Introduction

Traditional Pensions in Trouble

The defined-benefit plan has been the preeminent pension form for over a century. Virtually all of the national pensions of industrial countries are defined-benefit plans, as are many of the national pensions in developing and emerging-market countries.[1] It remains the dominant second-tier plan for public-sector employees (i.e., civil servants, teachers, and other occupations working for governments at any level, and employees of public-sector enterprises and decentralized public agencies). Similarly, until recently it has been the dominant form in the private sector of those countries where the second tier covers a significant share of the workforce. Employer-provided defined-benefit plans are invariably average- or final-salary plans.

The labor force coverage of employer-provided plans varies greatly from one country to another, mainly because of variations in the coverage of private-sector employees. In some advanced economies, and notably in France and Italy, coverage is low.[2] However, in a group of ten advanced countries that includes five G-7 members (the United States,

[1] The book uses *national pension* to refer to the first tier of a country's pension system – the mandatory government-financed system that covers all or virtually all of a country's residents. It may be flat-rated, earnings-related, or a combination of both. The American equivalent is Social Security; the Canadian equivalent is the Canada/Quebec Pension Plan; and the Japanese equivalent is the National Pension (a flat rate scheme), plus the Employees' Pension Insurance (EPI) for private sector employees and Mutual Aid Associations (MAA) for public-sector employees. The EPI and MAA are earnings-related. The plans that governments and other public-sector employers provide their employees are referred to as *public-sector employer-provided plans*. They are part of the second tier.

[2] France has two economy-wide plans run by the private sector, one for blue-collar workers, and the other for white-collar workers and managers. However, these plans are PAYG, and in many respects they function more like a public than a private plan.

Cambridge University Press
978-0-521-51847-5 — The Decline of the Traditional Pension
G. A. (Sandy) Mackenzie
Excerpt
More Information

Table I.1. *Quantitative structural features of defined-benefit and defined-contribution pension plans in ten countries (in percent except for column 5, which is expressed in percentage points)*

	All employer plans		Role of defined-benefit plans			
	Assets in relation to GDP	Labor force coverage	Share of defined benefit in total as of date shown		Change in defined benefit share since date shown	
Australia	105.4	90.1	3.0	FY2007	…	…
Canada	55.3	34.2	79.6	2007	9	1995
Denmark	32.4	90.5	2.0	2005	…	…
Germany	4.1	59.0	100.0	2006	…	…
Japan	20.0	62.0	93.0	2008	–7	2001
Netherlands	132.2	100.0	97.0	2005	–3	1998
Sweden	8.7	90.0	14.0	2006	–30	2003
Switzerland	119.4	86.0	26.0	2005	–14	1990
United Kingdom	86.1	29.6	89.8	2007	2	2004
Open DB schemes only	…	…	36.0	2007	–36	2000
United States	74.3	50.0	17.0	2007	–16	1989

Sources: Column 1: OECD: Private Pension Outlook (2008b)
Column 2: National authorities and author's estimates; for Denmark, denominator is full-time employees; includes both public- and private-sector employees.
Columns 3 & 4: National authorities, country studies, and author's estimates.
Columns 5 & 6: National authorities, country studies and author's estimates.

Canada, Germany, the United Kingdom, and Japan), as well as Australia, the Netherlands, Denmark, Sweden, and Switzerland, employer-provided pensions cover a significant share of the labor force. The absolute number of employees covered by public- and private-sector plans in these countries is large, and private-sector plan assets amount to about 70 percent of the group's GDP (Table I.1).[3] The book's analysis of developments in employer-provided pensions concentrates on these ten countries.[4]

3 The combined GDP of these ten countries amounts to 70 percent of the combined GDP of OECD members and over half of global GDP. Their combined labor force exceeds 340 million.

4 There are not many countries in which employer-provided pensions cover a significant share of the labor force with assets that are large in relation to GDP. The ten countries that are the object of this study include all the industrial countries whose employer-provided pension plans have assets equivalent to at least 15 percent of GDP, apart from Finland, Iceland, and Ireland, which were excluded because of the small size of their economies

Until recently, defined-benefit plans held most of the assets of private-sector employer-provided plans in the ten countries, and the number of defined-benefit plan participants was much greater than the number of defined-contribution plan participants. These plans usually took the form of career-average or final-salary plans, and these are the *traditional* plans to which the book's title refers. However, the traditional pension's coverage of private-sector workers is falling, and in some countries, its future looks bleak.

