

Social Security Reform in Advanced Countries

Evaluating pension finance

Edited by
**Toshihiro Ihori and
Toshiaki Tachibanaki**

Routledge Contemporary Economic Policy Issues

Social Security Reform in Advanced Countries

Increasingly ageing populations and a slowing rate of growth in the macro-economy are forcing advanced countries to reconsider their social security programmes. The need for detailed examination of the possible reforms and initiatives has never been greater.

This book brings together internationally-renowned scholars to evaluate the effect of recent social security reforms in advanced countries (pension programmes in particular) and to suggest policy reforms for the future.

Considering both theoretical and empirical aspects, the contributors evaluate three different policy reforms in order to address the problems common in developed nations:

- The shift from pay-as-you-go to funded systems
- The privatization of public pension systems
- The contribution of tax revenues to social security benefits is suggested.

Including detailed studies of countries including Australia, Germany, Japan, Scandinavia, the UK and the USA, this book will be of essential interest to economists and policy-makers working in pension financing reform, and public economics more generally.

Toshihiro Ihori is Professor of Economics at the University of Tokyo. His previous publications include *Public Finance in an Overlapping Generations Economy* (1996) and (in Japanese) *Right Ideas on Government Deficit* (2000).

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Preface

Both advanced and developing countries suffer from the problem of social security, in particular old-age pension programmes for various reasons. Typical reasons for advanced countries are an ageing trend in the age-population structure, and a slower rate of economic growth in the macro-economy. These changes suggest the necessity of policy reforms in advanced countries.

This book attempts to evaluate the effect of recent social security reforms in many advanced countries, in particular pension programmes, and to show several desirable policy recommendations.

This book evaluates three different policy reforms in order to solve problems common to developed nations. First, a shift from a pay-as-you-go system to a funded system is recommended. Second, privatization of the public pension system is proposed in several countries. Third, the contribution of tax revenues (i.e. tax financing) to social security benefits is suggested.

This book also considers both the theoretical and empirical aspects. 'Theoretical' implies that an evaluation is made based on both efficiency and equity grounds. 'Empirical' implies that countries like Australia, Germany, Japan, Scandinavia, the UK, and the US are evaluated empirically.

Both theoretical and empirical chapters help to recognize the present status of social security reforms in advanced countries.

All chapters in this book were presented as papers at a conference at the University of Tokyo in September 1998, which was organized by the present editors. The conference was sponsored by the Center for International Research on the Japanese Economy at the University of Tokyo. We are much indebted to the center both financially and logistically, and are grateful for their support.

Toshihiro Ihori
Toshiaki Tachibanaki

1 Introduction

Toshihiro Ihori and Toshiaki Tachibanaki

1.1 Reason for this book

A large number of advanced countries have problems with their social security systems, in particular public pension systems. One of the most important causes of this problem is that many countries face an ageing trend in age–population structure. The number of people who contribute financially to the system is decreasing. The problem is serious particularly when the system is either a pay-as-you-go scheme or an unfunded scheme.

There are, of course, several other factors such as the decrease in the participation of men in the labour force, the slow increase in female participation, the policy of early retirement to offset youth unemployment, which cause serious problems in social security. In several industrialized countries the following can be added: the weak performance in the macroeconomy which reduces the amount of contributions, and the low rate of interest which lowers the rate of return on asset management.

There are several studies which show projections of the fiscal liabilities of public pensions programmes and serious financial deficits, and present incapacities of paying a sufficient amount of pension benefits continuously, when the current pay-as-you-go or the unfunded scheme is kept below the ageing trend. See, for example, OECD (1996) and Disney (2000) for advanced countries, specifically the OECD countries. If we look at studies for particular individual countries, we should be looking at an extremely large field.

Many countries contemplate policy reforms to modify public pension systems in order that the government can sustain the system without reducing the benefit level drastically and/or increasing the contributions level considerably.

Several countries have contemplated such reforms, and other countries have already finished implementing them. This book intends to investigate reasons for introducing policy reform, and outcomes derived from its introduction. The method for investigating these issues is both theoretical and empirical.

‘Theoretical’ implies that an evaluation is made by theoretical papers

based on both efficiency and equity grounds. Efficiency means economic efficiency such as optimal resource allocation, higher economic growth, lower cost performance, while equity means that income is distributed without producing both desperately poor people and extremely rich people. 'Empirical' implies that an evaluation is made by empirical models which propose policy reforms for a particular country, and investigate the outcome induced by them.

Policy reforms in public pension programmes are not the only issues in advanced countries. A large number of developing countries also face serious problems. Several countries have committed themselves to drastic reforms. The famous example is the Chilean one which initiated privatization of social security, and then, several other South American countries followed Chile's example regarding the privatization of social security. See, for example, Edwards and Edwards (1991). Even advanced countries have been influenced by similar privatization experiences.

This book is concerned only with advanced and industrialized countries for the following reasons. First, the social and economic conditions, and the degree of development in public pension programmes between developing countries and advanced countries are so different that it is difficult to put the case for policy reforms based on common concepts and implementation methods.

Second, old age pension programmes are not the only means of supporting income after retirement in developing countries, because families and other institutions support the economic life of the elderly in these countries. Families are crucial in these countries, particularly many Asian countries. Thus, we have to take into account the role of families and other arrangements, even when the role of public pension programmes is evaluated. In other words, investigating only public pensions gives only part of the story.

