Over the last years issues concerning social security have become important items on the economic and political agenda, in particular as demographic projections threaten the financial sustainability of many social security schemes that are currently in place. Whilst the Caribbean has not been insulated from these developments, substantive reform of social security has yet to materialize in the region. One reason may be the fact that research on social security in the Caribbean is rather limited, providing decision makers with few answers on how to tackle the issue of reform in the region.

This paper highlights the current status of social security in the region. By presenting indicators of recent performance and in particular by identifying challenges that schemes in the region face, the study aims to contribute to the discussion by providing relevant facts and suggesting ways forward.

Introduction

Over the last years issues concerning social security have become important items on the economic and political agenda. This is true for policy makers in the Caribbean as in most other parts of the world, spanning developed and developing countries alike, which are facing the concern that given current projections, the financial sustainability of current social security schemes is questioned. Due to the geographic and geo-climatic characteristics of the region and the fact that research on social security in the Caribbean is rather limited, decision makers in the region are faced with the additional burden of not being able to resort to the literature for remedies, as little is known on how to tackle the issue of social security in such an environment. This paper aims to fill this gap by highlighting the current status of social security in the region, i.e. by presenting its recent performance, by presenting challenges that schemes in the region face, and suggesting ways forward.

Social security systems were initially designed to act as systems of social insurance that provided coverage for sickness, disability, old age pensions, maternity and other contingencies. The first old-age social insurance programme was introduced in Germany in 1889 upon Chancellor Bismarck's behest; its aim was to promote the well-being of workers.¹ Whilst this is still its principle function, social security has since also been recognized as an appropriate tool for redistributing income from higher income to lower income groups.

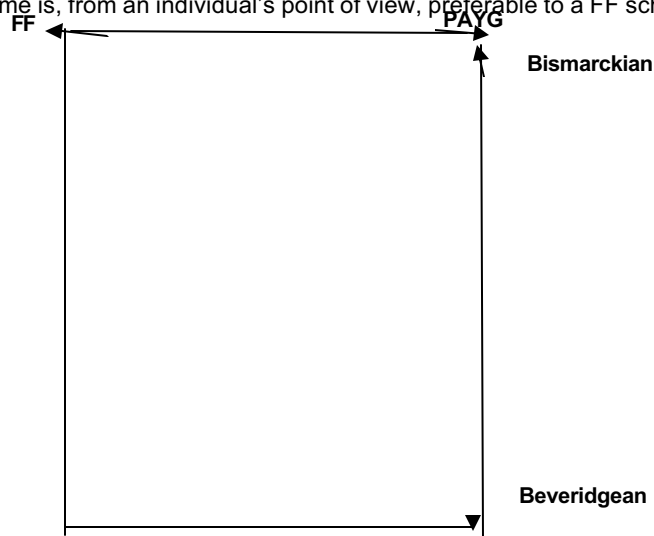
¹ The other politically motivated incentive was to stave off calls for more radical socialist alternatives at the time.

BOX 1 PAY-AS-YOU-GO VS. FULLY-FUNDED

In principle, social security schemes are differentiated according to their financing mechanism and their redistribution principle. Thus, there are two poles delimiting the *financing* principle of social security schemes: the 'pay-as-you-go' (PAYG) and the 'fully funded' (FF) principle. In an FF scheme contributions are invested for future use: they are used to finance the pension of the contributors themselves. In a purely PAYG scheme, contributions are collected from the working (i.e. contributing) population and are used to finance the benefits of those currently retired – these schemes are often referred to as having a generational contract, as essentially each working generation is entering into a contract with the following working generation in such that by contributing to the currently retired, they expect to be receive a pension when they have retired themselves.¹

Simultaneously, there are two poles delimiting the redistribution mechanisms of social security: the flat-rate pension (so-called Beveridgean principle) and the earnings-related pension (Bismarckian principle). In the former, everyone who is part of the scheme receives the same benefits, regardless of how much they contributed. In the latter, benefits are strictly related to earnings in the sense that those who contributed more receive a higher pension. In such, any social security system can be mapped in a two-dimensional plane, as depicted below where the horizontal measures the financing principle whilst the vertical axis the redistribution mechanism. Schemes can be either purely PAYG or FF as well as purely Bismarckian or Beveridgean (such schemes would be located on the corners of the plane). In addition, any locus on the plane would signify a scheme comprising elements of both financing and redistribution mechanisms.

Overall, the main interest of participants to a scheme is what effective rate of return they are earning on their contributions. In a PAYG scheme, contributions effectively earn a rate of return equal to the sum of the growth rate of wages (g) and of the population (n). In an FF scheme they earn the rate of return on capital (r). Hence, the PAYG scheme is, from an individual's point of view, preferable to a FF scheme if $g+n > r$.



Social security is a crucial fundament of society. Whilst consumption after retirement continues and, in particular, as individuals may be confronted with significant spending on medical treatment and other forms of care, saving for this consumption during one's working life is imperative. However, individuals are unlikely to make sufficient precautionary savings when working. For one, they may lack the ability to act with perfect foresight and/or not fully recognize the need to set sufficient resources aside when working. In addition, some may in fact refuse to take any precautionary measure as they plan to free-ride on the benevolence of governments by assuming that they will not be left to their own devices in old age. Thus there has been a general acceptance that governments should institute some form of compulsory social insurance

contribution system levied on wages to ensure that persons save towards old age, sickness, disability and other expenses and contingencies and do not unwillingly face hardship when aged or disabled.²

Initially, the vast majority of social security/pension schemes adopted throughout the world were so-called pay-as-you-go schemes (or PAYG), where the working generation financed the pensions of those currently retired (see Box 1 for different types of scheme). Consequently, the importance of social security has increased. Due to the increasing maturity of schemes, expenditure on social security has increased significantly. It now represents on average 12.5 per cent of GDP alone (the 25 members of the European Union).

Despite the initial success of PAYG pension schemes, witnessed by their widespread adoption, they have come under intense scrutiny over the last years. In particular, demographic projects have resulted in uncertainty as to the viability of most schemes in the future. Overall, there is widespread agreement on the origins of the threats to sustainability, which are generally seen as being twofold. For one, whilst life expectancy is increasing in most parts of the world due to improved access to healthcare facilities and advances in medical science, changes in behavioral patterns concerning work have not kept pace. Consequently, the proportion of one's life spent in retirement has increased relative to the proportion spent working. In addition, the decline in fertility that has taken place over the last decades in the developed world, and is increasingly being seen in developing regions, is eroding most systems' ability to guarantee the future functioning of social security. This combination of increasing life-expectancy, coupled with decreasing fertility, has led to a looming disequilibrium in social security schemes that are publicly provided.³

Opinions however differ as to what interventions are required to remedy the situation. On the one hand, proponents of the current schemes suggest that parametric fixes can be made to existing schemes to ensure their sustainability. On the other hand, opponents call for more profound changes, in essence envisaging a wide-scale reform of existing systems, which will have widespread implications – privatization of social security.

Whilst the choice between both approaches – the parametric fix, or the structural redesign – poses a problem in itself, the matter of 'saving' social security is further aggravated as solving the pension problem necessitates overcoming the political cycle: any changes to social security schemes will come at a cost to current and/or future generations. As such, policy makers face the problem of having to introduce measures which may disenfranchise large proportions of their supporters – even though the measures will ultimately increase overall economic welfare. These issues are very real in the United States and Europe, where the debate on pension reform has intensified, particularly in the United States with suggestions to move to an FF scheme being on the agenda, yet where overall little else has been done apart from introducing parametric fixes.

These obstacles have seemingly been overcome in Latin America where, following the example of Chile in 1984, an increasing number of countries have either already reformed their schemes and introduced FF schemes, or are planning to do so (see World Bank, 2005). Little has however been done in the Caribbean region. Here policy makers face the challenge that despite the flurry of research in pension economics over the last three decades, the application of conclusions and policy recommendations are only of limited use to the region. This is due to the geographic and geo-climatic characteristics of the region where all countries are small island developing States (SIDS) and are located in a region prone to natural disasters and changes are likely to have fundamental macroeconomic implications. These characteristics merit particular attention to the

² Whilst the term 'social security' denotes all of the above, this study focuses only on its role in providing income to those retired, i.e. pensions. Throughout this study the term social security thus relates to pensions, unless otherwise stated. The two terms will be used interchangeably.

³ The difference between publicly provided and privately provided pension schemes will be elaborated below.

impact of social security and its reform on economies. Unfortunately, research on issues concerning social security in the Caribbean region has been extremely limited.

This study seeks to present an overview of social security in the Caribbean region. In doing so, it presents the structure of social security schemes, evaluates performance of the schemes and which reform steps, if any, have taken place. In view of future reforms, it gives special consideration to peculiarities of the region. Section I describes the history of social security in the Caribbean and presents its current status relating to contribution requirements and benefits, what costs the systems are incurring and what is happening to any accumulated surpluses. Section II presents challenges that social security in the region is facing, Section III discusses reform and Section IV concludes.

I. Social Security in The Caribbean

Social protection is not a new phenomenon in the Caribbean.⁴ It is nevertheless relatively young, having spread from Britain to some of her former colonies in the Caribbean in the form of provident funds based on contributions. These funds were similar to today's funded, defined contribution schemes (funds which pay a lump-sum to its contributors upon their retirement). The majority of national social security schemes were implemented shortly after independence.⁵ Whilst only Antigua and Barbuda and Dominica implemented National Insurance Schemes prior to independence, the oldest national social security scheme in the region was founded in Jamaica in 1966; the youngest schemes were founded in 1987 in St. Kitts and Nevis and in St. Vincent and the Grenadines. By and large, social security systems in the region have largely remained unchanged since, other than parametric changes made at irregular intervals, no real reform has taken place and there is little evidence that significant reform is currently being considered due to a number of factors that will be presented in this study.

