

CBO TESTIMONY

Statement of
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on
The Long-Run Budgetary Impacts of an Aging Population

before the
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Mr. Chairman and Members of the Committee, I am very glad to have the opportunity to appear before this Committee to discuss the long-term sustainability of budgetary policy into the next century. It is an issue that can easily be lost in the usual budget focus on the next year or even the next 10 years.

To summarize my remarks, if no changes were made in entitlement programs for the elderly, the large increase in the retired population over the next few decades would dramatically expand federal expenditures. Indeed, currently projected Social Security retirement benefits and federal medical benefits cannot be financed even for the next 25 years without either increasing the share of taxes in gross domestic product (GDP) or substantially reducing the rest of government spending. Financing the entire expected growth in spending on these entitlements through borrowing is not a long-term option because it would risk substantial damage to the economy.

Some change in policy is therefore inevitable--or put differently, current policy is simply unsustainable. Wide agreement exists on this conclusion, whether it comes from the Entitlement Commission's work, Alan Auerbach's and Laurence Kotlikoff's¹ generational accounting, the General Accounting Office's (GAO's) deficit projections, or the Congressional Budget Office's (CBO's) own work. Moreover, international organizations have also been warning of long-term imbalances in the budgets of several other countries.

1. See Alan J. Auerbach, Jagadeesh Gokhale, and Laurence J. Kotlikoff, "Restoring Generational Balance in U.S. Fiscal Policy: What Will it Take?" *Federal Reserve Bank of Cleveland Review*, vol. 31, no. 1 (First Quarter, 1996), pp 2-12.

Correcting those budgetary imbalances would be a substantial task if it was undertaken now but would only grow more daunting if delayed. Delay allows federal borrowing to crowd out private investment as well as to raise interest rates and federal interest payments, thus further expanding the size of the budget gap that policy changes must fill.

Though the entitlements for Social Security benefits and health care pose serious problems for the future, they have accomplished much in the past and continue to enhance the well-being of a large portion of the population. Over the past 25 years, the poverty rate of the elderly has fallen roughly by half--from about 25 percent to 13 percent--in a period when the overall poverty rate stayed in a range from about 11 percent to 15 percent. That improvement in the relative income of the elderly occurred despite a significant reduction in participation among older men in the labor force, and to a large extent it reflects the significant rise in real Social Security retirement benefits. The availability of medical care through Medicare and Medicaid have also improved the circumstances of many elderly and disabled people.

Policymakers will have to weigh the benefits that these entitlement programs confer against the need to make some policy change, if not in the entitlements, then in the rest of government spending or in the taxes needed to finance them.

THE SOURCES OF THE PROBLEM

Three demographic factors will put pressure on the budget. First, the baby boomers--that bulge in the population of people born between 1946 and 1964--will begin to retire around 2010. Second, the reduced fertility that slowed births after the baby-boom cohort now translates into a slowing in the growth of the labor force. Third, increased longevity means that the boomers will require Social Security and medical benefits for a longer time than previous cohorts of retirees.

These demographic changes will significantly increase the demands on three federal entitlement programs: Social Security, which provides income to retired workers, their spouses, and others; Medicare, which helps to pay the costs of acute medical care for elderly and disabled people; and Medicaid, which helps to finance acute and long-term medical care for certain low-income people, including the elderly. At the same time, the open-ended nature of Medicare and Medicaid will significantly increase the magnitude of the nation's long-term budgetary problems. In contrast, other federal entitlements such as federal, civilian, and military retirement, veterans' payments, and unemployment compensation are not expected to be a significant source of upward pressure on the budget.

THE CHANGING DEMOGRAPHIC STRUCTURE OF THE U.S. POPULATION

The percentage of the U.S. population age 65 and over is projected to increase sharply in the coming decades (see Table 1). The Social Security Administration (SSA) estimates that the population age 65 or older will almost double between 1995 and 2030, while the population of working age (20 to 64) will increase by only 20 percent. Consequently, the number of retirees to be supported per worker will rise sharply.

