

July 1999

**SOCIAL SECURITY
REFORM**

**Implications of Private
Annuities for Individual
Accounts**



**Health, Education, and
Human Services Division**

B-282223

July 30, 1999

The Honorable Charles B. Rangel
Ranking Minority Member
Committee on Ways and Means
House of Representatives

Dear Mr. Rangel:

Social Security serves as the foundation of our retirement income system, providing benefits to workers and their eligible spouses, children, and survivors.¹ In 1998, the Social Security program provided \$265 billion in retirement benefits to about 31 million individuals and their dependents. Currently, 148 million workers contribute to the program in anticipation of future benefits. While Social Security has successfully provided retirement income to millions of Americans, the program faces significant future financial problems because of demographic changes, including the aging of the baby boom generation and increased life expectancy.

Many options exist for restoring the long-term solvency of the Social Security program. Some proposed options include creating individual retirement accounts, wherein participants would own and, to varying degrees, manage their accounts. Benefits they received from their accounts would generally be linked to the amount of their contributions and their account investment returns. Individual accounts offer the potential of higher rates of return by investing in stocks and bonds than the implicit rate of return workers receive on their Social Security contributions. However, individuals would also face certain investment risks that could affect the security of their retirement income.² Another concern about such proposals is how the accounts would be paid out at retirement. We recently issued two reports that provide information on the issues to consider when designing and implementing a system of individual accounts.³

Some Social Security reform proposals would require individuals to purchase annuities at retirement with their individual account balances to

¹The Disability Insurance portion of the Social Security program provides benefits for disabled workers and their dependents.

²In a forthcoming report, we will discuss the difficulties in comparing the rates of return for the current Social Security program and private market investments.

³Social Security Reform: Implementation Issues for Individual Accounts ([GAO/HEHS-99-122](#), June 18, 1999) and Social Security Reform: Administrative Costs for Individual Accounts Depend on System Design ([GAO/HEHS-99-131](#), June 18, 1999).

ensure that retirees do not outlive the income from their accounts.⁴ To better understand the potential effects such proposals could have on retirement income, you asked us to (1) determine the effect individual Social Security accounts might have on the existing annuities market, (2) discuss factors that affect the amount of annuity payments, and (3) discuss the potential role of the federal government in regulating the annuities market if individual accounts were established.

We conducted our work between December 1998 and July 1999 in accordance with generally accepted government auditing standards. (See app. I for information on our scope and methodology.)

Results in Brief

The private annuities market could likely provide annuities from individual accounts without significantly disrupting the market. Our work shows that the current annuities market has grown over the last 2 decades, with premium payments for annuity purchases increasing from \$22.4 billion in 1980 to over \$197 billion in 1997. Furthermore, the amount of annuity-related reserves—funds set aside by insurers, as required by states, to pay future claims—increased from about \$172 billion to over \$1.4 trillion during the same period. Initially, payouts (when workers retire and begin drawing on their individual accounts) would be small because most retiring workers would not have built up substantial account balances before retirement. If contributions to accounts were based on as much as 5 percent of earnings, it could take 20 years before the account balances being converted into annuities in a year would equal the current annuity purchases. If account balances were based on contributions of 2 percent of earnings, it could take over 50 years before the annual amounts being converted into annuities would equal the amount of current annuity purchases. While the size of the annuities market would significantly increase as a result of new annuity purchases, these purchases would be phased in over a number of decades, because in the initial years, few workers would have substantial savings in their individual accounts when they retired. This phase-in period would give insurance companies and the annuities market considerable time to adjust to the increasing amount of annuity purchases. However, according to the Society of Actuaries, some insurers may not offer annuities for individual Social Security accounts because meeting current reserve requirements could strain their financial resources.

⁴An annuity is an insurance product that provides a stream of payments for a pre-established amount of time in return for a premium payment—the amount being converted into an annuity. For example, a life annuity provides payments for as long as the annuitant lives.

Income from annuities based on individual accounts would depend on account balances, interest rates, current and projected annual mortality rates, and administrative and other costs charged by annuity providers at the time individuals retire. Individuals with small account balances would likely have difficulty obtaining individual annuities because of the relatively high cost of annuitizing a small account balance; if they were to receive annuitized monthly payments, these payments would be small. Because interest rates fluctuate over time, the date individuals purchase annuities can also significantly affect their annuity income. For example, an individual with a \$100,000 account balance would receive, assuming no administrative or other expenses, about \$810 a month if the interest rate were 6 percent and about \$910 per month if the interest rate were 7.5 percent—about a 12 percent higher payment. A reduction in expected mortality rates for retirees would also result in smaller annuity payments because the purchase price of the annuity must provide for a larger number of monthly payments. Finally, administrative and other costs for individual annuities currently can amount to as much as 15 percent of the amount being converted into an annuity. The effects of these factors on annuity income could be mitigated if all retirees were required to purchase annuities, the types of annuities individuals could purchase were limited, or group annuities were purchased. However, private annuities would not be able to provide certain Social Security features, such as fully indexed cost of living increases, without reducing initial monthly annuity payments to retirees.

Privately annuitizing individual accounts could also have important consequences for the existing federal-state structure of insurance regulation. The federal government's role in regulating annuities is currently limited; under a system of individual accounts, this role could significantly expand. States have primary responsibility for regulating the annuities market under their longstanding authority to regulate the insurance industry. Each state develops its own laws and regulations regarding the insurance industry's operations, including the development and sale of annuities as well as the protections afforded to annuitants. Individual state guaranty associations are responsible for the guarantee of annuities in the event of insurer insolvency. If payouts from individual accounts were to increase the size of the annuities market, policymakers would need to reevaluate the current regulatory framework for the insurance industry to ensure uniform protection for retirees' annuity income.

Background

Only insurance companies can underwrite annuities in the United States. Other financial intermediaries, such as banks and stock brokerage firms, may sell annuities issued by insurance companies. Annuities purchased by individuals directly from insurance companies or through brokers or agents are termed individual annuities while those purchased through group master contracts are termed group annuities. Group master contracts are usually issued to employers for the benefit of employees, and individual members of the group hold certificates as evidence of their annuity. For example, federal employees who participate in the Federal Thrift Savings Plan may, upon retirement, purchase an annuity with their thrift savings account balances through a contract between the Federal Retirement Thrift Investment Board and Metropolitan Life Insurance Company.

Insurance companies determine the size of an annuity that can be purchased for a given premium payment using assumptions about a number of variables, including the following:⁵

- Interest Rates. The assumed interest rate is used to discount projected payments and costs back to the annuity purchase date. The rate should reflect current rates available in the capital markets, adjusted to produce the insurer's target level of profits desired from the annuity.
- Mortality Rates. The assumed mortality rate reflects death rates associated with known or assumed characteristics of the annuitant population, with some adjustments to account for future potential improvements in mortality. There are a number of published tables available for pricing annuity products.⁶ For example, the Society of Actuaries published the Annuity 2000 mortality tables for valuing individual annuities for establishing reserves—funds set aside by insurers to pay future claims. These tables, or adjustments to the tables, are sometimes used for pricing individual annuities. In the private market, separate mortality rate tables are generally used for men and women, reflecting the lower mortality rates of females. However, federal law requires employers to use combined male and female mortality rates, termed “unisex rates,” for annuities purchased by employer-sponsored pension plans.
- Administrative Expenses, Sales Costs, Taxes, and Other Costs. Administrative charges for annuities, known as expense loads, are

⁵John L. Santoloci, Pricing and Product Development for Income Annuities (Society of Actuaries, 1993).

