

Once the earnings histories have been developed, OASDI program criteria are applied to each sample member in order to simulate a benefit. First, insured status is determined and, if the worker is insured, benefits are calculated on the basis of the highest primary insurance amount for which the person is eligible. A weighted average of the PIAs is computed for retired and disabled workers, both male and female. Average awards are computed for each cohort, and average benefits are the aggregates of the cohort-weighted average awards reflecting benefit increases, mortality experience, and earnings after retirement.

Auxiliary benefits must also be projected. Their levels are assumed to increase at the same rate as the primary benefit amounts. There are, however, adjustments for the benefits payable under the category of dually entitled, most often wives of retired workers who are eligible for higher benefits as spouses than as retired workers.

Once benefits have been projected in the above manner, total benefits for each type of beneficiary are calculated by multiplying the average benefit by the projected number of beneficiaries. Total benefit payments are simply a sum of the components. Total benefits are then added to the projection of other types of OASDI outlays. These totals are then divided by total projected taxable payroll to arrive at OASDI cost rates.

APPENDIX C. SHORT-TERM FINANCING PROBLEMS AND OPTIONS

The Social Security system faces significant financing problems over the next several years. Under current law, the Old Age and Survivors Insurance (OASI) trust fund, which provides benefits for retirees and their families and for the survivors of deceased workers, will be unable to meet all of its benefit obligations on time in July 1983. Moreover, even if the Congress should decide to extend the authority of the OASI fund to borrow from the Disability Insurance (DI) and Hospital Insurance (HI) trust funds beyond its current expiration date of December 31, 1982, the combined assets of the three funds are projected to fall to levels too low to ensure timely benefit payments sometime during 1984.¹

This appendix briefly describes the short-run problems of the Social Security system and presents some options that would mitigate those problems. The first section outlines the recent history of Social Security financing. The second section contains projections of the financial operations of the trust funds over the next ten years. The final section examines options for dealing with the short-run financing problem, through either benefit reductions or revenue increases.

RECENT EXPERIENCE OF THE TRUST FUNDS

In each year since 1975, total outlays from the OASI and DI trust funds combined have exceeded their combined income, causing OASDI balances to decline from \$45.9 billion at the beginning of 1975 to \$24.5 billion at the start of 1982. Trust fund balances at the start of the year as a percentage of total outlays in that year have fallen even more dramatically--from 66 percent in 1975 to 15 percent in 1982 (see Table C-1). While trust fund balances are somewhat higher if the HI fund is included in the comparison, the same pattern of declining reserves is evident: start-of-year balances in the combined OASDHI funds fell from 69 percent of outlays in 1975 to 22 percent in 1982.

The major cause of the rapid depletion of trust fund balances has been the relatively poor performance of the economy over the past decade. In

1. In fact, under the pessimistic assumptions of the 1982 Trustees' report, the combined reserves of the three funds would become too low in 1983.

TABLE C-1. TRUST FUND ASSETS AT THE BEGINNING OF THE YEAR AS A PERCENTAGE OF ANNUAL OUTLAYS, 1972-1982

Year	OASI	DI	HI	OASI AND DI COMBINED	OASI, DI, AND HI COMBINED
1972	88	140	47	93	87
1973	75	125	40	80	76
1974	68	110	69	73	73
1975	63	92	79	66	69
1976	54	71	77	57	60
1977	47	48	66	47	50
1978	39	26	57	37	40
1979	30	30	54	30	34
1980	23	35	52	25	29
1981	18	21	45	18	23
1982 ^a	15	16	52	15	22

SOURCE: David Koitz, "A Summary of the 1982 Trustees' Report and Supplementary Historical Information", Congressional Research Service, Report no. 82-75 EPW, April 1982.

a. Ratios for 1982 based on outlays projected by the Congressional Budget Office.

particular, wages have grown more slowly than prices over the period. This has reduced Social Security balances, because the major source of trust fund revenue is the Social Security tax--a tax on wages--whereas benefits are adjusted for changes in the cost of living, and rise when prices rise. As a result, payroll tax revenues have increased less than outlays for

benefit payments.² Further, Medicare outlays have increased even faster than OASDI outlays, largely because hospital costs have risen much faster than the overall Consumer Price Index (CPI).

