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Volume Title: Administrative Aspects of Investment-Based Social Security Reform

Volume Author/Editor: John B. Shoven, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-75485-5

Volume URL: http://www.nber.org/books/shov00-1

Publication Date: January 2000

Chapter Title: Reforming Social Security -- A Practical and Workable System of Personal Retirement Accounts

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Chapter URL: http://www.nber.org/chapters/c7467

Chapter pages in book: (p. 9 - 40)

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Reforming Social Security A Practical and Workable System of Personal Retirement Accounts

Fred T. Goldberg Jr. and Michael J. Graetz

1.1 Background

Since it was first enacted in 1935, social security has been enormously successful in improving the financial condition of the disabled and the elderly. Despite this success, however, demographic trends make change inevitable. As the baby boom generation approaches retirement and longevity increases, social security faces a funding shortfall. The accumulation of surplus, now being built up, is currently projected to be exhausted by the year 2032, and social security actuaries project that, during the seventy-five-year period used to project revenues and benefits, a deficit equal to 2.19 percent of taxable earnings will occur.

Reflecting social security's extraordinary success and universal acceptance, most reform proposals start from the same fundamental premise: the system must maintain disability and survivor benefits and continue to provide a guaranteed benefit that keeps both the disabled and the elderly out of poverty. Consistent with these goals, and in order to achieve a broader participation in capital markets, especially by low- and moderatewage workers, many recent proposals also embrace the idea of adding a defined-contribution feature in the form of personal retirement accounts (PRAs) that would be owned and controlled by individual workers. Polling data also suggest strong public support for making individual accounts

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Financial and technical support was provided by Merrill Lynch & Co. The authors thank Armando Gomez of Skadden Arps for his assistance in the preparation of this paper. The views expressed in this paper are the authors' and should not be attributed to any other person or organization.

^{1.} See, e.g., National Commission on Retirement Policy (1998); Report of 1994-1996 Advisory Council on Social Security (1997); and legislation introduced in the 105th Congress by

a part of social security.² There are many variations on this theme, and PRA proponents justify their support on a wide variety of grounds: Over extended periods, PRAs should generate higher returns than the Social Security Trust Fund, thereby helping maintain adequate retirement income. PRAs will provide a source of financial wealth (and stock market returns) to the roughly half of Americans who have none aside from the promised benefits of social security. Unlike the Social Security Trust Fund, the money in PRAs is "walled off" and cannot be used to fund other government expenditures; unlike social security benefits, PRAs are owned by individual participants and represent vested property rights. Social security is a pure defined-benefit program that is of most value to those who live the longest, while PRAs represent assets that are owned by participants; PRAs could be of particular benefit to the families of those who die early and groups with short life expectancies (e.g., minorities and lowincome workers). Because single individuals, single parents, and twoincome married couples are relatively disadvantaged by the way in which social security benefits are computed, PRAs may be of particular benefit to those groups. PRAs will provide a universal infrastructure to promote savings and help create wealth for all Americans.

To date, the PRA discussion has focused principally on policies and politics; not much has been written on ways in which to implement and administer such a program. The purpose of this paper is to address this latter question. While not a glamorous topic, the mechanics of PRAs will have a major effect on whether they become a part of this nation's national retirement policy. PRAs may be good policy and good politics, but, if they cannot work, they will not happen.

In addition, the ability to implement PRAs at a reasonable administrative cost is critical to their ultimate success. Large administrative expenses have the potential to erode the earnings of PRAs substantially, particularly for the large number of relatively small accounts that will exist.³ Thus, a workable low-cost system is widely accepted as a prerequisite for the successful implementation of PRAs.

Senators Moynihan and Kerrey (S. 1792), Gregg and Breaux (S. 2313), Roth (S. 2369), and Grams (S. 2552) and Representatives Porter (H.R. 2929), N. Smith (H.R. 3082), and Kolbe and Stenholm (H.R. 4824). Other countries have already reformed their national retirement policies to implement PRAs (see app. A).

^{2.} For example, 67 percent of the respondents to a poll conducted on behalf of the Democratic Leadership Council in August 1998 would prefer setting up PRAs. When asked about the risk of stock market downturns, which could diminish the value of PRAs, 55 percent of the respondents to the same poll still would prefer PRAs. Similarly, results from an August 1998 poll conducted on behalf of Americans Discuss Social Security indicate that approximately 58 percent of respondents with an opinion on proposals to reform social security by creating PRAs reacted favorably to such proposals.

^{3.} Some have proposed direct investment of Social Security Trust Funds in stocks and bonds. While this change would achieve some of the advantages of PRAs, it would fail to achieve others and raises important additional questions. A discussion of this alternative is beyond the scope of this paper. We do recognize, however, that the cost of administering such investments would be less than the cost of administering PRAs.

While the PRA policy options are legion, our approach has been designed to satisfy three basic administrative criteria: (1) to minimize administrative costs and distribute those costs in a fair and reasonable way; (2) to minimize the burden on employers, especially small employers who do not now maintain a qualified retirement plan; and (3) to meet the expectations of everyday Americans for simplicity, security, control, and independence in ways that are easy to explain and easy to understand. While PRAs raise difficult administrative issues, this paper demonstrates that they can work. It describes a practical system for implementing and administering PRAs—a system that fulfills the three criteria listed above.

While these three criteria are generally accepted, there is a fourth requirement that has not been considered by other commentators but has influenced the design that we describe. Because the policy and political debate over PRAs is just getting started in earnest, there is a premium on flexibility—the capacity to accommodate a wide range of funding options and policy objectives. The system that we describe here will work whether PRAs are mandatory or voluntary; whether PRAs are funded by allocating an existing portion of the payroll tax to PRAs (a so-called carve-out), funded by collecting an additional amount from workers and/or employers (a so-called add-on), or funded from general revenues; whether or not PRAs are partially integrated with social security to help cover the funding shortfall when baby boomers begin to retire; regardless of how administrative costs are funded (in particular, regardless of what costs are funded from general revenues); regardless of the rights that spouses and ex-spouses have with respect to PRAs (e.g., some suggest that PRAs should be divided from the outset between the worker and his or her spouse); whether or not workers are allowed to make additional, voluntary contributions to their PRAs; and whatever investment and distribution options are available to participants and however those options are regulated. The system that we describe would accommodate a wide range of potential answers to these policy issues. Of equal importance, the system would be flexible enough to accommodate changes in the ways in which these questions are answered over time, after the PRA program is put in place.

1.2 Overview

The most important point to keep in mind is size—both big and little. The PRA system will involve an enormous number of accounts, and, in many of those accounts, the dollar amounts will be quite small. For example, approximately 137 million workers would have been covered during 1996. Table 1.1 presents the number of those covered workers at vari-

^{4.} The term covered workers refers to workers who participate in the social security system

	Workers	
Annual Covered Wages	Number (in millions)	As % of Total
\$5,000	29,554	22
\$10,000	46,438	35
\$15,000	61,816	46
\$20,000	76,178	58
\$25,000	88,900	67
\$30,000	99,458	73
\$40,000	114,629	85
\$50,000	123,641	91
\$60,000	128,591	95
\$63,000	129,578	96
All covered workers	136,689	100

Table 1.1 Covered Workers

ous levels of covered wages (National Academy of Social Insurance 1998).

Assuming that the amount going to PRAs each year equaled 2 percent of wages covered by social security, accounts for nearly 62 million workers would have been credited \$300 or less for 1996; accounts for the approximately 9 million part-time and seasonal workers making less than \$3,000 would have been credited with less than \$60. At 3 percent of covered wages, nearly 47 million workers would have been credited with \$300 or less. The average amount of covered wages for 1996 was nearly \$25,000. Thus, at 2 percent of covered wages, the *average* amount credited to accounts for 1996 would have been \$500, and the aggregate amount of contributions for 1996 would have been approximately \$68.5 billion.

