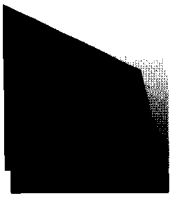
The need for Social Security reserves and their effect on the budget

Eleanor Erdevig



Social Security is a self-financing system that collects payroll taxes from employees, employers, and the self-employed and uses them to provide benefit payments to covered retired and disabled persons and their dependents.

In recent years, the Social Security trust funds have accumulated reserves in order to pay future benefits to current workers. This has become a matter of controversy that primarily involves two questions. First, is there a need for Social Security to accumulate reserves to pay future benefits? Second, because reserves are invested by the Social Security trust funds in special Treasury securities, they thereby reduce the amount that the federal government must borrow from the public when the federal budget is in deficit. Does the availability of growing reserves in the Social Security trust funds adversely affect decisions on federal taxation and expenditure policies relative to other government operations?

Financing history

The Social Security program is popularly considered to include Old-Age and Survivors Insurance (OASI), Disability Insurance (DI), Hospital Insurance, and Supplementary Medical Insurance. From its beginning in 1935, Social Security generally has been financed on a fully self-supporting basis, with no government contributions or subsidies from the general fund of the U.S. Treasury. The only exception is the Supplemental Medical Insurance part of Medicare established in 1966.[1]

In the early years, it was intended that rather sizable trust funds would accumulate, with the interest on the fund paying for a substantial proportion of the ultimate benefit outgo. It was not intended, however, to develop a fully funded reserve system. This partial funding basis was to be accomplished by a graded schedule of tax contribution rates, rising over future years to an ultimate rate.

Social Security is not a true pension plan. The amount of the contributions by an employee and his or her employer or a self-employed person may not be actuarially related to the benefits to which a recipient is entitled, and establishing a fully funded reserve is not required to guarantee payment of the benefits. Contribution rates and benefit payments depend on legislation enacted by Congress and signed into law. If the Social Security taxes collected are inadequate to pay current or future expected benefits, taxes may be increased or increases in future benefit levels postponed.

Over the years, some of the increases in contribution rates were deferred and benefits were increased, so that the extent of the funding was intentionally reduced. As a result, the financing shifted from a partial funding basis to a current-cost or pay-as-you-go system. Under the current-cost basis, total income in a year is intended to be approximately equal to total outgo in the year, plus an additional amount. The additional amount is needed to maintain the trust funds at an appropriate con-

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tingency reserve level, relative to outgo. In general, the trust fund level should be large enough to allow time for legislative action to prevent fund exhaustion during periods of continued annual deficits.

As a result of the Social Security Amendments of 1977, the financing of the OASI and DI programs shifted from a current-cost basis back to one with some partial funding. However, because of high costs and annual system deficits in the later years of the long-range 75-year projection period, the program was not in close actuarial balance (the actuarial balance is the difference between the estimated summarized income rate and the estimated summarized cost rate, each expressed as a percentage of taxable payroll over the projection period).

In the late 1970s and early 1980s, inflation drove up benefit costs rapidly while slow growth in wages and high unemployment held down payroll tax income to the system, resulting in a short-term financing crisis. To respond to this crisis, as well as to a growing awareness of a long-run problem caused primarily by declining birth rates and increasing life expectancy, the National Commission on Social Security (popularly known as the Greenspan Commission) was formed in late 1981. Based on the Commission's recommendations, the 1983 Amendments to the Social Security Act included a number of changes to increase program revenues. The effective dates for scheduled tax rate increases in prior law for employees and employers were advanced, self-employment tax rates were permanently increased, and up to one-half of benefits paid to certain upper-income beneficiaries were included in taxable income. The resulting tax revenues were appropriated to the OASI and DI trust funds. To address the long-term outlook of the system, the Congress approved a gradual increase in the age of eligibility for full benefits from age 65 to age 66 by 2009 and to age 67 by 2027. Actuarially reduced benefits will continue to be available at age 62, but with a greater reduction than under the previous law.

Projections

The Board of Trustees of the OASI and DI trust funds is required by law to report annually to the Congress on the financial condition of the funds and on estimated future results. The annual report includes short-range (5-year) and long-range (75-year) financing estimates of each fund's financial operations and status. The latest estimates for OASI and DI trust funds were contained in the 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, dated April 18, 1990.