Much of the recent decline in trust fund balances has occurred as a result of benefit increases arising from the automatic price-indexing of Social Security benefits that has taken place since 1975. Many analysts believe that benefits have been overindexed, both because of a now-corrected flaw in the original indexing method, and because of technical problems with the CPI. The CPI, on which benefit increases are based, gives excessive weight to mortgage interest rates and housing prices, which have risen more rapidly than other prices in the recent past.

If cost-of-living adjustments had been computed using an index that included a rental-equivalent measure of housing costs--as the revised CPI will, starting in 1985--benefits would have risen about 83 percent on a cumulative basis between 1975 and 1982, rather than the 94.4 percent they actually rose (see Table C-2). Benefit levels would have been about 6 percent less than they are now. The outcome would have been similar if an hourly wage index had been used: the cumulative increase since 1975 would have been about 84 percent, and benefits would have been about 5 percent lower than they are now.

SHORT-RUN OUTLOOK

As mentioned earlier, Social Security balances are now very low, and the financing problems are expected to worsen in the near future. If the Congress had not enacted legislation (P.L. 97-123) that permitted the OASI fund to borrow from the DI and HI funds, OASI benefit payments could not have been made on time beginning in November 1982. This interfund borrowing authority expires December 31, 1982, at which time the OASI fund may only borrow enough reserves from the other two funds to ensure the payment of six additional months of benefits. If the borrowing authority is not extended and nothing is done either to increase OASI revenues or to decrease OASI outlays by July 1983, the OASI fund will be unable to pay July benefits on time.

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2. There are, of course, many other factors that affect the growth of revenues and outlays. For example, on the revenue side, payroll tax rates, the maximum taxable wage, and the size of the labor force all increased during the last ten years. On the expenditure side, the OASDI beneficiary population grew by about 15 percent from 1975 to 1982.

TABLE C-2. COMPARISON OF ANNUAL BENEFIT INCREASES BASED ON ALTERNATIVE INDEXES, 1975-1982 (In percent)

Year	Based on Present CPI	Based on Rental Equivalent CPI	Based on Hourly Earnings Index
1975	8.0 ^a	7.0 ^a	7.1 ^a
1976	6.4	6.2	7.9
1977	5.9	5.9	7.1
1978	6.5	6.1	8.1
1979	9.9	8.6	7.2
1980	14.3	11.6	8.4
1981	11.2	10.3	9.8
1982	7.4	7.2	7.8
Cumulative Increase 1975-1982	94.4	83.0	84.0

SOURCE: Congressional Budget Office. CPI-based COLAs from Benjamin Bridges and John Hambor, "The New CPI and the Cost of Living Increases for OASDI and SSI," Social Security Bulletin, August 1982. COLAs based on the earnings index computed using Bureau of Labor Statistics estimates, as published in the Monthly Labor Review, various issues.

- a. Based upon increase in index from the second quarter of 1974 to the first quarter of 1975.

Even if the Congress were to amend the Social Security Act to extend interfund borrowing authority beyond its expiration date, however, the combined reserves of the OASI, DI, and HI funds are projected to decline to levels too low to ensure timely payment of all benefits during calendar year 1984. As shown in Table C-3, the projected reserves of the three trust funds combined will amount to 13 percent of annual outlays at the beginning of fiscal year 1984, and to about 7 percent at the beginning of fiscal year 1985.

The combined funds will continue to decline after 1985, and while OASDI balances are projected to recover after 1990, HI outlays are projected to exceed revenues from 1987 on. Since cash benefits payments are all made at one time early in each month, whereas tax payments are received continuously during the month, OASDI balances equal to a whole month's outlays--roughly 9 to 12 percent of annual outlays--must be on hand at the beginning of each month.³ The required balances for the HI fund may be somewhat lower because outlays occur throughout the month rather than all on one day.

