Retirement Income Security in the United Kingdom

*by Lillian Liu**

This article examines the U.K. retirement income security system from the American perspective. It addresses issues that most concern U.S. analysts: how the United Kingdom has kept its future public pension costs at a manageable level, the extent to which privatization of public pensions has contributed to low pension costs, the popular appeal of individual pension accounts, and the impact of privatization on retirement income. These issues are best understood in the context of the U.K. pension program's particular institutional structure and policies, two of which— "contracting out" of public pensions, and strong reliance on means-tested benefits—have been largely rejected in the evolution of U.S. policy to date.

Particular use is made of recently available data on coverage rates for public and private pension programs over the total working population and administrative records on inactive personal pension accounts.

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Introduction

The impetus for Social Security reform in the United States has been gathering momentum over the past several years, fueled primarily by the projected long-term actuarial imbalance in the system. This has led many of the baby boom generation and younger workers to ask: "Is Social Security going to be there for me when I retire in the 21st century?" The 1994-96 Advisory Council on Social Security examined problems and prospects of the system and presented three options for reform. In addition, members of Congress and nongovernment groups have also presented reform proposals of their own. A common feature among many of these proposals is a call for establishing individual pension accounts, either to partially replace the existing Social Security program or to add onto the current system. Two of the three contending options presented by the Advisory Council on Social Security, for example, recommended the introduction of individual accounts, though they differed in the specifics of how these accounts should be funded and managed (Advisory Council on Social Security 1997, Vol. 1, pp. 28-33, 102-134, and 158-159). At this writing, there are a total of 11 Social Security reform bills pending in both Houses of the U.S. Congress, and all of them feature individual accounts.[1]

A number of countries around the world have, in recent years, transferred their government public pension programs in whole or in part to private arrangements such as individual accounts.[2] However, only two—Chile and the United Kingdom—have accumulated 10 or more years' experience with these accounts as a direct alternative to government programs. While neither of them has had a long enough history with individual pension accounts to measure the eventual impact on retirement benefits,[3] various aspects of these countries' privatization efforts may be instructive for the United States.

The near-total privatization in Chile since 1981 has received extensive and intensive study in this country and abroad as a model for reform.[4] However, few studies in the United States have referred to the U.K. experience, even though it seems to be of greater relevance to the United States.[5] Not only do the British and Americans share a common cultural heritage, but the U.K. experience is more relevant to that of a large developed economy, and it also involves partial privatization of the public system, similar to most proposals made for the United States.

Several aspects of the U.K. experience are worthy of examination. First, because the United Kingdom has been lauded for having put its fiscal house in order, it is instructive to review the reported successes in financing the U.K. public pension system. The National Insurance Fund (NIF), which finances the retirement pension program (together with other income security programs, such as survivors, disability, sickness and maternity benefits, unemployment, and work injury), does not appear to have either short-term or long-term solvency problems. In addition, some comparative studies have demonstrated that the U.K.'s projected long-term public pension costs relative to the Gross Domestic Product (GDP) are the lowest among leading industrial nations.[6] This is a rather impressive accomplishment, given that the United Kingdom has a larger proportion of aged population than does the United States and this situation is projected to continue through 2050.[7] It would be useful to identify the factors that have minimized the solvency issue and kept public pension expenditures in the United Kingdom at a manageable level.

Second, the United Kingdom has had 10 years' experience with "personal pensions," namely, individual pension accounts. Starting in 1988, employees could voluntarily opt out from the second, earnings-related tier of the two-tiered government pension program and set up their own tax-deferred personal pension plans. (The mandatory first-tier basic pension discussed below provides a fairly low flat-rate benefit based on years of contributions, regardless of earnings.) These individual accounts proved very popular during the first 10 years; the number of employees who opted out far exceeded government expectations. The idea of empowering individuals to make their own retirement income decisions had great appeal because of the value British culture places on individual self-help, relative to other European countries.[8] What can the British experience tell us about personal pensions during the first decade of their existence? To what extent will their initial popularity be sustainable through the 21st century? These are the questions of interest to U.S. policy analysts.

Third, the U.K. retirement pension system may provide us with glimpses of the kind of future the U.S. Social Security system envisioned by those who propose a partially privatized benefit structure, with a basic first-tier benefit from a public program and a personal-accounts second tier. The British experience can be contrasted with the more than 60-year history of the U.S. Social Security system, and thus show policymakers the implicit trade-offs in each system.

Until the early 20th century, both the United Kingdom and the United States relied primarily on personal, family, local community, the church, and other nongovernment resources (for example, employers, mutual aid associations or "friendly societies" in the United Kingdom) to meet both the social and economic needs of the aged. However, the United States embarked on a new path by adopting a single-tiered earnings-related social insurance program in 1935 that covered nearly *all* workers in industry and commerce without options for contracting out to either employer or personal pensions. The United Kingdom has chosen to stay, by and large, with a basic flat-rate benefit as the anchor of its public pension system, later supplemented by a partially privatized second-tier pension. What are some of the issues that have confronted U.K. social security policymakers, and what issues still concern them now? A review of the U.K. system and the issues it faces can help us to compare the actual present-day U.S. Social Security system with a partially privatized alternative that has operated for decades in a social and economic environment not too different from our own, complete with all of its attendant advantages and disadvantages.

Analysis in this article is organized in five sections:

(1) an outline of the U.K. system and its evolution, focusing on three features of this model: (a) the first tier of public pension, which pays only "poverty-level" benefits; (b) the second, earnings-related tier, which is divided among public and private components, allowing "contracting out" of the public tier and setting up authorized private plans instead; and (c) supplementary means-tested benefits, which constitute a significant portion of retirement income for many pensioners;

(2) an analysis of public pension financing, examining the solvency issue, and the extent to which privatization has contributed to savings in public pension expenditures;

(3) an assessment of the popularity of personal pensions during its first 10 years, exploring transition issues and costs for the promotion of these individual accounts, and discussing the extent and sustainability of their popular appeal;

(4) an account of some of the problems and prospects of the U.K. retirement income security system, together with issues being considered for pending pension reform; and

(5) a review that places the U.K. model of a two-tiered pension system in an American perspective.

Three points of clarification should be noted. First, this article focuses primarily on the public retirement income security program.[9] Individual pension accounts are discussed mostly as alternatives to public retirement pensions. Second, I have generally avoided the term "social security" in this article because it refers to different sets of programs in the two countries. To an American reader, "social security" typically means the Old-Age, Survivors, and Disability Insurance (OASDI) program. In U.K. usage, however, this same term also comprises child support, sickness and maternity benefits, unemployment, work injury, and all means-tested programs. Third, policies and program provisions discussed here bear upon the United Kingdom as a whole, but available data often relate only to Great Britain (omitting Northern Ireland).[10] I have also used the collective term "the British" to refer broadly to people in the United Kingdom.

The U.K. Retirement Income Security System: An Overview

Public pension programs in both the United Kingdom and the United States are based on the social insurance principle of pooling risk among all participants in a government-administered program.[11] But there are major differences between the two countries' systems in benefit structures and in population covered.

For the past 90 years, the U.K. system of retirement income security has been anchored by a near-universal, flat-rate basic state pension. This basic tier is a compulsory contributory program that provides a "poverty level" benefit to the working population (except the lowest earners, who are excluded from coverage). The following discussion begins with the evolution of the basic state pension since 1908 and describes how the U.K. system has come to rely on both privatized pensions and means-tested programs to provide a significant portion of income security for the aged.

A summary of some of the basic features of the U.K. system, including the two phases of privatization, is provided in chart 1.

The First Tier: The Basic State Pension, 1908-98

The state pension system began as a single-tiered structure in 1908. It was a noncontributory, means-tested, old-age assistance program providing flat-rate benefits. In 1925, a new law eliminated the means test and required compulsory, flat-rate contributions shared equally between employer and employee.[12] Benefits were set at subsistence level, and the contributory program was to be supplemented by a scheme of residual means-tested public assistance—a last-resort safety net for indigent elders (Ogus and Wikeley 1995, p. 4).

This pattern of poverty-level benefits persisted even after 1948, when old-age pensions were incorporated into the National Insurance (NI) system, together with other income security programs (for sickness, unemployment, and work injury, for example). Funding for NI was shared by the Treasury, employers, and employees. This unified social insurance program broke new ground by extending compulsory coverage to all workers, except the lowest earners. However, it continued to pay only minimal pensions, contrary to Sir William Beveridge's vision of providing NI benefits adequate to phase out the means-tested program (Atkinson 1970, pp. 23-27).

Over the years, three features of the basic state pension have remained rather stable:

(1) Low earners (about 16 percent of total workers in any given contribution period) are exempted from contributing to the NI, and therefore excluded from basic state pension coverage during periods of low income, accruing no benefit entitlement;[13]

(2) Benefits are prorated according to years of contribution, regardless of earnings. Contribution periods of the low paid and those with intermittent work histories may fall short of the level required for maximum benefits (44 years for men and 39 years for women);[14] and

(3) The level of the maximum basic state pension for a single pensioner has remained below the threshold for means-tested cash benefits, so that pensioners without additional resources generally qualify for these benefits.[15]

In 1978, two measures were introduced to improve the basic state pension: The full-benefit level (1) was set at roughly 25 percent of the average wage and (2) was to be adjusted annually in line with price or wage increases, whichever was higher.[16] This amount would generally equal the lower earnings limit (LEL), which was also the earnings threshold for determining eligibility for contributing to and participating in NI pension programs.

However, in 1980 the government switched benefit indexing from the *higher* of price or wage increases to price changes only. Over time, this causes far-reaching benefit cuts, a change that has not been fully recognized by the public. The maximum first-tier pension has already declined from 25 percent of the average wage in 1978 to only 16 percent in 1998. Assuming that earnings growth outpaces price increases by 1.5 percent per year (the intermediate assumption used by the U.K. Government Actuary), the maximum will shrink further to only 10 percent of the average wage by 2030-31, and to 7.5 percent by 2050-51.[17]

The Second Tier: Earnings-Related Pension and Its Privatization,1961-88

The second, earnings-related tier of public pensions began many years after the first tier, offered low benefits, and covered only a portion of the working population.

Graduated pension, 1961.—British prosperity in the 1950s finally enabled the government to augment its uniform basic state pension with an earnings-related tier. This new "graduated pension" was enacted in 1959 and implemented in 1961, more than 50 years after the basic state pension.

The significance of the 1959 National Insurance Act in the evolution of British pension history lies primarily in its precedent-setting provision for some degree of privatization.[18] Owing to resistance from employers and the already well-

Chart 1.—Summary features of the U.K. retirement pension system and its privatization

The system has two tiers: For both tiers, *old-age benefits* are payable at age 65 for men and age 60 for women (gradually raised to age 65 between 2010-20).

- *First tier* (1908-) Mandatory state provision of low flat-rate weekly benefits independent of earnings but prorated according to years of contribution (maximum benefit is generally less than one-fifth of average wage); covers roughly the top 84% of earners in any given contribution period.
- *Second tier* (1961-) Mandatory provision of earnings-related benefits from either public or private pensions; covers the same population group as the first tier, except the self-employed.
- The *State Earnings-Related Pension Scheme (SERPS)*, is the much-improved second-tier public pension introduced in 1978; its predecessor, "graduated pension," provided only minimal benefits.
  - -- SERPS benefits now replace 25% of contributable earnings (earnings between the lower and upper earnings limits for purposes of employee payroll contribution) based on 20 best years; from 1999, 20% of career contributable earnings (49 years for men and, by 2020, 49 years for women).

Privatization

- Two phases of public pension privatization (1961 and 1988). In both cases, privatization is partial (it replaces only the second-tier public pension); and it is voluntary.
  - -- As of 1961, employers have the option not to participate in the public second-tier ("contract out") and set up instead a private second tier of qualified employer (defined benefit) pension plans, known as "occupational pensions."
  - -- As of 1988, workers can "contract out" of either the public SERPS or employer plans to set up tax-deferred, defined contribution, individual pensions accounts, known as "personal pensions."
  - -- From 1978-88, SERPS covered roughly the middle 50% of all earners (the remaining 50% includes members of contracted-out employer plans, the self-employed, and those not contributing to either the first tier or SERPS due to low earnings); after the 1988 privatization, it covered roughly the lower middle 30%.
- The first tier remains public.