This paper focuses on the three fundamental administrative functions that are common to all systems of PRAs: (1) collecting PRA funds and crediting funds to each participant's retirement account; (2) investing funds on behalf of individual participants; and (3) distributing funds from PRA accounts to participants and beneficiaries.

1.3 The PRA Program

1.3.1 Summary

Any system of PRAs will provide for the funding of accounts, the management and investment of funds, the maintenance and dissemination of

and are liable for payroll taxes that fund social security and medicare. While most workers are covered, there are exceptions—notably, approximately 3.7 million workers employed by state and local governments. The term *covered wages* refers to wages subject to the payroll tax—in general, wages of covered workers up to a cap of approximately \$68,400 in 1998. Except as otherwise noted, data are from SSA (1997).

account information, and the distribution of funds on retirement, disability, or death. A brief summary of procedures follows, illustrating how to minimize administrative costs and the burden on employers at the same time as providing participants with an understandable and workable system that will meet their needs for simplicity, security, independence, and control.

Funding PRAs. The current wage-reporting, payroll-tax, and income-tax systems provide an in-place vehicle for collecting PRA funds and crediting PRA accounts. Because these systems are already up and running, this aspect of the program will cost little to administer, will impose no additional burden on employers, and should be relatively easy to explain to participating workers.

Investing PRAs. From the standpoint of investment options, a two-tiered approach responds to the need for a simple and inexpensive system and meets the desire to provide individuals with control over their PRAs and a wide range of investment options. First, all workers could elect to invest their PRAs in a limited number of funds sponsored by the Social Security Administration (SSA) under a "no-frills" system managed by the private sector (simple personal investment funds [SPIFs]). Alternatively, workers could direct that their funds be invested in one or more privately sponsored qualified private funds (Q-funds). Some regulation of Q-funds will be necessary to limit investment options (as is now done with IRAs and 401[k] plans), to provide for times and methods for shifting investments, to ensure the solvency of fund managers, to provide for methods and times of disclosures to investors, and to regulate the allocation of administrative costs. The Treasury Department and the Labor Department, along with the Federal Reserve and the SEC, have long been performing these functions for private investments and therefore have the expertise and experience to implement any necessary regulation of Q-funds.

Distributing Funds from PRAs. Workers could not gain access to their PRAs prior to disability, retirement, or death—at which point it may be required that some or all of the PRA funds would have to be annuitized. As with the investment options, annuity alternatives should operate under a two-tiered approach. Either workers could elect to have their PRA balances transferred to the SSA in exchange for an appropriate increase in their monthly social security benefits, or, alternatively, workers could use their PRA balances to purchase qualified annuities from the private sector. Private companies that offer annuities should be required to provide all-comers annuities at the same age-based price to reduce costs and limit adverse-selection problems.

1.3.2 Funding PRAs

In General

An efficient and flexible mechanism for funding PRAs can be built off of the existing wage-reporting, payroll-tax, and income-tax systems. As explained below, this approach would involve four basic steps to direct funds into a PRA for the benefit of an individual worker. These steps are summarized below as they apply to employees (comparable procedures would apply with respect to self-employed workers).

- Step 1. Employers withhold payroll taxes from wages and deposit those taxes (together with the employer's share) with the IRS, as required under current law. If PRAs are funded through a carve-out of existing payroll taxes or from general revenues, no additional collection mechanism would be necessary. If, on the other hand, PRAs are funded through an addon in the form of additional withholding, the additional funds would be collected through the existing payroll-tax system in the same manner as payroll taxes, but PRA amounts would be designated as such in employers' deposits of withheld taxes and PRA contributions. If PRAs are financed from general revenues, the government would simply transfer the appropriate amounts into individuals' PRAs.
- Step 2. Employers provide employees with W-2 forms at the close of the calendar year and file those forms with the IRS, as required under current law. If PRAs are funded through a carve-out from existing payroll taxes or from general revenues, no additional information would be required from employers. If PRAs are funded through an add-on, employers' W-2 forms would include both payroll-tax and PRA information for each employee.
- Step 3. Employees file 1040 forms with the IRS, attaching copies of W-2 forms, as required under current law. The employee would also indicate how to invest amounts to be deposited in the PRA, using a form filed with his or her tax return. The IRS would collect the information necessary to set up and fund PRAs. (Most of this information, other than workers' investment choices, is already collected by the IRS under current law in the processing of tax returns.)
- Step 4. On the basis of information collected in step 3, the employee's PRA would be funded as directed or funded as required by statute if the employee does not specify an investment option (presumably, into a specified SPIF).⁵

^{5.} If a worker's account is divided from the outset between the worker and his or her spouse, then the worker and the worker's spouse would designate their respective investment choices on their joint or separate tax returns.

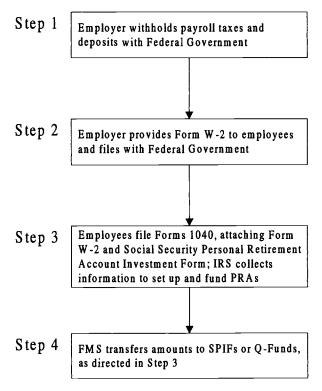


Fig. 1.1 Funding PRAs

The flow of information and funds reflected in these four steps is summarized in figures 1.1 and 1.2.

Structuring PRAs around the existing system minimizes administrative costs and would impose no significant incremental burden on employers.⁶ As under present law, employers would withhold payroll taxes from wages paid and would deposit those funds with the IRS according to the applicable deposit schedule. Similarly, self-employed individuals would continue to make payments of the self-employment tax to the IRS according to the applicable payment schedule. Because workers select their investment options when they file their tax returns, no additional burden is imposed on employers, and the additional burden on workers is minimized. This approach for collecting funds and crediting accounts would minimize the costs of initiating a system of PRAs.

^{6.} As noted below, the task of informing workers regarding the operation and administration of PRAs (including information and education regarding investment options) should be the responsibility of the SSA and other federal agencies.

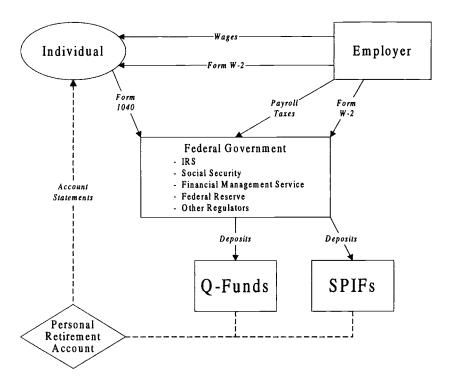


Fig. 1.2 Flow of funds and information

Establishing PRAs and Funding Investment Options

Most of the information necessary to establish and fund each worker's PRA—worker identifying information (name, social security number, and address) and amount of covered wages—is already provided to the IRS through employers' W-2 forms and by workers filing their tax returns. The only additional step would be for each worker to select a particular investment option by completing a form that could be filed along with the worker's tax return. Some proponents of PRAs have expressed concerns that workers not have to deal with the IRS in connection with their PRAs. To address this concern, the form could be designed and labeled to make clear that this is a social security PRA investment form. (Of course, investment elections could be required to be made directly with the SSA on a separate form apart from tax-return filing, but we believe that the additional burden and administrative costs of separate filings are unwarranted.)

