Social Security and the Stock Market

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The elderly in modern industrial economies get the bulk of their income from two main sources—government old-age pensions and government subsidized and regulated employer-based plans. This is strikingly new. Prior to 1900, retirement itself was rare. Only as the twentieth century progressed did public and employer pensions come to support the elderly population in industrial economies. And only in the past generation did they come to eclipse all other sources of income and allow the elderly to maintain a reasonable approximation of their preretirement standard of living.

Retirement income systems in industrialized countries evolved in two very different ways after the Second World War. The nations on the European continent, with private industry devastated by the war and with stronger traditions of publicly provided welfare, opted for systems of generous government-provided pensions. These programs came to replace 60 percent or more of a worker’s preretirement earnings. In the United States and other “Anglo-Saxon” nations, such as the United Kingdom, Australia, and Canada, employers were spared the worst ravages of war and conservative political parties had a far more restrictive view of the role of the state. These countries maintained a mixed public-employer system. This chapter describes the evolution of these retirement income systems, focusing primarily on developments in Anglo-Saxon nations similar to the United States, to gain a better understanding of the rationale and structure of such systems and the challenges they face going forward.

INDUSTRIALIZATION AND THE PROBLEM OF OLD-AGE INCOMES

In preindustrial economies, the elderly generally continued to work for as long as they could. They took on less taxing jobs as their strength
or acuity declined, and stopped working only when no longer able. A 1570 census of the poor in Norwich, England, thus described three widows, ages 74, 79, and 82, as “almost past work” but still earning a small income from spinning. In colonial America, estates left by elderly decedents often included tools used in less strenuous trades, such as tailoring, shoemaking, and weaving. Three of four elderly Americans still worked well into the nineteenth century (Achenbaum 1978; Pelling 1991; Sass 1997; Thane 2000).

The elderly in preindustrial economies also often owned property that provided an income. Family farms and handicraft businesses were natural vehicles for accumulating wealth as part of a worker’s normal routine. Through the first half of the nineteenth century, improving family farms was actually the largest component of U.S. capital formation, and many elderly farmers were able to retire from active labor by selling or leasing these assets (Sass 1997; Thane 2000; U.S. Bureau of the Census 1960). The minority of the elderly who could no longer work and had little or no property would often rely on their children for economic support.

What transformed the economics of aging in the nineteenth century were industrialization and the closely related process of urbanization. Industrialization involved the transfer of production from the household to larger and more rationally organized enterprises. Urbanization concentrated the population in the large labor and product markets, which was necessary for the emergence of mass-production mass-distribution enterprises and firms that supplied an increasingly broad array of specialized goods and services. The outcome was an enormously productive economy. Per capita incomes in today’s industrialized nations are approximately 15 to 20 times higher than they were in 1820, when the process could be said to have begun (Maddison 1995). As industrialization came to dominate economic production, from the end of the nineteenth and into the twentieth century, it undermined the ability of the elderly to support themselves through work or ownership of income-producing assets. Urbanization also undermined traditional sources of communal assistance.

Workers in industrial economies gain their livelihoods primarily by working for large employers, earning wage and salary incomes, which they use to purchase market-supplied goods and services. But, as workers age, their ability to generate earnings grows increasingly uncertain.
Industrial enterprises are fairly intolerant of an aging worker’s declining capabilities. They need to cover the fixed costs of plant, equipment, and supervision just to break even. To maximize profits, they need to operate at a rationally determined pace of production. Even if a worker’s labor remained valuable to such employers at age 50 or 60, it rarely would remain so at age 70 or 80 (Margo 1991).

Workers in industrial economies also did not naturally acquire assets that could provide an old-age income. They had no ownership interest in their workplace, as they had in family farms and handicraft businesses. The process of gaining a livelihood was now sharply divorced from the process of acquiring income-producing property. To build up such assets, industrial workers had to consciously set aside a portion of their earnings and use those funds to purchase income-producing property. This saving and investing process required a good deal of foresight, discipline, and skill. It also required a significant aversion to risk. As late as the first decade of the twentieth century, nearly two-thirds of all Americans who reached age 10, and thus had survived childhood diseases, could expect to die before reaching age 70. Given the difficulty in acquiring income-producing assets and the low likelihood of becoming too old to work, it is not surprising that less than half of the Massachusetts elderly in 1910 had any income from savings that could offset a decline or cessation of earnings (Sass 1997; Seager 1910; S quirer 1912). As wage and salary earnings tended to vanish as workers aged, industrialization had created a crisis in old-age incomes.