Financing

- Pay-as-you-go funding for both tiers of public pensions by payroll tax to the National Insurance Fund (NIF); general revenues can make up NIF shortfalls of up to 17% of benefit expenditures in any given year.
  - -- Employees covered by the SERPS pay 2% on the first £64 (about U.S.$100) of weekly earnings, plus 10% on weekly earnings between £64 and £485 (about U.S.$800); employers pay 3%-10% of employee's weekly earnings up to £485 according to wage brackets, plus 10% of *total* additional earnings.
  - -- Employees opted out to a personal pension: contributions to NIF—same as above, with portions rebated directly to their personal pension account.
  - -- Employees opted out to an employer pension plan: Both employer and employee pay reduced contributions to the NIF.
  - -- Low earners (less than £64 per week) are not covered by either tier of public pensions for that contribution period; no contributions are made to the NIF, and no entitlement for the period of noncontribution.
- About 67% of NIF goes to both tiers of old-age benefits; 19% to disability and survivor pensions; 11% to the National Health Service, and the remaining 3% to sickness, maternity, unemployment, and work injury benefits.

developed private pension industry, the new law allowed "contracting out"—employers offering occupational pensions to their employees could opt out of the second-tier public program. Thus, the earnings-related tier consisted from the very start of separate "state" and "private" components, not a unified program with coverage for all. In principle, however, employees had compulsory second-tier coverage by the "state" component, *except* for those whose employers chose to "contract out" and enroll them in occupational pensions providing comparable benefits.

Resistance from the private pension industry and employers also prevented the new, second-tier pension from offering more than modest benefits or any protection against inflation. Employers were particularly concerned about any graduated pension measures that might ultimately obligate their own plans to pay additional comparable benefits.[19]

The state earnings-related pension scheme (SERPS), 1978.—Dissatisfied with a mere token add-on to the poverty-level basic state pension, and concerned that employers' occupational-plan coverage of employees had stagnated at below 50 percent of employees entitled to a second-tier pension, some U.K. social policy activists and political groups continued to campaign for a more substantial second, earnings-related tier. This culminated in the 1975 Social Security Pensions Act, which introduced SERPS, to take effect in 1978.

When SERPS was first introduced, it replaced the graduated pension with one that made a significant increase in the benefit amount. The plan would replace 25 percent of individual earnings (up to the upper earnings limit (UEL) on payroll contributions) based on the 20 best years.[20] The 1975 Act also introduced important new features to adjust retirement pensions in line with wage and price increases. The past earnings used for benefit computation were to be indexed according to yearly increases in the average wage; the first-tier benefits were to be raised in line with either price or wage changes, whichever was higher; and SERPS benefits were linked with annual price changes (Blake 1995, pp. 149-150).

The 1975 law followed the "contracting out" principle established in 1959. Employers could opt out of SERPS by enrolling their employees in defined-benefit occupational pensions plans. The Act further stipulated conditions for certifying contracted-out employer plans so that they must offer defined benefits and pay at least a "guaranteed minimum pension" (GMP) equal to SERPS benefits at the time of retirement. Costs for the full indexing of the GMP to price increases would be borne by the NIF instead of the occupational plans themselves. When "contracting out," employees and employers paid reduced NI contributions to compensate for the SERPS benefit foregone.[21]

The impact of the new earnings-related benefit varied among employment groups and income classes. For workers in contracted-out occupational plans (generally, the top 30 percent of earners), the 1975 Act protected pension income by requiring occupational pensions, for the first time, to provide a GMP and benefit indexing. The greatest impact of SERPS was felt by the 45-50 percent of earners who were not members of contracted-out plans.[22] This new, earnings-related benefit supplementing the basic state pension would make a sizable improvement to their retirement pension income. Those meeting the contribution requirement and earning the average wage would receive almost 20 percent of their preretirement wage as their SERPS benefit, in addition to their basic state pension.[23]

In any given contribution period, two groups are excluded from the SERPS coverage: (1) the lowest earners, whose wages fall below the threshold for participation in either tier of the public pension program and (2) the self-employed, even though they are compulsorily covered by the first tier. During periods of noncoverage, they do not accrue any SERPS benefit entitlement. However, SERPS provides an added pension to earners who have contributed to the NI for the required minimum of 1 year. Still, the impact of SERPS is somewhat limited for those who have prolonged periods of low earnings or self-employment. The former group is more likely to consist of women and part-time workers, who consequently may still have to rely disproportionally on means-tested benefits for retirement income.[24]

According to Disney and Johnson (1997, p. 7), SERPS was an uneasy compromise following protracted debate between two groups that held differing views with regard to the roles of public and private pensions. On the one hand were those who wanted to introduce a pay-as-you-go, earnings-related public pension for all. On the other were those who saw the merits of encouraging the expansion of a private pension sector, leaving the state to provide a fall-back earnings-related pension for those without access to occupational pensions. As Disney and Johnson (1997, p. 7) succinctly put it:

> "there were real problems underlying this debate: first, how to broaden private sector coverage and to provide a viable social security alternative when the private insurance industry had already 'creamed off' the best risks into private schemes (that is, men with stable job histories) and second, how to levy higher NI contributions to pay for supplementary social security provision for a subset of the work force without company pensions, which would not be popular with the remainder of the work force who were already in company schemes."

This underlying difficulty in gaining broad support for SERPS also applied to the first-tier benefit. Given the redistributive nature of the basic retirement pension (benefits are paid according to years of contributions, regardless of earnings) and given the poverty-level benefit, it has become important primarily to the lower earners in the working population. The lack of any great vested interest in either tier of the public pension system by a sizable portion of the population, coupled with a major economic downturn in the 1970s, probably explains the relative ease with which the government cut benefits for both tiers shortly after SERPS was introduced.[25] The most sweeping cut (in the long run) was the change to an annual revaluation of the first-tier pension according to price changes, rather than the higher of price or wage increases. Major cuts for SERPS benefits would follow in another 6 years.

SERPS Benefit Cuts and Further Privatization, 1988-98

The 1986 Social Security Act (most provisions effective in 1988) was a major turning point in the UK's system of retirement income security. The stated objectives of the new legislation were: (1) reducing benefit expenditures of SERPS to contain the future cost of public pension programs, and (2) facilitating contracting out from SERPS, not only by employers but, for the first time, by individuals as well (Department of Social Services 1985, Cmnd. 9691, pp. 4-5 and 11-12; Daykin and Young 1986, p. 25).

The new law was a retreat from an earlier proposal. Contending that SERPS was too costly to finance in an aging society, the government had first proposed that the public earnings-related tier should be phased out altogether and replaced by either an employer occupational plan or a personal pension. The retreat was driven by widespread protests in many comments on the government's proposal, including those presented by business groups and the pension industry. They argued that the private alternatives for SERPS were not feasible for low earners and those with intermittent career paths (Department of Social Services 1985, Cmnd. 9517; Daykin and Young 1986, p. 25).

Cutting benefits.—The first severe SERPS benefit cuts were introduced by the 1986 Act, stipulating changes in the benefit formula that would lower payments by more than one-fifth. Those reaching pensionable age (65 for men and 60 for women) after April 1999 will be subject to a phased-in reduction until the maximum falls to 20 percent (instead of 25 percent) of the individual's average *lifetime* contributable earnings rather than the average of the 20 best years (Dilnot and Webb 1989, pp. 239-267). To further reduce expenditures, the NIF would no longer pay the cost of fully indexing the GMP for contracted-out defined-benefit occupational plans. Employers became responsible for indexing these payments, up to an annual 3 percent cap (Department of Social Services 1985, Cmnd. 9691, p. 4).

Ten years later, the 1995 Pensions Act further curtailed SERPS benefit expenditures. The pensionable age for women will gradually increase to 65, the same as that for men, from 2010 to 2020;[26] and a technical adjustment in computing SERPS benefits will lower the benefits somewhat beginning in 2000, with substantial savings to the system by 2050.[27]

Privatizing through personal pensions (APPs).—The 1986 Social Security Act made it possible, for the first time, for individuals to contract out of SERPS by setting up their own tax-deferred individual pension accounts, beginning in 1988. These new individual plans are called "appropriate personal pensions," or APPs. Individual plan holders have some control over the investment of their funds through the selection of a financial service provider (for example, an insurance company or independent financial advisor). Employers and employees contribute to all the NI programs as before, but the Department of Social Security directs a "rebate" from these payroll contributions to respective personal pension accounts to compensate for foregone SERPS benefits. To encourage contracting out, the government promised not just the rebate from NI contributions, but also tax relief on the rebate and an additional incentive bonus—equal to 2 percent of payroll for the first 5 years, and, subsequently, 1 percent from 1993-94 through 1995-96 for those aged 30 or older (Davis 1997, p. 13).

APPs, by definition, are defined-contribution plans whose benefit amounts depend on the contributions paid in and investment returns from the accumulated funds. By depositing all rebates, tax savings, and incentive bonuses directly into APP accounts, the government ensures that contributions constitute at least the required "minimum" deemed necessary to replace SERPS. APP holders may make higher contributions to these accounts on their own to enhance the value of future benefits (Blake 1995, pp. 182-188).

Introducing personal pensions was more complicated than just allowing individuals to contract out directly from SERPS; employees who were members of an employer's contracted-out occupational plan could likewise choose to opt out from these plans and set up APPs instead. New employees could, instead of joining their employer's contracted-out plans, (1) join SERPS, or (2) opt for an APP of their own. Individuals could, voluntarily, establish ordinary personal pensions (PPs) in addition to their SERPS, APPs, or "regular" occupational pensions (not contracted out of SERPS) to enhance their retirement savings. Moreover, the 1986 law made PPs available to the self-employed who, as a group, have never had coverage under SERPS.[28] This article limits its discussions primarily to APPs and not the voluntary, supplementary PPs.

The personal pension provision proved very popular. About 3.1 million APP paper transactions to contract out of the SERPS were concluded during the first year, far exceeding the number anticipated by the Government Actuary. By the end of the first 5 years, total APP transactions reached 5.4 million (Department of Social Security 1998, table 26.0).

Revising privatization through occupational pensions.—The 1986 law not only allowed individuals to opt out of their employers' defined-benefit pension plans, but it also allowed employers to set up *defined-contribution* occupational plans as another alternative to SERPS. Prior to the 1986 law, contracted-out occupational plans had to offer defined-benefit pensions, in which benefits were generally linked with the employee's earnings at or near retirement age. A key condition to qualify for contracting out had been to provide retiring employees at least the GMP, an amount equal to benefits that would otherwise have been provided by SERPS.

Unlike defined-benefit plans, defined-contribution occupational plans that are contracted-out are *not* required to pay at least the GMP on retirement. Like APPs, the defined contribution occupational plans offer "protected rights" by ensuring that a minimum level of contributions are paid into these plans (Blake 1995, p. 161). Since the 1986 law, new occupational plans have increasingly been established on a defined-contribution basis, while some employers are switching from defined-benefit to defined-contribution plans.

In addition, there have been changes with regard to the GMP required for contracted-out defined-benefit plans under both the 1986 law and, later, the 1995 Pensions Act. The 1986 law relieved the NIF of bearing the whole cost of benefit adjustment for inflation for the GMP, and obligated the contracted-out employer plans to fund up to 3 percent a year. The NIF would be only responsible for any inflation beyond 3 percent.

Under the 1995 Pensions Act, effective April 1997, contracted-out defined-benefit plans are no longer required to provide a GMP, although they are still intended to be able to provide benefits (as certified by an actuary) that are broadly equivalent to or better than a "reference scheme" more or less modeled after the GMP. Also, contracted-out defined-benefit plans are now required to index their promised benefits up to 5 percent of price increases *without* any further funding from the NIF.[29]

Additionally, to guard against the risk of employer insolvency in defined-benefit plans (contracted-out or not), the 1995 Pensions Act requires that they must meet a "minimum funding requirement" that obligates the plan to maintain a specified level of assets (Pension Provision Group 1998, p. 84).

Coverage Rates: Public Pensions and Private Alternatives

Retirement pension coverage of the working population differs by income class and employment. Comprehensive data on coverage rates for the working population (including both employees and the self-employed) have not previously been readily available. The following profile of pension coverage is constructed from various sources of administrative and survey data.

As shown in table 1, the total working population in any given contribution period can be divided into two groups: those whose earnings are sufficient to require them to contribute to the NI programs and those below a "lower earnings limit" (LEL), who are not required to contribute. The first group—about 84 percent of all workers in 1994-95—is covered by at least the first-tier basic state pension program; the second, low-earning group, about 16 percent of all workers (roughly 11 percent employees and 5 percent self-employed), is not covered by either the first or the second tier. The roughly 84 percent of workers covered by the first tier are further divided according to type of employment: about 76 percent are wage and salary workers covered also by the second-tier programs, and about 8 percent are self-employed and excluded from the second tier.