In the United States and the United Kingdom, the decline in labor force coverage of plans that are still open has been precipitous, so much so that many observers believe that the defined-benefit plan cannot survive as an institution in the private sector. In 1989, defined-benefit plans in the United States covered 32 percent of the work force against 28 percent covered by defined-contribution plans. By 2007, coverage of defined-benefit plans had declined to 17 percent, and coverage of defined-contribution plans had increased to 41 percent.[5] In the United Kingdom, membership in open private-sector defined-benefit plans dropped from about 4 million in 2000 to 1.3 million (about 4 percent of the labor force) in 2007. In Australia, the demise of the defined-benefit plan is virtually complete, hastened by the pension reform of 1992, which introduced the Superannuation Guarantee, a compulsory employer-administered plan. Small- and medium-sized enterprises that had previously offered no pension plan to their workers now chose to offer defined-contribution plans, probably because they were cheaper to administer and less risky. They proved to be popular.

Defined-benefit plans may not have suffered so dramatic an erosion of membership in the other countries, but some declining trend is evident. In Canada in 1995, 87 percent of the members of private-sector employer-provided plans were covered by defined-benefit plans. By 2007, the share of defined-benefit membership in the private sector had fallen to less than 75 percent (Statistics Canada 2009). In Germany and Japan, a reform permitting defined-contribution or hybrid pensions was passed only eight years ago. Defined-benefit pensions remain preeminent, but defined-contribution plans have begun to spread.[6]

(OECD 2006). Germany, with externally invested assets of less than 15 percent of GDP, is also included because of its size and because it is an interesting case in light of its recent introduction of hybrid plans.

5 These figures include participants covered by both types of plans, so there is some double counting.

6 In Germany, the new plans have a guarantee on contributions and are classified legally as defined-benefit plans.

In the Netherlands, defined-contribution plans remain rare, but traditional pension plans now include a mechanism that changes the way risk is shared among the sponsor, workers, and pensioners to forestall the emergence of financial imbalances. In Sweden, the full implementation of a notional defined-contribution national pension system (NDC system) in 1999 prompted a wholesale move away from defined-benefit plans in the private sector. In Denmark and Switzerland, defined-contribution pensions, albeit with features that make them resemble defined-benefit plans, have been dominant for two decades.

In the realm of national pensions, the financial strains caused by increasing longevity have threatened to dislodge the defined-benefit plan from its prominent position. In countries like France and Germany, the effect of aging has been reinforced by the impact of declining labor force utilization on collections of the payroll taxes that finance the national pension plan. Aging has also affected the finances of the defined-benefit plans provided by public-sector employers.

Despite the financial pressures to which national pension plans have been subject, most countries have maintained the basic, typically earnings-related form of the plan, although some of them have enacted reforms that have raised average retirement ages and reduced accrual rates. Others have added an adjustment mechanism to offset the financial impact of aging. For example, Germany has added a “sustainability factor” to the adjustment formula for pensions that reduces pensions when the increase in the old-age dependency ratio increases (International Monetary Fund 2004a).

Sweden’s reform of its first tier is more fundamental than Germany’s. Sweden’s NDC system was complemented by an individual account system. Of a total contribution rate of 18.5 percent, 16.0 percentage points finances the NDC system, leaving 2.5 percentage points for the individual account scheme, known as the premium pension. The premium pension may be invested in one or more of as many as 700 investment funds. In addition, the reform made the pension that members of a particular age cohort receive a function not only of members’ earnings history, but also of the cohort’s life expectancy, and incorporated an automatic balancing mechanism that suspends the indexation of pensions to restore balance (Könberg, Palmer, and Sundén 2006, 455–7; Turner 2009).

