CHAPTER 4

Federal Budget Issues

THE FEDERAL BUDGET presents economic policymakers with three fundamental questions. First, how much should the Federal Government spend? Second, how should that spending be allocated? Third, how should the spending be financed—by current taxes only, by borrowing to cover a deficit in tax revenues, or by adding to the monetary base. Without spending there would be no need to impose taxes or to borrow to cover deficits. The composition of a given level of spending has implications for how it should be financed. And the choice of the level of spending is influenced by the recognition that government spending cannot indefinitely grow faster than the economy and that the financing mechanisms available to the government impose costs on the economy.

This chapter examines issues related to the size and allocation of the Federal budget and explores the implications for the economy of financing a part of Federal spending through budgetary deficits. Financing Federal spending through various forms of taxation, together with related issues, are the subject of Chapter 5.

The Administration's spending policies rest on both philosophical beliefs and economic judgments. As discussed in Chapter 2, the view that the size and scope of the Federal Government are too large reflects the belief that most individuals know best what they want and how best to attain it. In the aggregate their actions will generally result in the most appropriate distribution of our economic resources. This belief is accompanied by the judgment that resources left in the private sector generally are more effective in generating growth and productive employment than resources moved to the public sector.

Because of these philosophical beliefs and economic judgments, the Administration has initiated a major transformation of the role of the Federal Government in the U.S. economy. The Administration's economic recovery program will change both the size and the nature of government involvement, reversing the trend of recent decades when the Federal budget usually grew faster than the rest of the economy as the Federal Government took upon itself responsibilities

that had previously been left to the private sector or to State and local governments.

Federal spending is a highly visible form of government involvement in the economy, and the Administration's economic program calls for a slowdown in the growth of Federal spending. Federal spending rose from 20.2 percent of the gross national product (GNP) in 1970 to 23.0 percent in 1981. By fiscal 1987, Federal spending is projected to fall to 19.7 percent of GNP. Federal tax rates on individuals and businesses will also fall, as will the share of gross national product used to pay Federal taxes. By 1987, Federal tax revenues will represent 2.3 percentage points less of the gross national product than they did in 1981. At the same time the Federal budget deficit also will shrink relative to the size of the economy, dropping from 2.0 percent of GNP in 1981 and 3.2 percent in 1982 to 1.1 percent by 1987.

In 1981 the Congress and the Administration took important steps toward achieving this shift in emphasis from the public to the private sector. The enactment of the Economic Recovery Tax Act of 1981 will reduce income tax rates over the next few years, and the Omnibus Budget Reconciliation Act of 1981 will restrain the growth of many open-ended entitlement programs. This shift will be incomplete, however, without further Federal spending restraint in the years ahead.

The shift in the role of the Federal Government is more than a reduction in size. It also encompasses a restructuring of priorities at the Federal level and a reallocation of responsibilities and resources between the Federal and the State and local levels of government. Within the Federal budget, spending will shift toward those activities that, in this Administration's view, reflect truly national needs, such as strengthening the Nation's defenses and maintaining the integrity of the social insurance programs.

Economic criteria will be applied to various spending programs to help ensure that the resulting benefits offset the costs to the taxpayers who ultimately must bear them. These criteria should apply not only to direct Federal spending, but also to on- and off-budget credit activities. Such Federal credit programs reallocate national resources by financing activities that might not be attractive to investors in the private market.

The first step in the realignment of responsibilities among Federal, State, and local jurisdictions was the consolidation of a number of categorical grant programs into block grants in fiscal 1982. The second step, proposed in the budget for fiscal 1983, is to shift responsibility for some programs now jointly operated by the States and the Federal Government either to the States or to the national

government, and to turn some other programs that are now wholly federally funded back to the States. The proposed restructuring of functions would be accompanied by a phased withdrawal of the Federal Government from the excise tax base. These proposals are intended to strengthen the Federal system by improving the operation of government at all levels, making it more responsive to the people.

THE OVERALL LEVEL OF FEDERAL SPENDING

The benefits of many types of Federal spending are easily seen. Parks are built, research is conducted, and the sick and the elderly are supported with Federal dollars. Yet Federal spending in the aggregate also imposes many costs on the economy. First, costs arise through the mechanisms used to pay for what the government spends. The government can raise taxes now or in the future to obtain the funds it needs, or it can obtain those funds indirectly through monetary expansion. As discussed in Chapter 5, taxes tend to reduce growth in the private sector by transferring productive resources from private to public hands, using tax methods that generally distort the decisions of households and firms to supply labor and capital to the economy. Deficits also impose real costs on the economy (as explored later in this chapter), whether financed by lower future spending, higher future taxes, or by expanding the money supply. For government spending to be economically justified, therefore, the benefits resulting from that spending—whether in terms of more economic growth or the enhanced well-being of the society—must exceed the costs.

Discretionary changes in the level of government spending made in the attempt to offset cyclical fluctuations in the economy can impose additional costs. Such changes, which increase the uncertainty faced by households and firms in making their economic decisions, can discourage the supply of productive factors to the economy. Furthermore, attempts to implement discretionary countercyclical policy can in fact prove to be procyclical.

A third way in which Federal spending can impose costs on the economy is by altering the allocation of resources, both currently and over time. For a given level of spending and method of financing, the allocation of federal resources between current consumption and investment can affect economic growth.

Government spending can be divided into four categories: consumption, transfers, investment (both defense and nondefense investment), and other (which mainly includes interest payments and grants to State and local governments). Government spending may absorb private sector resources for use by the public sector or reallo-

cate resources within the private sector, or both; the predominant effects differ by category.

Transfer payments do not absorb resources aside from administrative costs, but they may have strong allocative effects within the economy. Transfer payments may lead recipients to change their work or saving behavior, and they may change the composition of the demand for goods and services. (Examples of the factor supply response are discussed in Chapter 5.) Federal grants to State and local governments affect the use of resources in the economy through their effect on the behavior of those jurisdictions. State and local governments may respond to the Federal grants by changing the level of spending and taxing, as well as the composition of the outlays.

The direct effect of government purchases of goods and services for either consumption or investment is to absorb resources from the private sector. To the extent that such spending substitutes for private purchases public sector purchases may also redirect the use of resources within the private sector. For example, public provision of education or police services reduces the private demand for such activities. The dominant effect that government purchases have on the economy, however, is likely to be through absorption rather than reallocation of private sector resources. Since a dollar of government consumption spending is unlikely to substitute fully for a dollar of private consumption, an increase in government consumption spending would tend to increase the share of total consumption in GNP (apart from any effects of the financing arrangements). Similarly, government investment tends to increase the share of total investment in the economy. Furthermore, government consumption and investment spending is likely to alter the composition of both consumption and investment in the economy from what would have prevailed if the resources had stayed in private hands.

In practice, the distinction between government consumption and investment is difficult to make. The government consumption figures shown in Table 4–1 include various expenditures to promote education, training, and research and development. Like physical capital, these activities contribute to economic growth. Published measures of government investment expenditures encounter similar problems. For example, current Federal investment expenditures mainly comprise purchases of military hardware and structures, whose acquisition will provide future benefits in terms of stronger national security that cannot be captured in GNP. Although services of government capital are not counted in GNP, the future services resulting from the construction of airports, highways, and other civilian investment outlays are reflected in part in the recorded output of private sector

users. In practice, therefore, statistics that allocate government purchases between consumption and investment must be viewed with caution.

TABLE 4–1.—*Structure of Federal Government expenditures, NIPA, calendar years 1951–83*

[Percent of GNP]

Period	Total Federal Government expenditures	Federal Government consumption [1]	Federal Government transfer payments [2]	Federal Government investment [3]		Other Federal expenditures [4]
				Defense	Nondefense	
1951–60	18.7	7.5	3.8	4.6	0.2	2.6
1961–70	19.5	7.6	5.2	2.7	.3	3.7
1971–80	21.5	6.2	8.4	1.3	.3	5.3
1981 [5]	23.4	6.1	9.8	1.3	.3	5.9
1982 [6]	24.0	6.4	10.1	1.4	.3	5.8
1983 [6]	22.9	5.9	9.6	1.7	.2	5.5

[1] Purchases of goods and services except durables and structures.
[2] Includes transfers to foreigners.
[3] Purchases of durables and structures. The allocation between defense and nondefense was estimated for years before 1972 by Council of Economic Advisers.
[4] Primarily interest payments and grants to State and local governments.
[5] Preliminary.
[6] Estimated by Council of Economic Advisers.