Estimates are prepared based on four sets of demographic and economic assumptions, which are designated as alternatives I, II-A, II-B, and III, and range from the most optimistic (I) to the most pessimistic (III). The demographic assumptions include the total fertility rate, the age-sex-adjusted death rate, and an assumed level of net annual immigration. The principal economic assumptions are the average annual percentage increases in real GNP, in average annual wage in covered employment, and in the CPI; the average annual interest rate; and the average annual unemployment rate. For example, alternative I, the most optimistic, assumes a relatively high total fertility rate, death rate (and thus a short life expectancy), and level of net annual immigration, together with robust economic growth and low inflation. Alternatives II-A and II-B share less optimistic demographic assumptions than I, and assume moderate growth and inflation for the first few years, with stronger growth thereafter for alternative II-A. Alternative III is a pessimistic forecast in which the demographic trends are lower and the economy experiences two recessions during the next 10 years.

Short-range financing (1990-1994)

Short-range financing estimates usually focus on the adequacy of reserves available to pay benefits on time over the short-term, generally the next five years. A usual measure is the contingency fund ratio, which is the amount in the trust funds at the beginning of the year divided by that year's expenditures. Thus, if the contingency fund ratio is 50 percent, the amount in the fund represents about six months' outgo. A ratio of at least 8 to 9 percent is required to pay benefits at the beginning of each month.

Contingency reserves are considered desirable so that the payment of benefits is not dependent upon quick congressional action in levying emergency taxes to meet deficits or in raising contribution rates. Expected contin-

gency reserves over the short-term depend primarily on economic assumptions, as demographic variables change little in five years.

Studies on the appropriate level of contingency reserves necessary to weather recessionary periods have focused on a few key economic variables. In a Social Security system with automatic indexing provisions, the rate of consumer price increases affects benefit payments, and the rate of wage growth and the unemployment rate affect tax revenues. Using these variables and experiences similar to a past recessionary period, a study of an optimal contingency reserve found that "trust fund balances somewhere between 85 and 145 percent of annual outlays should provide an adequate contingency reserve" to weather a serious downturn in the economy.[2]

Estimated contingency fund ratios under the four alternative sets of assumptions are shown in Figure 1. At the beginning of 1990, the ratio for the combined OASI and DI funds was about 74 percent. According to the latest estimates in the OASI and DI Board of Trustees report, contingency fund ratios for the combined funds will continue to increase over the near future and will reach 176, 161, 153, and 121 under alternatives I, II-A, II-B, and III, respectively, in 1994.

Long-range financing (1990-2064)

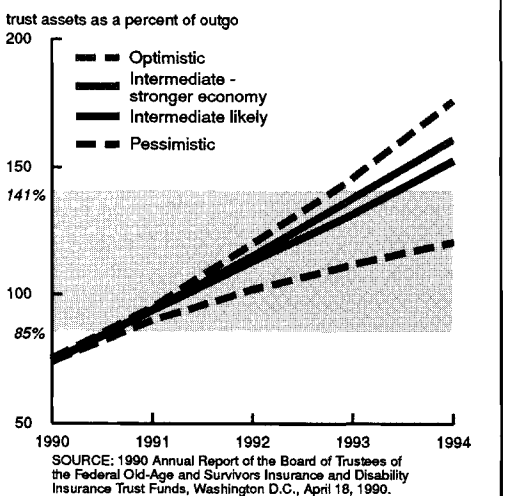
Long-range financing estimates traditionally emphasized the actuarial balance—the difference between an "income rate" and a "cost rate," each expressed as a percentage of taxable payroll, all in terms of the present value. However, because the system is now accumulating reserves for future funding of benefits, current long-range financing estimates also include projected annual income, outgo, and size of trust fund reserves, and the year in which the trust fund is expected to be exhausted. The latter estimates are emphasized below because of the importance of the changes in reserves in the OASI and DI trust funds to the federal budget.

According to the most recent estimates, OASI and DI trust funds are projected to continue to increase, with the peak dependent upon which of the four sets of assumptions is used. Under the most optimistic set of assumptions, alternative I, assets of the OASI and DI trust funds will continue to increase throughout the 75-year projection period. With the most pessimistic set of assumptions, alternative III, assets of the trust funds will peak in the year 2015 and become exhausted about 2023 (see Figure 2).