That increase stems from two factors. First, the baby-boom generation is aging. That generation was born between 1946 and 1964 when the number of births in the United States soared (see Figure 1). The baby boomers are both preceded and followed by cohorts with fewer people. When they retire, the growth of the labor force will slow significantly, even more so because women's participation in the labor force, having escalated sharply in the 1970s and 1980s, no longer has room to increase so rapidly. The Social Security Administration projects that the growth of the labor force will slow from a rate of 1.9 percent per year between 1960 and 1989 (two years in which the economy was operating at full capacity) to a 0.9 percent rate from 1989 to 2010 and to a 0.2 percent rate between 2010 and 2030.

Second, people are expected to live longer than they did in the past. In 1970,

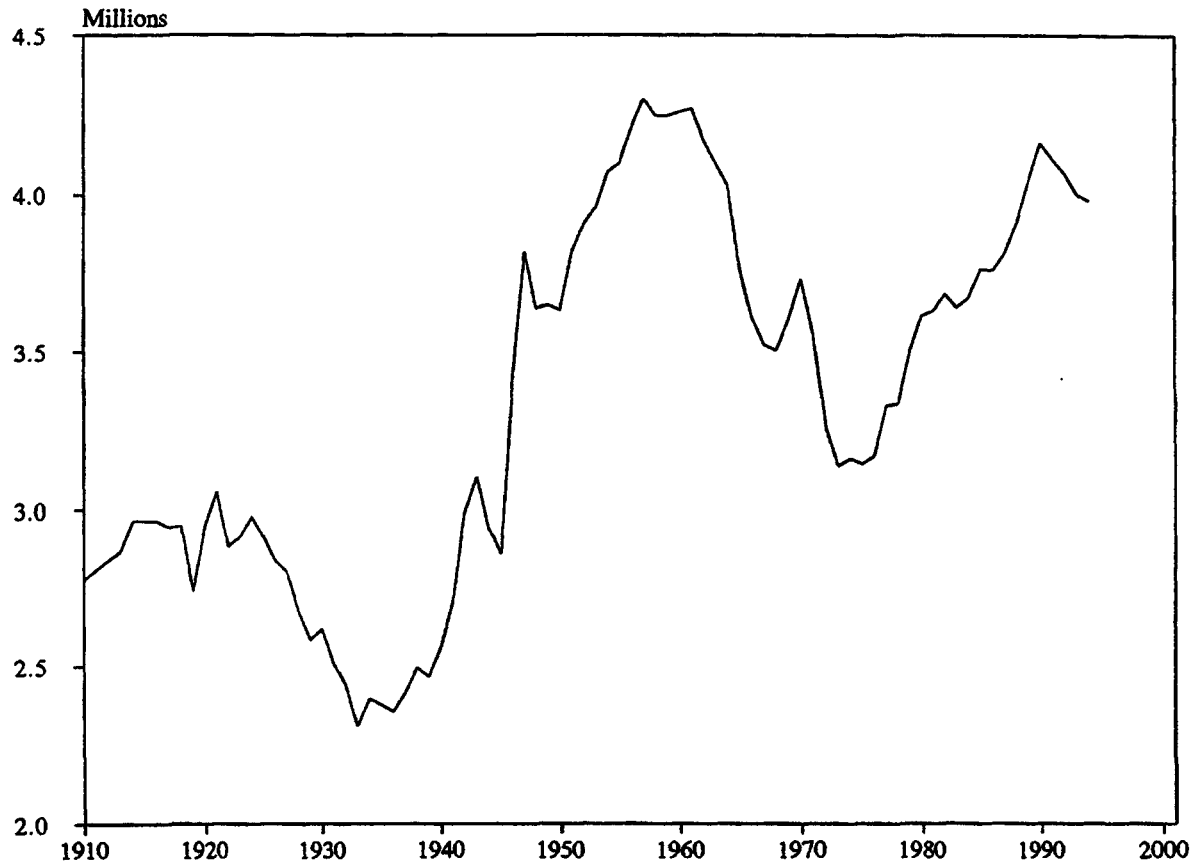
TABLE 1. POPULATION OF THE UNITED STATES, BY AGE, 1950-2070

	1950	1970	1990	Projections			
				2010	2030	2050	2070
In Millions							
Less than 20 Years Old	54	81	75	82	83	84	85
20 to 64 Years Old	93	113	153	186	192	202	204
65 Years and Older	<u>13</u>	<u>21</u>	<u>32</u>	<u>40</u>	<u>68</u>	<u>75</u>	<u>83</u>
Total	159	215	260	307	343	360	372
As a Percentage of Total Population							
Less than 20 Years Old	34	38	29	27	24	23	23
20 to 64 Years Old	58	53	59	60	56	56	55
65 Years and Older	<u>8</u>	<u>10</u>	<u>12</u>	<u>13</u>	<u>20</u>	<u>21</u>	<u>22</u>
Total	100	100	100	100	100	100	100
Memorandum:							
Ratio of People Age 20 to 64 to People Age 65 Years and Older	7.3	5.4	4.8	4.7	2.8	2.7	2.4

SOURCE: Congressional Budget Office using data from the Social Security Administration.

NOTE: Numbers may not add to totals because of rounding.

FIGURE 1. NUMBER OF BIRTHS, 1910-1994



Source: National Center for Health Statistics

the average person at birth was expected to live about 71 years. By 1990, the average lifespan had increased to 75.4 years, and by 2010, it is expected to increase to 77.9 years. Those gains reflect improvements in the quality of medical care for older people, among other things. More important for entitlement spending, a larger proportion of the adult population is reaching age 65, and life expectancy at age 65 has increased by 2.1 years since 1970, a 14 percent increase.

Although the details of population projections are uncertain, the basic message is inevitable: with more retirees and little growth in the number of workers, the ratio of workers to retirees will drop significantly in coming decades. In 1950, for each person age 65 or older, there were 7.3 people in the working years from 20 to 64. By 1990, that ratio had dropped to 4.8 to 1; by 2030, there may be only 2.8 people in the working years for every person over 65.

