Sweden's new multipillar pension system includes a system of mandatory fully funded individual accounts. The Swedish system offers contributors more than 600 fund options from a variety of private-sector fund managers. However, in the most recent rounds of fund choice, more than 90 percent of new labor market entrants have not made an active choice of funds and thus have ended up in a government-sponsored default fund.

The Swedish system offers a number of lessons about implementing a mandatory individual account tier. Centralized administration keeps administrative costs down but requires considerable lead time. A very large number of fund options are likely to be offered unless strong entry barriers are in place. Engaging new labor market entrants in fund choice is likely to be difficult. A significant percentage of those making an active fund choice may choose funds that are very specialized and risky. Finally, special care must be devoted to designing a default fund and continual consumer communication.

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Design and Implementation Issues in Swedish Individual Pension Accounts

by R. Kent Weaver

Summary

Some form of individual accounts remains one of the primary options for restructuring the Old-Age and Survivors Insurance program, more commonly known as Social Security. The President's Commission to Strengthen Social Security recommended adding an individual accounts component as a partial opt-out in the Social Security system, although they suggested several options rather than a single proposal.

Individual accounts pose a number of important and complex design and implementation issues, however.

- Who should administer the collection of contributions?
- How active a role should government play in certifying or regulating fund options?
- How active and risky an investment policy should qualifying funds be allowed to pursue?
- Should any restrictions be placed on foreign investment by fund managers?
- Particularly where individual accounts are mandatory rather than optional, what should be done about those contributors who, for whatever reason, do not choose a fund manager?
- Should a fund for nonchoosers minimize risk, or should it stress high (but riskier) returns to ensure a more adequate retirement benefit?

As the debate on Social Security reform continues in the United States, much can be learned from the experience of Sweden, which added an individual accounts tier to its public pension system in the late 1990s. The Swedish system of individual accounts, called the premium pension, is quite distinctive in its design: 2.5 percent of payroll is deposited into an account managed by a fund manager chosen by employees from a list of funds approved by the new Premium Pension Authority. In the initial round of sign-ups, workers could choose from 465 approved funds listed in Premium Pension Authority's fund catalog and were allowed to place their contributions into up to five different funds.

The new pension system that Sweden put in place in the late 1990s offers a possible model for a mandatory individual accounts pension tier that combines cost-lowering centralized account administration for collection of contributions, switching of funds, and communication and reporting to account holders with a very wide range of fund choice for individual contributors and decentralized and predominantly private management of individual funds. This article examines the Swedish experience and lessons learned about the challenges in the design and implementation that are likely to arise in such a system.

Background to Reform

Sweden has one of the oldest and most comprehensive public pension systems in the world. The state is clearly the dominant pension provider: in 1991, Swedes aged 66 and older received an average of 84.1 percent of their pension income from the state pension system, compared with only 13.5 percent from an occupational pension and 2.3 percent from a private pension.[1] The pension system is the largest government spending program. Pension spending increased from 4.3 percent of gross domestic product (GDP) in 1965 to 12.2 percent in 1992.

Before the reforms enacted in the 1990s, Sweden's pension system consisted of a flat-rate basic pension and the national supplementary earnings-related pension, known as ATP. The universal flat-rate tier operated on a pay-as-you-go basis, and the earnings-related tier was partially prefunded. Both tiers were financed largely by earmarked employer contributions. The system was designed so that the earnings-related pension would provide an average production worker with a replacement rate of 60 percent of income for the best 15 years of at least 30 years of labor market participation. Those above the system's benefit and contribution ceiling received no additional benefits for those earnings (Palme and Svensson 1999, 360–361). In addition to the flat-rate basic and earnings-related pensions, a *pension supplement* equal to roughly half of the basic pension was available to individuals whose earnings-related benefits were very low. The pension supplement provided an income floor that, in combination with the other two tiers, moved almost all seniors in Sweden above poverty.

The Swedish public pension system enjoyed widespread popularity. By the 1980s, however, several problems with the system were becoming evident, including increasing funding deficits in the universal and earnings-related pension tiers, a low (and price-indexed) benefit ceiling in the earnings-related pension that was gradually compressing benefits as real earnings rose, and a benefit structure that disproportionately benefited workers with rising earnings profiles and relatively short work histories, because it was based on the best 15 years of earnings (Anderson 1998; Palmer 2002, 186). Critics of the Swedish welfare state, notably the Swedish Employer's Federation, also criticized the pension system as being part of an overall welfare state that harmed Swedish competitiveness through very high payroll taxes, lowered national savings, and reduced work incentives, especially for older workers (Svenska Arbetsgivareföreningen 1991).

The New Swedish Pension System

The new Swedish pension system is intended to achieve a number of goals simultaneously, including a permanent stabilization of the payroll tax rate for pension contributions, a tighter linkage between contributions and benefits in the social insurance component of pensions, improved incentives to work longer, and a separation of social insurance and income maintenance functions of the pension system. It makes a number of fundamental changes in pensions.[2] The old flat-rate basic pension, which was mostly financed by payroll taxes but had very little linkage between contributions and benefits, was merged with the earnings-related pension to form a new *income pension* based on notional defined contribution (NDC) principles. The link between pension contributions and benefits is tightened considerably, by counting all contributions made over the course of an individual's working life, including contributions made by the Swedish state on an individual's behalf during periods of military service, child rearing, and education, as well as time spent in disability and receiving unemployment and sickness benefits.[3] The monthly benefit is calculated using gender-neutral life expectancy rates at the time that the person begins receiving benefits, thereby giving workers an incentive to work longer so that they can receive higher pension benefits.

Redistribution across cohorts and across individuals within cohorts is also supposed to end in the income pension system, with each age cohort receiving a total payout from the income pension equal to contributions of the cohort plus a return on those contributions that is tied to economic growth. Each individual within a specific cohort will receive a share of the total payout available to the individual's cohort that is equivalent to the individual's share of the total contributions for the cohort.[4] Individuals can start receiving retirement benefits at any age beginning at 61, with no upper limit.[5] The income pension is financed entirely by a fixed 16 percent payroll tax. It will be operated largely on a pay-as-you-go basis rather than a funded basis, thus avoiding the double payment problem encountered with trying to move to advanced funding. As in the current system, however, "buffer" funds will help to even out demographic peaks and valleys.

Sweden's new pension system also includes a new guarantee pension receivable at the age of 65 that provides minimum income support for workers with low lifetime earnings. The guarantee pension performs the redistributive functions carried out by the flat-rate pension and pension supplement under the old Swedish pension system. It will be financed entirely by general government revenues and income tested against other public pension income.

The new premium pension component of the pension system, which offers an individual accounts pension tier, is intended to help stabilize overall replacement rates as they decline in conjunction with the transition from the old defined benefit pension system to the new NDC-based income pension. Of the total 18.5 percent payroll tax for pension contributions, 2.5 percent will be placed in an individual investment fund that will operate on a defined contribution basis. Individuals were promised a wide variety of fund choices. To lower administrative costs—and especially the administrative burden on employers—tallying of premium pension contributions and fund choices are centrally administered by a new government agency (Premiepensionsmyndigheten, or PPM), and deposits into pension funds are made only once a year, after complete wage records for a calendar year are available from the state tax authorities and the National Social Insurance Board. Of course, this also means that there is a long time between when contributions are earned and when they are credited to accounts—up to 16 months. In the period before contributions are available to individuals for investment, they earn interest equal to the rate of return on government bonds.

Social organizations, notably the blue-collar labor confederation (Landsorganisationen i Sverige, or LO), can partner with fund companies in offering fund choices. Swedes can change their fund allocations as often as they want without charge, but the system is not designed to facilitate day trading. Fund switches often take 3 to 5 days, with foreign-based funds frequently taking the longest time to change (Eriksson 2004). When individuals decide to start drawing their premium pension, they are offered a choice between converting their pension fund balances into a full annuity and what Swedes call *flexible annuitization*—whereby individuals leave their funds invested and draw down a share of those funds according to their gender-neutral life expectancy. Lump-sum withdrawals of premium pension funds are not permitted.