Alternative II-B is generally considered to include the most likely set of assumptions. Under this set of assumptions, benefit payments will exceed contributions sometime between 2015 and 2020. However, the OASI and DI trust funds will continue to increase until the year 2025 because of the additional income from the interest earned on the security holdings of the trust fund. After 2025, outgo will exceed total trust fund income, that is,

FIGURE 1

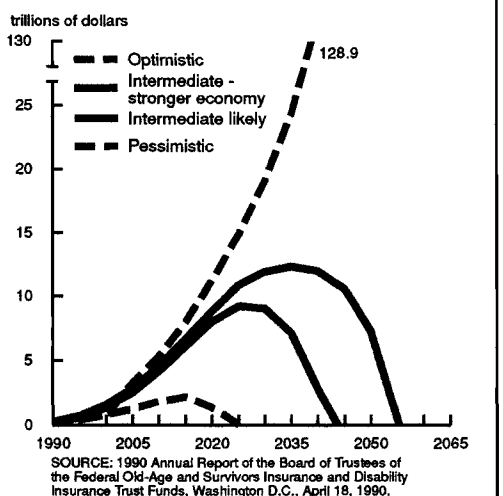
OASI and DI contingency fund ratios



SOURCE: 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Washington D.C., April 18, 1990.

FIGURE 2

OASI and DI trust fund assets



SOURCE: 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Washington D.C., April 18, 1990.

contribution plus interest earned, and the reserves will begin to decline until they are exhausted in 2043 (see Figure 3).

Effects of demographic assumptions

Variations in the demographic assumptions have little effect on the financing estimates for the early years, but can have large impacts on the actuarial balance in later years. During the early years almost all of the covered workers and beneficiaries were born prior to the start of the projection period and death rates generally change slowly.

The primary reason that the estimated OASI and DI cost rate increases rapidly after 2005 is that the number of beneficiaries is projected to increase more rapidly than the number of covered workers. This occurs because the relatively large number of persons born during the period of high fertility rates from the end of World War II through the mid-1960s will reach retirement age, and begin to receive benefits, while the relatively small number of persons born during the subsequent period of low fertility rates will comprise the labor force.

The effects of the demographic assumptions are shown in Figure 4. Currently there are 3.4 covered workers for each OASI and DI beneficiary. From now until about 2005 the number of covered workers per beneficiary is expected to be within a range of 3.4 to 2.9 covered workers under all the alternatives. After 2005, as the members of the "baby boom" generation begin to retire, however, the number of covered workers per beneficiary drops sharply until, under the intermediate assumptions, it reaches about 2.0 workers per beneficiary in 2030. In subsequent years, the ratio changes little and is at 1.8 covered workers per beneficiary in 2065, with a range of 2.4 for the most optimistic assumptions to 1.3 for the most pessimistic.

Importance of reserves

Although the reserves in the trust funds will increase rapidly during the next 15 years, at current contribution rates and benefit levels under the most likely intermediate demographic and economic assumptions, they will disappear about the year 2043.

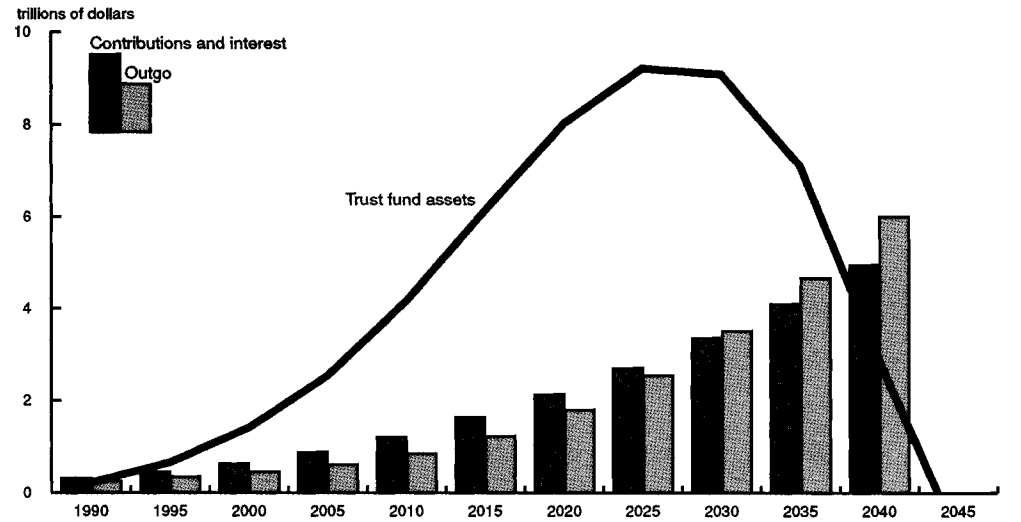
If current contribution rates were to be reduced now, reserves would not build up as rapidly. However, it would be necessary to increase contribution rates above current stated amounts in the future in order to maintain present benefit levels because of the smaller number of covered workers per beneficiary.