The IRS would gather all the necessary information relevant to PRAs as part of its routine processing of tax returns. Because the IRS already gathers most of this information, the additional costs of processing the social security PRA investment form would not be significant. As now occurs

with respect to tax refunds, the IRS would provide each worker's PRA information to the Treasury Department's Financial Management Service (FMS). In much the same way in which it handles other funding activities on behalf of the federal government, the FMS would then wire transfer the appropriate amount to each worker's designated investment fund. Once again, because the funding mechanism builds on existing systems, this approach should minimize the government's additional cost and facilitate the implementation of PRAs.⁷

Funding accounts in connection with the processing of tax returns, and having participants designate their investment choices with those returns, accomplishes several objectives: (1) Because substantially all workers already file income-tax returns, it minimizes the burden on participants and the government's processing costs (as, e.g., compared to a requirement that workers make a separate filing with the SSA). It also minimizes the start-up costs that would be associated with other systems of crediting accounts. (2) It avoids imposing any additional burden on employers. (3) The fact that most employers still file their W-2s with the IRS on paper is irrelevant. Paper filing causes no delay, and a very small number of corrections will have to be made.8 (4) It protects workers' privacy. (5) Since wage reports filed by employers throughout the year do not identify wages allocable to each employee, the filing of the worker's tax return is the first occasion when the government has the information necessary to fund each participant's account. (6) Taking the information from the participant's tax return minimizes the lag in funding. This greatly simplifies crediting funds to workers' accounts because funding takes place once annually, rather than at each pay period. It also eliminates any need to "credit" PRAs for earnings prior to the time at which individual accounts are cred-

- 7. The relative ease of this system is illustrated by the following: More than 80 percent of all taxpayers already file refund returns, and the IRS and the FMS are generally able to issue those refunds within two to four weeks after returns are filed. Moreover, under current law, taxpayers may instruct the IRS to issue refunds through direct deposit to a bank account owned by the taxpayer by including such instructions on the 1040 form. The information required from the taxpayer for this purpose, and the administrative burden on the IRS and the FMS, is similar to that which would be required in the context of PRAs. During the 1998 individual income-tax filing season, approximately 19.1 million individuals—more than 20 percent of all those receiving refunds—used this direct deposit system. Similarly, the increasing reliance on electronic-funds transfers in other contexts, e.g., the payment of welfare benefits, also suggests that the system described above can be implemented with relative ease.
- 8. Of the more than 1.1 billion information returns filed each year with the IRS, approximately 5 million, or less than 0.5 percent, are subsequently corrected. Applying this ratio to the more than 223 million W-2 forms actually filed in 1997, all of which were required to be filed in magnetic media, in electronic format, or on scannable paper, we expect that only 1 million W-2 forms would need correction.
- 9. For example, in 1998, approximately 32 percent of all individual returns were filed within two months after the end of the year, and approximately 90 percent of all returns were filed by 1 May, only four months after the end of the year. It now takes the SSA approximately nine months after the end of the year to process most W-2s, and it generally takes the IRS and the SSA up to eighteen months to complete reconciliation of W-2s.

ited.¹⁰ (7) Any discrepancies between amounts reported on individual tax returns and amounts reflected through the reconciliation of W-2s by the SSA can be readily rectified through direct adjustments to PRAs. The only difficulty that can arise is when a downward adjustment is required to a PRA that has been defunded before the discrepancy is discovered. (Even in these rare cases, "transferee liability" similar to that now provided under the tax code could recapture erroneous amounts in virtually all circumstances.) (8) The IRS and the FMS experience with refunds generally, and with the electronic deposit of tax refunds in particular, demonstrates that the funding technology is already in place and can be implemented easily. (9) This approach provides maximum flexibility. For example, it is well suited to any financing approach (whether through carve-out of payroll taxes, through additional mandatory contributions, or from general revenues) because each funding method requires the same information from participants (worker identification, covered wages, and investment choices). Likewise, using the tax return as an information source has substantial advantages in accommodating voluntary additional contributions, particularly if those contributions are encouraged by tax incentives.

We considered, but rejected, implementing PRAs by requiring employers to deposit withheld funds directly into their employees' investment accounts. Such an approach would substantially increase the burdens on employers, particularly small employers. Not only would they be responsible for monthly reporting and funding, but they would also be responsible for providing information, selecting among funds, and correcting errors. We do not believe that those additional burdens would produce adequate additional value.

Currently, 401(k) plans are offered to only 7 percent of workers in firms with fewer than twenty-five employees. Workers earning less than \$15,000 a year account for just 8.3 percent of workers who participate in any 401(k)-type retirement plan and only 16 percent of participants in any type of employer-based defined-contribution retirement plan (Olsen and Salisbury 1998). In contrast, the 62 million workers with \$15,000 or less of wages will constitute 46 percent of participants in PRAs. For those workers, the lag between the time when they earn wages and the funding of their PRAs will cost at most about \$20 a year (the income lost from a

^{10.} We recognize that there is still some lag in funding (whether measured from the time taxes are withheld or from the end of the year). Nonetheless, on an account-by-account basis, there is no feasible or practical alternative to the approach that we recommend. Two other approaches have been suggested to minimize the effect of this lag: credit all accounts with some kind of imputed earnings (e.g., the short-term Treasury rate, using a six-month convention) or have the government invest funds on an aggregate basis during the year in SPIFs, using estimated investment choices. The former would be workable (the contribution to each account would be "grossed up" by the same percentage). The latter would likely impose substantial additional administrative burdens.

twelve-month delay at a 7 percent return following year-end is at most \$20, or less than \$2,100 over a lifetime).¹¹ To compensate for this loss of income, the government might credit individual PRAs with the return on Treasury borrowing for the period between earning the wages and funding the PRA. Alternatively, the government could remit an appropriate amount of aggregate PRA funds to a default SPIF with the income subsequently paid out to individual PRAs on the basis of wage reports. We regard the first alternative, which is simpler, as adequate, but either of these options is preferable to requiring employers to deposit funds directly into their employees' PRAs.

Workers Not Required to File; Error Correction; Workers Who Do Not Make an Investment Election; Noncompliance

It is also necessary to provide for workers who choose not to file tax returns because their incomes are below the applicable filing thresholds.¹² The easiest way to address this issue is to permit these workers to file their social security PRA investment election form, along with copies of their W-2s, with an IRS service center.¹³

At present, the IRS and the SSA are able to "perfect" the information regarding each worker's covered wages within approximately eighteen months after the end of the calendar year. While the information on most workers' covered wages is accurate (and most of it is now filed electronically), there are a significant number of errors that must be corrected each year.

While the error numbers are large in absolute terms, they are small as a percentage of the entire program (see n. 9 above). Moreover, because a system of PRAs would place a greater premium on timely and accurate information, it is possible that there would be fewer errors over time. What is important to note is that these errors occur—and have to be corrected—under current law. As a result, under the implementation scheme described above, no new information processing is required. The only additional step is that some adjustment in the funded accounts will be required (subject to *de minimis* tolerances). Because the PRAs that must be adjusted will virtually always exist, any over- or underfunding can be remedied with

^{11.} Olsen and Salisbury (1998) show that, after forty years, a once-per-year deposit of \$1,200 would yield \$8,315 less than a once-per-month deposit of \$100 at a 7 percent rate (\$254,166 rather than \$262,481). For a \$300 annual deposit, the lifetime loss would be only about \$2,080.

^{12.} While several million individuals file returns each year showing income below the applicable filing thresholds and almost 1 million individuals file returns each year showing no adjusted gross income, several million individuals do not file returns at all because their income falls below the applicable filing thresholds.

^{13.} While the SSA does not process W-2s below a certain threshold, this procedure would enable all workers to get PRA credit for their earnings.

relative ease.¹⁴ With respect to both over- and underfunding situations, it would be necessary to provide rules regarding actual or imputed earnings (or loss) prior to the correction date. Thus, for example, where accounts are overfunded, the withdrawal could reflect actual gains or losses, and, where accounts are underfunded, earnings could be credited at a specified rate, for example, the Treasury rate applicable to the correction period.¹⁵

For any worker who does not designate an investment option, his or her PRA would be invested in the manner specified by statute. In the case of workers filing tax returns, the IRS would gather the necessary information (e.g., covered wages) from the 1040 form. In the case of workers not filing tax returns, the information would be gathered from W-2 forms filed by employers. Because there could be a substantial lag in this latter context, it raises the issue of whether these accounts should be credited with imputed earnings (see nn. 4, 10, and 11 above).