⁶Mortality tables show, for hypothetical groups of individuals, the number of individuals surviving at each age and the number of individuals dying and the probability of dying within 1 year of reaching a designated age.

included in the pricing formula. Commissions paid to agents and brokers for explaining and selling annuities are payable at issuance of the annuity, and some states charge premium taxes.

Insurance companies offer several premium payment options. Immediate annuities are purchased with a single premium payment and usually begin making payments 1 month after the annuity is purchased. Premiums for deferred annuities are usually paid over several years. At the time the contract holder wishes to access the deferred annuity cash value, usually at retirement, one of three options might be selected: (1) lump-sum distribution, (2) annuitization, or (3) systematic withdrawals.

Insurance companies also offer several annuitization options. For example, monthly income can be a fixed amount per month (fixed annuity); a steadily increasing amount based on an index, such as the Consumer Price Index (indexed annuity); or a variable amount based on returns from investing the premium (variable annuity). Under a single-life annuity, the annuitant receives a guaranteed stream of payments that end with the annuitant's death. Under a joint-life annuity, the payments continue to be made, sometimes at a reduced rate, to a secondary annuitant on the death of the primary annuitant. For a term-certain annuity, payments are not contingent on the annuitant's life; instead, they are guaranteed for a specified period of time, such as 5 or 10 years.

Although regulation of the insurance industry is generally a state responsibility, several federal agencies play a role in regulating annuities. The McCarran-Ferguson Act, enacted in 1945 to preserve the traditional state regulation of the insurance industry, precludes the application of federal statutes to the business of insurance, unless they specifically relate to that business. The Employee Retirement Income Security Act of 1974 (ERISA), which regulates employee benefit plans, is a federal law that specifically relates to insurance. Under ERISA, the Department of Labor (DOL) and Pension Benefit Guaranty Corporation (PBGC) have issued regulations and other guidance covering private employer-sponsored pension plans.⁷ Additionally, variable annuities are regulated both as insurance products by the states and as securities by the Securities and Exchange Commission.

⁷PBGC is the federal agency that provides benefits for participants of insured-defined benefit plans that terminate with insufficient assets to pay benefits.

Private Annuities Market Can Likely Provide Annuities for Individual Accounts

Providing the annuities necessary to convert retirees' individual account accumulations into a stream of monthly income is unlikely to significantly disrupt the annuities market.⁸ As shown in table 1, total premiums (for group and individual annuity purchases) paid to insurers increased from \$22.4 billion in 1980 to \$197.5 billion in 1997. Furthermore, the amount of annuity-related reserves increased more than eightfold—from about \$172 billion to over \$1.4 trillion—during the same period. The demand for annuities in a given year would depend on the number of retirees during the year, the amount of their individual account balances at retirement, and whether or not retirees are required to purchase an annuity on retirement. If a large portion of the population purchased annuities, these purchases could be phased in over a long period of time, thereby allowing insurance companies to make the necessary financial adjustments, such as finding sufficient investments to fund their annuity payment obligations.

Table 1: Growth in Annuity Premiums, Annuitant Income, and Insurance Company Reserves Between 1940 and 1997 (Dollars in Millions)

Year	Premiums paid	Total payments to annuitants	Policy reserves ^a
1940	\$386	\$176	NA
1960	1,341	830	\$19,279
1980	22,429	10,195	171,960
1990	129,064	32,575	797,923
1997	197,529	55,080	1,454,962

^aFunds set aside by insurance companies to pay policy obligations.

Source: Life Insurance Fact Book, 1998, American Council of Life Insurance.

The figures in table 1 for 1997 annuity activity include certain investment vehicles, such as deferred annuities, that are rarely annuitized but, instead, can be used as tax-deferred investments. In 1997, premium payments for immediate annuities (individual and group) were almost \$48 billion or about 24 percent of all annuity premiums. According to the Society of Actuaries, immediate annuities usually have a different impact on insurance company reserves and surpluses than deferred annuities. Selling immediate annuities usually causes some strain on insurers' reserves and surpluses. To the extent that increased annuity purchases strain the financial resources of some insurers, the likelihood of insurance company insolvency would increase and the ability of insurers to provide other types of products might be lessened.

⁸For more information on the potential effects of individual accounts on the capital markets, see our report *Social Security: Capital Markets and Educational Issues Associated With Individual Accounts* (GAO/GGD-99-115, June 28, 1999).

Funds used to purchase annuities would likely result in a shift of funds among investment asset classes but would not represent a flow of new funds into the capital markets. During the working years (accumulation phase), workers' contributions to their individual accounts would be invested in the capital markets. As workers transition into retirement, the allocation of investments among asset classes might change. For example, investments might be more heavily weighted in equities than in fixed-income assets during the accumulation phase. During the payout phase, investments might be more heavily weighted in fixed-income assets.

Under some individual account proposals, it could be many years before the annual amount of account balances being converted to annuities would equal the amount of current annuity purchases. Two reform proposals by the 1994-1996 Advisory Council on Social Security illustrate this point. (See table 2.) One proposal would require mandatory contributions of 1.6 percent covered payroll to individual accounts, and the other would require contributions of 5 percent. One proposal would also require the purchase of annuities, while the other would permit but not require the purchase of annuities on retirement. Both proposals assumed implementation would occur in 1998.

Table 2: Two Proposals by the 1994-1996 Advisory Council on Social Security for Reforming Individual Accounts

	Proposal 1	Proposal 2
Mandatory contributions (percentage of payroll)	1.6%	5.0%
Year distributions could begin	2000	2005
Total distributions in beginning year (billions in 1998 dollars)	\$2.9	\$37.5

Under the 1.6-percent proposal, in the year 2000, retirement distributions from individual accounts would total about \$2.9 billion, in 1998 dollars. Under the 5-percent proposal, distributions would have begun in 2005, because initial participation was limited to workers under age 55, but would start at a higher amount, \$37.5 billion.⁹ Under contributions of 5 percent, it could take 20 years from when workers first retire with individual accounts before the annual amount of account balances being converted into annuities would approach the amount of current annuity purchases. Under contributions of 1.6 percent of payroll, it could take much longer—beyond the year 2050—before individual account

⁹SSA estimates were based on intermediate assumptions in the 1995 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. We converted the payroll amounts to 1998 constant year dollars using intermediate inflation assumptions in the 1998 trust fund report.

accumulations being converted into annuities would approach the current amount of annuity purchases.

Income From Annuities Would Depend on Several Factors

The size of individual accounts, interest and mortality rates, and administrative and other costs all affect the amount of income provided by an annuity. While these costs could significantly reduce income from an annuity by reducing the amount of money available to fund the annuity, options such as purchasing a group annuity for retirees or limiting individual annuity choices would further reduce them. However, private annuities may not be able to provide fully-indexed cost-of-living increases because insurers might not be able to find sufficient investments to protect themselves from increases in inflation.