Third, political instability is frequently observed in these countries. One example was Chile where a drastic change in the political system enabled Chile to introduce privatization. A drastic reform in advanced and democratic countries may be difficult for implementation for various reasons.

The key concept which characterizes policy reform in advanced countries is the pay-as-you-go (unfunded) scheme versus the funded scheme. Retaining an unfunded component was called a 'parametric' reform strategy by Chand and Jaeger (1996), and a funded component is called an 'actuarially fair' system. Disney (2000) classified the latter into two parts: a 'clean break' privatization and a 'partial' privatization.

Disney separated the current reform strategies into four parts based on the above two classification criteria: (1) a parametric reform of the unfunded programme, (2) an actuarially fair unfunded programme, (3) clean break privatization, and (4) partial privatization.

The crucial distinction appears between unfunded schemes (normally defined benefit plan: DB plan) and funded schemes (normally defined contribution plan: DC plan), and a shift from the former to the latter is often pro-

posed in order to solve the current social security problem. A further shift may be called privatization. We can see such strong propositions by many economists in the US such as Feldstein (1998), Kotlikoff (1996), Mitchell and Zeldes (1996), and others. This idea influenced economists in a large number of advanced countries, and the received wisdom is that a shift to fully funded is the best solution.

It is, nevertheless, important to note three different views in this received wisdom. First, several studies do not accept such a shift even in the US as given by Aaron (1999) and Diamond (1999), who prefer unfunded schemes. The reasons for disliking the funded scheme are that they are too high a risk on the rate of return and have high administration costs. Second, several European studies, in particular Continental European ones, also provide critical evaluations of funded schemes as shown by Boldrin, Dolado, Jimeno and Peracci (1999), and Miles and Timmermann (1999), for various reasons. Of course, there is non-negligible number of studies which prefer funded to unfunded schemes even in continental Europe. Third, we tend to ignore one idea and proposition in the discussion of financing social security, a shift from insurance financing to tax financing. Several authors propose that general tax revenues rather than social insurance contributions should be used to finance old-age pensions. In fact, there are several countries such as Canada, Denmark, and some others where general tax revenues are used to finance social security.

The present book attempts to investigate these controversial issues such as: (1) unfunded versus funded, (2) American (or Anglo-American) versus continental Europe, (3) the role of tax financing, which is common in many advanced countries. Several additional issues are, (4) the relationship between the labour supply of the elderly and pensions benefits, (5) the risk aspect of pension fund and administration costs in managing funded scheme.

It is emphasized, again, that this book investigates these issues both theoretically and empirically. Theoretical chapters present useful propositions under reasonable assumptions and behavioural actions regarding the working of social security, and empirical ones show evaluations of policy reforms in social security on whether such reforms are useful or not for several countries. Suggestions for social security reforms are presented based on these theoretical and empirical works.

1.2 Summary of the content

The content of each chapter will be summarized below. Because the defined contribution (DC) pension model is as yet new to Japan, it is likely that the experience of other countries who have previously adopted this approach to pensions may be useful in designing the required investment and governance frameworks to support these plans. [Chapter 2](#), which is written by Olivia S. Mitchell, intends to highlight global innovations in the design, structure, and governance of pensions, so as to emphasize those points that will require

special attention in the Japanese context as the pension system continues to evolve. She first outlines the legacy of defined benefit plans and explains what has motivated the global transition to defined contribution pensions. This movement to DC plans occurred in two waves, with a first followed by a second wave of DC plan growth. This second phase was spurred on in the US by the passage of legislation allowing for the development of 401(k) pensions. She shows that these plans pose new challenges to the pension market, and to the government seeking to regulate them to ensure that they deliver a reasonable retirement income. She concludes with an overview of the most important governance and regulatory implications of the new pension model, lessons for Japan.

Chapter 3, which is written by Mats Persson, investigates five fallacies in the social security debate which are as follows:

- 1 The present problems in the social security systems are due to demography.
- 2 A pay-as-you-go system is inferior to a funded system since it has a lower rate of return.
- 3 In a riskless world, a low-return PAYG system is dominated by a high-return funded system.
- 4 The social security system is a suitable instrument for intergenerational risk sharing.
- 5 The government is a safe provider of social security.

He points out that the first step of a reform should be to make the benefit rules actuarial. After then, the gains from proceeding further, into a funded system, are not due to the fact such a system has a higher yield. The gift to the first PAYG generation has already been given, and a funded system cannot remove that cost. What we can accomplish by means of government debt management, is to shift it over the generations. The main reason for funding the system seems to be that it can thus be privatized. And the main reason for privatization is that of transparency and safety; competition will guarantee that the rules remain actuarial and the political risk may thus be reduced.

Chapter 4, which is written by Gary Burtless, surveys the relative advantages of public and private systems. More important, he assesses the financial market risks facing contributions in a private system based on individual retirement accounts. The first part of the chapter describes the difference between public and private systems and considers the main economic and political arguments for privatization. A principal claim is that private plans can provide better returns to contributors. If this were true, it seems appropriate to weigh possible risks associated with the improved returns. Some of the most important risks are those associated with financial market fluctuations. The second part of the chapter provides evidence for these risks by considering the hypothetical pensions US workers would have obtained between 1911 and 1999 if they had accumulated retirement savings in individual accounts. He shows that the financial market risks in a private retire-

ment system are empirically quite large. Although some of these risks are also present in a public retirement system, a public system has one important advantage over private ones. Because a public system is supported by the taxing and borrowing authority of the state, it can spread risks over a much larger population of potential contributors and beneficiaries. This makes the risks more manageable for active and retired workers, many of whom have little ability to insure themselves privately against financial market risk.