THE EMERGENCE OF NATIONAL RETIREMENT INCOME SYSTEMS: ca. 1850–1940

The response in every industrial nation was the creation of retirement income programs by large employers and national governments—the two institutions that became dramatically more important in modern industrial economies. The earliest programs were pension plans set up by large employers: first governments, then railroads and public utilities, and then large manufacturers and service-providing enterprises. Germany created the first national old-age income program in 1889, and by the end of the 1930s, essentially all industrial nations had such a program.
The Emergence of Employer Pensions

The nineteenth century saw the emergence of a handful of very large employers, such as governments, railroads, utilities, universities, and business corporations, that sought to develop employment relationships with their workers and made the promise of an old-age pension a valuable instrument of personnel management. The first such relationship involved the development of career civil servants and managers. The large, dispersed organizations that emerged in the nineteenth century delegated significant authority to this special class of workers. These workers had to invest in organization-specific skills and relationships, make decisions and execute responsibilities in the best interest of the organization, and do so with limited oversight over their entire working lives. The British civil service pension plan of 1859 became the model for developing such a career managerial workforce in both government and private settings.

Pensions also proved valuable in developing employment relationships with blue-collar workers. Railroad, urban transit, and manufacturing firms employed large numbers of blue-collar workers to operate their capital-intensive, high-throughput operations. In a bid to attract better workers, win their loyalty, and fend off unions, these employers already paid above-market wages. Beyond a certain point, providing “industrial insurance” helped achieve these objectives better than paying ever higher wages. In exchange for the financial stability this insurance provided, employers expected loyalty and diligent service. Unions and workmen’s friendly societies also offered such protection, so these employer plans fended off competing claims to their workers’ allegiance. Employers could also expect this compensation package to attract workers with a greater sense of responsibility and foresight (Ackerlof 1982; Ippolito 1998; Sass 1997).

Toward the end of the nineteenth century, the opposite problem became the concern of many large employers. Their offices, machine shops, and locomotives were increasingly staffed by older workers whose productive abilities had clearly declined. So, beginning in the 1890s in Britain and at the turn of the century in the United States, large employers began to introduce mandatory retirement at a specified age. To remove these workers without damaging the firm’s relationship with the rest of the workforce and the public at large, they retired these work-
ers on pension. Because employers wanted no employee interference in this mandatory retirement policy, they did not require employee contributions. As companies with preexisting pension plans saw the number of older employees steadily rise, many introduced compulsory retirement and likewise assumed the full cost of the plan (Graebner 1980; Lazear 1979; Sass 1997).

By the end of the 1930s, employer plans had become standard in governments and mature big businesses throughout the industrial world; nevertheless, they covered only up to 15 percent of the workforce in industrialized nations such as the United Kingdom, the United States, Australia, and Canada. Many of those covered would also leave their employers prior to retirement, voluntarily or not, and fail to qualify for an old-age pension. Employer plans were thus a personnel policy tool, not the solution to the old-age income problem (Commonwealth Treasury 2001; Coward 1995; Hannah 1986; Sass 1997).

The Emergence of Government Pensions

Toward the end of the nineteenth century, a steadily rising population of elderly poor created increasing pressure for national old-age income programs. National governments responded in one of two ways. Most early initiatives were means-tested programs that took on a portion of the welfare burden from overstressed local communities. Many even used local governments to administer the program. The second approach, social insurance, mirrored the blue-collar industrial insurance programs set up by large employers. Social insurance programs initially targeted the industrial sector and excluded agrarian, self-employed, and white-collar workers. They also protected workers and their families against the loss of those earnings due to death, sickness, disability, unemployment, or age, and typically mandated employee and/or employer contributions that were proportional to earnings.

National means-tested pensions for the elderly were first introduced by small nations with modest industrial sectors: Denmark in 1891, New Zealand in 1898, and the British colony of Victoria (Australia) in 1900 (Table 2.1). Then France introduced means-tested programs in 1907, as did the United Kingdom in 1908. All paid meager benefits and had stringent income and residency tests. Early means-tested plans also required “good character,” which generally meant no record of serious
crime, drunkenness, or other moral failing, no recent application for pauper relief, and 20 or more years of residence.

The German plan of 1889, the first national old-age income program, adopted the social insurance approach. Like the employer blue-collar plans, the German old-age pension was part of a larger initiative that protected industrial workers against a loss of earnings due to illness (in 1883), accidents (in 1884), and then old-age and disability (in 1889). These social insurance programs required weekly contributions that were proportional to earnings and split between workers and employers. The programs also relied on contributions from general government revenues. At age 70, workers were entitled to a pension proportional to their average wage times the number of years in the plan. Even with a full career’s contributions, however, this pension replaced only a small portion of preretirement earnings.