One reason for complacency vis-à-vis pension reform in the region may be that most schemes in the region appear rather healthy. For one, due to their relatively recent implementation, national insurance schemes have not yet reached a mature stage. This is reflected in the low old-age dependency ratio and in low social

security payments amounting on average to 2 per cent of GDP across the region – a significantly lower rate compared to other regions. In addition, over the years all schemes have managed to accumulate rather healthy reserves, equivalent to approximately 19 per cent of total regional GDP, with reserves amounting up to 30 per cent of GDP in individual countries.

Despite such healthy reserves, decision makers in the region should view the current situation as a window of opportunity to tackle the issue of social security before it becomes acute. In fact, several challenges to the systems long-term viability exist.

⁴ References to the *Caribbean* or alternatively to the *region* refer to the English-speaking members of the Caribbean Development and Cooperation Committee (CDCC) and Suriname, excluding associate members, unless otherwise stated. These core members are Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Kitts and Nevis, Saint Lucia, St. Vincent & the Grenadines, Suriname and Trinidad and Tobago.

⁵ Several occupational schemes covering various sectors of the economies were introduced during the late 1960s and early 1970s. These were consequently replaced by the newly established national social security schemes.

To understand these challenges requires understanding how social security functions in the region and what parameters define performance. Given the number of countries in the region, any analysis of schemes in each member State will necessarily come at a cost of sacrificed detail. Without too much loss of generality, this section presents an overview of social security in the region and explains how pension schemes are structured, what contributions are levied and how benefits are calculated. It will also present the costs national insurance boards are incurring and how surplus funds are currently being invested.

A. Contributions and benefits

All public social security schemes in the region are defined benefits PAYG schemes (see Box 2). These are characterized by several parameters: parameters relating to how contributions are collected and parameters relating to how benefits (pensions) are calculated.

Regarding contributions, underlying important parameters are principally twofold: contribution rates and wage ceilings. The former denotes what percentage of wages are levied to the scheme, the latter signals the maximum wage level above which contributions are no longer levied.

BOX 2 WHAT IS 'PARTIALLY FUNDED'?

Pension schemes in the region are 'pay-as-you-go' (PAYG) schemes where contributions are collected from the working (i.e. contributing) population to finance pension benefits to those currently retired, as opposed to 'fully funded' (FF) schemes where contributions are invested, to be used in the future to finance pensions of the contributors themselves (see box 1).

However, whilst all schemes in the region are by design PAYG, they have all since inception been able to accumulate considerable assets as contribution income has consistently exceeded pension payments. Nevertheless, one should be careful labeling the schemes thus 'partially funded'.

A partially funded scheme *by design* (as opposed to a partially funded scheme due to current circumstances) sets aside a proportion of contribution income to pay for later pension payments. In such, a partially funded scheme should never deplete its fund as long as contributions are made. This is not the case with the schemes in the region, which can draw upon the fund once contribution income no longer covers social security commitments. A real partially funded scheme cannot deplete its reserves as these form future social security commitments. Whilst this may seem a semantic differentiation, it is nevertheless necessary connotation as labeling schemes 'partially funded' may distract from the fact that they are not and hence may actually run out of reserves.

Parameters defining pensions receivable are necessarily more complex. For one, certain eligibility requirements must be met before being able to receive a pension: these eligibility requirements relate not only to one's age, but also to the length of time one contributed to the scheme (contribution period). Once eligibility is met, pensions are calculated according to differing formulas. Pension schemes in the region are earnings-related, i.e. according to the Bismarckian insurance principle. Thus relevant parameters are the 'average insurable wage' and the 'replacement rate'. The former defines what earnings each worker is assumed to have had during his career, i.e. how these are calculated. The latter defines what proportion of this is received as a pension – in principle, it is an increasing function of one's contribution history.

(i) Contributions

Benefits are financed by contributions from employees and employers; the former pays a contribution rate levied on wages, which is matched by a contribution paid by employers, also expressed as a percentage of the employees' wages. On average, in the region these rates are equivalent to 4 per cent and 6.8 per cent, respectively. However, individual rates do vary substantially amongst countries: the highest rates are levied on employees and employers,

respectively, in Barbados (7.75 per cent and 8.5 per cent respectively) and the lowest rates are levied in Jamaica (2.5 per cent, see Annex II, Figure 1).⁶

In addition to the variation in contribution rates, there is considerable variation in insurable wage ceilings, i.e. the ceiling above which no contributions (and no benefits) are paid.⁷ These ceilings range from an average of 1.2 times the average insurable wages in Trinidad and Tobago to 3.4 times the average wage in Saint Lucia and are relatively low compared to the ratio of maximum contributable earnings to average national wages in several Latin American countries.⁸

Table 1 shows that the highest ceiling in the Caribbean region, approximately 3.41 of average insurable wages in Saint Lucia, is only slightly higher than in fact the lowest ceiling of maximum contributable earnings to average national wages in Latin America of 3.1 in Chile. Moreover, some countries in Latin America do not have a ceiling at all. This may suggest that the ceiling be raised in the Caribbean region as capping ceilings at low ratios implies that high-income people only pay a low contribution relative to their income, reducing progressivity of schemes.

One of the driving factors of these low ceilings may be that, other than Guyana, none of the member States have an automatic mechanism to increase this ceiling. Whilst in Guyana the ceiling on insurable earnings (and the pension) is adjusted in line with changes in the minimum wage in the public sector, all other countries adjust their ceilings in an ad hoc manner. Consequently, adjustments take place at infrequent intervals, resulting in large parts of the labour force earning more than the ceiling. Thus, the ceiling has only been adjusted twice in three decades in the Bahamas, in the British Virgin Islands three times in two decades and in Turks and Caicos Islands it has not been increased since inception of the scheme in 1992. As a result, when increases do take place, they are often substantial, as the case of Belize illustrates: the ceiling on insurable earnings was increased from BZ\$130 to BZ\$320 per week in 2001; this increase was the first since the schemes were set up in 1979. The government is in fact considering increasing the ceiling to BZ\$640 per week in the near future.

Social security benefits are to a large degree uniform in nature throughout the region, consisting, in principle, of sickness and maternity benefits, retirement, invalidity and survivors' pensions as well as funeral grants. Although several countries offer benefits related to employment injuries (such as disability pensions, injury benefits and coverage of medical expenses), only Barbados grants unemployment benefits to those eligible. However, as noted above, this study only focuses on the role of pensions when discussing social security.

(ii) Pensions

The overarching principle of retirement benefits in the region is to maintain income in old age and disability. This is recognizable by the fact that all PAYG schemes in the region are Bismarckian (earnings-related) and thus based on the social insurance principle to maintain status during old age.⁹ The generosity of Bismarckian systems is measured by a *replacement rate*, which denotes the percentage of one's *average insurable earnings* that is paid as a pension upon retirement. Furthermore, eligibility vis-à-vis pensions receivable is an important variable, in particular as not all countries have adopted a uniform approach to this.

Overall, the stance taken towards replacement rates is fairly uniform. Whilst individual accumulation rules vary to some degree across countries, the majority of schemes apply a

⁶ These rates nevertheless compare relatively favorably to rates levied for mandatory funded schemes in Latin America, which range from 2.75 per cent in Argentina to 12.27 per cent in Uruguay (see World Bank, 2005).

⁷ An employee who earns more than the ceiling is usually not required to pay social security contributions on the amount standing in excess of the ceiling.

⁸ To have a common denominator, earning ceilings are normalized using average insurable wages, rather than national average wages, for which data is not available for the majority of countries.

⁹ Beveridgean schemes are typically aimed at poverty prevention as benefits are universal flat-rate or means-tested.

replacement rate of 30 per cent once contributions have been made for an approximate contribution period to the scheme of 10 years (more precisely, 500 weeks). However, here too there are slight variations: Antigua and Barbuda grants the lowest replacement rate of 25 per cent, whilst Barbados grants the most generous replacement rate of 40 per cent following a 10 year contribution period.

As a rule, replacement rates in the region increase relatively more during early contribution years than later years in all schemes. The average replacement rate following a 30-year contribution period (1500 weeks) is between 50 and 55 per cent; in Barbados the rate is a generous 60 per cent whilst in Antigua and Barbuda it is a relatively low 45 per cent. In terms maximum replacement rates obtainable, Dominica has the highest maximum replacement rate of 70 per cent and Antigua and Barbuda has the lowest maximum achievable rate of 50 per cent (see Columns 3-5 in Table 2 for a presentation of these figures).

Such a non-linear increase in the replacement rate may however no longer be adequate. Although it is useful when a pension scheme is initially introduced as it allows for older members to rapidly qualify for a higher pension, a more linear pension formula may now be more appropriate to reduce distortions. This has been recognized by Belize, which is contemplating replacing the current formula of a 3 per cent increase for the first 10 contributing years, followed by a 2 per cent for the following five years and a 1 per cent annual increase thereafter by a scheme where every contributing year will add 1.5 per cent to the replacement rate up to a maximum of 60 per cent, which would accordingly be attained after 40 years of contributing to the scheme (see Montas, 2003).

Replacement rates however only represent one dimension to calculating pensions. The average insurable earnings to which the replacement rates are applied and how they are calculated represents a further dimension, as do eligibility requirements.