Rough estimates of the extent of privatization are also shown in table 1. Because privatization affects only the second, earnings-related tier of the public pension program, its effect can be seen in the three-way split of second-tier pension coverage. The 76 percent of the total working population who had coverage for the second-tier pension in 1994-95 were required to contribute to one of three options. Comprising this group were 28.5 percent of the working population who have remained in SERPS, 32.5 percent who have contracted out to employer occupational pensions, and 15 percent who have contracted out to personal pensions (APPs) and maintain active accounts.

It should be noted here that at present only about 65-70 percent of all APP accounts are active. The inactive accounts are in the names of workers who currently have either contracted out to occupational pensions or have low earnings that disqualify them from participating in either first- or second-tier pensions. Inactive APP accounts are therefore excluded from the APP coverage rates presented below to avoid double counting.[30] The coverage rates presented here thus show a lower proportion with APPs and a higher one in SERPS than do other studies[31] (table 1).

It should also be noted that the total number of workers participating in any kind of occupational plan or personal pension is higher than the numbers in *formally contracted-out*

Table 1.—Coverage of working population in Great Britain, 1994-95, under first- and second-tier public pensions and privatized second-tier alternatives[1]

Coverage	Number (in millions)	Percent[2]
Total working population[3] …………	24.9	100
Employees covered by first-tier of public pension[4] …………………………………	21.0	84
Employees with second-tier provisions………	18.9	76
Second-tier public pension (SERPS)[2] ……..	7.1	29
Second-tier contracted-out to:		
Occupational pensions[4]…………………..	8.1	33
Personal pensions[4] ………………………	3.7	15
Self-employed[5] without second-tier provisions ………………………………	2.1	8
Not covered by either tier of public pension…	3.9	16
Employees with earnings below lower earnings limit (LEL)[6]……………………	2.7	11
Self-employed with earnings below LEL[7]…	1.2	5

[1] Constructed from a combination of administrative and survey data that are not necessarily consistent. See also notes 13 and 31 of the article.

[2] Parts may not sum to total due to rounding.

[3] Office for National Statistics, *Labor Force Survey: LFS Historical Supplement 1997*, table 1a, total employees and self-employed.

[4] Department of Social Security, *Second-Tier Pension Provision 1995/96*, Vol. I, table 1.0; and Vol. II, table 26.0.

[5] Department of Social Security, *Social Security Statistics, 1997*, table H1.02.

[6] From note 3 above and McKnight, Elias, and Wilson 1998, table 4.1.1, p. 20.

[7] From notes 3 and 5 above.

occupational or personal pensions. Many employers offer supplementary occupational pensions that are not contracted out, although total occupational pension coverage is still less than 50 percent.[32] As pointed out earlier, employees may also set up ordinary personal pensions (PPs) in addition to their coverage under SERPS or contracted-out APPs. Moreover, an estimated 50 percent of the self-employed (who are not covered by SERPS) have set up ordinary personal pension plans for their own retirement protection.[33]

Pensioner Reliance on Means-Tested Benefits

Beyond public and private pension plans, a significant number of elderly Britons rely on means-tested benefits. These benefits were understandably important to many pensioners during the first 70-odd years of the U.K. retirement pension system, due to various limitations in the system. In the first tier, workers with low earnings, part-time employment, or short work histories might find it difficult to qualify for the maximum first-tier benefit that fell (and still falls) below the poverty level. In the second tier, SERPS' predecessor (the graduated pension) paid very low earnings-related benefits.

The introduction of SERPS in 1978 as a second, earnings-related tier helps those with earnings high enough to qualify them as contributors to NI. As with the first tier, SERPS excludes workers with earnings below the NI threshold in any given contribution period. However, the qualifying contribution period to receive any SERPS benefit is only 1 year, and so this second-tier program enhances retirement income even for those with sporadic work history, or periods of low income.

However, even after SERPS benefits began to be paid in the 1980s and 1990s, many British pensioners still had to rely on means-tested benefits for retirement income. Up to a third of pensioners collect these benefits, including Income Support (cash payments), Housing Benefit (rent subsidies), and Council Tax Benefit (local government tax credits). Roughly 16 percent of all *retired* pensioners were receiving Income Support in May 1995.[34]

The significant role of means-tested benefits vis-a-vis retirement benefit payments can be further illustrated by comparing total payout with that from the public pension program. In 1994-95, payments to pensioners from Income Support totaled £4.0 billion, about 14 percent of total payout from both tiers of the public pension program.[35]

Public Pension Financing: "Solvent" and Low Cost

Funding for public pensions, combined with that for other NI programs, is on a pay-as-you-go (PAYG) basis, financed by employer and employee contributions plus general revenue subsidies (Ogus and Barendt 1978, p. 44). Employers and employees contributed at a flat rate for all participants, regardless of earnings, until 1961. With the implementation of a second-tier earnings-related pension, contribution rates also became earnings-related; in the case of contracted-out occupational pensions, both employers and employees paid a reduced rate. In 1985, employer and employee contribution rates were adjusted to apply lower rates to lower earners, and the income ceiling for employer contributions was removed so that the employer's share is now based on the employee's total earnings. (See chart 1 for 1998-99 payroll contribution rates.)

Solvency of the National Insurance Fund (NIF)

To a casual U.S. observer, the most conspicuous accomplishments of the British system are the apparent absence of short- or long-term insolvency issues, and the relatively low public pension costs projected for the 21st century, even in the face of an aging population.

There are, in fact, built-in mechanisms in the British system that render the issue of "insolvency" or "actuarial imbalance" moot. First, the NIF is not required to have a year-to-year or long-term actuarial balance based on payroll contributions alone. There is an explicit understanding that financing of the NI programs is strictly PAYG, and that the NIF should be kept in working balance not only by receipts from payroll contributions from employers and employees, but *also* with general revenue subsidies whenever necessary.[36] At present, the NIF is routinely supplemented by a Treasury grant of up to 17 percent of the benefit expenditure in any given year. The Treasury grant, therefore, provides a measure of flexibility the NIF needs in preventing "insolvency" or "imbalance."

Second, should shortfalls from payroll contributions in any given year exceed the Treasury grant ceiling, the government can raise contribution rates with relative ease. For example, Parliament grants *pro forma* approval to increases of up to 0.25 percent in the combined employer and employee payroll contribution rate, if recommended by the Government Actuary, without requiring a Parliamentary debate.[37] In addition, the British Parliamentary system provides the government with a legislative leverage (Pierson 1994, p. 70). For example, to raise income for the NIF, the British Parliament assented in 1985 to the government's recommendation to remove the earnings ceiling (then less than twice the average wage) for payroll contributions from employers, thus requiring them to pay based on the *total* payroll. This reflected at least in part the relative receptivity on the part of both Parliament and the voting public to adjusting payroll contribution rates to keep the NIF in fiscal balance. In so doing, they help to engender public confidence in the NI system itself, a mutually reinforcing relationship.

Projected Cost Savings Caused by Benefit Cuts

Given the various built-in mechanisms that the government has to cover shortfalls in the NI system, it is perhaps all the more significant that Great Britain has successfully kept its projected public pension expenditures at a relatively low level.

These mechanisms do not lead to unrestrained financial support for the public retirement pension program. When the

Treasury provides general revenue subsidies, which it is obligated to do, this results in added pressure from the Treasury to keep benefits low.[38] Also, as pointed out earlier in this article, there have been long-standing forces resisting the development of an earnings-related tier and cutting public pension expenditures in both tiers of the public pension program since 1980.

A recent study prepared by the International Monetary Fund (IMF) projects rather dramatic reductions in U.K. public pension expenditures (Chand and Jaeger 1996). The study compares future public pension liability among eight major economies, using the 1990 expenditure data as a base. Costs in the United Kingdom will increase slowly from 4.2 percent of GDP in 1995 to 4.7 percent in 2030, then start to decline even while population aging will be at its peak, dropping to 3.4 percent in 2050. Table 2 shows not only that the United Kingdom's projected unfunded pension liability ranks the lowest among the eight countries studied (Canada, France, Germany, Italy, Japan, Sweden, the United Kingdom, and the United States), but that it falls *below* the 1990 level. The following sections discuss how the United Kingdom has succeeded in keeping future public pension costs low, the extent to which privatization through personal pensions has contributed to these low costs, and what the likely consequences are for future pensioners.

The role of personal pensions in cost savings.—To what extent do the projected low costs in the British public pension program reflect cuts in pensioner benefits and to what extent do they reflect privatization in the form of personal pensions? It will be recalled that one of the stated objectives of the 1986 reform was to contain the future cost of the public pension program in a rapidly aging society. A privatized, fully funded system was intended to reduce unfunded public pension liability in the 21st century, when the support ratio was projected to reach an all-time low of 1.6 contributors to each pensioner by 2035 (Department of Social Services 1985, Cmnd. 9517, pp. 15-17; 1985, Cmnd. 9691, pp. 11-12). This section tries to ascertain the savings in future public pension costs that are attributable to personal pensions, relative to other major policy changes since 1980.

Since 1980, there have been five major policy changes that affect pension expenditures. Four of the five involve benefit reductions for future retirees:

- the 1980 switch to price indexing of the first-tier benefit instead of the higher of price or wage changes;
- the phased reduction in SERPS benefits enacted in 1986;
- the increase in pensionable age for women, from age 60 to 65, legislated in 1995; and
- a technical adjustment in calculating past earnings for benefit computation, also enacted in 1995.

The 1986 law allowing contracting out into personal pensions from SERPS was the only provision (out of five policy changes) intended to reduce future public pension expenditures through privatization (Department of Social Services 1985, Cmnd. 9691, p.11). Even though it represented a retreat from the original government proposal (as discussed earlier), about 4 million workers—15 percent of the total working population—are currently contracted out of SERPS for personal pensions.

Estimates by the Government Actuary's Department (GAD) make it possible to assess the relative impact of these respective policy changes on pension cost savings for the periods around 2030 and 2050, when the aging of the U.K. population is expected to reach its peak.

According to a 1986 GAD report, the switch to price indexing alone was expected to reduce first-tier benefit costs by £23.8 billion in 2033-34 and £35.4 billion in 2052-54 (in 1985 prices). In addition, savings resulting from changes in the 1986 law relating to SERPS benefit reductions would reduce expenditures by about £12.0 billion and £17.0 billion for these same years.[39]

Two provisions of the more recent 1995 Pensions Act—the increase in pensionable age for women, and the technical revision of past earnings for computing SERPS benefits—will

Table 2.—Public pension expenditure as percent of gross domestic product, selected years

Country	Baseline expenditure 1990	Projections 1995	2000	2010	2030	2050
United States	4.5	4.4	4.3	4.2	7.4	7.7
Japan	5.0	5.7	6.5	7.5	8.9	10.7
Germany	8.9	10.0	11.1	11.0	18.4	18.7
France	11.9	12.5	12.0	12.6	19.4	21.3
Italy	13.9	16.0	17.1	15.2	23.3	25.7
United Kingdom	4.2	4.4	4.3	4.6	4.7	3.4
Canada	3.8	4.4	4.5	4.9	7.5	7.1
Sweden	7.0	8.5	8.2	8.1	9.2	7.4

Source: Chand and Jaeger, 1996, tables 2 and 7, pp. 6 and 14.

further reduce future pension costs. GAD estimates in 1994 showed that these changes would effect about £11.7 billion savings (in 1994-95 prices) in 2030-31 from both tiers combined, and about £13.7 billion in 2050-51. While substantial, these amounts are less than the savings resulting from the 1980 policy switch to price indexing for the first-tier flat-rate benefit. Cost reductions from the 1980 policy in 1994-95 prices are projected to be £33.0 billion and £60.6 billion for 2030-31 and 2050-51, respectively.[40] (Estimates of cost savings as a result of the 1986 SERPS benefit reductions are not readily available in 1994-95 prices.)

In contrast to savings in the tens of billions resulting from benefit cuts, GAD estimated that contracting out to personal pensions would yield only £2.2 billion and £4.4 billion (in 1994-95 prices) in cost reductions for 2030-31 and 2050-51, respectively.[41]

It should be emphasized that this data provide only an approximation. The Government Actuary routinely notes the difficulty of making projections so far into the future.[42] Nonetheless, projections are presented here to show the *relative* weight of the five policy changes listed above in contributing to future expenditure savings.