A more difficult issue arises where no information returns are filed with respect to a worker, there is no withholding with respect to that worker's earnings, and the worker fails to file income-tax returns. Under these circumstances, crediting any amount to the worker's PRA will be virtually impossible without direct contact with the worker and/or the worker's employer. These cases will be quite rare and serve to show only that no law is 100 percent enforceable.

1.3.3 Investment Options

As noted above, a two-tiered system of investment options seems most appropriate.

SSA-Sponsored Options

Workers could elect to invest their PRAs in a limited number of funds sponsored by the SSA, with the management and administration of the funds contracted out to the private sector (SPIFs). From an investment and management standpoint, the SSA-sponsored funds would operate similarly to the federal employees' Thrift Savings Plan (TSP). ¹⁶ This alter-

- 14. As a practical matter, this would avoid many of the compliance problems encountered in other contexts (e.g., the earned income-tax credit).
- 15. Presumably, the SSA (rather than the IRS) should have responsibility for these error-correction activities, and the costs of this activity should be funded from general revenues.
- 16. The TSP, which is a retirement savings and investment plan for federal employees that was established by Congress in the Federal Employees' Retirement System Act of 1986, is a defined-contribution plan that provides federal employees with a choice of three investment options. First, employees can allocate all or a portion of their accounts to the "G Fund," which consists exclusively of investments in short-term nonmarketable U.S. Treasury securities issued directly to the TSP by the U.S. Treasury. Second, employees can allocate all or a portion of their accounts to the "C Fund," which is invested in a Standard and Poor's 500 stock index fund. Third, employees can allocate all or a portion of their accounts to the "F Fund," which is invested in a Lehman Brothers Aggregate bond index fund. Presently, the

native would be administered on a no-frills basis. Obviously, there is a trade-off between offering a variety of choices and keeping costs low. For example, SPIF investments could be limited to so-called lifestyle funds a mix of debt and equity index fund investments with the proportion of equity adjusted to provide a level of risk appropriate to the participant's age. Alternatively, participants' investment options could be limited to the following: (1) one or two equity index funds, for example, one based on the Standard and Poor's 500 and one based on the Russell 2000 or Wilshire 5000, ¹⁷ and (2) one or two bond funds, one limited to U.S. Treasuries and the other based on corporate debt. (Two default funds might be provided for people who fail to elect any investment option. The first—a 60 percent equity, 40 percent debt fund—would apply to all individuals under age fifty-five. The second—an 80 percent debt, 20 percent equity fund would apply to all individuals age fifty-five or over.) Participants would receive their account statements once (or perhaps twice) each year (additional statements could be made available for a fee). Automated account information would be available at any time. Participants could reallocate funds twice (or perhaps four times) a year without any additional charge (additional changes could be permitted for a fee).

This configuration represents a reasonable balance among competing objectives: it keeps administrative costs low while providing reasonable investment choices and market-comparable services to the millions of workers likely to participate in the SPIFs. It would, of course, be possible to increase or decrease investment options and services in ways that would increase or decrease costs of administering the program. Given the large number of relatively small SPIF accounts, however, keeping costs low is important so that investment returns will not be eroded.

After a phase-in period (which we estimate to be up to five years), the annual costs of administering SPIFs in the configuration described above are expected to be in the range of thirty to fifty basis points. By way of comparison, appendix B provides more detailed information regarding current costs of a variety of investment funds.

Federal Retirement Thrift Investment Board, which is responsible for the oversight and management of the TSP, contracts with Barclays Global Investors to manage and invest the amounts allocated to the C and F Funds by participants in the TSP. The TSP also plans to add two additional investment options (a Russell 2000 index and a foreign stock index) in the near future.

^{17.} By law, the TSP may make equity investments only in a "commonly recognized index" that is a "reasonably complete representation of United States equity markets."

^{18.} Although we have seen cost estimates ranging from five to more than one hundred basis points, this is similar to the range of costs estimated in National Academy of Social Insurance (1998). It is also similar to the range of costs estimated by representatives from State Street Bank and Fidelity at a conference on the feasibility of PRAs ("Beyond Ideology" 1998).

Regardless of the specific configuration of investment options and account services, the SPIF approach raises a number of policy and administrative issues. Some examples follow:

What portion of the administrative costs should be financed from direct charges to accounts? How should such amounts be allocated? Allocating such amounts on the basis of the amount of assets in accounts, rather than on a fixed-dollar-per-account basis, seems most consistent with the goal of broadening capital market participation by low- and moderate-income workers.

What portion, if any, of the administrative costs should be financed from general revenues? In considering this question, two points are worth noting: (1) To deal with transition costs, it may be useful to cap administrative costs charged to PRAs at some level (e.g., thirty to fifty basis points) and fund any excess from general revenues. (2) It has been suggested that some or all administrative costs should be funded from general revenues on one or more of the following grounds: it would increase the net return on PRAs; from a "fairness" standpoint, it would be progressive; PRAs are a "public good" (everyone benefits from increased savings and the creation of wealth for all workers); general revenues cover the administrative costs of similar government functions (e.g., medicare, social security, and the IRS). On the other hand, fully funding administrative expenses from general revenues may remove any incentive for individual investors to see that such costs are minimized.

By requiring that the SPIF investments be contracted out, we have sought to minimize the risks that the government will use these funds to interfere in the capital markets (e.g., by rewarding or punishing certain industries or companies, by competing with the private sector, or by making investment decisions to address fiscal, social, or foreign policy issues).

We have illustrated rules governing the choice of SPIF funds for workers who do not elect any investment option, but there are obviously other alternatives. Presumably, as we have noted, funds would be allocated on the basis of an age-adjusted formula. Should the default formulas be specified in legislation or left to the discretion of one or more regulatory bodies?

Should anything be done to address concerns over stock market volatility, especially as workers approach retirement age? For example, in the context of the SPIF, should there be rules mandating more conservative investment allocations as workers approach retirement age? Should the SPIF offer some kind of "risk insurance" or investment guarantee?

What kind of information should be provided to workers regarding their investment options, who should provide that information, and how should the costs of providing that information be allocated? Consistent with our basic goal of minimizing burdens on employers, especially small employers, placing responsibility for education with the SSA seems an appropriate first step. As all workers become investors through their PRAs, it

seems likely that other avenues of education, including by nonprofit organizations, will emerge.

As a practical matter, answers to some of these questions may vary depending on whether the accounts are funded through a carve-out, through an add-on mechanism, or from general revenues. We want to emphasize that the implementation system outlined here can accommodate a wide range of answers to these and other policy issues.

Private Fund Options

In addition to SSA-sponsored SPIFs, the PRA program could permit individuals to invest their funds with one or more privately sponsored qualified private funds (Q-funds). There are several reasons for making such an option available to workers: It allows individual workers to avail themselves of the wide range of investment alternatives and investment services offered by the private sector. Because workers can take advantage of private-sector options, it will be easier to maintain the SPIF as a low cost, easy-to-understand, limited-choice alternative. It will reduce the risk that the federal government will "compete" with the private sector through manipulating the SPIF. Finally, it will reduce the risk that politicians and interest groups will seek to use the SPIF to pursue unrelated political, social, economic, or foreign policy objectives.

As we have said, the financial institution offering Q-funds, and the Qfunds themselves, will need to be regulated regarding permitted investments, financial solvency, and disclosure requirements. We expect existing regulatory mechanisms to be adequate for this purpose.²⁰ For example: As with qualified retirement plans and IRAs under current law, Q-funds should be segregated from other investment funds (i.e., there should be no commingling of assets). The diversification requirements applicable to mutual funds (regulated investment companies) and the fiduciary obligations under the Employee Retirement Income Security Act (ERISA) provide a starting point for addressing various risk-related issues; Q-fund sponsors could be required to offer a minimum range of investments (e.g., index equity funds and short- and long-term bond alternatives).21 While any Q-fund sponsors could offer a wide range of investment alternatives, limiting individuals to one PRA account may be appropriate to avoid the excessive administrative costs that multiple accounts would entail; this would mean that an individual's account would be invested through either an SPIF or the Q-funds of a single financial institution. The system could build on current reporting requirements to assure that the government

^{19.} For the reasons noted above (e.g., the wire-transfer of almost 20 million refunds), this alternative could be implemented at little incremental cost to the federal government.

