CHAPTER 2

Budget Control and Tax Reform

GOVERNMENT TAX AND EXPENDITURE POLICIES strongly influence the economy's long-run performance. Government-provided goods and services improve economic performance if their value exceeds their cost, as measured by the value of the private goods and services they displace. The cost of government-provided goods and services, in turn, depends on the efficiency of the tax system. An efficient tax system entails low and unvarying marginal tax rates that have minimal effects on private investment and consumption choices.

The Administration is committed to a policy of restructuring Federal fiscal activities to serve the national interest more effectively. Tax reform, the Administration's number one domestic priority for the past several years, has been accomplished. The Tax Reform Act of 1986 significantly lowers tax rates and will decrease tax-induced distortions in private economic decisions. Progress has also been made in Federal spending restraint. The upward trend in Federal Government expenditures as a share of gross national product (GNP), which had persisted for most of two decades, was reversed in 1984. For the first time since 1973, real Federal Government expenditure is projected to fall in fiscal 1987. Further spending restraint, however, will be necessary to achieve the future deficit targets set in the Balanced Budget and Emergency Deficit Control Act of 1985 (popularly known as Gramm-Rudman-Hollings), targets to which the Administration is firmly committed.

This chapter surveys both the Administration's accomplishments and its future agenda concerning the restructuring of Federal fiscal activities. The chapter begins with a discussion of the Federal budget deficit, the need for Federal spending restraint, and proposed changes in the budgetary process. It argues that the objective of balancing the budget by 1991 can be achieved without a general tax increase and without sacrificing programs essential to the national interest. This task will require uncompromising efforts to eliminate all unnecessary Federal spending, efforts that could be aided by appropriate reforms of the budgetary process. The chapter then turns to an assessment of the economic effects of the Tax Reform Act of 1986. It finds that tax reform, while entailing minor transition costs,

significantly improves the economy's long-run economic performance. Specifically, it is estimated that national net output of goods and services increases approximately 2 percent because of the long-run consequences of tax reform. In 1986, this would have amounted to an increase of approximately $600 in the income of the average American family.

SPENDING RESTRAINT AND DEFICIT REDUCTION

The current economic expansion marks the first occasion in the postwar period when Federal deficits have exceeded 5 percent of GNP, and when very large deficits have persisted into the third and fourth years of an expansion. At comparable periods during the expansions of the 1960s and 1970s, the Federal deficit as a share of GNP was generally less than one-half the level of 1985 and 1986. The underlying cause of the growing Federal deficit is illustrated in Chart 2–1. The share of Federal spending in GNP has continued on an upward trend, while the secular trend in the share of Federal revenues has remained virtually flat.

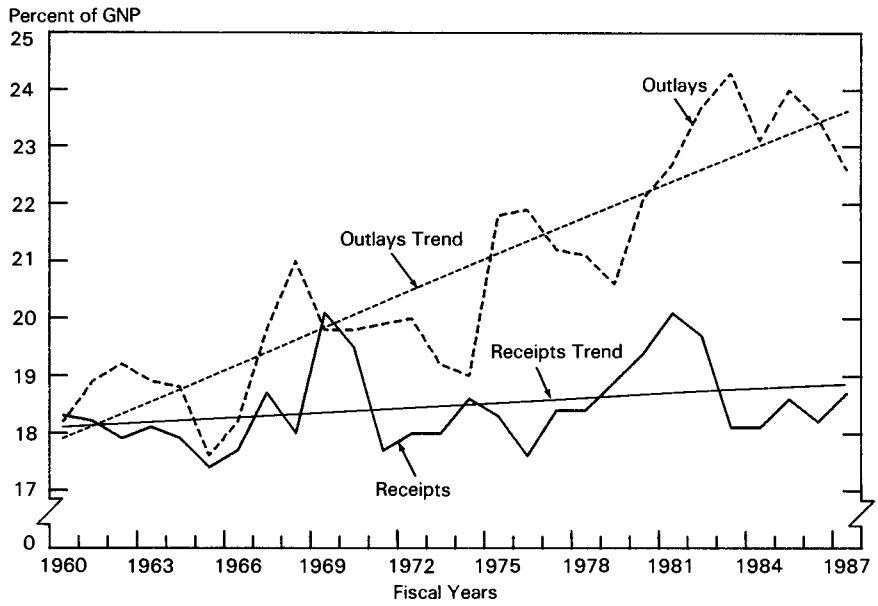
Under the provisions of Gramm-Rudman-Hollings, significant deficit reduction will occur in fiscal 1987. With moderately good economic performance and absent large new spending initiatives, the Office of Management and Budget projects that the Federal deficit will decline by almost $50 billion between fiscal 1986 and fiscal 1987, equivalent to more than a full percentage point of GNP. The Administration's proposed budget for 1988 provides for another important step in the process of deficit reduction, to the target of $108 billion, along a path to reach a balanced Federal budget by 1991. Five critical reasons explain why this process of deficit reduction must continue and why deficit reduction should be achieved primarily through spending restraint.