Note.—Based on data from the national income and product accounts (NIPA). Expenditures by the Federal Government include off-budget items such as the Postal Service and the Federal Financing Bank as well as regularly budgeted expenditures.

Sources: Department of Commerce (Bureau of Economic Analysis), Office of Management and Budget, and Council of Economic Advisers.

Despite these limitations, the statistics in Table 4–1 are a useful summary of changes in Federal spending in these categories in recent years and how these categories are likely to change under the Administration's current budget plans. Total Federal spending (on a national income accounts basis) as a percent of GNP rose nearly 3 percentage points between the 1950s and the 1970s. The category with the largest growth was Federal transfer payments. Most of the increase there—77 percent—represented expansion of the social security system (discussed later in this chapter). This increase in transfers was partially offset by a drop in Federal consumption as a share of GNP. Measured Federal expenditures on investment goods have fallen substantially, largely because less of the Nation's output in the 1970s was spent on defense hardware than in the earlier postwar decades. The Administration's budget plans for fiscal 1983 envision a reversal in the trend of transfer payments rising as a share of GNP. Federal consumption expenditures should resume their decline as a share of GNP. Government spending classified here as investment will increase in relative importance primarily because of rising defense outlays.

REALLOCATION OF BUDGET PRIORITIES

A substantial shift in the composition of the budget has accompanied the expansion of the Federal role in the economy since 1960. Table 4–2 shows how the priorities of the Federal Government have evolved over the last 20 years and how this Administration intends to restructure them.

TABLE 4–2.—*Composition of Federal unified budget outlays, selected fiscal years, 1960–87*

[Percent]

Item	Fiscal years								
	1960	1965	1970	1975	1980	1981 [1]	1982 [2]	1983 [2]	1987 [2]
Defense [3]	48.2	38.9	38.7	24.5	21.5	22.2	23.8	27.0	35.4
Payments for individuals [4]	26.4	28.4	33.7	48.3	49.1	50.2	50.5	50.5	49.0
Retirement [4]	17.0	19.6	20.4	26.7	27.1	28.1	28.4	29.2	29.7
Unemployment	3.0	2.4	1.7	4.2	3.1	3.3	4.0	3.7	2.0
Medical care	1.2	1.5	6.3	8.3	10.1	10.5	10.7	11.0	12.0
Food, nutrition, and public assistance	3.9	4.2	3.8	5.9	5.9	5.4	4.9	4.1	3.4
Other	1.5	.8	1.5	3.2	2.8	3.0	2.5	2.5	1.9
Interest	9.0	8.7	9.4	9.5	11.2	12.6	13.7	14.9	11.9
Other [5]	16.2	23.9	19.9	17.7	18.2	15.0	12.0	7.6	3.7
International, justice, general government	4.7	6.0	3.6	4.0	3.4	3.1	2.9	2.9	2.2
Energy, natural resources, environment	2.2	2.7	2.1	2.9	3.5	3.6	2.6	1.9	1.1
Agriculture	2.8	3.3	2.6	.5	.8	.8	1.2	.6	.3
Commerce and community development	2.0	1.9	2.3	2.9	3.1	2.7	2.2	1.5	.9
Transportation	4.4	4.9	3.6	3.2	3.6	3.5	2.9	2.5	2.0
Education and training	1.0	1.8	4.2	4.4	4.5	3.8	3.0	1.8	1.4
General fiscal assistance	.2	.2	.3	2.2	1.5	1.0	.9	1.0	.8
Other, net of offsetting receipts	−1.1	3.1	1.2	−2.4	−2.2	−3.7	−3.6	−4.6	−4.8
Addendum:									
Grants to State and local governments: Total	7.6	9.2	12.3	15.4	15.9	14.4	12.6	10.7	8.9
Not for individuals	4.9	5.9	7.7	10.1	10.0	8.3	6.8	5.8	4.1

[1] Preliminary.
[2] Estimated by Council of Economic Advisers.
[3] Excludes military retirement.
[4] Includes military retirement.
[5] Includes grants to State and local governments other than payments for individuals.

Note.—Detail may not add to 100 percent due to rounding.

Sources: Office of Management and Budget and Council of Economic Advisers.

The most notable change over this period was the substantial reduction in the share of the budget going to national defense, from nearly one-half to less than one-quarter. While the defense share was falling, transfer payments to individuals were growing. In 1960 transfer payments absorbed about one-quarter of the budget, whereas by 1981 they accounted for one-half. Most of this growth came in two types of programs: (1) retirement programs, principally social security, but also outlays for military and civil service pensions, and (2) the medical assistance programs of medicare for the elderly and medicaid for the poor. (A section of Chapter 6 examines factors contributing to medical cost increases.) The third notable shift in the composition of the budget was the greater fraction of Federal revenues transferred to State and local governments through such programs as

general revenue sharing. (In Table 4–2, grants to State and local governments are included with direct Federal spending in each of the functional categories.)

This Administration has a different set of spending priorities than those reflected in the budgets of the recent past. This difference is expressed in the following guidelines used in developing the Administration's plans for restraining the growth of Federal spending:

- Strengthen the national defense.
- Maintain the integrity of social insurance programs while reforming entitlement programs to ensure that they serve those in greatest need.
- Reduce subsidies to middle- and upper-income groups.
- Apply sound economic criteria to programs where subsidies are justified.
- Recover costs that can clearly be allocated to users of services provided by Federal programs.
- Strengthen the Federal structure of government.
- Reduce the Federal role in allocating credit by restraining on- and off-budget credit activities.

The Administration's estimate of 1987 budget outlays reflects these guidelines, which are consistent with the role for the Federal Government described in Chapter 2. Despite the substantial changes accomplished in the budget for fiscal 1982, reforming the budget cannot be achieved in a year or two. The difference in priorities can best be seen by comparing the Administration's projections for fiscal 1987 with the budget that ended September 30, 1981.

As Table 4–2 indicates, the Administration intends to raise significantly the share of the budget spent on defense, from 22.2 percent of total outlays in 1981 to 35.4 percent in 1987. Funding for retirement programs will increase as a share of the budget while other payments to individuals are being reduced. An example of a program in this latter category is trade adjustment assistance, which has provided more generous unemployment benefits to workers who may have been displaced by foreign competition than to other unemployed workers. Increases in the share of the budget going to retirement programs and decreases in the share of other transfer programs will mean that total payments for individuals will account for approximately the same fraction of Federal spending in 1987 as in 1981.

The reordering of Federal priorities raises a number of issues that warrant special attention. First, what will be the economic effects of the large increase in defense spending? Second, what caused the substantial expansion in retirement programs, and what issues should be addressed for the future? Third, what advantages can be expected

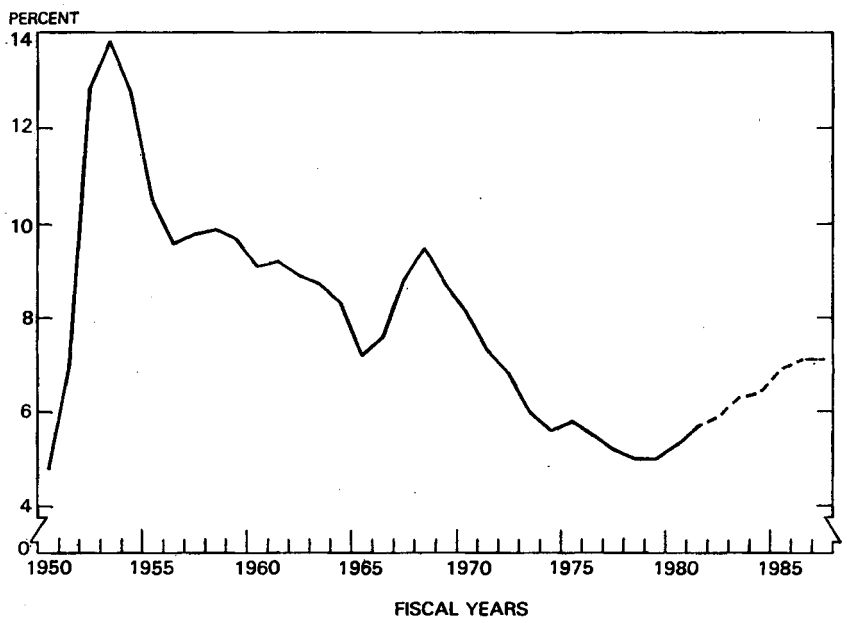
from reallocating responsibilities between the Federal Government and the State and local governments? Finally, how will changes in Federal credit activity affect the economy?

