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CARTAC Public Pension Plan Reform Technical Assistance Work Plan

Introduction

In an effort to support efforts of member states to reform their national pension schemes and public sector pension plans, CARTAC is embarking on an ambitious TA program. It encompasses reviews of national and public sector pension plans and recommended reform strategies; and quantitative in-country workshops to de-mystify the actuarial and other financial evaluations of pension plans for officials of Ministries of Finance and managers of public pension plans, by helping them understand how these evaluations are put together, the importance of the assumptions, the key drivers and dynamics; and the impact of changes in assumptions or policy parameters on the bottom line evaluation results.

CARTAC will work with specialists in national and public sector pension plans, including Mr. Jim Duggan, who is well known in the Caribbean, to assist us in the execution of this work plan. The remainder of this note provides some context and motivation for this initiative; it describes the two activities, and the work to be carried out before, during and after each mission. This includes the expected outputs to be produced in each mission

Context

Caribbean populations are aging rapidly as life expectancy is advancing and fertility is declining leading to rising dependency ratios (pension-age population/working-age population). This, in turn, is raising concerns about the financial viability of public pensions in the region, given current financing arrangements. Pension reform is becoming a pressing issue. The largely pay-as-you-go (and in some cases, non-contributory) schemes threaten to become a drain on central government finances; and policymakers in the region are struggling with how to reform their systems. A few countries are already experiencing cash-flow deficits in their pension programs; and others will face this problem within the next ten years. Reserves in Social Security schemes are expected to be depleted within the next three decades for a number of Caribbean countries. The recent period of economic downturn has eroded revenues in many countries which may exacerbate the problem and accelerate these timelines.

Some countries – with the direct assistance of CARTAC in some instances – have undertaken reviews of their pension plans and have made changes to their basic parameters – increases in contribution rates or retirement ages, for example – often on the basis of recommendations emanating from actuarial reviews of their schemes. However, the reviews themselves remain something of a “black box” to analysts and policymakers in the country. This is easily

understandable: the preparation of an actuarial review involves a complex process, making use of detailed historical economic and demographic data in combination with assumptions about the future path of these same variables. As a consequence, tracking the full effects of parametric changes recommended in the actuarial reviews on the financial viability of public pension plans is not a very transparent undertaking.

Recent CARTAC Assistance

In recent years, CARTAC TA activity in this area has been limited. In 2008, CARTAC funded a review of the public sector pension plan in Montserrat. It contained recommendations, which the government of Montserrat subsequently decided to pursue. This led to a follow-up mission in late 2009, during which CARTAC's pension specialist (Jim Duggan) and actuary (Derek Osborne) developed concrete reform options for Montserrat's public sector plan; and they quantified the impact of these changes on the plan's financial health. A report documenting these results was submitted to the authorities; and it is being used in consultations with key stakeholders.

In June 2009, CARTAC hosted a regional Pension Reform conference jointly with the ECCB. This gave participants from 15 member countries the opportunity to be briefed by regional and international experts on the state of public pension plans in the Caribbean region; and to deliberate on the merits of alternative reform options. Trends in pension plan reforms in the region and globally were also discussed and commented on. During the conference, a ***number of member countries acknowledged the need for pension reforms in their countries, and approached CARTAC informally to carry out a review of their plans.*** At the end of the conference, participants were canvassed on their interest in participating in quantitative pension reform workshops which CARTAC would offer, intended to de-mystify the actuarial and other quantitative aspects of pension plan reforms. Given participants' enthusiastic response, CARTAC mandated Mr. Duggan – a co-facilitator at the June conference – to develop and deliver this quantitative workshop.