REASONS FOR DEFICIT REDUCTION

First, persistent large Federal deficits, except during periods of severe economic difficulty or extraordinary national need, constitute an unfair burden on future generations. The principle that "there is no free lunch" applies to lunches charged on Uncle Sam's credit card. In the end, all Federal spending must be paid for by some form of explicit or disguised taxation. Finance of current expenditures through the issuance of Federal debt merely postpones the inevitable day when the bill for current services (plus accumulated interest) must ultimately be paid, either through higher taxes or through reduced public services. More specifically, interest payments on the Federal debt must ultimately be financed by some combination of re-

Chart 2-1

Federal Outlays and Receipts as Percent of GNP



Note.—Data for 1987 are estimates.
Sources: Department of Commerce, Office of Management and Budget, and Council of Economic Advisers.

ducing the growth of noninterest Federal outlays below the growth of GNP or by higher future taxes relative to GNP. The longer large deficits persist, the larger grows the outstanding stock of Federal debt and hence the greater is the ultimate required adjustment in future noninterest outlays or taxes. Thus, the choice is not whether to reduce the budget deficit, but rather when and by what means.

Second, deficit reduction through spending restraint is essential to preserve the long-term economic benefits of the low marginal tax rates established in the Tax Reform Act of 1986. This chapter later analyzes the gains to national income and national welfare from tax reform. These long-run benefits will begin to emerge, however, only if marginal tax rates are lowered as promised in 1988, and only if individuals and businesses believe that these tax rates will not be increased in the future.

Third, persistent large Federal deficits throughout an economic expansion could pose a difficult dilemma for macroeconomic policy in the event of a significant economic downturn. In such a downturn, Federal receipts automatically decline and transfer payments expand.

Either a sharply contractionary fiscal policy would need to be adopted during a recession to prevent a further increase in the Federal deficit, or the share of the deficit in GNP would have to be allowed to expand to levels not previously experienced in the United States in peacetime. As is discussed in Chapter 1, there is no reason now to expect a recurrence of the economic difficulties that contributed to the steep recessions of 1974–75 and 1980–82. Nevertheless, it would be imprudent to permit the persistence of large Federal deficits throughout an economic expansion in light of the dilemma such deficits could create in the future.

Fourth, reduction of the Federal deficit through spending restraint is an essential component of the strategy to reduce international payments imbalances. Substantial progress has already been made on one component of this strategy—exchange-rate realignments that improve the international competitive positions of many U.S. industries and promise significant reductions in the U.S. trade deficit in 1987 and beyond. As is discussed in Chapter 3, however, reduction of the U.S. trade deficit and of the corresponding trade surpluses of other countries also requires that domestic demand in the United States grow more slowly than U.S. GNP and conversely for foreign countries. Simultaneously, the United States must improve its national saving/investment balance (private saving less the sum of private investment and the government deficit). Reduction of the Federal budget deficit through spending restraint is a key U.S. contribution to achieving these results in a manner consistent with sustainable, noninflationary growth of the world economy. Furthermore, as discussed in Chapter 1, significant reductions in the trade deficit increase the likelihood that resources that might otherwise be used to meet the demands arising from Federal purchases will shift rapidly to meet the demands of sectors producing exports and import substitutes.