In order to maintain reserves equal to 12 percent of fiscal year outlays, for example, the three combined funds would need \$12 billion in added revenues or outlay reductions in fiscal year 1984, and \$6 billion more in 1985.⁴ In addition, the trust funds would continue to incur deficits throughout the 1980s, as Table C-3 shows. These sums would be necessary in addition to the recently enacted changes in the HI program, which are expected to add a total of \$16.3 billion to HI balances during fiscal years 1983-1985.⁵ If the OASDI programs do not borrow from HI, additional outlay reductions or revenue increases of about \$12 billion in 1983, \$17 billion in 1984, and \$8 billion in 1985 would be needed to maintain a 12 percent reserve level in the combined OASDI funds.

Trust fund balances are extremely sensitive to the economy's performance. Thus, while balances as low as 12 percent will be adequate if economic conditions are not worse than expected, they accord the trust funds very little margin for error. Even relatively minor differences between forecasted and actual economic performance would endanger the timely payment of benefits. In fact, some experts consider a safe minimum

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3. The percentage varies over the course of a year because of the timing of annual benefit increases and of payroll tax revenue receipts.
 4. These figures assume that an extension of the provisions allowing interfund borrowing will be enacted, or that tax rates will be reallocated between the funds. Reserves equal to 12 percent of fiscal year outlays are roughly equivalent to 8-9 percent of calendar year outlays. Outlays are higher over a calendar year, because COLAs are given in July, so the calendar year contains more months of benefits at the higher level. In addition, revenues are lowest in the October through December quarter, largely because more workers have reached the maximum taxable wage by that quarter.
 5. P.L. 97-248 included tighter limitations on hospital reimbursements and in-hospital physician reimbursements, and imposed the HI tax on federal workers.

TABLE C-3. PROJECTIONS OF SOCIAL SECURITY TRUST FUND OUTLAYS, INCOMES, AND BALANCES (By fiscal year, in billions of dollars)^a

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Old Age and Survivors Insurance										
Total Outlays	138.3	152.6	166.2	179.0	194.6	211.3	229.8	249.4	269.2	290.3
Income ^b	127.4	144.5	143.3	158.9	173.6	186.9	203.1	217.7	246.9	270.2
Year-end Balance	12.9	4.8	-18.4	-38.2	-59.2	-83.6	-110.2	-141.9	-164.2	-184.3
Start-of-year Balance as Percent of Outlays	17.2	8.5	2.9	-10.1	-19.6	-28.0	-36.4	-44.2	-52.7	-56.6
Disability Insurance										
Total Outlays	18.4	19.2	19.7	19.7	20.1	21.2	23.0	25.3	27.7	29.8
Income ^b	21.3	18.7	27.3	33.6	39.1	43.3	48.4	53.2	64.2	72.9
Year-end Balance	6.4	5.9	13.5	27.4	46.4	68.6	94.0	122.0	158.4	201.5
Start-of-year Balance as Percent of Outlays	18.5	33.1	29.9	68.7	136.4	219.3	298.6	372.2	439.7	530.8
Hospital Insurance										
Total Outlays	34.5	37.8	43.0	48.6	57.2	66.9	76.3	86.9	98.9	112.4
Income ^b	37.6	35.7	46.0	51.5	58.9	64.6	69.7	74.0	78.3	82.1
Year-end Balance	21.3	19.2	22.2	25.2	26.8	24.5	18.0	5.1	-15.5	-45.8
Start-of-year Balance as Percent of Outlays	52.5	56.3	44.6	45.8	43.9	40.1	32.2	20.7	5.2	-13.8