^{20.} We also think that it is preferable to rely on that structure to the maximum extent possible, rather than create yet another regulatory regime.

^{21.} These alternatives are currently required by sec. 404(c) of ERISA.

receives the information necessary to monitor the Q-funds and the status of individual workers' accounts.²²

There are two ways in which to determine which institutions would be permitted to offer Q-funds and the conditions under which those Q-funds could be offered. One approach would be to impose a uniform set of licensing criteria that would be centrally administered by a single regulatory agency. Alternatively, those same criteria could be administered separately by the agency now responsible for regulating the sponsoring financial institution. In either event, because the federal government, rather than individual workers, would provide original transfers of funds to Q-funds, workers would be protected from fraud by unauthorized promoters. As for the licensing requirements themselves, one approach would be to integrate them with existing regulatory standards regarding permitted investments, safety and soundness, and disclosure. In this context, the legislation could impose additional requirements that were deemed appropriate (e.g., bonding or insurance requirements, net-worth requirements, etc.).

From the standpoint of ongoing compliance, financial institutions and Q-funds could be monitored by existing regulatory authorities as part of their overall responsibilities (e.g., the Department of Treasury and Labor, the Federal Reserve Board, and the SEC; table 1C.1 in app. C summarizes the current regulatory structure of financial institutions likely to offer Q-funds). This structure would also permit rules limiting and allocating the administrative costs of Q-funds. We believe that, in the light of the SPIF alternative, these rules could be limited and should focus on disclosure requirements. Nonetheless, in the light of concerns about the potential for marketing costs to increase administrative costs and reduce investment returns, financial institutions offering Q-funds might be limited in allocating marketing costs to Q-funds or offering "bonuses" for individuals to shift funds to a different offeror. In addition, as with SPIFs, Q-fund sponsors could be required to allocate all costs within each fund on an asset rather than a fixed-dollar-per-account basis.

Some commentators have expressed the concern that Q-funds might attract a disproportionate share of PRAs with relatively high dollar account balances, increasing the per account cost of SPIFs. One response might be to levy an asset-based charge on Q-funds and/or their sponsors to defray the cost of administering SPIFs. Likewise, to limit skimming of large accounts by Q-funds, it may be appropriate to require Q-funds to accept PRAs above some asset value.

Once again, we want to emphasize that this administrative structure

^{22.} This latter requirement would be particularly important if PRAs are funded from general revenues and those accounts are integrated in some manner with social security to address social security's funding shortfall.

provides Congress substantial flexibility in addressing numerous policy issues (e.g., bonding, insurance, and/or net-worth requirements applicable to the Q-fund and the sponsoring institution; limitations, if any, on permitted investments; age-based portfolio requirements; rules governing spousal rights; the protection of workers' assets from creditors' claims; and disclosure requirements). Thus, while we believe that it is possible to keep any such regulation to a minimum and that, to the extent possible, such regulation should be integrated with existing rules, the legislation authorizing Q-funds could impose whatever regulatory requirements Congress deems appropriate.

On the basis of industry experience with 401(k) and IRA accounts, Q-fund accounts should cost about \$15-\$25 annually, depending on the amount and kind of service provided (e.g., frequency of statements, frequency of free telephone inquiries, etc.). In the system that we describe here, such costs would be allocated on the basis of assets, not on a per account basis. We have suggested that each individual have only one account, but, if people are permitted to elect to have multiple Q-fund accounts with different financial institutions, they should bear the costs of such choices.

SPIFs and Q-Funds Together

Most of the commentators who have considered PRAs have proposed that all investments be made either through a simple investment vehicle (resembling our SPIF) or through privately run accounts (resembling our Q-fund). This naturally raises the question why both the SPIF and the Qfund options are desirable. In our judgment, the SPIF and Q-fund investment choices work together in important ways. Standing alone, each has the potential for problems that will be policed by the other if both options are made available. For example, the existence of the Q-fund alternative makes it more likely that the SPIF can be preserved as a simple, low-cost system with a limited selection of investment alternatives. It also reduces the risk—which a government-contracted fund standing alone entails that the SPIF will be used for political, social, or foreign policy purposes. At the same time, having the SPIF in place will keep pressure on Q-fund sponsors to minimize costs and marketing abuses of the sort that have plagued some PRA systems abroad while allowing Americans great independence and flexibility in their investment choices.²³ Likewise, having the SPIF in place will reduce pressure to impose detailed regulations on Qfunds (e.g., a requirement that all Q-fund sponsors offer SPIF-type funds; restrictions on fees). The balance provided by SPIFs and Q-funds together

^{23.} For example, the SPIF alternative may be the most effective deterrent to the marketing-cost concerns under the Chilean and U.K. systems.

makes the approach that we are suggesting preferable to a PRA system limited to either alternative standing alone.

Education and Error Correction

As we have suggested, giving the federal government primary responsibility for educating workers regarding all aspects of the PRA program, including basic information regarding eligible Q-funds, accomplishes a number of objectives. Most notably, it minimizes the burden on employers and helps assure uniformity and quality control. One approach would be to give primary responsibility to the SSA. The SSA would work with other federal agencies (e.g., the Departments of the Treasury and of Labor, the SEC, and the Federal Reserve) and have substantial latitude to contract out various activities to the private sector. Funding these efforts with general revenues seems appropriate. The nature of the program also makes it likely that a great deal of education would be provided at no cost to the program or the federal government and that a number of private nonprofit organizations will participate in educating the public (e.g., popular and specialized media; educational institutions; employers [on a volunteer basis]; sponsors of Q-funds).

As noted, there is a high level of accuracy associated with wage reporting and the issuance of tax refunds under current law. Nonetheless, in absolute terms, there are certain to be a sizable number of errors in the crediting of accounts and a significant number of inquiries regarding SPIF account-related matters.²⁴ One approach would be to give the SSA primary responsibility for handling these questions and resolving any account discrepancies. The SSA would work with other federal agencies (primarily, the IRS) and have substantial latitude to contract out various activities to the private sector. While both the IRS and the SSA have substantial call-site operations, the SSA may be better equipped to handle the likely range of inquiries (perhaps subcontracting with the IRS to handle certain calls). This approach also avoids concerns over the appearance of telling participants that they must resolve account issues with the IRS.

1.3.4 Distributions from PRAs

Policy Issues

As a preliminary matter, it is important to note that the rules governing distributions from PRAs pose difficult policy issues. For example, to what extent, if any, should beneficiaries be required to annuitize their PRAs on retirement? Among the options are that all PRA funds must be annuitized, that there be no mandatory annuitization requirements, that PRA funds must be annuitized to the extent necessary to provide some minimum in-

24. Account-related inquiries regarding Q-funds would be handled directly by those funds.

come level (when combined with other social security benefits), and that there be limited annuitization alternatives (e.g., for funding of joint-and-survivor long-term-care coverage).

If some type of annuitization is required, what form must those annuities take? Among the options are that annuities should provide benefits parallel to existing social security benefits (e.g., inflation adjusted; joint-and-survivor annuities, with reduced payments to the survivor); that benefits should parallel the qualified plan/IRA rules (account balance divided by life expectancy); and that there be a limited number of acceptable annuity alternatives (e.g., the ability to include other beneficiaries under joint-and-survivor annuities; no reduction in payments to survivor; varied payment streams; term certain, on early retirement).

