



September
2007

ISSUE BRIEF

AMERICAN ACADEMY OF ACTUARIES

Social Security: Evaluating the Structure for Basic Benefits

As originally conceived, Social Security provided monthly benefits for life to covered workers who ceased employment after attaining age 65. Benefits were calculated by a formula based on each worker's employment history and were payable for life, regardless of how long the worker lived or the amount of taxes paid on his or her behalf while working. Thus, there was at best an indirect relationship between taxes paid and benefits received.

Plans such as this, where the benefits are determined according to a formula and generally paid for life, are called defined benefit plans. By contrast, plans that pay benefits based on amounts accumulated in an individual's account are called defined contribution plans (or individual account plans).

Much has changed since Social Security was created. The program has expanded to cover new classes of beneficiaries, such as spouses of retired workers, surviving spouses and other family members of deceased workers, and disabled workers and their families. Many U.S. workers have also earned benefits under employer-sponsored defined benefit plans. These developments account, in part, for the fact that the elderly now have the lowest poverty rate among all age classes.

However, over the past 25 years, many employers have dropped sponsorship of their defined benefit plans in favor of defined contribution plans. Many Americans are now saving for their own retirements through employer-sponsored 401(k) plans (a type of defined contribution plan), individual retirement accounts, and personal savings. Some people believe that Social Security would also work better if converted, in whole or in part, to a defined contribution structure.

After careful study of the issues involved, the Social Insurance Committee of the American Academy of Actuaries has con-

The American Academy of Actuaries is a national organization formed in 1965 to bring together, in a single entity, actuaries of all specializations within the United States. A major purpose of the Academy is to act as a public information organization for the profession. Academy committees, task forces and work groups regularly prepare testimony and provide information to Congress and senior federal policy-makers, comment on proposed federal and state regulations, and work closely with the National Association of Insurance Commissioners and state officials on issues related to insurance, pensions and other forms of risk financing. The Academy establishes qualification standards for the actuarial profession in the United States and supports two independent boards. The Actuarial Standards Board promulgates standards of practice for the profession, and the Actuarial Board for Counseling and Discipline helps to ensure high standards of professional conduct are met. The Academy also supports the Joint Committee for the Code of Professional Conduct, which develops standards of conduct for the U.S. actuarial profession.

Members of the Social Insurance Committee who participated in drafting this issue brief include: Kenneth G. Buffin, EA, FSA, FCA, MAAA, chairperson; Edward E. Burrows, EA, MAAA, MSPA; Michael E. Callahan, EA, FSPA, MAAA; Ron Gebhardtshauer, EA, FSA, FCA, MAAA, MSPA; Eric J. Klieber, EA, FSA, MAAA, MSPA; Dmitry D. Mindlin, ASA, MAAA; Bruce D. Schobel, FSA, FCA, MAAA; Sven H. Sinclair, FSA, MAAA; P. J. Eric Stallard, ASA, FCA, MAAA; Kenneth A. Steiner, EA, FSA, FCA, MAAA; Joan M. Weiss, EA, FSA, MAAA; and Louis M. Weisz, FSA, MAAA.