Both the outlay and revenue sides of the federal budgetary ledger will feel strain as the dependency ratio worsens. Outlays for government programs that aid the elderly will increase significantly as the number of people eligible to receive those benefits shoots up. At the same time, revenues will be squeezed because the number of people working and paying taxes will grow more slowly.

According to the Social Security trustees' report of last April, the income from payroll taxes for Social Security's Old-Age and Survivors Insurance programs

currently exceeds benefits paid by about 0.4 percent of GDP. But benefits would begin to exceed payroll taxes as soon as 2013. Moreover, by 2025, about 15 years after the first of the baby boomers retire, the gap would reach 1.3 percent of GDP. The deterioration would continue, pushing the gap in 2065 to 2 percent of GDP.

In addition, the aging of the boomers will sharply push up costs for Medicare and Medicaid. But projections of health care costs must also take into account the rapid growth in federal costs per enrollee.

THE CONTINUED RAPID GROWTH IN HEALTH COSTS PER ENROLLEE

Rapidly growing expenditures for each enrollee in the Medicare and Medicaid programs will present a second challenge to the budget in the coming decades. Unlike Social Security, whose real spending for each enrollee is set legislatively by a formula that depends on the enrollee's history of wages, traditional Medicare and Medicaid are open-ended entitlement programs that place no dollar limits on the benefits provided to each enrollee.

Federal spending for health care has been growing at a rapid pace for many years, and despite the apparent recent success of private insurers in controlling their cost growth, federal health spending has shown no indication of slowing

down. Medicare and Medicaid expenditures have risen from 1.4 percent of GDP in fiscal year 1975 to 3.8 percent in fiscal year 1995. In December, CBO projected that they would climb to 5.8 percent of GDP as soon as fiscal year 2005. Although some of that growth results from an increase in the number of enrollees, most of it is attributable to continuing increases in expenditures per enrollee as the use of medical services expands (see Table 2). By 2005, Medicare and Medicaid are projected to spend almost as much as all discretionary programs, even assuming that discretionary programs grow with inflation after 1998.