Chapter 5, which is written by Hazel Bateman, Suzanne Doyle and John Piggott, addresses two important questions: administrative charges and payout design and market structure by drawing on Australian and Chilean experience. Their chapter also aims to relate to a generic economy in which private mandatory retirement provision is being implemented or considered. In 1992 Australia introduced the Superannuation Guarantee, the first private mandatory retirement saving policy in the English-speaking world. At that time the only country to have adopted a policy of this type was Chile, in 1981. Private mandatory policies require either employers or employees to invest some fraction of the employee's wages with a private sector organization, with the aim of eventually helping to finance the employee's retirement. Typically, these worker accumulations are defined contribution DC, fully funded, and kept in individual accounts. In the eight years since 1992 more than a dozen countries, mostly in Latin America and the transition economies of Central Europe, have either mandated private retirement provision or have stated their intention to reform their pension policies along these lines. Further, a number of developed countries have either reformed their pension systems in this direction (for example, the UK) or have debated doing so (the US). Rarely has a novel policy design spread so swiftly across disparate nations. This chapter suggests that administrative cost and retirement income stream policy will be critical areas of policy design within the mandatory private paradigm, and that this is borne out by Australian and international experience. It is these questions which have proved the most controversial in the policy debate, and which have been the most challenging in terms of policy design.

Chapter 6, which is written by Tatsuo Hatta and Noriyoshi Oguchi, investigates the plausibility of switching the Japanese social system from pay-as-you-go to actuarially fair. Under the current Japanese pension system the lifetime pension benefit of an average salaried man born in 1935 is greater than his lifetime pension contributions by \$500,000. If he had been faced with the contribution and benefit schedules that a person born in 2000 faces, his lifetime benefit would be less than his lifetime contributions by \$250,000. This means that the net pension benefit is different between the two cohorts by \$750,000 even under the assumption that their lifetime incomes are equal. Such extreme disparity between different cohorts is caused by the fact that Japan's public pension system is essentially a pay-as-you-go one. This chapter outlines the '23 per cent Reform Plan' and shows its effects both on the public fund accumulation and on the net benefits of different cohorts. This

chapter briefly outlines the current structure of Japan's public pension system and examines its redistributive effects. The pay-as-you-go scheme and the actuarially fair scheme will be compared. Then they analyse the 23 per cent reform plan. Finally, privatization is discussed. If we privatize the system now, the government still must continue to financially support pensions for an extended period. Privatization does not reduce the financial burden of the government by itself. This chapter points out that whether the system is privatized or not, it is necessary to make the pension system actuarially fair, and spread the net burden of pensions evenly among generations.

Chapter 7, written by Akira Okamoto and Toshiaki Tachibanaki, studies the integration of the social security and tax systems. The essence of their proposal includes the following two ideas. First, the social security and the tax systems should be integrated. In other words, social security contributions should be replaced by the general tax revenue. Second, a progressive consumption tax is recommended to raise a major part of the general tax revenue. A progressive consumption tax is a direct tax, which falls on consumers, namely, an expenditure tax. Their proposal is to introduce a progressive consumption tax and to substitute it for other taxes such as a labour income tax or an interest income tax. There are four reasons why integration is desirable. First, integration facilitates an introduction of the idea of a minimum contribution for all people in the field of social security because a universal minimum level which guarantees the necessary payment of public pensions and medical costs to all people can be covered from the general tax revenue more efficiently and equitably. Second, the integration can eliminate the concept 'who gained and who lost from the both intergenerational and intragenerational aspects' under the social insurance system where cost is covered by social insurance contributions. Third, a minimum subsistence guarantee from general tax revenue is consistent with the principle of social security, which intends to produce no desperately poor individuals. Fourth, the integration of the social security and the tax systems reduces considerably administration costs of the revenue side because only one institution collects revenue from the private sector. There is a potentially difficult problem in the implementation of a progressive expenditure tax in the real world. It is indicated that the savings figure can be consolidated by using an individual tax number and an electronic collection system.

Chapter 8, which is written by Ashwin Kumar, reviews pension reform in the UK from contribution to participation. This chapter seeks to draw out the implications of the reform proposals, over time and across the earnings distribution and to place them in the wider context of the concepts behind pension provision. The UK government's main proposal was a new contract for welfare, *Partnership in Pensions*, which was published in December 1998. The proposals contained within this document represented a fundamental shift in the concept behind state second tier pension provision in the UK. This shift was from the contributory and earnings-related principle of the 1970s to the wider entitlement of a participatory principle and to the flat rate

benefit principle enshrined in the Beveridge Report of 1942. The UK government identified guaranteeing a minimum standard as a more important goal than the provision of earnings replacement. This chapter concludes that its mechanism for achieving this goal, however, is not rooted in either the citizenship principle or the means-tested principle. Instead, it sits somewhere between, although closer to the citizenship principle. As such, it provides enough nourishment to the adherents of both camps that the one thing we can be sure of is that unemployment is not a danger for the pensions pundits of the future.