In sum, GAD projections reveal that the November 1980 indexing change is the most far-reaching and effective measure in recent years for reducing benefit expenditures during 2030-50, when the burden of the aging population on pension costs will be the heaviest (Daykin and Young 1986, pp. 9-10). The next largest savings in future benefit expenditures derive from benefit formula changes and an increase of 5 years in the pensionable age for women. Savings attributable to contracting out to personal plans are comparatively limited for the period 2030-50, though they are expected to increase in the very long run.

Projected reductions in benefit replacement rates.— What will the impact be on benefit levels of future pensioners as a result of these extensive cuts? For workers who either lack access to occupational pensions or have decided not to contract out to personal pensions, the main sources of retirement pension income will be the first-tier benefit and SERPS. GAD's projected replacement rates for these are illuminating.

The "replacement rate" is defined as the value of a worker's retirement benefit expressed as a percent of his/her preretirement earnings. Table 3 shows estimated current and future replacement rates for a worker with earnings at the national average wage throughout his/her working career. These rates also serve as indicators of the hypothetical retiree's pension income relative to the national average wage.

With average yearly net wage growth of 1.5 percent, the GAD's intermediate economic assumption, the maximum first-tier public pension for a worker reaching pensionable age in 1998-99, equals 16.21 percent of the national average wage, and the SERPS pension yields 20.21 percent (table 3). For this average worker, then, the total benefit from both tiers of the public pension system is 36.42 percent of preretirement earnings. A comparable worker retiring in 2030, however, would receive only 25.67 percent (10.07 percent from the first tier and 15.61 percent from SERPS), and by 2050, only 20.65 percent

Table 3.—Public pension replacement rates for U. K. workers earning average wage under three assumptions of average yearly real earnings growth, selected years

Benefit type and year of retirement	Pessimistic assumption (1.0 percent)		Intermediate assumption (1.5 percent)		Optimistic assumption (2.0 percent)	
	Percent of average full-time earnings	Percent reduction from 1998-99	Percent of average full-time earnings	Percent reduction from 1998-99	Percent of average full-time earnings	Percent reduction from 1998-99
Total:						
1998-99	36.60	(1)	36.42	(1)	36.24	(1)
2010-11	31.36	-14.32	30.35	-16.67	29.39	-18.90
2030-31	28.09	-23.25	25.67	-29.52	23.48	-35.21
2050-51	24.49	-33.09	20.65	-43.30	17.48	-51.77
Maximum first-tier pension:						
1998-99	16.29	(1)	16.21	(1)	16.13	(1)
2010-11	14.46	-11.23	13.56	-16.35	12.72	-21.14
2030-31	11.85	-27.26	10.07	-37.88	8.56	-46.93
2050-51	9.71	-40.39	7.47	-53.92	5.76	-64.29
Second-tier pension (SERPS):						
1998-99	20.31	(1)	20.21	(1)	20.11	(1)
2010-11	16.90	-16.79	16.80	-16.87	16.67	-17.11
2030-31	16.24	-20.04	15.61	-22.76	14.92	-25.81
2050-51	14.78	-27.23	13.18	-34.76	11.72	-41.72

[1] Data not applicable.

Source: Benefit replacement rates: U.K. Government Actuary's Department computations, 1998.

(7.47 percent and 13.18 percent, respectively), barely one-fifth of the national average wage. In other words, compared to 1998-99, these benefit replacement rates will be reduced by 30 percent for workers reaching age 65 in 2030, and by 43 percent in 2050.

Estimated future replacement rates vary depending on the economic outlook. In relative terms, the faster the growth (as reflected in net wage increases), the worse off a future retiree will be. For example, if net yearly earnings growth averages only 1 percent, combined retirement benefits from both tiers will yield a replacement rate of 28 percent for the average worker retiring in 2030, and 24.5 percent in 2050.[43] Should British wages increase at an average of 2 percent per year, these replacement rates will drop to only 23.5 percent in 2030, and 17.5 percent in 2050.

In short, future public pension savings in the United Kingdom, expected primarily from benefit cuts, will exact an increasing toll on retirees' living standards. Under the GAD intermediate assumptions, policy changes that adopted price indexing for the flat-rate benefits and for earnings limits, revised the SERPS benefit formula, and raised the pensionable age for women will lead to benefit cuts of almost 38 percent by 2030 (or 54 percent by 2050) for those receiving only the first-tier flat-rate benefits (for example, self-employed workers who have not invested in personal pensions) and 30 percent (or 43 percent by 2050) for those receiving both the flat-rate and SERPS benefits. Because of the way cuts are embedded in the benefit formulas, reductions will continue thereafter, inversely related to real economic growth. The faster the economy advances (as expressed in net earnings growth), the more rapid will be the decline in replacement rates.

In the United Kingdom, these relatively steep cuts have caused concern among analysts and policymakers, but tangible protests from the voting public have not been heard.[44] One possible explanation for the lack of public reaction is that reductions are gradual, with the deeper cuts occurring decades into the future. Another possible explanation is that the majority of the working population have already contracted out of SERPS, and the first-tier pension has always paid relatively low benefits. Indeed, the anticipated decline in public pension benefits may help explain why personal pensions have turned out to be much more popular than expected.

Personal Pensions: Cost Issues and Popular Appeal

As demonstrated in the preceding section, personal pensions are projected to result in fairly modest savings to the public pension program in the next 50 years, even when population aging reaches its peak and places a heavy strain on the program. This section considers the other side of the coin—*cost* issues relating to the introduction of personal pensions. It also presents some explanations as to why they have attracted many times more workers than expected and it examines some of the troublesome issues surrounding personal pensions.

Transition Costs

In principle, privatizing a public pension system by moving from a pay-as-you-go (PAYG) to a fully funded system of individual pension accounts will create "transition costs" when the new accounts are being phased in. These costs become especially transparent if receipts from payroll contributions are expected to cover all outlays. For the new accounts to be fully funded, account holders must pay into their accounts from the beginning in order to build future assets. However, these same workers would also be expected to contribute to the on-going PAYG system to fund the accrued benefit entitlement of current beneficiaries until the old system is phased out. The increase in the payroll tax required to meet both these purposes is one measure of the transition cost, commonly referred to in the United Kingdom as "double payment."

In the case of the United States, where the Social Security (Old-Age and Survivors Insurance) Trust Fund is now required to maintain short- and long-term actuarial balance without general revenue subsidies, it is necessary that any additional contributions be made by the employer and employee (or, alternatively, that expenditures be trimmed, or that special provisions be made to cover shortfalls) during this transition period. For example, one of the three Advisory Council recommendations, the Personal Security Accounts plan, estimated that the transition costs for its proposal could be met by assuming a "72-year payroll tax increase of 1.52 percent, supplemented by added Federal borrowing" (Advisory Council on Social Security, Vol. 1, p. 30).

In Great Britain, a full accounting of on-going transition costs that have resulted from privatizing SERPS through personal pensions since 1988 is hard to find, probably for three reasons:[45]

(1) Transition costs were too modest to generate much attention. Recall that SERPS, on the eve of privatization, covered only those who had not already been contracted out to occupational pensions—that is, the entire pool of potential candidates who might decide to opt out of SERPS was less than 50 percent of the working population. Even though the actual number of workers who opted out grew far faster than the government's estimate, it leveled off at about 15 percent of the working population (table 1). In addition, the level of benefits accrued to SERPS participants was low—at most, no more than 10 years' worth when privatization began in 1988. Finally, as a second tier in a two-tiered system, SERPS benefits are also considerably lower than those offered in a single-tiered earnings-related program such as the U.S. Social Security program;[46]

(2) Transition costs are quite difficult to estimate. Not only is contracting-out voluntary, but the decision is not binding. Anyone who decides to contract out in one year can choose to opt back into SERPS the next, and there is no limit to how many times a worker can shift throughout his/her working life. Under these

circumstances, it is understandably difficult to estimate just how many workers will decide to contract out in any given year, and for how many years to come; and

(3) It is likely that modest "transition costs" were not a primary concern to British policy analysts because there is no requirement to keep a short- or long-term actuarial balance in the NIF, and general revenue subsidies can readily be obtained. Relatively modest costs become inconsequential if one can reasonably expect that reduced contributions incurred by contracting out of SERPS will be offset by an infusion of funds from general revenues. Apparently this scenario did take place in 1993, when the Treasury Grant was introduced to subsidize up to 17 percent of benefit expenditures in any given year, "principally because of the shortfall in the Fund caused by the number of employees contracting out of SERPS in order to take out personal pension schemes" (Ogus and Wikeley 1995, p. 28).

Rebates, Tax Relief, and Incentive Bonuses

Though relatively little attention was paid to transition costs, British analysts and policymakers have paid considerable attention to costs incurred in the form of rebates, tax relief, and incentive bonuses.

"Rebates" are the reductions in employer and employee payroll contributions to the NIF in cases of employees contracting out of SERPS for personal pensions. The reduced amount is directly diverted to the worker's personal pension account by the Department of Social Security each year to ensure that "minimum contributions" are made into individual accounts.[47] Rebate rates are subject to review and revision once every 5 years. The payroll contribution rebate rates for both employer and employee combined were initially set at 5.8 percent, then revised downward for 1993-97, to 4.8 percent. Since April 1997, they have been linked to the age of the personal pension account holder.[48] The higher rebates for older workers were in part intended to actuarially adjust for their higher benefit accruals under SERPS, but they also reflected the concern that workers in personal pensions might consider contracting back into SERPS as they aged because a flat-rate rebate was no longer in their favor. This concern with "contracting back" prompted another upward adjustment in rebates early in 1998, barely 2 years after the last review, as an added incentive to stay out of SERPS. Rebates will rise again beginning in April 1999 in response to projections that millions of personal pension holders would otherwise opt back into SERPS after private pensions had been made less attractive by a recently legislated abolition of the dividend tax credit.[49]

Contribution rebates are not the only public funds augmenting personal pension accounts. There are also tax savings to personal pension account holders on the amount of rebates attributable to employee contribution deductions, plus an additional incentive bonus equal to 2 percent of payroll during 1988-93 and 1 percent (for age 30 or older) from 1994 through April 1996. It may be noted that while contribution rebates and incentive bonuses are funds diverted from the NIF, tax relief is paid from general revenues.[50]

The National Audit Office was the first government agency to bring attention to the heavy costs incurred in the government's 1986 policy of privatization. In its 1990 report, it estimated that contracting out of SERPS for personal pensions had cost the government far more than the expected program savings (Blake 1995, p. 210). These high costs have continued. In response to Parliamentary inquiries, the Department of Social Security estimated in February 1997 that the net present value of future SERPS expenditure savings resulting from contracting out to personal pensions was £7.2 billion for the period between 1987-88 to 1994-95. During the same period, contribution rebates and incentives totaled £21.7 billion at net present value. In addition, for the years 1988-89 to 1995-96, the net present cost of income tax relief for contribution rebates to personal pension accounts amounted to £2 billion. Thus, the total government revenue foregone as a result of contracting out to personal pension accounts was more than three times the SERPS expenditure savings (House of Commons 1997a, 1997b, and 1997c).

That costs exceed expected SERPS savings in the first years of privatization is, of course, no surprise. Program savings will be insignificant until after 2050. However, the present value of rebates (even excluding incentive bonuses and tax relief) is likely to be higher than benefit savings because they are set at a level higher than needed to replace future SERPS benefits. These rates were set at a level for purchasing, in the rebated year, a pension broadly equivalent to the SERPS benefit pension that would otherwise have been earned in that year. Thus the rate takes into consideration administrative charges levied by insurance companies, which are usually much higher than SERPS administrative costs; and it is further increased by assuming lower-than-average market returns to compensate for possible losses. Moreover, the rebate rate was set at a flat rate (until 1997) for all age groups so that it particularly favored younger workers who opted out (Government Actuary's Department 1996, Cm. 3221).

Finally, an additional incentive bonus was offered along with the rebate. To encourage workers to opt out of the SERPS, the government also made a special, one-time offer to those who decided to opt out to personal pensions when the 1986 law became effective in July 1988: rebates, tax savings, and incentive bonuses would be credited to the individual's accounts in a single lump sum for both the years 1987 (retroactively) and 1988 (Blake 1995, p. 183).

