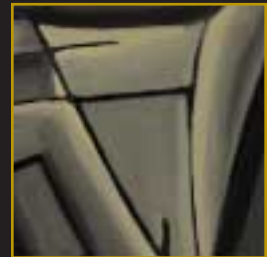


# **Administering Individual Accounts in Social Security: The Role of Values and Objectives in Shaping Options**

Lawrence H. Thompson



T H E R E T I R E M E N T P R O J E C T

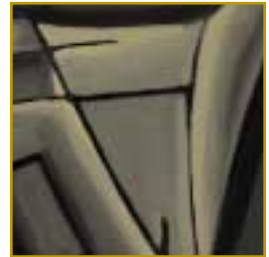
Occasional Paper Number 1



URBAN INSTITUTE

# **Administering Individual Accounts in Social Security: The Role of Values and Objectives in Shaping Options**

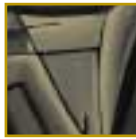
Lawrence H. Thompson



T H E R E T I R E M E N T P R O J E C T

Occasional Paper Number 1

# The Retirement Project



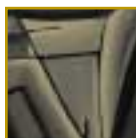
## ABOUT THE SERIES

THE RETIREMENT PROJECT IS A MULTIYEAR research effort that will address the challenges and opportunities facing private and public retirement policies in the twenty-first century. As the number of elderly Americans grows more rapidly, Urban Institute researchers will examine this population's needs. The project will assess how current retirement policies, demographic trends, and private sector practices influence the well-being of older individuals, the economy, and government budgets. Analysis will focus on both the public and private sectors and will integrate income and health needs. Researchers will also evaluate the advantages and disadvantages of proposed policy options. Drawing on the Urban Institute's expertise in health and retirement policy, the project will provide objective, nonpartisan information for policymakers and the public as they face the challenges of an aging population. All Retirement Project publications can be found on the Urban Institute's Web site, <http://www.urban.org>. The project is made possible by a generous grant from the Andrew W. Mellon Foundation.

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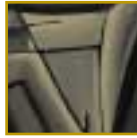
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# Administering Individual Accounts in Social Security: The Role of Values and Objectives in Shaping Options



## INTRODUCTION

THE IDEA OF INTRODUCING SOME FORM OF “individual accounts” into the Social Security program has attracted increased attention in the past several years. To observers of this development, though, precisely what is meant by individual accounts remains somewhat vague. The particular proposals that have been offered evidence substantial variation in the financing, management, and structure of what their proponents claim to be individual Social Security accounts.

All proposals envision giving workers an ownership claim on a particular mix of financial assets and relating the size of the workers’ subsequent entitlements to the value of those assets, but the similarities among the different plans appear to end with this feature.<sup>1</sup> The proposals differ in the mechanisms to be used to move money into and out of the accounts; the means to be used to select fund managers; the range of choices that workers will have about how accumulating balances are to be invested; and the options provided for drawing down balances when the worker retires, becomes disabled, or dies.

The proposals also differ in their scope, their compulsion, the role the government is to play, and their impact on the government budget. Worker participation is mandatory in some proposals and voluntary in others. The government would have a major role in managing account operations in some proposals but would have only a modest oversight role in others. Some proposals contemplate individual accounts of sufficient size to all but replace the current Social Security program, while others envision much more modest sized accounts amounting, perhaps, to one-sixth of total current Social Security annual financial flows, at least initially. In some proposals the accounts are to be financed by diverting a portion of the current payroll tax, others would finance them from the general budget, and still others would finance the accounts through added payments from workers or their employers or through a combination of approaches.

Most participants in the current Social Security debate find that at least one of the various individual account pro-

posals would be a desirable—or at least an acceptable—part of a financing reform package. Most also find that a number of the other proposals would be unacceptable. Naturally, views differ sharply as to the acceptability of any given proposal. The resulting cacophony is a barrier to progress in adjusting Social Security to the future economic and demographic environment. It is difficult for informed citizens to develop a consensus about whether or not to introduce individual accounts in the absence of at least a general agreement about what individual accounts actually entail. It is even more difficult for Congress to legislate about a nebulous concept that means such different things to different people.

This paper seeks to clarify the current debate by exploring systematically the variety of structural and administrative arrangements that either have been proposed for individual account systems in this country or have been adopted in other parts of the world. The paper focuses on two aspects of these arrangements: (1) the mechanisms employed under each plan to move the money from contributors to pension fund managers and back to retirees and (2) the variations among the plans in the financial management choices available to workers. The purpose is to analyze the logic underlying different structural arrangements.

The argument here is that the great diversity in approaches to individual accounts reflects wide variation in the objectives the supporters of a particular approach seek to achieve and in the assumptions they make about the likelihood that a given institutional structure will actually achieve a particular objective. The diversity also reflects sharp differences in opinion about the degree to which introducing a particular arrangement might undermine the adequacy of current benefit arrangements or create other problems. The paper reports on the logic of the arrangements. It does not attempt to evaluate how successful each of the approaches has been in achieving particular objectives, or to predict the likely impact in the United States.

The paper begins by reviewing the various objectives commonly set by proponents of individual accounts and the implications of each for the way an individual account

proposal might be structured. This review is followed by an examination of evidence that will help analysts quantify the linkage between some of the structural choices and the possible outcomes. Individual account approaches have become a popular employee benefit in many U.S. enterprises, either to supplement or to replace more traditional group pension plans, and domestic experience can provide valuable information. Several countries have introduced individual accounts into their social security systems in the past two decades, and others are actively considering such plans. The approaches adopted abroad vary substantially and offer additional and valuable insights about the implications of structural choices. This paper then examines the leading generic models for individual accounts, the values that appear to underlie each, and some of the advantages and disadvantages of the various approaches. An appendix compares the salient administrative features of many of the models adopted abroad or proposed for this country.

## THE OBJECTIVES OF INDIVIDUAL ACCOUNTS

The details of particular individual account proposals appear to be particularly sensitive to variations in the intensity with which proponents seek to achieve each of several different kinds of objectives. Among the reasons often cited for these accounts are (1) improving the overall performance of the economy, (2) increasing the rate of return individuals can expect to earn on their Social Security contributions, (3) allowing individuals to assume greater responsibility for their well-being, (4) reducing current implicit government liabilities, (5) giving those who are less well-off a chance to accumulate some financial assets, and (6) more closely linking benefits and contributions. Plan design is also influenced by the desire to avoid (1) undercutting the adequacy of benefits offered under the current Social Security system, (2) creating new government liabilities, (3) involving the government excessively in the operations of the economy, or (4) increasing employer burdens. Each of these motives plays a role in determining the details of individual account proposals, though some are more important than others in influencing the administrative arrangements that are of interest to this paper.

### Improving economic performance

Individual accounts are often advocated as a way of increasing economic growth by encouraging greater national savings and capital investment.<sup>2</sup> Savings can be increased only if current consumption is reduced, however, which presumably requires that the individual

account plan involve some combination of higher tax payments or pension contributions by current workers and lower pension payments to current retirees. To be effective in raising national savings, the plan must also minimize the chance of offsetting changes (i.e., expenditure increases or revenue reductions) in the non-Social Security portion of government budgets.

These requirements have certain implications for structuring an individual account proposal. Mandatory approaches are more likely to lead to increased savings than are voluntary approaches; approaches that are financed through increases in individual tax or pension contribution payments are more likely to increase national savings than are approaches financed from the government budget; and clearly separating the funds flowing into the individual accounts from the rest of the government's fiscal operations is more likely to prevent offsetting changes in other parts of the government budget. One should expect, then, that those who have the strongest views about the desirability of increasing capital formation would be most likely to support plans involving mandatory payments of increased contributions into accounts whose management is separated as effectively as possible from the day-to-day operations of the government.<sup>3</sup>

Some other potential positive economic impacts are often linked to individual account proposals in other parts of the world but are of limited applicability in the United States. Introducing a system of funded, individual accounts apparently can have positive macroeconomic effects where it is part of a program to develop sophisticated capital markets and increase the demand for long-term assets (Holzmann 1997); but Ajit Singh (1996) presents the counterargument. The argument applies in developing and transition economies, however, and not to a country that already has capital markets as sophisticated and pension and life insurance reserves as large as those in the United States.

As will be discussed shortly, individual accounts also represent one technique for tightening the linkage between lifetime contributions and retirement benefits. In many countries there is little relationship between the amount of pension contributions paid over a lifetime and the amount of retirement benefits received under the traditional social security program, and retirement benefit payments are not adjusted to reflect the age at which benefits were first drawn.<sup>4</sup> It has been argued that the introduction of individual accounts in these countries can improve economic performance by reducing tax compliance disincentives, encouraging workers to shift to the formal sector of the economy, and removing artificial incentives to retire early (World Bank 1994). Evidence to support these arguments is hard to come by, however, and

they also are seldom applied to the situation in the United States. These problems are far less important in this country, and any changes that might be desirable here could easily be introduced in the current program without setting up a new system of individual accounts.

### **Improving the implicit rate of return**

Probably the argument cited most frequently in favor of individual accounts in the United States relates to the positive impact on the rate of return that workers receive on their pension contributions. The argument is that returns on financial investments will exceed the implicit returns under the traditional system, allowing a given contribution rate to produce higher pensions under an individual account approach than under the current system. This argument is particularly attractive in the face of the current adverse demographic trends, which seem to require either benefit reductions or tax increases. A reform that increased the rate of return on pension contributions could help close this gap, reducing the pain of the adjustment.

Proposals whose primary motivation is to increase returns might be structured differently from those motivated primarily by the desire to increase savings. First, such a plan would not have to be mandatory. Second, it could give the appearance of increasing the rate of return on pension contributions if, at least initially, much of its financing comes either directly or indirectly from the general budget.<sup>5</sup>

Achieving higher implicit rates of return also requires that individual accounts be structured to minimize administrative costs while maximizing investment returns, a feat that presents one of the most formidable challenges to designers of individual account proposals. As will be discussed more extensively in the next section, individual account plans can involve rather substantial administrative charges. These charges reduce the net return to the worker and weaken the case for creating the individual accounts in the first place. Administrative expenses are particularly important if the alternative to individual accounts is a plan under which the central pension fund makes financial investments similar to those that would emerge from the introduction of the individual accounts. Because the administrative expenses of the central fund are likely to be lower, the central fund alternative will probably be more effective at increasing implicit rates of return, assuming the gross investment returns are the same under the two competing approaches.

A potential major offset to the administrative cost advantage of a centralized fund is a greater risk that investment decisions may become politicized.<sup>6</sup> To the extent that investment decisions reflect political considerations rather than market choices, accumulating resources

will not be put to their best use, with the result that the rate of return on the investments is reduced and any macroeconomic gains that might otherwise have occurred are undermined. The risk of political intervention in investment decisions is inherently greater in some political traditions than in others. Regardless of political tradition, the risk probably increases in relation to the size of the role that government plays in allocating investment funds and the degree to which control over the assets being accumulated for retirement purposes is centralized, whether the assets are nominally under private control or under public control.

The dilemma facing designers of individual accounts is how to balance the benefits and the risks of centralization—lower administrative costs but a greater possibility of politicization of investment decisions (Diamond and Valdés-Prieto 1994). Many specific provisions of different approaches proposed in the United States and of the various models that have been adopted elsewhere in the world have been designed with this particular challenge in mind.

### **Enhancing individual accountability**

Among many supporters of individual accounts, the ability of individuals to make their own decisions about how their money will be invested would have value even if it had no direct impact on the implicit rate of return received on pension contributions. Some individual account proponents would extend this argument to include the greatest possible choice about when to start drawing down accumulated assets and the speed with which such assets should be drawn down once retirement begins. Individual control over investment strategies can also have the advantage of countering the risk of political interference in investment decisions, but at a cost—it often does involve higher administrative charges.

### **Other objectives**

The other three objectives occasionally cited for individual account plans appear to have no particular implications for the structural and management issues of concern in this paper. One, the reduction of current implicit government liabilities for paying future Social Security benefits, is typically achieved by proposing that individual accounts be a substitute for a portion of the current Social Security benefit package and that they be financed, at least in large part, through additional worker/employer contributions. A plan that involves additional government borrowing to help finance the transition to individual accounts moves in precisely the wrong direction, if this is the objective being sought, because it amounts to converting implicit debt into explicit debt.<sup>7</sup>

The second of these three objectives is the desire to give lower-income households a better opportunity to



accumulate financial assets, make the distribution of such assets more equal, and encourage longer-range planning for retirement.

The third is the desire to link contributions and benefits more closely. It has been argued that the lack of such a link has contributed to labor market problems in developing and transition countries, although this particular argument for individual accounts has not been made as frequently in the United States.

## AVOIDING NEW PROBLEMS

Individual account plans differ substantially in the degree to which workers are allowed to select their fund manager, allocate their funds among different financial instruments, and decide how to draw down their balances at the time of their retirement. Significant differences are also found in the types of institutions that are authorized to become account managers and the investments that these managers are allowed to undertake. Where individual choice is restricted and investment procedures heavily regulated, one common motivation is to minimize the risk of creating new problems as unintended byproducts. Among the more prominent of the unintended byproducts that individual account proposals seek to avoid are reducing benefit adequacy or introducing new benefit inequities, creating new sources of financial risk for the government, and encouraging excessive government control over the economy. In other cases, these kinds of restrictions reflect the concern that greater individual choice will involve increased administrative costs, undermining the objective of increasing implicit returns on pension contributions.