The German experiment was not soon repeated. Social insurance was a new and expensive public program. Unlike traditional means-tested assistance, it paid benefits to those who had sufficient resources on their own. It also required a level of compulsion and bureaucratic management that exceeded the capacity of most nineteenth-century

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<td>Greece, Union of Soviet Socialist Republics, Yugoslavia, Belgium, Chile, Czechoslovakia, United Kingdom, Austria, Hungary</td>
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<td>1930s</td>
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states (Massachusetts Commission on Old-Age Pensions 1909; Seager 1910).

After 1910, social insurance became the dominant approach to the old-age income problem. Three out of four national programs enacted after that date adopted the social insurance model. They mandated contributions in the form of a tax on earnings, provided pensions as a matter of right from a specified age, and based benefits on the worker’s contribution record. These programs were far from universal. White-collar, agrarian, and self-employed workers were typically excluded. By 1933, however, 20 nations relied on social insurance as their primary old-age income program. Only 12 used means-tested programs.

The United States was late to develop a public old-age pension program. This is explained partly by the sheer size of the nation, encompassing both the industrialized North and the agrarian South and West, and partly by the limited authority of the national government. Politically weak immigrants and their children, moreover, accounted for two-thirds of the blue-collar industrial workforce. The most politically important group in the nation—native-born Northerners—also benefited from a generous pension program for Union Army veterans through the early years of the twentieth century (Sass 1997).

The United States finally created its Social Security program in 1935, in the midst of the Great Depression. The severe economic downturn, combined with a surge in the supply of older workers, dramatically worsened the employment and income problems of the elderly. A critical need for financial support thus emerged at a political moment especially conducive to major institutional innovation. Some experts also contend that the desire to remove older workers from the labor force was another motivating factor. The program enacted in 1935 addressed the immediate crisis with a means-tested program called Old-Age Assistance. It also addressed the continuing problem—providing income for the elderly who could no longer work or find employment—with a social insurance program called Old-Age Benefits. The Old-Age Benefits program is what we now think of as Social Security.
THE ARRIVAL OF “RETIREMENT”

In the period after the Second World War, the economics of the elderly changed dramatically. Essentially all industrial nations now provided old-age pensions, typically at age 65 for men and often earlier for women, which guaranteed a minimal old-age income without the need to work. Government had thus assumed the “industrial insurance” function seen in blue-collar employer plans, essentially providing basic retirement benefits on a universal basis. Public and employer plans also actively encouraged older workers to withdraw from the labor force. Many employers had a mandatory retirement policy. Most public plans had an earnings test that denied benefits to anyone who earned more than a trivial sum. Public and private programs also encouraged retirement by not increasing benefits beyond the normal retirement age. This effectively cut a worker’s compensation for remaining employed to the worker’s wage less the foregone pension. The combination of a basic old-age income and these incentives to retire reinforced the ongoing decline in the percentage of the elderly who remained in the labor force (Figure 2.1). As longevity was also rising rapidly, retirement soon emerged as an expected, extended, and well-defined stage of life.

The elderly nevertheless remained a distinctly poor population. In Britain, old-age incomes in 1950 averaged only about 40 percent of the average male wage. In the United States, over one-third of the elderly in 1959 were poor. The three decades following the Second World War, however, were a period of unprecedented economic growth. The financial standing of the elderly thus stood in increasingly sharp contrast to the rising prosperity of most working-age adults. A consensus gradually emerged that the elderly should share in this prosperity and that income should be spread more evenly across the lifespan—that active workers should be able to maintain a reasonable approximation of their preretirement standard of living when they in turn grow old. The question was how.

Nations on the European continent opted for a government-directed solution. The Depression and Second World War had destroyed much of the savings of individual workers, the net worth of private employers, and the value of assets held in employer pension funds or by annuity providers. Only government pay-as-you-go transfers, or similar ar-
arrangements mandated and regulated by the government, could quickly increase the incomes of the elderly. These continental nations had comparatively strong traditions of publicly provided welfare and negotiated labor-market institutions, deriving variously from autocratic, Catholic social welfare, or social democratic political traditions. Many countries also institutionalized national wage bargaining after the war, with the outcomes legally enforceable. These negotiations became the platform for establishing quasi-public mandatory social insurance arrangements that would cover essentially all workers (Esping-Anderson 1990; Whiteside 2002).

These continental programs—termed “Bismarckian” because benefits were closely tied to earnings and contributions, as in Chancellor Bismarck’s 1889 German program—were substantially expanded in the second decade following the end of the Second World War. Pensions provided by the state and/or quasi-mandated negotiated arrangements came to replace 60 percent or more of preretirement earnings. This amount was generally enough to maintain preretirement living

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**Figure 2.1** Percent of People Age 65+ in the Labor Force in the United States and United Kingdom, 1880–2005

![Graph showing labor force participation](source)

standards with little or no supplementation. (The importance of these programs even today is shown in Figure 2.3 towards the end of this chapter.) Only workers with low incomes or patchy employment histories would need supplementary public support. Households who entered retirement owning their home outright or with some financial assets could actually see their living standards rise. Except for highly paid corporate and government officials, this expansion of public or publicly supervised old-age pensions effectively eliminated the need for employer plans or individual retirement savings.