Popular Appeal

The favorable public response to personal pensions far exceeded expectations. Within 5 years, the volume of APP take-up reached 5.4 million, and has since remained at this level. This much-publicized popular appeal of APPs is somewhat misleading, however. The rush to set up APPs led to an impressive number of *transactions*, but not all of these sales have resulted in valid, *active* accounts. Records show that, for example, 31 percent of the reported 5.4 million transactions in 1994-95 were inactive, either because low earnings disqualified account holders from contributing to NI or because of membership in a contracted-out occupational plan. These were usually APPs purchased by account holders earning wages above the lower earnings limit who later moved to low paying jobs, to unemployment, or to contracted-out occupational plans, without notifying the Department of Social Security to terminate their APP membership.[51]

Still, a total of 3.7 million valid APP account holders in 1994-95—one in every five employees eligible for a second-tier pension—chose APPs over SERPS or their employer's contracted-out occupational plans in that year (see table 1). This apparently impressive response to personal pensions in the United Kingdom has raised some important and troubling issues. The following discussion focuses first on factors contributing to the choice of a personal pension over an employer's contracted-out plan, and second on factors affecting the choice of APPs over SERPS.

APPs vs. occupational pensions.—Exact data are not readily available, but a significant minority of all APP holders have either withdrawn membership in the employer's contracted-out plan (that is, "opt-outs"), or when taking a new job decided not to join the employer's contracted-out plan ("non-joiners").[52] In most cases, these employer contracted-out plans provide defined-benefit pensions.

Freedom and choice are two of the most appealing features of personal pensions. In comparison with employer contracted-out plans, an APP account holder is free to change jobs (and thus is not tied to any employer plan), can choose the financial service provider for investing the APP, and thus has some control over the investments. There is also the lure of personal pension investments yielding funds at retirement that could far exceed benefits promised by an employer pension (usually up to about two-thirds of preretirement income). Personal pensions appeal especially to the young. APPs set up before age 35 offer a much greater financial advantage than those purchased later, due to the flat-rate rebate and also longer-term (from date of purchase until retirement) compounding of invested funds.

Personal pensions also have some major disadvantages. The size of the pension at retirement depends on contributions and investment returns, with the account holder bearing all the investment risk. The employer is not required to, and generally does not, provide any amount beyond the obligatory NI contribution. The administrative cost is usually much higher than an employer plan; and the employee does not have the right to rejoin the occupational plan without employer consent.[53] Personal pensions are therefore less appealing to the risk-averse.

Translating these general guidelines of advantages and disadvantages to decision making is no easy task. Choosing one pension plan over the other is likely one of the most important decisions determining one's retirement income, but, as the noted British pension scholar David Blake (1995, p. 224) has pointed out, "the results of the choice will not be known before the time of the retirement, when it is too late to do anything about it."

Many of those opt-outs and nonjoiners who favored APPs over defined-benefit occupational plans between 1988-94 have already found out that the freedom to choose may have its downside. Thus far, it is widely conceded that they may have followed poor advice and acted to their own disadvantage. They are regarded as likely victims in the widely reported "mis-selling" cases, advised to purchase personal pensions that are in fact inferior to their employer's defined-benefit plans.

These "mis-selling" cases surfaced in 1993 during routine reviews of personal pension transactions (Blake 1995, p. 208). Many of those affected were teachers, nurses, police officers, and miners. Under pressure from hard-sell tactics, some even switched to personal pensions near retirement age (Blake 1995, p. 208; Personal Investment Authority, *Press Release,* 8 October 1997). Worse, those who later regretted having made the wrong choice did not have the right to opt back into their employer plans without employer consent.

The misleading sales problem was compounded by a self-regulatory system whereby the first-line regulatory agencies are funded by financial service institutions themselves. This system was slow to review the "mis-selling" cases until the new government applied pressure to do so in the summer of 1997 (Large 1997). Of the personal pension plans (including both APPs and ordinary personal pensions) sold before 1994 and subject to review for suspected misleading sales, some 650,000 were classified as priority cases because they involved sales to persons aged 35 or older at the time of transaction. As of May 31, 1998, redress had been offered to only 47 percent of all urgent cases under review, including 6 percent where redress had not been accepted by the account holders; and reviews had been completed for another 35 percent of cases where no redress had been offered. Reviews are still pending for the remaining high priority cases (Securities and Investments Board, *Press Release,* 25 October 1994; Personal Investment Authority, *Press Release,* 8 October 1997; Financial Services Authority, *Press Release*, 14 April 1998 and 28 July 1998).

The second phase of misleading sales review recently began (August 1998) for transactions made during the same time period involving an estimated 1.8 million investors aged 35 or under at the time of transaction (Financial Services Authority, *Press Release*, 28 July 1998). Estimates for the cost of review and compensation have grown to £11 billion (or more than 12 percent of the market value of all personal pensions sold during 1988-94, net of administrative charges).[54]

APPs vs. SERPS.—Why did many former SERPS members opt out for personal pensions? Thus far the misleading sales review has not focused on these cases. There were some basic facts known at the time that probably served as guidelines for those who decided to opt out for personal pensions:

- SERPS benefits were expected to fall over time to relatively low levels;

- the guaranteed "minimum contributions" to one's personal pension (equal to the sum of rebates, tax relief, and incentive bonuses) seemed generous when compared to staying in SERPS, especially for younger workers who could take advantage of the highly favorable flat-rate rebate (until 1997);
- the option of making use of the account balances starting at age 50 (the statutory pensionable age is 65 under SERPS);
- automatic deposit of rebates, tax relief, and incentive bonuses into personal pension accounts incurred no explicit cost to and minimal action by the account holder; and
- given the relatively high "political risk," already manifest in the frequent and steep cuts in the U.K. public pension program since 1980, the often-cited risk of market fluctuations for defined-contribution plans such as personal pensions might not have seemed so unfavorable in comparison.[55]

Some analysts have suggested that many were responding "correctly" to economic incentives when they opted for APPs. According to one study, most lower earners (below £10,000 annually) stayed in SERPS;[56] and more than 40 percent of workers in their 20s and early 30s chose personal pensions. As noted earlier, the flat rebate rate (until 1997), incentive bonuses (until 1995), and tax relief were skewed in favor of younger workers. These younger workers could also expect to gain from interest compounding on their invested "minimum contributions"over a longer period. Further, they belong to the generation of future retirees who would otherwise face steep cuts in future SERPS benefits (Johnson n.d., pp. 11-15).

However, the final measure of how much APP policyholders will reap from what they have sown must wait until their retirement years. Aside from market risks, one important factor is the extent to which policyholders can effectively maintain accounts during their working lives. Once they have made the decision to switch to personal pensions, these same young workers must follow through with the long-term planning and investment regimen that is required to make the most of their funds. To optimize, they need to weigh the advantages and disadvantages of opting back into SERPS if and when their income drops to a level less than advantageous for individual accounts, and they need to know how to select the most competitive financial-services institutions that charge low administrative fees while providing good returns on their accounts. Generally speaking, the lower one's income and contributions into the APP account, the greater the need to optimize.

Preliminary evidence suggests that many young workers who responded to the 1986 law's economic incentives may have turned out to be the same ones who are subject to relatively unstable work histories and not always inclined to long-term fiscal discipline. Disney and Johnson have reported rather low overall contributions to personal pension accounts, based on survey data from the 1994-95 British Household Panel Study. APP members are encouraged through additional tax relief (subject to upper limits) to invest more than their guaranteed "minimum contributions." However, at least half of them did not make any deposits beyond the allocated rebates. In most of the other cases, the contribution was no more than 5 to 6 percent of earnings that may result in an inadequate pension upon retirement. Also problematic is the irregularity of contributions and the significant proportion of accounts becoming dormant after several years of contributions, mostly because earnings fall below the lower limit for NI contributions. Only 60 percent of personal pension accounts received regular annual deposits over a 3-year period (Disney and Johnson 1997, p. 26-27).

Further, the relatively high administrative charges for personal pensions generally are less burdensome to account holders with larger and continuous investments. It has been estimated that charges for personal pensions are more than double that of occupational pensions and could be higher than 20 percent of contributions (Blake 1995, p. 226; Lewis 1998, p. 22; Office of Fair Trading 1997, Vol. I, pp. 72-78). Most financial institutions charge not only an initial fee (including a percentage commission and a lump sum), but also an annual fee on invested funds *and* a monthly flat fee that is generally indexed according to price or wage increases.[57] Workers with unstable job histories (more common among the young, low-paid and women) are likely to let their contributions lapse. Preliminary evidence suggests that 25 percent of the holders of personal pension accounts stop contributions within 2 years of establishing the account, with a continued annual lapse rate of 6 percent thereafter. Indeed, because of the front-loaded charges (commissions and lump-sum fees at the opening of an account), an estimated 30 to 40 percent of individual pension account holders never contribute enough to recover their principal deposited after the various charges (Disney and Johnson 1997, pp. 26-27).

Finally, there are built-in systemic obstacles that handicap investors. The Office of Fair Trading reported in 1997 in its first consumer survey on pensions that inherent procedural and information gaps in the market disadvantage the investor. It pointed out that: (1) consumers in general did not have access to information sufficient to identify the pension policy providers with the best performance; (2) independent financial advisers did not always make recommendations that benefited the consumer; and (3) active fund management did not necessarily deliver superior investment returns.[58]

These findings do not, of course, negate the fact that many of those who opted out to personal pensions from SERPS will probably benefit from the move. Thus far, APPs' initial popularity has reached a plateau after the first 5 years. Their impact on retirement income is still unclear, and will remain so until empirical data on retiring account holders become available starting around 2020. Public support may or may not be sustainable, depending at least in part on whether personal pensions are able to improve retirement income over extended years in retirement.

Pending Pension Reform

As noted above, the United Kingdom is unique among industrial nations in not having a problem with huge unfunded future public pension liabilities. In fact, the United Kingdom is in the enviable position of having massive pension fund assets that in 1993 equaled 79 percent of the country's GDP, largely because of the privatized pensions (Pension Provision Group 1998, p. 89). The problems in the U.K. retirement income security system are of a different kind, stemming ironically from the country's successes in cutting public pension program costs and in its privatization.

While pensioners' average net incomes have increased by about 60 percent since 1979, there is growing inequality among pensioners. The income in the top 20 percent has risen by over 70 percent in the last two decades, but the bottom fifth saw an increase of only 38 percent. Top earners with occupational pensions have fared far better than those who depend on public pensions for their retirement income (Department of Social Security 1997a; Pension Provision Group 1998, pp. 15-25).

What concerns policymakers the most is that legislated cuts in public pension benefits will further widen the income gap between rich and poor pensioners. The income growth among the lowest quintile of pensioners in the last two decades reflected the impact of SERPS' relatively generous benefit formula, in effect during its first 20 years. As benefit cuts take effect, those depending on public pensions will fare worse. It is projected that by 2025 retirement incomes for the top fifth of pensioners will be almost seven times as high as those for the lowest fifth, if the current system remains unchanged (Department of Social Security 1997b; Pension Provision Group 1998, pp. 12-13).

The most urgent question is what to do about those employees who remain in the SERPS program. As a recent government-commissioned report indicates, (1) SERPS members do not have access to contracted-out occupational defined-benefit pensions; (2) they are often poor candidates for contracted-out personal pensions, primarily due to low pay, interrupted careers, or disinclination for making investment decisions; and (3) their future benefits from the first-tier retirement pension and SERPS combined will decline to lower than subsistence level (Pension Provision Group 1998, pp. 38-52).

The second problem is what to do about the risks associated with occupational and personal pensions. Defined-benefit plans generally disadvantage employees who leave before retirement age because of back-loaded benefit formulas. Moreover, even with the minimum funding requirement, prefunded employer plans may become insolvent if the employer ceases to contribute for various reasons, or if the cost for employers to buy annuities and deferred annuities from life insurance companies to pay for the promised benefits becomes too high (Pension Provision Group 1998, pp. 60-61, 84-85).

With defined-contribution occupational plans and personal pensions, individuals bear the investment risks. Their future pensions depend on (1) investment returns on accumulated funds, and (2) prevailing interest rates when the assets are annuitized into retirement income—low current rates may cause lasting significant devaluation of pension income. Also important, as noted, is keeping up a high level of contributions. Low-paid and modest earners are especially vulnerable because their investments have a much smaller margin for absorbing risks. Relatively high administrative charges for personal pensions further disadvantage these low and modest earners (Pension Provision Group 1998, pp. 60-61, 75-76, 81-83).

While these kinds of problems are common to defined-benefit and defined-contribution plans everywhere, they are magnified in the United Kingdom because such plans become the primary source of pension income for those contracted out of SERPS, particularly in light of the diminishing benefit amount of the first-tier state pension.