Fifth, deficit reduction through spending restraint is required because Federal spending in many areas remains above levels necessary to provide essential Federal services on an efficient and cost-effective basis. Much has been accomplished during the past 6 years in cutting back inessential, ineffective, and inefficient Federal programs. Larger cutbacks can and should be made in a number of Federal programs that serve special interests but whose benefits to the American people do not justify the costs imposed on current or future taxpayers. Equally important, new spending initiatives should be limited to critical areas of national need in the realm of Federal responsibility.

Deficit reduction is ultimately an issue of priorities. The long-run benefits of stronger economic growth from the relatively low marginal tax rates provided in the Tax Reform Act of 1986 can be pre-

served only if the share of Federal spending in GNP is gradually reduced. Alternatively, Federal spending can be maintained and expanded on programs that serve a variety of special interests, at the expense of current and future consumption by American families and investment by American businesses. In making the politically difficult choices required for deficit reduction, however, damage to Federal programs that promote peace, maintain national security, or provide essential support to the poor and elderly is neither necessary nor desirable.

GROWTH OF THE FEDERAL BUDGET DEFICIT

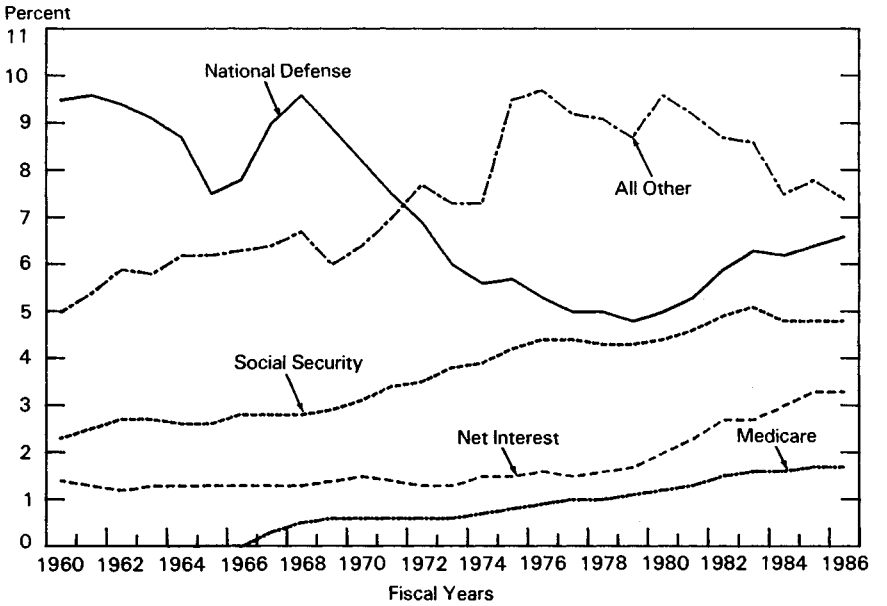
The tax rate reductions mandated by the Economic Recovery Tax Act of 1981 (ERTA) reduced the share of Federal receipts in GNP to the average of the 1960s and 1970s. In 1986, this share stood at 18.5 percent, virtually the same as in 1978 (also the fourth year of an economic expansion). Between 1978 and 1981, the share of Federal tax collections rose to a postwar high of 20.1 percent, primarily as the result of bracket creep. A significant contribution of ERTA was the indexation of tax brackets, standard deductions, and personal exemptions, effective in 1985, which ensured that future inflation could not once again push up the share of Federal revenues without an explicit and visible decision to raise tax rates.