The United States and other Anglo-Saxon nations such as the United Kingdom, Australia, and Canada, adopted a different approach to the old-age income problem. The conservative parties in these countries had a much more restrictive view of the proper role of the state. The United Kingdom and the United States, both early industrializers, also had a long tradition of employer plans. A common Anglo-Saxon corporate-financial culture and extensive cross-border investments also facilitated the early spread of employer pensions to large private enterprises in Australia and Canada. The Anglo-Saxon nations were also spared the worst ravages of the Second World War. So, compared to most nations on the European continent, they entered the postwar period with far more resources in the private sector that could provide retirement incomes. Employer pension plans would thus remain a significant source of support in what came to be known as “Anglo-Saxon” as opposed to Bismarckian retirement income systems. The remainder of the book focuses on the expansion of these Anglo-Saxon systems and their response to the challenges that emerged toward the end of the twentieth century.

THE ANGLO-SAXON APPROACH TO RETIREMENT INCOME SYSTEMS: 1945–1965

The immediate postwar years did see pitched political battles in Anglo-Saxon nations over the economic role of the state. Politicians on the left generally advocated a larger government role, including larger social insurance pensions. Politicians on the right generally sought a contraction, often seeking to replace social insurance with self-reliance,
employer plans, and a means-tested safety net. The actual postwar settlements varied quite a bit. Britain, at one pole, nationalized coal, steel, and other basic industries and created the National Health Service. The United States, at the other, restored corporate management of the economy, restrained its unions, and limited new social welfare initiatives.

There was far less variance in the area of government old-age pensions. Anglo-Saxon nations generally continued their prewar programs with little or no increase in benefits, but they expanded coverage to include essentially all workers. In Britain, the 1946 Basic State Pension extended its 1925 social insurance plan, which paid a flat 20 percent of the average wage, to include white-collar as well as clerical and blue-collar workers. In the United States, the critical 1950 Social Security Amendments retained prewar replacement rates—30 percent for the model average worker—while expanding coverage and easing requirements for the receipt of full benefits. And in 1952 Canada converted its 1927 means-tested benefit into a universal demogrant—a flat payment made to all elderly long-term residents (Ball 1947; Commonwealth Treasury 2001; Hannah 1986; Sass 1997; Whiteside 2002).

Given the widespread acceptance of “retirement” and the low level of government benefits, a significant expansion of employer plans was critical to the success of the Anglo-Saxon approach. Coverage rates also shot up dramatically in the postwar period. Most government workers were covered by pension plans even prior to World War II, and government employment expanded significantly in the postwar period. At most only 15 percent of the private sector workforce was covered by an employer plan at the end of the 1930s, but in the postwar period, coverage came to exceed 40 percent of private-sector workers in the United States, Great Britain, Canada, and Australia (see Figure 2.2 for the growth of coverage in the United States).

This rapid rise in coverage after World War II can be traced to three factors. The first was the expansion of large corporate employers. The long postwar boom was largely driven by the growth of giant mass-production mass-distribution enterprises in both manufacturing (industries such as autos, steel, and consumer goods) and services (industries such as telecommunications, banking and insurance, transportation, and public utilities). As employer pensions had become an essential component of corporate personnel systems, coverage expanded in line with the growth of big business (Chandler 1977, 1990).
The second factor leading to increased coverage was the growing importance of pensions as tax-advantaged compensation. In all Anglo-Saxon nations, employer contributions and the investment income earned by a pension fund were tax exempt, and employees were taxed only upon the receipt of benefits. As a result, employees paid significantly less tax on compensation received in the form of deferred pension benefits than in the form of cash wages. This favorable tax treatment had little effect on coverage before World War II because less than 10 percent of the adult population typically paid tax. But with the postwar growth of mass income taxation, pensions became an increasingly attractive type of compensation, particularly for high-income professionals, managers, and business owners. The foregone government revenues, or “tax expenditures,” made government a major funder of employer plans and encouraged their spread.

The final factor affecting the growth in coverage was the expansion of collectively bargained plans. Labor unions and worker “friendly soci-
"societies" had long sought to provide their members with old-age pensions, but the largely voluntary nature of these organizations and their limited financial resources had restricted their ability to do so. After the Second World War, however, unions throughout the industrial world found themselves in a much stronger position, and they used this new-found strength to expand old-age income benefits within the larger postwar political settlement. In continental Europe, they successfully pressed for expanded government pensions and mandatory employment-based plans that provided supplementary top-ups. In Anglo-Saxon nations, the unions negotiated generous employer plans, often with the help of the government. In the United States, the big industrial unions won generous pensions in 1949 and 1950 as part of a political settlement that included long-term labor agreements, controls on labor militancy, and the passage of the 1950 Social Security Amendments. In the United Kingdom, unions in the 1950s won generous pensions in Britain’s nationalized industries from a Conservative government intent on strengthening the role of employer plans and forestalling the expansion of public programs (Hannah 1986; Sass 1997; Whiteside 2002).