Chapter 9, written by Kai Konrad and G. Wagner, studies the current crisis in the German pension system and discusses the various reform proposals. The demographic trend of shrinking population size in Germany reduces the internal rate of return of the pay-as-you-go pension system far below the market rate of interest. At the same time the system has grown to a size at which contributions become a major share of workers' budgets. Accordingly, there will be growing labour market disincentives of the implicit tax which make reform of the system inevitable. This chapter highlights that reform of pension systems is mainly a matter of redistribution between the currently retired generation, the current workforce and their children, between high income earners and low income earners, between those currently paying into the system and those who do not, and between families with many children and families with few children. Political economy aspects will be essential in predicting and understanding the reform outcome.

Chapter 10, by Fredrik Haugen, Erik Hernæs, and Steinar Strøm, gives an overview of the structure of the pension system in Denmark, Finland, Norway and Sweden, and the most important of the recent changes in these systems. In all the Nordic countries, the public pension component plays an important role. These public pension systems are the pay-as-you-go type, and are in all countries set to encounter financial problems in the not-so-distant future. Some recent changes aimed at meeting this problem are described, but the chapter includes no discussion of the financial situation of the public pension systems. The emphasis in the chapter is on the institutional arrangements and the ensuing labour force incentives for older persons. The chapter also includes a brief overview of labour force participation of older pensioners in the Nordic countries. The situation in Norway has been treated most extensively. For Norway, the result of two recent analyses of the impact of an early retirement system, which was introduced in 1989 is also discussed.

Chapter 11, which is written by Hideki Konishi, examines the welfare effects of public pension reforms, changing a public pension programme from pay-as-you-go to a fully funded one, privatizing a public pension programme, and mandating a minimum coverage limit on private annuity contracts, within a model of a small open economy with adverse selection. Under a mild condition, the premium charged for private annuities increases in response to both the level of public pension benefits and contributions. When taking into account the externalities caused on the annuity market, the

Golden-Rule criterion is found to be valid with regard to financing a fixed public pension benefit, though this is not the case for introducing a public pension programme. It is shown that first the benefit levels affect the long-term economic welfare as well as the relative cost advantage of public pensions; second a public pension programme must provide a sufficiently large level of benefit if it is to be introduced in at all, and third implementing mandatory participation in private annuity plans will improve efficiency in cases where a public programme is abolished.

Chapter 12, by Toshihiro Ihori, investigates dynamic implications of pension contributions and intergenerational transfers under modified funded systems. By incorporating interest groups' contributions to social security funds into the conventional overlapping generations model, the chapter explores a long-term policy of public spending, social security fund and economic growth. Favourable economic conditions will not necessarily lead to high growth in pension funds. The pension fund is too little in terms of the static efficiency (or compared with private consumption) but may be too much or too little in terms of dynamic efficiency (or as the steady state level). This chapter finally examines the normative role of taxes on consumption and pension contributions. It is shown that consumption taxes or a subsidy to social security contributions would always be desirable even if the pension fund is overaccumulated. If a government can control the replacement ratio so as to realize the modified Golden Rule, it would attain dynamic efficiency.

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2 Managing pensions in the twenty-first century

Global lessons and implications for Japan¹

Olivia S. Mitchell

As the twenty-first century dawns, global changes in pension structures are attracting keen interest from economists, demographers, and politicians. These pension changes are driven in part by rapidly-growing numbers of people aged 65 and older, an aging phenomenon that will have numerous positive as well as negative economic and social consequences. Nowhere is this set of economic and social challenges more salient than in Japan. This nation leads the globe in world aging, with its population recording the longest life expectancy patterns and among the lowest fertility rates in the OECD. This aging phenomenon, combined with recent economic stagnation, has begun to lead many to question how retirement can be financed in the future. Testament to this concern is a recent survey showing that over 90 percent of Japanese consumers were worried about the inadequacy of their own saving for retirement (Business Wire 1999).

New institutions must be developed to meet and cope with the challenges of population aging in Japan as elsewhere.² The task is difficult in Japan due to widespread corporate defined benefit pension plan underfunding problems³ as well as national public pension cash-flow insolvency projected to occur before 2020 since the system has projected unfunded liabilities estimated at US\$3.5 trillion.⁴ Also contributing to this challenging environment are recent developments in financial accounting requirements that now require pension underfunding to be shown in accounting reports,⁵ and the slow deregulation of the Japanese financial system.⁶ But perhaps most interesting to retirement experts is the fact that these pressures are creating an environment favorable to the development of defined contribution pensions in Japan.⁷ Thus the government of Japan recently announced that employees may contribute to defined contribution pensions in funded, invested accounts. Taking the lead, two large Japanese firms have allied to launch US-style 401(k) pensions giving participants choice over investments and access to international mutual funds.⁸

Because the defined contribution (DC) pension model is new to Japan, other countries' experiences in the DC pension environment may be informative in illustrating the investment and governance frameworks needed to support such pension plans. For instance, several of Japan's East Asian

neighbors have had national DC pensions known as provident funds for some years and even decades. Experience with these plans has been decidedly mixed, as we illustrate below. In the Americas and in the UK, workers have had access to both company-based and individual-style DC pensions for more than a decade. This experience indicates that certain plan features are extremely valuable to employers and employees, while others may require supervisory and regulatory attention.⁹ Accordingly, the goal of the present study is to note global innovations in the design, structure, and governance of defined contribution pensions, with a view to emphasizing those issues that may require special attention as the Japanese pension system evolves to meet the challenges of an aging society. The fact that Japan is adopting this new pension model in the twenty-first century affords citizens, their employers, and the government, an opportunity to take advantage of some of the lessons other nations have recently learned.