Account Size at Retirement Is a Key Factor Determining Annuity Income

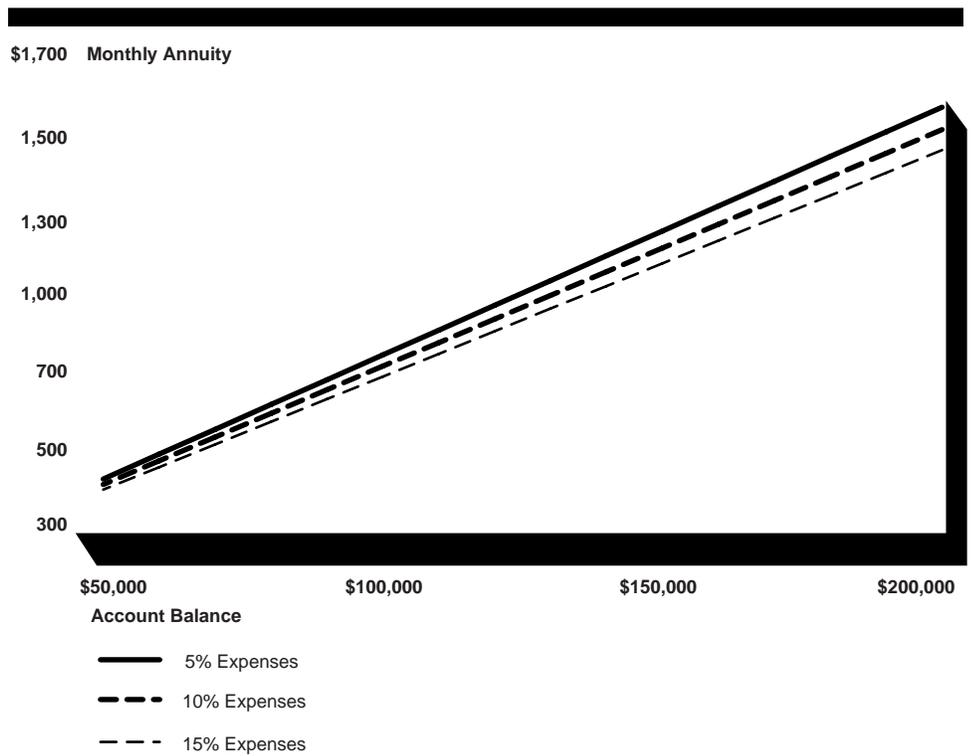
The level of income that individuals would receive from converting their account balances into annuities is primarily a function of the size of those accounts at retirement. An individual's account balance would depend on various factors such as the amount of wages earned over the individual's working career, the percentage of those wages that are deposited into the individual's Social Security account, and investment earnings. Estimates of individual account balances vary widely, but our estimates—based on contributions of 2 percent of earnings and various administrative expenses for setting up and maintaining the accounts—provide insight into how much individual account savings retirees might have to purchase annuities. For example, our simulation suggests that a man born in 1984 with average annual earnings who worked from age 22 to age 67 would accumulate account balances of \$75,995 if administrative expenses for maintaining the account during accumulation were 2 percent annually, or \$125,430 if administrative expenses were 0.1 percent annually, in 1998 dollars. The same person opting for early retirement at age 62 would accumulate \$65,214 with a 2 percent annual administrative cost, or \$100,303 if expenses were 0.1 percent annually.¹⁰

Figure 1 shows the range of monthly annuities that individuals who survive and retire at age 65 in the year 2000 could purchase, with individual accounts ranging from \$50,000 to \$200,000 and annuity-related expenses of 5 percent, 10 percent, and 15 percent. For example, an individual with a \$50,000 account balance, paying a 10-percent expense load would receive a \$370 monthly annuity while someone with a \$100,000

¹⁰See app. I for more information on the interest rates and assumptions used to estimate potential individual account balances.

account balance, and the same expense load, would receive a \$740 monthly annuity. The monthly annuities assume an effective annual interest rate of 6 percent and unisex mortality rates.

Figure 1: Monthly Annuities for Persons Retiring at Age 65 in 2000 With Account Balances Ranging From \$50,000 to \$200,000 and Annuity Expenses of 5, 10, and 15 Percent



Note: Annuity expenses are expressed as a percentage of the single premium. According to the Society of Actuaries, many insurance companies may set their expense loads partially as a percentage of premium, but also on a per policy basis, which could increase the disparity between those with low versus high account balances.

Source: GAO calculations. (Our methodology and assumptions are described in app. I.)

Individuals with small account balances at retirement could have difficulty purchasing individual annuities under current market conditions. They would receive smaller monthly annuity payments because of the amount of money in the account available to purchase an annuity, and they could pay a disproportionate amount of their account balance for annuity-related administrative costs, further reducing the amount available to fund their

retirement income. Moreover, insurance industry officials told us that it would be inefficient and costly for insurers to provide annuities for individuals with small accounts because of the cost of issuing monthly checks and other administrative costs. Many annuity purchases are currently with premiums of at least \$100,000; under some reform proposals, there could be many small accounts with balances initially under \$2,000.

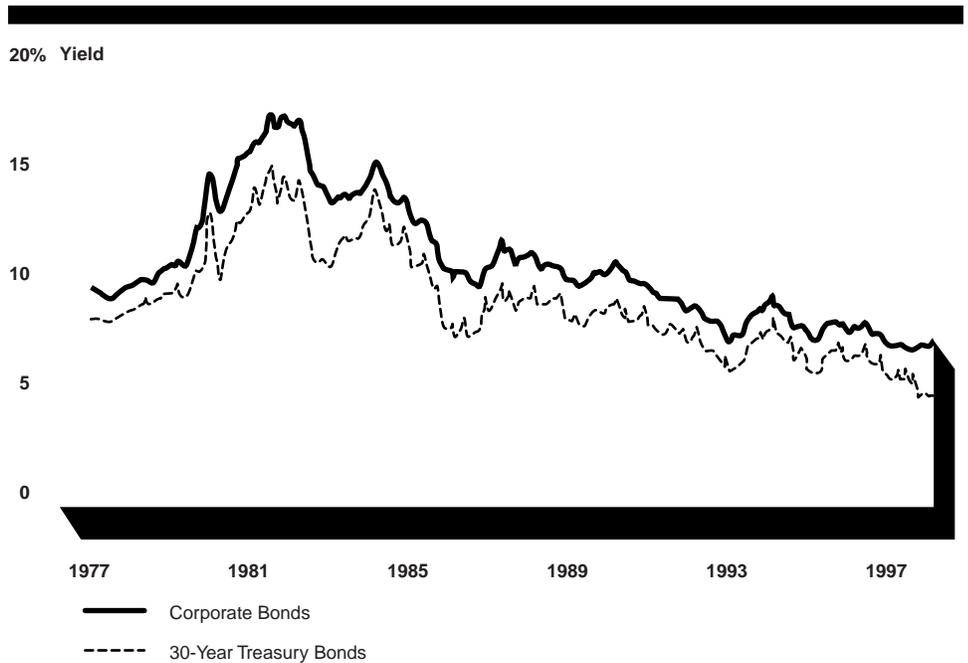
Insurance industry officials told us that it would be less costly and result in higher annuity payments if individuals received a group annuity. This could be accomplished either by having the government provide the annuity through the Social Security Administration (SSA) or another government agency, or through a contract with private insurers. For example, insurance companies could competitively bid to provide group annuities for people retiring over a certain period. People retiring during this period would be provided an annuity under a master contract, rather than on an individual basis. Such arrangements would enable individuals with small account balances to access the annuities while reducing the administrative and other costs they would pay. The extent to which group annuities could take advantage of economies of scale and thus lower administrative costs would depend, in part, on how the contracts were structured and whether the federal government or annuity providers would be responsible for administrative tasks such as maintaining records and providing services to retirees, including explaining annuity options.

Low Interest Rate Assumption Would Result in Lower Annuities

Current and expected interest rate levels also affect the amount of monthly income individuals would receive from annuities. The most common way for insurance companies to invest premiums received from the sale of annuities is to purchase corporate bonds, which typically offer a higher rate of return than U.S. Treasury securities. Essentially, the insurer pools the premiums and invests them by buying corporate bonds.¹¹ Since interest rates fluctuate, the date that a person retires could significantly affect the amount of monthly income that could be purchased with a given premium payment. For example, as figure 2 shows, the yield for 30-year U.S. Treasury notes varied from about 5 to 15 percent and the yield for investment-grade corporate bonds varied from about 7 to 17 percent between February 1977 and 1999.