In the region, average insurable earnings are in general calculated by taking the average of the best three to five years of the last 10 to 15 years of each worker.¹⁰ The applicable replacement rate is then applied to this figure. Calculating benefits in such a way rather than basing pension payments on a complete earnings history, however, has obvious drawbacks. For one, people with a large variation in their annual earnings over the last 10-15 years of their careers are likely to receive a pension which may bear little resemblance to their *average* annual earnings for the time period, and consequently, to their contribution history and to other individuals with similar average, yet less volatile, earnings. In addition, calculating pensions in such a manner will place stress on the overall scheme, resulting in high returns on contributions for individuals with highly volatile earnings at the expense of returns to those with more stable earnings. The Bahamas is, for example, contemplating to move to a system where the three-year final average pension formula will be replaced with one where the pension is based on an indexed career earnings approach with a 1.5 per cent accrual rate.

(iii) Eligibility

While there is some degree of variability in the legal retirement age in the region, the degree of variation vis-à-vis the actual eligibility in qualifying for a pension is somewhat higher. Thus, across member States the normal retirement age varies between 60 and 65, with only Jamaica providing an exception in that the normal retirement age (for males) is 70 years of age.

Many countries have set the minimum required number of contributions to receive a full pension at 500 weeks (approximately 10 years); workers in Saint Lucia are required to contribute

¹⁰ Exceptions are Barbados, Trinidad and Tobago and Jamaica. In Trinidad and Tobago pensions are based on a career average of 'earning classes' (income brackets); in Barbados the pension is two-tiered, with a 'basic' pension equal to 40 per cent of AIE (based on the best five earning years) as well as a supplementary pension equal to 1 per cent of the total weekly insurable earnings represented by the contributions in excess of the first 500; Jamaica also have a two-tiered system.

for 12 years (144 months). Guyana and Trinidad and Tobago already have a minimum contribution requirement of 15 years (750 weekly contributions) before workers are eligible to receive a pension. This minimum contribution requirement contrasts to Montserrat and St. Vincent and the Grenadines where 7 and 6.5 years are required, respectively; to Anguilla, which requires a five-year minimum contribution history; and to the Bahamas where three years (150 weeks) of contribution to the National Insurance Scheme already results in a pension eligibility, with a replacement rate of 15 per cent of average insurable earnings. Workers who do not meet the required minimum number of contributions are however guaranteed a minimum pension; once again, the generosity of this varies significantly across the region, ranging from 6 per cent of average insurable wages in Antigua and Barbuda, to 31 per cent in Barbados (see Annex I, Table 2, column 2).

Several countries in the region have taken steps to address the fact that a relatively low number of contributions suffices to be eligible to draw a pension. This issue is relevant, not only due to the increasingly globalized environment where labour mobility is increasing, but also due to the Caribbean Single Market and Economy (CSME), which will eventually allow for free mobility within the region and could lead to ‘pension shopping’ of workers. In such, Montserrat and St. Vincent and the Grenadines are increasing the number of contributions required in steps of 25 annually until a total of 500 required contributions is met. In Grenada the requirement will increase to 500 by the year 2008 and in Saint Lucia the contribution requirement increases in steps of 12 months every three years until a total of 180 months is met in 2012. In other member states discussion has commenced on how to tackle this problem. In the Bahamas the social security reform commission has recommended that the number of weekly contributions be increased in steps of 50 annually until the requirement is more in line with the region, i.e. until it reaches 500, compared to the 150 weekly contributions required now.

B. Costs of running social security

Success of social security schemes can be measured in several dimensions. One important dimension relates to the cost of running such a scheme: costs that relate to financing the managing institutions, paying salaries of its staff, maintaining premises and providing the services expected of the institution; in short, all operating costs resulting from maintaining the social security system. Acknowledgement of these costs in general, and their comparison amongst peers in particular, is necessary to benchmark performance, as ultimately the larger the costs, the less funds are available to pensions as costs are necessarily financed by contributions to the scheme.

These costs need to be compared both to the costs of other member States in the region, as well as to other regions. Whilst an intraregional comparison will reveal which schemes are relatively efficient in the sense that costs are low, the interregional comparison is needed to identify whether, as a whole, social security schemes in the region are frugal or not.

Operating costs in the region differ substantially. On average, they amount to 18 per cent of contribution income; the underlying costs on a per-country basis however reveal significant variation with the highest percentage being 41 per cent of contribution income in Montserrat and the lowest being 6 per cent in Barbados; overall, a quarter of the sample countries lie more than a standard deviation from the mean. In fact, whilst only Barbados and Trinidad and Tobago have operating expenses that are less than 10 per cent of contribution income, Anguilla, Belize, Montserrat and the Turks and Caicos Islands have expenses in excess of 20 per cent.

It comes as little surprise that the region’s geographic characteristics play a role in the overall operating expenses: the correlation coefficient between a country’s population and its operating expenses for the social security scheme is significantly negative (-0.47), indicating that social security systems lack the ability to benefit from economies of scale. In particular, countries consisting of island economies, such as the Bahamas and Turks and Caicos Islands, suffer from

proportionally higher costs.¹¹ This can be interpreted as a clear signal that costs are high in the region due to the inability to benefit from economies of scale.

C. Surplus funds

All in all, social security systems in the region provide pensions to more than a quarter of a million of the region's 6.5 million inhabitants. With approximately US\$450 million paid by these systems as pensions as well as other benefits in 2003, overall contributions to the schemes of approximately US\$650 million significantly dominated, leading to an increase in reserves. This in fact has been characteristic of the region, which had accumulated funds in excess of US\$5.2 billion at the end of 2003: an amount equal to approximately 19 per cent of total regional GDP, or approximately 30.1 per cent of GDP in individual countries. Thus, overall the financial position of the region's schemes is healthy. In fact, despite the fact that all schemes in the region are PAYG, the accumulated reserves are in fact higher than the assets of *funded* pension funds in each Latin American country (other than Chile), where assets averaged approximately 13.5 per cent of GDP (World Bank, 2005).

All funds are currently accumulating surpluses. This is a desirable outcome as, whilst by design they are all PAYG, accumulated reserves can be used to draw upon in future times to meet unexpected shortfalls in contributions or increases in commitments.

Investigation of the reserves on a per-country basis reveals that there is a strong (negative) correlation (-0.62) between the size of a country and its accumulated reserves. Figure 2 shows that the lowest proportion is in Jamaica, whilst reserves represent more than two thirds of GDP in St. Kitts and Nevis. However, the overall size of accumulated reserves is not an indicator of a financially sustainable scheme as it does not measure any aspect of performance or indicate how long the reserves would potentially cover commitments. A more relevant indicator therefore is the reserve-expenditure ratio, which approximates how many annual expenditures the reserves would suffice to finance. These values, as shown in Figure 2, tell a somewhat different story as they reveal that there is seemingly no direct relationship between accumulated reserves as a percentage of GDP and the number of annual expenditures these could potentially cover.

(i) Portfolio investment

A large proportion of these accumulated reserves are invested (the average rate is 89 per cent). Antigua and Barbuda is the only country where the investment rate, standing at 44 per cent, is below 75 per cent.¹² Consequently, portfolio management is an important aspect to the regional social security schemes and needs to be carefully analyzed.

Performance of the various schemes' portfolio management over the last decade has not been particularly outstanding, with an average real return of approximately 3.8 per cent. The average real return for the last five years is however slightly higher, standing at approximately 4.2 per cent. Belize and Jamaica performed significantly better than the average, with Belize's 10 year and 5 year return of 7.4 per cent and 7.5 per cent, respectively, and Jamaica's five-year return of 9.8 per cent, Antigua and Barbuda, Anguilla and Turks and Caicos scored significantly worse than the average: Antigua's 10 (5) year return was 0.8 per cent (1.5 per cent), Turk and Caicos' was 1.6 per cent (0.9 per cent) and Anguilla's 5 year return was 1.5 per cent (see Annex I, Table 5).¹³

One reason for such poor performance is no doubt due to the way these investments are allocated. Approximately half of all reserves are invested in fixed income securities (such as loans

¹¹ However, Belize, as a non-island economy that is not particularly small in comparison with other countries in the region, seems to suffer from exceptionally high costs too.

¹² This is however as a result of considerable outstanding receivables to the tune of half of overall assets.

¹³ Returns are considered 'significantly worse or better', if they are more than one standard deviation lower or higher than the region's average respectively.

and bonds) and a third in fixed deposits. These are investment vehicles that are historically rather stable, yet are also low-yield asset classes. Overall, only 11 per cent of reserves is invested in equities and 4 per cent in real estate (figures relating to end 2003).

Overall, the majority of countries have portfolios heavily skewed towards local investment; in fact only the non-independent territories (Anguilla, British Virgin Islands, Montserrat and the Turks and Caicos Islands) have any significant (i.e. more than 5 per cent) of their assets invested abroad. In the British Virgin Islands, the figure is more than two thirds of the total investment and in the Turks and Caicos Islands more than three quarters. Six countries have invested domestically exclusively, including the larger economies of Trinidad and Tobago, Jamaica, the Bahamas and Belize. Only seven countries had regional investments, which were in each case less than 10 per cent of total investment except in St. Vincent and the Grenadines where a fifth is invested regionally.

The reasons for such concentrated portfolio selections are essentially twofold. The principle factor driving such investment decisions is no doubt the fact that legislation in many member States does not allow for social security funds to be invested abroad. Social security is seen in many countries as a necessary tool to provide the economy with needed funds. Many stakeholders in the region see a large role in economic development for social security organizations: more than half of all stakeholders interviewed in the Organisation of Eastern Caribbean States (OECS) submitted to this view (see Henry, 2004, p. 194). However, the same study also found more than 70 per cent of respondents deeming diversification of portfolios by foreign investment necessary, pointing to the need to revisit legislation. Another reason however for such lopsided investment – in particular relating to the concentration on fixed deposits – is that capital markets in the region are, to a large extent, in a nascent stage: only three regional stock exchanges exist, each with only a few listed securities.¹⁴ This makes any portfolio diversification a daunting task.