Trust fund investments

The major sources of income to the OASI and the DI trust funds are the Social Security taxes, the income taxes paid by beneficiaries

FIGURE 3

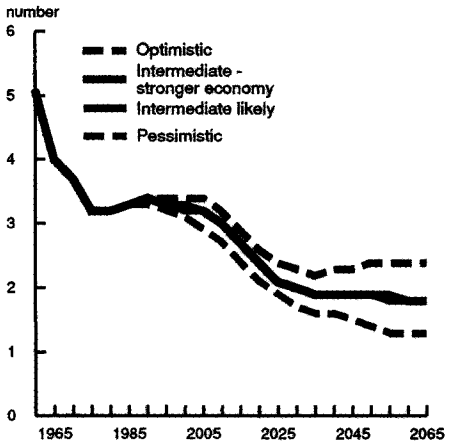
Long-range estimates: Alternative II-B



SOURCE: 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Washington D.C., April 18, 1990.

FIGURE 4

Covered workers per OASI and DI beneficiary



SOURCE: 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Washington D.C., April 18, 1990.

TABLE 1

Receipts and expenditures of OASI and DI trust funds
(calendar year 1989)

	OASI	DI	Total
	billions of dollars		
Receipts			
Contributions & income taxes on benefits	$252.6	$24.1	$276.7
Net interest earned	12.0	0.7	12.7
Other	*	---	*
Total	$264.7	$24.8	$289.4
Expenditures			
Benefit payments	208.0	22.9	230.8
Administrative expenses	1.7	0.8	2.4
Other	2.8	---	2.8
Total	$212.5	$23.8	$236.2
Net increase in funds	52.2	1.0	53.2
End of 1989 assets	155.1	7.9	163.9

*Less than 0.05

NOTE: Totals may not add because of rounding.
SOURCE: *Social Security Bulletin,* Vol. 53, No. 6, June 1990, Social Security Administration,U.S. Government Printing Office, Washington, D.C., pp. 35-36.

on OASI and DI benefits, and the interest received on investments held by the trust funds. The major expenditures of the OASI and DI trust funds are benefit payments and administrative expenses. Receipts and expenditures of the OASI and DI trust funds during calendar year 1989 are shown in Table 1.

The Secretary of the Treasury as Managing Trustee of the Boards of Trustees of the several funds is responsible for investing the assets of the funds. The Social Security Act authorizes the issuance of special public debt obligations for purchase exclusively by the trust funds. The Act provides that these obligations shall bear interest at a rate equal to the average market yield on all marketable interest-bearing obligations of the U.S. then forming a part of the public debt which are not due or callable until after the expiration of four years from the date of determination. These special issues are always redeemable at par value and thus bear no interest rate risk. Almost all of the investments of the trust funds have been in these special public debt obligations.[3]

The Managing Trustee currently uses the following procedure in the management of the trust funds.[4] As soon as payroll tax revenues are received, any funds available for investment are put into special issues called certificates of indebtedness. These certificates mature on June 30, the end of the investment year. Each June 30, the certificates of indebtedness are redeemed, and the proceeds are put into the long-term special issue bonds with a maturity date of June 30 in some future year. The terms to maturity of newly acquired special issues are set so that, as much as is possible, one-fifteenth of the total portfolio of special issues will mature in each of the next 15 years. This procedure has the result, generally, of a sizable proportion of the bonds being purchased on any given June 30 having a maturity of 15 years thereafter. If during the investment year, securities must be sold to meet benefit obligations, special issues with the shortest duration until maturity are sold first. Thus, any certificates of indebtedness are the first to be sold. If there are several securities with the same duration until maturity, those with the lowest interest rate are sold first. When special issues are sold, they are redeemed by the Treasury Department at their par value, which is their purchase price. Investments of the two trust accounts as of September 30, 1989, are shown in Table 2.

TABLE 2

Investments of OASI and DI trust funds
(September 30, 1989)

Type of security	OASI	DI	Total
	billions of dollars		
Public issue bonds	$----	$261	$261
Government account series:			
Certificates	7,931	130	8,061
Bonds	140,633	8,037	148,670
Total	$148,564	$8,428	$156,992

SOURCE: *Treasury Bulletin*, Fall Issue, December 1989, Department of the Treasury, U.S. Government Printing Office, Washington, D.C., page 19.