### Adequacy of benefits

In the end, pension programs will be judged on the adequacy of the retirement, disability, and survivor benefits they generate, notwithstanding the variety of other social and economic objectives they also may serve. In recognition of this fact, certain features are included in many individual account plans that restrict individual choice of investment vehicles and benefit withdrawals. The fear is that without these features, benefit adequacy might be undermined—because workers are not in a position to make informed choices, because their choices have consequences for the benefits of their dependents and survivors, or because of financial institution failures beyond the workers' control.

Benefit adequacy concerns are reflected in provisions designed to reduce the risks that financial assets will be lost or will be squandered prematurely, that investment returns will not be adequate to ensure some minimum

level of income, and that incomes that are adequate at the beginning of a retirement period will not continue to be adequate throughout. Some of these features take the form of guarantees issued directly or indirectly by the government. Others take the form of limitations on individual or institutional action, either as an integral part of the plan design or as a result of explicit government regulatory actions. Some plans require that all or a portion of each account be used to purchase an annuity. Plans that do not require the purchase of annuities may impose limits on the pace at which assets can be withdrawn. Other limitations found in individual account plans or proposals include a requirement that annuities be price-indexed so that payouts reflect cost-of-living increases and a provision for continuing payments to survivors.

The attractiveness of explicit benefit adequacy protections is undoubtedly influenced by the presence or absence of other features in the plan. For example, a plan in which participation is voluntary may not require as many restrictions and guarantees as does one in which workers have no choice but to open individual accounts.<sup>8</sup> Certainly the voluntary, tax-favored retirement accounts that have become popular in the United States in the past two decades have far fewer guarantees and restrictions than do mandatory individual account plans found anywhere else in the world. The pressure for restrictions and guarantees is also likely to be greater where an individual account plan is expected to supply a significant portion of the retirement incomes of average and below-average earners, because these workers are likely to have less margin for assuming market risk.<sup>9</sup>

### Equity issues

Supporters of some individual account plans in this country often argue that their proposals would produce a more equitable balancing of benefits among similarly situated single persons, single-earner married couples, and dual-earner married couples. At the same time, individual account plans also face two other equity challenges, one involving the overall progressivity of the benefit package and the other involving gender-specific annuities.

In the absence of specific offsetting changes to the benefit structure of the remaining Social Security program, individual account plans will reduce the degree of redistribution favoring lower-wage workers that is built into the present Social Security system.<sup>10</sup> Small individual account plans would reduce the redistribution a little; larger plans would have a more dramatic impact on benefit distribution. A reduction in redistribution would also link benefits more closely to contributions, but few participants in the current debate seem willing to cite this as one of the advantages of an individual account plan.

The gender-related challenge for designers of individual accounts stems from the fact that 65-year-old women live, on average, about 25 percent longer than 65-year-old men. Social Security pays to men and women with the same earnings or contribution record the same monthly benefit, notwithstanding the difference in life expectancy. By law, annuity payments coming directly from tax-qualified pension plans also must provide equal monthly benefits to men and women. On the other hand, private insurance companies generally do not offer gender-neutral annuities because to charge men and women the same price for an annuity invites adverse selection problems. One of the design decisions needed to create an individual account proposal is whether the plan should be structured to include gender-neutral annuities.

### **Limiting government exposure**

Many of the provisions incorporated into individual account plans in order to limit the risk of inadequate benefits involve some form of direct or indirect government guarantee. One common form is a general guarantee of a minimum level of income to all needy aged persons, such as exists in the Supplemental Security Income program in the United States. Another is the general guarantee of the solvency of key financial institutions participating in the plan, such as is provided in this country by federal deposit insurance and state insurance pools. Guarantees of the liabilities of financial institutions are invariably accompanied by regulation of the structure of these industries and of the financial activities of the institutions, and special regulatory arrangements are a common element of many individual account plans in operation around the world.

Other common guarantees are unique to individual retirement accounts. One is a guarantee that fund balances will be of sufficient size to provide a monthly pension of a stated minimum amount.<sup>11</sup> Another is the guarantee that assets in pension accounts will earn some minimum rate of return, stated either in relationship to the average return earned on all pension accounts or as an absolute level.<sup>12</sup> Each of these guarantees creates a new contingent liability for the government. Understandably, governments that assume such contingent liabilities are likely to take regulatory and legislative steps to limit their exposure, including steps that restrict individual choice in important ways.

### **Limiting government involvement in investment decisions**

A third concern for many designers of individual account plans is that decisions about the investment of the accumulating retirement funds be left to private markets and insulated from government interference. As noted previously, the objective of decentralizing control over

investment decisions occasionally conflicts with other objectives of individual accounts.

### **Avoiding increased employer burden**

A final concern that influences many individual account proposals is the desire to avoid any new burden on employers, particularly small employers. Possible sources of additional employer burdens would include higher tax payments, greater complexity in tax calculations, more extensive record-keeping requirements, or a requirement to report information more frequently.

## **QUANTIFYING THE TRADE-OFFS**

Constructing an individual account plan requires making choices in which one objective must be sacrificed in order to pursue another. Some of these choices involve value judgments for which the implications are not easily quantified. Others, however, involve decisions influenced strongly by potentially quantifiable fiscal concerns. Without attempting to predict the consequence of adopting any one particular plan, it is possible to gain an appreciation for the potential magnitude of some of these fiscal concerns by looking at relevant experience here and abroad. In particular, available information can help to illustrate some of the potential relationships between the structure of an individual account plan, gross investment returns, administrative costs, and net returns.

### **Administrative costs**

Administering a social security program can be thought of as involving four kinds of costs: (1) collecting contributions, (2) maintaining account records, (3) managing investments, and (4) paying benefits. Under the current U.S. Social Security program, the cost of collecting contributions is shared by employers (and the self-employed), the Internal Revenue Service, and the Social Security Administration (SSA); the cost of maintaining records is borne almost exclusively by SSA; and the cost of the other two elements is shared between SSA and the Department of the Treasury.

In principle, all of the costs incurred by the federal agencies are charged to the Social Security program. In fiscal 1998, the charges for this set of activities under Social Security's Old Age and Survivors' Insurance (OASI) program came to \$2.0 billion, or just under 0.6 percent of OASI contributions (Board of Trustees 1998). There appear to be no reliable estimates of the additional cost borne by employers in complying with the collection requirements, in part because these activities are so closely linked to compliance with other tax requirements.

One major difference among the various individual account plans involves the cost incurred in maintaining the account records and managing the investment portfolio. Of the plans currently in place or under consideration, the version in which these two activities are the most highly centralized, the federal thrift plan model, appears to involve additional annual costs of less than 0.1 percent of the assets under management (U.S. Thrift Savings Board 1998a). Costs are substantially higher where these activities are highly decentralized. Among managers of personal pensions in the United Kingdom in the mid-1990s, charges for these functions averaged some 8 percent of contributions, plus 0.9 percent of assets under management, plus £30 (approximately \$50) a year (Government Actuary 1996, p. 7). The charge for these functions in Chile ran about 19 percent of contributions in 1995 (Shah 1998).

A second difference involves charges for converting fund balances into annuities. Under some proposals, all account balances would automatically be converted to monthly annuities by the SSA and paid as part of the regular monthly Social Security payment. Presumably, the additional cost under this option would be negligible. In other proposals, individuals could decide for themselves whether to purchase annuities and from whom to purchase them.

Individual choice comes at a cost, however. A recent analysis of annuity charges in the United States suggests that a 65-year-old male should expect to pay the equivalent of roughly 20 percent of the value in his account to convert the lump sum into an annuity (Mitchell et al. 1997).<sup>13</sup> Approximately one-half of this charge is the loading that insurance companies must include to adjust for the fact that, when the purchase of annuities is voluntary, those who decide to buy the annuity tend to live longer than the average. The remaining cost is the price paid for having a choice among competing, private providers.<sup>14</sup>

### **Investment returns**

Some individual account proponents see the high administrative charges found in the more decentralized plans as a reasonable price to pay to insulate fund management from political interference. In the debate in the United States, the fear of political interference is usually articulated in the form of a general concern that the government would refuse to invest in tobacco companies, egregious polluters, or other enterprises that were deemed not to be politically correct.

Experience both here and abroad suggests that government interference or controls can have serious consequences for the investment returns on pension portfolios. A number of examples can be cited. In some cases, assets have simply vanished. Even among the better-run sys-

tems, returns have not always been as high as would be suggested by market experience. One analysis of the Central Provident Fund of Singapore concludes that dividends paid to the members of that fund in the mid-1990s were some 1.8 percent per year less than the government was earning on the investments supported by the fund's assets (Asher 1998).<sup>15</sup> A study of investment performance of Swedish social security funds suggests that the interference of the Central Bank in investment allocation decisions had the impact of reducing returns by 3.2 percent per year over the period 1960 to 1975. A third study suggests that returns paid to accounts in the Employer's Provident Fund of Malaysia over the period 1971 to 1991 were some 1.9 percent below comparable market returns (Valdés-Prieto 1998).<sup>16</sup> Finally, a study of the situation closer to home suggests that pension funds of state and local governments in the United States experienced average returns some 1.5 percent per year less than comparable private pension plans (Davis 1995). Not every case of central management of pension investments has turned out this badly; nonetheless, the risk that political interference will result in below-market rates of return remains a major concern for many individual account proponents.<sup>17</sup>

## **BALANCING COSTS AND RETURNS**

The potential impact on retirement benefits of the variation among models is illustrated in the examples presented in table 1. That table shows the price-indexed annuity (expressed as a percentage of final year's earnings) that an illustrative, full-career worker might receive under different assumptions about the costs and returns associated with an individual account plan. The calculations assume a plan that is financed by a 5 percent contribution rate and make plausible assumptions about wage progression, investment returns, and administrative costs.<sup>18</sup> The examples ignore the impact of taxation on retirement incomes and the fact that higher administrative costs may, to a degree, reflect higher-quality services.

Under the particular assumptions used to construct this example, the annuity produced by a system with no appreciable administrative costs and no barrier to earning market interest rates would replace roughly 20 percent of earnings immediately preceding retirement. This is shown as the base case. All of the other cases illustrate the potential impact on replacement rates of different departures from this costless, riskless world.

As noted, the federal thrift plan currently involves administrative costs of less than 0.1 percent of assets. The individual account proposal of the 1994-96 Advisory Council on Social Security assumed that this model

**TABLE 1.**

Potential Impact of Investment Policies and Administrative Costs on Individual Account Benefits

Alternative	Rate of Replacement of Earnings
Base case	20%
Centralized administration:	
• Well-functioning thrift plan model	19%
• Thrift plan with depressed returns	12%
Decentralized administration:	
• Latin America with annuity mandate	15%
• United Kingdom without annuity mandate	12%

Source: Urban Institute, 1999.

could be extended to the population as a whole in a way that guaranteed market returns on the investment portfolio and that all account balances could be converted into additions to the monthly Social Security benefit essentially at no additional cost. If this could be accomplished, the resulting replacement rate would be almost the same as that found in the base case result. Administrative charges would have the effect of reducing the replacement rate only slightly, to 19 percent.

On the other hand, if this model were to prove vulnerable to political interference in investment decisions, the returns earned in the accounts might be substantially less than the market returns. “Thrift plan with depressed returns” illustrates the impact on the thrift plan model if returns were depressed by an average of 1.95 percent per year, the estimate noted earlier of the situation in Malaysia. In this case, a 19 percent replacement rate would become a 12 percent replacement rate. The Malaysian case is far from the worst case that can be found internationally, but it probably represents an appropriate worst-case scenario for the United States.

Models involving decentralized administration of investment accounts and decentralized provision of annuities seek to solve the problem of depressed returns by insulating both functions from political interference, but the process causes administrative costs to rise. If administrative costs associated with fund accumulation average at the same level experienced in Chile in 1995 and annuities can be purchased without incurring adverse selection costs, the expected replacement rate falls to about 15 percent. If fund administration costs were at the level experienced in the United Kingdom in the mid-1990s and annuities were priced to include an adjustment for adverse selection, the replacement rate would fall to 12 percent.

These calculations are not meant to be predictions of how a particular model might actually operate in the United States. They illustrate, however, why constructing an individual account plan requires careful attention to the implications of employing a centralized model or a decentralized model and of giving workers options about how balances will be drawn down. Actual experience in the U.S. insurance market and in the operation of defined contribution retirement accounts in other countries suggests that as much as 40 percent of the projected retirement benefit may be lost if a particular design errs either in creating too great a risk of political interference in investment decisions or in generating excessive administrative costs.

## INDIVIDUAL ACCOUNT MODELS

The variety of approaches that have been either proposed or adopted around the world illustrate the wide range of options available for operating individual accounts.