CARTAC TA Program in 2010 and 2011 in Support of Public Pension Plan Reviews and Reforms

This program is as an integral element of a CARTAC strategy to help member states to better assess and manage fiscal risks. Two activities will be carried out to support member states in their efforts to reform their pension plans:

- a) Delivery of the aforementioned quantitative pension reform workshops. A principal objective of the pension-reform workshop is to “unravel” the complexities of pension schemes through a straight-forward step-by-step process of defining the key variables and their relationships through structured data analysis. The analysis will attempt to look into the “black box” of actuarial evaluations, so that the major drivers and their interrelationships can be uncovered; and so that the effects of the assumptions and policy parameters on these evaluations can be easily understood and readily observed in the data. This will allow participating MoF officials and pension plan managers to track the impact on these estimates of changes in the key economic and demographic assumptions

or changes in parameters (contribution rates, retirement age, or benefits). In turn, this will help them make an informed interpretation of actuarial reviews and prepare advice to policy makers concerning the pros and cons and implications of alternative choices being contemplated in the pension reform process. The material to be covered during the workshop, the approach and program are set out in Annex 1. Not more than two weeks following the end of the workshop, Mr. Duggan would prepare a report for CARTAC, documenting the results obtained, the process followed, the economic and demographic data employed, the assumptions made, the issues encountered and the conclusions and recommendations reached. After review by the macro-fiscal advisor, the report will be submitted to the authorities for their comments and consideration. In some countries where MoF officials are already sensitive to the need for reforms, they have indicated that this workshop would be a good place to start, and a prelude to more formal reviews and analyses of reform options.

b) Reviews of public pension plans and, as required, presentation and analysis of alternative reform options. The objective is to assist member states to assess the sustainability of their public pension plans; and develop and analyze the effects of alternative reform options and document the results of this analysis. Results of the most recent actuarial reviews of national and public sector pension plans will be examined – it is likely that these reviews would already have concluded that the plans are unsustainable: that they are likely to represent an increasing burden on central government finances over time. These reviews would also reveal the major contributing factors for this state of affairs. This in turn will help guide the formulation of parametric or structural approaches to reforms. The financial implications of alternative paths to reform would be traced, together with an account of which groups would be affected, the pros and cons of each option and the associated communications challenges and strategies.

For example, in a review of national and public sector pension plans of a member state carried out by CARTAC in 2008, the following provisions were included among the report recommendations:

- Changes in maximum wage replacement rates and the concomitant benefit accrual rates to achieve the maximum replacement rate over a 40-year length of service period
- Higher retirement age for public sector workers, to match the retirement age in the Social Security scheme
- Price indexation of post-retirement benefits based on the average annual per cent increase in the CPI recorded during the year ended in December, each year;
- Extension of the number of years of earnings used in computing initial retirement benefits;
- Explicit contribution rates (employer and employee) to finance the modified plan for public service workers.

In carrying out this work, if deemed required, CARTAC will consider hiring the services of an actuary to prepare timely, precise estimates of the impact of specific pension reform

proposals under consideration by the authorities. For example, in a follow up CARTAC mission to assist the authorities in the implementation of reforms recommended in the previous review, the following actuarial evaluations were required:

- Financial estimates of the long-term cost of the revised and existing plans;
- Examples of how proposed changes will affect existing officers which include workers who already have 20 or more years of pensionable service and already eligible for a pension, those with less than 20 years of service, future pensionable officers, current and future Non-established workers and contract workers;
- Examples of combined Social Security and Plan replacement rates for officers with varying ages, years of service and salary levels.

Within a period of not more than two weeks following each mission CARTAC will prepare a draft mission report setting out the findings and recommendations, the process followed, data used, issues encountered, and the possible next steps. CARTAC's macro-fiscal advisor will also forward the report to pension experts in the Fund's Fiscal Affairs Department for comment. HE will then submit the final report to the authorities.



CARTAC QUANTITATIVE PUBLIC PENSION REFORM WORKSHOP

Participants in this workshop will analyze the basic structure and financial operations of public pension plans in the Caribbean, including Social Security and Civil Service pension schemes. They will become familiar with the assumptions and policy parameters that drive the income and expenditure flows of the pension schemes and how they interact. They will learn how changes to assumptions and to values of the “policy” variables affect those flows, and the plans’ overall solvency or sustainability. This will enable participants to better understand the pension evaluations put forward by actuaries; to evaluate the pros and cons and likely consequences of alternative reforms to the schemes in their own country; and to prepare model-based briefings.