In what follows we first outline the legacy of defined benefit plans and explain what has motivated the global transition to defined contribution pensions. As we shall show, these plans pose new challenges to the pension market, and to the government seeking to regulate these plans to ensure that they deliver a reasonable retirement income. We then provide an overview of the most important governance and regulatory implications of the new pension model, which we link to the Japanese context.

2.1 The defined benefit legacy

In recent years, governments and taxpayers throughout the developed world have slowly awakened to the painful fact that many of their defined benefit (DB) retirement systems are going bankrupt. While some countries have problems sooner and others face them later, actual or prospective insolvency in DB pension systems concerns virtually every developed nation. This particularly plagues public sector pension systems throughout the developed world, as depicted in [Figure 2.1](#). For example, in Japan as well as Germany and France, the projected unfunded liability of benefit promises to retirees under the national DB pension system currently exceeds the entire nation's GDP.

Evidently, new revenue sources and/or ways to cut benefit will have to be found to return these large PAYGO defined benefit plans to viability. One possibility is to raise taxes substantially to meet retirees' expectations. However it is not clear that younger workers and indeed unborn generations will concur with the future tax increases that would be required, which produces substantial uncertainty regarding the security of future old-age consumption. In Japan for instance, it is estimated that the payroll tax must rise by over 3.5 percent of GDP if promised benefits are to be paid. Payroll taxes in the US must rise by around 1 percent of GDP ([Figure 2.2](#)). The burden of these additional taxes will be exacerbated, of

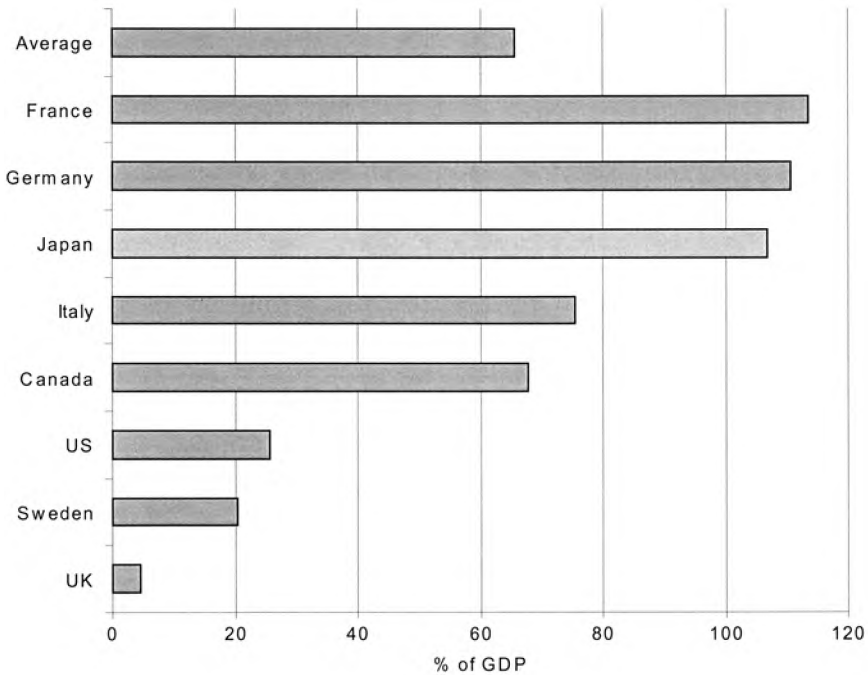


Figure 2.1 Projected public pension liability: percent of GDP to 2050

Source: Chand and Jaeger (1996).

course, by unemployment and economic recession such as experienced in Japan of late.

A different way to cover projected DB plan shortfalls would be for pension managers to earn more on plan assets, an outcome that is possible only if the pension system in fact has some assets to invest. However, in practice, many developed-country DB plans have no invested assets backing their promises, instead running on a pay-as-you-go (PAYGO) basis. In a PAYGO plan, workers' taxes are channeled immediately to pay retiree benefits, without generating any investment buildup. Such an approach traditionally was the hallmark of national retirement plans, and in some countries it has characterized employer-provided pensions as well. In Japan, for instance, Japanese firms have only recently been asked to recognize the promised but not funded pension benefit offerings made to employees. Current evidence indicates that needed reserves are far less than those required according to international accounting standards, producing a PAYGO private pension system alongside the public one (Takahasi 1999; Watson Wyatt 1999).