DEFENSE

Real military spending is expected to grow 9 percent annually between 1981 and 1987. Over that period, military spending (including military retirement) will rise from 5.6 percent to 7.8 percent of GNP, and from 25 percent to 37 percent of total Federal spending. As is clear from Chart 4–1, such an increase would not even restore defense spending to its pre-Vietnam share of GNP. Although the military's shares of national output and Federal spending will not be as high as in the early 1960s, the buildup will be a sharp reversal of the trend of the last decade. As a result, some concern has been expressed about whether this increase could adversely affect the economy. Any economic effects, however, must be assessed in the context of the overriding need for maintaining the level of defense spending necessary for national security.

Chart 4–1

Defense Outlays as Percent of GNP



SOURCES: DEPARTMENT OF COMMERCE, OFFICE OF MANAGEMENT AND BUDGET, AND COUNCIL OF ECONOMIC ADVISERS

The concern over the economic impact of defense spending has probably been overstated. The U.S. economy as a whole should be able to accommodate the projected expansion in defense spending without experiencing an increase in the general inflation rate. Monetary and budget policies can offset the impact of a large increase in government spending for national security, although unusual growth in any spending category, military or civilian, makes the goal of overall restraint that much more difficult to achieve. Moreover, the economy currently has ample slack to accommodate the beginning of a major expansion in defense work.

As the economy emerges from the current recession, however, growth in the defense program will compete with expanding demands in the private sector. As the Administration's economic recovery program begins to take full effect, private demand for producer durables should rise significantly. Expenditures for defense also will be concentrated in the durables sector. Real purchases of defense durables (research and development and procurement of major weapon systems) will grow at an estimated rate of 16 percent annually between 1981 and 1987. This exceeds the 14 percent annual rate of increase that occurred during the 3 peak years of the Vietnam buildup. The current defense buildup thus will add to pressures on the durable manufacturing sector in these years.

Although it is difficult to predict which industrial markets will be especially affected, three results of the defense buildup can be anticipated. First, the substantial transfer of resources in the durables sector to defense production may increase relative prices in at least some of the affected industries. Both the Department of Defense (DOD) and private purchasers may have to pay more for goods from these industries. Second, increased demand may produce delays in the delivery of military goods. Delivery timetables that seem realistic today may in some cases become obsolete as producers try to accommodate the defense buildup and vigorous expansion in civilian investment at the same time. A third effect may be some temporary crowding out of private investment. Defense procurement and associated production equipment use many of the same physical resources needed for private investment in civilian producer durables. Some private firms may turn to foreign sources for materials while others may cancel or postpone plans for expansion.

The Department of Defense is attempting to minimize the potentially adverse economic effects of the defense buildup through long-term planning, better management of defense contracts, and the development of more comprehensive cost estimates. This long-term planning will help defense industries increase their capacity in anticipation of new orders. The department's plans to place greater reli-

ance on multiyear contracts will also help defense contractors operate more efficiently, especially by providing incentives to increase capacity and to plan optimal production rates.

In the private sector, competition tends to prevent inefficient producers from passing their higher costs on to consumers. In the defense sector the function of encouraging efficiency is largely performed by DOD analysts of contract negotiations and administration. Their jobs are always difficult because of unanticipated problems in developing high technology equipment, lack of competition among suppliers, and a history of erratic fluctuations in defense procurement levels. The defense buildup will therefore increase the challenge to DOD administrators. Careful planning, tight management, and accurate cost estimates can reduce the adverse consequences of the buildup, but some problems may arise.

Economic Impact of Increased Military Manpower

Over the next 5 years the armed services plan to increase their active duty forces by 9 to 10 percent. Quality standards for recruits are also scheduled to rise. Declining unemployment rates and a reduction in the available manpower pool because of the decline in the recruiting-age population will make these goals difficult to achieve and will increase pressure to shift the costs of achieving them from taxpayers onto the young—that is, by reinstituting the draft.

As the Administration's economic recovery program begins to take effect, increases in the number of civilian jobs will make it harder for the military to attract personnel. The problem of attracting first-time recruits is likely to be especially serious. Between 1980 and the end of the decade the number of 18-year-old males will fall by 19 percent, from 2.1 million to 1.7 million, with the bulk of that decline occurring before 1985. Thus, the armed services will need to attract a considerably higher percentage of high school graduates than it does today. Although a considerably smaller U.S. population supported a somewhat larger military throughout the 1950s, the United States had a draft in those years.

Just as the potential supply of recruits will be diminishing, the demand—especially for high-quality recruits—will be rising. Without the right combination of incentives, the costs of military compensation may rise sharply while a shortage of recruits may create pressures for a return to a peacetime draft. To prevent such problems, bonuses for recruits in certain areas and for experienced military personnel with special skills may have to be raised.

Resumption of the draft would bring about an increase in force levels at substantially lower budget outlays. However, the real costs to the economy would not disappear; they would simply be moved out of DOD's budget and onto the draftees, and the costs would

probably rise in the process. The output that the draftees would have produced as members of the civilian work force would be lost in any case.

SOCIAL SECURITY

Over the past 20 years, 29 percent of the growth in Federal spending has been due to increases in retirement programs, with most of the growth occurring in the social security program. Over the next 5 years the retirement portion of social security will rise nearly 50 percent faster than the total Federal budget. Because of the large fraction of Federal resources devoted to the social security program, its rapid growth, and the program's importance to so many Americans, it is useful to understand the causes of its growth and the problems that may occur in the future.

Three major factors apart from inflation have contributed to the growth in social security retirement expenditures over the past two decades. First, there are 9 million more people 65 or over today than there were 20 years ago, an increase of 54 percent. Second, social security eligibility has been broadened steadily since the system began in the 1930s. In 1960, 66 percent of the elderly received social security benefits, compared to 93 percent in 1980. Furthermore, the number of people between 62 and 65 who received retirement benefits more than tripled between 1960 and 1980.

Third, the level of social security benefits, after adjusting for inflation, has also risen substantially. The average real benefit paid to a retired worker was $191 a month in 1960 (in 1980 dollars) and $341 in 1980. In part, this increase reflects growth in the real wages that the average worker earns over a lifetime and therefore in the retirement benefit for which the worker is eligible. The growth in eligibility for survivor and dependent benefits, and their levels, has also been substantial. Much of this liberalization in benefits came in the late 1960s and early 1970s when the Congress, faced with projected and growing surpluses in the social security trust funds, chose to raise benefits. In 1972 the Congress sought to index benefits to inflation, in part to discourage discretionary increases that had been raising benefits faster than inflation. However, the Congress effectively "double-indexed" them through a technical flaw in the indexing procedure. As a result, nominal social security benefits continued to rise faster than consumer prices. Congressional action in 1977 corrected the technical problem but did not return real individual benefits to their 1972 level.