AMERICAN ACADEMY OF ACTUARIES

1100 Seventeenth Street NW Seventh Floor, Washington, DC 20036
Tel 202 223 8196 Fax 202 872 1948
www.actuary.org

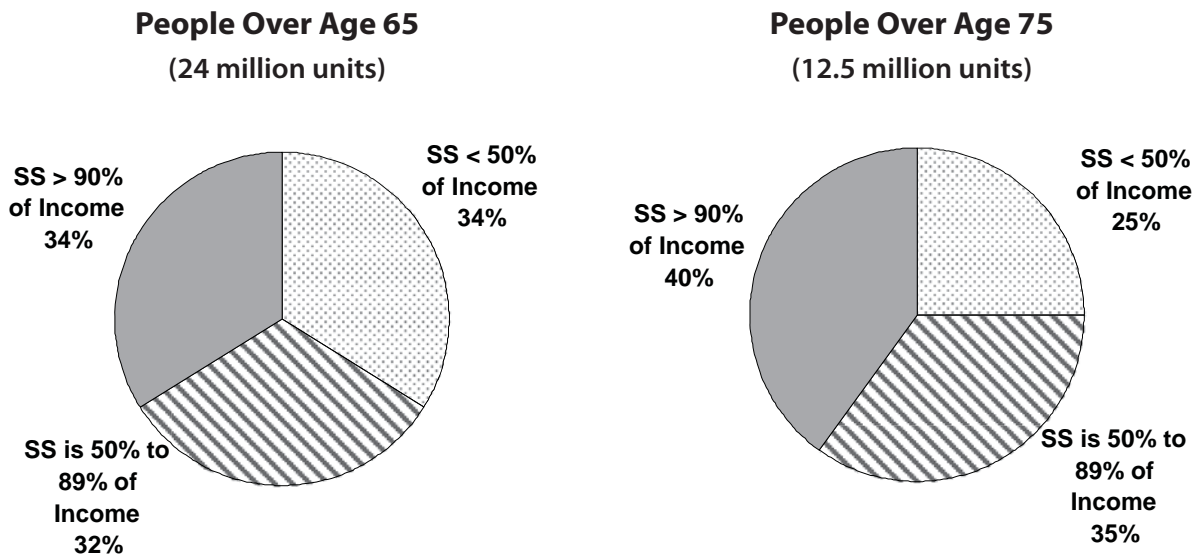
Kevin Cronin, Executive Director
John Schneidawind, Director of Communications
Craig Hanna, Director of Public Policy
Samuel Genson, Pension Policy Analyst

©2007 The American Academy of Actuaries. All Rights Reserved.

cluded that the defined benefit structure is preferable to the defined contribution structure for providing basic retirement benefits under Social Security. Because of its ability to tailor benefits that meet the needs of beneficiaries in different circumstances and its inherent risk-sharing attributes, the defined benefit structure is more efficient at providing the floor of retirement and disability protection needed by U.S. workers, particularly those least able to supplement their Social Security benefits from other income sources. This conclusion is only strengthened by the trend toward defined contribution structures among employer-sponsored retirement plans, since this leaves Social Security as the only remaining defined benefit plan for many workers. This is not to suggest that a defined contribution approach should not be a part of Social Security reform, but this committee would support it only as a supplement to the benefits provided under a basic defined benefit program.

Background

According to the 2007 *Old Age, Survivors, and Disability Insurance (OASDI) Trustees Report*, about 49 million people were receiving monthly benefits from the Social Security Administration at the end of 2006. The total amount of monthly benefits paid during 2006 was about \$553 billion, for an average monthly check of about \$940. Social Security is the most important source of retirement income for most non-government workers in the United States. Based on the May 2006 edition of “Income of the Population 55 or Older” prepared annually by the Social Security Administration, monthly benefits from Social Security represent half or more of total retirement income for about two-thirds of all Social Security recipients age 65 or older, and for three-quarters of those age 75 or older. For more than one-third of Social Security recipients age 65 or older, and 40 percent of those age 75 or older, Social Security monthly benefits represent more than 90 percent of their total income.



There is little doubt that Social Security plays a very important role in providing retirement income to older Americans. For about one-third of all recipients age 65 or older, it is close to being their only source of income.

Benefit Structure

Social Security was originally designed as a defined benefit program, and it remains so today. All the assets in the OASDI trust funds are available to pay benefits to eligible participants. An individual participant's benefits are determined according to formulas, not the accumulated value of their contributions. Under this structure, risks such as poor investment performance, premature death or disability, and outliving one's savings are shared among all participants rather than being borne individually.

Under a defined contribution program, all or a portion of the contributions made on behalf of each participant are allocated to an account dedicated solely to paying benefits to that participant and his or her family members and survivors. Each worker's account is invested in the capital markets. Most of the designs currently proposed for Social Security reform allow workers some investment choice, although the extent of choice varies greatly. The value of the benefits for each account holder would be the amount accumulated in the account over time from contributions and investment earnings. Under this approach, individuals are generally responsible for facing or mitigating the risks cited above on their own, although most of the proposed individual account designs retain some degree of risk-sharing, either by keeping some portion of the current defined benefit program or by subsidizing the contributions of lower-income workers.