The United Kingdom is undertaking a major reform of its pension system. The current form of the first tier will be retained but made more generous, although starting pensions will be reduced over time to compensate for the fiscal impact of aging. The employer-provided system will be substantially changed by requiring employers to offer a pension to their employees. Employees not wishing to be covered will need to opt out (Department of Work and Pensions 2006a).

The Decline of the Traditional Pension is motivated by concerns over the consequences of the diminished standing of traditional pension plans. Despite certain shortcomings, these plans have served as a strong second pillar in pension systems that cover a large number of workers in some of the world's largest economies. Their diminished role may jeopardize retirement security for millions of workers around the world.

Working people who plan for a secure income in retirement confront three risks, apart from the risk that saving rates will fall when spells of unemployment, illness, or disability reduce earned income. First, they may save too little, either because of miscalculation or a failure or inability to stick to a saving plan. Second, even if they save enough, either underperforming financial markets or their own ill-considered investment decisions may prevent them from accumulating sufficient savings by the time they retire. Finally, even if workers skirt these perils and retire with an adequate nest egg, they may still suffer a needless diminishment of their welfare if they either neglect or are unable to purchase a life annuity, or some other form of longevity insurance.

Maintaining a traditional defined-benefit plan is not the only possible policy that employers can adopt to enhance the retirement security of their employees. However, it does provide protection against these three specific risks to a secure retirement. The capacity of other pension plans to do likewise is untested, and whether the arrangements that replace traditional defined-benefit pensions will be adequate in this respect is far from certain. A defined-contribution plan, if the contribution rate is high enough and if participation in the plan is a condition of employment, undoubtedly does achieve one important goal of a program of retirement income security: By forcing the participant to save, it mitigates the first risk.

Unfortunately, defined-contribution plans do not necessarily address the second and third risks. They may not even mitigate the first risk, that of inadequate saving, effectively. With 401(k) plans in the United States – now the dominant pension form in that country – the employee is free to decide whether or not to participate and what his or her contribution rate (up to a limit that the plan specifies) should be. These plans are also vulnerable to the second risk, because the investment decision is typically left to plan participants. The collapse of global equity markets in the fall of 2008 has brought home this risk as nothing else could to members of defined-contribution plans everywhere. Moreover, distributions from 401(k) plans are usually not annuitized, which increases the risk that the participant may outlive his or her resources in retirement. The failure of these and other alternatives to a defined-benefit plan to deal with all of the risks confronting retired people can, in principle, be addressed or at least mitigated. That they can does not mean they will, however.

Participation in a defined-benefits plan does entail risks of its own, notably the risk that the plan sponsor may not be able to honor its commitments to plan participants, and the risk that plan participants may need to relinquish their employment before they have become fully vested. However, a well-designed defined-benefit plan should substantially reduce the risks faced by plan members in saving for retirement and managing their finances once they have retired. As this book will explain, the pension plans that will replace them may not be capable of replicating the features that allow them to reduce effectively the risks to a secure income in retirement.

In light of these concerns, *The Decline of the Traditional Pension* has three main aims. The first is to explain as fully as possible the forces behind the decline in the traditional pension and account for the staying power of traditional pensions in the public sector, as well as assessing whether they can retain their dominant position given the pressures they are under. The second aim is to propose reforms that would reduce the risks to the retirement of private-sector workers and possibly public-sector workers that the erosion of the traditional pension's position has created. The private-sector reforms would aim to revive the traditional pension if possible, encourage variants of it that would provide a substantially similar degree of protection, or develop alternative forms that preserve its most valuable features should revival not be in the cards. The public-sector reforms would consider ways in which public-sector pensions might be put on a more sound financial footing. The third aim is to review some recent innovations in first-tier plans, notably the Swedish reform mentioned above.