When can workers first gain access to their PRAs? Among the options are the following: at the normal social security retirement age (or when they qualify for social security disability payments); whenever they first begin collecting social security benefits; at their election, any time after they first begin collecting social security benefits (i.e., permit continued accumulation); and before they begin collecting social security benefits if their PRA funds are sufficient to provide some minimum monthly payment (taking into account anticipated future social security benefits) (i.e., use PRAs to facilitate early retirement).

What will happen to PRA contributions on behalf of the several million individuals who continue working, and continue paying payroll taxes, after they begin collecting social security? If the worker continues to maintain a PRA, then his or her contributions would simply continue. If, however, the entire balance of the worker's PRA has already gone to purchase some form of annuity, his or her withholding could be reduced by an amount that would otherwise go to fund the worker's PRA (e.g., if PRAs are funded by an add-on or a carve-out), funding could stop for the worker's PRA (if PRAs are funded from general revenues), or the worker could be given a refundable tax credit equal to the amount added to his or her PRA (if PRAs are funded by a carve-out or from general revenues).

If PRAs are funded in whole or in part from general revenues and/or integrated in some way with social security, how should that integration be structured? Among the options are the mandatory annuitization of PRAs, with a partial offset against payments otherwise due under social security, or the lump-sum transfer of a specified portion of PRA balances to social security on the death, disability, or retirement of the worker.

To some degree, the answers to these questions will depend on how PRAs are funded. As before, however, the goals of implementing any of these policy decisions will be to promote fairness, to keep administrative costs to a minimum, and to devise a system that the American people can easily understand. We discuss the options below.

SSA-Sponsored Annuity Option

Under this alternative, a worker's PRA funds would be transferred to social security when the worker first begins receiving social security benefits. The amount of the worker's and survivor's social security benefits would be increased on the basis of the value of the worker's PRA. In other words, the government would decide what amount of annuity to pay for a given PRA accumulation. The primary virtue of this alternative is its simplicity. From the worker's perspective, it requires no choices or decisions. The worker will receive only one monthly payment and will deal with only one party making payments (the SSA). From the government's perspective, the only additional administrative costs occur at the outset: collecting the PRA funds and making the appropriate adjustment to social security payments.

Social security could implement this alternative by contracting out all aspects of the program (other than processing beneficiary payments) to the private sector, with the private sector setting the annuity amount (with indexing for inflation) and thereby bearing investment and mortality risks. We believe that contracting out is a better alternative than social security directly administering PRA-funded annuities. For example, what return would the government assume on the funds that it received from the worker's PRA—and would the government be permitted to invest those funds in the same way that private insurers invest premiums? Given the relatively long period of retirement that workers can now be expected to enjoy, depriving them of equity market returns during this entire period seems inconsistent with one key purpose of enacting PRAs in the first place: expanding low- and moderate-income workers' access to capital markets. Who would bear the risks if the government underprices its annuity (taxpayers or beneficiaries?), and what mechanism would be used to implement the allocation of risks? What effect, if any, would this role for the government have on the private annuities market?

Contracting out to the private sector under rules that protect against companies segmenting longevity risks permits the market to resolve the pricing issues and avoids any potential adverse effect of a government-run system on the private annuities market. The government's role would be limited to setting appropriate annuity specifications, processing payments, and regulating and supervising the private-sector financial institutions responsible for the program.

In this regard, it is important to note that a market structure is already in place to implement this system. Thus, for example, most defined-contribution plans offer annuity options that are provided by insurance carriers (rather than the plan itself).²⁵

^{25.} For more extensive discussion, see Poterba and Warshawsky (chap. 5 in this volume).

Private Market Annuity Options

Workers and their beneficiaries could also be permitted to purchase private annuity options so long as problems of adverse selection and risk segmentation are addressed. Permitting individual workers and their beneficiaries to avail themselves of the wider range of annuity alternatives available from the private sector offers several advantages. For example, a family may prefer a joint-and-survivor annuity with a pattern of payments that differs from the SSA-sponsored model, a family may prefer annuity payments that cover a disabled child or elderly parents, or a worker may want to retire early with a "retirement-gap" annuity that runs for a term of years, until social security benefits begin. By allowing workers to take advantage of private-sector options, it will be possible to maintain an SSA-sponsored annuity option as a simple, low-cost, easy-to-understand alternative.

It would be necessary to regulate the institutions offering private market annuities in exchange for PRA balances with regard to segmentation of longevity risks, safety and soundness, and disclosure. ²⁶ Because insurance has been regulated historically at the state level, there is no existing federal regime to regulate annuities. For this reason, a threshold decision is whether to rely on the existing state-based structure, create a new federal structure, or create a hybrid system of federal standards for qualifying annuities, enforced by the states.

It is also important that administrative costs of private annuities be kept to a minimum and allocated fairly. As with the PRAs themselves, we believe that this means that the costs of the SSA-sponsored annuities should be allocated on the basis of asset size rather than on a per account basis. Because the administrative costs of individual annuities may be as much as 5–10 percent of the purchase price (even without premiums for adverse selection), we believe that it is appropriate for retirees who choose to purchase such annuities to bear these costs themselves.

1.4 Conclusion

Two conclusions emerge from the foregoing. First, any system of PRAs will have to resolve many difficult policy questions. The most fundamental are, Should federal retirement policy move in the direction of universal PRAs? How should personal retirement accounts be funded (as a carve-out from payroll taxes, from mandatory additional contributions, or from general revenues)? What rules should govern distributions from PRAs?

^{26.} Likewise, as noted above, policy considerations may place constraints on the types of annuities that can be offered. It may be appropriate to impose some kind of minimum guarantee requirement on participating carriers to deal with credit and performance risks.

Second, regardless of how these *policy* questions are answered, institutions and mechanisms already exist that make it feasible to introduce PRAs in a way that minimizes administrative costs, distributes those costs fairly and reasonably, imposes little or no incremental burden on employers, is easy to explain and easy to understand, and meets the expectations of everyday Americans for simplicity, security, independence, and control.

We believe that the system that we have outlined above meets these criteria. There are no doubt other ways in which a system of PRAs might be implemented. However, most of the alternatives suggested to date impose greater burdens on employers than does the system that we have outlined here because they give employers responsibility for transferring their employees' funds directly into investment funds and require employers to provide information about investment choices to their employees. These are burdens that we have endeavored to avoid. There are also many possible variations on the themes that we have outlined here. For example, some have suggested that—rather than permitting direct transfers of funds into Q-funds, as we have suggested here—all funds should move directly into SPIFs, with rollovers permitted only after some period of time or after the individual's PRA balance has reached some threshold amount. We do not view such a limitation as necessary, but, to be sure, this is the kind of issue over which reasonable people may differ.

The plan for implementing PRAs that we have offered here will work no matter how various policy questions are decided. It will work however PRAs are financed, whether from existing payroll taxes, from general revenues, or through new mandated savings; whether PRAs are mandatory or voluntary; whether PRAs are integrated with social security benefits or not; whatever the regime of spousal rights; and whether or not distributions are required to be annuitized. And it will work at reasonable administrative costs with those costs allocated fairly among beneficiaries.

Building on existing public and private systems and existing regulatory structures—as the approach that we have described here does—minimizes start-up costs and makes it more likely that the program can be implemented relatively quickly and smoothly. This approach also takes advantage of the fact that administrative, market, and regulatory systems are dynamic; they tend to change in response to changed incentives. The system that we have described creates incentives that are likely to improve current practices in a variety of areas. For example, all the affected participants (workers, employers, the IRS, the FMS, and the SSA) will be motivated to improve the timeliness and accuracy of W-2 reporting and the filing and processing of income-tax returns. In turn, these improvements will benefit workers, employers, and the government in ways that go well beyond PRAs. Other areas where improvements are likely include increased financial literacy among workers and beneficiaries, growth and flexibility in the annuities markets, and, perhaps, unification and simplifi-

cation of the regime for regulating financial intermediaries. Moreover, while the PRA program would encourage additional investment in technology and improving a variety of administrative operations, those additional investments are not a prerequisite for the effective implementation of PRAs.