When Social Security was created, the capital markets were still reeling from the effects of the 1929 stock market crash and subsequent worldwide economic contraction. Further, the financial world was alien to a majority of U.S. citizens and many people viewed the markets negatively. Additionally, the technology to perform the extensive calculations necessary for maintaining individual accounts on a large scale at reasonable cost did not exist. It was not a good environment in which to set up a Social Security program based on individual accounts invested in stocks and bonds.

We live in a different world today. The capital markets are mature and robust, although prices still go down as well as up. Business investment and finance have become more a part of everyday life. Many Americans have savings invested in the markets through employer-sponsored individual account plans, individual retirement accounts, or personal savings. Computers can perform the tasks necessary for account record keeping relatively quickly and cheaply. Because of these and other changes to the political and economic environment, some have suggested it is time to modernize Social Security by converting it to a defined contribution structure.

Social Security Reform

Under the intermediate assumptions in the *2007 OASDI Trustees Report*, the actuaries at the Social Security Administration estimate that, unless the system is changed, there will not be enough assets in the trust funds to pay full benefits beginning in 2041, and program outgo is expected to exceed program tax income each year starting in 2017. Even though the projected date of exhaustion for Social Security's trust funds remains over three decades in the future, the committee believes that the system currently faces long-term financial problems that should be addressed sooner rather than later. This conclusion, most recently expressed in the committee's 2007 monograph on Social Security reform options, is consistent with the committee's long-standing position on Social Security financing.

Social Security reform could involve changes within the current defined benefit structure, such as increasing the current tax rate or decreasing the benefits payable. Reform could also involve adopting a defined contribution structure with individual accounts, either as a full or partial replacement for the current defined benefit structure or as a supplement to the current structure.

The table included in the appendix provides a side-by-side comparison and a discussion of the strengths and weaknesses of using defined benefit and defined contribution approaches to providing basic Social Security benefits. Here is a summary of the advantages and disadvantages:

Summary of Advantages of Defined Benefit (DB) and Defined Contribution (DC) Approaches for Basic Social Security Benefits					
Feature	Advantage DB	Advantage DC	Feature	Advantage DB	Advantage DC
Predictable retirement income	✓		Efficiency of providing retirement income	✓	
Risk spreading	✓		Transition	✓	
Balance between social adequacy and individual equity	✓		Predictable financing		✓
Investment of assets by workers		✓	Fit with private retirement system and personal savings (three-legged stool)	✓	
Opportunity to pass along accumulated assets to heirs		✓	Advance funding and impact on national savings	—	—

Looking at the summary above, it is apparent that, for those features serving the goal of providing basic retirement income protection, the defined benefit approach has the decided advantage. These features include the ability to provide predictable inflation-indexed benefits for the lifetime of the worker (and the worker's spouse) and the ability to spread retirement-related risks, such as investment risk, longevity risk, inflation risk, and disability risk, over a broad population. These characteristics are important for all workers, but they are absolutely critical for the one-third of the retired population for whom Social Security represents 90 percent or more of their total retirement income. It would be very difficult to provide the same level of risk protection under a defined contribution structure.

The predictable retirement income and risk-spreading features of the current defined benefit structure are even more important today, given the shift in private-plan sponsorship from defined benefit plans to defined contribution plans. Employers have become more reluctant to assume the risks described above. Some proponents of the defined benefit structure for Social Security believe that the government may be the only institution that can afford to assume these risks.

On the other hand, features that favor the defined contribution approach, such as investment of assets by workers, opportunity to pass accumulated assets to heirs, and advance funding, generally serve purposes other than providing a floor of retirement protection, primarily creating and maintaining wealth, and enhancing economic growth. While the committee does not view these as unworthy goals, many other federally sponsored and/or tax-subsidized programs exist to serve these goals, which this committee believes are not necessarily consistent with the primary purpose of Social Security.