THE EXPANSION OF ANGLO-SAXON RETIREMENT INCOME SYSTEMS: 1965–1980

The Anglo-Saxon approach to the retirement income problem had clearly taken root by the mid-1960s, but the results were limited. Employer plans covered half the workforce at best. Many covered workers would quit or lose their jobs before gaining a pension benefit. Others would see their plans go bust and their benefits lose much or all of their value. As public pensions provided meager, even welfare-level benefits, old-age remained a stage of life generally characterized by a sharp decline in living standards. Women, in particular, were poorly served. They generally accrued little or no employer pension benefits on their own, and benefits earned by their husbands typically came to an end when the husbands died.

In response to these shortcomings, Anglo-Saxon governments launched a series of initiatives to enlarge and strengthen their retirement income systems. This expansion largely came between 1965 and 1980.
at the end of the long postwar prosperity. It included both significant increases in government benefits and initiatives designed to make employer pensions so secure and broadly distributed that they functioned as an earnings-related second tier in the national retirement income system.

The United States expanded its public programs for the elderly between 1965 and 1972. In 1965, Congress enacted Medicare (medical insurance for the elderly); in 1972, it sharply increased Social Security benefits to a 42-percent earnings replacement rate for the benchmark average earner. Canada in the late 1960s lowered the age of eligibility for the government’s old-age demogrant from 70 to 65 and introduced an earnings-related social insurance pension program. For the benchmark average earner, the combined benefit would replace about 43 percent of preretirement earnings—essentially the same as in the expanded U.S. Social Security program. Australia in the 1970s increased its means-tested benefit for the elderly from 20 to 25 percent of average male earnings (equal to about a third of the average wage). It also liberalized access to the point where half of the elderly qualified for a full allowance and 90 percent for at least a partial benefit. Also in the 1970s, the United Kingdom increased its flat social insurance benefit to 25 percent of average earnings and introduced a separate earnings-related social insurance pension. When the earnings-related program matured in 1998, the two government pensions combined would replace a bit less than 45 percent of the wages of the benchmark average earner.

In the United States and Canada, the government sought to strengthen the employer component of the retirement income system by imposing an extensive set of regulations on tax-favored plans. Government officials had taken note of the large and growing size of its pension “tax expenditures.” Such a large apparent revenue loss could only be justified by a comparable contribution to public welfare. And this would be accomplished only if employer plans allowed a large portion of the workforce to shift income from their years of employment to their years of retirement. In exchange for government tax benefits, the Canadian Pension Benefits Acts of 1965–1967 (enacted at the national and provincial level) and the U.S. Employee Retirement Income Security Act of 1974 (ERISA) established new vesting, funding, and fiduciary standards for employer plans.

Government vesting requirements insisted that covered workers be given a “vested” right to a pension within a specified amount of time.
The regulations allowed different vesting schedules, but the most popular was full vesting after 10 years for workers age 45 or over in Canada and after 10 years in the United States. The vesting requirement meant that a much larger share of the workforce would get at least a small employer pension to supplement their government benefits. As expanding coverage beyond large employers and unionized workers appeared unlikely, vesting seemed the most effective way to expand the contribution of employer plans to retirement income security.¹²

The Canadian Pension Benefits Acts and ERISA also imposed a set of funding requirements on employer plans to increase benefit security. In the earliest plans, employers had merely paid benefits to retirees as an ongoing, operating expense. If the employer went bust, so would the benefits of current and future pensioners. In the 1920s and 1930s, however, sponsors came to recognize that pension benefits were properly treated as part of an active worker’s current compensation. Employers thus recognized the accrual of pension benefits by the active workforce, not benefits paid out to retirees, as their current operating pension expense. Some employers recorded this expense in a book reserve, an accounting entry that recognized the obligation and allocated a portion of the sponsor’s net worth to offset the liability. Most governments, however, denied employers favorable tax treatment for book-reserve funding. Employers in these nations generally funded their plans externally. The largest employers set up separate pension funds; smaller employers generally used insurance companies, which developed a variety of deferred annuity products for employer plans.¹³