Objectives

- Present the main purposes and concepts of public pension schemes, including key issues facing Caribbean schemes and the need for reform
- Analyze the basic structure and financial operations of prototypical Caribbean public pension scheme
- Quantitatively evaluate alternative parametric reform options and describe construction of evaluation measures
- Familiarize participants with concepts and measures & formulas used in actuarial reviews of pension schemes
- Review the principal design options for public pensions
- Discuss issues related to implementation of design options and the political reality of reform

Target Participants

- Managers and technical staff with responsibilities in the design and implementation of pension and Social Security policy, and fiscal economists engaged in macro-fiscal forecasting and in advising the Government on how best to manage risks to the fiscal framework emanating from national and public sector pension plans.

Workshop Topics

- Overview of public pension plans: key features and objectives
- Issues in evolution of Caribbean public pensions
- The need for reform
- Structure and financial flows in PAYGO pension schemes in this country
- Projections of pension scheme finances
- Exercises in parametric reforms
- Participants views on home-country reform goals
- Pension scheme design options and implementation issues
- Political economy of pension reform

**TENTATIVE PROGRAMME FOR CARTAC WORKSHOP ON PUBLIC PENSION
REFORM IN THE CARIBBEAN**

DAY 1	
8:00-9:00	REGISTRATION & COFFEE
9:00-10:00	WELCOME AND INTRODUCTION <ul style="list-style-type: none"> • Opening Remarks – objectives, organization, procedures for workshop • Participant Discussion – experience, needs, desires, expectations for workshop
10:00-10:30	Coffee Break
10:30-11:45	OVERVIEW OF PUBLIC PENSIONS <ul style="list-style-type: none"> • Purpose of public pension schemes <ul style="list-style-type: none"> ○ individual perspective – consumption smoothing, insurance ○ Government perspective – redistribution, poverty relief • Key features of Caribbean public pension schemes <ul style="list-style-type: none"> ○ Mandatory participation ○ Defined benefits ○ Social Security (Contributory, partially funded schemes) ○ Civil Service (Noncontributory, unfunded scheme: i.e. budget-funded) • Public Pensions and the Retirement System – the role of private pensions • Alternative Designs <ul style="list-style-type: none"> ○ Defined benefit and defined contribution ○ PAYGO and funded ○ Notional defined contribution ○ Multi-pillar • Individual Account Risk
11:45-12:45	ISSUES IN THE EVOLUTION OF CARIBBEAN PUBLIC PENSIONS <ul style="list-style-type: none"> • Aging – increasing life expectancy, declining fertility & rising numbers of retirees • Migration – portability of pension rights • Inadequate coverage – extent of informal economy • High administrative costs • Lack of integration of Social Security and Civil Service pension schemes – dual pensions for civil servants
12:45-2:00	Lunch Break
2:00-3:30	FISCAL STATUS OF PENSION SCHEMES: THE NEED FOR REFORM <ul style="list-style-type: none"> • Financial status of Social Security in current year • Social Security in the future • Summary measures of future financial status of social security • Financial status of Civil Service pensions in current year • Civil service pensions in the future • Summary measures of future financial status of civil service pensions • Civil service pensions as supplementary to Social security • Problems with civil service pension schemes