### Chile

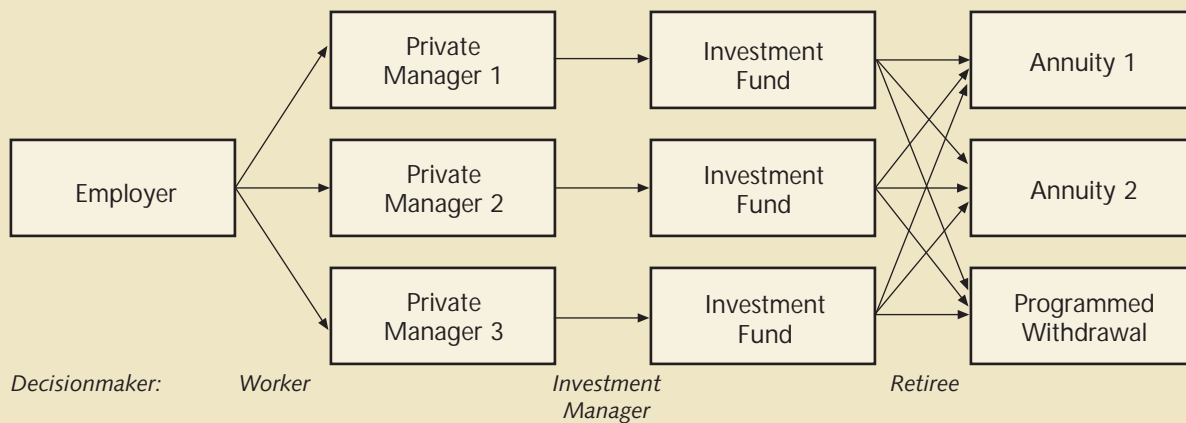
The oldest and perhaps the best-known of the individual account models is the one adopted in 1981 in Chile. It is a model created to fully replace a system of some 50 different (mostly pay-as-you-go) defined benefit pension plans. The former plans had become financially unsustainable as a result of (1) benefit promises that had been enacted without adequate regard for their eventual cost and (2) a history of poor (often politically motivated) investments of social security reserves. The system had also lost its legitimacy as a result of, among other things, poor administration and a tendency for higher-paid and more politically influential groups to obtain higher benefits at the expense of lower-paid and less influential groups (Mesa-Lago 1998, 419; World Bank 1994; Diamond and Valdés-Prieto 1994; Queisser 1995).

In the Chilean model, workers select one of more than a dozen qualified private pension fund administrators to handle their account. Contributions are deducted from employees’ paychecks and remitted each month directly from employers to the administrators selected by their employees. Employees are entitled to move their accounts from one fund administrator to another.<sup>19</sup> Because they can do business with only one administrator at a time, however, they must move their entire account balance when changing fund administrators.

The companies authorized to be pension fund administrators were created for the sole purpose of managing pension funds. Each company is allowed to manage only one fund, which means that the selection of a pension

**FIGURE 1.**

Chile



Source: Urban Institute, 1999.

fund administrator is also the selection of the investment strategy that will be used to manage one's account. Upon retirement, workers have the option of using their accumulated pension account to purchase an annuity from an insurance company (separate from the pension fund administrator) or of leaving their account balance with their pension administrator and making periodic withdrawals. If accounts are converted to annuities, the payments must be price-indexed and the annuity must provide for a survivor benefit. Annuity prices are gender-specific. If accounts are left with the pension fund administrator, withdrawals are limited to an annual ceiling that is calculated through a complex formula. Workers can also combine the options by taking a programmed withdrawal for a time and then purchasing an annuity.

The new Chilean model addressed the shortcomings of the old system by forcing the linking of benefits to contributions through a system of individual, defined contribution accounts and by turning the responsibility for day-to-day management over to private fund administrators whose sole function was to manage pension funds. The defined contribution arrangement insulated the system from unfunded benefit promises. The use of private fund administrators helped to insulate investment policies from political interference, and the ability of workers to change pension fund administrators helped to police the private administrators.

The defined contribution nature of the system introduced new sources of uncertainty into pension promises, however. To mitigate these risks, new regulatory arrangements were developed and several financial guarantees were included. The regulatory arrangements focus on such areas as collecting and disseminating information about investments and relative investment performance, ensuring adequate capitalization of the firms that admin-

ister pensions, and establishing maximums and minimums to control the composition of asset portfolios.

The Chilean system also incorporates two kinds of benefit guarantees. Workers are guaranteed that the rate of return earned each year on their account balances will be at least the lower of (1) 50 percent of the average of returns earned on all pension fund accounts or (2) the average return less 2 percentage points.<sup>20</sup> This guarantee is enforced through a requirement that fund administrators maintain reserves, which are augmented in any year in which an administrator enjoys above-average returns and drawn down in years in which returns are too low. Workers are also guaranteed that they will receive at least a minimum monthly pension if they have participated for at least 20 years in the system. The additional cost of the minimum pension is financed from the state budget.<sup>21</sup>

The Chilean system has become a lightning rod for proponents and opponents of individual accounts, attracting both praise and criticism that occasionally goes beyond what is deserved. Two common criticisms involve the administrative costs associated with running the system and the lack of effective competition among pension fund administrators. Each is a cause for concern, but that concern needs to be tempered with a recognition of the institutional environment in which the Chilean model operates and the objectives that it was designed to achieve.

Though administrative costs in Chile are quite high in comparison with the costs of running the Social Security program in the United States, they may not be any higher than were the administrative costs of the system that they replaced, and the Chilean people have probably seen a major improvement in service quality since the reform.<sup>22</sup> Costs in Chile are also not out of line with the costs of individual account approaches in the United



Kingdom or of many individual equity investment vehicles in the United States.<sup>23</sup>

It may be that high administrative costs are a necessary ingredient of any model featuring “retail competition”—where pension fund administrators are allowed to compete directly for the business of each worker. Several Latin American countries are now experimenting with alternative regulatory regimes in search of a model that retains this essential feature but costs less; none has yet been shown to be a reliable alternative. Other models that appear to promise lower administrative costs sacrifice this retail competition feature. In the design of the Chilean model, retail competition is one of the mechanisms used to protect investment policies from political interference. In effect, the high administrative charges are the price that is paid to insulate the pension assets.<sup>24</sup>

Critics have also argued that competition among pension fund administrators is more apparent than real. Each administrator tends to hold a portfolio of assets that is similar to the portfolio held by competitors so that each ends up earning a return that is close to the national average. In effect, administrators compete on the basis of services offered rather than either the rate of return that pension assets earn, the level of commissions charged, or the portfolio mix in which funds are invested. It is argued that this is the natural consequence of both the guarantee that each worker’s investment earnings will not diverge too far from the average and tight regulation of the investment practices of the pension fund administrators (Queisser 1998).

Whatever may be the benefits of freer competition, however, they must be weighed against the possible risks to other parts of the model. The current level of competition is probably sufficient for the purpose of helping to insulate the system from political interference. As long as the state backs the system with a guaranteed minimum

pension, encouraging greater competition on the basis of rates of return runs the risk of encouraging excessive risk-taking by fund administrators.

In summary, in the Chilean model of individual accounts, workers are guaranteed a choice, but the choices are fairly sharply constrained. Arguably, enough choice has been built into the system to help ensure that investment decisions are insulated from direct political interference and to encourage improvements in customer service quality, but the range of choice has been limited in order to limit the investment risk being borne by individual workers and the potential cost to the government of meeting the benefit guarantees.

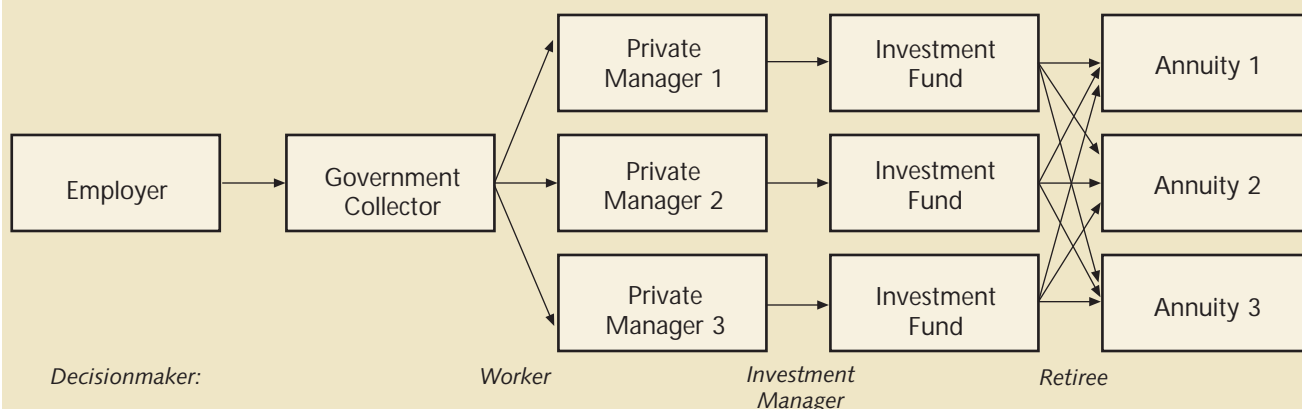
### Other Latin American models

The individual, funded account approach instituted in Chile in the early 1980s spread to several other Latin American countries in the 1990s and provided the model for the pension reform in Hungary and that currently under consideration in Poland. Each country adapted the approach to reflect its own political, fiscal, and institutional situation, however, with the result that no two countries have selected exactly the same approach.

One common change made to the Chilean model by those who followed was to centralize the collection process. Whereas in the Chilean model each employer remits payments directly to each of the pension administrators, subsequent adaptations have used government agencies to centrally manage the process of collecting contributions and allocating them among pension fund administrators. Centralization of collections is not without problems, particularly if the revenue authorities of a particular country have not been as honest and efficient as one would like. However, decentralization also appears to have serious disadvantages. Collusion between the employer and the employee can lead to compliance

**FIGURE 2.**

Uruguay



Source: Urban Institute, 1999.

problems that will not be easily spotted, because no institution is in a position to regularly track the totality of the financial flows. Employers who may have deducted an employee's contribution but not remitted it can be identified only after the employee and the pension fund administrator have shared information. Finally, enforcement actions in Chile have produced a rather extensive volume of court litigation.<sup>25</sup>

In Latin America, centralization of collections has not been accompanied by a lessening of employer reporting responsibilities, however. Thus, employers are still required to report earnings (or contributions) for each employee each month, and the central authorities need to create a system to process all of this information quickly. The schemes adopted in Western Europe are designed to avoid this kind of employer reporting burden.

Argentina and Uruguay both adopted social security reforms under which Chilean-style individual accounts became one part of a two-part system. The other part is a pay-as-you-go, defined benefit program that is operated by the government, but that is scaled down from the program being replaced. In each case, the collection of contributions to the new pension funds is handled in conjunction with the collection of contributions to the remaining state system by a centralized authority. In Argentina, collections are the responsibility of the state tax authorities (who rely extensively on private contractors), whereas in Uruguay they are handled by the social insurance institution. The process for managing the pension accounts in both Argentina and Uruguay is similar to that in Chile. Workers select their pension fund administrator and can move their account from one administrator to another, and (with one exception) the pension fund administrators are private concerns organized for the sole purpose of administering pension funds. (One of the options in Uruguay is a fund managed

by the Central Bank.<sup>26</sup>) Argentina follows the Chilean model in allowing retirees a choice between gradual withdrawals and the purchase of an annuity, although Argentina prohibits the sale of inflation-adjusted annuities. Uruguay differs by requiring that all accounts be converted into annuities through one of four insurance companies, of which three are private.

### Australia<sup>27</sup>

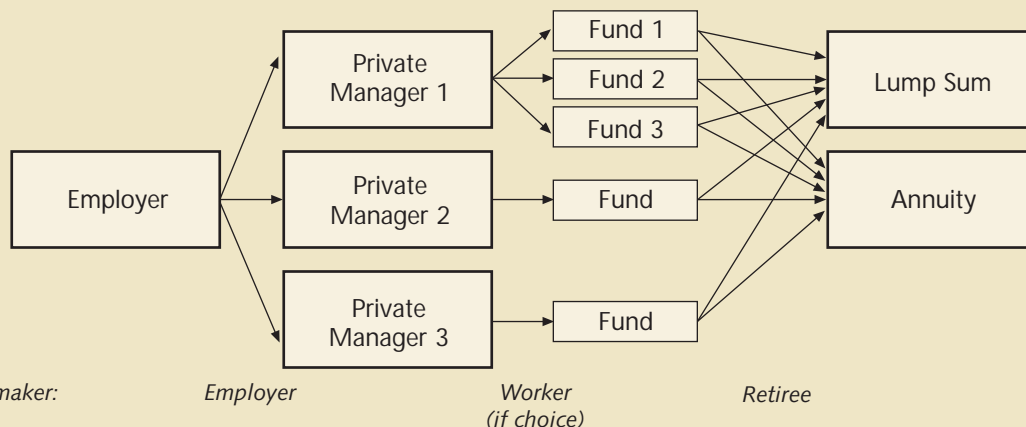
Since 1992, employers in Australia have been required to set up pension accounts for their employees and contribute a set minimum percentage of each employee's salary into the account. Account balances are immediately vested and are fully portable. Employers are largely free to make their own arrangements for complying with the mandate. Employees have no formal role except for any influence they may exert through collective bargaining processes. The self-employed and employees with very low earnings are not covered.<sup>28</sup>

The employer can establish either a defined benefit plan or a defined contribution plan, though the latter is becoming the dominant form, in part because the mandate is also defined in terms of a minimum contribution level. The plan can be a single-employer plan, an industry-based plan, or a publicly offered, multiemployer plan. Compliance is encouraged by a provision that makes the alternative more expensive; employers that fail to comply are liable for a fee, which is larger than their required contribution and not tax-deductible.

In Australia, pension funds must be set up as legal institutions. Some 8,000 organizations are in the business of managing pension funds.<sup>29</sup> More than half are institutions that are sponsored either by a single corporation or by a group of corporations. These tend to be associated with larger companies and tend to have been set up as occupational pension plans. Another large block consists of

**FIGURE 3.**

Australia



Source: Urban Institute, 1999.

publicly offered group pension plans sponsored by financial institutions. These are designed to allow smaller companies to comply with the mandate without having to create their own institutions. Some 100 are industry-wide organizations created in accordance with collective bargaining agreements. They tend to be jointly managed by union and employer representatives, and they are the fastest-growing part of the pension management industry in Australia.