¹¹David Shapiro and Thomas F. Streiff, *Annuities* (Dearborn Financial Publishing, Inc., 1992).

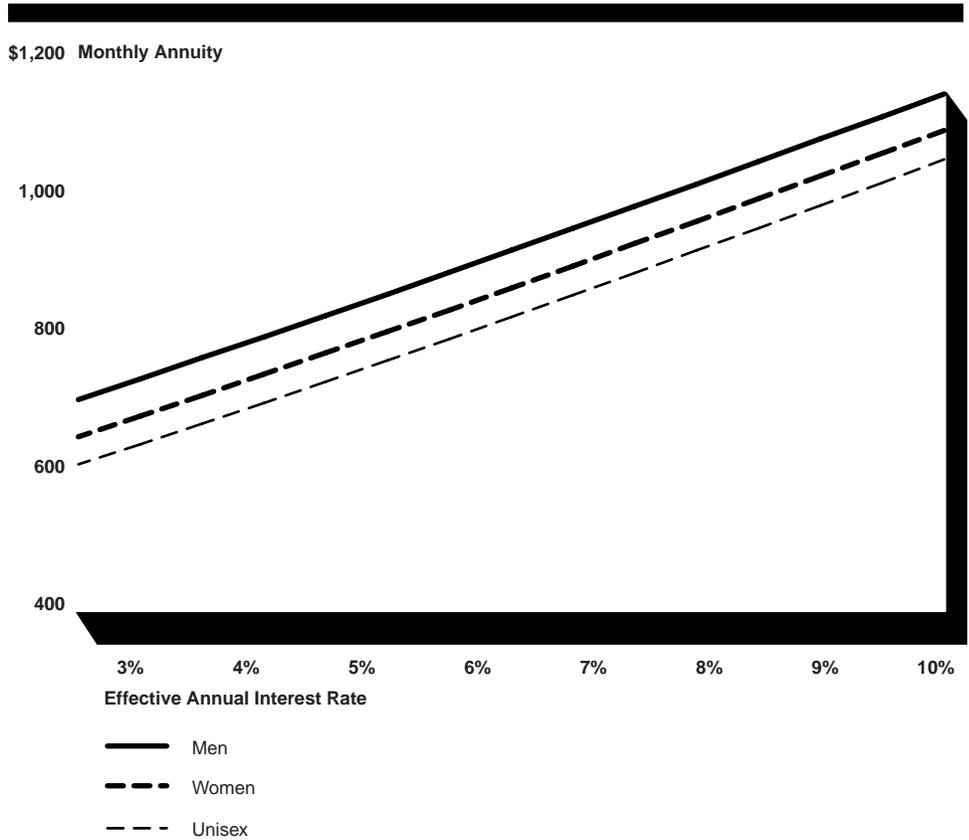
Figure 2: Yield for Investment-Grade Corporate Bonds and 30-Year U.S. Treasury Bonds Between 1977 and 1999



Source: Federal Reserve Board.

Individuals purchasing annuities in the private market also face risk associated with the volatility in interest rates. As shown in figure 3, a change in the interest rate assumption used to price an annuity can have a significant effect on the size of an individual's monthly annuity. For example, assuming a 6-percent interest rate and no administrative expenses, an individual purchasing a unisex annuity at age 65 in the year 2000 with \$100,000 would receive about \$810 per month. Another individual with an equivalent account balance but who purchased an annuity during a period of higher interest rates, such as 7.5 percent, would receive about \$910 per month—a 12-percent higher payment. Insurance company representatives told us that low current interest rates—and the resulting low monthly annuities—is one reason why relatively few deferred annuities and individual retirement accounts are being converted to annuities.

Figure 3: Monthly Annuities for Persons Retiring at Age 65 in 2000 With a \$100,000 Premium Payment, for Interest Rates From 3 to 10 Percent



Source: GAO calculations. (Our methodology and assumptions are described in app. I.)

Without some mechanism to offset the effects of interest rate volatility on annuity payments, requiring individuals to purchase annuities in the private market will introduce an element of risk in Social Security retirement income—a risk that does not currently exist. One way to help protect retirees from interest rate volatility is to allow individuals to determine when to purchase annuities. For example, rather than requiring individuals to purchase annuities immediately at retirement, they could be allowed to maintain their individual accounts up to a certain period of time after retirement. This could give them the opportunity to purchase annuities when interest rates seem more favorable.¹² Another option

¹²Under federal tax law, retirees must begin receiving payouts from retirement plans no later than April 1 of the year following their retirement date or attainment of age 70-1/2, whichever comes later.

would be to allow individuals to purchase annuities in installments over a specified number of years.

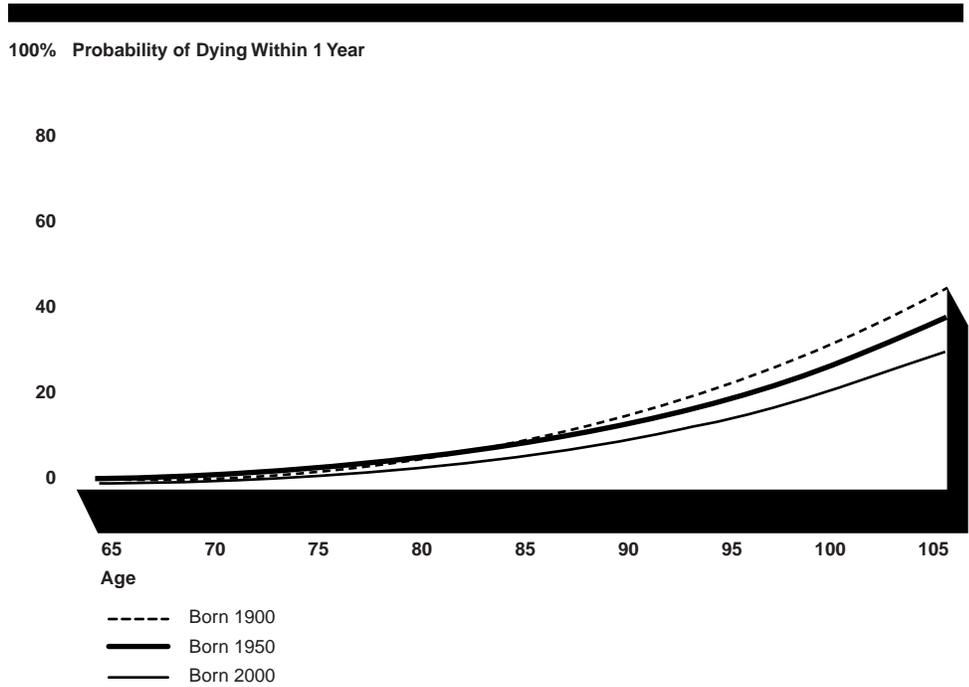
Lower Mortality Rates Would Reduce Annuities

Changes in mortality assumptions would also affect the amount of annuity payments future retirees will receive.¹³ Reductions in the probability that members of the annuitant population die at designated ages would result in smaller monthly annuities for individuals because there is an increased likelihood that each succeeding payment will need to be made. The mortality tables insurance companies use consider changes in medical diagnostics and treatments, public health, and socioeconomic factors that affect life expectancy. When annuitizing individual accounts, insurers would also consider whether annuities would be mandatory or voluntary; the anticipated mortality rate of the annuitant population; and whether annuity calculations would be based on separate mortality tables for men and women or on a unisex table, as the federal government uses.