Looking farther ahead, the burden of health costs would continue to grow, even under optimistic assumptions. The trustees of the Hospital Insurance (HI) Trust Fund, who publish projections of Medicare spending in future years, make an admittedly optimistic assumption that Medicare costs per beneficiary will slow significantly and after 2020 will grow with the economy. Despite that assumption, the trustees project that total Medicare spending will continue to increase sharply, rising from 2.6 percent of GDP in 1995 to 3.8 percent of GDP in 2005 and reaching 8.1 percent of GDP in 2050.

TABLE 2. AVERAGE ANNUAL RATES OF GROWTH IN THE COSTS OF MEDICARE AND MEDICAID,
SELECTED FISCAL YEARS (In percent)

	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2005 ^a
Medicare						
Growth in Federal Benefits	15.8	19.2	15.5	9.0	10.6	9.4
Growth in Part A Enrollees	3.3	2.9	1.8	1.9	2.3	1.4
Growth in Payments per Enrollee	12.1	15.8	13.5	7.0	8.2	7.9
Medicaid						
Growth in Federal Payments	22.0	15.6	9.3	12.7	16.7	9.9
Growth in Beneficiaries	8.8	-0.4	0.2	3.0	7.8	2.9
Growth in Federal Payments per Beneficiary	12.1	16.1	9.1	9.4	8.2	6.8
Memorandum:						
Growth in CPI	6.1	8.1	5.8	3.8	3.3	3.0
Growth in Nominal GDP	8.9	11.8	8.5	6.7	5.0	4.9

SOURCE: Congressional Budget Office using data from the Health Care Financing Administration, the Bureau of Economic Analysis, and the Bureau of Labor Statistics. Projections based on CBO's December 1995 baseline.

NOTE: CPI = consumer price index; GDP = gross domestic product.

a. Projected

THE CONSEQUENCES OF A FAILURE TO ACT

What would happen if the Congress failed to set budgetary policy on a sustainable footing and left current budgetary commitments in place? Several techniques have been used to depict the long-term implications of existing laws and policy. The different approaches highlight different aspects of the problem. One approach, developed by Alan Auerbach and Laurence Kotlikoff, starts with the assumption that government spending must be paid for by someone and focuses on the distribution of the burden of those payments among generations using a system of generational accounts. A second and more traditional approach followed by CBO and GAO projects future budget expenditures and deficits and examines their impact on the federal debt and national income over the next several decades.

Both approaches address a hypothetical question: what would happen if changes were not made to U.S. budgetary policy? Although each approach specifies a somewhat different version of that question and presents the information in a different way, both approaches use the same data and make similar assumptions about the basic nature of policy in the absence of change. Neither approach should be viewed as a prediction of what will actually happen. As Herb Stein famously said, "If something cannot go on forever, it will stop." Presumably, laws and policies will change in response to current problems.

Generational Accounts

As their name implies, generational accounts focus on how budgetary policy distributes resources among generations. They start from the basic premise that tax revenues have to pay for government spending. The government can borrow for a while but eventually has to cover the interest payments. The issue is therefore how much of the burden would each generation or birth cohort have to bear. The calculations take into account the direct transfers that each generation receives. Thus, the measure of the burden is net taxes--taxes less transfers. In their current form, the accounts combine the activities of all levels of government--federal, state, and local.

The accounts estimate the burdens on current generations (those alive today) and on the whole set of future generations (those not yet born). They assume that current generations will pay taxes and receive transfers at every age at the rates that policy now specifies. If current generations do not fully pay for current government spending, future generations inheriting their debt will have to pick up the tab.

The accounts use the standard idea of present value to calculate lifetime net tax rates and summarize the burdens on a generation. Auerbach and Kotlikoff estimate that the lifetime net taxes of those born this year--the youngest current generation--will be about 34 percent of their lifetime labor income.