¹⁴ The Eastern Caribbean Securities Exchange of the OECS has eight listed securities; the Jamaica Stock Exchange and the Trinidad and Tobago Stock Exchange have less than 50 listed, respectively.

II. Challenges to social security in the Caribbean

In 1994 the World Bank published a report on social security entitled '*Averting the old age crisis: Policies to Protect the Old and Promote Growth*' (World Bank, 1994, referred to as '*Averting*'). This was one of the first publications by international organizations calling for a multi-pillar framework in pension policy. *Averting* advocated the establishment of three main pillars to finance social security: the first pillar is based on the 'pay-as-you-go' (PAYG) principle. The second pillar is 'funded', i.e. mandatory contributions are made by workers into 'personal' accounts; these contributions are invested and eventually used to finance those workers' pensions. Participation in this pillar is to be mandatory. Finally, a third pillar is meant to encourage savings; this pillar is essentially identical to the second one with the exception that contributions to this one are voluntary (i.e. this pillar replicates private savings).

While *Averting* has not remained uncriticized (see e.g. Orszag & Stiglitz, 1999), it had a profound influence on a number of developing countries, notably countries in Latin America, a continent which has seen a flurry of reforms passed over the last two decades, and has remained an influential document in many regions. In fact, more and more economies are moving away from the traditional defined benefit PAYG scheme; the main reason being the pressures that ageing has created in terms of financing, but also due to the fact that PAYG schemes are believed to increase incentive for early retirement, creating an untenable situation in terms of financing (see Gruber and Wise, 1999).

Overall, these dynamics have however had seemingly little impact on the Caribbean agenda of social security: national social security schemes in the Caribbean represent the first pillar only. Although all schemes differ in terms of accrual of benefit rights, contribution rates and other parametric features, they are all designed as PAYG schemes in principle. In such, no *mandatory* second pillar exists in the region and there is no clearly identifiable trend to introduce one.

The complacency regarding reform may be due to the current demographic environment, i.e. the fact that populations are relatively young, and the recent inception of these schemes. Thus, national social security schemes in the region have not yet reached maturity (less mature schemes have a higher ratio of active members to pensioners and deferred pensions) and are consequently receiving contribution income that is more than sufficient to finance current social security obligations; hence they are all currently in the position to invest (*'fund'*) the surpluses.

Although the issue of ageing is not as pressing as in other regions, it must nevertheless be addressed as lessons show that the earlier this is tackled, the less painful remedies will be and the lower the political cost of implementing them. There are in fact several challenges to social security in the region. Some of these challenges pertain to the current schemes, such as how benefits are calculated, short eligibility requirements, the lack of an automatic adjustment of wage ceilings and

wage replacement rates. These are challenges that can be dealt with by changing parameters and/or existing legislation and were essentially pointed out in the above section where relevant.

Other challenges are however more fundamental to social security and need to be analyzed in greater detail. One challenge pertains to labour markets, where particular reference must be made to the CSME, which will eventually lead to the free mobility of labour and will necessarily have an impact on social security. In addition, the general performance of labour markets in the region represents a further challenge to social security systems: unemployment is high and persistent in some countries, the informal sector is increasing and evasion of social security contributions is widespread. These are factors which will ultimately lead to an increasing proportion of the elderly being excluded from the benefits of a pension and hence need to be addressed.

Legislation governing accumulation of social security assets also needs to be revisited. In particular, the issue of whether investment boards may invest abroad needs to be carefully analyzed. For one, due to the geographic and geo-climatic characteristics of the region – small island economies whose economic fundamentals are only diversified to a limited degree and the fact that the region is extremely prone to natural disasters – may be arguments for a less restrictive stance on investment of funds abroad. However, any relaxation of legislation must carefully weigh the benefits of doing so against the cost resulting from the effect that capital outflows will have on economies' balance sheets in general and on their exchange rate regimes in particular. These are all among the issues that will be addressed in the remainder of this section.

A. Ageing

As in most regions, ageing is a phenomenon that is also affecting populations in the Caribbean. A combination of increasing life expectancy and decreasing fertility rates is leading to a shift in the population structure. Life expectancy (at birth) increased on average by more than 15 years during the last two decades of the twentieth century alone and currently stands at approximately 73.1 years.¹⁵ It is forecast to increase further to approximately 79 years by the middle of this century. In addition, the population growth rate will have decreased to 0.1 per cent by this time, down from 1.8 per cent in the mid-twentieth century and from 1 per cent currently.

While the causes of such a shift are well-documented (see ECLAC (2004) for a recent analysis of population ageing in the region), the variation within the region as well as a comparison to other developing regions nevertheless merits closer consideration. For one, intraregional comparison reveals that the 'pension time bomb' is particularly more relevant in some member States than in others. Interregional comparison reveals, however, that overall the shift in population structure is not as severe as in other regions and that, in fact, ageing is only in its beginning in the majority of countries in the region, enabling them to benefit from the *demographic window* which is only just opening.

On an intraregional basis there is also a significant gap between life expectancy in Guyana, standing at 62.4 years, and Barbados where life expectancy is the highest at 77.2 years – a gap that is expected to decrease. However, a slowdown in fertility, combined with emigration will lead to a substantial increase in the old age dependency rates in countries, as shown in Figure 3.¹⁶ The larger this ratio, the greater the number of old-aged that the working population needs to support, i.e. the higher the costs of social security will be. Other than the Netherlands Antilles, the percentage increase in all other countries will accelerate, with an average increase of 66 per cent over the first quarter of the century and a 118 per cent increase over the second quarter.

¹⁵ Data pertaining to those English-speaking Caribbean countries with data. (See Annex I, Table 4).

¹⁶ The old-age dependency ratio is defined as the number of persons 65 years and over per 100 persons 15 to 64 years.

Moreover, this increase in the dependency ratio will occur at an accelerating rate during the next five decades. Whilst the lowest increase in the old age dependency ratio will be an estimated 130 per cent increase observed in Puerto Rico over the first half of the twenty-first century, the ratio will increase by almost 500 per cent in Guyana. It is this development that will have an effect on social security in the region as it implies that social security schemes will face situations where an increasingly large proportion of aged will need to be supported by a decreasingly smaller labour force.

The latter touches on the issue of the current state labour markets in the region are in as a well-functioning social security system necessitates a well-functioning labour market, especially in a PAYG scheme, as today's workers are responsible for today's retired. The following section investigates this side of the equation.

B. Labor markets

Labor markets in the region face several challenges. One important challenge to social security is unemployment. A second relates to increased labour mobility – both within the region and out of the region.

Unemployment is no doubt one of the most important economic challenges to member States in the region. Not only are many member States experiencing unemployment in excess of 10 per cent (see Annex I Table 6), unemployment amongst females is significantly higher than that of males and youth unemployment in general is severe. Thus, data from Trinidad and Tobago, Jamaica, Barbados, Saint Lucia and Belize show that the youngest cohorts in the labour force are the most severely affected: every second person aged 15-19 is unemployed in Saint Lucia and Jamaica. This holds for every fourth in Barbados and Belize and every fifth in Trinidad and Tobago (See Annex I, Table 7). In addition, figures show that whilst more than 60 per cent of the unemployed in Barbados have been in this position for less than six months and in fact more than 80 per cent have been unemployed for less than a year, this contrasts with Saint Lucia where more than three quarters of the unemployed have been so for more than a year. In Trinidad and Tobago the corresponding figure is close to 25 per cent and in Jamaica it is close to a third of the population (see Annex I, Table 8). In fact, in Jamaica approximately a third of the labour force has never worked before.

The numbers themselves suggest that obtaining employment for labour market entrants is difficult, as is finding reemployment. Preliminary indications suggest that a weak education sector may be the driving force behind this (ECLAC 2005). The implications of this difficulty on aspects relating to social security are profound. For one, the inability to find employment impedes upon individuals' ability to meet eligibility requirements and hence could have an impact on any future pension claim that may or may not be made. In addition, increased unemployment reduces the labour pool financing the pensions of those currently retired.

Labour mobility both within and outside the region poses a further challenge to social security. Regarding the latter, emigration from the region has been substantial, resulting in significant brain-drain. Thus, Suriname, Guyana, Haiti, Jamaica and Trinidad and Tobago have the highest emigration rates in the world, standing in excess of 80 per cent for the first four. Overall, almost half of the 30 countries with the highest emigration rates are member States of the region. The severity of the situation is compounded even more when considering that the equivalent of 10 per cent of Jamaica's current population alone emigrated between 1991 and 2001 (Docquier and Marfouk, 2004). Large labour flows out of the region, especially of highly skilled graduates, poses a threat to social security as, aside from its implications on overall economic growth, it too reduces the pool of labour available to finance the pensions of the current retirees and, in particular, decreases the base of highly skilled, high income workers.

One reason why such large migration flows out of the region are being observed may be due to the difficulty to migrate within the region – in fact, anecdotal evidence suggests that workers would prefer to stay in the region were they able to find appropriate employment. Policy makers in the region have recognized this and have reacted by adjusting the institutional framework governing labour mobility. Following agreement that deepening of the integration process in the region, in general, and that the establishment of a CSME in particular would be desirable to foster growth in the region, the provisional entry into force in May 1998 of the Protocol II Amending the Treaty Establishing the Caribbean Community concerning the Establishment, Services and Capital is a measure that potentially increases the scope for free movement in the region by allowing the free mobility of skilled labour within the region.¹⁷ However, migration within the region remains low relative to immigration from other regions (see ECLAC 2005).