The planners of the new pension system recognized that many workers might not make an active choice of pension funds. Therefore, they created a Seventh Swedish National Pension Fund (Sjunde AP-fonden, or Seventh AP Fund, or AP7 for short) to offer a default fund, called the Premium Savings Fund (Premiesparfonden), for those who do not choose a fund or simply prefer to have the government invest for them. The Seventh AP Fund also offers a Premium Choice Fund (Premievalfonden) for active choosers who want the combination of a state-linked fund and a more equities-heavy portfolio than the Premium Savings Fund. A quasi-state default fund was accepted reluctantly by Sweden's non–Social Democratic parties, who wanted to limit the role of the state in the premium pension system (and, in general, the economy). Special rules imposed on the default fund reflect these concerns. Individuals cannot actively opt for the Premium Savings Fund for all or part of their funds; they can only get it by not making any active choice. Moreover, the default fund is not allowed to market itself to potential customers, and persons who opt out of the Premium Savings Fund are not allowed to opt back in. In addition, the default fund's shares are not to be voted on any issues that companies bring to their shareholders.

Sweden's new pension system is designed to be transparent; individuals receive an annual statement about the size of their projected pensions from the income pension and individual account (premium pension) tiers, as well as from the guarantee pension, where applicable. Predicted benefits are given under several different economic scenarios regarding retirement age and overall performance of the Swedish economy.[6] Thus, workers are provided with increased information about their future pensions that they can use in making retirement and savings decisions. However, they also face increased uncertainty because their pensions depend on economic and demographic developments over which they have no control.

The transition to the new system will take place over a 16-year period. Workers born in 1937 and earlier will have their pension benefit determined entirely in the old ATP system, and workers born in 1954 and later will be entirely in the new system. For the intermediate group, an increasing share of pension rights will be determined under the new system.[7] Thus, current and soon-to-be retirees are protected from cutbacks that will accompany the shift to the new income pension system. But all workers born after 1936 now contribute to the individual account system.

System Administration and Costs

Individuals with premium pension accounts can obtain information about their accounts and make changes in their allocation of funds by telephone, through the PPM's Web site, or by mail. Several factors help to keep the costs of the Swedish individual account system low: centralized management, an automated administration process, bulk trading of fund switches, and once-a-year transfer of funds into accounts. Because of centralization and automation as well as a lower-than-anticipated rate of individuals changing funds, PPM has been able to work with a workforce of about 200 employees. PPM's administrative costs in 2004 were about SEK41 (kronor), or roughly US$6, per premium pension account holder.

In addition, account holders pay an annual fee to fund managers. Fund management companies must agree to pay a rebate to PPM of their usual fees, with funds that have larger shares of PPM account funds paying a larger rebate.[8] In 2002, 0.3 percent was deducted from premium pension accounts to pay the costs of PPM administration. This was lowered to 0.27 percent in 2004, and PPM's goal is to get its charges down to 0.1 percent within 15 years (Eriksson 2004). In addition to PPM administrative fees, individual fund managers charged an average of 0.44 percent in 2002. The National Social Insurance Board (2003, 33) estimated that if the levels of charges in 2002 remained stable over time, pensions would be 22 percent lower than they would be in a system with no charges for administration or fund management. However, administrative costs per account holder in the premium pension system should fall and rebates to the PPM from fund managers should rise as the system matures: for a new entrant when the system is mature, total PPM administrative costs plus fund management costs are predicted to be only 0.25 percent annually, lowering the value of PPM pensions a total of 9 percent compared with a system of zero charges.

Fund Entry Restrictions and Costs

Designing and implementing the system for premium pension individual accounts was a complicated task, technically and politically. Sweden deliberately chose a policy that would allow a very broad array of fund choices (Cronqvist and Thaler 2004). Sweden allows the entry of any fund that (1) meets the directives of the European Union on portfolio diversification, with special exemptions allowing Swedish equity funds to qualify, despite the heavy concentration of the Stockholm stock exchange in only a few issues, notably Ericsson, the telecommunications company; (2) agrees to give fee rebates to the Premium Pension Authority; and (3) agrees to allow contributors the right to change funds as often as they like without charges, although the actual trading is done in bulk by the Premium Pension Authority (James, Smalhout, and Vittas 2001, 291–296). However, PPM sets a limit of 25 funds per fund company or 50 per related group of companies. The original limits were lower but were raised when two Swedish fund providers combined their operations.

In the absence of significant entry barriers for investment funds, individuals have faced an overwhelming array of fund choices. In the first round of choosing a fund in the fall of 2000, which involved approximately 4 million potential fund choosers on the basis of their contributions made during the period from 1995 through 1998, individuals had to choose from a staggering array of 465 funds. In 2001, for the second round (primarily for new labor market entrants), the number of funds increased to 558, with a further increase to 625 in the third round in 2002 and to 648 in 2003. The fund catalog in 2004 listed 664 funds offered by 39 Swedish and 47 foreign fund managers.

In its catalog of funds, the Premium Pension Authority divides the funds into several categories and subcategories. In 2002, for example, the 625 fund options included 45 Swedish equity funds, 259 regional and global equity funds, 51 country equity funds (for example, Japan and the United Kingdom), 72 funds that focused on specific sectors such as technology and communications and pharmaceuticals, 54 *mixed* funds that combined equities and interest-bearing securities, 42 *generation* funds that offered differing mixes of equities and interest-bearing securities depending on the number of years to retirement, and 102 funds concentrated in interest-bearing securities (Table 1). Within these categories, funds offered a variety of special features, such as active versus index-based management, ethical investment criteria, and more or less aggressive growth strategies.

A critical set of issues in implementing the new premium pension is how to encourage individuals contributing to the system to make a choice or multiple choices among funds and what to do with the contributions of individuals who did not choose. Given the staggering array of potential choices facing contributors, the Premium Pension Authority tries to distribute at least minimal information about the funds available to potential contributors. In each round, it has published and sent to new entrants to the system a very detailed booklet on how to go about making fund choices, as well as a catalog listing all funds (broken down into categories and subcategories), a very brief description of each fund, the fund's total capital, fund management charges, fund returns during each of the past 5 years as well as a total for a 5-year return (where applicable), and a measure of fund risk, that is, variability in a fund's return during the past 3 years (PPM 2003b).

Table 1.
Number of pension funds available in Sweden's premium pension system in 2002 and 2003, by type of fund

Type of fund	2002	2003
All funds	625	648
Equity		
Swedish	45	56
Regional and world	259	259
Country	51	51
Sector	72	72
Mixed	54	56
Generation	42	39
Interest-bearing	102	107

SOURCES: Premium Pension Authority [PPM] (2002b, 2003b).

Choice and Nonchoice in the Initial Round

Recent studies suggest several arguments about whether individuals will actively choose their pension funds when a default option is available. Overall, the factors likely to influence whether individuals actively choose their funds can be divided into two groups: characteristics of the individuals (for example, familiarity with financial markets, length of time until retirement, gender) and characteristics of the choice situation (desirability of the default option, complexity and information costs associated with active choice, availability of information, and *priming* to choose). Choi and colleagues (2002) in their study suggest that most individuals are likely to stay with the default option when it is available. Tversky and Safir (1992) have argued more generally that more complex decisions are more likely to lead to a delay in making decisions and thus to the choice of the default option. Madrian and Shea (2001), in analyzing choices in 401(k) plans in the United States, find that women are more likely than are men to choose the default option.