Expansion of the social security system has substantially improved the lot of the elderly poor. The system has been a major factor in reducing both the percentage and the absolute number among the

elderly with incomes below the official poverty line. In 1959, 35.2 percent of individuals age 65 and over were classified as poor, compared to 22.4 percent of the total population. There was a substantial decline in poverty during the 1960s, so that by 1970, 24.5 percent of the elderly and 12.6 percent of the rest of the population had measured incomes below the poverty line. During the 1970s the percentage of those classified as poor among the general population stopped declining but continued to decline for the elderly. Thus, by 1980 only 15.7 percent of those 65 and over were formally considered to be living in poverty, compared to 13.0 percent of the rest of the population. In addition to reducing poverty among the elderly, the indexing of social security benefits in 1972 assured them that inflation would not erode at least that part of their incomes.

The social security system now faces serious problems, however, both in the short run and in the long run. The short-run problem is that the Old-Age and Survivors Insurance Trust Fund is in danger of running out of money. Because of high unemployment and slow growth in earnings, relative to the consumer price index by which benefits are automatically adjusted, trust fund receipts have not kept pace with the rise in outlays required by indexing. In 1981 the Congress authorized borrowing among the Old-Age Survivors Insurance, Disability Insurance and Hospital Insurance Trust Funds. This action will ease the short-run problem, which is expected to disappear as economic growth resumes and inflation subsides.

The long-term problem in the social security system arises from the fact that the baby-boom generation will begin to reach retirement age around the year 2010. The ratio of the working-age population (20 to 64) to the elderly (65 and over) will fall from 5.1 today to 4.7 in 2005, and to 3.0 in 2030. After the turn of the century, contributors will not be able to support beneficiaries at today's retirement age, replacement rates, and payroll tax rates. Because of this shift in age distribution, today's young workers are unlikely to receive the same rate of return on their contributions to social security that their parents received. Thus, some combination of an increase in the retirement age, a decrease in benefits relative to prior earnings, and an increase in contribution rates will almost certainly be necessary in the long run. The President has established a National Commission on Social Security Reform to examine the problems and propose solutions to both the short-run and long-run problems by January 1983.

Indexing in General

The practice of adjusting benefits automatically for inflation raises a set of issues that applies to all indexed Federal programs. Currently, 30 percent of Federal outlays rise automatically with inflation. Indexing benefit payments to inflation has been intended to preserve

the real purchasing power of benefits—to serve as a kind of insurance against inflation. Experience with indexing has revealed problems, however.

One problem is the accuracy of the consumer price index (CPI) as a measure of inflation. In recent years at least, the method of computing the CPI has caused it to overstate increases in the cost of living. In October 1981 the Bureau of Labor Statistics announced its intention to correct these technical deficiencies. The correction will first affect Federal outlays in fiscal 1985. The cumulative effect of mismeasurement may have increased the real level of benefits paid by as much as $10 billion in 1981 alone. These same measurement problems should have the opposite effect over the next few years, however, as interest rates come down.

There are more fundamental problems with indexing. Since a continuous inflation is caused by excessive money growth, all incomes tend to rise proportionally, so that increases in other incomes tend to keep pace with indexed benefits. However, when supply shocks, such as the Organization of Petroleum Exporting Countries (OPEC) oil price increases of the 1970s, cause changes in the price level, wage incomes typically do not keep pace with inflation. In such circumstances, recipients of indexed benefits have an advantage, since most taxpayers who pay for the benefits have no such protection for their incomes. Several proposals have suggested that, when real wages fall, it would be more equitable to adjust benefit payments only by the amount of increases in wages. Automatic increases in benefit payments also give recipients an advantage in times of budget stringency, when the real levels of other programs are being reduced.

STRENGTHENING THE FEDERAL SYSTEM

A central feature of the Administration's budget policies is a commitment to strengthening the concept and the practical application of federalism. The goal is a system that includes an effective central government interacting with effective and responsive State governments. As the Federal Government has extended its involvement in the economy in recent years, it has tended to reduce the autonomy of State governments and to centralize the responsibility for a number of social, economic, and regulatory programs. In the Administration's view, the result has made the entire public sector less effective and less efficient.

There are four major reasons for seeking to create a stronger and more balanced Federal system. First, such a system would encourage diversity among State and local governments. The diversity that exists among communities and regions requires a structure of government that recognizes the differences in circumstances, prefer-

ences, and demands for public services. Many services that are appropriately provided by the public sector generate benefits sufficiently limited geographically that they are properly the responsibility of State or local governments. This permits the individuals who will benefit from and pay for a given service to decide whether it should be provided and if so, in what quantity.

That diversity also permits a "portfolio" approach to solving problems that are common to many communities, in that a single approach—the Federal Government's approach—is not the only method that can be tried. As different jurisdictions choose different strategies for handling similar problems, the chances of finding superior solutions increases. This portfolio approach means that some methods will fail, possibly more severely than the single method that the national government would have chosen. But each jurisdiction can learn from the experience of others, and the portfolio approach should help the public sector function more effectively.

A second reason for strengthening the Federal system is to make the public sector more accountable for its actions. Accountability comes from matching the responsibility for providing services with the resources for financing them. It can be argued that voters can see more clearly at the State and local levels of government the connection between their tax bills and the use to which government funds are put. Greater accountability would make for a more informed balancing of the costs and benefits of public spending and, again, a more efficient allocation of resources.

The current array of Federal programs reflects some desire for both greater accountability and diversity. Revenue sharing is an example of a Federal attempt to promote diversity with Federal tax dollars by distributing Federal funds to local governments (and formerly to State governments too) to use essentially as they wish. Although such a strategy may achieve substantial diversity, it lacks accountability. Local officials who run revenue sharing programs do not have to answer at the next election to the taxpayers who pay for the programs. Block grants suffer from some of the same failings.

The usual Federal solution to accountability has been through regulation that by its nature effectively limits diversity. Even where several levels of government are involved in operating a program—such as medicaid—diversity is often hindered by the need for accountability. This need has been used to justify the imposition of many complex and burdensome regulations, and thereby administrative costs, on lower levels of government. Thus a third reason for the Administration's commitment to federalism is to reduce some of the administrative burdens that Washington now places on State and local governments participating in Federal programs.

Finally, a heightened role for State and local governments is consistent with the Administration's shift in Federal budget priorities toward clearly national needs, such as defense. In a time of budget restraint at the Federal level, State and local government may well want to assume responsibility for some of the activities that can no longer be financed by the Federal budget.

The consolidation of a number of categorical grant programs into block grant programs in the fiscal 1982 budget was the first in a series of steps toward revising the role of the central government in the Federal system. The Administration is proposing further consolidations of categorical programs in the 1983 budget. A more historic step toward strengthening the Federal system is the Administration's proposal to turn back the excise tax base to the States and to produce a clearer division of labor between the States and Washington. Beginning in 1984, for example, the States would become responsible for the major income-based transfer programs for able-bodied residents, while the Federal Government would assume full responsibility for medicaid, the major program of medical assistance to the poor.

One reason for this revised division of labor is a basic tenet of the Administration that income redistribution is not a compelling justification in the 1980s for Federal taxing and spending programs. It is the Administration's view that the Federal Government can do more to provide lasting assistance to the disadvantaged by assuring strong and less inflationary economic growth than through income transfer programs.

FEDERAL CREDIT ACTIVITY

Although Federal credit programs, unlike direct Federal purchases of goods and services, do not take resources out of the private sector of the economy, they do redirect the allocation of resources within the private sector. In some instances this redirection can improve the efficiency of the economy if the private market fails to realize the full range of benefits that would result from extending particular types of credit. Otherwise, however, Federal credit programs provide funds for projects that bring a lower rate of return than if those funds had been lent by the private sector, thereby reducing the overall efficiency of the economy. In addition, many Federal credit activities add to the Treasury's borrowing requirements.

Three types of Federal and federally assisted loan programs have proliferated in recent years. First, there are direct loans by both on-budget and off-budget agencies, which amounted to an estimated $26.1 billion in net lending in 1981. Direct lending activity includes credit extensions by such agencies as the Export-Import Bank and

the Small Business Administration. These loans must be financed by Treasury borrowing from the public if tax receipts are not sufficient to cover them. At one time the unified budget deficit reflected the outlays of most of these direct Federal lending programs, but in recent years borrowing to supply the loan programs of off-budget Federal entities has increased dramatically. Most of this borrowing has been undertaken through the Federal Financing Bank which in turn receives its funds from Treasury borrowing. The Farmers Home Administration and the Rural Electrification Administration originate the bulk of the off-budget direct loans.