Advances in medical diagnostics and treatment have helped reduce mortality rates in the United States. Figure 4 shows that, according to SSA's 1999 intermediate mortality assumptions, mortality rates for persons who survive to age 65 are expected to continue to decrease. For example, there is a 2.6-percent chance that a person born in 1900 who survives to age 65 will die within a year, a 1.6-percent chance for a person born in 1950, and a 1.2-percent chance for a person born in 2000. Persons born in 1950 and 2000 have a lower probability of dying at each successive age and, therefore, a higher probability of collecting each additional annuity payment than those born in 1900. Consequently, as mortality decreases, more annuity payments will need to be made and the monthly annuity payments will have to decrease to account for the greater number of payments.

¹³All forms of retirement income, including Social Security and private pensions, are subject to the risk of declining mortality.

Figure 4: Mortality Rates, by Age, for Persons Who Were Born in 1900, 1950, and 2000 and Survive to Age 65



Source: GAO calculations. (Our methodology and assumptions are described in app. I.)

Reductions in mortality rates mean that future retirees will receive smaller monthly annuities, all else being equal. As shown in table 3, assuming a 6-percent interest rate and no administrative expenses, persons aged 65 with \$100,000 accounts could purchase monthly annuities ranging from about \$750 to about \$890, depending on the mortality assumption used to calculate the annuity’s price.

Table 3: Estimated Monthly Annuities Purchased at \$100,000 for Persons Retiring at Age 65, Assuming SSA Mortality Rates for Persons Born in 1900, 1950, and 2000

Birth year	Monthly annuity
1900	\$890
1950	\$800
2000	\$750

Note: Calculations assume a 6-percent interest rate and no expenses.

Source: GAO calculations. (Our methodology and assumptions are described in app. I.)

Monthly annuity payments could also be influenced by a decision to permit, rather than require, retirees to purchase annuities. Individuals with a higher than average mortality risk, such as those with serious illnesses or a family history of certain diseases, might decide that annuities are too expensive for them and opt for another form of payment. Adverse selection—the possibility that the population of annuitants will experience more favorable mortality rates than the population as a whole—is a problem that affects the insurance industry, and companies construct mortality tables to reflect the higher life expectancies of the annuitant population. For example, the Annuity 2000 mortality table was developed for the Society of Actuaries for use in the valuation of individual annuities and, therefore, reflects the mortality characteristics of persons who are expected to voluntarily purchase individual annuities. Table 4 shows that the Annuity 2000 mortality table results in significantly smaller monthly annuities than SSA’s mortality table.

Table 4: Estimated Monthly Annuity for Persons Retiring at Age 65 in 2000 With a \$100,000 Premium Payment, and Using Annuity 2000 and SSA Mortality Tables

	Annuity 2000^a	SSA	Percentage increase
Men	\$750	\$870	16%
Women	700	770	10

Note: Calculations assume a 6-percent interest rate and no expenses.

^aUnlike SSA mortality tables, published Annuity 2000 mortality tables do not provide for improvements in future mortality rates that might result from medical advances and other factors. We projected mortality rate improvement beyond the year 2000 using the same scale and percentages (100 percent of the projected improvement for males and 50 percent for females) that were used to develop the Annuity 2000 basic tables.

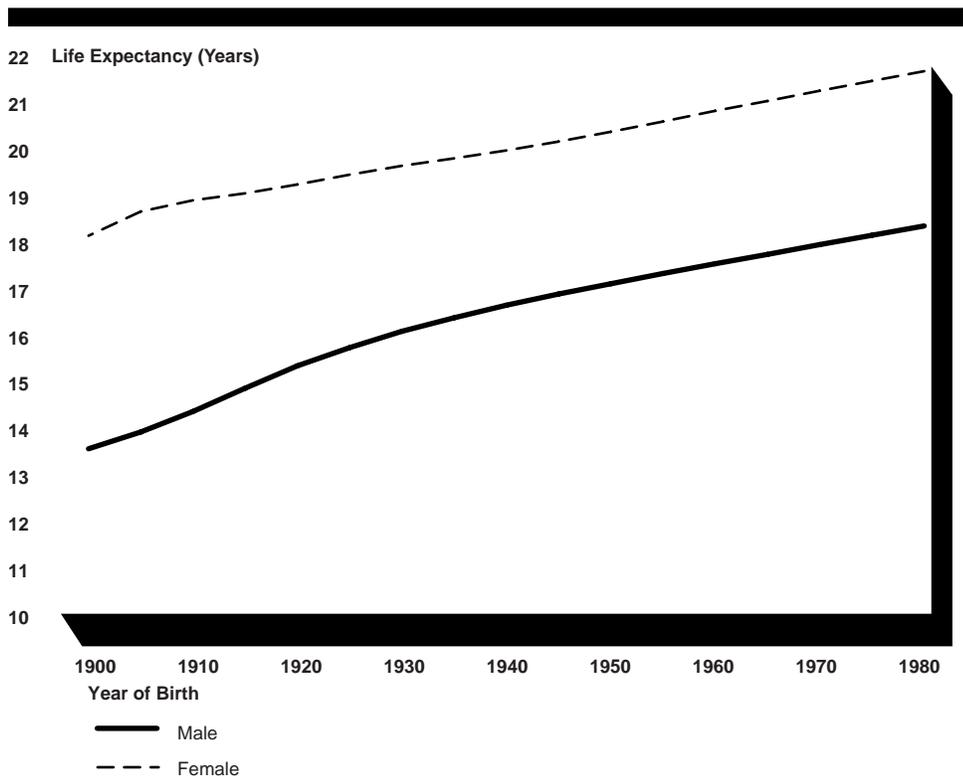
Source: GAO calculations. (Our methodology and assumptions are described in app. I.)

Mandating annuitization of individual account balances will likely reduce the costs of purchasing annuities for the population at large, but certain groups could be disadvantaged by such a requirement if aggregate mortality tables were used to determine monthly payments. For example, a mortality table based on unisex mortality rates, instead of a gender-specific table, results in smaller annuities for men, who have higher mortality rates than women, and higher annuities for women, who have lower mortality rates. (See fig. 5 for differences in mortality rates.) A 1983 Supreme Court decision found that title VII of the Civil Rights Act, which applies to employment, requires that employer-provided pension plans use unisex mortality tables in calculating annuities, so that women and men with identical salary and work histories receive the same monthly benefit.¹⁴ The individual annuities market, however, is not covered by the

¹⁴Arizona Governing Committee v. Norris, 463 U.S. 1073 (1983).

Supreme Court ruling, and it is unclear whether or not annuities purchased from savings in individual Social Security accounts would be covered by the Court's ruling.

Figure 5: Average Life Expectancy at Age 65 for Males and Females Born in 1900 Through 1980 Based on SSA's 1999 Intermediate Mortality Rates



Source: SSA Office of the Chief Actuary.

Aggregate mortality tables might also disadvantage other participants, such as lower-income individuals, whose mortality rates appear to be higher than the population as a whole. An analysis of research on mortality differentials indicates, for example, that in addition to clear differences in sex, differences in income, race, education, and marital status may correlate with differences in mortality rates, although they may be more difficult to interpret.¹⁵ To the extent group mortality rate differentials

¹⁵Shripad Tuljapurkar and Carl Boe, "Mortality Change and Forecasting: How Much and How Little Do We Know?," *North American Actuarial Journal*, Vol. 2, No. 4 (Society of Actuaries, Oct. 1998).