Our key point is simply this: if PRAs are wise public policy, they can be implemented at a reasonable cost in a manner that imposes relatively little stress on existing public and private institutions.

To put the administrative challenge of PRAs in context, it is worth recalling what the world was like when social security itself was introduced in 1935. There were no social security numbers. Many Americans did not have a telephone. There were no computers—all records were maintained on paper; all information was entered by hand; all correspondence was sent and delivered by mail; there was no computer-based financial infrastructure. Implementing social security under these conditions was hard; by comparison, implementing PRAs today would be easy. While there are difficult administrative issues regarding PRAs, they are not insurmountable. Administrative concerns should not become an excuse for not implementing PRAs—the only question is whether PRAs are good policy.

Appendix A

Background on PRAs in Foreign Countries

Australia

The Australian retirement-income system is a two-pillar model. The first pillar provides a flat-rate, means-tested pension known as the age pension. The second pillar is the private retirement provision and mandates compulsory concessionally taxed saving for retirement through an employment-based system known as the superannuation guarantee (SG). The SG is a compulsory, occupation-based, defined-contribution superannuation system. Under the SG, employers are required to make on behalf of their employees prescribed minimum contributions to complying superannuation funds, or PRAs. By 2002, this minimum contribution will be 9 percent of employee earnings. Employees also contribute 3 percent of their earnings to the superannuation funds, and the government can make contributions of as much as 3 percent of pay for lower-paid employees.

Unlike the Chilean or the Latin American model, the key feature of the Australian model is the fact that, rather than having individual accounts with individual choice, the employer and/or union trustees choose the investment manager for the company or the occupation group as a whole. Superannuation funds are managed by professionals in the financial ser-

vice industry. The superannuation system has only one fund per employer, but workers still have a choice of investment because each fund offers several investment options. Superannuation funds operate as trusts, with the trustees being solely responsible for the prudential operation of their funds and for formulating and implementing an investment strategy. Superannuation funds face few investment restrictions; there are no asset requirements or floors, no minimum rate-of-return requirements, and no government guarantee of benefits. The prudential regulation of the superannuation system is currently the responsibility of the Insurance and Superannuation Commission.

Chile

Chile replaced social insurance with individual funded pensions in the early 1980s. Under Chile's pension savings account (PSA) system, neither the worker nor the employer pays a social security tax to the state. Nor does the worker collect a government-funded pension. Instead, during his working life, he automatically has 10 percent of his wages deposited by his employer each month in his own, individual PSA. This percentage applies only to the first \$22,000 of annual income. A worker may also voluntarily make additional tax-deductible contributions of up to 10 percent of wages.

A worker chooses one of the twenty-one private pension fund administration companies (administradoras de fondos de pensiones, or AFPs) to manage his PSA. The companies were specifically created for this purpose and are not allowed to engage in other business or financial activities. They are also subject to government regulation intended to guarantee a diversified and low-risk portfolio and to prevent theft or fraud. A separate government entity, a highly technical "AFP Superintendency," provides oversight of these companies.

Each AFP operates the equivalent of a mutual fund that invests in stocks and bonds. Investment decisions are made by the AFP. Government regulation sets only maximum percentage limits both for specific types of instruments and for the overall mix of the portfolio, and the spirit of the reform is that those regulations should be reduced constantly with the passage of time and as the AFP companies gain experience. The AFPs are under no obligation to invest in government or any other type of bond. Legally, the AFP company and the mutual fund that it administers are two separate entities. Thus, should an AFP go under, the assets of the mutual fund—that is, the workers' investments—should not be affected.

Workers are free to change from one AFP company to another on short notice. Each worker is given a PSA passbook and every three months receives a regular statement informing him how much money has been accumulated in his retirement account and how well his investment fund has performed.

The Chilean PSA system includes both private- and public-sector employees. All employed workers, with the exception of members of the police and armed forces, must have a PSA. Self-employed workers may enter the system at their option.

A worker who has contributed for at least twenty years but whose pension fund, on his reaching retirement age, is below the legally defined minimum pension receives benefits from the state once his PSA has been depleted. The PSA system also includes insurance against premature death and disability. Each AFP provides this service to its clients by purchasing group life and disability coverage from private life insurance companies.

Sweden

Sweden's social security system, known as a "notional account" system, is a pay-as-you-go, defined-contribution system. Workers have individual accounts and passbooks that show accumulations and interest on accumulations, but, in reality, there is no money in the accounts; it is notional. The defined-contribution scheme has a rate of 18.5 percent shared equally between employees and employers.

A small funded component to the system allows employees to allocate 2.5 percent of their pension contributions to either a new pension fund, a new state-owned investment company, or an approved private investment fund. Collection and record keeping for the funded component will be centralized, and workers will choose the investment manager from a list of mutual funds. A guaranteed pension acts as a safety net at the bottom of the income scale.

United Kingdom

The U.K. model is similar to the Australian model. It is a two-tiered pension system that is funded on a pay-as-you-go basis. The first component of the system is a flat-rate pension whereby both employees and employers contribute a fraction of the employees' earnings to the system. Employees receive the full flat-rate benefit under the first tier of the system if they contribute to the system for the required number of qualifying years. The second tier of the system is the supplemental earnings-related pension scheme (SERPS), which provides benefits on a supplemental basis.

In the 1980s, employees were given the option of contracting out of the SERPS and taking a cut in their payroll tax of approximately 4.6 percent of their earnings and investing it in a private retirement account. In general, in order to opt out, employees must receive a private, earnings-related pension at least as high as the pension that they would have received had they fully participated in SERPS. Those who exercise the personal pension account option forgo their SERPS benefits. Britain allows only qualified institutions to accept and manage deposits made to personal pension ac-

counts. At present, at least seventeen hundred mutual funds and investment funds can accept deposits. The system also places restrictions on the riskiness of investments, limiting the funds from investing more than 15 percent of their assets in commodities, futures, or options.

Appendix B

Table 1B.1 Sample Average Total Expenses from Selected Types of Mutual Funds

Fund Category	Average Total Expenses	Fund Category	Average Total Expenses
Growth	1.055	Capital appreciation	1.103
Growth and income	0.832	High current yield	1.119
International	1.197	Municipal debt	0.742
Balanced	0.869	Investment grade debt	0.748
Equity income	0.803	Flexible portfolio	1.213
Small cap	1.309	GNMA	0.699
Mid cap	1.174	A-rated	0.797
Global	1.243	California municipal debt	0.702
S&P 500	0.229	U.S. government	1.131

Source: Authors' calculations from Lipper Analytical Services (1997).

Note: GNMA = Government Natural Mortgage Association.

Appendix C

Regulation of Financial Institutions

The banking, securities, and insurance companies that could offer Q-funds presently are subject to extensive regulation and oversight by federal and/or state regulators as well as self-regulatory organizations. The comparison shown in table 1C.1 and the brief discussions that follow provide an overview of the breadth and depth of the supervisory and regulatory framework governing insurance, banking, and securities businesses.