On the spending side of the Federal budget, total spending growth has not been adequately restrained, but the distribution of Federal spending has changed in important respects. Between 1978 and 1986, Federal spending rose from 21.1 to 23.8 percent of GNP. The key changes in the distribution of Federal spending that occurred between 1978 and 1986 are illustrated in Chart 2–2 and may be summarized as follows:

- The share of defense spending increased from 4.8 percent of GNP to 6.6 percent, ending the long period of erosion of national defense capabilities.
- The share of social security benefits increased by 0.5 percent of GNP, maintaining a critical commitment to older and disabled Americans and their families.
- The share of medicare expenditures increased by 0.7 percent of GNP, reflecting both increased health care benefits and the partial success of efforts to limit the increasing cost of providing such benefits.
- The share of net interest payments increased by 1.7 percent of GNP, reflecting higher interest rates and the growing stock of Federal debt.
- The share of general nondefense programs (except social security, medicare, and net interest) declined by 1.8 percent of GNP.

Chart 2-2

Federal Outlays as Percent of GNP



Sources: Department of Commerce and Office of Management and Budget.

- Within the broad category of general domestic programs, funds were reallocated away from inefficient, ineffective, low-priority programs and toward programs serving important national needs. For example, funding for community and regional development was reduced substantially and general revenue sharing was eliminated, while outlays for health research and Federal law enforcement activities increased significantly.

Despite the substantial progress already achieved in reorienting budget priorities, important work remains to be done. Elimination or curtailment of inessential, inefficient, and ineffective Federal programs is required to contribute to reduction of the share of Federal spending in GNP and to allow room for expansion of programs that serve critical national needs.

PROSPECTS FOR DEFICIT REDUCTION

The Administration is committed to achieving the targets for deficit reduction prescribed by Gramm-Rudman-Hollings (GRH). The first important step in this process will be taken during the current fiscal year, with a reduction of the Federal deficit to almost $50 bil-

lion below its fiscal 1986 level. Meeting the GRH deficit targets for 1988 and later fiscal years will not be an easy task, even with the continuation of reasonably strong economic growth and with further moderation of inflation and interest rates. However, as the following analysis suggests, the task is achievable provided the economic climate remains favorable.

In fiscal 1986, Federal spending amounted to 23.8 percent of GNP, while Federal receipts absorbed 18.5 percent of GNP, leaving a deficit of 5.3 percent of GNP. Under the Administration's economic projections, continued economic growth and previously legislated increases in social security payroll taxes will increase the share of Federal receipts to 19.4 percent of GNP by 1991. These projections imply that spending restraint must reduce the share of Federal spending in GNP by 4.4 percent by 1991 to achieve a balanced budget without general tax rate increases.

The President is firmly committed to no reductions in social security retirement benefits. Fulfilling this commitment means that the share of social security expenditures will remain virtually unchanged at 4.5 percent of GNP. Reductions in the share of total Federal spending in GNP must come from other sources.

Net interest payments amounted to 3.3 percent of GNP in fiscal 1986. If the economy grows and interest rates decline as projected, and if growth in the outstanding stock of Federal debt is slowed by deficit reduction in accord with GRH targets, then net interest expense will decline by at least 1 percentage point of GNP by 1991. This process is the reverse of that through which a rapidly growing stock of Federal debt (fed by large Federal deficits) and rising interest rates contributed to the growth of net interest expense as a share of GNP. To reverse this process, however, it is absolutely essential to place the ratio of Federal debt to GNP on a descending path, mainly through progress in spending reduction in categories other than net interest expense. The sooner this task is accomplished, the easier will be the subsequent task of deficit reduction.

The projected reduction of 1 percent in the share of net interest expense and the relative constancy in the share of social security benefits imply that to reach a balanced Federal budget, the combined share of all other categories of Federal expenditure must decline from 15.7 percent of GNP in 1986 to roughly 12.5 percent in 1991. Total Federal spending in this broad composite amounted to $655 billion in fiscal 1986. If real spending in this composite remained constant at the 1986 level, projected economic growth between 1986 and 1991 would reduce its share in GNP from 15.7 to 13.3 percent. Thus, an absolute reduction of real spending in this composite of

about $39 billion of 1986 dollars is required to achieve a balanced budget.