TABLE C-3. (Continued)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Combined OASI and DI										
Total Outlays	156.7	171.8	185.9	198.7	214.7	232.5	252.8	274.7	296.9	320.1
Income ^b	148.7	163.2	170.6	192.5	212.7	230.2	251.5	270.9	311.1	343.1
Year-end Balance	19.3	10.7	-4.9	-10.8	-12.8	-15.0	-16.2	-19.9	-5.8	17.2
Start-of-year Balance as Percent of Outlays	17.4	11.2	5.8	-2.5	-5.0	-5.5	-5.9	-5.9	-6.7	-1.8
Combined OASI, DI, HI										
Total Outlays	191.1	209.5	228.8	247.2	271.9	299.4	329.0	361.5	395.8	432.5
Income ^b	186.3	198.9	216.6	243.9	271.6	294.8	321.2	344.9	389.4	425.3
Year-end Balance	40.5	29.8	17.6	14.3	14.0	9.5	1.7	-14.9	-21.3	-28.6
Start-of-year Balance as Percent of Outlays	23.7	19.3	13.0	7.1	5.3	4.7	2.9	0.5	-3.8	-4.9

SOURCE: Preliminary CBO estimates. Estimates for 1982 through 1985 based on economic assumptions used for the September 1982 CBO budget update. Projections for the remainder of the period are based on economic assumptions representing a quick return to a noncyclical trend growth path that incorporates the average post-World War II productivity growth rate of approximately 2 percent a year.

NOTE: Minus signs denote a deficit.

- a. Includes provisions of 1982 Tax Equity and Fiscal Responsibility Tax.
- b. Income to the trust funds is budget authority. It includes payroll tax receipts, interest on balances, and certain general fund transfers. Income in fiscal year 1983 reflects interfund transfers as authorized under P.L. 97-123. In order to illustrate better the operations of the trust funds under extended interfund or other types of borrowing or under tax rate reallocation, estimated interest payments owed by a trust fund when it shows a deficit are included as negative values in the income estimates of that trust fund.

level for trust fund balances to be 17 percent of annual outlays (roughly two months of benefits),⁶ and others have suggested that much larger trust fund balances would be desirable over the long run to insulate the trust funds from the effects of economic shocks. The 1979 Advisory Council on Social Security, for example, proposed that balances be increased to 75 percent of outlays.

CBO projects shortfalls in OASDI revenues during the remainder of the 1980s, despite economic recovery and notwithstanding a scheduled payroll tax increase in 1985. After the 1990 tax increase, OASDI income is projected to exceed outlays if the economy performs reasonably well. The ratio of balances to outlays will remain low throughout most of the 1990s, however, and will leave the OASDI trust funds vulnerable to poor economic performance. Further, balances in the HI fund are projected to decline rapidly after 1986 as a result of rising health care costs, and to become negative in 1990 and beyond.

OPTIONS

There are three approaches that could improve trust fund balances in the short run--benefit reductions, tax increases, and revenue transfers from other sources. The first two of these would also help to reduce the overall federal budget deficit.

Benefit Reductions

The total reduction in Social Security benefits enacted so far has been fairly small in comparison to the size of the program, but since comparatively few beneficiaries have had their benefits reduced, the impact on those who have has been relatively large. In contrast, broad-scale benefit reductions affecting all beneficiaries in a similar way could produce much greater savings, and would not disproportionately affect specific recipients.

The major across-the-board benefit reduction option that could provide significant savings in the next two to three years would be to lower cost-of-living adjustments (COLAs). Because Social Security is such a large program, even relatively small differences in COLAs can have major budgetary implications.

6. See, for example, the discussion in David Koitz, "Summary of the 1982 Social Security Trustees' Report," Congressional Research Service (April 1982).

Various proposals have been made to reduce cost-of-living adjustments temporarily in order to make up for past overindexing. Doing so would lessen the rate of growth of Social Security outlays and help maintain the solvency of the Social Security trust funds through the next few years. It would also reduce federal deficits by reducing outlays for entitlement programs. But it would mean that future benefit increases and benefit levels would be permanently lower than under current law since the level of benefits used as a base from which to calculate future benefit increases would be permanently reduced.

The options examined here have been chosen to illustrate several commonly proposed types of COLA reductions; clearly, many other ways to reduce COLAs could also be designed. The options include delaying the COLA by three months, freezing benefits for one year, and capping the COLA at 4 percent in 1983, 1984, and 1985. In addition, one of the stabilization options examined in Chapter VI, indexing by changes in wages minus 1.5 percentage points, would also produce small savings in the short term. Savings from these indexing changes over the next three years would range from about \$7 billion for a permanent shift of the cost-of-living adjustment from July to October to \$21 billion for eliminating the cost-of-living increase to be paid in July 1983, under the CBO's most recent economic forecast (see Table C-4).