The effects of direct Federal loan programs on the national allocation of credit depend upon the degree of subsidy involved. When a loan is subsidized, it is equivalent to providing the loan at market rates and giving borrowers a cash grant equal to the present value of the subsidy. The Office of Management and Budget estimates a $14.5 billion present value of subsidy on $57.2 billion in new obligations for direct Federal loans in 1981.

The second major type of federally related lending activity consists of loans for which the Federal Government (wholly or partly) guarantees or insures the payment of loan principal or interest. The interest rate on guaranteed loans is below market rates because Federal participation removes any default risk and because the government promises to pay a share of the interest in some cases. The oldest and best known examples are FHA-insured and VA-guaranteed mortgages. However, in recent years Federal guarantees and insurance have increasingly been used outside the housing sector. Net guaranteed and insured loans amounted to $28.0 billion in 1981. The Office of Management and Budget has estimated a $4.3 billion present value of subsidy on $7.8 billion of the most heavily subsidized new guaranteed and insured loan obligations.

The third major type of loan activity is the lending generated by government-sponsored but privately owned enterprises, including the farm credit system, the Federal Home Loan Bank system, the Federal National Mortgage Association, and the Federal Home Loan Mortgage Corporation. Like federally owned corporations, these sponsored enterprises channel credit to certain sectors of the economy, primarily through purchases of loans in the private sector. In 1981, borrowing by federally sponsored agencies amounted to $34.8 billion.

Loans by government-sponsored institutions typically provide a smaller subsidy to borrowers than either direct Federal loans or guaranteed loans. The subsidy in the former type of loan is created by the ability to sell the obligations of sponsored agencies at interest rates only slightly above the rates on comparable U.S. Treasury issues. In the area of housing it has been estimated that for every $1

billion infusion of mortgage credit by sponsored agencies, the stock of home mortgages has increased by only $150 million, indicating a relatively smaller subsidy. The addition to the stock of home mortgages is much smaller than the amount of debt issued by the sponsored agencies largely because their debt issues draw funds away from thrift institutions.

As shown in Table 4-3, the importance of Federal credit programs has greatly increased in recent years. Government redirection of part of the Nation's credit resources has added to the financing costs borne by private borrowers who do not receive Federal credit assistance.

TABLE. 4.3—*Federal and federally assisted credit programs, fiscal years 1970–81*

(Billions of dollars, except as noted)

Item	Fiscal years			
	1970–74 [1]	1975–79 [1]	1980	1981
Total funds raised in U.S. credit markets	156.9	309.4	344.7	361.0
Total Federal credit activity	22.0	42.6	79.9	86.5
Direct loans	2.6	14.9	24.2	26.1
Guaranteed loans	14.4	14.8	31.6	28.0
Government-sponsored loans	5.0	12.9	24.1	32.4
Total Federal credit activity as percent of total funds raised (percent)	14.0	13.8	23.2	24.0

Sources: Board of Governors of the Federal Reserve System and Office of Management and Budget (OMB).

This, in turn, leads to reduced demand for credit by unassisted borrowers. Increasingly, therefore, political judgments, rather than marketplace judgments, have been responsible for allocating the supply of credit. As the discipline of the marketplace is replaced by the political process, less efficient economic activities are financed, and productivity in the economy declines.

The Administration is committed to reducing Federal credit programs. A plan for reducing new Federal loan guarantee commit-

ments by $20.3 billion for the 1982 fiscal year is already in place. Further actions are being proposed to reduce Federal and federally assisted credit commitments in fiscal 1983 and 1984. In addition, the Administration strongly supports efforts to formalize a Federal credit budget and to incorporate it into the budget process.

FEDERAL DEFICITS IN PERSPECTIVE

The President and the Congress together determine the annual level of government spending and tax rates. These decisions, when carried out in the context of prevailing economic conditions, determine the size of the Federal budget deficit. The deficit cannot be known in advance; it can only be projected using assumptions about the future course of the economy. During the last year, better-than-expected progress on inflation has reduced taxable income, slowing the growth of revenues below earlier projections. The recession has temporarily slowed the growth of the tax base while increasing outlays for employment-related programs. In addition, the projected decline in inflation increases the projected deficit because the associated reduction in revenue growth precedes the later reduction in spending growth, largely as a result of the indexing of government programs.

All these factors together have contributed to projected deficits. Thus, the fiscal 1983 Budget projects the unified Federal deficit at $98.6 billion in fiscal 1982, $91.5 billion in 1983, and $82.9 billion in 1984.

WHY DEFICITS MATTER

The Administration is strongly committed to reducing the projected deficits in the years ahead. A variety of economic reasons, as well as considerations of practical policymaking, make deficits a cause for continuing concern. In particular, the magnitude of the projected deficits demands attention to their current and prospective economic impacts.

Financing a budget deficit may draw on private saving and foreign capital inflows that otherwise would be available to the private sector. The Federal Government's demand for funds is insensitive to changes in interest rates—that is, the Treasury will raise the funds that it requires regardless of interest rates. Weak and marginal borrowers may be "rationed" out of the market by higher interest rates unless saving flows are adequate.

The impact of a specific deficit will vary, however, depending on the conditions that lead to it. For example, during a recession—as now exists—the borrowing requirements of business and consumers tend to be relatively small. At such a time a given deficit can be fi-

nanced with less pressure on interest rates than during a period of growth, when business and consumer demands for credit are increasing. This is why it is important for the government to reduce the budget deficit in fiscal 1983 and beyond, a period of anticipated rapid economic growth when private investment demands are expected to rise substantially.

The impact of a deficit of a given size will also depend on the extent of private saving in the economy. An economy with a higher saving rate can absorb the demands of public sector borrowing more easily than one with lower saving and still accommodate the needs of private borrowers. Much of the Administration's tax program is designed to increase the private saving of the Nation. As a consequence, both public and private borrowing will be accommodated more easily.

A higher volume of Federal borrowing to finance deficits makes the task of the Federal Reserve System more difficult when it is following a policy of monetary restraint. However, maintenance of monetary restraint is a key part of the Administration's program and hence the potentially inflationary effects of monetizing the Federal deficit will not be realized.

Continued budget deficits may generate uncertainty about the ability of government to control spending. Any increases in interest rates which reflect this uncertainty, in turn, will tend to increase further the size of the deficit. In contrast, the maintenance of a long-term policy to reduce the size of budget deficits—the policy of the Administration—will tend to counterbalance the pressures for further increases in government spending.

MEASURING THE DEFICIT

It is important to recognize that there are several measures of the deficit. The unified deficit, the figure generally cited as "the deficit," includes only the deficit arising from on-budget expenditures. But the Federal Government borrows to finance off-budget activities as well. Including off-budget activities, the Federal deficit for fiscal 1983 is projected to be $107 billion.

Of course, the Federal Government constitutes only one part of the public sector; State and local budgets affect the economy in a fashion similar to the Federal budget. Given the large transfers of federally raised funds to State and local budgets, Federal, State, and local deficits should be considered jointly. Because the other levels of government have been accumulating funds to meet employee pension obligations, their budgets tend to be in current surplus (although some States and localities are generating unfunded liabilities for future retirement payments). In calendar year 1981, when the Federal Government reported a total deficit of $62 billion (on the

national income and product accounts basis), the State and local sector showed a surplus of $37 billion. A broader perspective on the Federal debt is contained in the appendix to this chapter.

Regardless of how inclusive the definition of the deficit, it is not only the annual deficit that affects the economy but also the trend in deficits over the business cycle and beyond. Because of the structure of certain spending and tax programs, deficits tend to vary inversely with the economy. To some extent, deficits that are generated when the economy is weak can be made up when the economy is strong. It is the trend of deficits that serves as an indicator of fiscal discipline.