ERISA and the Pension Benefits Acts also required employers to fully fund their plans over a period of time. When most plans were created, employers gave their existing workers pension credit for service in the past. This created substantial liabilities before the pension fund had any assets at all. The failure of the Studebaker plan in 1963 dramatically illustrated the vulnerability of this arrangement. ERISA thus required employers to fund such shortfalls within 30 years and the Canadian Pension Benefits Acts required funding within 15 years. ERISA also made employers liable for any shortfall up to 30 percent of their net worth, effectively funding the plan up to that level with the equity of the sponsor. It also created the Pension Benefit Guaranty Corporation (PBGC), which protected benefits up to a specified level in plans that went bust, primarily by imposing levies on the continuing plans.¹⁴
The United States and Canada also imposed new requirements on plan governance. Trust law, which had previously governed fiduciary conduct, assumed a community of interest between the grantor (the employer) and the beneficiary (the worker) and imposed fiduciary requirements only on trustees. In pension plans, the misconduct was primarily done by the corporate and union grantors, not the trustees. To protect the interests of workers, Canada required at least one trustee to be independent of the sponsor. ERISA defined a variety of “prohibited transactions” and required everyone associated with a plan, from the trustees (typically officers of the sponsor) to their consultants and agents, to act solely in the interest of the beneficiaries. These provisions effectively outlawed investments designed to advance the interests of corporate and union sponsors (Coward 1995; Hannah 1986; Sass 1997).

The United Kingdom took a different tack to strengthening employer plans. The earnings-related public pension plan, added atop the universal flat basic pension, was the government’s primary lever. Unlike public programs in nearly all other nations, the earnings-related plan was designed primarily as a residual plan, for those without employer coverage. Employers with plans that provided pensions that were comparable to the government’s earnings-related benefits, including to workers who left prior to qualifying for a full vested employer plan benefit, could “contract out” of the new program. Since their plans took on this pension obligation, they received a “rebate” of the social insurance tax that funded the new government benefit. The government then encouraged employers to contract out by setting the rebate of social insurance taxes above the employer’s estimated cost of providing the benefit.15

Australia took a third approach to expanding employer plans. The Labor party had long advocated increasing public pensions and replacing the country’s 1908 means-tested program with a social insurance pension plan. But oil shocks, stagflation, and the general weakening of the Australian economy had effectively blocked these options. So when Labor came to power in 1983, it pushed for the expansion of employer plans as an alternate source of old-age income. Substituting pension contributions for increased cash wages would also increase national saving and help the government achieve more immediate macroeconomic policy objectives: reductions in consumer demand, inflation, interest rates, and the nation’s widening trade deficit. Together with the unions, the government succeeded in including pension benefits in the
1986 standard labor contract negotiated at the national level by labor and management representatives (Bateman and Piggot 2001a; Commonwealth Treasury 2001).

Australia’s national bargaining system could not impose a nationwide defined-benefit pension program, as seen in various continental nations. Coverage nevertheless reached 72 percent of wage and salary workers by the end of the decade. The model contract included a uniform 3 percent “award superannuation” contribution in lieu of a comparable increase in wages across all industries and firms. The plans to emerge were thus defined contribution arrangements. To strengthen the new system as a broad-based source of old-age income, the government also enacted regulations that required full and immediate vesting of award superannuation contributions, equal labor-management representation on the boards overseeing the multiemployer “industry funds,” and the “prudent man” fiduciary standard to govern investment management.

**Retirement Income Systems at the End of the Age of Expansion**

The expanded retirement income systems that emerged by the end of the postwar boom—both the government-dominated “Bismarckian” systems and the mixed “Anglo-Saxon” systems—redressed a major shortcoming of the modern industrial economy. Industrialization has been an enormous economic achievement. Incomes rose dramatically as production moved out of the household into larger economic enterprises. Workers had typically enjoyed rising incomes over much of their working careers, but as they grew old, they lost their economic footing, becoming a distinctively poor and dependent population. Through the middle of the twentieth century, the elderly had largely relied for their livelihood on meager wages, contributions to the household budget from children who continued to live with them, support from children who took them into their own homes, or minimal public welfare or social insurance benefits.

The expansion of national retirement income systems during the long postwar boom allowed the elderly to maintain a reasonable approximation of their preretirement living standard for the first time in history. After adjusting for a lower tax burden, reduced expenses, smaller household size, and greater opportunities for leisure and home production, the disposable income of retirees was not significantly low-
er than that of working-age adults. Employer pension incomes tend to decline over time due to the erosive impact of inflation and the cessation of benefits in many cases with the death of the wage earner. This created financial difficulties in many Anglo-Saxon nations at the end of life, especially for older women. Anglo-Saxon systems also had greater disparities in the distribution of old-age income. Nevertheless, these systems provided a far more rational distribution of income across a worker’s lifespan.\textsuperscript{18}

Thus, the picture around 1980 was as follows: in the United States and other Anglo-Saxon nations, expanded government pensions had pulled the bulk of the elderly out of poverty and generally assured a modest level of comfort, though not the standard of living most had enjoyed during their working years. Employer plans functioned as a broad-based earnings-related “second tier,” allowing a significant portion of the elderly to approximate their preretirement standard of living. Employer pensions were concentrated in the middle and upper end of the income distribution. Those at the bottom relied on government benefits for nearly all of their old-age income.