For all of these options, the total savings achieved relative to current law, the timing of the savings--which would affect the solvency of the trust funds--and the total impact on benefit levels would depend on the rate of inflation over the next few years. Since inflation rates have fallen this year and are expected to continue to be lower than in the recent past, none of these options would result in savings as large as if the options had been enacted in 1980 or 1981.

The main rationale for such COLA cuts is that benefits have been overindexed in the recent past. In addition, current Social Security recipients are generally receiving rates of return on their contributions for Social Security that are very high compared to those that will be received by future retirees, both because of past flaws in the indexing system and because rates of return will fall in any case as the system matures. Thus, if reductions in benefits are deemed necessary, it may be appropriate to consider cuts that would affect current recipients, as opposed to those that would focus exclusively on new retirees.

On the other hand, reductions in current law cost-of-living adjustments would lower the value of Social Security benefits over time, and would lead to a higher incidence of poverty among the aged and disabled. Since such reductions are cumulative from year to year, real benefits would

TABLE C-4. PROJECTED SAVINGS RELATIVE TO CURRENT LAW OF FOUR PROPOSALS TO REDUCE THE COLAs IN SOCIAL SECURITY, 1983-1985 (By fiscal year, in billions of dollars)

Proposal	1983	1984	1985	Total Savings 1983-1985
Delay COLA 3 Months to October 1	2.2	2.1	2.8	7.1
Freeze Benefit Levels for One Year (Eliminate 1983 COLA)	2.2	9.2	9.5	20.9
Cap COLA at 4 Percent for 3 Years	0.6	2.7	4.4	7.7
Set COLA at Wage Growth Minus 1.5 Percentage Points ^a	0.2	0.9	0.9	2.0

SOURCE: Congressional Budget Office.

- a. This option would result in small savings in outlays in the short run because of projected low productivity growth. Over the longer run, however, outlays could be either higher or lower than under current law, depending upon the relative behavior of wages and prices.

be further reduced in each year of retirement if COLA cuts were sustained over an extended period; consequently, benefit levels, especially for the very old, could decline substantially. While programs such as Supplemental Security Income (SSI) and food stamps provide some measure of protection for Social Security recipients with low incomes, the stringent asset test under SSI and the unwillingness of many aged and disabled persons to apply for means-tested benefits prevent many of the elderly poor from participating in these programs. One approach that would cut federal spending while protecting the poorest of the elderly would be to combine

reductions in Social Security cost-of-living adjustments with liberalizations of the asset test and benefit levels under SSI.

Tax Increases

A second approach that would both improve Social Security trust fund balances and reduce the overall budget deficit would be to increase taxes for Social Security.

One option would be to increase payroll tax rates sooner than now scheduled (see Table C-5).⁷ For example, added revenues of \$17 billion over the next three years would result if the 1985 and 1986 tax rate increases were to begin in 1984 instead, raising the combined OASDHI tax rates in 1984 from 6.7 percent to 7.15 percent. Moving the increase scheduled for 1990 to 1984 would generate about \$46 billion in added revenues, and would raise OASDHI tax rates to 7.65 percent in 1984.

Alternatively, new taxes could be imposed, with revenues dedicated to the trust funds. For example, Social Security coverage could be extended to some or all of those workers not now covered--for the most part, federal, state, and local government employees. Requiring that new employees in currently noncovered jobs contribute to Social Security, for example, would generate \$5.6 billion in additional trust fund receipts during fiscal years 1983-1985. The impact on the budget as a whole would be substantially less, however, since some of the added trust fund revenues would come from employer taxes paid by federal agencies, and some could come from employee contributions now made to the Civil Service Retirement program.