Regarding social security and migration, all core member States have entered into the Caribbean Community (CARICOM) social security agreement, which was signed in 1993. Prior to this, the OECS member States had entered into the OECS convention on social security; these two agreements co-exist, as do several bilateral agreements between member states and extraregional States.¹⁸ Although certain shortcomings of the CARICOM agreement need to be addressed (see Box 3), these initiatives are laudable for the region as a whole.

BOX 3

CARICOM AND OECS SOCIAL SECURITY AGREEMENT

In principle, two main social security agreements exist in the region: the CARICOM social security agreement and the OECS convention on social security. The OECS convention on social security is overall the more comprehensive of the two regional agreements as it covers additional short-term social benefits (such as maternity benefits, sickness benefits, funeral grants etc.), whereas the CARICOM agreement only covers long-term benefits relating to pensions (invalidity, disablement, survivors and retirement benefits). In addition, contributions made in any of the signatories of the OECS convention are totalized, thus a worker will receive a pension as long as his *cumulative* number of contributions satisfies the eligibility requirements in the State in which he is applying for the pension. This holds even if he does not meet the eligibility requirements in the form of a minimum number of contributions in a *single* country due to having moved between members.

Under the CARICOM agreement the total number of contribution are totalized only if the worker does not meet the eligibility requirements in any of the countries in which he has worked in. Should he meet the minimum requirements in several countries, he is eligible for a pension in each of those countries; consequently, receiving a total of several pensions from different States may result in an overall pension that is higher than the maximum pension in any of the States. Furthermore, the CARICOM agreement is not clear on modalities should the minimum pension eligibility requirement be met in only one State, but not in others. This issue needs to be addressed.

¹⁷ However, the treaty differentiates between wage-earners and non-wage earners. Whereas the latter group enjoys free labour movement – meaning that any (natural or judicial) person can set up a business and work on their own account in the CARICOM member states (the Treaty refers to this as the Right of Establishment), only certain wage-earning categories will enjoy the freedom of free labour mobility. In particular, wage-earners that are university graduates, media workers, sportspersons, artists and musicians are the persons that currently enjoy mobility (Article 46 of the Chaguaramas Treaty). Furthermore, the treaty does not specifically address modalities required by countries to obtain full labour mobility within the region – including a well-defined timeline for the implementation. Consequently, the scheduled launch date to establish and form the CSME in 2000 has passed. The CSME has only been implemented between Jamaica, Barbados and Trinidad and Tobago since January 1st 2005.

¹⁸ Bilateral agreements between member States and non-member States do exist, these are however limited essentially to agreements between the respective member States and Canada and/or the United Kingdom.

C. Investment of assets

As outlined above, performance of investments of social security reserves in the region has been weak over the last decade. In fact, in many countries in the region the investment of social security funds is untenable. Governments have considerable reign over social security reserves, with government paper frequently accounting for a significant portion of the investment. Although government borrowing from social security is sometimes used for infrastructure development in countries such as the OECS, the bulk of these funds are used for current rather than capital expenditure thereby impeding their long-term growth impact. In addition, the capture of these funds by government depletes the balance available for funding private sector activities in tourism, agriculture, niche manufacturing and other areas of potential competitiveness in the region. Whilst the schemes invest in mortgages, housing, education and other social activities, there is seemingly no concerted strategy to facilitate the restructuring of stagnant sectors and for investing in bankable new productive activities. Given the long-term nature of the bulk of their liabilities, social security schemes could provide some of the equity finance for dynamic production and service enterprises.

In the earlier years of their operation, most regional schemes had limits on the extent to which they could diversify their portfolios. In particular investment in foreign assets was not allowed in most schemes. One underlying principle of this may be that capital-deficit countries of the region should not be exporting capital to developed surplus capital markets in the United States, Europe and other countries. More importantly, however, exchange rate, market volatility and other risks associated with a foreign market are feared as these are neither well-known, nor are countries deemed to have any control over them.

However, excess liquidity in the regional banking sector has dampened rates of return on fixed and other commercial bank deposits. Compounded by the nascent nature of the regional securities market, foreign investment should be considered a serious alternative source of investment to secure the best returns for schemes. With increasing growth in regional cross-border financial transactions, especially out of Trinidad and Tobago, regional money and capital markets could be considered as options for diversifying the risks and improving the returns of social security schemes. Simultaneously extraregional capital markets need to be available to social security reserves.¹⁹ For one, as pointed out above, there are only a limited number of stock exchanges in the region, each of which carry only a relatively low number of listings. In addition, the considerable vulnerability of the region to natural disasters has profound risk-implications for any portfolio located exclusively in the region.

This said, the issue of exchange rate fluctuations remains. Whilst exchange rate volatility can to a certain extent be hedged against, outflows of financial resources would nevertheless place pressure on the financial system, given that the majority of countries in the region have either fixed exchange rates or exchange rates fluctuating in a narrow band (*de jure* and *de facto* fixed). In particular, given the significant size of social security funds in the region (see Annex II, Figure 2), this may well turn into a potential issue in the short run as funds are invested abroad, placing considerable stress on the reserves of central banks.

Another issue with respect to fund management is whether funds should be managed competitively by a number of private fund managers or centrally by a government fund management agency. Governments have chosen to institute an investment board that tends to benefit from economies of scale from the pooling of investment funds. It has, however, been argued that these boards are not entirely independent (see Osborne, 2004, and Henry, 2004) as many countries board members are appointed by the government. In addition, several board members

¹⁹ This was in fact the opinion of the majority of specialists interviewed in the OECS, reflecting more than three quarters of all board members and 72 per cent of all interviewed overall (see Henry 2004, p/ 194).

simultaneously hold political office. This clearly has implications for the impartiality of investment decisions taken. Thus, it may be argued that a number of competitive private investment fund managers would do a better job of obtaining attractive returns for beneficiaries and also channel the funds to activities that promote growth. However, whether individual countries are significantly large to cater for several private fund managers is an important issue as market size is a relevant consideration, particularly in the case of social security fund administration which needs to be able to benefit from economies of scale.²⁰

²⁰ Thus e.g. in Bolivia, with a population of more than 8 million, only two pension funds were initially allowed in the market.

III. Reforms to social security

Reforms can essentially be categorized in two dimensions: parametric reforms and structural reforms. While the latter involves changes to parameters of the existing scheme, such as increasing the contribution rates, increasing wage ceilings, increasing retirement ages, and reducing pensions, a structural reform refers to a complete overhaul of the social security system. Although parametric reforms may be easier to implement, a structural change in the system has often been considered to be more relevant to the long-term viability of schemes. This section will look at the different options available and how far they may be potentially relevant for the region, considering the challenges outlined in the previous section.

In practice, structural reform has taken the form of a move from the traditional one-pillar approach (i.e. a PAYG scheme) to a more encompassing approach, represented by a multi-pillar structure, as advocated by *Averting* (WB, 1994). Thus, approximately 12 countries in Latin America are in the process of introducing such reforms.²¹ Approximately 10 countries in Europe and Central Asia have also introduced such a multi-pillar system. However, in general, pension reform is usually associated with a move to a defined contribution FF scheme where workers are required to save a proportion of their income in individualized accounts, to which they only have access once they have retired (such a move is often referred to as the ‘privatization’ of social security). Hence, the essential feature of the multi-pillar approach has been the introduction of a FF element – be it a mandatory element or a voluntary one of the new system.

One of the major factors that have been advanced by proponents of reform is the potential to achieve higher savings rates that could augur well for investment. However, on a theoretical level the impact of social security on savings is inconclusive. This need not imply that such a move in the Caribbean will not affect savings positively.²² Indeed, increased contribution rates will increase compulsory saving in an environment where myopic agents fail to make the necessary savings for their old-age consumption.²³ In addition, it has been argued that savings and investment mobilization are affected by the very structure of social security schemes, the argument being that privatized fully-funded schemes with individual retirement accounts (IRA) allow individuals to shop around for the best returns

²¹ They have passed the respective legislation; implementation had begun in many of them by 2004.

²² There is no simple relationship between pension reform and savings as the impact depends on the strength of income and substitution effects, the propensity to save of beneficiaries and overall macroeconomic performance. The income effect (wealth effect) of higher contribution rates and increased retirement age could lead to reduced long-term savings as households consume more in earlier years in anticipation of higher future earnings, however the substitution effect may be positive or negative depending on whether investment returns on social security funds are higher or lower than alternative assets.

²³ Thus assuming they will not compensate for the lower net-come by borrowing against their future income.

in placing their funds; this stimulates competition and allocation of funds to high yielding productive activities that promote growth.²⁴

Despite the arguments put forward regarding the potential positive effects on investment, there is no doubt that the true motive for moving from PAYG schemes is the financing issues these schemes are facing in light of shifts in the population structure and population ageing. However, defined contribution FF schemes are not without criticism. For one, such schemes can cause considerable inequality in old-age/pension income as the redistribution element in such schemes is usually minimal due to the fact that contributors have their ‘privatized’ accounts. This is even more true considering unemployment in general – and the high youth unemployment in particular in the region – as in a FF scheme *consistent* contributions are required to build up a significant fund, as are contributions *early* in one’s career to be able to benefit from compound interest effects. Defined contribution FF schemes also limit the scope for risk-spreading as they ultimately place the risk of longevity and returns on individuals: should individuals live longer than expected, or should their portfolio sustain large losses towards the end of workers’ working lives, individuals could unexpectedly be significantly worse off.²⁵ In fact, whilst progress has been achieved in Latin America following the introduction of FF schemes in many countries, at most such a defined contribution FF scheme should form part of an overall comprehensive package and not be considered as the main pillar to provide for one’s own retirement income (World Bank, 2005). In fact, research in Latin America has shown that despite the move to such schemes, data on coverage suggests that social security systems in the region are not necessarily fulfilling their role in providing effective protection to the elderly: Rofman (2005) points out that in only three of 17 surveyed countries are more than two thirds of the elderly population covered by social security – in 10, the coverage rate is less than a quarter of the elderly. Regarding the Caribbean, additional challenges face FF schemes; these pertain to the lack of depth in financial markets, witnessed by the relative nascent state of regional capital markets, as well as the fact that large outflows of currency may squeeze international reserves, resulting in exchange rate pressures.