The forces behind the decline of the traditional plan. Pension experts have identified many different causes of the decline of traditional plans, especially the decline of the traditional plan in the United States. Even before the collapse of global equity markets in the fall of 2008, some observers had fingered financial market volatility, and in particular the decline in long-term interest rates that has taken place in global markets since the late 1990s, coupled with the collapse of the high-tech stock market boom (the dot.com boom) in the early 2000s. Other experts have fingered complex and changeable regulatory frameworks, which have caused excessive increases in the cost of regulatory compliance.[7] Still others have pointed to increasing and unpredictable longevity, which has increased the cost of funding traditional defined-benefit plans. Yet another viewpoint holds that the costliness and inflexibility of the traditional plan have made it a financial albatross, given the uncertain environment with which corporations must cope. The natural corporate response is to shed an increasingly heavy burden. These are supply-side influences: They increase the cost to employers of sponsoring pension plans.

As subsequent chapters explain, demand-side influences have also been at work, which may have reduced the attractiveness to plan participants of defined-benefit plans relative to other pension-plan forms, or even relative to other employee benefits, like health insurance. These demand-side influences include declining employee tenure, a loss of attachment to particular companies, and a decrease in the value that plan participants attach to future benefits (an increase in the shortsightedness of plan participants), which would increase the attractiveness of plans that distribute their benefits earlier in retirement than defined-benefit plans do. Another possible demand-side influence is erosion in the faith of participants that defined-benefit plan sponsors will be able or willing to honor their commitments.

On both the supply and the demand sides, *The Decline of the Traditional Pension* will distinguish between those influences behind the decline of defined-benefit pensions that are reversible, and those that are not. Making this distinction will suggest ways in which the decline may be arrested, or partially reversed, and will make clear the need for measures to mitigate the consequences of a permanent decline in the role of traditional defined-benefit pension plans.

Pressures on public-sector employer-provided plans. Public-sector employer-provided plans have not suffered the same strains as some private-sector employer-provided plans. There are a number of reasons for this, including the lesser chances of public-sector bankruptcy and the lesser frequency and transparency of the reporting of plan balances. Nonetheless, underfunding was already an issue with some public-sector plans in the United States even before the collapse of the stock market, and many plans around the world have become seriously underfunded since then.

Reforms. The end result of the forces impinging on traditional private-sector plans can range from a phaseout or freeze – and the adoption of a

[7] Turner (2007) compares developments in the United States and Canada, and suggests that differences in regulatory complexity and tax treatment may explain why defined-benefit plans in Canada have held up better than they have in the United States. Brown and Liu (2001) argue along similar lines.

new type of plan – to relatively minor adjustments to plan parameters or a scaling back of the plan that leaves its structure unchanged. In between these extremes lie many alternatives. Adjustments to a plan's parameters could go beyond minor adjustments to include a substantial redefinition of the pensionable base, or a marked change in the pattern of accruals. Aggregate longevity risk – the risk that the life expectancies of entire cohorts could be misestimated – might, as many pension finance experts have suggested, be shared between sponsor and participant, or even borne entirely by the participant, instead of being borne entirely by the sponsor. This would mean that a plan would no longer guarantee a constant stream of income in retirement, although variations in that stream would not necessarily be substantial. Investment risk could also be shared; for example, by preserving a benefit in the form of an annuity, but making the payment a function not only of the employee's salary history but also of the financial performance of the plan, with a minimum payment guarantee.

Reform of the regulatory framework would certainly have to be considered (and is discussed further in the following text) and financial innovation and financial engineering may play a complementary role. In light of the inadequacy of the current menu of financial instruments to lay off some of the risks to which plan sponsors are subject, governments could consider broadening the range of the debt they issue to include such instruments as longevity or wage-indexed bonds. The right mix of reforms might enhance the welfare of retired people considerably, and reduce the risk of privation in old age.

Measures like these could reduce the cost of sponsoring defined-benefit plans. Nonetheless, many employees may still regard defined-contribution or hybrid plans as more attractive than defined-benefit plans, even after reforms along the lines just described. That part, if any, of the shift away from defined-benefit plans that reflects skepticism by employees as to the plan sponsor's ability or willingness to honor its commitments may be hard to reverse. Plan sponsors themselves could conclude that defined-benefit plans are too broken to be fixed. In these circumstances, it will be imperative that the successors to defined-benefit plans really do enhance retirement security as a well-designed defined-benefit plan would. These considerations apply to both public- and private-sector employer-provided plans.