The relative size of the deficit is far more important than the dollar magnitude. To the extent that deficits affect the economy, the effects of a given deficit will be relatively small in a large economy and large in a small economy. From an historical perspective, the projected budget deficits for fiscal years 1982–1984 are clearly substantial, yet they are not unprecedented when measured against the size of the economy. In recent years only the fiscal 1976 deficit was larger, as a share of GNP, than the projected deficit for fiscal 1982, as Table 4–4 indicates. However, the ratio is projected to decline fairly rapidly so that by 1985 the deficit, relative to GNP, will be below the average for the decade of the 1970s.

In view of concern over the current projections of a large deficit during economic recovery in 1982, it is worth noting that the 1976 deficit also occurred during a period of economic recovery. In the four quarters ending in June 1976, nominal GNP rose 12 percent, real output gained 6 percent, and interest rates were essentially unchanged.

AN ANALYSIS OF DEFICITS AND DEBT FINANCING

A given deficit is consistent with different levels of spending and taxes. Even if economic conditions do not change, a deficit may increase because spending is increased and tax rates are not increased to yield the necessary added revenues, or because spending is unchanged but tax rates are reduced, or because spending is reduced but lower tax rates reduce revenues by a greater amount.

These three circumstances may yield the same deficit but have quite different effects. The effects will depend on the timing, level, and composition of government spending as well as the means used to pay for that spending. The spending imposes a cost on the economy by taking resources away from private use. As discussed earlier, government spending may augment or it may substitute for private spending. It will therefore alter decisions about private spending. Each of the methods of financing spending imposes costs in addition to the simple transfer of resources from the private sector to the

TABLE 4–4.—*Total Federal budget and off-budget surplus or deficit and gross national product, fiscal years 1958–87*

[Amounts in billion of dollars]

Fiscal year	Total Federal budget and off-budget surplus or deficit (–)	
	Amount	As percent of GNP
1958	–2.9	–0.7
1959	–12.9	–2.7
1960	.3	.1
1961	–3.4	–.7
1962	–7.1	–1.3
1963	–4.8	–.8
1964	–5.9	–1.0
1965	–1.6	–.2
1966	–3.8	–.5
1967	–8.7	–1.1
1968	–25.2	–3.0
1969	3.2	.4
1970	–2.8	–.3
1971	–23.0	–2.2
1972	–23.4	–2.1
1973	–14.9	–1.2
1974	–6.1	–.4
1975	–53.2	–3.6
1976	–73.7	–4.5
1977	–53.6	–2.9
1978	–59.2	–2.8
1979	–40.2	–1.7
1980	–73.8	–2.9
1981	–78.9	–2.8
1982 [1]	–118.3	–3.8
1983 [1]	–107.2	–3.1
1984 [1]	–97.2	–2.6
1985 [1]	–82.8	–2.0
1986 [1]	–77.0	–1.7
1987 [1]	–62.5	–1.3

[1] Estimates.

Sources: Department of Commerce (Bureau of Economic Analysis), Department of the Treasury, Office of Management and Budget, and Council of Economic Advisers.

public sector. The manner of financing, like the type of government spending, will alter the incentives which determine private resource allocation and hence may reduce economic efficiency.

If the government wants to pay for its spending on a current basis, it can set tax rates so that revenues equal outlays. As discussed in Chapter 5, however, the distorting effects of the tax system will reduce total output, now and in the future. At recent marginal tax rates the associated cost may be quite high.

If the government issues bonds instead of raising taxes, it must pay interest on the added debt. Furthermore, government debt-creation can impose added costs by absorbing private saving and hence reducing growth. Economic growth will not be reduced to the extent that an increase in private saving offsets the decline in government saving measured by growing Federal indebtedness. Private saving may increase, for example, if households anticipate that their future taxes

will increase and they respond by setting aside additional saving to pay for the expected increase in tax liabilities. Since individuals' saving also tends to be affected by what services they perceive they are getting from the government, the composition of government spending associated with the deficit will play a key role in determining the response of saving.

Distortions may also occur in the allocation of resources if the government chooses to finance deficits by adding excessively to the monetary base. This burdens the economy with inflation in ways discussed in Chapter 3.

Whichever approach, or combination of approaches, the government chooses to pay for its spending, it cannot avoid the reality that government spending, while it may confer benefits on the economy, also imposes costs. The choice among financing mechanisms depends on which is the least-cost approach, or on which approach imposes the most appropriate patterns of costs on the economy over time.

Evaluating these costs is not a simple matter. Since deficits affect expectations about the future course of economic policies, only part of the effect of a deficit is an immediate consequence of what the increases in debt do to markets. Deficits also work indirectly through the changes they produce in individual expectations and the resultant changes in their behavior. Neither the direct effect nor the effect on expectations is readily observable. In addition, analysts differ in their views about the relative effects of different conditions on inflation, investment, and economic growth. Unless these differences in opinion are recognized, debates that ostensibly focus on the deficit often mask broader, underlying debates on how the economy works.

Deficits and Inflation

As discussed in Chapter 3, it is now generally agreed that continued excessive growth in the money supply will cause sustained inflation. Thus, deficits financed by money creation will have persistent inflationary consequences.

Additional government debt might also raise the price level through its impact on desired money balances. If the increased supply of government bonds raises interest rates, households and firms will respond by reducing their money balances and increasing total nominal spending. This implies an increase in velocity. Unless the monetary authorities offset the higher velocity by reducing the monetary base, both the price level and output will rise in the short run, although the mix of increases in the price level and in output is indeterminate. To the extent workers and firms believe that

deficits are inflationary, however, and bargain accordingly, the relative effects on the price level will be correspondingly larger.

The magnitude of the increase in aggregate demand that results from added government debt will depend both on the responsiveness of money demand to interest rates and on the size of the increase in interest rates. For the former, empirical studies consistently show the demand for money to be only weakly responsive to interest rates, so that any given increase in interest rates will result in a relatively small increase in nominal spending.

As to the size of the increase in interest rates resulting from the added debt, the evidence is less clear cut. There are two forces moderating any increase. First, market interest rates equate the demand for financial assets with their supply. In any given year, added debt represents only a small increment to the total stock of government debt, and is also small by comparison with the market value of other assets in the economy. Second, a higher interest rate today means that saving is more attractive and current consumption relatively less attractive. Thus, the effect of additional government debt on interest rates will tend to be moderated by an increase in the flow of private saving attracted by the higher rates.

On the other hand, two factors may add to the increase in interest rates. If participants in financial markets believe that deficits are inflationary, long-term bond rates may include an additional inflation premium in response to larger deficits. The incremental uncertainty caused by deficits may also increase real interest rates. This results in large measure from the past history of discretionary, countercyclical policies. The prospect of large deficits contributed to uncertainty in the financial markets in 1981 and may have raised market interest rates to a higher level than they otherwise would have been.

If added debt does raise the price level through its effect on desired money balances, this is not equivalent to continued inflation. For the price level to increase in a sustained fashion, the annual increments to government debt would have to grow continually at a rate faster than the growth of the economy. Thus, deficits will be inflationary only if the monetary authorities monetize the debt or if the added debt continually grows as a share of GNP. This is precisely why the Administration is determined to reduce the budget deficit in fiscal 1983 and beyond. The maintenance of monetary restraint will ensure that deficits will not be monetized and that the potentially inflationary effects that might otherwise result from government borrowing will not be realized.

Debt Financing, Crowding Out, and Growth

It has been argued that net government borrowing may preempt credit that otherwise would have been used to finance private investment. Unless the supply of private saving expands to provide com-

pletely for the increased government borrowing, thereby preventing a rise in real interest rates, the additional government debt will tend to deter some private investment. Some saving could also come from abroad. If international credit flows respond sufficiently to only slightly higher interest rates, significant crowding out of U.S. private investment may be prevented.

When private saving rates are relatively high (perhaps because of a tax system that fosters saving rather than consumption), a larger deficit can be accommodated more easily than if saving rates are low. In recent years, for example, Japan and a number of Western European nations have experienced larger budget deficits (measured as a percent of their Gross Domestic Product) than has the United States. As a result of higher rates of saving, however, their ratios of private investment to GNP have also been higher. As discussed in Chapter 5, a dominant thrust of the Economic Recovery Tax Act of 1981 is to provide increased incentives to household and business saving.