Under the Australian mandate, workers are eligible to withdraw their funds anytime after they reach age 55 with few constraints.<sup>30</sup> Australians have a traditional preference for taking any retirement pay to which they are entitled as a lump sum rather than a periodic payment, even if they are participating in a defined benefit pension plan. Only about 10 percent of retirement payments are in the form of monthly benefits, despite recent tax provisions designed to encourage the use of annuities or other forms of periodic payments. The minority who wish to take their retirement pay as a periodic payment can either make arrangements with their fund manager (where their fund offers that service) or transfer their balance to an insurance company or other institution.

Australia has never had a contributory program of social insurance. The only explicit benefit guarantee in the Australian retirement system is embedded in a general-revenue-financed social security program organized as an income assistance program and available to all the aged. The vast majority of Australia's aged receive benefits under this program.

Comparing Australian administrative charges with those associated with other individual account models is complicated by the complex structure of the Australian system. Charges are largely unregulated, fee structures and levels vary among the different types of pension management organizations, and an unknown portion of the cost of administering the program is absorbed by employers. One recent study that looked in detail at the Chilean and Australian systems concluded that administrative charges in Australia averaged just under one-half of the level in Chile (Bateman, Piggot, and Valdés-Prieto 1995). The study did not attempt to quantify direct employer cost, however.<sup>31</sup>

Lower administrative costs come at the expense of far less worker choice, however. Except for the arrangements influenced by collective bargaining, employers select the firms that will manage the worker accounts. Many workers have essentially no voice in determining how their pension accounts are invested because only about 20 percent of the pension management companies offer workers a choice of funds.

The lack of worker choice has become a political issue in Australia. Proponents of choice believe that workers

deserve more say in how their retirement funds are managed, while opponents point to the increase in administrative costs likely to result from greater choice. Late in 1997, the government announced its support for changes to be phased in over the ensuing 30 months that would guarantee workers a greater voice in fund management. Either the pension arrangements would have to be agreed to through collective bargaining or the worker would have to be offered at least four different fund options (Australian Insurance and Superannuation Commission 1997). Legislation to implement this change died in the Australian Senate, however.

The primary motivations behind the Australian employer mandate included improving future retirement incomes, reducing future liabilities for payments under the social security program, and increasing the national savings rate. The structure of the system helps to achieve these objectives by decentralizing control over investments (providing insulation from political involvement) and keeping administrative costs well below the levels found in Latin America. It would probably be even more effective if the incidence of lump sum withdrawals could be reduced.

The Australian system has at least two major disadvantages. First, employee choice is rather limited, and reforms to increase choice run the risk of forcing administrative costs higher. Second, the model imposes a greater administrative burden on employers than would a model run as an adjunct to a national social insurance agency. It may be worth noting that a plan very similar to the Australian model was proposed for this country in 1980 by the President's Commission on Pension Policy. The plan attracted little political support at the time, in part because of the resistance by small businesses to the additional administrative and program costs they would have to assume.

Australia has two provisions designed to protect low-wage earners. Those who earn less than about \$330 a month are exempt from the mandate to participate in a plan, and a provision allowing those who earn up to twice this level to opt out is under consideration.<sup>32</sup> Moreover, the administrative charges levied against all accounts are capped at 100 percent of the net earnings of the account, which prevents charges from actually reducing account balances.

### **The United Kingdom**

In the United Kingdom, individual accounts are an optional feature within the social security system. The U.K. social security system consists of two parts, one paying a flat-rate benefit and the other paying an earnings-related benefit. At retirement, the benefit from the flat portion is based on the number of years for which



earnings credits were posted, and the benefit from the earnings-related portion is scaled directly to the level of earnings upon which contributions were paid.

At present, all workers must participate in the flat portion of the program, but a number of options exist with respect to the earnings-related portion. Employers may elect to maintain their own pension program in lieu of participating in the earnings-related portion of social security as long as their pension meets certain specified minimums; this is called “contracting out.” Employers covering some 68 percent of the labor force have decided to contract out (Davis 1997). At the same time, people who work for those employers that have contracted out of the state system may themselves opt out of their employer’s plan and return to the state system. Finally, employees and the self-employed may opt out of either their employer’s plan or the state plan and purchase a qualified personal pension instead. Those who decide to open personal pensions can opt back into the state system in a subsequent year, but their employer is not obliged to take them back. Personal pensions can be opened with any of a large number of financial institutions and can involve a wide range of investment options.

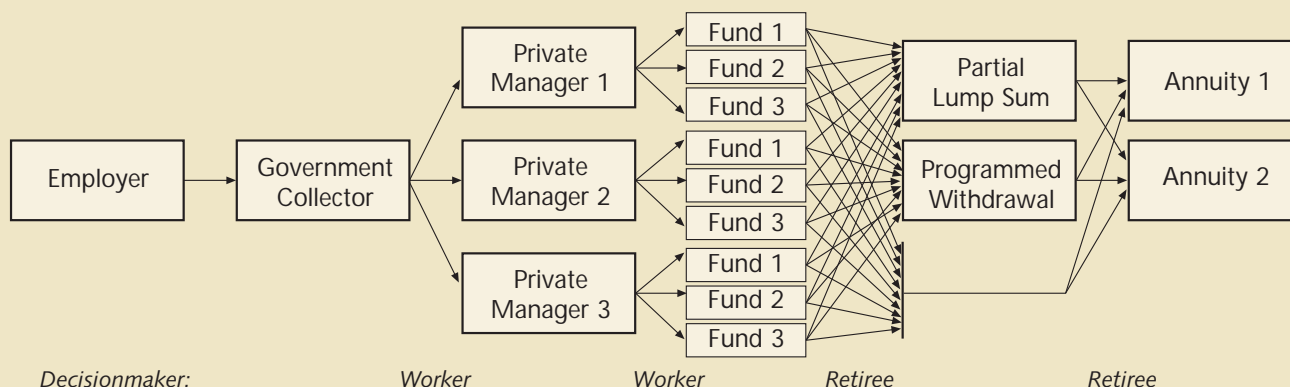
Employers who decide to opt out of the state earnings-related plan receive a partial credit reducing (but not eliminating) the payroll tax payment they would otherwise be required to make to support the earnings-related program. Normal social security contributions continue to be made for individuals who choose to opt out of either the state plan or an employer’s plan and purchase a personal pension instead. In this case, however, a portion of the contributions collected will subsequently be routed to the provider who has been selected for the personal pension.<sup>33</sup> Individuals are free to arrange for a personal pension that is larger than what can be purchased with the state payment if they so choose.

The contributions that finance the U.K. personal pension system are collected by the state tax authority from covered employers and employees. When an individual opts for a personal pension, the institution providing the pension informs the social security authorities of the decision. This alerts the social security agency that it should not enter earnings credits for that individual into his or her record for that year and that it will need to pay a contribution rebate to the particular provider on behalf of the individual.

A major difference between the U.K. model and the Latin American model is the frequency of employer reporting and the implication for the accounting period for these earnings and contributions calculations. In the United Kingdom, as in the United States, employers are required to remit their social security contributions regularly over the course of the year, but to report the earnings of each individual only once a year. Because the rebate given to a personal pension provider is calculated as a percentage of the covered earnings of the individual, the proper amount of the rebate for any one year cannot be calculated until the earnings reports are received at the beginning of the following year. Of necessity, all choices about where to participate, designations of which institution to do business with, and calculations of the size of the rebate must be made on a full-calendar-year basis; mid-year changes are not allowed.

Holders of personal pensions are required to purchase annuities with at least a portion of their account balance (75 percent of the portion that was acquired through the rebate of their social security contributions). The annuity purchase can be postponed until the individual reaches age 75, however. Withdrawals not to exceed a calculated ceiling amount are allowed beginning when the individual reaches pensionable age and continuing until the annuity is purchased. Annuities may be purchased from

**FIGURE 4.**  
United Kingdom



Source: Urban Institute, 1999.

the same firm that sold the personal pension or from another firm. Retirees decide for themselves whether to include a survivor benefit, and annuity prices are gender-specific. Fully price-indexed annuities are available in the United Kingdom, but they have not proven to be particularly popular. Annuities sold to satisfy the annuity mandate under the personal pension program must be indexed to reflect increases in retail prices, however, at least up to the first 3 percent per year.

In many regards, the British personal pension system introduces a greater range of individual choice than any other model currently in existence. Individuals do not have to open up personal pensions unless they want to, and if they do open personal pensions, they can select from a wide range of providers and investment vehicles. Moreover, at least with respect to those who would otherwise be covered by the state system, the decision to opt out can be reversed in subsequent years. Because the state system is a defined benefit system and personal pensions are defined contribution arrangements, these workers have the opportunity to select any combination of defined benefit and defined contribution pension plan they desire.

As a practical matter, the British system falls short of the Latin American model when it comes to changing personal pension providers. Although individuals are free to move their personal pension account from one provider to another, they may find that exit fees and other provisions make such changes financially unrewarding. Also, any such change would have to occur at the end of the calendar year.

All of these choices come with a price, though. As noted previously, the charges levied against the accounts of personal pension holders have been fairly high. In view of the high charges, it is generally considered that personal pensions are likely not to be a wise investment for someone earning less than about £10,000.<sup>34</sup> Moreover, the ability to elect whether to leave either the state earnings-related system or an employer system has introduced problems of adverse selection. Those for whom a public or private defined benefit approach is particularly favorable (e.g., women, because they live longer) are less likely to open up a personal pension (Whitehouse 1998).<sup>35</sup> The result is increased employer costs and a drain on the state treasury. Indeed, after a period during which the government offered bonus payments to encourage opting out, the National Audit Office calculated that the payments to personal pension providers had come to £9.3 billion and the reduction in future social security liabilities that had been achieved as a result came to only £3.4 billion (Davis 1997, p. 24).

In contrast to the situation in Latin America, the United Kingdom offers no particular guarantees to those who opt for personal pensions, and it has not established

the kind of special regulatory machinery to monitor pension administrators that is common in Latin America. Indeed, a rather lax regulatory climate appears to be partially responsible for problems with fraudulent or inappropriate sales of personal pensions (Stecklow and Calian 1998). The regulatory system is now being reformed and regulations are being tightened.

The structure of the system adopted in the United Kingdom insulates investments from political interference through decentralization of control. In contrast to the Latin American model, however, the U.K. model does not use worker choice of pension provider as a mechanism for policing this system, with the consequence that workers are more apt to be locked into their provider in Britain than in Latin America. Apparently, the ability to opt into and out of the state system has created adverse selection problems, which may have limited the impact that personal pensions otherwise would have had in reducing future public-sector liabilities—and may be pushing up costs in the employer-sponsored pension system as well. The movement to personal pensions probably has also had a positive effect on national savings because some of the transition costs were covered through an increase in the general social security contribution rate.

## Sweden

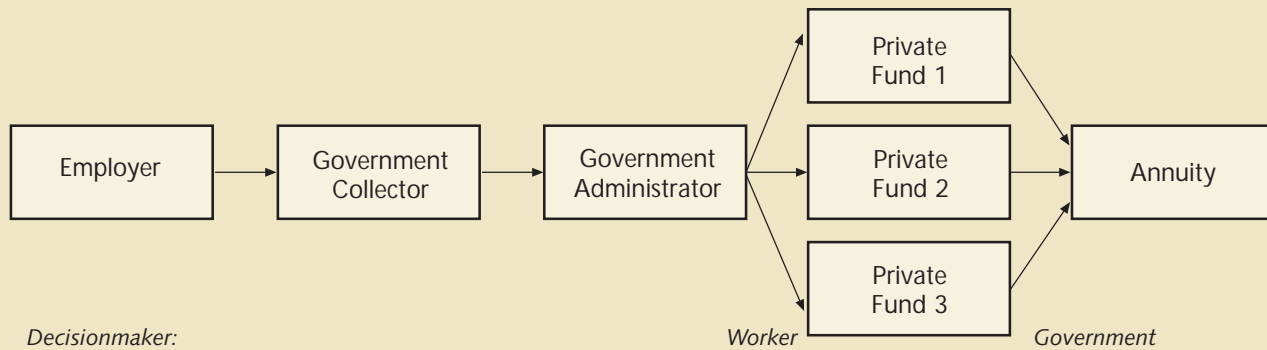
A new program of individual accounts is now being implemented as part of a major social security reform in Sweden.<sup>36</sup> In the future, the Swedish public pension will consist of two parts. The basic pension, which will supply 80 to 85 percent of the total social security payment, will be a defined benefit pension calculated in a way that introduces certain defined contribution elements as well as a defined contribution vocabulary.<sup>37</sup> The second part will be a benefit based on the value at retirement of each worker's individual investment account.

The Swedish plan has been designed to strike a better balance between choice and cost than is found in either the Latin American or the British model. If it is successful, the improved balance will come at the cost of giving the government a greater role in the operation of the system. The plan is just now going into effect, so it is too early to know how well it will work.

The administrative procedures for the new Swedish system of individual accounts rely on the institutions currently used to collect employment-related taxes and to administer the personal income tax. As with the U.S. and U.K. systems, in Sweden all employment-related taxes are collected by the general tax authority. Also as in the U.S. and U.K. systems, pension contributions and withheld income taxes are remitted to the tax authority regularly (in Sweden, each month), but employers report each indi-

**FIGURE 5.**

Sweden

*Decisionmaker:**Source: Urban Institute, 1999.*

vidual's earnings only once a year (Smedmark 1997). The procedures for processing both the information about individual accounts and the money flowing into them have been designed to operate on the same schedule.

In Sweden, the tax authorities prepare a draft income tax return for each individual and mail it out in the spring. Each person is to make any appropriate modifications and return the form. Returning the form constitutes both the filing of the individual's income tax return and the certifying of the accuracy of the earnings reported for pension purposes. This same procedure will be used under the new system of individual accounts to report each year on the current value of each individual's account and to allow each individual to designate how the funds withheld the previous year should be invested.