The availability of data from the first five rounds of PPM choice facilitates an assessment of these hypotheses. Interest in the first round of fund choice in the fall of 2000 was unusually high, in part because the amounts of money were relatively large, since 4 years of accrued contributions (from 1995 to 1998) were to be allocated. Moreover, a substantial media campaign was mounted not only by the government's new Premium Pension Authority but also by many fund companies, which were calculating that once individuals had made their choices, they were likely to stick with them and thus with the company managing the funds. Nevertheless, only about two-thirds of those eligible to choose a fund did so in the initial round in the fall of 2000.

Initial data released by PPM showed that women were slightly more likely than were men to make an active choice in 2000. In addition, two other groups were somewhat less likely to choose: the youngest (aged 18 to 22) and oldest (58 to 62), both of whom presumably felt the least stake in making an active fund choice—the former because they would be working a long time until retirement and the latter because their total fund size would be small and thus would not make up a substantial part of their retirement pension. Nevertheless, rates of active choice among these groups were close to 60 percent in the 2000 round.

A recent study by Engström and Westerberg (2003), which matched Swedish government data with records from the initial round of premium pension fund choice, provides a rich body of data to examine hypotheses about which subgroups are more and less likely to make an active choice of pension funds. Using a logit analysis that allowed the effects of different causal factors to be assessed independently, Engström and Westerberg found that a number of factors dramatically increased (odds ratio of more than 1.30) the likelihood that a group would make an active choice in the first round in 2000 relative to the reference group of single, Swedish-born men with only a compulsory-level education. These factors included employment in the financial services sector and having substantial private pension savings (both of which are related to previous experience in financial markets) and being married. Other factors, which increased less substantially the odds ratio for active choice (odds ratio between 1.10 and 1.29), included advanced education, higher income, and being female. When controlling for other factors that affect the likelihood that an individual will make an active choice (notably marriage, children, and financial market experience), Engström and Westerberg found that being relatively young (18 to 32 years old) also modestly increased active choice.

Two factors—proximity to retirement (ages 58 to 62) and having been born in a non-Nordic country—decrease the odds ratio of actively choosing a fund relative to the reference group by more than 40 percent. The sharp drop-off in fund choice among those born in non-Nordic countries is very likely related to the fact that many PPM materials, including fund catalogs, were available only in Swedish. Two other factors also lower the odds of active choice significantly (odds ratio between 0.80 and 0.90)—being between the ages of 53 and 57 and birth in a Nordic country other than Sweden.

Drop-off in Active Choice in Later Rounds

In the initial round of pension fund choice in 2000, 67 percent of those eligible to choose funds made an active choice. Fund choice fell dramatically in the five following rounds held for recent labor market entrants. Only 17.6 percent of these workers made a fund choice in 2001, compared with 14.1 percent in 2002, 8.4 percent in 2003, 9.4 percent in 2004, and 8.0 percent in 2005.

The reasons for this drop-off in the choice of funds are related to the characteristics of the workers and to the choice situation. First, participants in later rounds were mostly younger workers who had a very long time until retirement, which may have made a fund choice seem of limited salience. Second, the low earnings and contributions of these new labor market entrants—the average contribution for those in the 2001 round was only SEK1,356 (less than US$250)—also limited the perceived importance of fund choice. Third, new entrants after the first round may also have been overwhelmed by the staggering array of fund choices.

These factors alone or in combination are implausible as sufficient explanations of the dramatic drop-off in active choice, however. As noted above, almost 60 percent of the youngest age group (18 to 22), who make up most of the group of new entrants between 2001 and 2005, made an active choice in the initial 2000 round. Moreover, the growth in the number of choices offered after the first round was not so great that it would have been expected to have resulted in the dramatic decline in active choice after 2000.

The skewed age distribution of new labor market entrants, small stakes, and large number of choices probably made relatively modest independent contributions to the drop-off in active choice after 2000. But the interaction of these three factors with additional factors that affected new entrants' choice situation almost certainly had a major impact. A fourth factor that was particularly important was the absence of a *contagion effect* that was present in the initial round of fund choice. In the round of 2000, the vast majority of adults in Swedish society under the age of 65 were involved, and choosing funds in the new pension system was widely discussed among families and friends. The much smaller cohorts entering in later years did not experience this effect.

A fifth factor is the role of advertising and media campaigns. The PPM mounted substantial outreach and media campaigns in the initial rounds of pension fund choice and tried to increase accessibility on the Web for making choices. But fund management companies, recognizing the small sums at stake and the very broad field of funds available, did not mount substantial campaigns in later rounds as they had in 2000 (Huledal 2001, Larsson 2001, Mattsson 2001a, Nilsson 2001, Utter 2001, Aspelin 2002). Cronqvist (2003) estimated that choosers in the initial round of fund choice in 2000 were exposed to approximately $65 million in advertising by fund companies; in contrast, individuals in 2003 experienced less than $10 million in advertising by fund companies—a drop-off that closely parallels the drop-off in rates of active fund choice.

Fund managers were decreasingly likely to invest major advertising monies for specific funds as active choice declined in later rounds. By 2003, only 9 funds other than the default fund attracted 800 or more new savers; funds in this group attracted an average of only SEK279,000 (less than US$40,000) per fund (Table 2). Fewer than 50 new participants were attracted by 477 of the 647 funds available for active choice in 2003. The median fund available for active choice attracted only 19 new savers and a total of only SEK7,101 from all new participants. When added to the modest earnings of most new participants and the management fee concessions demanded by PPM, the incentives were very small for a major marketing campaign by fund managers—especially for individual funds rather than the overall family of funds operated by a fund management company. The media also paid much less attention to pension fund choice in the rounds held after 2000. These trends are evident in the data from PPM's postchoice survey of new entrants into the pension system in each of the first five rounds (Table 3). The number of information sources cited by survey respondents as having been used in making decisions on how to invest their premium pension funds has declined dramatically across the board, reflecting an overall decline in active choice. But the declines are particularly striking in the categories for friends and acquaintances, fund providers (banks, insurance companies, fund companies) and the media, which illustrate the decline in media attention, fund promotion, and informal information gathering from family and friends (contagion) from the first round. In the 2003 postchoice survey, respondents reported extremely low levels of contacts initiated by fund providers.[9]

Sixth, the widespread publicity given to the negative returns experienced by most premium pension savers—especially those in many of the most popular fund choices—may have diluted enthusiasm for making an active choice. The first round of pension fund choice took place around the time when global equities markets were peaking. Later rounds have occurred against a backdrop of losses by most premium pension account holders. Indeed, the modest rebound in active choice in 2004 followed a rebound in equities markets and fund returns in 2003. Financial returns on pension accounts are discussed further below.

A final factor that may have contributed to the decline in active choice is the availability of the Seventh AP Fund's Premium Savings Fund as a default. It was widely perceived, at least initially, to be a safe as well as low-cost (initially a management fee of 0.2 percent of assets)

Table 2.
Distribution of pension fund options, by number of new contributors in 2003

Number of new contributors	Number of funds with new contributors	Average amount of deposits per fund by all new contributors (in Swedish Kronor, SEK)
137,589 (default fund)	1	150,388,876
500 to 799	9	279,010
400 to 499	7	228,358
300 to 399	15	144,049
200 to 299	10	105,225
100 to 199	54	62,836
50 to 99	75	29,132
20 to 49	152	13,549
10 to 19	115	6,351
Less than 10	210	1,941

SOURCE: Premium Pension Authority Web site (http://www.ppm.nu).

alternative to privately managed funds (see Svensson 2001b, 2001c). Indeed, because the Premium Savings Fund was widely known to be available as a default, many individuals may have made a deliberate decision to not make a fund choice because the Seventh AP Fund's default fund was their first preference, which they knew they would get by doing nothing. Certainly the fund's slogan, "Anyone who isn't willing or able to choose will get at least as good a pension as others—that's what we're here for," seemed to make the fund choice appear less than critical. Critical comments about fund management and fees by Sweden's Social Democratic Commerce Minister, Leif Pagrotsky, who argued that given the high charges by Swedish fund managers most Swedes would be better off having an ape invest their funds, may also have made the default fund seem like a good choice (George 2000).[10] Moreover, as will be discussed further below, the default fund has outperformed the weighted average of actively placed funds in recent years, which may have further increased the attraction of not choosing.