The treatment of reform of public-sector plans considers the possible advantages of their adoption of the regulatory and accounting framework that applies to private-sector plans. This part of the analysis focuses on North American plans because information on them is more readily available than it is for other countries. Finally, the discussion of reform of national (first-tier) plans focuses on the consequences for retirement security of basic changes in plan design, like those enacted in Sweden.

Chapter Outline and Plan of the Book

The chapters that follow are grouped in two parts. Part one has five chapters, which provide basic background on the history of employer-provided pensions and basic structural characteristics of these pensions in the ten countries chosen for the study; review the economics of employer-provided pension plans; analyze recent controversies in pension-plan accounting, funding and investment; address key regulatory issues; and consider the special problems of public-sector employer-provided pensions. Part two has three chapters and begins with an analysis of recent trends in the role of defined-benefit pensions that aims to explain why their role has diminished so drastically in some countries and not in others. It then tackles the comprehensive reform agenda just described, and concludes with a summary of the book's main findings and recommendations.

Chapter 1 has two sections. The first is a brief review of the history of employer-provided pension plans that sets out the necessary conditions for private-sector employer-provided pensions to flourish. The second section turns to the more recent history of employer-provided pensions in the ten countries the book studies. It provides useful background for the discussion of later chapters, and covers basic topics like labor force coverage; the share in coverage of defined-benefit plans and recent trends in that share; vesting, portability, and other properties of the typical pension; and the basic regulatory framework and tax treatment of employer-provided pensions. This thematic treatment draws on Appendix 1, which concisely describes country by country the basic features of each country's employer-provided pension system.

Chapter 2 surveys the economics of employer-provided defined-benefit plans with four aims in mind. First, it explains that contractual saving plans like pensions can benefit plan participants because they compensate to some extent for capital market imperfections and impose discipline on saving decisions. Second, it analyzes how the design of these plans determines how risks are shared between plan sponsors and plan participants, and thus their cost to sponsors and their perceived attractiveness to participants. Third, it examines the incentives different plan designs entail for saving, job tenure, and the timing of retirement. Finally, it explains how employers have used pensions as a disciplining device and a tool of human resource management, and why the recent evolution of labor markets may have reduced the usefulness of traditional pensions as a motivational device to employers.

Chapter 3 is devoted to some basic issues in pension-plan accounting and investment. The first part of Chapter 3, which deals with accounting issues, addresses how to account for the cost of a plan's benefits, what discount rate should be applied to future liabilities, how assets should be valued, and what should be done when liabilities exceed assets. The second part addresses basic issues in investment. It begins by considering and rejecting the view of some pension economists that a pension plan's finances should not be viewed separately from the finances of its sponsor. It then reviews the traditional mean-variance model of investment, and explains why it cannot be applied to pension plans. The importance of asset-liability management (ALM) is then taken up. Perfect matching of a plan's liabilities with its assets, despite its desirability, is never possible, which means that pension-plan sponsors have to deal with investment, interest, and longevity risk. Liability-driven investment, which the chapter then considers, is a variant of ALM that tries to address these and other risks comprehensively. Risk budgeting is another.

Chapter 4 addresses regulatory issues. It begins by explaining why regulation is necessary, and distinguishes activist regulation, which is concerned with such issues as the coverage of the second tier and pension adequacy, from more traditional regulation that seeks to ensure that the implicit contracts a pension plan creates are honored. Chapter 4 then turns to describe the relatively recent development of risk-based supervision (RBS), which it contrasts with the more traditional approach based on the prudent person rule. The chapter describes and appraises the Dutch system of RBS, because it is considered to be very advanced. Chapter 4 ends by treating a key issue of governance: the potential for a conflict of interest when officials of the company sponsoring a plan sit on investment boards.

Chapter 5 has two sections: The first is devoted to public-sector second-tier plans, and the second to recent reforms at the first-tier level. The section on public-sector plans briefly sketches their basic features, concentrating on the United States and Canada, and addresses the question of their staying power, which contrasts markedly with the decline of their private sector counterparts. It then analyzes some special current issues, notably the justification for the use of a discount rate derived from average asset returns and the rationale of social investing. The second section of