For these reasons, the committee believes that the current defined benefit plan structure is preferable to a

defined contribution plan structure for providing basic retirement and disability benefits under Social Security. Because of its ability to tailor benefits meeting the needs of beneficiaries in different circumstances and its general risk-sharing attributes, the defined benefit plan structure is a more efficient vehicle for providing the floor of protection needed by retired and disabled U.S. workers, particularly those who are most economically vulnerable. This is not to say that a defined contribution approach would be unreasonable in conjunction with Social Security reform. This committee supports the use of a defined contribution plan as a supplement to the basic defined benefits provided under Social Security, but not as a primary vehicle.

Appendix

Advantages of Defined Benefit (DB) and Defined Contribution (DC) Approaches for Basic Social Security Benefits			
Feature	Comment	Advantage DB	Advantage DC
Predictable retirement income	DB plans are generally designed to provide a predictable level of income for the life of the beneficiary. A DC plan is generally designed to accumulate retirement savings and may provide much more or much less than what might be considered adequate retirement income for the lifetime of the worker. The amount of retirement income provided under a DC plan depends on a number of factors, including the worker's account balance at retirement, investment return after retirement, and account balance withdrawal strategy. Mandatory annuitization of a DC account balance at retirement may provide a predictable income for life once the worker has retired, but annuity income generally depends on the worker's gender, health status, and interest rate environment at time of retirement. Some DC advocates argue that since the government can and will alter future Social Security benefits, such benefits are not necessarily predictable and should not be viewed as guaranteed or promised. Other DC advocates argue that while DC retirement income might not be predictable, it could be higher than income under the DB plan because of superior returns historically achieved on equity investments.	✓	
Risk spreading	DB plans pool (or spread) a number of risks over the covered group. These risks include investment risk, longevity risk, inflation risk, disability risk, and divorce risk. In this manner, a DB plan provides elements of insurance so that program dollars are paid to workers and beneficiaries based on established provisions of the plan or law, and not necessarily on how much each worker or the worker's employer has contributed to the system. DC plans generally do not pool risks; benefits are based on amounts accumulated in the worker's account. These amounts may not be reasonable or adequate and may not last for the worker's entire period of retirement. This is a key difference between the two types of plans.	✓	

Feature	Comment	Advantage DB	Advantage DC
Balance between social adequacy and individual equity	<p>Social Security pays larger benefits (relative to contributions) to certain classes of beneficiaries, such as lower-paid workers, workers with non-working spouses, and workers who die or become disabled before reaching retirement. These subsidies help ensure that Social Security benefits are at least adequate for all beneficiaries. These social adequacy features can be particularly valuable to women and members of certain disadvantaged socioeconomic groups, who fall more often into the subsidized classes of beneficiaries. Social Security also pays larger benefits to workers who contribute more to the system, thus incorporating some measure of individual equity. In contrast, DC plan benefits are paid from contributions made to the worker's account and investment earnings on those contributions, and are typically more weighted toward individual equity. Some subsidies may be incorporated into a DC plan, but they are much more transparent than those in DB plans. Use of the DB plan structure makes it easier for policy makers to balance the adequacy needs of retirees with the desire to provide reasonable returns on worker contributions (money's worth). This issue is discussed in more detail in the Social Insurance Committee's Issue Brief, "Social Adequacy and Individual Equity in Social Security."</p>	✓	
Investment of assets by workers	<p>In a DB plan, the plan sponsor promises to pay benefits and is responsible for the investment of assets to meet the plan's promises. To the extent investment return is poor or good, the sponsor must make higher or lower contributions to fund future promised benefits. For Social Security, investment experience may affect the level of taxes required to support the program or the extent of any future changes to the benefit promise. However, if the program is financed on an essentially pay-as-you-go basis, investment of accumulated trust fund assets is not much of an issue. In a DC plan, participants typically direct the investment of the assets in their account. Favorable and unfavorable investment returns accrue directly to the worker. Many workers believe they can invest their Social Security taxes and achieve higher returns than those obtained under the current DB structure. DC advocates argue that investment in equities will produce higher returns (without regard to the higher risk inherent in such investments) and these higher returns will increase benefits. A DC plan would provide workers with more control over investment decisions, although this would not be true during retirement if annuities were mandated.</p>		✓