Some leverage on the question of whether the Seventh AP Fund's Premium Savings Fund was a deliberate passive choice can be gained from PPM's surveys held after each round of fund choice. A substantial percentage of survey respondents—19 percent in 2000, 37 percent in 2001, 25 percent in 2002, 16 percent in 2003, and 23 percent in 2004—said that they had not filled in their choice forms because they wanted the Seventh AP Fund to be their fund manager (CMA 2004, 36–37). When respondents were asked why they wanted the Seventh AP Fund to be their fund manager, the results were a rather confusing mixture, however (Table 4). A substantial percentage in each year cite perceived safety and security concerns (especially in 2001), but very few cite other positive qualities of the Premium Savings Fund or (except for the initial 2000 round) a preference for the state over a private company as a fund manager. A far greater aggregate number of respondents cite factors that have little to do with the Seventh AP Fund itself, such as not having enough information, wanting to be spared making a choice right now, or not having the energy or wanting to choose. These reasons are in the aggregate similar to those given by respondents to the postchoice survey who said that they did not actively choose funds for some reason other than actively preferring the Seventh AP Fund's Premium Savings Fund (Table 5).

Table 3.
Percentage of new entrants to the premium pension system citing information sources used in making investment decisions, 2000–2004

Information source	2000	2001	2002	2003	2004
Family members	39	39	38	43	38
Choice packet from PPM	64	45	37	30	28
Mass media, newspapers, TV	53	25	13	10	7
Friends and acquaintances	42	23	13	10	9
Bank	30	12	5	6	6
PPM's Web site [a]	7	5	8	4	4
School	b	b	3	4	3
Work colleagues [c]	2	b	5	4	2
Insurance company	23	8	2	2	2
Fund company	20	7	2	1	2
Trade union	21	4	2	1	1
Social insurance office	b	2	1	1	1
Other Web sites	b	3	1	1	2
Immigrant language brochures	0	0	0	0	1
Other	2	6	2	0	1
No answer, don't know	7	26	38	40	50

SOURCE: Centrum för Marknadanalys [CMA] (2004, 34).

NOTES: Answer to the question asked of all survey respondents: "Which of the following information sources have you used to help with how your premium pension should be invested?"

Answers total more than 100 percent because more than one answer was possible.

PPM = Premium Pension Authority.

a. Referred to as "Internet" in 2000.

b. Source not included in survey.

c. Referred to as "Work" in 2000.

Patterns of Choice and Risk Among Active Choosers

The timing of the implementation of the new premium pension system was unfortunate, since an accumulated 4 years of contributions (for calendar years 1995 through 1999) were poured into the market in late 2000, in the middle of an extraordinary nosedive in worldwide equities markets in general and the Stockholm *börs* in particular. The Seventh AP Fund's Premium Savings Fund lost 10.6 percent of its value in 2001, while the other funds available for active choice lost a capital-weighted average of the same amount. The results for 2002 were even worse: a decline of 26.7 percent for the default fund and a 33.1 percent decline for active choice funds. An upswing in equity markets led to much better results in 2003 and 2004: a positive return of 18.7 percent for the default fund and a capital weighted-average return of 16.2

Table 4.
Reasons given for choosing the Seventh AP Fund by new premium pension participants who self-identify as deliberately choosing the default fund, 2000–2004 (percent)

Reason for choosing default fund	2000	2001	2002	2003	2004
Safe and secure	16	32	20	11	13
7th AP Fund results are good	a	a	a	a	6
Want to be spared making choice now	43	29	23	15	24
Not enough information to make choice	12	20	19	16	21
Little money to place	7	9	8	16	17
Prefer state to a private company as manager	10	6	2	3	2
Don't have the energy or want to choose	a	a	2	17	24
It's a broad, interesting fund	1	3	1	1	2
As good as the others	5	a	a	a	a
My age; short time left until retirement	3	a	a	a	a
Other answer	11	15	12	36	12
Uncertain; don't know	6	4	13	7	18

SOURCES: Sifo Research and Consulting (2000, 2001) and Centrum för Marknadanalys [CMA] (2004, 34–35; 2004, 45–46).

NOTES: Question: "Why do you want the 7th AP Fund to manage the funds?" Asked only of survey respondents who have said that they want the Seventh AP Fund to invest for them. Answers total more than 100 percent because more than one answer was possible.

a. Not asked in this round of pension choice.

Table 5.
Reasons given for not making an active fund choice by new premium pension participants who self-identify as nonchoosers, 2000–2004 (percent)

Reason for nonchoice	2000	2001	2002	2003	2004
Not interested	21	36	17	21	18
So little money	a	22	17	14	10
Long time until pension	a	13	8	15	14
Don't have knowledge	24	11	14	11	13
Seems difficult	a	a	5	2	5
Don't want to do it now	5	8	6	2	4
Haven't had time or energy	11	7	33	26	28
Didn't seem so important	a	4	5	5	2
Insufficient information to make choice	6	3	6	9	5
Didn't think it made a difference	9	3	3	1	1
Short time until pension	a	1	0.2	0.2	0
Forgot about it or missed deadline	a		4	6	5
Don't like premium pension system	15	1	1	0.3	0
Language problem	a	a	1	a	a
Stock exchange developments	a	0	0.4	1	0
Other; uncertain; don't know	19	14	9.2	20	20

SOURCES: Sifo Research and Consulting (2000, 2001) and Centrum för Marknadanalys [CMA] (2003, 36; 2004, 47, appendixes 5–8).

NOTES: Question: "What is the reason you didn't choose?" Asked only of survey respondents who said that they did not make an active choice for some reason other than wanting the Seventh AP Fund to invest for them. Answers total more than 100 percent because more than one answer was possible.

a. Not asked or compiled separately in this round of pension choice.

percent for actively chosen funds in 2003 and positive returns of 10.1 percent for the default fund and 8.8 percent for actively chosen portfolios in 2004. The default fund's superior performance has been aided by its policy of hedging 50 percent of its foreign equity portfolio against the risk of fluctuations in currency value. This has helped protect the fund against the declining value of the U.S. dollar (Seventh AP Fund 2003, pt. 2, 6; 2004, pt. 2, 5–6; 2005, pt. 2, 4).

An analysis of premium pension investments through the end of September 2001 conducted by the Swedish business newspaper *Dagens Industri* found that almost all investors lost money, and many lost more than one-quarter of their contributions (Svensson 2001c). The 20 most chosen funds in 2000 lost an average of 31 percent of their value from the beginning of the PPM's operation through late September 2001—a fact that received considerable media attention (Lindham 2001, *Dagens Industri* 2001b). By the end of 2002, less than 1 percent of premium pension savers had a positive return on their accounts, while more than three-quarters of premium pension savers had lost more than 30 percent of their contributions. A recovery in equities markets in 2003 and 2004 improved those figures significantly, however. By the end of 2004, 29 percent of premium pension account holders had a positive return on their contributions (many of them recent labor market entrants who had not experienced the initial downturn in equity markets), and just under 3 percent had lost more than 30 percent of their investments (PPM 2002a, 2004).

These mixed but sobering trends in fund value provide the context within which we can examine the patterns of choice and risk among pension fund depositors. What criteria did depositors apply in making fund choices? Were some groups more risk averse than others? Did contributors change behavior over time, in terms of either fund switches or the types of fund choices made by new contributors? Are there signs of either excessive risk taking or trading among some groups?