Finally, what is to be done about the self-employed who are excluded from coverage in SERPS? While this group was allowed to purchase ordinary personal pensions for retirement, only half the self-employed have done so, and the remaining half will have only the basic state pension to draw upon, if that.[59]

British analysts have long debated these issues and offered proposals for reform.[60] The concern for retirement income security for future pensioners escalated to become part of the debate in the country's 1997 general election, when the outgoing Tory Government put forward a proposal in March to privatize the public pension program even further—gradually phasing out both the first-tier pension and SERPS and replacing them with funded individual savings accounts.

Shortly after winning the May election, the Labour Government launched a review of pensions policy, promising a proposal on the subject in early 1998. The government underscored its goal of keeping the first-tier basic state pension intact and retaining its price indexing, while considering a new, prefunded "stakeholders' pension" with low administrative costs as an alternative to SERPS or personal pensions for those with modest incomes or sporadic work histories.[61] SERPS would be kept for those who wish to remain within it. Also under consideration was a new, prefunded "citizenship pension" for an estimated 7 million persons who were not in paid work (while caring for children or the disabled), perhaps with the government paying their NI contributions. In effect, both the stakeholders' and citizenship pensions would further "privatize" SERPS with alternative prefunded individual pension plans, though not completely eliminating it.

At this writing, the government's promised position paper on pensions has been rescheduled for the end of 1998, while Prime Minister Tony Blair has just appointed Alistair Darling to be the new Secretary of State for Social Security. The extent to which this changing of the guard signals a shift in pension policy remains unclear. In the absence of the position paper, however, one may refer to the government-appointed independent Pension Provision Group (PPG) report, prepared as part of the review process, for clues. It discussed in detail the current status of the various programs for retirement income security, including means-tested benefits, but refrained from making any reform proposal.

Three points from the PPG report are worth recounting here to help recapitulate the state of retirement income in the United Kingdom. First, the report notes the importance of public pensions as a mechanism for redistribution to those with low incomes, contending that this is necessary and affordable under the current benefit formula. While acknowledging the inadequacies of both the first-tier basic state pension and the SERPS for future retirees, it foresaw improvements in means-tested benefits (by indexing them above price changes) as a remedy (Pension Provision Group 1998, p. 113).

Second, the report found the role of defined-benefit occupational pensions positive overall. Occupational benefits have been rising and are likely to continue to do so in the future. In addition, these employer plans have improved benefits somewhat for employees who leave before serving the full term, adopted equal treatment for women, and broadened membership to part-time employees (Pension Provision Group 1998, p. 158). However, the low-paid and those with sporadic work patterns cannot expect coverage from employer plans. Regarding defined-contribution plans, the report recommended the introduction of "mechanisms which allow for risk sharing amongst participants," without offering any specific proposals (Pension Provision Group 1998, p. 87).

Finally, the report struck a cautious note with regard to personal pensions. Acknowledging that personal pensions have resulted in "some people saving more and others starting to save for their retirement," it also pointed out that "in their current form personal pensions are not suitable for everyone, especially the low paid, and now have a bad reputation because of the problems of 'mis-selling.' " The report also pointed to high administrative costs and lapses in personal pension contributions as troublesome (Pension Provision Group 1998, p. 115).

It is significant that both the Tory and Labour recommendations inclined toward further privatizing of SERPS into funded individual accounts. It is also significant that the PPG report (and statements by the Labour Government on the pensions review) did not recommend improvements in either the basic state pension or the SERPS, although the report asserted that the level of means-tested cash benefits offered by Income Support "will have to rise faster than prices" (Pension Provision Group 1998, pp. 114-115).

Some members of the U.K. policy community, however, believe that this is the time to consider restructuring the mix of public and private pension programs. David Lewis, Chief Actuary of National Insurance and Social Security in the Government Actuary's Department (not speaking in his official capacity), has pointed out that a strengthened SERPS, expanded to cover all employees *without* allowing for contracted-out pensions, would go a long way to ease concerns about many uncertainties in future pension incomes (Lewis 1998, pp. 22-23). After all, SERPS:

- provides defined-benefit pensions protected from market downturns and inflation;
- is completely portable and does not penalize frequent job changes;
- has low administrative costs and no flat-rate charges or penalties to individuals for lapses in contributions;
- provides contribution credits to workers caring for elderly, children, or disabled persons at home;
- is not vulnerable to misleading sales; and
- simplifies administration for the government and employers by eliminating the complex rules and regulations for contracted-out programs.

Lewis has further suggested that by raising the NI contribution to about 25 percent of payroll the government would be able to finance both the first and SERPS tiers of public pensions, with wage indexing restored, thus preserving future pensioners' benefits relative to that of the national average wage. "Whether this cost is acceptable is a political judgment," he concluded.[62] Perhaps, if the SERPS were expanded to cover all income groups, broadened vested interest in this program would also tend to shield it from the "political risks" that have led to frequent and steep cuts in the past.

The Road Not Taken: The U.K. Model in American Perspective

As both the United Kingdom and the United States confront the need to reform their respective retirement income systems, these two countries face two different sets of problems.

The United Kingdom has shed its future unfunded public pension liability, built up massive pension assets in the private sector, and seen rapidly increasing retirement income for high earners. However, it now faces the prospect of increased dependency on tax-financed means-tested benefits by future pensioners with a history of lower earnings.[63] Partially privatizing its public pension has led to a "creaming off" of the country's top earners from SERPS to occupational pensions, and of medium earners to personal pensions, leaving mainly the lower-earning NI contributors in SERPS. Both the first-tier pension and SERPS have been subject to steep cuts, probably because the majority consider these public programs less and less relevant to their own retirement incomes. Yet both defined-benefit occupational pensions and defined-contribution plans (occupational or personal) have their respective risks; and the ultimate contribution to pensioner income from personal pensions remains unclear.

Across the Atlantic, the U.S. Social Security program is confronted with the different issue of long-term actuarial imbalance. Under current law, the projected shortfall according to the intermediate estimate will be the equivalent of 25 percent of the promised benefit entitlement starting in 2032—or, about 2.2 percent of payroll in addition to the current 12.4 percent in combined employer and employee payroll contributions over the entire 75-year valuation period.

At stake in the United States is a program with a single-tier structure, promising earnings-related retirement, disability, and survivor benefits to a working population of all income levels through compulsory coverage. Since its inception in 1935, Social Security has been extended in scope to cover about 96 percent of the working population, including agricultural workers, the self-employed, about 75 percent of state and local government employees and, since 1984, new hires in the federal government.[64] Workers of all income levels participate, regardless of additional coverage from private pensions. Funding is entirely from earmarked employer and employee payroll contributions in equal amounts, *without* any government general revenue subsidies.

Social Security provides a defined-benefit retirement pension with a replacement rate of about 40 percent for a worker with average wages throughout his/her working career.[65] Past earnings are revalued according to wages, and benefits are adjusted according to the consumer price index (CPI). In 1996, the program kept 41 percent of aged beneficiaries out of poverty, and only 4 percent resorted to means-tested supplements.[66] The Social Security benefit is designed to be a partial earnings replacement. This benefit, together with savings (including individual retirement savings accounts) and pensions from employer-provided plans, is but one leg of the proverbial "three-legged stool" of retirement income. Employer-provided pension plans in this country are, therefore, generally designed to *supplement* rather than replace Social Security benefits.

Further, Social Security has low administrative costs, is fully portable for almost all workers including the self-employed, does not disadvantage low or modest earners (in fact the weighted benefit formula favors these groups), and protects all participants from market or investment risks and inflation. Finally, until now the broad coverage of workers at all income levels has shielded the program from the kind of "political risks" that resulted in benefit cuts in both tiers of the U.K. public pension system. Everyone, regardless of earnings level, has a stake in the U.S. Social Security system.

Given the rather self-reliant common cultural heritage in both countries, how is it that the U.S. Social Security program today bears so little resemblance to the U.K. system? Since 1935, the U.S. Social Security system has steadily diverged from the U.K. model, twice rejecting two fundamental premises that underlie the current U.K. system: allowing higher earners to opt out, and relying on tax-financed means-tested programs to support the lowest fifth of earners in retirement.

The first turning point took place in 1935 at the time of the U.S. debate over the proposed Social Security Act. Then-Senator Bennett Champ Clark proposed (and the Senate concurred) the amendment that employees already covered by employer pension plans would not be compulsory participants in the new Social Security program. After considerable debate, this amendment did not survive in Conference. Clark's measure was objected to because it was thought to weaken the protection of the exempted employees and to load the government system with the poorest risks.[67] Had it become law, Social Security coverage would have been significantly limited from the very beginning by the exclusion of many better-paid workers.

The second turning point came in 1950, when the Social Security Act was amended to greatly expand program coverage and to pay substantially higher benefits, in response to the 1947-48 Advisory Council recommendation that expanding Social Security was the best way to lower dependence on tax-financed and means-tested public assistance.[68]

Almost 50 years later, Social Security is at another crossroads—considering what direction to take for the next century and for future generations of workers and retirees. The U.K. model, with its various advantages and disadvantages, provides us with a unique "back to the future" perspective on one often suggested alternative (one that attracted some members of the last Advisory Council on Social Security)—a radically altered U.S. system promising flat-rate benefits as a floor of protection and privatizing the remainder of Social Security. Thus far, that road has not been taken.[69] But policy choices need to be made. And, as the folk wisdom of poet Robert Frost would suggest, the consequences of such choices will, in time, be enormous.[70]

Notes

[1] These are the Kerry/Simpson Bill (S. 825. 104th Congress), Gregg Bill (S. 321), Sanford Bill (H.R. 2782), Petri Bill (H.R. 1611), Sanford Bill (H.R. 2768), Porter Bill (H.R. 2929), Smith Bill (H.R. 3082), Moynihan Bill (S. 1792), Kasich Bill (H.R. 3456), Smith Bill (H.R. 3560), and Sessions Bill (H.R. 3683).

[2] For a comprehensive survey of pension reform around the world, see Daykin and Lewis (1998) and Queisser (1998) for an up-to-date, comprehensive review of reforms in Latin American countries. With the exception of Sweden and the United Kingdom, all those countries that have set up prefunded individual accounts as part of the pension reform to replace (wholly or partially) the public pension system are either developing or transition economies. In the case of Sweden, the reform proposal passed in June 1998 has yet to be implemented. Further, in Sweden, the individual accounts are only partially prefunded at 2.5 percent of payroll contributions, while the remaining 16 percent of payroll contributions continues to fund benefits on a pay-as-you-go basis (Palmer 1998, p. 2).

[3] In Chile, early retirement is permitted when the worker's accrued funds reach a specified level after 10 years' contributions; low earners are required to contribute at least 20 years to be eligible for a guaranteed minimum pension at age 65 for men, and 60 for women (Kritzer 1996, p. 47). A full assessment of the impact of individual accounts on pensioners at all income levels will therefore have to wait until after 2001.

In the United Kingdom, the real impact of personal pensions will not be known until the first cohort (many under age 35) who opted out of the second-tier pension in large numbers begin to retire, starting around 2020.

[4] See references cited in Kritzer (1996) and Diamond and Valdes-Prieto (1994) for examples of U.S. analysts studying the Chilean experience.

[5] This was especially true before 1995, when the Advisory Council on Social Security was searching for experience with individual accounts in foreign systems. Due to the paucity of U.S.

studies about the U.K. experience, the 1995 Technical Panel's Report Advisory Council made repeated references to the Chilean model and none to the U.K. experience (Advisory Council on Social Security 1997, Vol. 2, pp. 87-89).

John C. Goodman and Peter J. Ferrara (1988, pp. 31-40) suggested that the 1985 reform had set "an example that other developed countries may emulate." They reached this conclusion before the United Kingdom had yet developed any experience with personal pensions. The authors' 1995 revision added only minimal information about the privatization experience since 1988 (Ferrara, Goodman, and Matthews 1995, pp. 16-20). It should be noted that both their 1988 and 1995 accounts about the U.K. social security privatization contained no more than 10 pages each, and they were part of a study that explored private alternatives to social security in other countries as well. Unfortunately, the rich British literature about the U.K. experience and Paul Pierson's 1994 comparative analysis of old-age pension reforms under Thatcher and Reagan were untapped as resources for U.S. policymakers—possibly because they contain raw materials yet to be recast and made relevant to the current U.S. debate.

Louis D. Enoff and Robert E. Moffit (1997) broke this silence with their Heritage Foundation "Backgrounder." They drew attention to the relevance of the U.K. experience and the merits of individual pension accounts, explicitly calling for emulation by the United States. Kollman and Caspary (1997) followed with their study for the Congressional Research Service of the Library of Congress, listing arguments for and against adopting the U.K. model. Moffit, the director of domestic policy studies at The Heritage Foundation, continues to advocate British privatization as a positive model for the United States. See his "To Save Social Security, Ask Tony Blair," distributed on February 3, 1998, to newspapers across the country by the Knight Ridder/Tribune Information Service.