While company-sponsored pensions in some countries do hold assets in their DB plans, they have sometimes earned very low and even negative returns, as illustrated in *Figure 2.3*. This has been due, in part, to the fact

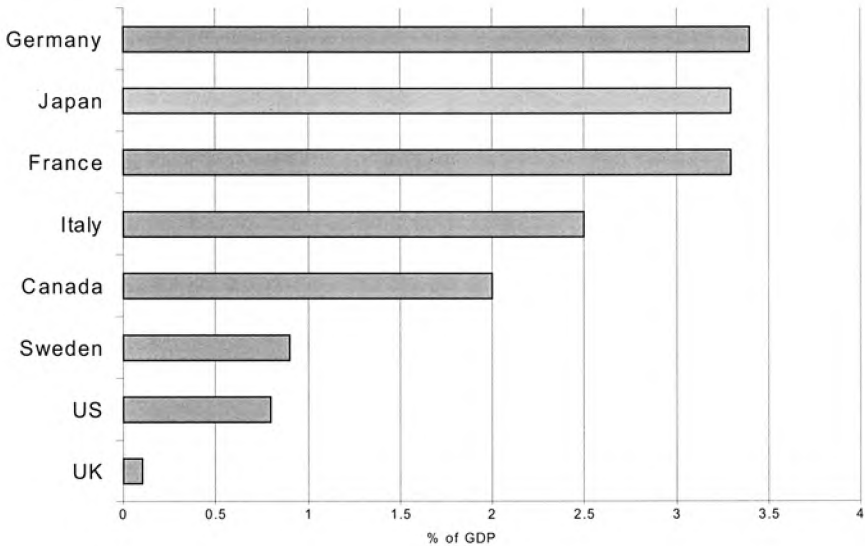


Figure 2.2 Projected annual public pension tax gap: percent of GDP to 2050

Source: Chand and Jaeger (1996).

that such plans tend to hold portfolio heavily weighted toward fixed income assets and government bonds. In many country cases, these assets fail to hold their value due to lack of inflation protection.

In the Japanese context, the country's first tier program, known as the Basic National Pension, has no assets inasmuch as it is a PAYGO defined benefit. Underfunding also affects the second and third-tier plans, with the second layer involving a DB pension promise for private employees under the Employees' Pension Fund system, and Mutual Aid Associations for public sector workers, teachers, and some other smaller occupations (JETRO, nd). Though in some cases these second-tier plans do control some assets, they have been traditionally managed by trust banks (60 percent) and life insurers (about 40 percent) and returns have not been high (JETRO, nd). The third tier of the Japanese pension system is made up of private pension plans that some corporations offer their workers; here assets have again been managed conservatively by trust banks and life insurers (58 percent and 38 percent respectively, as of 1994; JETRO, nd). Recent reforms in reporting standards will clarify the extent of DB underfunding in the near future.

In the past, private saving tended to earn low returns in Japan because of regulatory caps termed the "5-3-3-2" limits. These were government regulations that required trust banks to hold no more than 50 percent of the assets in guaranteed assets (bonds), a maximum of 30 percent in domestic stocks, 30 percent in foreign assets, and 20 percent in real estate

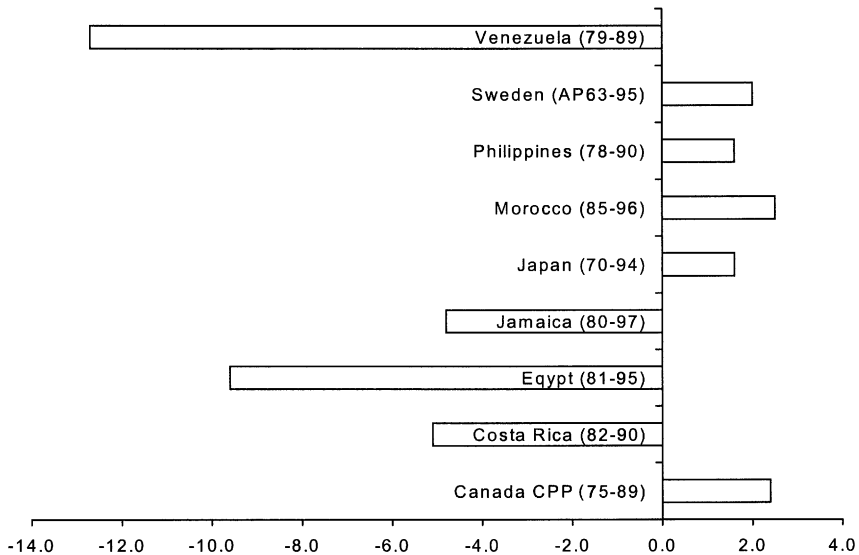


Figure 2.3 National defined benefit plans produced poor returns: percent real, per annum

Source: Iglesias and Palacios (1999).

(insurers were held to the 3-3-2 limits; JETRO, nd). The result of these policies was that many pensions in Japan experienced low real returns over the years (Takahasi 1999). This is a partial explanation for today's corporate pension underfunding problems, estimated at around half a trillion US dollars (Kono 1999; McDonald 1998). These rules have been changed recently, but historically they produced a concentration of pension assets in low-return fixed income domestic holdings.

Low investment returns have also been an issue in many other countries as well, in part because few if any of the plans were diversified on the international market. In Japan this was the result of government policy, but it has also occurred in the US, despite the lack of similar restrictive regulation. It is indeed a puzzle that few investors appear to take full advantage of the diversification potential resulting from holding a globally diversified portfolio (Lewis 1999). For example, Griffin (1997) reports that US pension plans had only 9 percent of their total portfolio in non-US investments, and insurers held under 1 percent. The fact that US plans earned high returns over the twenty years, in contrast to the Japanese plans, is attributable to the strong US stock market, rather than international diversification.

2.2 What do defined contribution plans have to offer?

In the light of current and projected problems with DB plans, some observers have proposed that defined contribution (DC) pension plans are the better alternative. They point out that plan assets may be invested more professionally, assets can be better protected against malfeasance and political pressures, and plan participants' risk preferences can be better matched than in the traditional DB context. To the extent these predictions are true, a DC plan may offer more retirement security than a DB alternative.