Social Security and the unified budget history

Prior to fiscal year (FY) 1969, the federal budget was usually considered to be the "administrative budget," which did not include the operations of the various federal trust funds. The administrative budget included only receipts and expenditures of the general fund of the Treasury which were generally subject to control through the appropriation process. Except for purposes of economic analysis, the financial transactions of Social Security and Medicare and other federal programs that were accounted for through trust funds were shown separately.

In accordance with the Commission on Budget Concepts' recommendation in October 1967, President Johnson presented his FY1969 budget on a unified basis. This meant that the financial operations of the various federal trust funds were shown with those of other government programs in a single budget. The Commission believed that the budget process was the central decision-making process of the government and that a unified budget was essential for determining economic stabilization policy and for allocating funds to competing programs. The comprehensiveness of the unified budget was intended to allow a more complete assessment of the economic impact of the budget.

Social Security's inclusion in the unified budget became controversial in the late 1970s and again in the 1981-82 period, when various benefit reductions were proposed for budgetary purposes, some of which became law. The National Commission on Social Security Reform recommended in its January 1983 report that Social Security and Medicare should be taken out of the unified budget. The 1983 amendments to the Social Security Act, based on the Commission's recommendations, provided that Social Security and Medicare were to be shown as a separate function of the budget through FY1992, and then Social Security and the hospital insurance part of Medicare were to be removed entirely beginning in FY1993. Supplemental Medical Insurance would remain a part of the budget, but as a separate major category. The legislation also provided that the receipts and disbursements of the trust funds should be exempt from any general budget limitation imposed by statute on expenditures and net lending (budget outlays).

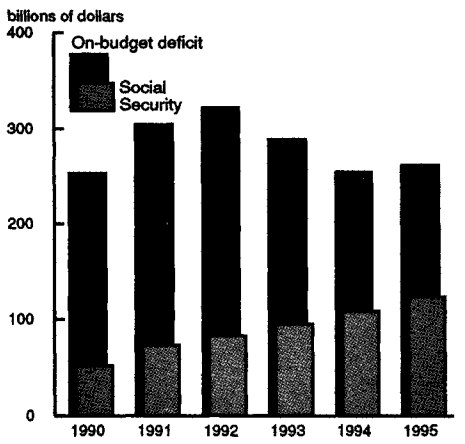
The Gramm-Rudman-Hollings (GRH) Amendment, signed on December 12, 1985, provided that operations of the OASI and DI trust funds were to be removed from the unified budget beginning in FY1986. Hospital Insurance trust fund operations remain in the unified budget through FY1992, as scheduled under the 1983 amendments. Trust fund receipts and expenditures, however, are counted for purposes of determining the size of the deficit under the provisions of the GRH Amendment for reducing the deficit.

Effects of trust funds on the budget deficit

The Congressional Budget Office estimates that the entire projected improvement in the deficit from FY1990 to FY1995 is the result of the growing surplus in the Social Security trust funds. The annual Social Security surpluses during this period are projected to increase from $59 billion in FY1990 to $124 billion in FY1995. Including the Social Security surplus brings the deficit numbers to $202 billion in 1990, dropping to $138 billion in 1995. Without the increase in the Social Security trust funds, the budget deficit will continue to grow, from about $254 billion in FY1990 to $262 billion in FY1995 (see Figure 5).

FIGURE 5

Total budget deficit projection by CBO



SOURCE: The Economic and Budget Outlook: An Update, 1991-1995: A summary released July 12, 1990. Includes additional Resolution Trust Corporation spending needs.

Effects of reserves on current tax and expenditure policies

The accumulation of reserves in the Social Security trust funds appears to delay the implementation of some admittedly difficult decisions on federal taxation and expenditure policies. The tendency is to forget that the Social Security system is a self-financing program in which the payroll taxes collected are necessary to pay current and implied future obligations to beneficiaries. Unfortunately, in most years other federal revenues are insufficient to cover expenditures for other government operations. As a result, the federal budget runs a deficit and must borrow money to pay its expenses. It may borrow from the public, from foreigners, and, increasingly, in recent years from the Social Security trust funds, as the reserves in the funds have been rising.

Borrowing by the Treasury Department from the Social Security trust funds to finance the federal budget deficit by itself is not a problem. Other public and private pension plans also invest in Treasury securities with their accumulated reserves.

The problem arises because the federal budget deficit is considered to be reduced by the amount that the Treasury Department borrows from the Social Security trust funds each year. That amount is the increase in the reserve that is considered necessary to enable the Social Security System to pay its implied future obligations to beneficiaries under current contribution and benefit rates.