[6] For example, Chand and Jaeger (1996, p.14); and Bosworth and Burtless (1997, p. 13). The United States is a close second in these studies. See also table 2 of this article for ranking of all eight industrial nations. The Bosworth and Burtless study showed pension cost projections as percent of GDP by 2030 (in ascending order): United Kingdom, 6 percent; United States, 7 percent; Germany, 14 percent; Japan, 16 percent; and France, 17 percent.

[7] Chand and Jaeger (1996, tables 1 and 6) showed that the projected elderly dependency ratio (population aged 65 or older as a percent of the population aged 15-64) in the United Kingdom would be 38.7 percent in 2030, and 41.2 in 2050. Respective ratios for the United States would be 36.8 and 38.4 percent. Also, the projected support ratio (the ratio of contributors to beneficiaries of the public pensions programs) in the United Kingdom would be 2.1 for both 2030 and 2050; the respective ratios for the United States would be 2.5 and 2.3 (Chand and Jaeger 1996, pp. 4 and 12). Bosworth and Burtless (1997, p. 11) also projected a dependency ratio in the United Kingdom higher than that in the United States.

[8] Different ideologies apply to different social programs in the United Kingdom. While the retirement pension program reflects liberal individualism, collectivist welfare seems to drive the general-revenue financed National Health Service (NHS), education, and family allowances. Similarly, Sir William Beveridge fully supported the NHS in his famous report (Beveridge 1942), but objected to the earnings-related retirement benefits common to other European countries in the 1940s because he believed that they would discourage personal saving for old age (Ogus and Barendt 1978, pp. 1-7; Timmins 1996, pp.12-41 and 101-126).

[9] As a frame of reference, comparable components of the U.S. program are: (1) the old-age benefit portion of the U.S. Social Security program; and (2) the federal government component of the Supplemental Security Income program, providing means-tested cash benefits to the needy aged 65 or older, many of them also disabled or blind.

[10] Separate programs are in effect in many of the United Kingdom's dependent areas, for example, Bermuda, the Isle of Man, and the bailiwicks of Guernsey and Jersey.

[11] For a discussion of the public pension program as social insurance, see Robert J. Myers (1981, pp. 11-16).

[12] See Beveridge (1942, Appendix B, Section 1, paragraphs 4-15, pp. 211-213), for a summary of provisions for old-age pensions and other income security programs. See also Ogus and Barendt (1978, pp. 190-191).

[13] See also note 14 below. "Low earners" here include both employees and the self-employed. British sources usually cite as low earners the 12 to 14 percent of *employees* (instead of total working population), passing over the low earning self-employed who are also not participating in the NI programs.

I arrived at roughly 16 percent of the working population as low earners by using: (1) the Office for National Statistics' *Labour Force Survey: LFS Historical Supplement 1997*, table 1a, reporting the total working population as 24.9 million in winter 1994-95, among them 21.6 million employees and 3.3 million self-employed; (2) a recent study by McKnight, Elias, and Wilson (1998, p. 21) estimating that some 12.5 percent of *employees* in 1994-95 had earnings below the lower earnings limit—in other words, roughly 2.7 million low-earning employees were excluded from the NI; and (3) *Social Security Statistics, 1997*, indicating that only 2.1 million of the 3.3 million self-employed contributed to the NI in 1994-95, leaving 1.2 million self-employed without coverage (Department of Social Security 1998a, table H1.02). The total number of earners (employees and self-employed combined) excluded from NI contributions in 1994-95 thus reached 3.9 million, or 16 percent of the total working population. See also table 1 of this article.

[14] The statutory "requirement" for full pension is 49 years for men and 44 years for women. However, a person can miss 5 years' contributions and still receive a full pension. In addition, under specified conditions, credits are granted for periods of education, unemployment, disability, and caring for the elderly, children, or disabled persons at home (Ogus and Wikeley 1995, pp. 64-72).

[15] Disney and Johnson (1997, p. 5) pointed out that the basic state pension was set below the official poverty line in 1948, that is, below the eligibility threshold for means-tested cash benefits; see also Tomlinson (1998, p. 73). At present, the maximum benefit for single pensioners is 10 to 20 percent below the benefit level for Income Support (the current means-tested cash benefits), depending on the age of the pensioner (Pension Provision Group 1998, p. 44).

The very structure of the flat-rate contributory pension creates what Tomlinson (1998, p. 72) terms a "pincer" effect: On the one hand, there is a need to keep flat-rate contributions low enough to be affordable for most employees and, on the other, the Treasury then makes sure to keep the benefit down so that general tax subsidies do not compete with other budgetary demands. Tomlinson suggests that this "pincer," which led the Labour Government to provide low benefits in the 1940s, left a legacy of "austerity" that has persisted in ensuing decades. Moreover, however low the preset flat-rate contributions, there is always a fraction of workers who can ill afford to pay (that is, to participate in the program).

[16] See *Social Security Pensions Act 1975*, Sections 1 and 6; Daykin and Young 1986, p. 1. Until 1978, the basic state pension was adjusted on an *ad hoc* basis that in practice kept its value "broadly in line with earnings" (Pension Provision Group 1998, p. 12).

[17] See table 3 of this article. Similar projected cuts in the basic state pension have been reported by the Retirement Income Inquiry project. The first-tier benefit, worth 20 percent of gross male average earnings in 1977-78 and about 15 percent in the mid-1990s, will fall to 9 percent by 2030 (Retirement Income Inquiry 1996, Vol. 1, p. 10).

[18] Even before the introduction of an earnings-related public pension tier, occupational pension providers and employers had resisted expansion of coverage by the *flat-rate* state pension system in the early 20th century (Hannah 1986, pp. 17-18).

[19] Ogus and Wikeley (1995, p. 218); Blake (1995, pp. 12-15).

[20] For any given year, only the individual's earnings that fall between the lower and upper earnings limits are assessed for benefit computation. In 1978, the LEL and UEL were approximately 25 percent and 175 percent of the average wage. The benefit formula was structured so that a worker whose 20 best years' earnings equalled the national average wage would have *assessed* earnings equal to 75 percent (that is, 100 percent minus the lower earnings limit at 25 percent) of the national average wage. A male pensioner who could also qualify for the maximum first-tier benefit would receive about 44 percent of his preretirement wage at age 65—about 25 percent of the national average wage from the basic state pension, and another 18.75 percent (that is, 25 percent of his average assessed earnings at 75 percent of the national average) from SERPS.

[21] *Social Security Pensions Act 1975,* Sections 26-52.

[22] Refer to table 1 and note 31of this article for details on arriving at these estimated coverage rates.

[23] See note 20 above.

[24] A recent research report estimated that in 1997, approximately 2.6 million employees fell below the lower earnings limit (McKnight, Elias, and Wilson 1998, pp. v, 20-21). Among them, 2 million—77 percent of all low-paid employees—were women. This report was based on the Quarterly Labor Force Surveys for 1992-97 and four other surveys. It gave "the first detailed analysis of employees whose earnings fall below the threshold for payment of NI contributions." See also note 14 above. SERPS contribution credits for caring for children or a sick or disabled person at home will be extended to persons retiring (or becoming widowed), effective April 1999 (Department of Social Security 1997, pp. 38-39).

[25] Paul Pierson, reviewing Prime Minister Margaret Thatcher's successes in rolling back benefit improvements under the 1975 Act and in privatizing SERPS, reached a conclusion similar to that of Disney and Johnson for the pre-SERPS days. Pierson (1994, p. 53) suggested that it was "the fragmented nature of state provision (that) left potential opponents of reform divided and weak."

[26] This provision was introduced for public pensions in part to comply with a 1990 European Court of Justice (ECJ) ruling relating to equal treatment between men and women. Known as the *Barber* judgement, the ECJ ruling determined that occupational pension plans in member states of the European Union must allow men and women to retire at the same age, providing them with equal pensions for equal work.

[27] The technical correction, known as "annualisation," will begin April 2000; it is estimated that net savings from this change will total £400 million in 2010, rising to £2.3 billion by 2050 (Department of Social Security correspondence April 29, 1996).

[28] Association of British Insurers 1998, p. 1. The self-employed and employees not in an occupational pension plan had been entitled to set up voluntary individual retirement saving plans since 1956.

[29] Contracted-out defined-contribution and personal pension plans are also required to revalue pension amounts according to price increases up to 5 percent per year (Department of Social Security 1997, pp. 38-39).

[30] Department of Social Security (1998,Vol. 2, table 26.0). Also, according to e-mail correspondence (April 21, 1998) from the Analytical Studies Division, Department of Social Security, the holders of these inactive accounts "opened an APP scheme whilst in employment and have subsequently moved to low pay, unemployment, or contracted-out employment without terminating their APP scheme membership."

[31] Discrepancies between coverage rates for various working population groups presented here and those in the widely cited *Pensions Policy in the United Kingdom* by Dilnot *et al.* (1994, tables 2.3 and 2.4, pp. 24-25) are attributable to different sources used and my approach of using the total working population, including not only employees, but also the self-employed as the universe. Recently published data from the National Insurance Recording System indicate that about 30 percent of APP accounts were inactive in 1994-95 (and 34 percent in 1995-96)—a source not available to Dilnot *et al.* at the time of their study. In addition, by including the self-employed, table 1 of this article shows that the total earners excluded from NI coverage comprise about 16 percent, rather than the 12 percent cited by Dilnot *et al.* for total *employees*, excluding the self-employed. See also note 13 above for more details about estimated earners without NI coverage.

[32] According to surveys by the Government Actuary's Department, the proportion of employees (that is, the total working population less self-employed) in occupational pension schemes reached its peak in the early 1980s at 52 percent, and has since fallen to roughly 46 percent in 1995 (Pension Provision Group 1998, Figure 6.4, p. 62).

[33] According to the 1995 General Household Survey and estimates by the Pension Provision Group (1998, p. 72) about 1.5 million self-employed have purchased ordinary personal pensions). See also, Association of British Insurers 1998, pp. 1-6.

[34] See Dilnot *et al.* 1994, p. 163. For data on pensioners also claiming Income Support, see Department of Social Security 1998a, tables A2.23 and B1.04.

A recent government-commissioned report suggests that 34-40 percent of *all* pensioners (including old-age, disabled, and others) were eligible for Income Support in 1995-96, but were not claiming it (Pension Provision Group 1998, pp. 44-45). Presumably, many of them may be eligible for small amounts only. (More conservative estimates suggest that those not claiming are less than 20 percent.)

In comparison, in the United States about 4 percent of retired workers aged 65 or older received means-tested cash benefits under the Federal component of the Supplemental Security Income program in December 1995. See Social Security Administration 1996, table 3.C6.

[35] Department of Social Security 1998a, tables A2.03 and B1.03. Total retirement pension expenditures for 1994-95 from both tiers of the public pension program were £28.7 billion, of which 93 percent was payout to the first-tier basic retirement benefits, and 7 percent

(or less than £2 billion) was to SERPS and its predecessor (the graduated pension) combined.

[36] General revenue subsidies stabilized at around 17 percent of NI spending by 1951-52, and remained at about 18 percent of total employer and employee contributions in the 1970s. From 1989 to 1993, tax subsidies were discontinued, only to be resumed in the form of a Treasury Grant not to exceed 17 percent of benefit expenditures of any given year. This grant "enables money provided by Parliament to be paid into the NIF if the Secretary of State considers it expedient to do so to maintain the level of the Fund. It.....is subject to Treasury consent" (Ogus and Wikeley 1995, pp. 27-28; Ogus and Barendt 1978, p. 194; Tomlinson 1998, p. 74; and Government Actuary's Department 1995, HC160, p. 28).

[37] *The Law Relating to Social Security, Supplement No. 21, 1992.*

[38] Tomlinson (1998, pp. 74-75). See, Derthick (1979, pp. 244-251), for analyses of how the U.S. policy of funding Social Security exclusively from payroll contributions *without* general revenue subsidies has "depoliticized social security."

[39] Derived from Government Actuary's Department 1986, Cmnd. 9711, tables 1-3, and paragraph 34.

[40] Government Actuary's Department 1994, Cm. 2714, table 1; and Government Actuary's Department 1995, HC160, tables E1 and E2.

[41] Estimates provided by the Government Actuary's Department.

[42] Government Actuary's Department 1986, Cmnd. 9711, pp. 14-16; Government Actuary's Department 1994, Cm. 2714, p. 5; and Government Actuary's Department 1995, HC160, p .3.