Whether and when such claims are true depends on which type of DC plan one has in mind. Several variants have developed over time, with the first generation of DC plans seen by some as “mystery pensions” because they were designed by employers or governments and were poorly understood by participants. These first-generation DC plans include many from East Asia such as Singapore and Malaysia, and also corporate DC pensions offered in the US and the UK for many years. In these plans, a DC sponsor typically designed, implemented, and serviced plan participants with little input from employees. Investment options were few; assets were rarely marked to market; employees had few chances to select investment portfolios, and opportunities to transfer investments across asset types were rare. National provident plan managers established by governments throughout East Asia, as in Malaysia and Singapore, also have sometimes had to follow government wishes in terms of investments, inasmuch as governments were usually a major stakeholder. Sensitivity to political influence resulted from permitting politicians to select and impose asset limits on pension investment options, neglecting reporting to covered workers regarding investment performance, and lack of interest in tracking pension management expenses and investment returns. Plan operations were generally far from transparent and employee understanding was low (Asher 1999; Hurt 1998). As a result of this lack of transparency, the first-generation DC plans generally turned in a disappointing level of investment performance when they did accumulate assets (see [Figure 2.4](#)). During the most recent financial crisis, provident fund investment outcomes suffered particularly from government restrictions prohibiting diversification into international capital markets (Asher 1998).

In contrast to this top-down approach to DC pensions, a second generation of DC plans has emerged in the last decade or so that has had a profoundly energizing impact on pensions and pension management throughout the world. This second-generation approach is characterized by individual accounts (IA), taking hold first in the UK and then in Chile, and later spreading to the rest of Latin America. The US variant is the very popular 401(k) pension plan: as is shown in [Figure 2.5](#), DC plans claim more active participants and more assets than their DB counterparts.¹⁰

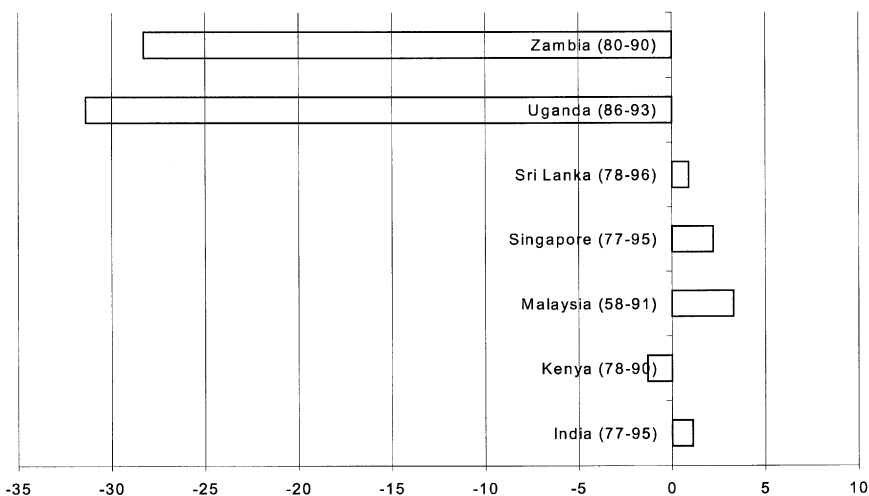


Figure 2.4 Global provident plans provided poor returns: percent real, per annum
Source: Iglesias and Palacios (1999).

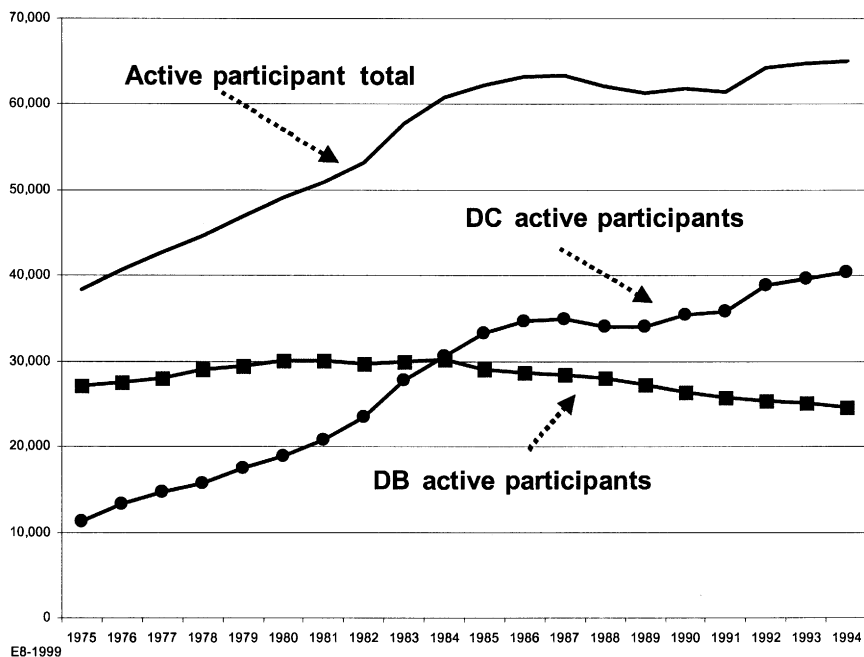


Figure 2.5 The US pension environment: defined contribution pension plans have more active participants than defined benefit plans

Source: US Department of Labor, PWBA (1999).