Individuals will be allowed to invest their money in any mutual fund that is registered with the government pension agency. To register, a fund needs to be licensed to operate in Sweden and to agree to a few minimal conditions. These include presenting information on expenses and investment returns according to a consistent format and agreeing not to levy a fee for transfers out of the fund. Balances already invested may be switched from one fund to another at any time by notifying the administering agency. Individuals may spread their money among different funds.

As the pension contributions are collected over the course of a year, the portion destined for individual accounts will be deposited in a single account maintained by the National Debt Office and earn interest at approximately the government bond rate. The designations of individual investment preference will be submitted in the middle of the year following the year during which the contributions were collected and will be processed by the end of this second year. At that time, all requests to purchase shares in a particular fund will be amalgamated and

the pension agency will execute one buy order in its own name. The identities of the individual account holders will be known only to the pension agency; the manager of each fund will know only the size of the aggregate investment being made by the pension agency on behalf of all Swedish workers.

The procedure outlined above is designed to reduce administrative charges in two ways. First, it is hoped that centralizing all of the paperwork associated with the maintenance of the individual accounts will allow this function to be performed much more efficiently than if performed individually by each fund. As the system matures and workers elect to move all or a portion of their accumulating balances from one fund to another, the pension agency will also be able to match buy and sell orders internally, limiting its transaction with the actual fund operator to the net amount of all of the individual transactions.<sup>38</sup> Second, it is hoped that the centralization of both the decision process and the account record keeping will serve to keep marketing costs from rising to the levels seen in the United Kingdom and Latin America. Though general advertisements may still be useful, the Swedish procedure is supposed to eliminate the opportunity for paying sales commissions to individual agents who sign up new customers.

Centralized accounting also facilitates another feature of the Swedish system: the requirement that all account balances be converted to annuities when employees reach retirement. [The current plan is to allow people the choice between an annuity indexed to the retail price level and an annuity indexed to the value of the shares in the worker's mutual fund.](#) Workers will also be allowed to choose between a single life annuity and a joint and survivors annuity. Annuities are to be priced on a unisex basis, however, and are to be provided either directly by the government or by a supplier selected by the government by a competitive procurement process. Requiring that all

account balances be converted to annuities at retirement avoids the cost of adverse selection that would arise if options were given as to the timing of annuity purchase or the share of the account balance that was converted into an annuity.

The Swedish system seeks to keep costs down through centralized record keeping, a greater role for the government in managing the money, and mandating of annuity purchase. Sweden has chosen to offer unisex pricing of annuities, which also requires that annuities be mandated and may require that they be supplied by a single provider. Finally, the Swedish system avoids imposing additional reporting costs on employers by preserving the annual cycle for earnings reporting. This is similar to the practice in the United Kingdom, but it contrasts with the monthly reporting found in Latin America. One disadvantage to this aspect of the Swedish approach is the long time lag between the date that the contributions begin to be withheld from the worker's pay (January of one year) and the date at which they end up in the fund selected by the worker (late in the following year).

It is too early to know how effective these various approaches are likely to be in holding administrative charges down and insulating investment decisions from political interference.

## THRIFT PLAN MODEL

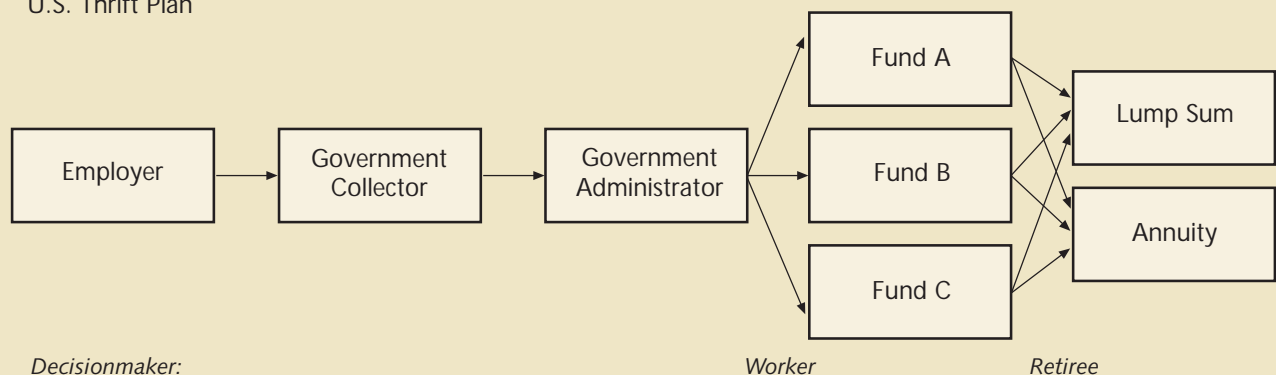
Several proponents of reform in the United States have developed approaches that combine collection and payment features similar to those in the Swedish model with money management features taken from the thrift savings plan created for U.S. federal government employees. The reform proponents' objective is to further reduce the cost of operating the system while preserving what they

believe to be a sufficient degree of insulation of investment decisions from political interference. Simultaneous pursuit of both objectives involves substantially limiting the degree of worker choice.

The federal thrift plan was created as part of a 1986 reform of the pension for federal civil servants. It is modeled after the 401(k) plans available to many private-sector workers. Covered federal employees may elect to open an account with the thrift plan and have a portion of their salary allocated each payday to that account. The account can be invested in any combination of three thrift plan funds—one tracking a broad stock index (the S&P 500), one tracking an index of fixed-income securities (Lehman Brothers Aggregate bond index), and one paying interest at the rate prevailing on long-term federal debt. At the end of March 1998, accounts in the federal thrift plan had reached a total of \$67 billion (U.S. Thrift Savings Board 1998b).<sup>39</sup>

The chief attraction of the thrift plan model is its low administrative overhead. Annual overhead charges come to roughly 0.1 percent of the value of the assets managed, which is generally viewed as about the lowest cost for which one could operate a system of individual accounts.<sup>40</sup> The model also incorporates a number of features that its proponents believe provide an adequate level of protection from political interference in investment decisions: (1) responsibility for operating the plan is lodged in a board insulated from political influence by having fixed terms of office; (2) members of the board must assume fiduciary responsibility for any decisions, meaning they can be personally liable for losses if they take actions not in the best interest of depositors; (3) investment options are restricted by law to a small number of funds indexed to match the performance of an index defined and calculated by a private-sector company; (4) money is actually managed by a private-sector

**FIGURE 6.**  
U.S. Thrift Plan



*Decisionmaker:*

Source: Urban Institute, 1999.

firm selected by competitive contract; and (5) the investment management firm is required to commingle federal thrift plan monies with funds being managed for other clients.

In comparison with the 401(k) plans offered by many larger employers, however, the federal thrift plan has some significant limitations. One of the prices paid to achieve political insulation is that investment options are restricted to index funds. While historical experience suggests that index funds may yield higher returns than actively managed funds, the fact remains that under the thrift plan model there is no choice. Federal thrift plan costs are also held down by the existence of greater limits on fund switching than are found in many 401(k) plans. Participants can change their contribution allocations only every six months, during one of the semiannual open seasons. They can move money from one fund to another only once a month and only with at least 15 days' advance notice of their intention (U.S. Thrift Savings Board 1997).

The first major proposal to build on the thrift plan model was the individual accounts (IA) option contained in the 1997 Advisory Council report. This option proposed using the Swedish approach of collecting a mandatory additional contribution of 1.6 percent. Collections would be the responsibility of the Internal Revenue Service. Money would be collected regularly over the course of a year and deposited in an interest-bearing holding account. The following spring (probably as a part of the income tax filing process), workers would specify how their contributions are to be divided among the three to five available fund options. As with the Swedish model, the money would actually move into the selected funds sometime in the late fall or early winter, after employer and individual worker reports had been processed and reconciled. The fund choice would be similar to the choice now offered federal workers, and the funds would be managed in the same way that thrift plan investments are managed.<sup>41</sup>

The federal thrift plan is also like a 401(k) in that workers have the options of withdrawing their balances as a lump sum at the time they leave employment (though they may have to pay a surtax if they are under age 59 and don't roll over the balance) and of taking out loans against their account balance. Neither of these options would be available under the Advisory Council's IA model. Instead, the IA model would resemble the Swedish approach, requiring workers to take their balances as a price-indexed annuity.

In 1997–98, the Center for Strategic and International Studies (CSIS) sponsored a Social Security study panel called the National Commission for Retirement Security. The panel developed a plan that would be administered

in much the same way as the Advisory Council's IA model. Contributions to the individual accounts would be collected by the Internal Revenue Service along with other employment taxes; workers would decide once a year on how their contributions are to be allocated among a limited number of index funds, and the funds would be managed by private-sector investment companies under the supervision of a board patterned after the Federal Thrift Investment Board. One significant difference between this approach and the IA approach occurs at retirement. In the CSIS plan, workers would be required to purchase annuities only to the extent that they needed a regular annuity income in addition to their Social Security benefits so as to live "comfortably above the poverty level" (CSIS 1998, p. 14). Sums above this level could be either withdrawn as a lump sum or paid out as an annuity.<sup>42</sup>

In the CSIS plan, the individual accounts would be financed by reducing the contribution rate used to finance the defined benefit portion of Social Security.<sup>43</sup> These reductions would go beyond the reductions needed to close the currently projected financing gap. The availability of lump sum distributions would have the effect of converting a portion of the indexed annuity now paid by Social Security into a lump sum benefit.

Plans built around the thrift plan model seek to minimize administrative charges through centralized management and limitations on the range of worker choice. Their sponsors believe that the thrift model contains enough procedural protections to provide adequate insulation from political interference in investment decisions. The two models outlined here differ primarily in the treatment of annuities at retirement. By offering greater choice in how funds can be drawn down, the CSIS plan introduces a greater risk of early exhaustion of the assets of anybody whose income is above the poverty level and, because of adverse selection, produces higher costs for annuities among those persons who are either required to or choose to purchase them.

These plans also seek to avoid imposing additional costs on employers, particularly small employers who lack sophisticated personnel data systems. The CSIS panel's report notes specifically its finding that proposals that impose substantial new costs on small businesses probably are not politically acceptable. If this is an accurate assessment, it would imply that neither the Latin American model (with monthly reporting of individual earnings) nor the Australian model (with employer management of the pension options) is a viable option in the current U.S. debate. Note, however, that the price paid to protect small employers from higher costs is the long lag times between the collection of the contributions and the movement of the receipts into the fund chosen by the worker.



The thrift plan model clearly involves fewer options than are available under either the Swedish or British models. Whether this is a serious shortcoming depends on the value one assigns to the advantages of investing in index funds—their track record of outperforming most other funds and their lower administrative charges.

## OTHER PLANS

A number of other individuals and organizations have also developed proposals involving individual accounts. Many of these are variations on one or more of the models already noted. Others represent conceptual approaches with many important details left unspecified. The following paragraphs describe a number of these proposals, but this does not pretend to be an exhaustive review.

### **Roth plan (S. 2369)**

Senator William V. Roth, Jr. (R-Del.), has proposed establishing individual accounts for each person who is regularly employed under Social Security and depositing a portion of the projected federal budget surplus in these accounts in each of the next five fiscal years (Roth 1998). The aggregate amount to be deposited would be one-half of the annual budget surplus being projected at the time the plan was developed. It would be allocated among the participating workers using a formula that gives lower earners proportionately more than higher earners.<sup>44</sup>

Under the Roth plan, monies would be invested in one of three index funds, which would be organized and managed following the model of the federal thrift plan. The balance in the fund could not be distributed until the individual began to draw monthly Social Security benefits (or in the event of death). At that time, holders of accounts with more than a trivial balance would be required either to purchase an annuity or to take a programmed withdrawal. Annuities would be purchased from a private company. Married retirees would have to purchase an annuity with a survivor option unless their spouse signed a waiver. Programmed withdrawals are defined as equal payments made over the period of time that the individual (and spouse, if applicable) can expect to live.<sup>45</sup>

The Roth plan is similar to the Advisory Council's individual account plan, with certain exceptions. Resources deposited in the accounts would come from general fund appropriations rather than from additional employee contributions; programmed withdrawals would be available as an option to annuities (probably introducing some adverse selection into the price of the annuities); and annuities would not necessarily be price-

indexed. The Roth plan also would allow people to alter their portfolio choices every six months.

### **Personal security accounts**

A second option presented in the 1997 Advisory Council report, called the personal security accounts (PSA) plan, advocated the Chilean version of the Latin American model for moving money from employees to investment managers and the U.K. model for selecting investment managers. Specifically, workers could select any qualified investment manager and instruct their employer to transmit to that firm contributions equaling 5 percent of the employee's earnings. The plan would impose no restrictions on withdrawals once retirement age had been reached. The Advisory Council estimated this plan would be administered for a charge averaging 1 percent of assets, not including any cost associated with purchasing annuities. The Advisory Council did not address the impact on employer costs.

### **Ball plan**

Robert M. Ball, a former Commissioner of Social Security, has proposed a program of voluntary individual accounts as part of his Social Security Plus plan (Ball 1998). Workers could elect to have an additional contribution of up to 2 percent of covered earnings withheld from their pay and remitted to the government along with their normal Social Security contribution. The Ball proposal follows the general outlines of the Individual Accounts plan in how the money would be collected, moved into the accounts, and managed, but it would allow workers to select either lump sum settlements or annuities when they reached retirement age. This plan would also involve some increase in employer costs, because employers would be required to keep track of which employees had elected to make voluntary contributions and adjust their withholding calculations accordingly. Presumably, however, the impact on employers would be substantially less than under the PSA plan, and it would be similar to introducing one additional complication in the process of calculating income tax withholding.