[43] In the United States, in comparison, a 1-percent in net wage gain per year (the intermediate assumption used in the U.S. Trustees' Report) results in a projected replacement rate of about 42 percent for a worker earning the national average wage throughout his/her career, upon reaching normal retirement age (67) in 2030 or 2050, or a projected 37 percent upon reaching age 65. Note that the "crisis" in the U.S. Social Security Trust Funds stems from the projected 25 percent shortfall in benefit payout starting in 2032, according to intermediate assumptions. See 1998 Trustees' Report for the projected 25-percent shortfall in benefit payments, and the report's table IIIB5 for replacement rates.

[44] Apparently three-fourths of the population realize that the public pension program pays relatively low benefits. The latest annual Social Attitudes Survey showed that 74 percent of those sampled said that the state pension was low, including 43 percent who thought it was "very low" (Townsend *et al.* 1997, pp. 27-28).

[45] A full accounting of transition costs for APPs is scarce at best. Budd and Campbell (1998, p. 125) cited British economist Richard Disney as having estimated these costs to be "about £3 billion per year." Disney also refers to his estimates in "Comment" 1998, pp. 128-129. No technical explanation or computation is presented with his estimates.

To be sure, there have been discussions on transition costs in the mid-1980s and subsequently. For example, the government's 1985 green paper that presented the original proposal to completely phase out SERPS and replace it with a fully funded private system acknowledged the need to raise contribution rates during the transition. Reportedly the Treasury was concerned about an increase in public spending as a result of the added payment for government employees and the potential revenue loss from tax relief to be granted to individual account holders on their pension assets and investment returns (Pierson 1994, pp. 61-62). Also, Dilnot *et al* (1994, pp. 67-68) were concerned about the transition costs for converting the first-tier basic state pension into a funded program.

More recently, there are several studies about transition costs in connection with moving from pay-as-you-go to fully funded systems in the United Kingdom. See, for example, David Miles 1997 and David Miles and Andreas Iben 1998.

[46] Given more than 60 years' accrual in U.S. Social Security contributions, and its relatively higher replacement rate, it is unlikely that the United States could replicate the United Kingdom's modest transition costs. For example, total payout of SERPS benefits in 1987-88 was less than £300 million, or just 1 percent of total receipts of the NIF for that year. By 1996-97, the total SERPS payments reached £2.7 billion, or 6 percent of total receipts (Department of Social Security 1998a, tables B1.03, and H1.01).

[47] NI contributions are reduced for contracted-out occupational plans as well. This section discusses only contribution rebates relating to the APPs.

[48] The age-related rates were set between 3.4 percent (deduction from the combined employer and employee contributions to the NIF) for workers aged 15 and 16 and a maximum of 9 percent in rebates for workers aged 46 or older.

[49] Government Actuary's Department 1998, Cm. 3888, p. 7. It is of interest to point out that while tax collections have gone up as a result of reducing the amount of tax foregone on dividends since the July 1997 policy change, the government has compensated taxpayers through deductions in their NI contributions.

[50] Paul Johnson pointed out that the favorable rebates and incentive bonuses disadvantaged those who remained in SERPS because they had to pay higher taxes to subsidize those contracting out in anticipation of a higher pension (n.d., p. 12). To the extent these rebates and bonuses were paying for high administrative costs of APP accounts, these higher taxes were subsidizing the financial-services providers.

[51] The proportion of inactive accounts to total APP transactions has been climbing. For example, inactive accounts were 27 percent of the total in 1992-93 (the year APP transactions first reached 5.4 million), 29 percent in 1993-94, 31 percent in 1994-95, and 34 percent in 1995-96 (Department of Social Security 1998, Vol. 2, table 26.0).

[52] It is generally recognized that a majority of APP account holders had no access to an employer contracted-out plan.

[53] For more discussion comparing advantages and disadvantages between personal pensions and employer plans (contracted-out or not) see Blake 1995, pp. 224-230. According to Blake 1995, p. 226, administrative costs for employer plans are between 5 and 7 percent, in contrast to 10 to 20 percent of contributions for personal pensions.

[54] Association of British Insurers 1997, pp. 9-11, derived from table 2, p. 10. Cazalet 1998, pp. 35-40, discusses who might end up shouldering the high costs of compensation.

[55] This was pointed out in Disney and Johnson 1997, p. 13 and note 6. See also Blake 1995, pp. 223-224.

[56] Johnson n.d., pp. 11-15. However, recently published administrative data suggest that a sizable number of those who opted for APPs had either relatively low earnings or unstable wage income, and would have a difficult time making their personal pension a going concern. David Blake pointed out that personal pensions could be

advantageous to those earning at least £6,000 per year during the period of special bonuses, that is, 1988-93 (Blake 1995, p. 210). According to administrative data, the proportion of APP holders who had income *under* £6,000 averaged 25 percent of all active accounts during this 6-year period (Department of Social Security 1998, Vol. II, table 26.0). The year-to-year proportion was 37 percent in 1987-88, 31 percent in 1988-89, 26 percent in 1989-90, 21 percent in 1990-91, 18 percent in 1991-92, and 15 percent in 1992-93. The declining proportion of APP holders with annual earnings below £6,000 probably reflected wage increases over the years. The 6-year average is presented here as an approximate indicator of the proportion of APP holders who may not benefit from contracting out to personal pensions due to low earnings. Also, E. Philip Davis cites an annual income of £10,000 for 1993 as the threshold under which "reputable" insurance companies would be reluctant to offer personal pensions, since fixed charges generally disadvantage smaller policies (Davis 1997, p. 45). The same administrative data showed that 46 percent of active APP account holders in 1992-93 and 41 percent in 1993-94 had income below that level (Department of Social Security 1998, Vol. II, table 26.0) .

[57] Government Actuary's Department 1996, Cm. 3221, pp. 7-8. Workers who cannot keep making regular deposits into their accounts (for example, because of intermittent career paths or low pay) are heavily penalized by the front-loaded charges and by the indexed monthly fees that are in effect whether or not new deposits are being made to their accounts. According to the Personal Investment Authority, about 30 percent of personal pensions sold in 1993 were no longer in force 3 years later. Cited by Pension Provision Group 1998, pp. 75-76.

[58] Office of Fair Trading 1997, Vol. I, p. 72. More recently, the Personal Investment Authority Ombudsman (created in 1994 to regulate sales of personal pensions and other investment and insurance policies) pointed to a 54-percent rise in the number of complaints against financial services providers, and criticized the latter for marketing their products in a "veil of impenetrable language" (*Financial Times* 1998).

[59] Pension Provision Group 1998, pp. 72-75. Recall that the lowest-earning self-employed in any given contribution period may not be eligible for coverage of the first-tier basic state pension either.

[60] Falkingham and Johnson 1993; Atkinson 1994; Retirement Income Inquiry 1996; and Dilnot, *et al*, 1994, for example. For examples of critical comments and analysis of problems of all types of pensions (public, personal, as well as occupational) in the United Kingdom, see also Waine 1995, and Ward 1996.

[61] For Frank Field's discussions on Stakeholders pension, see his *How to Pay for the Future: Building a Stakeholders' Welfare* 1996.

[62] Lewis 1998, pp. 22-23.

[63] It should be noted that the relatively low level of United Kingdom public pension liability does not reflect the full extent of public funding in pensioner well-being. In addition to pensioners' heavy reliance on means-tested benefits, the government also funds the National Health Insurance, giving all pensioners access to free medical care.

[64] Coverage is for work performed in the United States, regardless of age, sex, or citizenship. Excluded from Social Security coverage are: (1) Federal civilian employees hired before 1984 who opted to remain in their old system; (2) the remaining 25 percent of state and local government employees who are covered under a retirement system other than Social Security; (3) domestic and farm workers whose earnings do not meet certain minimum requirements (workers in industry and commerce are covered regardless of their earnings); and (4) persons with very low net earnings from self-employment (generally less than $400 per year). Railroad workers are covered under the railroad retirement system, which is coordinated with Social Security (Social Security Administration 1997, p. 29).

[65] According to the 1998 Trustees Report (table IIIB5, intermediate assumptions), current law provides, for "average workers" retiring at age 65, a replacement rate of 41.7 percent in 1998, but gradually falling to 36.7 percent at age 65 in 2025, and then holding steady at that rate through 2075.

Historically, replacement rates for average-wage earners retiring *at age 65* were below 35 percent through 1970. Rates then climbed to an all-time high of 54.4 percent in 1981. Since then, due to changes in the benefit formula specifically intended to stabilize the replacement rate, they have declined to between 41-43 percent and will remain in this range between now and 2005, before falling further to 36.7 percent by 2025.

[66] Social Security Administration 1998a, p.10; and Social Security Administration 1996, table 3.C6.

[67] Schlabach 1969, p. 151; Derthick 1979, pp. 280-283; and Brown 1972, pp. 65-80. Brown suggested that a number of large and progressive companies saw that their interest in a common floor of contributory protection coincided with that of the government. They also came to see that contracting out would involve bothersome and perhaps costly regulations of employer plans to assure that, in benefit level and financing, these plans afforded protection equal to that of the government program.

[68] Edward Berkowitz pointed to the "precarious conditions" of the Social Security program through the 1940s (Berkowitz 1997, pp. 26-28; Derthick 1979, pp. 272-274). As a result of the 1950 amendments, coverage of Social Security was extended to include agricultural workers, the self-employed (other than farmers and professionals like doctors and lawyers), nonprofit organization employees, and state and local government workers not under a retirement system; and benefits were increased by 77 percent. This tilted public programs toward social insurance, rather than means-tested public assistance, as the primary source of income security for the aged in the United States.

[69] Paul Pierson suggested that the unified U.S. Social Security program, with its broad-based support, was also able to prevent proponents for privatization from making any headway during the Reagan Administration. Contrasting Thatcher's success in introducing personal pensions in the mid-1980s with the United States' inability to privatize the U.S. Social Security during the same period, Pierson pointed to "the structure of preexisting pension systems" as the "crucial" factor. According to Pierson (1994, pp. 69-73), two of the five key differences in the two systems that have protected the U.S. Social Security program were: (1) the U.S. system was "one dominant, unifying program," compared with a fragmented British system; and (2) the prohibitive transition costs for privatizing the "mature" earnings-related U.S. program.

While these characteristics continue to dominate U.S. Social Security in the 1990s, advocates of privatization are no longer regarded as "fringe figures" of the 1980s, as described by Pierson. It may be pointed out that this remarkable turnaround in the past decade was brought about not only by the recurring issue of "long-term actuarial imbalance," but also by the continuing boom in the stock market in the last 15 years. In the 1980s, memories of the prolonged "bear" market starting from the late 1960s through 1982 were probably still too fresh to generate confidence in investment returns on individual pension accounts. It is too early to tell whether the U.S. Social Security system, which has been markedly more stable than the frequently redesigned U.K. system, can continue to resist the appeal of individual choice and control over retirement income.

[70] Robert Frost, "The Road Not Taken" :

"I shall be telling this with a sigh
Somewhere ages and ages hence
Two roads diverged in a wood, and I—
I took the one less traveled by
And that has made all the difference."

Emma Rothchild (1996), a British historian of political economy, has referred to "A Road Not Taken" in an even deeper historical context when analyzing the late 18th century debate between two opposing views of the relationship between income security and economic growth. According to Rothchild, the "road not taken" in the United Kingdom was the one associated with Adam Smith, the French statesman Turgot, and the French mathematician and economist Condorcet.

Rothchild sees a logical progression from Smith's views *favoring* government intervention to effect social integration of the poor and the disadvantaged (in his *Wealth of Nations*), to his two French contemporaries' ideas of social reform in France. Turgot's welfare policies providing short-term income security for the unemployed during his tenure as Finance Minister in the 1770s, and Condorcet's proposal to establish social insurance as the foundation for future economic progress were, however, eclipsed in Britain by Thomas Robert Malthus' 1789 *Essay on the Principle of Population*. Rothchild points out that the Malthusian school, "with its faith in the motivating force of insecurity and fear, has been the more influential in subsequent economic thought." (Rothchild 1996, p. 331.)

Unfortunately, many 19th century critics of political economy miscast Adam Smith's views and regarded him as little more than the precursor of Malthusian thought for viewing the English Poor Laws as having "contributed to generate that carelessness and want of frugality observable among the poor...." (Rothchild 1996, p. 345; see also, Rothchild 1995). This perception misconstrues Smith's contribution to the development of social security in the United Kingdom.

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