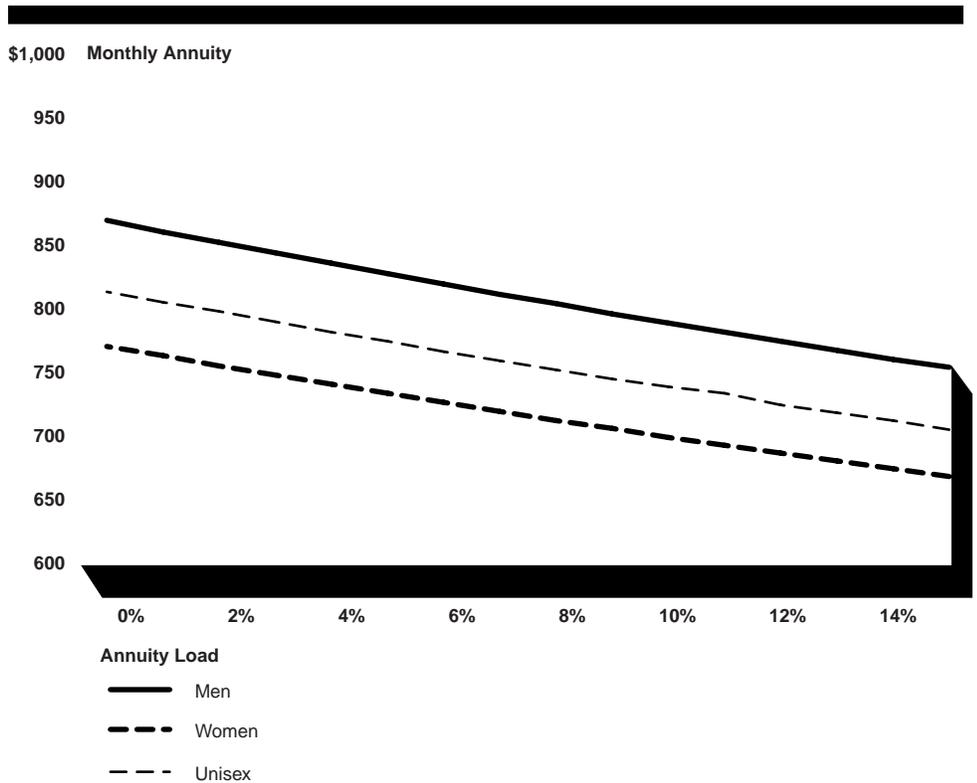
occur at ages beyond age 65 and persist in the future, mandatory annuities that are priced on the basis of aggregate mortality rates would result in the redistribution of income from groups of individuals who die earlier, on average, to those who die later. Annuities could be designed, however, to reduce the effect of differentials in mortality rates. For example, retirees could be given the option of purchasing a life with term-certain annuity, wherein, if the annuitant died before the end of a specified period, payments would continue to a beneficiary. Payments to the beneficiary, however, would not continue beyond the annuity's specified period.

Administrative and Other Expenses Reduce Retirees' Annuity Income

Expected administrative and other expenses charged by insurance companies would also reduce annuity income. The costs of setting up annuity accounts, paying commissions, tracking payments, managing assets, and paying taxes are reflected in annuity prices. Although commission rates typically range from 3 to 6 percent of the amount used to purchase the annuity, they can vary as widely as 0 to more than 10 percent.¹⁶ Generally, any increase in expected operating expenses would result in smaller annuities, assuming that other factors remain unchanged. Figure 6 shows, for example, that increasing annuity loads from 0 to 15 percent would reduce monthly annuities by about \$100 for persons retiring at age 65 in the year 2000 with an account balance of \$100,000.

¹⁶Annuities Around the World, LIMRA (1998).

Figure 6: Monthly Annuities for Persons Retiring at Age 65 in 2000 With a \$100,000 Premium Payment, for Expense Loads From 0 to 15 Percent



Note: Calculations assume a 6-percent interest rate.

Source: GAO calculations. (Our methodology and assumptions are described in app. I.)

Administrative and other expenses for private annuities would vary depending on how accounts were annuitized. A 1997 analysis found that prices charged for immediate, fixed, life annuities varied widely,¹⁷ with about a 20-percent difference between the highest and lowest groups of monthly annuity payments paid by insurance companies. Assuming a typical investment portfolio of investment-grade bonds, the study estimated that, in 1995, commercial insurance companies allowed about 14 to 18 percent of annuity premiums to cover marketing costs, corporate overhead and income taxes, additions to various company contingency reserves, and profits. The remainder of the annuity premium is used to pay the annuity. Although the study also found that costs have declined since

¹⁷Olivia S. Mitchell and others, *New Evidence on the Money's Worth of Individual Annuities*, National Bureau of Economic Research Working Paper 6002 (Apr. 1997).

the early 1980s, a January 1999 analysis indicates that total expenses for immediate annuities purchased in the individual annuity market could be as high as about 15 percent of the amount being converted into an annuity.¹⁸

Several options exist that could lower administrative costs. For example, having the federal government provide the annuities or contract with private insurers to provide group annuities could reduce administrative and sales costs because annuities would not be marketed on an individual basis. Limiting the number of annuity purchase options could further reduce costs because insurers would not have the additional costs associated with marketing and selling numerous products to retirees with Social Security individual accounts. However, as long as individuals determine whether to annuitize their account balances, the types of annuity purchased, and the age at which they retire, options for reducing annuity costs are limited.

Private Sector Annuities May Not Be Able to Provide Certain Social Security Benefits

While private annuities could be structured in a way that reduces administrative and other costs, they may not be able to replicate Social Security benefits. Social Security benefits are currently calculated using workers' 35 years of highest earnings, and benefits are provided to workers' spouses, children, and survivors. The system also has a redistributive component, which weights benefits in favor of families and lower-income workers. Additionally, Social Security benefits are fully indexed for inflation.

Generally, annuities sold in the United States do not provide full inflation protection; instead, retirees can purchase indexed or variable annuities. Indexed annuity payment increases may be limited to a maximum percentage annually, regardless of increases (and decreases) in inflation rates. Variable annuities might also provide inflation protection, but only as long as investment returns meet or exceed the rate of inflation. Investment returns are not guaranteed, and variable annuities generally have higher administrative costs than fixed annuities.

Requiring annuities to be fully indexed for inflation would reduce initial monthly annuity payments. Insurance company officials stated that issuers providing inflation-indexed annuities might hedge the inflation risk by investing in shorter-term securities and inflation-adjusted Treasury

¹⁸James M. Poterba and Mark J. Warshawsky, The Costs of Annuitizing Retirement Payouts From Individual Accounts, National Bureau of Economic Research Working Paper 6918 (Jan. 1999).

securities, which typically have lower investment returns than longer-term and non-indexed securities. Consequently, retirees would receive lower initial monthly annuity payments in exchange for inflation protection.

Private annuities also may not be able to provide auxiliary benefits similar to those under the Social Security program. To calculate Social Security benefits, a progressive benefit formula is used that replaces a relatively larger portion of lifetime earnings for people with low earnings than for people with high earnings. Furthermore, Social Security provides auxiliary benefits to workers' eligible spouses, children, and survivors without reducing the size of the worker's own annuity. It is unlikely that a private annuity could be designed that provides the same benefits. For example, an annuity calculated on the basis of expected interest rates, mortality rates, and expenses would not replace the benefit that Social Security currently provides to nonworking spouses.¹⁹ Furthermore, under a joint life annuity, the primary annuitant must accept less monthly income than under a single life annuity.