Feature	Comment	Advantage DB	Advantage DC
Opportunity to pass along accumulated assets to heirs	Under Social Security's DB structure, benefits generally cease upon the death of the worker and the worker's spouse. If a worker dies within a short period after retirement, this provision is sometimes perceived to be unfair. As discussed above, this provision is consistent with the insurance concept of paying retirement benefits to those individuals who are retired and alive rather than paying system dollars into a participant's estate. It is also consistent with the program's general objective to provide retirement income rather than accumulate estates. In contrast, under a DC structure, any assets left over in a worker's account after the death of the worker and the worker's spouse would become part of the worker's estate to be passed on to the worker's heirs.		✓
Fit with private retirement system and personal savings (three-legged stool)	Personal savings are generally in the form of accumulated savings consistent with a DC structure. Retirement plans sponsored by private employers have been moving away from DB to DC. Employers today are more reluctant to assume the investment and longevity risks associated with sponsoring DB plans. Moving Social Security from a DB to a DC system would transform the country's three-legged stool into a strictly DC structure, transfer even more risk to individuals, and leave most workers with no guarantee on their retirement income. DB advocates argue that the government is better able than most employers to assume the risks associated with DB plans, and workers and society benefit from such risk sharing. DB advocates argue that the floor of protection provided by a DB Social Security enables workers to invest their other DC assets more aggressively. Lacking a Social Security DB floor, workers would likely be forced to invest at least a portion of their individual accounts more conservatively, possibly negating the superior returns touted for equity investments by the DC proponents.	✓	
Efficiency of providing retirement income	Administrative expenses to provide the benefits under the current DB structure are less than the expenses estimated under a DC plan for Social Security. Expenses for DC plans typically include fees for record keeping, investment management, processing investment elections, asset transfers, and benefit distributions such as annuity purchases. Such expenses would reduce the benefits of higher expected investment returns, particularly for low wage earners with smaller accounts, unless some form of subsidy is provided. DB advocates also argue that retirement money can "leak out" of a DC plan if workers are paid benefits in a lump sum or are given access to account balances to meet pre-retirement needs.	✓	

Feature	Comment	Advantage DB	Advantage DC
Transition	<p>Social Security is already a DB plan, so there would be no “transition” involved if it remained a DB plan. If the program were changed to a DC plan, there would have to be a transition from the current DB program to the new DC plan. Workers (or other taxpayers) during the transition period would probably be required to pay twice for program retirement benefits—once for benefits promised under the current DB plan for current retirees and once to prefund their new benefits under the DC plan. The transition to a DC program would also involve significant expense to establish individual accounts and other DC plan administration. Transition issues are discussed in more detail in the Social Insurance Committee’s Issue Brief, “Social Security Individual Accounts: Design Questions.”</p>	✓	
Predictable financing	<p>Under a DB program, benefits are defined by the plan (or law) and contribution requirements (or tax rates) depend on actuarial estimates and actual future experience. If future experience deviates unfavorably, tax rates may need to be increased. Under a DC plan, contribution levels are generally fixed and more predictable.</p>		✓
Advance funding and impact on national savings	<p>DC advocates often claim that the investment of accumulated assets in Social Security accounts would jump start the economy, thereby making it easier for the economy to accommodate the burgeoning future cost of social insurance programs. Many economists counter that adding DC accounts to Social Security would not create new investment assets, but merely rearrange the existing pool of investment assets. Further, increased government debt to finance the transition cost could offset gains from any actual increase in investment assets. This is a complex and uncertain issue, with no clear advantage on either side. See the Social Insurance Committee’s Issue Brief, “Investing Social Security Assets in the Securities Market” for additional discussion of this issue.</p>	—	—



AMERICAN ACADEMY *of* ACTUARIES