### **Porter plan (H.R. 2929)**

Representative John E. Porter (R-Ill.) has introduced legislation that would give workers an option between the current Social Security program and a new set of individual Social Security retirement accounts (Porter 1997). The new individual Social Security retirement accounts would be set up by the employers of persons selecting that option. Selection of the option would cause the following: (1) the employer would begin transferring 10 percent of the employee's covered earnings to the new individual account in lieu of payment of Social Security

payroll taxes; (2) the employer and the employee would each pay an additional tax of 1.2 percent for the next 10 years (to help cover the transition costs); and (3) the worker would forfeit entitlement to regular Social Security retirement benefits.

Workers choosing the retirement accounts option would be protected by a government guarantee that at age 62 they will have enough in the account to purchase an annuity equal to the lesser of 95 percent of what they would have received had they stayed in the Social Security program or 40 percent of their career average earnings under Social Security. It is not clear from the bill text if the worker would have any say in how the funds in the individual accounts are invested or whether there would be any particular restrictions on how the account balances would be drawn down once the individual reached 62.<sup>46</sup>

### **Moynihan plan (S. 1792)**

Senators Daniel Patrick Moynihan (D-N.Y.) and Bob Kerrey (D-Neb.) have introduced a plan that would give workers the choice of using either the Chilean model or the thrift plan model to manage voluntary individual accounts (Moynihan 1998). Workers would have the option of electing to have 1 percent of their earnings subject to Social Security taxes set aside in a new set of voluntary investment accounts. Employers of workers making this election would be required to match the deposit by paying an additional 1 percent tax themselves. Because another part of the plan would reduce the current payroll tax rate by 1 percent for the employee and 1 percent for the employer, workers (and their employers) who elected to participate in the voluntary individual accounts program would be investing the tax cut that they otherwise would have received.

If the worker chose to do so, voluntary contributions under the Moynihan plan would be collected by the Internal Revenue Service along with the rest of the Social Security tax. A new Voluntary Investment Board would be set up within the Treasury Department to manage a series of investment options similar to the options now managed under the federal thrift plan. Alternatively, individuals would have the option of directing that their contributions go to an Individual Retirement Account (IRA) operated by a private financial institution. Presumably, employers would transfer these contributions to the IRA manager on behalf of their employees.

The Moynihan plan would prohibit distributions from these voluntary investment accounts until the individual began drawing Social Security retirement or disability

benefits (or died), but it would impose no other restrictions on distributions.

### **Feldstein/Samwick plan**

Professors Martin Feldstein and Andrew Samwick have proposed a system of mandatory IRAs to gradually replace a portion of the current Social Security benefit (Feldstein and Samwick 1998). In their plan, individuals would be required to open a special IRA with the provider of their choice and deposit at least 2 percent of their Social Security taxable earnings in the account. The deposits would be financed indirectly from the government budget, however, because each individual would be entitled to claim a refundable tax credit in the amount of the minimum mandated contribution. At retirement, the annuity value of the balance in the account would be calculated and the individual's Social Security benefit would be reduced by 75 cents for each \$1.00 in annuity income. Feldstein and Samwick do not say whether benefits must actually be taken in the form of annuities or what restrictions might be imposed on annuity provisions and prices.

The Feldstein/Samwick proposal also incorporates a guarantee of the value of the benefits produced by individual accounts. In this case, the guarantee would be the full benefit promised in current law. Feldstein and Samwick believe that the accounts would grow sufficiently rapidly that once adjusted to reflect the new individual account balances, current-law benefits could be financed by current-law taxes. Presumably, the general fund of the Treasury would have to be pledged to cover benefit payments if Feldstein and Samwick's calculations prove optimistic, creating a new contingent liability for the federal government. By implication, they believe that decentralized management of the funds is one of the keys to ensuring that their plan is a success.<sup>47</sup>

## **CONCLUSION**

Individual accounts have been implemented in a variety of ways around the world and are being proposed in a variety of different models for introduction into the Social Security system of the United States. In part, the variation among the plans can be traced to differences of opinion about the relative importance of the different goals that people have for individual account plans. The goals include an improved overall economy, higher rates of return on Social Security contributions, greater individual choice and responsibility, and reduced government liabilities. No single plan is likely to be the best one to

achieve all of these goals. The variation can also be traced to differences in the degree to which proponents trust the government to exercise certain responsibilities, are concerned that individual accounts may undercut benefit adequacy for some workers, and are willing to impose new costs on employers.

The administrative costs associated with the plans implemented in Latin America and the United Kingdom have caused some analysts to look for alternative structures that promise lower costs and (potentially) higher net returns to workers. The alternatives tend to suffer from one or more drawbacks of their own, however. Employers may have to shoulder a higher burden, worker choice may be constrained, or the government may have to be relied upon to play a major role in collecting contributions, maintaining account information, or even managing the accumulating funds. The trade-off between worker choice and administrative costs is also present in the design of withdrawal options, where choice is likely

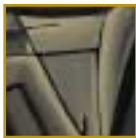
to increase costs as a result of both adverse selection and the marketing and promotional costs of private insurers. A further issue that divides plans concerns the treatment of gender differences in life expectancy under the different payment options.

One's views on the general question of whether individual accounts ought to be instituted will probably depend first and foremost on one's views about the desirability of adding a defined contribution element to the current defined benefit Social Security package. For many, the answer to this question depends on whether the proposal is to add a new benefit or to replace a part of the current package—and whether the new program is voluntary or mandatory. Even if that set of issues can be settled, though, it will not be possible to agree on a particular individual account proposal until Americans develop more of a consensus about the relative importance of the objectives being pursued and the social values being underscored.



# Appendix

## Comparison of Approaches



INCLUDED IN THIS APPENDIX ARE TWO TABLES that compare features of the various approaches to individual account plans—the plans adopted elsewhere and described in this paper, and recent proposals, also described in this paper, to incorporate individual accounts into the U.S. Social Security system. These comparisons can be useful aids to understanding how one approach differs from another, but their construction invariably involves a certain amount of oversimplification. The intended meaning of each cell is explained below.

### GENERAL CHARACTERISTICS

*Is participation compulsory?* Refers to whether the opening of an individual account is required of persons who participate in the social security program. In some countries, participation is compulsory only for workers under a certain age at the time the reform was instituted. In Uruguay, it is compulsory only for workers earning more than a certain amount.

*Contribution rate.* Is the amount that is to go into individual retirement accounts, including any administrative charges. It is intended only to indicate the relative size of the individual account component. The figure for Australia represents the minimum employer contribution that is now being phased in. There are plans to add a 3 percent employee contribution, but this has not yet been legislated. The figure for the United Kingdom is the rebate that the government pays to the personal pension provider; it varies by the age of the individual. The figures shown for the personal security accounts (PSA) and Porter plans exclude the additional explicit taxes that workers would have to pay to help finance the transition.

*Contributions added to current rate?* (In domestic chart only.) Indicates whether the individual accounts are to be financed within the current 12.4 percent combined employer-employee Social Security tax rate. Obviously, it applies only to the U.S. proposals.

*Budget financing?* Indicates whether the general funds are being used either (1) as a source of all or a part of the money being deposited in individual accounts or (2) as a source of financing to replace payroll tax revenue diverted from financing the traditional social security program.

*Who collects?* Is the identity of the institution responsible for receiving contributions and accounting for them. It is either a government agency or the investment manager directly.

*Who remits?* Addresses who is responsible for making the payment. In most cases it is the employer. Where self-employed are covered, it is the individual.

*Who maintains records?* Identifies the institution responsible for keeping track of the individual account balances. Typically this requires entering the incoming contributions, keeping track of how the funds are invested, posting investment earnings to the account, handling fund transfers, and sending out periodic statements. The tables do not attempt to identify the particular agency of the central government that might be charged with this function under a particular plan, although the plans do differ in how such an agency is to be constructed. Where account balances are maintained by individual investment companies and workers have the right to choose which company will handle their account, either the remitting institution (employers) or the collecting institution has to maintain a master list of each individual's selection.

*Employer reporting frequency.* Refers to the frequency with which employers are required to report the contributions of each individual employee. Some systems require monthly reports; others rely on annual reports.

### INVESTMENT MANAGEMENT

*Who selects the money manager?* Shows whether the institution that will actually manage the worker's funds is selected by the worker, the employer, or the government. Obviously, where workers or employers make the selection, the gov-

ernment has established rules that determine who can be an investment fund manager, so that the government plays a role in all systems.

*Who selects the investment strategies?* Identifies the institution or individual who decides on the investment strategies that will be available to the worker. Where the worker can select from essentially any mutual fund or financial institution, the strategy is picked by the worker. In other cases, once a money manager has been selected the worker either has no additional choices or is limited to relatively few choices.

*How many options for workers?* Is the number of investment options the worker has, once the money manager has been selected.

*Maximum time lag.* Is meant to indicate the length of time between the moment the worker's contribution is withheld and the time that the contribution actually reaches the fund that the worker has selected. Essentially, the approaches fall into two categories, one in which this time lag is relatively short and another in which it can run as long as 24 months, depending on the speed with which annual wage reports are processed and reconciled. This does not address the question of the frequency with which workers can change options and the lag in implementing such a change. Although the time lag in changing accounts is also an important issue, the provisions are sufficiently complicated or opaque to make it difficult to construct a simple classification.

## WITHDRAWAL OF FUNDS

*Lump sum withdrawal allowed?* Refers to whether the plan allows a worker to withdraw the entire balance in the account at the time of retirement. The treatment of accounts with trivial balances is not considered in this summary.

*Annuities mandatory?* Refers to whether benefits must be taken in the form of an annuity, at least at some point in a retiree's life. Where annuities are not required and lump sums are not allowed, the usual pattern is that the worker has an option between purchasing an annuity or

taking some form of programmed withdrawal in which the amount withdrawn each year is limited by a formula.

*Price indexing required?* Refers to whether annuities must be price-indexed. In most cases, price indexing is not required, although price-indexed annuities may be available to workers who wish to purchase them.

*Who picks annuity provider?* Refers to whether workers themselves or a government entity determines what institution will provide a worker's annuity.

## GUARANTEES

*Absolute rate of return?* Refers to the guarantee that each account will earn at least a certain minimum rate of return, set without regard to prevailing market conditions.

*Relative rate of return?* Involves a guarantee in which the return each worker earns cannot be less than some multiple of an average return being earned on all pension accounts.

*Minimum benefit?* Is the guarantee that the amount accumulated in each worker's account will qualify the worker for a specified minimum monthly income. The guarantee may apply only to workers who have made a minimum number of contributions before retirement. This does not include any benefit derived from another portion of the social security program or a general minimum income guarantee from a social assistance benefit.

*Prior law benefit?* Refers to a provision guaranteeing that the individual accounts will produce a benefit that is at least as large as would have been provided under the prior social security law (or some fixed multiple of that benefit).

*Solvency of investment company?* Refers to whether there are guarantees of the solvency of companies authorized to manage the individual pension accounts over and above any guarantees that may exist for financial institutions in general. The table covering U.S. plans assumes that where the government has the responsibility for selecting the fund managers, it will be expected to indemnify account holders against losses resulting from fraud or mismanagement, whether or not the statute so specifies.

## SUMMARY OF INTERNATIONAL INDIVIDUAL ACCOUNT PLANS

Plan	Latin America A (Chile)	Latin America B (Uruguay)	Australia	United Kingdom	Sweden
<b>General Characteristics</b>					
Is participation compulsory?	Yes	Yes	Yes	No	Yes
Contribution rate	13%	7.5%	9% <sup>a</sup>	3.4–9.0% <sup>b</sup>	2.5%
Budget financing?	Transition	No	No	Partial	No
Who collects?	Investment Mgr.	Government	Investment Mgr.	Tax Authority	Tax Authority
Who remits?	Employer	Employer	Employer	Employer	Employer
Who maintains records?	Investment Mgr.	Investment Mgr.	Investment Mgr.	Investment Mgr.	Government
Employer reporting frequency	Monthly	Monthly	Monthly	Annual	Annual
<b>Investment Management</b>					
Who selects money manager?	Worker	Worker	Employer	Worker	Worker
Who selects investment strategies?	Investment Mgr.	Investment Mgr.	Investment Mgr.	Worker	Worker
How many options for workers?	None	None	0 to 5	Unlimited	Unlimited
Maximum time lag	Days	Days	Days	18–24 months	18–24 months
<b>Withdrawal of Funds</b>					
Lump sum withdrawal allowed?	No	No	Yes	Up to 25%	No
Annuities mandatory?	No	Yes	No	Yes <sup>c</sup>	Yes
Price indexing required?	Yes	No	No	To 3%	No <sup>d</sup>
Who picks annuity provider?	Worker	Worker	Worker	Worker	Government
<b>Guarantees</b>					
Absolute rate of return?	No	Yes	No	No	No
Relative rate of return?	Yes	Yes	No	No	No
Minimum benefit?	Yes	No	No	No	No
Prior law benefit?	No	No	No	No	No
Solvency of investment company?	Yes	Yes	No	No	No

Source: Urban Institute, 1999.

<sup>a</sup>Effective 2002.

<sup>b</sup>Rebate depends on individual's age: higher for older workers.

<sup>c</sup>By age 75.

<sup>d</sup>Can be indexed to portfolio value.

