Abstract

CHAPTER 1

The recent spate of proposals on how to reform social security arrangements in the United States and other countries has inevitably confused the subject with private arrangements for the provision of retirement wealth. "Privatization" of social security is loosely defined and is often a misnomer. It has also been suggested that plans must be either defined benefit (DB) or defined contribution (DC), or similar to models in the United States or Chile. This chapter provides definitions of certain key terms and examples of different pension systems and reforms around the world.

CHAPTER 2

Many books and articles on pension reform suggest that there are absolute truths in the pension reform debate. This chapter discards the semantics of the pension reform debate to point out the gray areas. The desirable characteristics of proposed reforms are laid out by explicitly stating the trade-offs in the selection of different Social Security design aspects. In brief, the study provides a simple analytical framework to enable decision-makers to analyze the merits and demerits of any proposal. Finally, for a given set of desirable macro- and micro-economic properties, this chapter offers an innovative "Ideal Model" which attempts to incorporate favorable elements of Defined Benefit (DB) and Defined Contribution (DC) plans.

CHAPTER 3

A revolution has been sweeping across Latin America during the last decade, namely, to reform the pension systems. Countries have made three fundamental and dramatic paradigm shifts in their efforts to imitate the so-called privatization of the Chilean scheme: (i) they have moved from pay-as-you-go (PAYGO) systems to funded systems;

(ii) from defined benefit (DB) schemes to defined contribution (DC) schemes; and (iii) from schemes with public management of assets at moderate administrative cost (with certain inefficiencies) to private asset management at significantly higher costs. These transitions also raise issues relating to regulation and political risk, there being a naïve supposition that "privatization" eliminates political risk because individuals have some control over their pension assets. This chapter seeks to highlight potential flaws in pension design so as to allow countries that have already implemented reforms to correct their flaws quickly, and countries contemplating reforms to not repeat these errors. Ultimately, if regulators and policy makers do not pay attention to ensuring that individuals get a decent replacement rate, with a high degree of certainty, pension reform will ultimately lead to widespread old age poverty and transfer of wealth from the poor to the asset management industry. Thus, the pension reforms intended to guard against those outcomes may well prove to be prescriptions for disaster.

CHAPTER 4

A number of countries have implemented "privatized" defined contribution (DC) schemes to entirely or partially replace their pay-as-you-go (PAYGO) defined benefit (DB) schemes. In the United States, numerous academics and politicians are proposing a similar reform. However, these proposals fail to recognize the attractive risk-sharing properties of DB plans in minimizing the risk that participants retire poor. We have proposed a contributory, funded, defined benefit (CFDB) scheme, where the benefit is guaranteed simply through a guaranteed real rate of return on fixed contributions. We use this scheme to demonstrate the welfare improving properties vis-à-vis a privatized, DC structure. Using a simulation model, we provide estimates of the welfare gain (assuming a stylized economy) of a CFDB plan vis-à-vis a DC plan in ensuring that people do not retire poor or retire below a target replacement rate. The key result is that a CFDB is more efficient, from the perspective of both the country and the participants, than a mandatory DC plan. This follows as the CFDB plan is able to pool participants, who have different participation periods in the retirement plan and thereby minimizes risk.

In addition, welfare gains from the CFDB plan are an increasing function of the heterogeneity of populations, variability of asset returns and ability to diversify asset risks. This result is particularly important for countries that have to deal with high asset return volatility and with opportunities to diversify their asset allocation. This chapter concludes by suggesting that countries, in general, and particularly those countries that are involved in developing regional pension plans, would be better off adopting the CFDB model.

CHAPTER 5

We have shown that the funded system tends to outperform PAYGO in many respects and there is broad agreement on this. One need not assume that, therefore, there should be an immediate switch to funding. The superiority of funding over PAYGO, from the point of view participants, is because they pay a lower contribution for the same cost ratio. This is only because the rest of the benefits are provided from the return on the accumulated capital (i.e., they are made richer). Therefore, to move to funding means that the capital must be accumulated first to fund the unfunded liabilities of the existing PAYGO system. This is known as the "transition problem" and the key issues are how to do it and who should bear the cost. We will deal with these issues in general, and in this chapter, eventually apply the analysis to the United States.

CHAPTER 6

The public pension system in Spain is currently a pay-as-you-go (PAYGO) scheme. This chapter examines the structure of this public system and its financial viability in the face of expected demographic changes. Without significant reforms, the system will face a reduction in benefits and/or an increase in payroll tax by the second quarter of this century (2025–2050). A permanent solution can be supported by three pillars: (i) Creation of a Pension Fund with the surpluses of the PAYGO system and a creative investment policy; (ii) Contribution of prospective surpluses from the unemployment system to the Fund during a transitory period; and (iii) Pension reforms based on participation in the labor force and elimination of the distortions in the current system. These reforms would maintain financial viability without raising the payroll tax, and the tax could potentially be reduced gradually beyond 2045.

CHAPTER 7

The focus of the pension reform debate has been on: (i) whether countries should adopt defined benefit (DB) or defined contribution (DC) plans; (ii) whether investment arrangements should be individual accounts or pooled, whether assets should be publicly or privately managed; and (iii) whether asset management fees are too high or appropriate. However, little has been done to help individuals in DC plans, or governments with DB plans, invest these monies to ensure the achievement of retirement goals. DB pensions are the only "risk-free asset" in a pensions context. This chapter argues that the success of any pension reform can only be assured if guaranteed real rate of return products (GRRP) is available. In effect, this chapter demonstrates that individuals can achieve retirement goals through an optimal combination of DB and DC plans, and GRRPs are

one way in which the private market can offer pseudo-DB plans. The optimal mix of DB and DC plans is shown to be consistent with the standard theory of optimal portfolio selection, under the capital asset pricing model framework, and suggests a "Two Pension Fund" Theorem.

CHAPTER 8

Previous chapters have compared funded with PAYGO systems, and DB with DC systems. We have also shown that combining DB and DC systems can help participants achieve retirement objectives more effectively than if no DB plan exists. Analysts have recommended creating pension systems that are DB, but where the DB financing is a combination of the PAYGO and funded systems. This chapter demonstrates that a partially funded system is in effect a mix of a funded and PAYGO system. Our departure from other research is that our primary reason for partial funding is to contain the impact on the capital markets of fully funded social security system. Further, all discussions of pension systems have typically assumed that the contribution rate is fixed. When many parameters impacting a pension system are not fully predictable (asset returns, wage growth, inflation, or demographics), the resulting risks to the government of offering a DB must be minimized. We show how variable (or dynamic) contributions lowers the risk to the government. This technique is commonly used by corporate pension plans and can be invaluable for national pension systems.