In the initial round of choices in the fall of 2000, people who did choose selected an average of 3.4 funds, so most did diversify. But that number fell to 2.8 funds per new entrant in the 2001 round. Data from PPM's annual postchoice survey of new entrants also provide some insights into the considerations that active fund choosers used in making their choices among funds, although comparison across years is made more difficult by a change over time in the responses offered to survey respondents. The fact that a much higher rate of survey participants claimed to have made an active choice in later rounds than actually did so also casts some doubt on the credibility of the survey results. Nevertheless, the survey findings about the reasons given for choosing funds are useful (Table 6). Across the five rounds of the survey, the results consistently suggest that many active choosers chose multiple fund managers, multiple types of

Table 6.
Reasons given for fund choices by new premium pension participants who self-identify as active choosers, 2000–2004 (percent)

Reason for actively choosing	2000	2001	2002	2003	2004
Different administrators for different funds	57	46	a	a	a
Several different fund types to spread risk	a	a	a	49	36
Several different fund managers	a	a	47	46	39
Fund that family member recommended	a	a	46	46	58
One or several foreign managers	a	a	31	40	32
Funds that have the lowest charges	46	25	30	39	35
Funds that have high or highest recent returns	44	38	33	33	32
Among my bank's funds	38	24	21	25	22
Administrator with worldwide experience	36	31	a	a	a
A fund that friends or acquaintances recommended	a	a	23	21	19
Funds given the highest marks by experts	32	18	12	16	16
Among my insurance company's funds	24	12	8	7	8
Same funds I already save in	19	14	14	18	15
Funds recommended by newspaper, for example	11	15	3	3	4
Other	10	22	14	4	13
Uncertain; don't know	1	9	5	4	2

SOURCES: Sifo Research and Consulting (2000, 2001) and Centrum för Marknadanalys [CMA] (2002, 35; 2003, 31; 2004, 40–41).

NOTES: Question: "What did you think about when you made your choice? Which statement(s) are accurate for you?" Asked of persons who said that they made an active choice. Question wording varies slightly per round. Answers total more than 100 percent because more than one answer was possible.

a. Not asked in this round of pension choice.

funds, or both to spread risks. The results also suggest that high recent returns and low fund charges played an important role in fund choice. The role attributed to opinions given by experts and the media declined substantially after the initial round—probably reflecting a decline in media interest and coverage in later rounds. Not surprisingly, given the young age of most new entrants in later rounds, recommendations from family members were important in the rounds from 2002 to 2004. (This response option was not included in the first two surveys.) Choosing among funds offered by financial institutions (banks, insurance companies, and pension fund companies) with which the entrant already had a relationship dropped off substantially after the initial round—again not surprising given the young age of most labor market entrants.

Because of the poor performance of equity funds after the inception of the Swedish individual account system, it should not be surprising that there was a shift away from those funds among active choosers in 2003, after three initial rounds in which almost three-quarters of actively placed funds were put in equity funds. The percentage of actively chosen funds selected from the category of fixed-income funds increased from 2 percent in the initial round in 2000 to 8 percent in 2001 and 26 percent in 2003, although a majority of contributions are still placed in equity funds (Table 7). However, these trends among active users have been overwhelmed by the shift away from active choice toward passive investment in the equities-heavy Seventh AP Fund's default fund, which essentially functions as a global equities fund.

A small minority of active choosers appears to have overconcentrated its deposits in high-risk funds with high recent returns, despite the high risk generally associated with such investments. Choosers in the initial round invested heavily in technology funds, since those funds showed the highest rates of return in the fund catalogs received from the Premium Pension Authority. By far the most commonly chosen fund in the initial round was the high-tech Roburs Aktiefond Contura fund, which was listed in PPM's 2000 fund catalog as having had a 534.2 percent return during the past 5 years, after fund charges (PPM 2000, 42). Contributors who chose the fund placed an average of 25.3 percent of their contributions in that fund. But the Roburs Contura fund subsequently suffered the fate of most tech-heavy funds, losing 32 percent of its value in 2001 (PPM 2002b, 48). Similar patterns are evident in more recent rounds. In 2002, for example, two of the five most frequently chosen funds in that round were Russian equity funds, reflecting very high returns reported for those funds in PPM's fund catalog (*Aftonbladet* 2002, *Svenska Dagbladet* 2002b). Here the concentration of funds was even more alarming, with contributors placing an average of 44 percent and 38

Table 7.
Percentage of funds chosen by new entrants into the premium pension system, by type of fund, 2000–2003

Type of fund	2000	2001	2002	2003
	As a percentage of total contributions to all actively chosen funds			
Equity funds, total	72	72	73	58
Swedish	17	17	16	12
Regional and world	34	32	31	25
Country	2	4	10	10
Sector	19	19	16	12
Mixed	8	8	7	9
Generation	19	13	11	7
Interest-bearing	2	8	9	26
	As a percentage of total contributions to all funds			
Equity funds, total	50	14	12	6
Swedish	11	3	3	1
Regional and world	23	6	5	2
Country	1	1	2	1
Sector	13	4	3	1
Mixed	5	1	1	1
Generation	13	3	2	1
Interest-bearing	1	1	1	3
Default	31	81	84	90

SOURCE: Premium Pension Authority Web site (http://www.ppm.nu).

percent of their contributions in those funds. Russian equity funds were also the two most frequently chosen funds in 2004 .

Fund Switching

One potential risk that does not seem to have materialized in the Swedish PPM system is excessive trading by account holders who are attempting to make gains through market timing or who panic in response to short-term market fluctuations. In fact, a poll in April 2001 found that 41 percent of participants who made an active fund choice in the initial round of pension fund choice in 2000 had completely forgotten which funds they had chosen and that 32 percent could remember some of their fund choices (Hammarström 2001; see also Kamp 2001, Mattsson 2001a).

Fund switching has not occurred to a large extent since the inception of the PPM system, despite the fact that unlimited changes can be made at no charge. The PPM system was initially designed to handle 15,000 to 20,000 fund switches per day; however, initially only about 2,000 per week were being made, which led to the reduction of telephone service personnel and the closing of one telephone service center (Svensson 2001d). In 2001, there were only 133,000 fund switches among the roughly 5 million pension account holders. The number of switches grew to 232,360 in 2002 and 356,772 in 2003, with a dramatic increase in 2004 to 639,731 (PPM 2002a; 2003a; 2004; 2005, 10, 27). The number of annual fund switchers remains very modest relative to the depositor base, however; less than 6 percent of all premium pension savers made even a single fund switch in 2004. Moreover, as shown in Table 8, only a little more than 600 account holders out of more than 5.3 million traded funds frequently in 2004 (that is, they switched funds more than 20 times during the year), and almost two-thirds of those who switched funds did so only once (PPM 2005, 10, 27).

The Default Fund

The Seventh AP Fund has stated its objective as “People who do not have a fund manager, for whatever reason, should receive the same pension as others—that is our goal.” But what does this goal mean in practice? Should a default fund aim to preserve the funds that have been invested, minimizing risk, as most default funds in the United States do? Should it seek growth with a reasonable attitude toward risk, mirror the investment strategies of those who do choose, or choose an optimal strategy for the median-aged customer? Should it change the investment mix for specific cohorts of workers as their retirement age nears or simply keep fund management charges low?

The Seventh AP Fund has clearly placed a high priority on keeping fund management charges low. In 2004, its charges after rebates to the Premium Pension Authority were 0.15 percent of funds invested, compared with an average of 0.60 percent for equity funds in the premium pension system (Table 9). The Seventh AP Fund has kept charges low in several ways. The fund operates in a very lean fashion, operating with only 13 employees in 2004. Most of the management functions are contracted out to Swedish and foreign fund management companies. To keep costs down, the Seventh AP Fund also has relied heavily on index funds.[11] In addition, the Seventh AP Fund has intentionally operated at a loss in its first few years to help spread the initial start-up costs across a broader set of contributors.[12]

The experience of the Seventh AP Fund also shows, however, the likelihood in any default fund of a tension between the objective of preserving capital and that of “having as good a pension as others.” The latter strategy requires heavy weighting in higher-yielding equity investments. But it also leads to higher volatility and thus the prospect that unlucky cohorts who retire in a period of equity market downturns may receive lower-than-expected benefits. (The premium pension system allows

Table 8.
Number of PPM pension savers who switched funds, by number of switches and sex, 2002–2004

Number of fund switches	2002 Women	2002 Men	2003 Women	2003 Men	2004 Women	2004 Men
All fund switchers	62,467	79,522	96,430	113,257	139,108	162,779
1	48,096	57,602	73,446	80,431	94,956	102,913
2	7,884	11,020	11,893	16,307	19,388	25,037
3 to 5	4,847	8,093	8,077	11,838	16,117	22,333
6 to 10	1,262	2,086	2,196	3,353	5,752	8,333
11 to 20	335	609	700	1,114	2,671	3,780
More than 20	43	112	118	214	224	383

SOURCE: Premium Pension Authority [PPM] (2005, 11).