## SUMMARY OF DOMESTIC INDIVIDUAL ACCOUNT PLANS

Plan	PSA	IA	CSIS Panel	Moynihan	Feldstein	Ball	Roth	Porter
<b>General Characteristics</b>								
Is participation compulsory?	Yes	Yes	Yes	No	Yes	No	Yes	No
Contribution rate	5%	1.6%	2%	2%	2%	2%	80% of surplus	10%
Contributions added to current rate?	No	Yes	No	No <sup>a</sup>	No	Yes	No	No
Budget financing?	Partial	No	Partial	No	Yes	No	Yes	Yes
Who collects?	Invest. Mgr.	IRS	IRS	IRS	Invest. Mgr.	IRS	N/A	Invest. Mgr.
Who remits?	Employer	Employer	Employer	Employer	Individual	Employer	N/A	Employer
Who maintains records?	Invest. Mgr.	Gov't	Gov't	Gov't	Invest. Mgr.	Gov't	Gov't	Invest. Mgr.
Employee reporting frequency	Monthly	Annual	Annual	Annual	N/A	Annual	Annual <sup>b</sup>	Monthly <sup>c</sup>
<b>Investment Management</b>								
Who selects money manager?	Worker	Gov't	Gov't	Gov't	Worker	Gov't	Gov't	Worker
Who selects investment strategies?	Worker	Gov't	Gov't	Gov't	Worker	Gov't	Gov't	Worker
How many options for workers?	Unlimited	3 to 5	4 or more	3 to 5	Unlimited	3 to 5	3 or more	Unlimited
Maximum time lag	Days	18–24 months	18–24 months	18–24 months	Days	18–24 months	N/A	10 days
<b>Withdrawal of Funds</b>								
Lump sum withdrawal allowed?	Yes	No	Limited	Yes	Yes	Yes	No	Yes
Annuities mandatory?	No	Yes	No	No	No	No	No	No
Price indexing required?	No	Yes	No	No	No	No	No	No
Who picks annuity provider?	Worker	Gov't	Gov't <sup>d</sup>	Worker	Worker	Worker	Gov't	Worker
<b>Guarantees</b>								
Absolute rate of return?	No	No	No	No	No	No	No	No
Relative rate of return?	No	No	No	No	No	No	No	No
Minimum benefit?	No	No	No	No	No	No	No	Yes <sup>e</sup>
Prior law benefit?	No	No	No	No	Yes	No	No	No
Solvency of investment company?	No <sup>f</sup>	Implicitly	Implicitly	Implicitly	No	No	Implicitly	No

Source: Urban Institute, 1999.

<sup>a</sup>Contribution is added to new Social Security tax rate, but this tax has been reduced 2 percent.

<sup>b</sup>Part of the allocation is in accordance with Social Security covered earnings, which are reported annually.

<sup>c</sup>Frequency not specified. Presumably, at least once a month, which is the current frequency for Social Security deposits from the smallest employers.

<sup>d</sup>The government chooses several providers through competitive bids and the worker selects among these.

<sup>e</sup>Lesser of 40% of AIME or 95% of old law benefit (Primary Insurance Amount).

<sup>f</sup>No guarantees in addition to current industry policy and practice.

PSA = Advisory Council's personal security account proposal.

IA = Advisory Council's individual account proposal.

CSIS = Center for Strategic and International Studies.

N/A = Not applicable.

AIME = Average Indexed Monthly Earnings, as completed using current Social Security law.

## REFERENCES

- Advisory Council on Social Security. 1997. *Report of the 1994–1996 Advisory Council: Findings and recommendations*. Washington, D.C.: U.S. Government Printing Office.
- Asher, Mukul G. 1998. The future of retirement protection in Southeast Asia. *International Social Security Review* 51 (1; Jan–Mar): 3–30.
- Australian Insurance and Superannuation Commission. 1997. Disclosure issues relating to member choice of fund. Discussion paper, 17 December.
- Ball, Robert M. 1998. Social Security plus. Photocopy, July.
- Bateman, Hazel, and John Piggott. 1997. Private pensions in OECD countries—Australia. Labour Market and Social Policy Occasional Papers No. 23 (OECD/GD(97)136). Paris: Organization for Economic Cooperation and Development (OECD).
- Bateman, Hazel, John Piggott, and Salvador Valdés-Prieto. 1995. Australia y Chile: Previsión privada con normas diferentes; Comparación de regulaciones y de comisiones de administración. Documento de Trabajo No. 176, Pontificia Universidad Católica de Chile, Instituto de Economía, Febrero.
- Board of Trustees. Federal Old Age and Survivors' Insurance and Disability Insurance Trust Funds, April 30, 1998. *Annual Report*, reprinted as House Document 105–243, 105th Congress, 2nd Session. Washington, D.C.: U.S. Government Printing Office.
- Bok, Joan T., Ann L. Combs, Sylvester J. Scheiber, Fidel A. Vargas, and Carolyn L. Weaver. 1997. Statement: Restoring security to our Social Security retirement program: The personal security account plan. In *Findings and recommendations*, 98–134. Vol. I of *Report of the 1994–1996 Advisory Council on Social Security*. Washington, D.C.: U.S. Government Printing Office.
- Business Week*. 1998. Mutual fund scorecard, 2 February, 91.
- Center for Strategic and International Studies (CSIS), National Commission on Retirement Policy. 1998. *The 21st century retirement security plan*. Washington, D.C.: CSIS, 19 May.
- Chand, Sheetal K., and Albert Jaeger. 1996. Aging populations and public pension schemes. International Monetary Fund (IMF) Occasional Paper 147. Washington, D.C.: IMF.
- Davis, E. Philip. 1995. *Pension funds, retirement-income security and capital markets: An international perspective*. Oxford: Oxford University Press.
- Davis, E. Philip. 1997. Private pensions in OECD countries—The United Kingdom. Labour Market and Social Policy Occasional Papers No. 21 (OECD/GD(97)113). Paris: Organization for Economic Cooperation and Development.
- Diamond, Peter, and Salvador Valdés-Prieto. 1994. Social security reforms. In *The Chilean economy: Policy lessons and challenges*, edited by Barry P. Bosworth, Rudiger Dornbusch, and Raúl Labán, 257–320. Washington, D.C.: Brookings Institution.
- Feldstein, Martin, and Andrew Samwick. 1998. Two percent personal retirement accounts: Their potential effects on Social Security tax rates and national saving. National Bureau of Economic Research (NBER) Working Paper 6540. Cambridge, Mass.: NBER.
- Government Actuary of the United Kingdom. 1996. Report of the Government Actuary in accordance with Sections 42, 42B, and 45A of the Pension Schemes Act of 1993. London: HMSO.
- Gramlich, Edward M., and Marc M. Twinney. 1997. Statement: The individual accounts plan. In *Findings and recommendations*, 155–159. Vol. I of *Report of the 1994–1996 Advisory Council on Social Security*. Washington, D.C.: U.S. Government Printing Office.
- Gruber, Jonathan, and David Wise. 1997. Social security programs and retirement around the world. National Bureau of Economic Research (NBER) Working Paper 6134. Cambridge, Mass.: NBER.
- Hepp, Stefan H. 1990. *The Swiss pension funds: An emerging new investment force*. Bern: Institut für Schweizerisches Bankwesen der Universität Zürich.
- Holzmann, Robert. 1997. On the economic benefits and fiscal requirements of moving from unfunded to funded pensions. AICGS Research Report No. 4. Economic Studies Program. Baltimore: The Johns Hopkins University.
- Kasich, Representative John R. 1998. H.R. 3456: A bill to provide for personal Social Security plus accounts funded by surpluses in the total budget of the United States government and available for private investment in indexed funds. U.S. House of Representatives, 105th Congress, 2nd Session, 12 March.

- Mesa-Lago, Carmelo. 1998. Comparative analysis of structural pension reform in eight Latin American countries: Description, evaluation, and lessons. In *Capitalization: The Bolivian model of social and economic reform*, edited by Margaret H. Peirce. Washington, D.C.: Woodrow Wilson Center, Current Studies on Latin America.
- Mitchell, Olivia S. 1996. Administrative costs in public and private retirement systems. National Bureau of Economic Research (NBER) Working Paper 5734. Cambridge, Mass.: NBER.
- Mitchell, Olivia S., James M. Poterba, and Mark J. Warshawsky. 1997. New evidence on the money's worth of individual annuities. National Bureau of Economic Research (NBER) Working Paper No. 6002. Cambridge, Mass.: NBER.
- Moynihan, Senator Daniel Patrick. S. 1792: A bill to reduce Social Security payroll taxes, and for other purposes. U.S. Senate, 105th Congress, 2nd Session, 18 March.
- Office of the Government Plenipotentiary for Social Security Reform. 1997. Security through diversity: Reform of the pension system in Poland. Warsaw: Office of the Government Plenipotentiary.
- Palmer, Edward. 1998. The Swedish model for the second pillar of the old-age pension system. National Insurance Board of Sweden, processed 17 March.
- Porter, Representative John E. 1997. H.R. 2929: A bill to reform Social Security by creating individual Social Security retirement accounts. U.S. House of Representatives, 105th Congress, 2nd Session, 8 November.
- Queisser, Monika. 1995. Chile and beyond: The second-generation pension reforms in Latin America. *International Social Security Review* 48 (3–4): 29–48.
- Queisser, Monika. 1998. The second-generation pension reforms in Latin America. Working Paper AWP 5.4, Eng. Paris: Development Centre, Organization for Economic Cooperation and Development.
- Roth, Senator William V., Jr. 1998. S. 2369: A bill to amend the Social Security Act to establish the personal retirement accounts program. U.S. Senate, 105th Congress, 2nd Session, 29 July.
- Senales Economicas. 1997. Arrate: Entre US\$ 250 y US\$ 350 millones llega la morosidad previsional del sistema. 17 July.
- Shah, Hemant. 1998. Towards better regulation of private pension funds. In *Promoting pension reform: A critical assessment of the policy agenda; Proceedings of the APEC Regional Forum on Pension Reform*, 120–171. Manila: Asian Development Bank. Cancun, Mexico, 4–6 February.
- Scherman, Karl Gustav. 1997. Swedish pension reform. Paper presented at the Annual Meeting of the National Academy of Social Insurance, Washington, D.C., 23–24 January.
- Singh, Ajit. 1996. Pension reform, the stock market, capital formation and economic growth: A critical commentary on the World Bank's proposals. *International Social Security Review* 49: 21–44.
- Smedmark, Göran. 1997. The Swedish contributions collection system. International Social Security Association (ISSA), Social Security Documentation, European Series No. 25, 101–111. Geneva: ISSA.
- Stecklow, Steve, and Sara Calian. 1998. Financial flop: Social security switch in U.K. is disastrous: A caution to the U.S.? *Wall Street Journal*, 10 August.
- Thompson, Lawrence H. 1998. *Older and wiser: The economics of public pensions*. Washington, D.C.: Urban Institute Press.
- U.S. Federal Retirement Thrift Savings Board. 1997. Summary of the thrift savings plan for federal employees. Washington, D.C.: [www.tsp.gov](http://www.tsp.gov).
- U.S. Federal Retirement Thrift Savings Board. 1998a. Financial statements of the thrift savings fund, 1997 and 1996. Washington, D.C.: [www.tsp.gov](http://www.tsp.gov).
- U.S. Federal Retirement Thrift Savings Board. 1998b. Thrift savings plan highlights. Washington, D.C.: [www.tsp.gov](http://www.tsp.gov).
- Valdés-Prieto, Salvador. 1998. The private sector in social security: Latin American lessons for APEC. In *Promoting pension reform: A critical assessment of the policy agenda; Proceedings of the APEC Regional Forum on Pension Reform*, 43–75. Manila: Asian Development Bank. Cancun, Mexico, 4–6 February.
- Whitehouse, Edward. 1998. Pension reform in Britain. Social Protection Discussion Paper No. 9810. Washington, D.C.: World Bank.
- World Bank. 1994. *Averting the old age crisis*. New York: Oxford University Press.



## ENDNOTES

This paper is part of the Urban Institute's *The Retirement Project*, underwritten by the Mellon Foundation. Helpful comments on an earlier draft were received from Rudy Penner, Salvador Valdés-Prieto, Peter Diamond, Monika Queisser, and Carmelo Mesa-Lago. Any errors are the responsibility of the author, and the views expressed are his alone.

<sup>1</sup>Apparently the linkage between individual benefits and the value of an individualized portfolio of financial assets is the key feature distinguishing “individual accounts” approaches from the current Social Security system. Under the current system, separate records are maintained of each worker's earnings for each year, and each worker's benefit is calculated based on the earnings listed in these records. The benefit is linked to workers' preretirement earnings, however, and not to the value of the financial assets held by the Social Security system. To introduce “individual accounts” linking benefits to asset values necessarily involves introducing a defined contribution pension arrangement into a system that has thus far been exclusively a defined benefit pension arrangement. The inherent differences between these two pension approaches are an important part of the debate about the desirability of individual accounts, but they are beyond the set of issues to be considered in this paper.

<sup>2</sup>Both the size of the likely increase in investment and its consequences for the well-being of future generations are matters of considerable debate, but that issue is beyond the scope of this paper.

<sup>3</sup>Two of the proposals from the 1994–96 Advisory Council on Social Security in its 1997 report—the Individual Accounts proposal and the Personal Security Accounts proposal—fit this pattern (Gramlich and Twinney 1997 and Bok et al. 1997). Martin Feldstein and Andrew Samwick (1998) advocate a plan that is compulsory and that separates the financial flows from the government, but that relies on financing from the budget. Their plan would grant a tax credit to those who deposit a specified sum in a newly created form of individual retirement account. They argue that this would increase national savings because the alternative to its adoption is a tax cut without a requirement that it be saved.