Banking

All depository institutions insured by the FDIC, including national banks, state-chartered banks, federally and state-chartered thrift institutions, and credit unions, are subject to comprehensive federal regulation, supervision, and examination by their appropriate regulators. The appro-

Table 1C.1 Financial Institution	l Institution Regulation			
Regulation	Banking	Insurance	Securities	
Capital adequacy	✓	√	✓	
Transactions with affiliates	✓	\checkmark	✓	
Safety and soundness	✓	✓	✓	
Examination	✓	\checkmark	✓	
Record keeping	✓	\checkmark	✓	
Nondiscrimination and fair dealing	\checkmark	\checkmark	✓	

priate regulators include the Office of the Comptroller of the Currency in the case of national banks; the FDIC and the Board of Governors of the Federal Reserve System in the case of state nonmember and member banks, respectively; the Office of Thrift Supervision for federal and state thrift institutions; the National Credit Union Administration for credit unions; and various state regulators in the case of state-chartered institutions. The operations and financial condition of these institutions are subject to extensive regulation and supervision and to various requirements and restrictions under federal law, including requirements governing capital adequacy (tier 1 and total risk-based capital requirements as well as a "leverage" capital requirement based on the ratio of tier 1 capital to total assets), activities and investments, bank transactions with affiliates, dividends, management practices, record keeping, and "year 2000" compliance. Insured depository institutions file annual, quarterly, monthly, and other reports with their regulators, which also perform on-site examinations. Federal and state regulators have broad enforcement authority over insured depository institutions, including the power to impose substantial fines and other civil penalties.

Securities

Broker-Dealers and Investment-Management Companies

These companies are regulated, supervised, and examined by the SEC, the Commodities Futures Trading Commission, and/or self-regulatory organizations, including the National Association of Securities Dealers (NASD), a registered securities association, and various national securities exchanges. In accordance with section 15(b) of the Securities Exchange Act of 1934, broker-dealers are members of the NASD and of various securities exchanges. Pursuant to delegated authority from the SEC, the NASD and the exchanges enforce the substantive Securities Exchange Act rules and provide compliance oversight of the broker-dealer's activities.

Mutual Funds

Mutual funds are regulated, supervised, and examined by the SEC under the Investment Company Act of 1940, as amended, and other federal securities laws. In addition, their major service providers are regulated, supervised, and examined by the SEC, the Commodities Futures Trading Commission, and/or self-regulatory organizations such as the NASD and various national securities exchanges. The 1940 act regulates, among other things, the amount of financial leverage that mutual funds may use, portfolio liquidity, investor redemption rights, record keeping, mutual fund disclosure and advertising practices, fees, and transactions among a mutual fund and its affiliates. Mutual funds file reports with the SEC semiannually and maintain continuously updated registrations for the sale of shares under the Securities Act of 1933, as amended. The SEC has extensive enforcement authority over mutual funds and their major service providers, including the power to impose substantial fines and other civil penalties, prohibiting violators from continued activities in the securities industry, and referral to the Justice Department for criminal proceedings.

Insurance

Insurance companies are regulated, supervised, and examined by state insurance regulators. The primary regulator for a company is generally the state in which it is domiciled, although there is an element of extraterritorial application of investment and other insurance laws to companies not domiciled in a state. The National Association of Insurance Commissioners (NAIC) promulgates model laws and regulations that are generally followed by the state insurance departments. These include a formula and a model law to implement risk-based capital requirements for life insurance companies and property and casualty insurance companies that are used as early warning tools by the NAIC and state regulatory agencies to identify insurance companies that merit further regulatory action. Insurance companies are also subject to various state statutory and regulatory restrictions on the amount of dividends or distributions that they can make to their stockholders as well as an extensive legislative and regulatory regime with respect to investment practices, strategies, and procedures. The state insurance regulatory system incorporates tools to audit each insurance company domiciled within that state to determine that the insurance company is observing regulations regarding solvency, risk-based capital requirements, and dividend and investment restrictions. In addition, individual products are reviewed by state regulators as to both forms and rates, and market-conduct examinations are utilized by state regulators to ensure that all the consumer-protection regulations governing products, prices, sales, advertising, agent licensing, claim handling, and

fraud detection are strictly observed by any insurance company selling life or property-casualty insurance products in the state.

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Comment Gloria M. Grandolini

The experience of the countries that have moved to some version of personal retirement accounts (PRAs) shows that, as noted by Fred Goldberg and Michael Graetz, during the design phase most of the effort is focused on policies and politics. The mechanics and administration of the reformed system are dealt with during the implementation phase. Often, this approach has led to delays in the implementation of or to extensive fine-

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tuning of the initial design. Detailing as they do the mechanics of implementing and administering PRAs as part of social security reform in the United States, Goldberg and Graetz provide an important contribution to the debate.

The authors focus on three fundamental administrative functions: collecting and crediting funds to individual accounts; investing funds on behalf of individual participants; and distributing funds. As noted by the authors, the most important feature of the proposed scheme is size—a very large number of accounts, the majority of them with very small amounts. These characteristics are shared by the PRA systems implemented in several Latin American countries. Establishing the mechanisms for funding the PRAs and for distributing funds from the PRAs would appear to be a less daunting task in the United States than it has been in Latin America. In the funding phase, the United States already has in place a system for wage reporting as well as payroll-tax and income-tax systems. For the distribution phase, the United States has a developed private insurance industry to provide the annuity alternatives.

This commentary focuses on the investment-management phase. It summarizes the key lessons learned and challenges ahead deriving from the practical experiences of those Latin American countries that have implemented a pension scheme based on privately managed individual accounts (see Grandolini and Cerda 1998; and "Latin American Pension Systems" 1998).

Any PRA system must be practical and workable, but its ultimate objective is to maximize returns. To achieve this objective, four general themes are highlighted by the Latin American experience. First is the *critical importance of good governance* to establish the proper balance of accountabilities and ensure the most appropriate overall investment strategy. The importance of educating the members of the oversight committee, given their key role in setting investment policy, must also be emphasized. In fact, finance theory, historical data, and empirical studies stress the critical importance of the investment-policy-setting process, particularly the assetallocation decision. Approximately 90 percent of investment performance appears to result from the asset-class decision and the policy weights assigned to each eligible asset class. In U.S. plans, the trend is toward increasing allocation to riskier assets (i.e., equities) and toward more sophisticated choices for individual investors within 401(k)s.

Second, on the theory and practice of strategic asset allocation and risk management, one critical—and often overlooked—fact is that the investment- and funding-policy process for defined-benefit (DB) and defined-contribution (DC) plans is the same. DC plans also have a target replacement rate—albeit implicit and intermediate. This remains true even if the ownership of the liability is different—the sponsor in DB plans and the individual in DC schemes. In terms of risk management, the focus

should be on the liability structure. The probability of not achieving the desired ratio of assets to liabilities is the most important risk for both schemes. Hence, even within a DC environment—which is the overall direction of the Latin American pension reforms—the risk of the plan should not be analyzed only in terms of the volatility of asset returns.

Third, in terms of performance management, two areas are key. The importance of setting appropriate benchmarks for asset and risk management and the need to focus on after-fee returns and increase the use of decision-based performance-attribution analysis. Finally, regarding the optimal degree of flexibility of investment guidelines, in the Latin American context there appears to be a consensus that, in the initial stages of a pension reform shifting to private management of mandatory social security contributions, it is appropriate to implement limited portfolio choices—particularly in terms of exposure to equities and foreign securities. However, there also seems to be agreement that these constraints should be relaxed and investment choices expanded as participants' financial education increases.

The main challenges in the investment-management area currently faced by PRAs in the Latin American context include the following seven policy themes, several of which appear to be relevant for the design of a practical and workable system of PRAs in the United States as well, a system that can also deliver appropriate after-fee returns: strengthening of the governance structure of the reformed systems; bringing to the forefront of the debate the most appropriate division of labor in setting the strategic asset allocation among the regulators, the investmentmanagement industry, and the affiliates; ensuring the continued flexibility of the regulatory system to ensure timely response to changing market conditions, particularly, deemphasizing maximum and minimum investment limits, expanding eligible asset classes, and allowing/increasing diversification in foreign securities; developing performance-presentation standards (incorporating risk and not focusing only on return); reducing the administrative costs of the system; continuing efforts at enhancing disclosure; and focusing on the education of the participants in the system (both those in charge of oversight and the individual affiliates), particularly in the areas of risk and the need for a longer-term horizon in decision making and in judging performance.

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