The current effect of counting the increase in the Social Security trust funds each year as a reduction in the federal budget deficit is to delay recognition of the true size of the deficit in other federal government operations. As a result, legislation to reduce government spending or to increase taxes or both is also delayed.

Many arguments are offered to continue to count the growth in Social Security trust funds as a reduction of the federal budget deficit and delay recognition of the true size of the federal budget deficit. Some consider it politically impossible to enact the spending cuts and tax increases required to balance the federal budget without the Social Security trust funds anytime soon. Others have suggested that, if the Social Security trust funds are part of the federal budget, it will be possible to reduce Social Security benefits so larger reserves accumulate, and thereby reduce the deficit.

Others believe that the provisions in the Gramm-Rudman law for across-the-board spending cuts to reduce the overall deficit to specific levels keep Congress from raising benefits for certain age groups or using Social Security taxes to pay for long-term health care. The actual restraints are the projected short-term and long-term financing needs of the Social Security programs under current contribution rate and benefit level provisions.

In the short term, during which payroll taxes collected are exceeding benefit outlays, payroll taxes are indirectly the source of the funds to finance an increasing amount of the federal budget deficit. Payroll taxes are generally considered to be regressive. It they are a substitute for more progressive forms of taxation to reduce the deficit, then our overall system of taxation may be more regressive than is intended under current public policy.

If there were no deficit in the federal budget when Social Security is excluded, the accumulation of reserves in Social Security trust funds in the form of Treasury securities would mean that holdings of the national debt by the public would decline. More private savings would then be available for private investment.

Long-term effects

In the second decade of the next century, Social Security benefit payments are projected

to be greater than the payroll taxes then being collected. The difference is expected to be paid out of the reserves currently being accumulated in the Social Security trust funds. If a federal budget deficit exists at that time, additions to the Social Security trust funds will no longer be available for the Treasury to borrow. New sources of funds will need to be found to finance government operations and to pay interest on its debt. In addition, the Treasury securities then held by the Social Security trust funds will mature and the proceeds will be used to pay benefits.

The federal government may then be faced with two problems: (1) to finance its current budget deficit, and (2) to repay the money borrowed from the Social Security trust funds. By that time the government budget must either run a surplus, that is raise taxes or cut expenses, or borrow from other sources of lendable funds, probably private or foreign, which will increase the demand for private lendable funds. If taxes are raised to repay the money borrowed from the Social Security trust funds, this probably means that the future Social Security beneficiaries will also pay proportionally higher taxes. If expenses are cut, government services will decline. If the demand for private lendable funds increases, this could translate into higher relative interest rates.

Conclusion

Current legislation provides for the accumulation and subsequent reduction of reserves in the Social Security trust funds over the next 75 years to pay current and implied future obligations of beneficiaries. The reserves are considered particularly important because the "baby-boomers," born between the end of World War II and the mid-1960s and now in the labor force, will reach retirement age and begin to receive benefits after 2005. At that time the relatively small number of persons born since the 1960s will comprise the labor force, and Social Security benefit payments will exceed payroll taxes. The difference is expected to be paid out of the reserves in the trust funds.

The accumulation of reserves in the Social Security trust funds and the policy of counting the growth in these reserves as a reduction in the federal budget deficit has delayed recognition of the actual size of the deficit in other government operations. Consequently, decisions on federal taxation and expenditure policies relative to other government operations have also been delayed.

When decisions on the federal budget are delayed, the government must borrow more funds to finance the budget deficit, either from the public or from foreign sources. When the reserves in the Social Security trust funds are needed in the future to pay benefits, the government will need to find other sources of funds to redeem maturing Treasury securities in the trust funds and to finance any budget deficit. The choices are the same as they are now, that is, cut expenses, raise taxes, or borrow from other sources, but the impact will probably be on the relatively smaller labor force.

FOOTNOTES

[1]This article will focus primarily on OASI and DI.

[2]Munnell, Alicia H., "Do We Want Large Social Security Surpluses?" *New England Economic Review*, September/October 1984, pp. 5-21.

[3]The funds also may be invested in obligations guaranteed as to both principal and interest by the U.S., or in certain federally sponsored agency obligations designated as lawful investments for U.S. fiduciary and trust funds. These obligations may be acquired on original issue at the issue price or by purchase of outstanding obligations at their market price.

[4]Myers, Robert J., "Investment Policies and Procedures of the Social Security Trust Funds," *Social Security Bulletin*, Vol. 45, No. 1, January 1982, Social Security Administration, U.S. Government Printing Office, Washington, D.C., pp. 3-8.