One frequently-asked question posed by observers from outside the US is “what is a 401(k) plan and what makes it so attractive?” In brief, a 401(k) is an employer-sponsored pension plan, which gives employees extensive choice and flexibility regarding their contributions, their pension investments, and the structure of benefits (McGill *et al.* 1996). Its name refers to the particular section of the Internal Revenue Code making it possible to establish these pension plans on a “tax-qualified” basis. In other words, employers and employees may make pre-tax contributions to the pension plan (up to an annual limit); this tax-protected status has also been granted to the investment earnings as long as they remain in the plan. At retirement, plan withdrawals are subject to income tax but participants are allowed to take their money out under a variety of payout options, ranging from lump sum withdrawals to minimum distributions (Brown *et al.* 2000). These plans have become extraordinarily popular, with rapid growth in assets as depicted in Figure 2.6.

One might ask why 401(k) plans have grown so rapidly in the US, given the fact that “first generation,” more traditional, DC plans had been available for many years. The fact is the 401(k) structure offers stakeholders a number of features that the first-generation DC plans did not. We next elaborate on the features that make these particularly attractive to a modern labor market, and then turn to a discussion of the governance and regulatory issues that emerge.

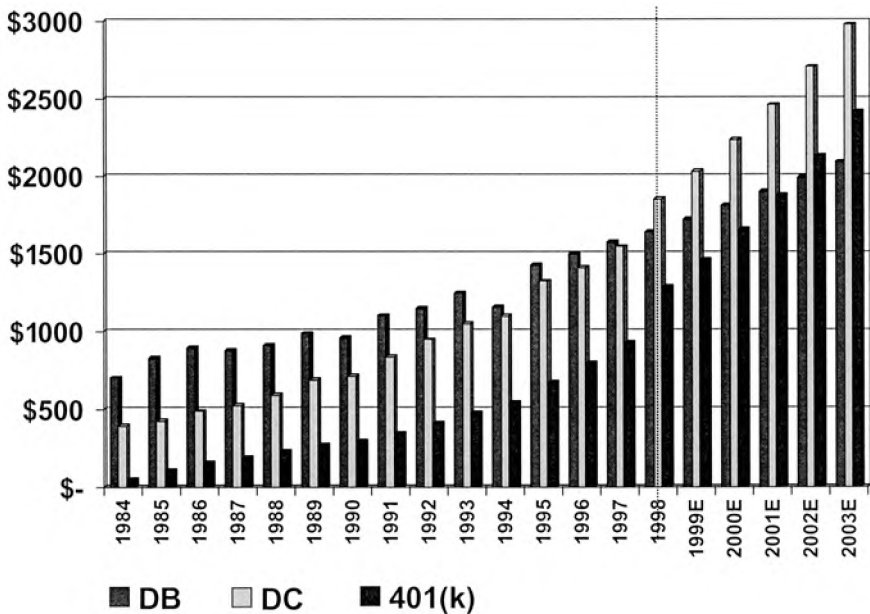


Figure 2.6 DC surpass DB assets (US corporate, B\$)

Source: Cerulli Associates (1999).

2.2.1 Many employees favor 401(k) plans

A major difference between the second-generation plans and the first-generation DC pensions is that the newer 401(k) plans are tailored to individual participants' tastes in a variety of ways. An employer sponsoring such a plan provides each worker with an opportunity to voluntarily contribute to retirement savings out of pre-tax income if he or she chooses, up to a taxable limit.¹¹ As a result, employees tend to look on these pensions as retirement plans with particularly appealing features, because the contributions are treated attractively by the tax code and because of the employer match.

In this sense, the fundamental difference between the first- and the second-generation DC plans becomes one of ownership and control. Participants in 401(k) plans tend to see themselves as "in the driver's seat," rather than relying on their employer to design, maintain, and direct the pension plan. As a consequence, employees tend to pay closer attention to their plan's investments, comparing them with other types of financial assets. Employees also ask for, and often get, multiple investment options in their 401(k) plan, which permits them to allocate their pension assets in conformity with personal risk preferences. This is particularly evident in the US context, where the last few years have brought marked increases in the number of investment choices permitted. For example, 401(k) plans offered an average of 5 investment choices as of 1994, but now the average stands at 12 choices (Siegel 1999). Some firms go even farther: Ford Motor Company offers automakers some 60 investment options in its plan, and at American Stores employees have 182 choices.

2.2.2 Employers like 401(k) plans

Some might imagine that an employer would be indifferent to whether its company pension takes the form of a DB or a DC plan, since economic theory implies that workers "pay" for their retirement benefits in reduced earnings one way or another (Lumsdaine and Mitchell 1999). Nevertheless, economists have noted that companies might prefer 401(k)-style DC plans over the DB alternatives, because of their behavioral impacts. One is that DC plans permit employee mobility across firms quite flexibly, whereas traditional, back-loaded DB plans discourage employees from changing companies (Gustman *et al.* 1994). This results from the fact that each worker knows how much he or she has accumulated under the individual-account approach and can move these assets from one investment pool to another. By contrast, in the DB world, workers do not "own" a specified portion of the pooled assets and generally cannot move their accumulations to a new plan when they change jobs. Pension portability is therefore appealing where the workforce is mobile and must expand or contract with economic circumstances.