Any current increase in government debt leaves future generations facing either a higher tax bill or lower government services, or a combination of the two, than would otherwise have prevailed. This reduces their economic well-being in two ways. First, if current generations do not provide their successors with the resources to pay for the accumulated debt, current deficits make future generations worse off. But even if later generations inherit the additional resources to meet the tax bill, the tax revenues are likely to be collected in ways that distort their economic choices and impair the efficient operation of their economy. There is, then a tradeoff between these later distortions and the distortions from taxing now. Again, a choice of the less costly alternative must be made. In the case of government spending in war time, for example, it has long been recognized that the cost of taxing all at once may be significantly larger than the cost of issuing debt and paying the debt with taxes spread over many years.

THE DEFICIT AND POLITICS OF THE BUDGET

Perhaps the most damaging effects of deficits are not directly economic but result from the political process. There are many advocates for government spending because the beneficiaries of spending have an interest in promoting it. At the same time, those who pay for additional government spending through taxes have an interest in holding taxes down. But the interests of future taxpayers are not well represented in our political process. Deficit spending allows government to be financed in a way that is almost invisible to the taxpayer, and the pull and tug of the political process may result in more government spending than is generally desired. To counteract this tend-

ency, many have argued that policymakers ought to follow a rule—such as balancing the budget each year (that is, financing it only through taxes) or limiting Federal revenues to a fixed percent of GNP—to restrain the tendency toward excessive government spending.

Perhaps the most useful and practical of these rules is the simplest rule: balance the budget. Even this needs to be seen as a long-run rule, however, since the business cycle does cause variations that are difficult to calculate and offset. Furthermore, a strategy of reducing taxes in advance of spending cuts implies that it will take some time to achieve the desired level of deficits. Enforcing a trend toward a balanced budget would impose the fiscal discipline necessary to restrain the growth of government and send a message of governmental restraint to private individuals who can incorporate this essential information into their planning.

In sum, government spending can never be costless. Although the government can use direct taxes, debt finance, or money creation to pay its bills, each imposes costs on the economy. The goal of fiscal policy is to achieve the mix of financing that minimizes these costs. Given the high cost of further direct taxes on capital and labor income, and the high costs imposed on society by excessive expansion of the monetary base, the Administration has chosen what it views at this time as the least costly means of financing government spending. But its current actions are an essential part of a long-term strategy of reducing the scope of the Federal Government. To achieve this end, the Administration will continue to enforce a trend toward a balanced budget.

APPENDIX TO CHAPTER 4

A BROADER PERSPECTIVE ON THE FEDERAL DEBT

The Federal debt is the sum of past budget deficits—the cumulative excess of past spending over past tax receipts. As discussed in Chapter 4, increases in government debt can alter the Nation's rate of capital formation as well as real interest rates. Deficits can also influence the distribution across generations of the burden of paying for government spending.

This appendix discusses different measures of the Federal Government's debt. The broadest measure first subtracts the government's assets from its liabilities to determine the government's net liabilities. It uses market prices rather than book values of those assets and takes account of the erosion of the real value of the debt through inflation by measuring net liabilities in constant dollars rather than current dollars. This measure of government debt also includes most of the implicit liabilities of the social security system. Table 4–5 pre-

sents estimates of these measures over time in constant (1980) dollars.

In 1980 the book value of the financial liabilities of the U.S. Government and its credit agencies equaled $1.046 trillion, of which approximately two-thirds was privately held. Because the book value does not change as interest rates fluctuate, the market value is a better measure of the claim on tax resources that would be needed to pay off the outstanding debt. The market value in 1980 was $981 billion, $65 billion less than the gross book liability.

Although government debt increases when spending exceeds tax revenues, some of that spending purchases assets that should be considered as well. To the extent that the government has marketable assets—financial assets in particular, such as gold, U.S. Government securities, and mortgages—these assets could be sold to finance its expenditures and thus obviate (at least for a while) the need for taxes. In 1980 the market value of the government's financial liabilities less the market value of its financial assets equaled $450 billion.

Valuing tangible assets is particularly difficult. The conventional approach is to value government buildings, highways, dams, etc., on a depreciated cost basis, although this value may differ substantially from the asset's value to the economy. Although certain tangible assets may not be marketable, they provide a stream of services that would otherwise have to be purchased through additional taxes. One private estimate, presented in Table 4–5, values the government's tangible assets—reproducible capital plus land—at $727 billion. This estimate does not include the value of mineral resources on Federal property. Mineral wealth is especially difficult to estimate since it can change both with fluctuations in the prices of minerals and with new information on the size of the mineral reserves. In light of these problems, estimates of the replacement cost of the government's net tangible assets should be viewed with caution.

Government debt issued by the Treasury means delaying taxation to pay for government expenditures. The purchasers of official government debt are not adversely affected by these transactions, but future generations may be if they have to reduce government services or pay higher taxes to meet interest payments on the accumulated debt. If crowding out also occurs future generations will have a smaller capital stock with which to produce goods and services.

A similar delay in taxation occurs in the case of implicit debt associated with the social security system and the civil service and military retirement programs. The social security system is financed on a "pay as you go" basis; the program collects money from younger people to pay retirement and other benefits to older people and

other beneficiaries. Unlike other taxes, which reduce lifetime income, some economists view social security "tax" contributions as purchases of implicit government pledges of similar benefits in the future. The contributions do not cover both current outlays and the expected future benefits. In this manner the levying of taxes to cover these future benefits is delayed. Hence, succeeding generations may end up paying for these implicit shortfalls by receiving a lower rate

TABLE 4–5.—*Illustrative measures of Federal Government's net liabilities, 1950–80*

[Billions of 1980 dollars]

Year	Book value of gross financial liabilities [1]	Market value of gross financial liabilities [2]	Market value of net financial liabilities [3]	Replacement value of tangible assets [4]	Value of unfunded social security retirement liabilities [5]	Total net liabilities including social security retirement liabilities [6]
1950	792	797	650	372	240	564
1951	750	743	582	370	358	618
1952	758	753	590	414	611	840
1953	769	769	605	474	702	889
1954	767	769	616	523	829	983
1955	752	742	581	549	1,054	1,150
1956	718	696	542	565	1,029	1,069
1957	693	689	535	550	1,055	1,100
1958	710	688	540	549	1,238	1,288
1959	720	686	525	536	1,298	1,340
1960	710	704	536	535	1,310	1,363
1961	728	715	539	537	1,240	1,292
1962	739	733	546	546	1,288	1,334
1963	744	731	535	558	1,326	1,349
1964	752	740	537	567	1,322	1,339
1965	751	730	520	571	1,421	1,414
1966	754	738	516	570	1,492	1,485
1967	768	740	521	579	1,356	1,352
1968	776	744	512	583	1,673	1,658
1969	751	702	464	592	1,576	1,510
1970	760	746	491	584	2,012	1,982
1971	776	773	514	578	2,366	2,364
1972	785	773	506	580	2,504	2,493
1973	792	771	465	600	3,086	3,013
1974	782	763	416	621	3,405	3,258
1975	851	842	511	613	3,629	3,580
1976	921	933	581	622	3,749	3,757
1977	961	949	587	647	4,018	4,000
1978	1,004	963	552	676	[7]	[7]
1979	1,011	962	456	706	[7]	[7]
1980	1,046	981	450	727	[7]	[7]

[1] The sum of total liabilities of the U.S. Government and federally sponsored credit agencies as reported in the flow of funds accounts of the Federal Reserve.

[2] Estimates of the market value of liabilities of the U.S. Government and credit agencies prepared by Eisner and Pieper.

[3] Estimates by Eisner and Pieper of market value of financial liabilities less market value of financial assets held by the U.S. Government and credit agencies.

[4] Estimates of the replacement value of tangible assets owned by the government prepared by Eisner and Pieper. Total includes land as well as depreciable assets.