<sup>4</sup>Traditionally, public pension systems in Latin America and Eastern Europe based each worker's benefit on earnings in only a handful (as few as two) of the years immediately preceding retirement, creating powerful incentives to avoid making the required pension contributions until late in a worker's career. These systems, as well as many in Western Europe, tended also to offer virtually no incentive to delay pension receipt beyond the age at which workers first were eligible. Postponement of benefit receipt for a year might have no effect on future benefit entitlements or might produce an adjustment of as little as 1 percent of the amount to which the worker was otherwise entitled (Gruber and Wise 1997). Benefits under the U.S. system are based on the highest 35 years of earnings and are (or, under current law, soon will be) adjusted at rates that produce approximate actuarial equivalence when benefits are drawn before age 70.

<sup>5</sup>Most discussions of implicit rates of return under different pension arrangements have an unfortunate tendency to ignore the cost the working age population must bear for any direct or indirect subsidies from the general budget. A notable and commendable exception is the analyses contained in the 1997 report of the 1994–96 Advisory Council on Social Security. Obviously, to the extent that budget costs are correctly accounted for, the source of financing for the transition to individual accounts becomes a less important influence on implicit rates of return.

<sup>6</sup>Another common objection is that accumulating a large balance in that fund may also encourage what might otherwise be regarded as undesirable benefit expansions. The focus here, however, is an alternative way of organizing defined contribution accounts, not defined benefit accounts.

<sup>7</sup>If the objective is to reduce the implicit liabilities of underfunded, pay-as-you-go systems, fixing the pay-as-you-go system is likely to be cheaper than trying to replace it with a system based on funded accounts (Chand and Jaeger 1996).

<sup>8</sup>Although significant cultural, legal, economic, and philosophical differences are also present, the fact that participation in the individual account program (Personal Pensions) in the United Kingdom was purely voluntary may also be a factor in explaining the great degree of worker choice about investment options allowed there. Investment options are much more restricted where participation is mandatory—in most of the individual account plans in Latin America, the plan recently adopted in Hungary, and the plan now under consideration in Poland.

<sup>9</sup>Among Latin American countries that have adopted individual account plans, those that retained a basic defined benefit program (e.g., Uruguay and Argentina) have avoided additional government guarantees that individual account balances will reach a minimum level. In contrast, some of the countries that shifted completely to reliance on individual accounts (e.g., Chile and Mexico) guarantee that the account balance will generate a certain minimum pension (Shah 1998).

<sup>10</sup>Both of the individual account proposals discussed in the 1997 Advisory Council report and the proposal developed by a panel appointed by the Center for Strategic and International Studies (CSIS 1998) include adjustments to the remaining defined benefit portion of Social Security to prevent an unintended decrease in the system's progressivity. Such offsetting adjustments are not a part of the plans offered by Moynihan (1998) and by Feldstein and Samwick (1998), however.

<sup>11</sup>For example, the plan adopted in Mexico guarantees that retiring workers will get no less than they would have received under the previous defined benefit program, had it continued in operation. The plan proposed by Feldstein and Samwick (1998) for the United States would offer a similar guarantee. The plan adopted in Chile guarantees a minimum absolute pension to anyone who has made contributions for a minimum number of years, and Colombia allows people to switch between the defined benefit system and the individual account system once every three years (Shah 1998).

<sup>12</sup>For example, Chile, Colombia, Uruguay, and Argentina guarantee that the rate of return earned on each worker's portfolio will not fall significantly below the average earned on all pension portfolios. Uruguay also guarantees a minimum return of 2 percent per year (Queisser 1998). In Switzerland, employers are required to guarantee at least a 4 percent rate of return on pension accounts (Hepp 1990, 79).

<sup>13</sup>The figure quoted is for a single annuity assuming that the alternative is to invest at the government bond rate. The cost is somewhat lower for women and for joint and survivor annuities, but is somewhat higher if the alternative is to invest at the corporate bond rate.

<sup>14</sup>Plans also differ in the reporting and collections burden placed on employers. Although there are no readily available estimates of the size of these differences, the desire to minimize employer costs is an important motivation underlying the design of certain plans.

<sup>15</sup>On the other hand, Asher (1998) also reports that those provident fund members who took advantage of the option of investing a portion of their account in the stock market had, on average, lost money—even before the recent Asian economic difficulties.

<sup>16</sup>Asher (1998) suggests, instead, that the government may have actually been providing a subsidy through artificially high returns paid on the government bond portfolio held by the provident fund.

<sup>17</sup>For instance, Swedish experience was much more favorable after credit controls were lifted, and the Quebec Pension Plan has earned real rates of return between 3.5 and 4.0 percent per year on the funds it has on deposit with the Caisse de Depot et Placement du Quebec.

<sup>18</sup>These calculations use the wage, price, and investment return assumptions employed in the 1997 Advisory Council report (average wages in the economy grow at 4.4 percent per year; prices rise at 3.5 percent per year; bonds earn a 2.3 percent real rate of return; and stocks earn a 7 percent real rate of return). The illustrative worker experiences personal wage growth at 1 percent per year above the national average, works for 35 years, contributes 5 percent of his or her salary each year, holds 50 percent of the account in stocks and 50 percent in bonds, and receives an 18-year, price-indexed annuity at retirement. Wages and prices grow at constant rates each year, investment returns are the same each year, and the annuity is priced using the bond interest rate.

<sup>19</sup>The frequency of moves has become an issue in the struggle to reduce administrative costs in the system. At the beginning of 1998, switches were allowed up to four times a year. The limit has been lowered to two per year.

<sup>20</sup>The guarantee applies only to the workers' earnings relative to the average. Nothing guarantees that the average will be above any particular number.

<sup>21</sup>The formula that sets the ceiling on fund withdrawals has the effect of allowing people to draw their accounts down at a pace that ensures that the amount left in the account will be sufficient to produce an income above the minimum benefit for at least the number of years the individual is expected to live. Of the people selecting this option, roughly half will live longer than the cohort's average life expectancy, and most of the half that do live longer will eventually end up drawing the minimum benefit.

<sup>22</sup>Latin American social security systems tend to have administrative costs substantially higher than those in the United States and other OECD (Organization for Economic Cooperation and Development) countries. The high costs of the old systems may help explain why the high costs of the Chilean model have not proved a barrier to its adoption elsewhere in Latin America. See Mitchell 1996.

<sup>23</sup>For example, *Business Week* (1998) reports that the average 1997 expense ratio for U.S. mutual funds investing in equities was 1.21 percent, excluding sales charges. If applied to the hypothetical case analyzed in table 1, an annual charge of 1.21 percent of assets would have had essentially the same impact on the replacement rate as the Latin American model.

<sup>24</sup>It must be noted, however, that the pension fund industry in Chile is fairly concentrated, in that the three largest firms together hold more than two-thirds of the total assets under management (Queisser 1998). This form of retail competition has not been successful in preventing the concentration of economic power in relatively few hands. Such high concentration may limit the ability of the market to force operating costs down, and it also makes political interference in investment decisions somewhat more of a threat than if the industry had a larger number of more equal-sized firms. Apparently the combination of a relatively small total market and the economies of scale inherent in the management of pension funds create a tendency toward oligopoly in this industry, because the other Latin American countries that have adopted this model have had similar experiences.

<sup>25</sup>As of mid-1997, some 150,000 cases involving alleged problems with employers remitting pension contributions were pending in Chilean courts (Senales Economicas 1997, 23).

<sup>26</sup>The reform under consideration in Poland is similar. The new system is to consist of a pay-as-you-go element and an individual account element, and revenue collection is to be centralized under the authority of the social insurance institution. As with the Latin American countries discussed here, each worker will be allowed to choose one of a limited number of specialized pension fund management companies to manage his or her account, and workers may move the account from one company to another. The Polish plan also contemplates mandating annuities (Office of the Government Plenipotentiary for Social Security Reform 1997).



<sup>27</sup> Much of the information presented in this section is from Bateman and Piggott (1997).

<sup>28</sup> The current statutory provision was preceded by a national mandate that grew out of collective bargaining agreements in the 1980s but proved difficult to enforce. The mandate covers employees ages 18 through 64 but excludes those earning less than A\$450 a month (equivalent to about \$330 a month in the United States). The minimum contribution level is scheduled to reach 9 percent by 2002.

<sup>29</sup> In addition, almost 100,000 plans cover groups of fewer than five people in small enterprises.

<sup>30</sup> The age limit is scheduled to rise to 60 between now and 2025.

<sup>31</sup> The research department at Watson Wyatt Worldwide reports that the Australian Bureau of Statistics calculates that administrative costs average 0.84 percent of assets in 1997, which appears to be a little higher than one-half of the Chilean average. The Australian number appears to be dropping, however.

<sup>32</sup> The exemption applies to earnings below A\$450, which bears roughly the same relationship to average earnings in Australia as does \$330 a month in the United States.

<sup>33</sup> The payment is called a “rebate.” The rebate formula has been adjusted several times since the personal pension option was first offered. In 1995, it was set at 4.8 percent of covered earnings. The rebate is supplemented by a special bonus to encourage participation in personal pensions. Initially, this bonus was set at 2.0 percent, but in 1993 the bonus was scaled back to 1.0 percent, applied only to those over the age of 30. More recently, it has been scaled more closely to the age of the individual, with older workers eligible for higher rebates.

<sup>34</sup> £10,000 is roughly two-thirds of average earnings in Britain and the equivalent of about \$16,000.

<sup>35</sup> Whitehouse also reports that under the current rebate schedule, individuals may be best off using the personal pension option until they are about 40 and switching to the state system thereafter. If such a strategy maximizes the pension of the individual, it also maximizes the cost to the state system.

<sup>36</sup> Most of the description of the new Swedish individual account system comes from Palmer (1998).

<sup>37</sup> The new Swedish basic pension will be what has been called a “notional defined contribution” system. Each worker will have an account with the National Social Insurance Board. Each year, the contributions paid on behalf of that worker will be credited to the account along with “interest” paid at the rate at which average earnings in Sweden are growing. At retirement, the balance in the account is converted into an annuity value based on the projected life expectancy of the cohort of workers retiring that year. Although the vocabulary used to describe the system is that of a defined contribution arrangement, the benefit calculation produces results quite similar to those of the pension point systems found in France or Germany and generally considered to be defined benefit arrangements (Scherman 1997).

<sup>38</sup> The planned matching of buy and sell orders within the pension agency is one of the reasons that funds have to agree not to levy charges on sales.

<sup>39</sup> The thrift plan is scheduled to add two additional funds in the near future—one that will track an international portfolio and one that will track a portfolio of smaller domestic companies.

<sup>40</sup> Thrift plan management points out that these charges exclude the cost of enrolling and educating workers, tasks that are performed by the employing institutions.

<sup>41</sup> Rules for switching balances from one fund to another were not specified. Under the current thrift plan, changes are made at the end of a calendar month based on requests that have been received by the 15th day of the month.

<sup>42</sup> The CSIS plan specifies that the annuities are to follow the rules established under the Employee Retirement Income Security Act (ERISA), but it is not clear how this would work. ERISA requires that annuities offered by the sponsor of the retirement plan be priced on a unisex basis and include a continuing payment to a surviving spouse unless the spouse signs a waiver. Apparently, under the CSIS plan, third parties selling annuities would be required to price their annuities on a unisex basis to the extent that the annuity was being purchased with assets coming out of these retirement accounts but would not be required to offer unisex prices if the annuity is being purchased with other assets. This provision might prove difficult to enforce.

<sup>43</sup> The CSIS plan and the Advisory Council’s IA option have different financing mechanisms. Unlike the CSIS plan described here, the IA plan would be financed through an increase in the total contribution rate. Presumably, the IA plan would therefore have a more favorable impact on national savings.

<sup>44</sup> Specifically, the plan applies only to workers who earned four quarters of coverage under Social Security. Each worker would receive \$250 per year plus a share of the rest of the available funds equal to that worker’s share of total covered earnings. Representative John R. Kasich (R–Ohio) has proposed a similar plan (H.R. 3456), with the money allocated equally to each qualifying worker and the funds invested in a single account (Kasich 1998).

<sup>45</sup> Presumably, the half of the retirement cohort that lives beyond the average life expectancy runs the risk of exhausting this particular income source while still alive.

<sup>46</sup> The bill’s authors report that the intent is that workers will have a range of investment choices, with some regulation in regard to risk.

<sup>47</sup> The Feldstein–Samwick plan involves tax credits equal to the proceeds of a 2 percent payroll tax in order to finance the individual accounts. If invested in a manner that generates the same returns that Feldstein and Samwick expect, a general fund infusion of this size placed directly in the Social Security Trust Fund would also solve the long-run Social Security financing problem and obviate the need to set up all of the individual accounts. The administrative costs of the individual accounts are the price paid to avoid the risks associated with centralized management.

## ERRATA SHEET

At this time, Sweden's individual account plan proposes to offer workers only nominal, not price-indexed annuities at retirement. Hence, the following corrections should be noted:

1. Under the "Individual Account Model" section, under "Sweden," the second sentence of the third-to-last paragraph should read "The current plan is to allow people the choice between a fixed annuity and an annuity indexed to the value of the shares in the worker's mutual fund."
2. Under the table entitled "Appendix Table. Summary of International Individual Account Plans," at the intersection of the row labeled "Price Indexing Required?" (Beneath the "Withdrawal of Funds" heading) and the column labeled "Sweden," the cell should read "No." The footnote "d" should read "Can be indexed to portfolio value."

T H E R E T I R E M E N T P R O J E C T

Occasional Paper Number 1



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