As shown in Figure 2.3, the source of retirement income in the United States, the United Kingdom, and Canada differed fundamentally from that in the Bismarckian systems. In the three Anglo-Saxon countries, the capital market provided 40 percent or more of the income for older people. Of this 40 percent, roughly half came from funded employer plans and half came from the return on individually held assets. The income of the elderly in Bismarckian systems—other than the Netherlands, which prefunds its quasi-public “second-tier” program—came almost entirely from pay-as-you-go government transfers (see Figure 2.3).

These expanded retirement income systems were clearly expensive. While costs varied from one nation to the next, Bismarckian programs toward the end of the twentieth century generally required annual contributions equal to at least 20 percent of covered earnings. In the United States, contributions to the Social Security old-age income program were about half that amount, pension tax expenditures about a quarter of the Social Security contribution, and contributions to employer plans about 7 to 8 percent of covered payroll.\textsuperscript{19}

Soon after these new systems took root, it became clear that the cost of pay-as-you-go government plans would dramatically rise in the
future. Rapid population aging will place enormous pressure on public old-age pension programs in Anglo-Saxon and especially in Bismarckian systems. Advance-funded employer plans, as a result, appeared increasingly attractive.

Structural economic shifts, however, seriously weakened employer plans in the years after 1980. Global competition and the increased uncertainty created by the higher technical level of production undermined the market power of large corporate and union pension sponsors, which reduced their ability to underwrite and manage long-term retirement income programs. Globalization, higher education, higher technology, and the entry of married women into the paid workforce also undermined the career employment model in favor of shorter, intermediate-duration relationships. This was especially so among the higher paid workers that employer plans target. Employers would thus find far less

**Figure 2.3 Disposable Income by Source, Age 65+, in Eight OECD Countries, 1990s**

NOTE: Data for Germany and Italy are from the 1980s.
justification for maintaining their traditional defined-benefit pension plans, which function as a reward for career employment.

Since 1980, national retirement income systems have been highly schizophrenic. The elderly have enjoyed the ample incomes provided by the expansion of public and employer programs prior to 1980. At the same time, policymakers and younger cohorts have increasingly focused on the harsh implications of rapid population aging and the withdrawal of employer interest in supporting retirement income programs. The challenge all nations now face is how best to maintain the poverty reduction and income smoothing achievements of the current system while minimizing burdens on the active population. The next chapter will review reforms to the U.S. system to date. It will then introduce the three main proposals for structurally reforming the program, all of which include investments in equities as part of the solution. The following chapters then review the experience of three Anglo-Saxon systems that have reformed their systems along the lines of these proposals.

Notes

1. These continental systems included both governmental and quasi-governmental programs. See Whiteside (2002).
2. For the growth of such organizations, see Chandler (1977, 1990).
3. Early pensions were also often provided to war veterans, but the provision of these pensions is most usefully viewed as a response to unique events rather than a solution to a persistent economic problem.
4. There were earlier plans for government employees, especially in the military. The British eighteenth-century plan for customs officials is generally seen as the precursor to later civil servant plans. The 1859 plan, however, extended pensions throughout the civil service and provided a template widely imitated by other large employers, both public and private (Raphael 1964).
5. Scaled to current U.S. earnings in 2003, the British program guaranteed the elderly an annual income between $7,240 and $11,950 (between one-fifth and one-third of average male earnings in 2003 of $36,200). Note, however, that a much larger percentage of incomes in the past were used to purchase necessities. Food, clothing, and shelter absorbed over 80 percent of a “middle income” family’s expenditures in 1918, compared to less than half in 1988 (Brown 1994). Benefits in the Australian program were similar to those in the United Kingdom but granted at age 65. The Danish program paid different amounts in different locations, reflecting the significant geographic variation in the cost of living and in the welfare allowances provided by local authorities. In Britain, this variation would be
reflected in the provision of supplementary benefits for the elderly, primarily in
the area of housing and local tax relief, by local government authorities (Seager
1910; Thane 2000).

6. These earnings tests reflected both the notion that public old-age pensions were
insurance against an inability to work or find employment and a Depression-era
impulse to reduce the supply of labor.

7. The rule-of-thumb estimate was that old-age income would need to replace be-
tween 65 and 80 percent of preretirement earnings.