With respect to the generations alive today, the accounts show that lifetime net tax rates increased somewhat between the generation born in 1900 and that born in 1950, but have remained about the same for generations born since 1950 (see Table 3). But the accounts find that the generations not yet born will have a considerable tab to pick up. In fact, these generations of the future would face a net tax burden of more than 84 percent, compared with the 34 percent burden of those born this year. If we go out far enough into the future, the burden cannot be shifted anymore: either benefit rates would have to be reduced or tax rates increased, which is another way to say that U.S. budget policy is not sustainable. Alternatively, to keep the net taxes of future generations from being so high, the net taxes of current generations would have to be increased. Either way, the accounts show that somebody's net taxes would have to be increased, which implies either a significant increase in taxes or a significant reduction in promised retirement benefits. The exact numbers depend on uncertain and arguable assumptions, but the qualitative conclusion holds under a wide range of reasonable assumptions.

As with any tool of policy analysis, generational accounts make approximations in order to highlight certain aspects of policy. In particular, the accounts assume that the prospective growth of income and output are fixed regardless of fiscal policy. That assumption makes it possible to focus on how policy

TABLE 3. ESTIMATED LIFETIME NET TAX RATES BY YEAR OF BIRTH (In percent)

Year of Birth	Net Tax Rate ^a
1900	24
1910	27
1920	29
1930	30
1940	31
1950	33
1960	34
1970	34
1980	34
1990	34
1993	34
Future Generations ^b	84

SOURCE: Alan J. Auerbach, Jagadeesh Gokhale, and Laurence J. Kotlikoff, "Restoring Generational Balance in U.S. Fiscal Policy: What Will It Take?" *Federal Reserve Bank of Cleveland Review*, vol.31, no.1 (First Quarter, 1995), pp. 2-12.

NOTES: The rates shown are for net taxes at all levels of government combined--federal, state, and local. The estimates assume a real discount rate of 6 percent, a prospective annual rate of growth in productivity of 1.2 percent, and the midgrowth path of population used by the Social Security Administration in its 1994 annual report.

The values in the table reflect the implication of generational accounts as constructed, not necessarily the views of the Congressional Budget Office.

a. A lifetime net tax rate is the present value at birth of lifetime net taxes as a percentage of the present value at birth of lifetime labor income. Net taxes are taxes less transfers.

b. Future generations are all those born in 1994 and thereafter.

directly distributes net income among generations. But it overlooks the way that policy helps to determine output and income and, thus, indirectly affects distribution among generations.

Long-Term Projection of the Budget and Economy

Another way to examine the sustainability of U.S. budget policy is to model its economic and budgetary implications under varying assumptions about future economic and demographic conditions. That approach accounts for the way in which the budget trends described earlier would reduce national saving, raise interest rates and borrowing from abroad, and lead to lower growth in national income if government tried to borrow forever to pay for what it buys. Such an approach could also give some rough indication of when budget imbalances would begin to create severe economic problems. At the request of Senator Domenici, CBO has developed a model for studying the hypothetical economic effects of budget imbalances and intends to discuss the results in its upcoming annual report.

In brief, our analysis shows that U.S. budget policy is unsustainable. If the country's future obligations were entirely paid for by borrowing, the economy would be seriously weakened. Taken literally, deficit finance would lead eventually to ever-rising interest rates and falling growth rates. For example, CBO estimated last

December that interest rates would be 120 basis points higher than otherwise in 2002 if the Congress did not balance the budget, and GDP would be 0.5 percent lower. Those amounts may sound small, but economists would be hard put to suggest any other thing that government could do that would have so large an effect over so short a period. Moreover, those changes would get continually larger with time, although merely balancing the budget by 2002--without controlling the deficit thereafter--would probably not by itself make policy sustainable.

Those economic developments would occur because current conditions and future budgetary commitments interact to set up a vicious circle. Current and expected interest rates on government debt are higher than expected growth rates of the economy. Under such conditions, in order to keep the debt from growing faster than output, the government's revenues must more than cover its noninterest outlays (that is, it must run a primary surplus).