Cutting $39 billion or 6.0 percent from composite spending of $655 billion should not be an insurmountable task. The difficulty of this task is heightened, however, by the need to accommodate real spending increases in areas of critical national need and primary Federal responsibility. In particular, in the 1988 budget, the President has identified the following major areas as requiring increased expenditures: national defense, foreign affairs (including foreign aid and embassy protection), scientific and health research (including acquired immune deficiency syndrome research), drug abuse control and treatment, space exploration, and implementation of the new immigration law. Increasing expenditures in these critical areas will require deeper cuts in less essential Federal programs if the deficit reduction targets are to be met.

PROPOSALS FOR SPENDING REDUCTIONS

The Administration's proposals for program reductions and terminations are described in detail in the President's 1988 budget. A brief review of some of these proposals helps to place the economic issues associated with deficit reduction into proper perspective.

Spending on farm support programs has been the most rapidly growing major category of Federal spending, increasing from $4 billion in 1981 to $25.8 billion in 1986. The desire to assist farm families during a period of severe economic difficulty accounts for much of this increased spending. However, total farm support spending has now reached a level that would finance a direct payment of more than $16,000 annually to each of 1.6 million farm families, or an annual payment of more than $42,000 for each of the 619,000 commercial-sized farms in the United States. By comparison, median income for all U.S. families is less than $30,000. Moreover, most farmers receive little or no financial assistance from Federal farm price-support programs. Of the 34 percent of American farmers who did receive direct assistance in 1985, one-fifth received almost 70 percent of the payments. In the cotton program in 1986, 12 percent of the participants received more than one-half of the total payments, with some receiving millions of dollars. The 50 largest rice producers will each receive more than $1 million in 1986 payments.

As is discussed in Chapter 5, Federal farm support programs are not only expensive to the taxpayer and ineffective in channeling support to the most needy, but they also generate huge economic waste. Because current Federal programs link financial support to farm output, they encourage production of crops for which there is no effective market. Appropriate reform of farm support programs can

reduce economic waste and lower Federal expenditures while maintaining income support for distressed farm families.

The Federal Government continues to subsidize activities for which the original rationale has disappeared or where no persuasive case for Federal involvement can be made in the first place. For example, mass transit systems can provide important benefits in the local areas where they operate, but generally no good rationale exists for Federal subsidies that distort local choices concerning the construction and operation of such systems. The Administration proposes elimination of discretionary grants for new mass transit systems.

Another example is the Rural Electrification Administration (REA), which has gone well beyond its original purpose of encouraging extension of electrical supply in rural areas. Since 1935, when the Agency was founded, farms receiving electric service through REA have increased from 12 percent of all farms to 99 percent. Rural telephone service (added as an REA responsibility in 1949) now extends to 95 percent of all farms. REA's original goals have been achieved, but it lives on, offering subsidized loans to electric cooperatives serving prosperous urban and suburban areas such as Atlanta, Georgia; Denver, Colorado; Manassas, Virginia; and Minneapolis, Minnesota. Loans have also been provided for electrification in exclusive resorts such as Aspen, Steamboat Springs, and Vail in Colorado, and Hilton Head Island, Kiawah Island, and Myrtle Beach in South Carolina. The Administration proposes to curtail these practices by imposing appropriate limits on REA lending and loan guarantees.

OTHER REVENUE MEASURES

The Administration's proposals for deficit reduction also involve increasing Federal revenues by levying equitable user fees for Federal services provided to identifiable beneficiaries, by selling some federally owned assets, and by instituting other relatively minor programs to generate revenues. Both user fees and asset sales serve the dual purpose of raising revenue for the Federal Government and encouraging economic efficiency. Efficiency in the use of services provided by the Federal Government that are similar to services provided by private business is encouraged when the user of the service, rather than the general taxpayer, pays the cost of providing the service. Economic efficiency is also often advanced when business-like operations are shifted from the Federal Government to the private sector, where the profit motive and force of competition promote efficiency.

Major Administration proposals concern increased user fees for guaranteed student loans and for home loans guaranteed by the Veterans Administration (VA) and the Federal Housing Administration (FHA), and for mortgage-backed securities guaranteed by the Gov-

ernment National Mortgage Association (GNMA). Costs associated with defaults on guaranteed student loans have run well ahead of revenues from current fees—a situation that should be corrected. The same is true for VA home loans. For FHA and GNMA, evidence suggests that their association with the government provides an implicit subsidy that allows them to charge less for their services than a private business would have to charge for the same service.