	<ul style="list-style-type: none"> ○ Different paradigm ○ Ageing problem magnified ○ Noncontributory systems – no accounting for costs ○ Lack of mobility ○ Pay comparability
3:30-4:00	Coffee Break
4:00-5:30	<p>PROJECTING SOCIAL SECURITY FINANCES</p> <ul style="list-style-type: none"> ● Overview of Actuarial Report ● Overview of spreadsheets ● Cost and income relationships ● Population, labor force, employment, wages ● Components of cost ● Components of income ● Summary measures of financial status
DAY 2	
8:30-9:00	Coffee
9:00-10:30	<p>PARTICIPANT EXERCISES – PARAMETRIC REFORM OPTIONS</p> <ul style="list-style-type: none"> ● Increases in retirement age ● Changes to benefit formula <ul style="list-style-type: none"> ○ Modify accrual schedule ○ Modify computation period for initial benefit ● Changes to indexation of pensions ● Changes to contribution rate ● Changes to ceiling on contribution base
10:30-11:00	Coffee Break
11:00-12:30	<p>THE STRUCTURE OF PAYGO PENSION SCHEMES</p> <ul style="list-style-type: none"> ● PAYGO versus funded schemes <ul style="list-style-type: none"> ○ Social Security partially-funded, Civil Service pure PAYGO ● The simple mathematics of income and cost in contributory PAYGO schemes like Social Security <ul style="list-style-type: none"> ○ $\text{Income} = \text{avg contribution rate} \times \text{average insurable wage} \times \text{\# of contributors}$ ○ Trust fund receives investment income if scheme is not pure PAYGO ○ Cost is the product of average benefit and the number of beneficiaries or the product of the average replacement rate and the dependency ratio ○ Average benefit determined by features of the benefit formula, e.g. accrual rate
12:30-2:00	Lunch

2:00-3:30	PROJECTING CIVIL SERVICE SCHEME FINANCES <ul style="list-style-type: none"> • Overview of spreadsheets • Economic and demographic assumptions • Cash-flow projections • Summary measures of future financial status • Options for parametric reform • Integration with Social Security • Alternative design – defined contribution
3:30-4:00	Coffee Break
4:00-5:30	CIVIL SERVICE PENSION REFORM EXERCISES <ul style="list-style-type: none"> • Changes to retirement age • Modifications to accrual schedule <ul style="list-style-type: none"> ○ Coordination with Social Security accrual schedule • Modify computation period for initial benefits • Introduce contribution rate
DAY 3	
8:30-9:00	Coffee
9:00-10:30	GOALS OF REFORM – SOCIAL SECURITY AND CIVIL SERVICE <ul style="list-style-type: none"> • Long-run fiscal sustainability <ul style="list-style-type: none"> ○ Limit size and growth of unfunded obligations • Achieve balance between income and costs • Equity in the distribution of benefits • Appropriate mix of adjustments to income and costs • Length and timing of phase-in period • Social Security as primary retirement benefit, Civil Service pensions as supplementary
10:30-11:00	Coffee Break
11:00-12:30	PARTICIPANT TEAMS DEVELOP REFORM PLANS
12:30-2:00	Lunch Break
2:00-3:30	PARTICIPANT TEAMS DEVELOP AND EVALUATE REFORM PLANS
3:30-4:00	Coffee Break
4:00-5:30	IMPLEMENTATION ISSUES AND POLITICAL REALITY OF REFORM <ul style="list-style-type: none"> • Parametric versus structural reform <ul style="list-style-type: none"> ○ Initial conditions may dictate the need for parametric reform even when structural reform is pursued • Structural reform considerations <ul style="list-style-type: none"> ○ Transition costs ○ Design options – DC or DB, mandatory or voluntary, who bears risk, financing, administration, role of government ○ Population size, existing macroeconomic conditions, extent of informal economy, access to capital markets

	<ul style="list-style-type: none"> ○ Administrative capacity – governance, contribution collections, recordkeeping, asset management ○ Strength of legal environment – regulatory and contractual oversight ● Political considerations <ul style="list-style-type: none"> ○ Size and composition of the population ○ Nature of political discourse ○ Beneficiaries averse to lower benefits and workers averse to higher contributions ○ Structural reforms may be more appealing to younger generations
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DAY 4	
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8:30-9:00	Coffee
9:00-10:30	PARTICIPANTS PRESENT REFORM PLANS
10:00-10:30	Coffee Break
10:30-12:00	PARTICIPANTS PRESENT REFORM PLANS
12:00-12:30	CONCLUSION OF WORKSHOP