At present, the budget does exhibit a primary surplus of about \$70 billion, but that is not quite enough to keep the debt from rising slightly relative to GDP between 2000 and 2005. Over time, moreover, the current primary surplus would give way to growing primary deficits as expenditures on entitlements and discretionary programs outstripped receipts. By 2020, the debt would reach well over 100 percent of GDP and would continue to rise sharply after that. The increase in debt would displace capital and start a spiral that led to even higher interest rates,

lower growth rates, further acceleration of the debt, and so on. In the end, unconstrained growth of federal debt could put an end to the long upward trend in real income that the United States has long enjoyed. By contrast, reducing the growth of primary deficits would start a virtuous circle. When the costs of inaction are great, the benefits of corrective action are correspondingly large.

Of course, all long-term projections rest on uncertain and arguable assumptions. In particular, such a projection would carry the economy well outside its historical experience. Under those conditions, economic relationships estimated from history would give even less certain guidance than usual.

As with generational accounts, however, the qualitative conclusions hold under a wide range of plausible conditions. Preliminary work by CBO suggests that budget policy remains unsustainable even under optimistic assumptions, including favorable demographic trends and historically high rates of productivity growth. Thus, the chances that the long-term budget problem will solve itself are virtually nil.

THE IMPORTANCE OF ACTING SOON

There are many possible ways to help resolve the policy dilemmas posed by the aging of the population and the growing costs of health programs. One approach

incorporated in the Balanced Budget Act passed by the Congress last year would have reduced the annual growth of Medicare spending per beneficiary to 5 percent (leaving Medicare still growing faster than GDP) and would have converted Medicaid to a block grant, thereby ending its status as an automatic federal entitlement. Changes might also be made in the formulas for determining Social Security benefits, such as further raising the normal retirement age and reducing the cost-of-living adjustment.

Of course, the nation might decide that the benefits of entitlements are worth paying for and accept higher taxes or reductions in other spending to provide the needed funding. But the amounts required would make that improbable. The economic effects of particular choices, especially any that include changes in taxation, will certainly affect economic outcomes. But this testimony is not the place to detail all the possibilities, though we expect to have a chapter in our upcoming volume *Reducing the Deficit: Spending and Revenue Options* that will address specific proposals.

One overarching concern, however, should be addressed: the issue of timing. The federal deficit has been brought down substantially from its level in the late 1980s and is now low relative to that of many other developed countries. But this is a temporary phenomenon that should not lull people into believing that no problem exists. The pressures of demographics and rising health costs will become severe in

just a few years. Delaying action on the looming budget problem would increase the ultimate cost of constraining the growth of the federal debt. Because delay increases the total amount of debt outstanding, it leads to smaller capital stocks and lower levels of output than would otherwise be possible.

The stakes will get significantly higher when the baby boomers begin to retire. At that point, the budget deficit will begin to rise rapidly if no change in policy occurs. Delay at that time would add increasing amounts to the debt to be serviced and correspondingly increasing interest costs. As interest costs rose, efforts to balance the budget would have to cut more and more deeply into programs or involve even larger increases in taxes. Moreover, the accumulation of debt and diversion of national savings to federal borrowing in the interim would reduce the productive capacity of the economy, thereby cutting into the tax base. Thus, postponing difficult decisions makes the choices that would have to be made later even more difficult.

There are other reasons not to delay attacking this problem. If changes in entitlements are to be part of the solution, concerns for both equity and efficiency suggest that the commitment to changes be made well before they are carried out. Entitlement programs for the elderly are generally viewed as long-term commitments between the government and the citizenry, and people have structured their behavior based on current provisions. Deciding soon on any future changes in such programs

and making gradual changes in spending and tax policies would give people more time to plan and adjust their behavior accordingly.

Such policy decisions could go a long way toward solving the problem of unsustainability, even though their effects on the budget would not show up until much later. Thus, it is necessary to maintain a long view in considering policy options.