An alternative to structurally reform social security schemes are so-called ‘Notional Defined Contribution’ (NDC) accounts; these have so far been introduced in *inter alia* Sweden, Latvia, Italy and Poland. These are essentially meant to mimic the structure of a FF scheme with ‘personal accounts’, without actually establishing a fund and still encompassing an element of risk-reduction through risk-spreading. The underlying idea is that whilst contributions are used to finance the pensions of those currently retired – i.e. the system is a PAYG scheme, each individual’s contributions are registered in ‘notional’ individualized accounts. The ‘return’ these account receive is then linked to productivity changes and/or current and prospective demographic changes; this ‘notional interest’ (again, it does not exist physically) is then charged to this notional account.²⁶ As such, it has been argued that the system has to overcome the political feasibility and policy inconsistency of parametric fixes, whilst simultaneously maintaining the insurance component by linking benefits to contributions. A further benefit is that individuals no longer bear the risk associated with longevity and returns of capital markets as the intergenerational financing mechanism, as in a PAYG scheme, is maintained (Palmer 1999).

While the overall recent introduction of NDCs may be too recent to comprehensively assess their performance, closer inspection of NDCs on a theoretical level shows that they are essentially only ‘thoroughly reformed PAYG defined benefit schemes’ (Scherman, 1999). This point is made particularly clear in Disney (1999) who evaluates NDCs thoroughly.

²⁴ Such a scheme still however requires public intervention in the sense that there is need for effective public sector oversight and regulation to ensure that funds are not placed in unduly risky speculative investments or are captured by corporate fraud.

²⁵ This was in fact the case of workers who retired at the beginning of the 1990s in Chile: many saw large decreases in their FF pension wealth

²⁶ Thus in Latvia the growth of the social insurance contribution wage base is used for the ‘notional’ interest rate; in Sweden it is the growth rate of nominal wages and in Italy it is the growth rate of nominal GDP. In Poland it is the rate of inflation plus three quarters of the growth of the social insurance contribution wage base.

IV. Conclusions

While social security reform has featured prominently on economic and political agendas around the world – both in developed and in developing countries – the Caribbean region seems to have been largely insulated from these developments in such that little reform activity can be observed other than making relatively small adjustments to existing schemes. One of the reasons is no doubt the relatively healthy situation of most national schemes: registering annual surpluses has allowed accumulation of social security reserves that can be extremely significant relative to GDP.

This said, schemes in the region are undoubtedly facing several challenges: while Caribbean populations are, in general, not ageing as rapidly as in other parts of the world, it is nevertheless a phenomenon that will eventually need to be confronted. A further wider issue pertains to labour markets in general: unemployment is wide and persistent in the region, affecting particularly the young and females. In addition, the informal sector has increased in size over the last years. Such developments impact upon social security schemes as neither the unemployed, nor those in the informal sector contribute; they may however pose a burden on schemes in the future. Hence, decision makers should react rather sooner than later to confront these issues.

Several options are available to decision makers in the region. For one, they can maintain parametric reforms, move to a more structural reform, or in fact try to combine both. Drawing from experience around the world, only a quarter of all countries reforming their pension systems implemented major (structural) reforms, whilst

the remaining embarked on parametric fixes.²⁷ Rather than advocate a structural reform in the region, such as moving from a defined benefit PAYG scheme to a defined contribution FF scheme, as seems to be advocated in other parts of the world, characteristics of the region suggest that a more nuanced reform may be more appropriate.

The reality is that social security schemes in the region already hold significant funds. However, there is a portfolio mismatch in that there is excessive holding of short-term instruments (assets) to meet long-term liabilities and funds are to a large degree not invested in productive, growth-generating activities but have been subjected to government capture as evidenced by the significant holdings of low yielding treasury bills in most countries. Whilst it is acknowledged that the region needs a deepening of capital markets to create the required tools for investment, the current status quo has led to a low return on these investments, which is impeding upon the potential beneficial impact that the investment of social security reserves could have on the overall

²⁷ According to Schwarz and Demircuc-Kunt (1999), of 82 countries reforming their social security, only 21 adopted 'major' reform, involving a substantive change of system.

economies. In addition, many parameters in regional social security schemes need revisiting and current legislation may need amending.

Hence, a first step would be to remove some of the legal restrictions on the investment of these funds, taking into consideration potential effects on the external balance of economies. This could lead to a potentially significantly improved performance of the funds. As a second step, also linked to the current reserve stock, management of funds should be revisited: as suggested in *Averting*, the best avenue for preventing inflation from eroding the value of the reserves is international diversification of pension fund investments, which is more likely to occur when private investment managers are in charge. However, the shortage of experienced and trained investment analysts and fund managers in the region is a constraint affecting the efficiency of investment decisions and is limiting portfolio diversification. One potential remedy to overcome this could be to pool, across countries, portfolio investment outside of the region. Taking advantage of economies of scale in such a way could result in an overall reduced cost to individual countries in terms of fund managers' and investment analysts' remuneration. However, how this can be precisely implemented would need to be addressed in detail.

As alluded to above, several parameters and design features of social security schemes in the region need revisiting. For one, there is no doubt a (perceived) gap between contributions made to the system and pension received, which may explain the widespread evasion of contributions. This manifests itself not only in the non-linear increase in the replacement rate, which gives a higher weight to early contribution rates, but is furthermore amplified by the fact that one's average insurable earnings (upon which ultimately one's pension is based) usually only considers the best three to five years of the last 10 to 15 years of each worker. Thus, such a scheme could lead to wide variations in the actual rates of return that workers effectively achieve on their contributions. If the above-mentioned issues are addressed, it is very likely that social security schemes in the region will prosper.

On a more general note, however, policy makers in the region may wish to reconsider whether the current philosophy of contributive schemes, i.e. where contributions to the social security scheme are required to be eligible for a pension. Due to the nature of regional economies – economies with significant informal sectors and persistent unemployment, particularly amongst the young and female – such contributive schemes necessarily exclude large proportions of the population from being able to obtain a significant pension when aged. This has important well-being implications in a region where pockets of poverty are deep. Rather, the region may wish to consider introducing a more broad-based approach to social security, such as a non-contributive system where eligibility is based on residence and/or nationality conditions and benefits are financed by general taxation.²⁸ The introduction of such a scheme – to be maintained in addition to the current scheme – would form an important pillar at tackling poverty in the region

Also, given the large number of countries in the region and hence the large number of social security schemes, a long-term objective might be to create one umbrella social security scheme in the region. Whilst there is little doubt that the diversity of member States in the region results in considerable challenges for such an endeavor, the CARICOM social security agreement can be considered as a first step to creating such a unified scheme; closer interaction among social security schemes in the region could potentially be achieved within the CSME.

²⁸ Such schemes seem to be successful in Argentina, Bolivia, Brazil and Chile where coverage rates are relatively high. The introduction of such a non-contributory pillar now forms part of the World Bank's (2005) revised pillar approach on pension schemes, whereby the initial three-pillar approach (see section 0) has seen the introduction of two additional pillars: the non-contributory universal pillar and a non-financial pillar meant to capture social policy, as captured e.g. by availability of housing, health care and other social factors.

Annex I

Tables

TABLE 1
MAXIMUM CONTRIBUTABLE EARNINGS: COMPARISON

Country	Ratio	Country*	Ratio
Anguilla	2.02	Argentina	5.8
Antigua and Barbuda	1.88	Bolivia	12.5
Bahamas	1.36	Chile	3.1
Barbados	2.09	Colombia	10
Belize	1.52	Costa Rica	No ceiling
British Virgin Islands	1.42	Dom. Republic	10.3
Dominica	3.15	El Salvador	14.4
Grenada	2.07	Mexico	6.4
Guyana	2.1	Peru	No ceiling
Montserrat	1.26	Uruguay	5.7
St. Kitts and Nevis	3.07		
St. Lucia	3.41		
St. Vincent & the Grenadines	3.08		
Trinidad and Tobago	1.25		
Turks and Caicos Islands	1.69		

Note: *: mandatory funded schemes.

Source: Official sources and WB (2004).