Another possibility would be to subject a portion of Social Security benefits--for example, the half that one might associate with the employer share of the payroll tax--to the personal income tax, and to direct the \$18 billion in new receipts over the next three years to the trust funds. In essence, this would be a benefit cut, but in contrast to indexing changes, it would protect low-income Social Security recipients who generally would still pay no taxes. Instead, the tax increases would be focused on higher-income beneficiaries, particularly those with substantial income in addition

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7. Social Security cash benefits and medical services paid for by the HI fund are financed primarily through the payroll tax, which now provides about one-third of total federal tax revenues. Payroll tax rate increases are scheduled under current law for 1985, 1986, and 1990, and an increasing proportion of federal revenues are expected to come from this source by the end of the decade.

TABLE C-5. ADDITIONAL OASDHI REVENUES UNDER VARIOUS TAX CHANGES (By fiscal year, in billions of dollars)

	1983	1984	1985	Total 1983-1985
Increase Payroll Tax Rate				
Move 1985 and 1986 increases to January 1, 1984	--	10.8	6.2	17.0
Move 1985, 1986, and 1990 increases to January 1, 1984	--	22.8	23.3	46.1
Extend Social Security Coverage to Federal Employees^a				
New employees only	0.2	0.7	1.3	2.2
All employees	5.2	7.0	7.8	20.0
Extend Social Security Coverage to All Noncovered Employees^a				
New employees only	0.5	1.8	3.3	5.6
All employees	10.6	15.7	17.3	43.8
Tax 50 Percent of OASI Benefits ^b	4.5	6.5	7.0	18.0

SOURCE: Congressional Budget Office.

NOTE: Unless otherwise indicated, the effective date is January 1, 1983.

- a. Estimates of additional revenues reflect the extension of the HI tax to federal workers effective January 1, 1983.
- b. These estimates assume that the trust funds would receive the added revenues as income tax liabilities accrue, rather than when income taxes are actually paid. Estimates are preliminary and subject to revision.

to their Social Security benefits. To protect low- and moderate-income beneficiaries further, the tax might be limited to that portion of benefits that raised total incomes above a given level (\$12,000 for an individual and \$18,000 for a couple, for example), although this would generate substantially less revenue.⁸

The main argument for providing additional funds for Social Security through tax increases is to avoid major reductions in benefits that would cause hardships for some recipients. On the other hand, substantial tax increases--especially those that would increase the costs of employment--may be undesirable as long as unemployment remains high. Payroll tax increases would also lower the rate of return on contributions received by current workers, which under present law will already be lower, in general, than the rate received by current beneficiaries. Finally, although tax increases could reduce the federal deficit, they would not affect the share of gross national product devoted to federal spending.

General Revenue Transfers

The third possible approach to the problem of declining Social Security balances--transfers from other parts of the budget--would improve the financial status of the Social Security trust funds, but would not contribute to reducing federal deficits. Transfers could be funded either directly from general revenues or by loans from the Treasury to the trust funds, to be repaid when the trust funds recover from their short-term financing difficulties.⁹

General revenue borrowing could be an attractive option if there were no overall budget deficit problem, since it would permit gradually phasing in changes that would improve the trust fund balances in the long run. At present, however, using general revenue transfers as the sole means of resolving the Social Security financing problem would place the entire

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8. Unemployment insurance benefits, for example, are now taxed in this manner.
 9. Under the "intermediate B" assumptions of the 1982 Social Security Trustees' Report, the combined OASDI trust funds will have positive and increasing balances beginning in 1994. Under CBO's assumptions, however, the HI fund is projected to encounter ever-declining balances beginning in 1987, and would be unable to pay back any borrowing from the Treasury.

burden of deficit reductions on other portions of the budget. This approach could also be viewed as lessening the fiscal discipline imposed by payroll tax financing.

In the short run, however, even a combination of benefit reductions and tax increases such as those described above could still leave the trust funds with temporarily inadequate balances, particularly if economic conditions prove worse than expected. The enactment of a limited provision for general revenue borrowing when trust fund balances become low might therefore be considered, in order to provide the trust funds with an automatic margin of safety.