Federal Regulation of the Annuities Market Could Expand Under a System of Individual Accounts

Providing annuities to Social Security recipients through the private market could have important consequences for the existing structure of insurance regulation. If individual accounts were established, federal regulation of annuities could potentially expand to include such matters as establishing and enforcing solvency requirements and providing a guaranty program. Currently, the federal government has a limited role in the regulation and oversight of certain annuities; however, it does not guarantee these annuities in the case of insurer insolvency. States have primary responsibility for regulation of the insurance industry, including solvency and guaranty requirements. However, insurance department oversight and guaranty levels vary among states and could result in unequal treatment of retirees. Furthermore, retiree annuity values could sometimes exceed state guaranty limits.

Federal Government Has a Limited Role in Regulating Annuities

The federal government has a limited role in regulating the annuities market. DOL and PBGC enforce regulations under ERISA on the selection of annuity providers by private pension plans. DOL provides guidance concerning the selection of annuity providers to make sure plan sponsors follow their fiduciary responsibilities—that is, they act solely in the best interest of participants and generally select the safest annuity available.

¹⁹In general, a retired worker's spouse who is not entitled to benefits under his or her own work record will receive a benefit up to 50 percent of the retired worker's benefit. The spousal benefit does not reduce the size of the worker's own benefit.

PBGC rules require administrators responsible for terminating private pension plans to provide participants and beneficiaries with information on state guaranty association coverage of annuities. Neither DOL nor PBGC is authorized to establish or enforce solvency and guaranty requirements on private annuities. Variable annuities, because they are considered to be both insurance and securities, are regulated by the Securities and Exchange Commission and are subject to the antifraud and related disclosure provisions of the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940.

State Regulation of Annuities Varies

States have primary responsibility for regulating the insurance industry, including individual and group annuities. State insurance departments license companies to sell insurance; examine the financial health of companies; and administer, as necessary, the liquidation of insolvent insurers. They also regulate annuity products, including establishing reserve requirements, investment restrictions, and solvency guarantees.²⁰ Some states also generate tax revenue from sales of insurance products.

Regulation and oversight of the insurance market varies by state. The size of insurance departments also varies, depending on the size of their markets and the number of insurance companies headquartered in their state. Consequently, some individual state insurance departments have faced difficulties regulating the large, interstate insurance industry and have used the National Association of Insurance Commissioners (NAIC) to establish model laws and coordinate national regulatory activities.²¹

Insolvency Guaranties May Not Fully Protect Retirees' Annuity Incomes

Differences in state guaranty limits can result in unequal treatment of retirees receiving annuities from the same failed insurer and may not fully protect retirees' annuity income. Each state has an insolvency guaranty law that provides some protection to policyholders or annuitants from financial losses due to insolvent insurers. To pay an insolvent company's obligations, the guaranty association in each state where the company did business assesses the solvent insurers doing business in the state. These associations, however, are limited in the amount of assessments they can make each year. Furthermore, they are not state agencies, and state insurance departments are not responsible for paying the obligations of an

²⁰Gerard M. Brannon, *Public Policy and Life Insurance, The Financial Condition and Regulation of Insurance Companies*, Conference Series No. 35 (Federal Reserve Bank of Boston, June 1991).

²¹NAIC consists of the heads of the insurance departments of the 50 states, the District of Columbia, and 4 U.S. territories.

insolvent insurer. To help promote uniformity in guaranty coverage, NAIC has established a Life and Health Insurance Guaranty Association Model Act. Although all states have adopted versions of the model, there are substantial differences among the states in its implementation. Moreover, the current guaranty association structure has a number of weaknesses:²²

- Coverage is not uniform across states. As a result, two individuals having identical insurance with the same failed insurer can receive substantially different payments depending on their state of residence.
- Each state's guaranty association can act independently of the other associations, although the National Organization of Life and Health Insurance Guaranty Associations helps achieve uniformity across the country.
- There is the potential that a large insolvency or series of insolvencies might overwhelm the ability of each state's guaranty association to provide full, uninterrupted payments to annuitants. For example, in March 1993, we reported that 44,000 retirees with the Executive Life Insurance Company received only 70 percent of their annuities for almost 13 months after California regulators seized control of the company.²³

Retirees whose annuity values exceed the limit of the guaranty association risk losing a portion of their benefits should an insurer fail. According to the National Organization of Life and Health Insurance Guaranty Associations, in 1998, 44 states limit the obligations of their guaranty associations for annuities to \$100,000—the limit recommended by NAIC. Four states have a \$300,000 limit, while two others limit their guaranty to \$500,000. As an individual account system matures, some workers could have account balances exceeding \$100,000 when they retire. Under current state guaranty coverage, the total value of their annuities would not be protected. Furthermore, the number of retirees whose annuities would not be fully protected by state guaranty associations would likely increase over time because most state insurance coverage limits are not indexed to inflation.

Options for a Federal Guaranty of Annuities

Currently, the federal government does not guarantee private annuities. Consequently, retirees who purchased annuities with their individual accounts would have to rely on the protections provided by state regulators and guaranty associations. Some policy analysts have proposed

²²Kenneth Black, Jr., and Harold D. Skipper, Jr., *Life Insurance*, 12th ed. (Prentice Hall, 1994).

²³Private Pensions: Protections for Retirees' Insurance Annuities Can Be Strengthened (GAO/HRD-93-29, Mar. 31, 1993).

extending a federal guaranty to annuities purchases. Options for a federal guaranty include having a government entity guarantee annuities purchased with funds from individual accounts or establishing a national insurance guaranty fund. For example, insurers providing annuities for individual Social Security accounts could be required to pay a guaranty premium to a federal guaranty agency. The agency would then pay the outstanding annuity obligations of an insolvent insurer. However, this option faces several difficulties. First, unless the federal government began regulating insurers, it would lack any ability to control its liability for the annuities. Second, to establish appropriate premium levels, the government agency would have to become proficient in rating the risk of insurance company failure. Third, a federal guaranty agency would place additional regulatory burdens on insurers as well as on the federal government. Finally, any additional cost for a federal guaranty program would likely be passed on to annuitants in the form of smaller monthly payments. A national guaranty fund—whereby a national corporation would collect assessments from insurance companies and administer guaranty payments to annuitants after an insurer becomes insolvent—would face similar challenges.

Conclusions

The private annuitization of individual accounts is one of many important issues to consider when deciding whether and how to create a system of individual accounts as a part of Social Security reform. While the private annuities market is likely to be able to provide annuities for individual accounts without disrupting the market, how these annuities are structured will significantly affect retirees' income. Although requiring individuals to purchase annuities with their individual account balances would help preserve their income throughout retirement, such a requirement would also expose retirees to risks and costs that they do not face under the current Social Security system. There are options that would somewhat mitigate the effects of various costs on annuity payments, but some would require limiting the payout choices available to individuals when they retire.

If individual accounts were established, individuals would need to fully understand the factors affecting their annuity income as well as the extent to which their annuities are protected. Also, if individuals were required to purchase annuities, the federal government would potentially need to play some role in either ensuring that insurance markets worked efficiently or providing annuities when the private market failed to do so. Furthermore, to protect retirees and ensure equal treatment of all annuitants, the

government might have to establish standardized solvency requirements for insurance companies and uniform guaranty protections for annuitants. However, policymakers would need to balance the states' longstanding authority to regulate insurance markets with the desire for uniform protections for retirees purchasing annuities with their individual accounts.