**TABLE 2
SOCIAL SECURITY STATISTICS**

	Pension to average Insurable Wages		Replacement rates (after .. years)			Min. Contributions	Retirement age	
	Average (1)	Min. (2)	10 (3)	30 (4)	Max. (5)	# weeks (6)	Normal (7)	Early (8)
Anguilla	30.6%	26.3%	30%	50%	60%	250	65	na
Antigua and Barbuda	22.2%	6.3%	25%	45%	50%	350	60	na
Bahamas	25.4%	16.0%	30%	55%	60%	150	65	60
Barbados	49.0%	30.6%	40%	60%	60%	500	65	63
Belize	25.3%	22.4%	30%	55%	60%	500	65	60
British Virgin Islands	21.4%	7.5%	30%	50%	60%	500	65	na
Dominica	28.3%	6.8%	30%	55%	70%	500	60	na
Grenada	24.5%	12.0%	30%	50%	60%	400 ⁺	60	na
Guyana	28.5%	27.3%	40% ^a	55%	60%	750	60	na
Jamaica			*			494	70 ^d	65 ^d
Montserrat	17.1%	8.4%	30%	50%	60%	350 ^b	60	na
St. Kitts and Nevis	28.4%	11.8%	30%	55%	60%	500	62	na
St. Lucia	39.0%	13.7%		58%	60%	576 ^c	61	60
St. Vincent & the Grenadines	29.9%	19.4%	30%	50%	60%	325 ^b	60	na
Trinidad and Tobago	37.0%	37.0%	**			750	65	60
Turks and Caicos Islands	19.0%	14.1%	30%	55%	60%	500	65	60
Average	27.0%	17.3%	33.5%	53.1%	60%	432	63	61

Notes:

a: after 15 years, b: increasing to 500 in annual steps of 25, c: 144 months, increasing by 12 months every 3 years until 180 is reached on 01/01/2012, d: 5 years less for females.

*: flat rate pensions plus earnings related proportion,

** : pension based on average class in which contributions made over career (non-indexed career earnings approach)

+ : increasing to 500 in 2008.

Source: official sources and Osborne (2004)

TABLE 3
2003 ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF CONTRIBUTION INCOME, 2003

Country	Expenses	Country	Expenses
Anguilla*	22.8%	Guyana	15.8%
Antigua and Barbuda*	17.7%	Jamaica	13.0%
Bahamas	19.9%	Montserrat*	48.8%
Barbados	6.1%	St. Kitts and Nevis*	14.6%
Belize	30.5%	St. Lucia	13.3%
British Virgin Islands*	11.9%	St. Vincent & the Grenadines*	16.7%
Dominica*	16.7%	Trinidad and Tobago	6.9%
Grenada*	12.4%	Turks and Caicos Islands	21.1%

Source: official sources and Osborne (2004)

TABLE 4
LIFE EXPECTANCY AT BIRTH

	2000-2005	2025-2030	2045-2050
Bahamas	69.4	75.7	77.3
Barbados	77.2	79.8	81.4
Belize	74.4	77.5	79.7
Guyana	62.4	64.1	71.2
Jamaica	75.7	79	80.8
Netherlands Antilles	76.3	79.4	81
Puerto Rico	75.6	78.3	80.3
St. Lucia	73.8	77.2	79.5
Suriname	71.1	75.8	78.6
Trinidad and Tobago	74.8	78.6	80.5
Average	73.1	76.5	79.0

Source: UN (2002)

TABLE 5
PORTFOLIO INVESTMENT

	10-year real	5-year real	Investment as % of Reserves
Anguilla*	2.50%	1.50%	91.80%
Antigua and Barbuda*	0.80%	1.50%	44.40%
Bahamas	4.80%	4.00%	92.40%
Barbados	5.20%	5.20%	82.40%
Belize	7.40%	7.50%	94.50%
British Virgin Islands*	2.20%	2.80%	92.80%
Dominica*	4.70%	4.60%	77.00%
Grenada*	5.00%	4.90%	92.10%
Guyana	4.80%	4.10%	95.30%
Jamaica	3.50%	9.80%	95.50%
Montserrat*	2.40%	2.40%	96.70%
St. Kitts and Nevis*	3.20%	4.00%	94.90%
St. Lucia	3.80%	4.10%	96.00%
St. Vincent & the Grenadines*	4.30%	5.60%	91.60%
Trinidad and Tobago	4.70%	4.70%	93.40%
Turks and Caicos Islands	1.60%	0.90%	87.50%
Unweighted average	3.81%	4.23%	

Source : official sources and Osborne (2004)

TABLE 6
UNEMPLOYMENT RATES ACROSS THE REGION

Country	Year	Male	Female	Overall
Anguilla	2002	6.3	9.5	
Antigua and Barbuda	1991	6.4	5.6	
Aruba	1997	6.7	8.4	
Bahamas	2003	5.9	9.6	
Barbados	2002	8.7	12.1	10.3
Belize	2004	8.3	17.4	11.6
British Virgin Islands	1991	3.4	3.1	
Dominica	1997	19.6	27.2	
Grenada	1998	10.5	21.2	
Guyana	1992	8.4	18.1	
Jamaica*	2003	9.6	17.5	13.1
Netherlands Antilles	2000	12	16.2	
Saint Lucia	2003	17.2	28.1	22.3
Saint Vincent & Grenadines	1991	18.4	22.1	
Suriname	1999	10	20	
Trinidad and Tobago*	2004	8.0	12.1	10.5

Note: *: Q2/03-Q2/04, under ILO's definition, overall unemployment would be 7.5%.

Source : ILO (2003) and official sources

TABLE 7
UNEMPLOYMENT, PERCENTAGE OF ACTIVE COHORT AFFECTED

Age\Year	Trinidad		Jamaica		Barbados		St. Lucia		Belize	
	1991	2004*	1991	2001*	1992	2000	1993	2003	1993	2004
15-19	43.2	21.2	39.2	50.1	60.9	28	41.5	54.3	24.1	24.0
20-24	29.6	15.7	25.3	27.7	33.9	12.8	21.2	31.9	11.0	15.0
25-34	18.6	6.6	14.4	14	23.9	9.9	13.2	21.5	9.3	13.4
35-44	12.4	4.2	8.8	8.3	15.9	6.1	11.2	15.7	4.6	10.1
45-54	9.2	5	6.9	5.8	14.8	6.3	6.6	16.7	2.9	9.1
55-64	8.7	4.8	4.7	5.2	10	6.5	16.2	15.1	5.6	7.6
65 plus	2.9	2.5	2.9	4.1	4	0	11.3	17.6	7.5	6.7

Note: *: Q2/03-Q2/04,

Source: official sources

TABLE 8
DURATION OF UNEMPLOYMENT, PERCENTAGE OF UNEMPLOYED

	Latest obs.	Less than 6 months	6 to 11 months	1 year and over	Never worked	Not stated
Barbados	2002	61.9	21.1	12.9	1.4	2.7
Jamaica	2001	21.8	15.5	31.7	30.7	0.3
Saint Lucia	2000	20.3		77.9 ⁺		1.8
Trinidad and Tobago	2002	54.3	9.5	23.7	12.3	0.2
Belize	1999	20.9	23.9	53.8	..	1.9

Note: +: proportion of unemployed working more than 6 months.