Swedes to keep their funds in their PPM-sponsored portfolios rather than annuitize upon retirement.)

The Seventh AP Fund has chosen to stress the objective of high returns rather than one of low volatility for the Premium Savings Fund. To achieve this objective, it set an investment time horizon of 25 years for its Premium Savings Fund, with an initial portfolio allocation of 65 percent in foreign equities, 20 percent in Swedish equities, and 14 percent in Kingdom of Sweden inflation-linked bonds. The target portfolio allocation was later reduced to 10 percent in inflation-indexed securities and 17 percent in Swedish equities, while maintaining 65 percent in foreign equities and adding 4 percent in private equity funds and 4 percent in hedge funds.[13] The default fund's portfolio allocation is very heavily weighted in equities and especially overweights Swedish equities, given their minor role in global equity markets. But Cronqvist and Thaler (2004, 426) have shown that the mean actively chosen portfolio of initial choosers in the pension system was in fact higher in overall equities weighting (96 percent), higher in Swedish equities weighting (48 percent), and higher in fund management charges compared with the default fund portfolio. Actively chosen funds were also much more likely to be actively managed (96 percent compared with 40 percent for the Premium Savings Fund). These patterns are consistent with Cronqvist's (2003) research findings on fund company advertising in the first rounds of pension fund choice. Cronqvist found that individuals most exposed to fund company advertising were more likely to make an active choice but that much of the advertising was noninformative, thereby driving fund choosers to act on the basis of familiarity biases and thus to overweight Swedish equities, to overinvest in sectors that had shown recent high rates of return, and to choose funds with high management fees.

Table 9.
Fund management charges of premium pension funds after rebates to the Premium Pension Authority, as a percentage of funds under management, 2002–2004

Type of fund	2002	2003	2004
All types	0.44	0.43	0.42
Equity	0.63	0.61	0.60
Mixed	0.54	0.53	0.50
Generation	0.39	0.36	0.36
Interest-bearing	0.40	0.40	0.39
Premium Savings (default fund)	0.17	0.15	0.15

SOURCE: Premium Pension Authority [PPM] (2005, 11).

The Swedish experience with the premium pension system also suggests that debates about ethical and environmental investment practices may play a role in the investment strategies of a default fund. Indeed, the Seventh AP Fund took an even more aggressive stand on these issues than did the other state pension funds, in part because it is not allowed to vote its shares. It instead decided to disinvest in companies that had been found guilty by impartial tribunals of violating international conventions to which Sweden had adhered, including conventions on human rights and child labor, various conventions of the International Labour Organization, international environmental conventions, and conventions against bribery and corruption. On the basis of these criteria, the Seventh AP Fund decided in 2001 to sell its shares in 27 companies, including well-known multinational companies such as Coca-Cola, General Motors, ITT, Nestlé, Sears, Texaco, and Wal-Mart, as well as one Swedish company, Esselte. In 2004, 38 companies were on the investment exclusion list for all or part of the year.[14] But the fund continues to invest in companies with interests in tobacco, gambling, alcohol, and weapons production—indeed its managing director argued that, since the Swedish state had interests in those sectors, following a consistent rule of not investing in those sectors would mean that it would have to get rid of Swedish government bonds.[15]

Challenges for the Swedish Individual Account System

The most important challenge for the Swedish premium pension system is how to engage new labor market entrants at an early stage in the premium pension process. One can argue that these workers are being rational in "choosing" the default fund in overwhelming numbers, since it has outperformed the weighted index of actively chosen funds in the pension system. But failure to engage young workers undercuts the legitimacy of the new pension system. It also raises concerns among nonsocialists about the huge size of the state-affiliated default fund, as post-2000 entrants increase their earnings and become a large share of participants in the PPM system. Engaging young workers is likely to remain very difficult, however, when private fund managers limit their marketing activities; most account holders suffer losses on their investments; and the default fund continues to outperform the fund index as a whole, while offering substantially lower fund management fees. Moreover, because the PPM is required to pass on the costs of marketing to depositors in the form of higher fund administration fees and because the PPM has had little success in getting depositors to make an active fund choice, the PPM does not have strong incentives to employ an extensive marketing campaign. Indeed, the PPM has in recent rounds scaled back its public information campaigns and has called for additional government help in educating future contributors, for example, by including consumer finance education in school curricula (Mattsson 2001a, *Dagens Nyheter* 2003, PPM 2005).

Another challenge for Sweden is maintaining a political coalition that supports the relatively nonrestrictive investment practices of the managers of the state AP pension funds, with the Seventh AP Fund acting as a default option in the premium pension and the First to Fourth AP Funds as buffer funds for the income pension. Leaders within the Social Democratic party have criticized the AP Funds' investment practices as undermining Swedish industry in their single-minded pursuit of high short-term returns. Even Prime Minister Göran Persson has lamented current investment rules, arguing that a pensioner depends not only on "the yield in state pension funds, but also [on the fact] that Sweden has a functioning industry that pays taxes in Sweden. That is the crucial security for me as a pensioner" (Svensson 2001a, *Dagens Industri* 2001a). The head of the Seventh AP Fund, which administers the default fund for nonchoosers, has vigorously defended current investment practices as necessary to protect the value of future pensions (Feldt and Norman 2001).[16] Rules on ethical and environmental criteria for investments are also likely to remain contentious.

Lessons for the United States

Sweden offers a number of lessons concerning issues that need to be anticipated when designing and implementing an individual account scheme. These lessons can be divided into several categories:

- the advantages and limitations of central administrative organizations,
- entry barriers,
- the limiting of risk,
- promotion of active fund choice,
- continuing communication obligations, and
- design of a default fund.[17]

Centralized Administration

In the Swedish model, a state agency, PPM, has a strong role in the administration of assets. Some of the advantages and disadvantages of this approach are clear. On the plus side, centralized administration of collection of contributions, switching of funds, and communication and reporting (CSCR) functions lowers costs and minimizes the additional paperwork burden for employers, who can follow existing procedures for submitting payroll taxes and who do not need to get involved in administering fund choices and payments to multiple funds by their employees. Thus it almost certainly weakens opposition from employers—especially small employers—to the adoption of a system of mandatory or employee-option individual retirement savings accounts. Central administration of funds also makes it easier to offer a very wide range of funds and to negotiate reductions in management fees by fund providers.

On the negative side, the use of the tax system to collect funds contributes to a long lag time in the crediting of individual pension accounts. In Sweden, moreover, integration of the pension fund system with payroll tax records on an annual basis has also meant that these investments are placed into the market in very large, annual lumps that could potentially disrupt bond and foreign exchange markets (Braconier 2004). This would be even more problematic when depositing the enormous sums that would be involved with contributions from a country the size of the United States.