[5] Estimate of unfunded social security retirement liabilities by Leimer and Lesnoy. This series assumes social security benefits kept pace with income growth and uses the legislated social security taxes of the period. Social security unfunded retirement liabilities equals the estimated present value of future retirement benefits less future taxes for the adult population less the value of the OASI trust fund.

[6] Total net liabilities equals the market value of net financial liabilities plus the Leimer and Lesnoy estimated unfunded social security liabilities less U.S. Government tangible assets plus the OASI trust fund.

[7] Not available.

Note.—Data converted to 1980 dollars using GNP implicit price deflator.

Sources: Department of Commerce (Bureau of Economic Analysis); Board of Governors of the Federal Reserve System; Robert Eisner and Paul Pieper, "Government Net Worth: Assets, Liabilities and Revaluations" (1982); and Dean Leimer and Selig Lesnoy, "Social Security and Private Saving: A Reexamination of the Time Series Evidence Using Alternative Social Security Wealth Variables" (1980).

of return on their contributions to social security than they would, on average, have received on money invested elsewhere.

There are important differences, however, between implicit and explicit debt. These implicit promises to pay social security benefits are not legal commitments; as a consequence, they have a different legal standing from explicit forms of government debt. Social security benefits can be, and have been, changed. Although the social security system has become an enduring feature of U.S. society, and sizable social security benefits will be paid to current generations when they retire, the amount of those benefits cannot be predicted with certainty. In addition, most individuals do not know precisely the retirement benefits to which they would be entitled under existing law. A given amount of implicit liabilities is, therefore, likely to reduce saving by a smaller amount than would the same amount of explicit debt.

Social security and Federal employee retirement programs are not the only implicit future liabilities that the Federal Government is firmly committed to pay. The Department of the Treasury lists three categories of financial commitments that are not fixed, legally binding liabilities: undelivered orders, long-term contracts, and contingencies. These vary in the likelihood that they will become legal obligations and in the time when they are apt to mature into liabilities. The implicit pension liabilities are by far the largest component in any of these categories. Although there is no single correct way to measure total implicit and explicit government liabilities, one reasonable approach would be to separate other nonbinding commitments from the unfunded social security and other pension liabilities because of their size and their possible effects on household saving.

The data presented in Table 4–5 are rough but reasonable illustrations that are useful in examining trends and making general comparisons. Tangible assets are valued at replacement cost, since market values are not available; the replacement costs of the government's tangible assets, however, can vary substantially from their potential market value, which is ultimately the measure of interest in terms of the broader concept of debt described here. Estimates of the unfunded implicit retirement liabilities are extremely sensitive to assumptions concerning real interest rates, future birth, death, and immigration rates, labor force participation rates, and benefit to earnings ratios. The unofficial figures reported in Table 4–5 as estimates of social security's unfunded retirement liabilities include types of benefits that represent about two-thirds of total social security unfunded liabilities.

While actuaries of the social security, civil service, and military retirement systems have made recent estimates of their unfunded liabilities that range from $3.5 to $6.5 trillion, depending on the interest rate

assumed in the calculations, they have no historical data that could be included in this table. The estimates in the table refer to unfunded social security retirement liabilities associated with workers and retirees currently in the social security system. These figures do not include either expected future benefit payments to or future tax receipts from generations not yet in the system. Hence, these estimates reflect a snapshot of the system at one point in time in order to evaluate the current net claims against it, that is, the current trust fund that would be necessary to fully fund the system.

The first two columns of Table 4–5 compare the government's gross financial liabilities in 1980 dollars, measured at book and market values, for the years 1950 through 1980. While the columns are generally quite similar in many years, the difference in these values has been growing recently.

Column 3 presents the market value, in constant 1980 dollars, of the Federal Government's net financial liabilities. The government's real financial debt in 1980 equaled $450 billion, having fallen fairly steadily from $650 billion in 1950.

Simultaneous with this decline in real net financial debt has been an increase in the value of the government's tangible assets, measured at replacement cost, from $372 billion in 1950 to $727 billion in 1980.

While these components of the broader concept of government debt suggest an improving fiscal position, the sixth column of Table 4–5 suggests that Federal debt, broadly defined, has increased enormously over the past three decades. While the constant dollar market value of financial liabilities only rose from $797 billion in 1950 to $949 billion in 1977, unfunded social security retirement debt, according to this estimate, rose from $240 billion in 1950 to over $4 trillion by 1977. In 1981, actuaries of the social security system officially estimated the system's total unfunded liabilities to be $5.9 trillion.

Broadly defined, government debt is large relative to total household net worth, even when household net worth is also broadly defined to include expected claims to future retirement benefits net of future contributions to these retirement systems for individuals currently in social security. Table 4–6 presents the ratio of Federal Government total net liabilities to this broad measure of household wealth. The ratio equaled 0.17 in 1950 and rose to 0.35 by 1977. The table also presents the ratio of unfunded social security retirement liabilities to the estimate of total Federal net liabilities. In 1950, this ratio was less than one-half; by 1977 the unfunded social security retirement liabilities represented almost all of total Federal Government net liabilities.

TABLE 4-6.—*Comparisons of total measured Federal Government's indebtedness, unfunded social security retirement liabilities, and household wealth, 1950–77*

[Ratio]

Year	Ratio of Federal Government's total net liabilities (including social security retirement liabilities) to household wealth	Ratio of unfunded social security retirement liabilities to total net liabilities
1950	0.166	0.426
1951	.172	.579
1952	.212	.727
1953	.217	.790
1954	.218	.843
1955	.231	.917
1956	.210	.962
1957	.219	.959
1958	.230	.961
1959	.231	.969
1960	.234	.961
1961	.211	.959
1962	.220	.965
1963	.212	.983
1964	.202	.988
1965	.201	1.005
1966	.210	1.005
1967	.183	1.002
1968	.203	1.009
1969	.193	1.044
1970	.241	1.015
1971	.267	1.001
1972	.265	1.005
1973	.304	1.024
1974	.326	1.045
1975	.344	1.014
1976	.342	.998
1977	.350	1.005

Note.—Federal Government's total net liabilities equals the market value of net financial liabilities plus estimated unfunded social security retirement liabilities less U.S. Government tangible assets plus the OASI trust fund. Tangible assets are valued at replacement cost. Net financial liabilities are valued at market prices. These estimates include liabilities of the U.S. Treasury held by the OASI.

Unfunded social security retirement liabilities equals the present value of projected retirement benefits less the present value of projected tax contributions to social security less the value of the OASI trust fund. Retirement benefits and tax contributions are projected for the adult population separately for each year from 1950 through 1977.

Household net worth as estimated by the Board of Governors of the Federal Reserve System plus unofficial estimates of social security retirement wealth prepared by Leimer and Lesnoy.

Sources: Department of Commerce (Bureau of Economic Analysis); Board of Governors of the Federal Reserve System; Robert Eisner and Paul Pieper, "Government Net Worth: Assets, Liabilities and Revaluations" (1982); and Dean Leimer and Selig Lesnoy, "Social Security and Private Saving: A Reexamination of the Time Series Evidence Using Alternative Social Security Wealth Variables" (1980).

Conclusion

These adjustments to the traditional book value measure of government liabilities put projected official government deficits in some perspective. When government's explicit debt is adjusted to take account of inflation and assets, its real net liabilities show a decline over the last twenty years. Official deficits that merely offset the devaluation of the debt due to inflation or that finance the purchase of assets do not increase the government's claim on private resources.

Since 1960, however, implicit liabilities have grown considerably so that by some estimates they greatly overshadow the explicit liabilities. Under the broader measure that includes implicit debt, total Federal debt tripled between 1967 and 1977. Compared to historical in-

creases in the broad measure of government debt, the unified deficits projected for the 1980s are small. If the effect of implicit liabilities on economic behavior is similar to the effect of explicit liabilities, the effects of the official projected deficits on national investment and real interest rates would be small relative to the impact of the accumulation of total explicit and implicit debt over the last 20 years. Thus, when inflation, government holdings of assets, and implicit debt are taken into account in measuring Federal debt, government deficits in the range of those projected for the 1980s will add only marginally to the burden of the debt.