Source: official sources

Annex II

FIGURES
FIGURE 1
CONTRIBUTION RATE SOCIAL SECURITY, 2003

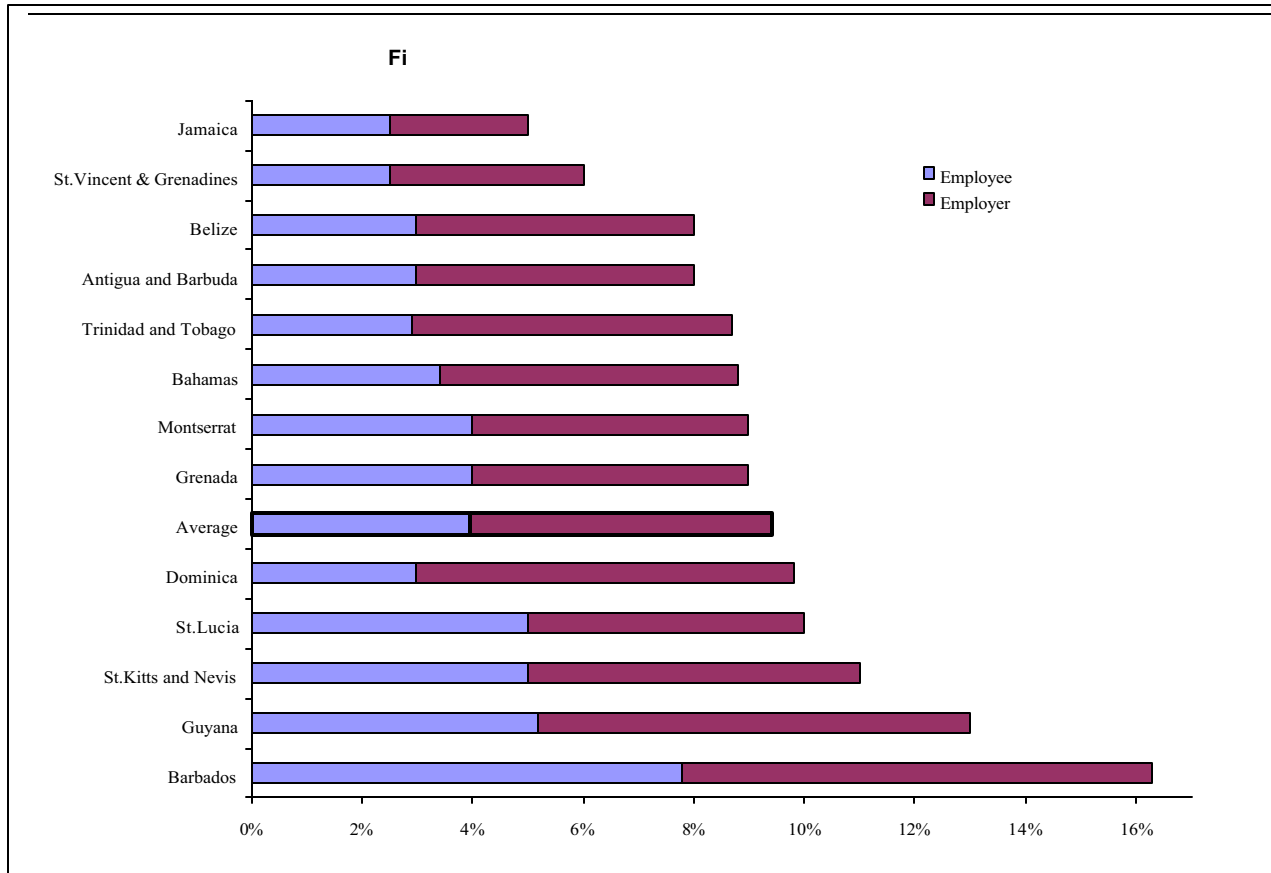


FIGURE 2
RESERVES AND RESERVE EXPENDITURE RATIO

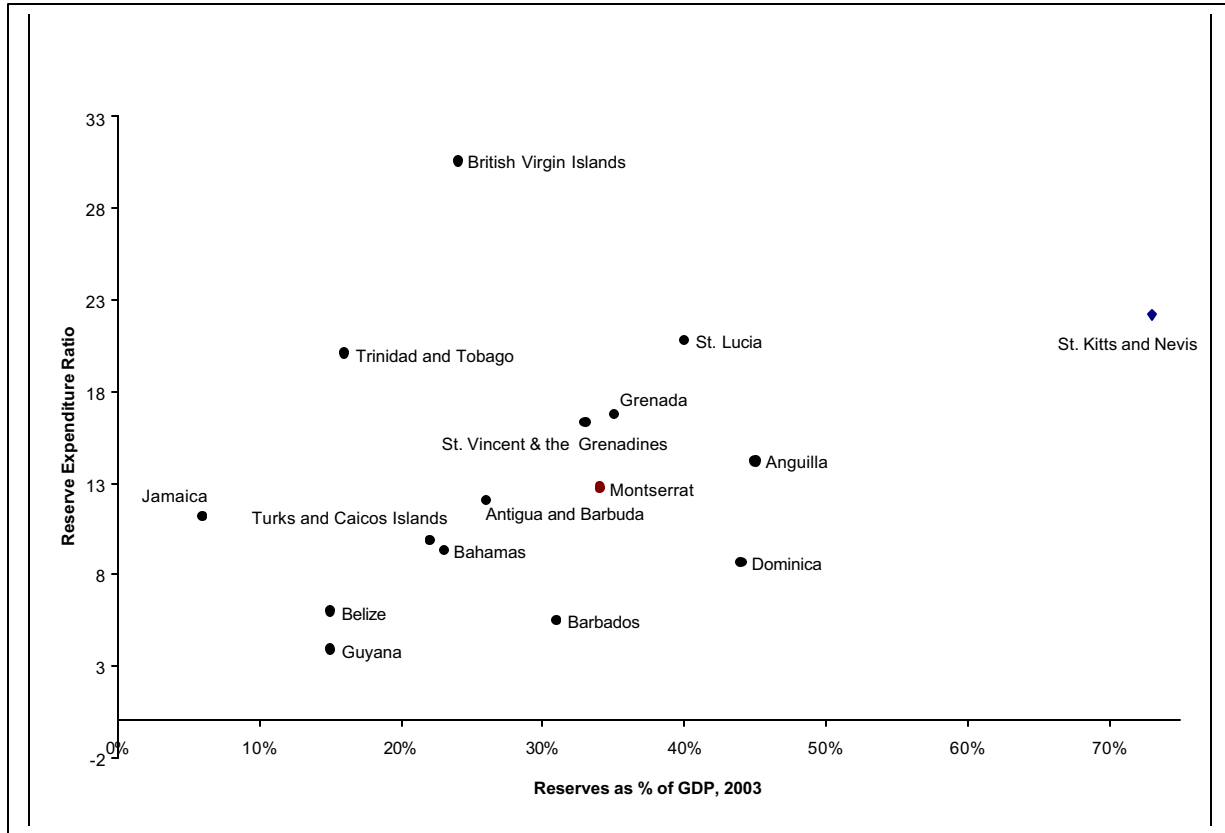
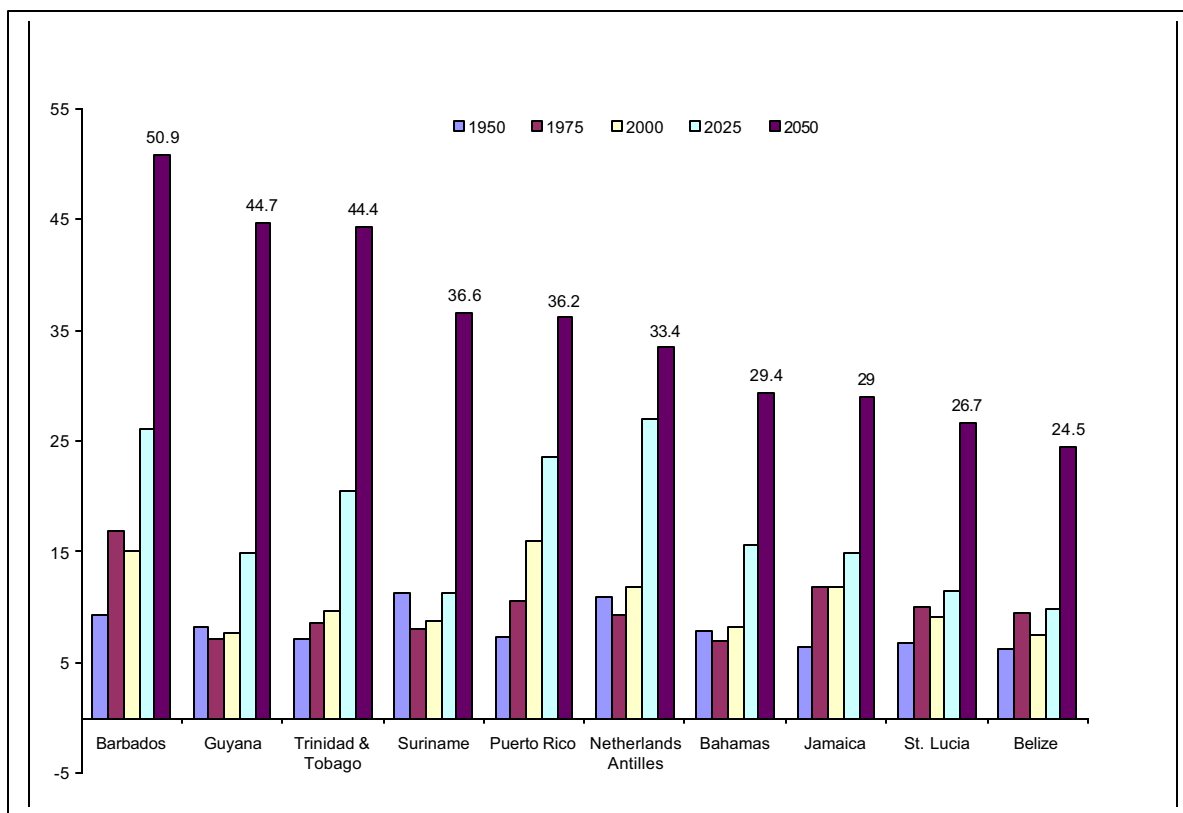


FIGURE 3
OLD AGE DEPENDENCY RATIO



Bibliography

- Disney, R. (1999), *Notional Accounts as A Pension Reform Strategy: An Evaluation*, Social Protection Discussion Paper Series N^o. 9928, Social Protection Unit, World Bank.
- Docquier, F. and Marfouk, A. (2004), *Measuring the International Mobility of Skilled Workers (1990-2000)*, World Bank Discussion Paper, 19/8/2004.
- ECLAC (2005), *Labour Market Trends*, document pending release.
- _____ (2004), *Population Ageing in the Caribbean: Longevity and Quality of Life*, LC/CAR/L.26.
- Gruber, J. and Wise, D. (eds) (1999), *Social Security and Retirement around the World*, Chicago: University of Chicago Press.
- Henry, V. F. (2004), *An Investigation into the Structure, Governance and Performance of the Social Security Organizations in the Caribbean*, ISBN 976-8180-72-2.
- Montas, H. P. (2003), *Belize: Sixth Actuarial Review of the Social Security Scheme*, obtainable from <http://www.socialsecurity.org.bz/>.
- Orszag, P. Stiglitz, J. (2001), *Rethinking Pension Reform: Ten Myths about Social Security Systems*, in *New Ideas About Old Age Security* (The World Bank, 2001).
- Osborne, D. (2004), *A Current Assessment and Road Map for achieving future Financial Sustainability and Income Security*, mimeo.
- Palmer, E. (1999), *The Swedish Pension Reform – Framework and Issues*, National Social Insurance Board, Stockholm.
- Schwarz, A. and Demirguc-Kunt, A. (1999), *Taking Stock of Pension Reforms Around the World*, Social Protection Discussion Paper Series N^o. 9917, Social Protection Unit, World Bank.
- Sherman, K. (1999), *the Swedish Pension Reform*, Issues in Social Protection Discussion Paper N^o. 7, ILO, Geneva.
- Rofman, R. (2005), *Social Security Coverage in Latin America*, Social Protection Discussion Paper Series N^o. 0523, Social Protection Unit, World Bank.
- United Nations (2002), *World Population Ageing 1950-2050* (UN).
- World Bank (1994), *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*, ISBN 0-1952-0996-6.
- World Bank (2005), *Keeping the Promise of Social Security in Latin America*, ISBN 0-8213-5817-0.