There are also issues of generational equity for the first generation of contributors to a centralized system. When the government chooses to pass on the costs of the centralized management agency and default fund to contributors, as has been done in Sweden with PPM and the Premium Savings Fund, rather than pay them out of the general budget, the fixed costs of establishing and operating such a system are borne disproportionately by the initial contributors, because the system has a relatively small number of contributors and a small asset base of contributions. In Sweden, the government made loans to the PPM and the Seventh AP Fund to cover these costs, which are being repaid over a long period. Nevertheless, the management costs per krona of contribution assets are much higher in the initial period. In addition, the costs of enlisting new entrants after the initial round are, under the current Swedish system, borne by current depositors in the form of higher PPM operating expenses.

Policymakers in the United States might want to consider different models if a centralized administrative agency were to be established to handle CSCR functions, as part of an individual account system. For example, the capital and operating costs (including advertising costs) of a central clearinghouse agency could be paid in full or in part out of the general government budget rather than as a charge on contributions, at least for an initial phase-in period.

When considering the relatively limited within-year rates of fund-changing activity in the PPM system, as well as the similarity of its central administration of CSCR functions with the roles performed by the Social Security Administration (SSA) in the United States, it might thus make more sense to keep the administration of individual accounts within SSA, under the jurisdiction of a new bureau established for that purpose, rather than create a new separate agency to perform those functions, as has been done in Sweden with the PPM. The main risk of keeping those functions within SSA is that it could lead to pressure on local SSA offices to deliver services that they are not set up to deliver (for example, helping people make fund changes at a time of financial panic), as well as services that would be inappropriate to provide at all (for example, advising on the choice of individual funds and fund managers). If account administration were retained within SSA, very clear messages would have to be conveyed to the public that fund-switching services were only available through other mechanisms (that is, mail, phone, and the Web) and that advice on the choice of individual funds would not be provided by SSA. This would require a major, and ongoing, public information campaign. But some misunderstanding is almost inevitable, which could be damaging to the agency's image and morale. If, however, a new, separate agency were to be established as a clearinghouse for the administration of individual account funds, it would be essential to maintain close cooperation and compatibility of data systems between that agency and SSA. This would be especially important for the issuance of annual reports to workers on their projected benefits, in which traditional defined benefits were integrated with benefits generated from individual accounts.

Swedish experience also suggests that a long lead time is necessary to get a new central administrative organization up and running. The information technology requirements for such a system are especially daunting. Indeed, Sweden's scheme had to be delayed to ensure that the technology would work, and in the end, the PPM had to pay more than US$25 million for a computer system that it never used (Carlberg 2004). The propensity of members of Congress to demand immediate action once they have decided on an action is a well-documented feature of U.S. policymaking (Derthick 1989). Demanding a quick rollout of individual accounts could, however, cause serious implementation difficulties, undermining public confidence and the willingness of fund managers to participate in the new program.

Entry Barriers for Fund Providers

Swedish experience suggests that it is possible to get a large number of fund providers to participate in a state-administered individual account system, even when substantial rebates are required on customary fund management fees. Indeed, the Swedish experience suggests that the number of choices in an individual account system can be very high—and grow over time—unless gatekeepers impose meaningful entry barriers. The number of choices in the Swedish system is so high that it almost certainly discourages active choice by overwhelming new entrants who, especially in later rounds, are mostly young, unsophisticated investors and do not perceive a strong need to choose funds.

Rather than adopt the Swedish system of relatively open entry by individual funds, it might make more sense in the United States to offer a much smaller range of generic funds—perhaps 5 to 20—that offer investors a range of choices in terms of equities versus fixed-return investments, domestic versus international exposure, and so on. To prevent the size of individual pools of capital from becoming too large, each fund option could be contracted out to multiple fund managers, with recipients receiving a rate of return that was the weighted average across all of those fund pools. Of course, having the government pension authority pick a limited number of fund managers rather than act primarily as a certifier of fund options raises difficult issues for the body doing the picking, since the fees generated for fund providers will presumably be very large. The federal government's Thrift Savings Plan has managed these issues with little controversy, but the stakes in a society-wide individual account scheme will be much greater.

Limiting Risk

In addition to limiting the number of funds that savers in an individual account system can choose, Swedish experience suggests that some constraints on the content of fund options may be appropriate in an individual account system. The 10 worst-performing funds in the first year of the Swedish premium pension—all stock funds with a focus on technology—lost a staggering average of 76.6 percent of their value (Svensson 2001c). Although most investors probably did not put all their pension fund contributions into such funds, no legal constraints prevented them from doing so. Similar issues arise with regional equity funds in the Swedish system, notably funds focused on Eastern Europe. The U.S. economy is adequately diverse, and U.S. equity markets are sufficiently developed and transparent, that a diversified equity fund based solely on the U.S. market would be a reasonable retirement savings vehicle. But this is not true of equity funds specializing in many developing markets. Even in a system that permits a broad range of fund options, policymakers may want to consider restrictions on overly specialized funds.

Engaging Workers in Fund Choice

A fourth set of lessons for the United States that are clearly highlighted by the Swedish experience with individual accounts concern the difficulty in marketing the program and engaging new workers to choose a fund. The 2.5 percent of earnings contributed by Swedish workers translates into relatively small absolute amounts for young workers, who may not perceive themselves as having a real stake in making a choice. The sums being debated in most proposals for Social Security reform are of similar magnitude. Neither strong initial media efforts by the Premium Pension Authority nor efforts to make choice as easy as possible have yet overcome barriers to participation in Sweden, especially after the first round of choice when media attention was highest and virtually the whole labor force faced the need to make a choice simultaneously. Similar problems would very likely surface in the United States. Facing a population 30 times greater than that in Sweden, fund managers would have stronger incentives to spend money marketing their plans. However, marketing costs are also dramatically higher in the much larger U.S. market than they are in Sweden.

Swedish evidence from the Engström and Westerberg study (2003) also suggests the likelihood that a substantial gap in active choice would exist between native English speakers and those with another first language. Promoting active choice in the United States would most likely require government efforts to provide non-English materials. Fund managers might not see the advantages in providing these materials themselves, especially if lessening the language barriers to participation meant that a large number of funds would be competing in relatively small (and frequently low-income) niches.

Continuing Communications Obligation

The use of a central agency to administer a system of individual accounts carries with it a continual moral, if not legal, obligation on the part of the administering agency to keep account holders informed of important developments in the specific funds chosen. This is particularly true when (as in the Swedish system) individual fund managers do not know which individuals in the mandatory individual account system hold their funds and do not have a mechanism to communicate directly with fund participants.

The Swedish experience suggests that two situations in particular are likely to require communication with account holders of specific funds. One is when fund managers raise administrative fees for specific funds. In 2004, for example, Skandinaviska Enskilda Banken increased fees on its money-losing generation funds in the pension system from 0.5 percent to 1.2 percent. The 71,000 fund holders received an initial letter from PPM informing them that fees were being raised and a follow-up letter with more details. But critics have charged that in a system in which most account holders do not pay close attention to their accounts after making their initial selection, fund managers would be tempted to raise fees to boost profits after an initial round of enrollment of all current labor market participants (*Dagens Nyheter* 2004).

A second situation concerns the decision of a fund manager, for whatever reason, to wind up a fund or withdraw it from the state system. This has happened only a few times in Sweden's PPM-managed system. Account holders are notified by PPM and told how to move their funds to another fund. If they do not do so, their funds are moved to the default fund administered by the Seventh AP Fund.

As these cases suggest, the capacity for the administering agency to communicate with account holders in a timely fashion is essential to the effective operation of a centrally administered fund. Also essential, however, are policies governing when that communication takes places and what information is provided. Certainly the windup of a fund should require that account holders be notified and given an opportunity to choose a new fund or funds. So too should a major increase in fund charges. But what about a minor increase in fees? Or a decrease in management fees? Or a shift in a fund's management team? In a system of limited entry and government selection of a few fund managers, as with the Thrift Savings Plan, should fund participants be notified when there is a change in the fund manager who is contracted to manage their fund(s)?