8. During World War II, the government’s wage controls also provided some sup-
port for pensions. The War Labor Board, which had set legal limitations on cash
wages, attempted to relieve the pressure on management and labor by permitting
employers to bid for workers by offering attractive fringe benefits. Pensions cost
firms little in view of the wartime excess profits tax and the ability to deduct pen-
sion contributions.

9. From the point of view of an employee, these provisions are equivalent to a
tax deferral on both pension contributions and the investment earnings on those
contributions. Assuming the employee remains in the same tax bracket, this is
equivalent to an interest-free loan on the amount of the tax (Munnell 1982).

10. In the United States, Congress leveraged its financial stake in employer plans
and in 1942 enacted nondiscrimination provisions that compelled business own-
ers and employers to distribute benefits broadly, further expanding coverage by
trading tax shelters for the well-to-do for expanded retirement income benefits
for the rank-and-file.

11. The size of the pension tax expenditure is difficult to measure with any precision,
but most official enumerations of government tax expenditure put pensions at the
top of the list.

12. In both the United States and Canada, vesting requirements have since been
significantly shortened. In addition to vesting, ERISA expanded the number of
employer plan beneficiaries—specifically to elderly widows who were poorly
served by earnings-based retirement income systems—by making a joint-and-
survivor annuity the default annuity form. Unless specifically waived, the sur-
viving spouse (nearly always a widow) would receive half the worker’s pension,
which would be actuarially reduced to pay for this survivor benefit (Coward
1995; Sass 1997).

13. Although these claims were recognized and increasingly funded by large corpo-
rate sponsors, active workers typically had a legally enforceable claim only to
benefits provided by an insurance company. In uninsured plans, corporate law-
yers typically defined pension benefits as a “gratuity” that the employer was
under no legal obligation to provide. Prior to 1938, pension assets in the United
States could be held in a revocable trust, allowing the sponsor to reclaim the
assets at will. After the Second World War, the courts and then the legislatures
made pension benefits a legally enforceable claim (Coward 1995; Sass 1997).

14. Under the U.S. 1942 Revenue Act, sponsors had to contribute an amount equal
to benefits accrued in the current year plus an amount needed to prevent any
current shortfall from widening. ERISA required such shortfalls to be amortized
over time. It also required shortfalls arising from sources such as an unexpected rise in longevity or a decline in asset returns to be funded within 15 years. In the United Kingdom, funding was largely left to the discretion of the sponsor’s consulting actuary, a policy that proved generally effective in assuring the solvency of employer plans (Coward 1995; Sass 1997).

15. The United Kingdom introduced a public earnings-related pension program, with this contracting-out feature, in 1961. This Graduated Retirement Benefit plan was slight, ill-designed, and widely suspected of being a Tory political ploy rather than a bona-fide retirement income initiative. The State Earnings Related Pension Scheme (SERPS), introduced in 1978, was a far more ambitious program. In both programs, employers did not have to take on the entire pension liability. The government retained the riskier portions of the obligation, such as inflation proofing. In the SERPS program, the government set the contribution rebate at about 0.5 percentage point above the estimated private cost of providing the benefit to encourage contracting out. The cost estimate included administrative expenses, which increased costs above those of the government program, but assumed a significant use of equities in funding the benefit, which reduced costs far below the present value of the benefit discounted at the riskless government rate (Daykin 2001; Hannah 1986).

16. Essentially all U.S. collectively bargained plans had a defined-benefit rather than a defined-contribution format. This was the case even though the cost of these benefits was carefully priced at the bargaining table as equivalent to a certain amount per hour. In these U.S. negotiated plans, costs and benefits varied dramatically and the employers bore the risk that their contributions and pension fund income would be insufficient to fund the promised benefits. A nationwide agreement to contribute a fixed percentage of earnings to pension plans that covered a wide variety of employer or industry groups, even in the United States, would likely result in plans with a defined-contribution format (Sass 1997).

17. The prudent man standard is common in Anglo-Saxon trust law. In the formulation specified in ERISA, “a fiduciary shall discharge his duties with respect to a plan solely in the interest of the participants and beneficiaries and . . . with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims . . . ” (Bateman and Piggot 2001a; Commonwealth Treasury 2001).

18. The United Kingdom is somewhat of an outlier, with the disposable income of the elderly clearly lower than that of working-age adults. But, even in the United Kingdom, the disposable income levels reported by Yamada (2000) are reasonably close.

19. In the United States, the contribution rate for Social Security old-age, survivors, and disability insurance is currently 12.4 percent of covered earnings, split evenly between employers and employees, realizing $511 billion in 2005; the pension tax expenditure for 2005, as reported by the Office of Management and Budget (2005) (for employer plans, Keogh plans for small businesses, and individual retirement accounts, which are primarily rollovers from employer plans) was $141 billion.