Agency and Other Comments

We provided a draft of this report to SSA, the American Council of Life Insurance, the National Organization of Life and Health Insurance Guaranty Associations, the Society of Actuaries, and federal government actuaries. They provided oral or written comments that were primarily technical and clarifying in nature, which we incorporated as appropriate. In commenting on our report, the reviewers generally agreed with our characterization of the factors that influence monthly annuity payments and our discussion on the implications of privately annuitizing individual Social Security accounts. In addition to its technical comments, SSA stated that our report brought necessary attention to the risks facing consumers in the private market. It suggested, however, that we expand our discussion to include how individuals (eligible spouses, children, and survivors) receiving auxiliary Social Security benefits would be affected under a system of individual accounts. Because we addressed this issue in a prior GAO report, we did not expand on it in this report.²⁴ SSA also recommended that we include information on how individual annuities are sold and the potential that annuity purchasers could make unwise decisions. Our report highlights the need for individuals to understand the factors and decisions that can affect their annuity income. We have also pointed out in recent reports that increased education to help improve participants' understanding of the consequences of such decisions on their retirement income would be an important part of any reform proposal that included individual Social Security accounts.²⁵ SSA's letter is reprinted as appendix II.

We are sending copies of this report to the Honorable Bill Archer, Chairman, House Ways and Means Committee; other relevant congressional committees; the Commissioner of Social Security; the Secretary of Labor; and the Executive Director of PBGC. Copies will also be made available to others on request. If you or your staff have any

²⁴Social Security: Different Approaches for Addressing Program Solvency (GAO/HEHS-98-33, July 22, 1998).

²⁵GAO/HEHS-99-122 and GAO/GGD-99-115.

questions, please contact me on (202) 512-7215. Major contributors to this report include Charles A. Jeszeck, George A. Scott, and John M. Schaefer.

Sincerely yours,

A handwritten signature in black ink that reads "Barbara D. Bovbjerg". The signature is written in a cursive style with a large, looped initial "B".

Barbara D. Bovbjerg
Associate Director
Education, Workforce, and
Income Security Issues

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Abbreviations

DOL	Department of Labor
ERISA	Employee Retirement Income Security Act of 1974
NAIC	National Association of Insurance Commissioners
PBGC	Pension Benefit Guaranty Corporation
SSA	Social Security Administration

Scope and Methodology

To review the likely effect of individual accounts on the annuities market, we analyzed estimates of account accumulations and information on sales trends in the annuities market. To estimate potential individual account balances, we made a number of assumptions. With respect to population and economic projections, including returns on investment and projected wages, we used the same assumptions as those used to produce the intermediate-range assumptions of the 1999 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. This resulted in a 10.3-percent nominal rate of return for corporate stocks (or about a 7-percent real rate of return) and a 6.3-percent nominal return on Treasury bonds (or about a 3-percent real return). (See [GAO/HEHS-99-131](#) for additional information on our assumptions.) To identify the factors that affect annuity payments, we discussed the pricing of annuities with insurance industry and government actuaries and reviewed literature on the pricing of annuities.

To examine the effect on annuities of these factors, we calculated the present expected value of life-contingent annuities, payable in equal monthly installments at the end of the month, to persons who would survive to and retire at age 65 in the year 2000. The present value was calculated to adjust future annuity payments for the time value of money. The time value of money refers to the fact that a dollar received today is worth more than a dollar received some date in the future because the dollar received today can be invested and earn interest. The expected value was calculated to adjust future payments for the probability that individuals would not be alive to collect them.

Discount factors, based on assumed interest rates, determine the present value of future annuity payments. For each interest rate used in the analysis, we calculated monthly discount factors assuming the rate remained level from the start of annuity payments until the mortality table indicated no more persons remained alive to collect an annuity. Before discounting, we converted effective annual interest rates to nominal rates, compounded monthly.

Mortality rates determine the expected value of future payments. We obtained mortality rates from tables published by SSA and the Society of Actuaries. SSA mortality tables were prepared in support of intermediate estimates in the 1999 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, and we used them to examine the probability that individuals, representative of the U.S. population as a whole, would survive to collect

each annuity check. Since the tables provided annual mortality rates, we estimated monthly rates assuming that deaths were evenly distributed during the year. Since the tables provided separate mortality rates for males and females, we constructed unisex rates by computing a weighted average rate for men and women who would survive to retire at age 65, as indicated by the SSA estimates. For example, for persons born in 1935 and retiring at age 65 in the year 2000, we used the distribution at age 65 of 46.5 percent men and 53.5 percent women.

To calculate the present expected value for each month, we (1) multiplied the amount of the annuity (initially \$1) by the number of annuitants who are expected to survive to collect it and by the appropriate discount factor and (2) totaled the monthly discounted payments to surviving annuitants, dividing that total by the number of annuitants alive at age 65. The present expected value, when adjusted for expenses, is the price of a \$1 monthly, life-contingent, ordinary annuity. We then divided the number of dollars available to purchase an annuity, by the price of a \$1 monthly annuity, to determine the number of dollars of monthly annuity that could be purchased by an individual.

We interviewed officials from the National Association of Insurance Commissioners, National Organization of Life and Health Guaranty Associations, and the Pension Benefit Guaranty Corporation to discuss the potential role of federal regulation of the annuities market. We also interviewed insurance industry officials and researchers from the American Council of Life Insurance, LIMRA, as well as pension experts and actuaries.

Comments From the Social Security Administration



SOCIAL SECURITY

Office of the Commissioner

July 21, 1999

Ms. Cynthia Fagnoni
Director, Education, Workforce,
and Income Security Issues
U. S. General Accounting Office
Washington, D.C. 20548

Dear Ms. Fagnoni:

Enclosed are our comments on the General Accounting Office's (GAO) draft report Social Security Reform: Implications of Annuities for Individual Accounts (GAO/HEHS-99-160). We appreciate the opportunity to review the report and hope these comments will prove useful.

We are pleased that this GAO report discusses the costs of annuitizing individual accounts and describes how payouts from annuities do not offer the same protections for spouses and children provided by Social Security. The information you provide about the potential need for greater Federal regulation of the annuities market brings necessary attention to the risks faced by consumers on the private market. As you mention, States have primary responsibility for regulating the insurance industry (and consequently for regulating annuities). Guarantee limits in the event of an insurance company's insolvency, therefore, can vary widely from State to State. In addition, a large number of insurer insolvencies in one State could overwhelm the guarantee fund's ability to provide full, uninterrupted payments to annuitants, as happened in California.

Although the report acknowledges that annuities cannot provide benefits for auxiliaries (spouses, ex-spouses, children, survivors) that replicate Social Security, we recommend GAO elaborate on the discussion of how these groups might be treated under a system of individual accounts. For example, if individual accounts are equally divided upon a divorce, each spouse of the worker may receive a different annuity amount, even given the same length of marriage. If the annuity, rather than the individual account, is divided among any current and past spouses in order to equalize payment amounts, ex-spouses who live longer than the worker and his/her current spouse (in the case of joint annuities) would not receive payments after the worker's or widow(er)'s deaths.

SOCIAL SECURITY ADMINISTRATION BALTIMORE MD 21235-0001

**Appendix II
Comments From the Social Security
Administration**

Finally, we recommend the report include additional information on the ways that private annuities are sold and the dependence on sales agents for information on annuities. Since many annuities are purchased through insurance agents and purchasers often rely upon the seller for information, the potential for unwise decisionmaking exists when a pool of new annuity-purchasers is added to the market.

Our specific comments are detailed in the enclosed document. If you should have any questions concerning our comments, your staff may contact Jane L. Ross, the Social Security Administration's Deputy Commissioner for Policy, at (202) 358-6082 in Washington, or (410) 966-6756 in Baltimore.

Sincerely,



Kenneth S. Apfel
Commissioner
of Social Security

Enclosure

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