Providing a lot of information on a frequent basis would raise central administrative costs significantly. But providing information only when there are major increases in fund charges would probably lead to criticisms by account holders and advocacy groups. Individual fund holders would have to bear a major part of the responsibility for monitoring funds in a centrally administered system of individual accounts, but the administering agency would need to have clear and comprehensive policies on when and why it communicates with holders of specific funds.

A Default Fund

The Swedish experience suggests the importance of a default fund for nonchoosers in any centrally administered system of mandatory individual accounts. Swedish *abstainers* or nonchoosers (*soffliggare*, literally those who lie on a sofa) are put into a fund operated by the Seventh AP Fund. Policymakers in the United States might want to handle who administers a default fund differently than how it is done in Sweden, however. Establishing a new government-affiliated management entity for the default fund would be both costly and politically controversial. Contracting out the management of a default fund to several different fund management firms through competitive bidding would probably spark less opposition and would avoid start-up costs for a new organization, but this new authoritative body might not be able to match the low management fees that a single entity like the Seventh AP Fund has been able to offer.

At least as important as who administers the default fund is the question of how the default option is designed. The experience of the Seventh AP Fund's Premium Savings Fund in Sweden shows that there are very real trade-offs between long-term growth and protection of investment capital for those who, for whatever reason, abstain from making a fund choice. The Premium Savings Fund has a long time horizon—its target investor is a 42-year-old—so it invests overwhelmingly in equities. As a result, account holders in the Premium Savings Fund suffered serious losses in each of its first 2 years of operation.

There is no obvious correct answer to the growth-versus-security trade-off for a default fund, but one option is to offer different defaults for younger and older workers and to progressively move the funds of older abstaining workers into more secure investments. Indeed, the Seventh AP Fund, which operates the default option for Swedish abstainers, is now considering the creation of generation funds that will have different portfolios for different age groups of abstainers. Implementing such a system will require further approvals from the Swedish government, however (Mattsson 2001b). U.S. policymakers might want to consider completely different alternatives, such as placing abstainers' contributions in a pool of funds that represents the average of all choices for persons in their age group. But the Swedish experience of active fund choosers tending to overinvest in actively managed funds that have high fees (without gaining consequently higher returns) suggests that abstainers are likely to be poorly served by this option.

If a government-operated default fund were set up as part of an individual account tier in the United States, Swedish experience also suggests that it would not be free of controversies over environmental, ethical, and domestic investment criteria. Of course, such criteria would not necessarily be adopted in a political system that is much more conservative than Sweden's—or there might be pressures to use a different set of criteria.

Conclusions

The issues outlined here are far from exhaustive. Many other issues would have to be resolved in the design of a centrally managed system of individual retirement savings accounts. For example, how many different funds should individuals be allowed to choose? (Sweden currently allows 5, but allowing an increase to 10 has been discussed.)

Care should also be taken in extrapolating from the Swedish experience to other national contexts. Decisions on many design issues would have to be made in any system of mandatory individual accounts, for example, whether to erect meaningful barriers to the entry of funds and whether and how to impose diversification requirements. But the behavioral responses by pension savers observed in Sweden might not be repeated exactly in the United States or other countries. The behavior of pension savers reflects characteristics of specific economies and societies and specific choices made in the design of a retirement income system. For example, if a larger share of pension contributions were directed into the individual account tier in the United States than is the case in Sweden, it is possible that rates of active choice might be higher and fewer active choosers might concentrate their contributions in high-risk investments. The Swedish evidence nevertheless shows the importance of design choices and implementation challenges associated with a centrally administered system of individual retirement savings accounts. In particular, it shows that allowing active choice of fund managers will not automatically lead to active choice and that those who do make an active choice may not always act wisely.

Notes

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[1] Men received an average of 82 percent of their pension from the state pension system, while women got 86.9 percent of their (lower) pensions from the state (Wadensjö 1997, 297). Palme and Svensson (1999, 355) estimate that in 1994, 74 percent of the total income of persons over the age of 65 came from the state pension system.

[2] For overviews of the new pension system in English, see Ministry of Health and Social Affairs (1998), Palmer (2002), and Sundén (2000).

[3] In 2002, 88 percent of all pension rights earned were from contributions based on employment income, while 10 percent came as transfers from other social insurance funds (for example, for unemployment) and 2 percent came from government funds for disability pensioners, national service, students in higher education, and child rearing (National Social Insurance Board 2004, 32). For a discussion of how pensionable income is calculated for these groups, see Ministry of Health and Social Affairs (1998, 5–6, 20–23).

[4] The credits earned by persons who die before they retire remain in the notional asset pool for that cohort.

[5] Moreover, they can begin by receiving 25, 50, 75, or 100 percent of their full pension entitlement. The actuarial value of portions of the pension begun at different times are calculated separately, so taking all or part of a pension at an earlier age results in permanently lower benefits. Older workers can always increase their pension amount by working longer, even after they have begun to draw a pension. Thus their incentives to remain in work are strengthened (Palmer 2002, 195).

[6] The statement currently offers projections based on three different retirement ages (61, 65, and 70) and on two different rates of growth in average income (no growth and 2 percent annual growth). For a sample statement, see Försäkringskassan and Premiepensionsmyndigheten, "Pensionsförklaringar."

[7] For those born in 1953, 19/20 of pension benefits are in the old system; for those born in 1952, 18/20 of pension benefits are in the old system; for those born in 1938, 4/20. Workers in this transitional generation were also guaranteed at least as high a pension as they would have received through pension rights accrued under the old system through 1994 (Ministry of Health and Social Affairs 1998, 11, 33–34).

[8] A description of the rebate agreement of the Premium Pension Authority (Premiepensionsmyndigheten, or PPM) is available in Swedish on PPM's Web site, PPM's Rabattmodell, available at http://www.ppm.nu/tpp/infodocument/1:1;221,218.

[9] In the 2003 round, respondents who cited a particular source of information were asked whether they had initiated the contact themselves or whether it had been initiated by someone else. Of 1,009 respondents, only 14 said that the information had come at the initiative of a bank; 5, at the initiative of a fund company; and 10, of an insurance company (CMA 2003, 26). In all of the postchoice surveys, especially those after 2000, the percentage of respondents who said that they made an active choice is significantly higher than the percentage of those who actually did so.

[10] Pagrotsky's thesis was tested by the tabloid newspaper Aftonbladet, which used a lemur from Stockholm's Skansen zoo to do the stock-picking and found that it did indeed beat funds with high management fees (Huledal 2000).

[11] In 2004, 75 percent of the Swedish equities portfolio was actively managed, as was 50 percent of the European and all of the Japan and Southeast Asia–Oceania portfolios. The U.S. portfolio was entirely index based (Seventh AP Fund 2005, pt. 2, 2).

[12] The Seventh AP Fund lost SEK17.63 million in 2004 on net revenue (after rebates to the PPM) of SEK61.3 million. This represents an improvement from a loss of SEK31.5 million in 2003. Losses are anticipated through 2008, after which surpluses will allow the accumulated deficit to be eliminated in another 7 years (Seventh AP Fund 2005, pt. 2, 16).

[13] The Premium Choice Fund has an even heavier concentration in equities, with only 4 percent of the target portfolio in Swedish indexed bonds (Seventh AP Fund 2005, pt. 2, 1, 8).

[14] Seventeen companies were on the list at the end of 2004 (Seventh AP Fund 2005, pt. 1, 18–19; pt. 2, 2).

[15] Investment in those companies was to be barred for 5 years, although the fund's board could restore them earlier if there was evidence that they had come into compliance with the relevant conventions (Seventh AP Fund 2002, 2; Svenska Dagbladet 2002a).

[16] Feldt, a former Social Democratic finance minister, is chairman of the Pensionsforum, a pension research group. Norman is managing director of the Seventh AP Fund.

[17] Another potential set of lessons relates to annuitization requirements, survivor benefits, inheritability of fund assets, and other aspects of fund payout, but these are beyond the scope of this article.

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