In addition to continuing sales from the Federal Government's loan portfolio, major proposals for asset sales include the sale of Amtrak and the phaseout of subsidies to Amtrak, sale of the Naval Petroleum Reserve, and sale of the Alaska Power Administration. Transfer of these programs to the private sector would lead to more efficient operation, as well as generating revenue.

Asset sales are a one-time source of revenue. Indeed, sales of loans from the Federal portfolio and sales of government enterprises that earn a profit increase current revenue at the expense of future revenue. Such asset sales effectively transfer part of the task of deficit reduction from the present to the future. If adequate progress is being made in attacking the core of the deficit problem, however, partial transfer of this problem into the future through asset sales may be desirable.

Once the budget is balanced on a cash basis, the nominal stock of Federal debt will not grow and the ratio of Federal debt to GNP will decline. As the ratio of Federal debt to GNP declines (assuming constant interest rates), the share of net interest expense in GNP will decline at a moderate pace. This development will allow room for other categories of Federal spending to rise, absolutely and as a share of GNP, without any increase in tax rates. Lost revenues from prior asset sales can be made up under these circumstances without absolute cuts in spending programs or tax rate increases. This strategy works, however, only if asset sales play a limited role in the total strategy of deficit reduction, as they do in the President's 1988 budget, and if the other elements of that strategy are pursued consistently and effectively.

BUDGET CONCEPTS AND FISCAL AUTHORITY

Gramm-Rudman-Hollings significantly alters the congressional budget process. It imposes targets for the Federal budget deficit in each of fiscal years 1986–91 as well as a timetable and procedures for meeting these targets. A number of other proposals have recently been made to reform the process by which budget decisions are deliberated and implemented as well as to change the coverage and content of the budget itself. Proposals to modify the coverage and content of the Federal budget are motivated by the concern that the

current budget does not adequately reflect the economic costs of Federal credit programs or capital investments made by the government. The line-item veto and a balanced budget amendment to the Constitution are proposed reforms of the budget process that are motivated by the fact that, absent the temporary Gramm-Rudman-Hollings procedures that expire in 1991, congressional decisions to increase outlays are not directly related to decisions affecting expected tax receipts.

Federal Credit Programs

The accounting for Federal credit programs is a major weakness in the present budget. Currently, the budget costs of direct loan programs are measured by the net outlays of those programs, that is, total disbursements and interest paid minus repayments and interest received. Congressional appropriations for direct loan programs are generally only necessary when new disbursements exceed repayments. Loan guarantees do not result in recorded outlays except in case of default. A loan guarantee represents a contingent liability of the government that induces lenders to invest in particular loans, thus allocating capital for federally determined purposes. Thus, a loan guarantee may provide as large a subsidy as a direct loan obligation.

The budget neither measures nor controls the most salient aspect of Federal credit—the size of the subsidy offered the borrower. Without some means of measuring and controlling this subsidy, neither the executive branch nor Congress can make informed decisions about Federal credit programs, either by comparing one with the other or by comparing them with noncredit expenditure programs.

Some inadequacies of the budget treatment of Federal credit programs were rectified by introduction of the Federal credit budget in 1980. The Federal credit budget measures direct loan obligations and guaranteed loan commitments. Although it is a step forward, the credit budget does not restrain the total volume of Federal credit effectively. Only about 55 percent of the credit budget totals for 1985 were capped by appropriation act limitations. Moreover, the credit budget does not measure the subsidy costs, nor does it directly restrict the level of subsidy that a program offers the borrower.

The Administration proposes to change the budget treatment of direct loans and loan guarantees. Legislation for this purpose will be sent to the Congress in the spring of this year. The Administration's proposal would divide the face value of a new direct loan into two parts: the market value of the loan and the present value of Federal subsidies. A Federal Credit Revolving Fund would be established under the direction of the Treasury. Before an agency could make direct loans, Congress would have to appropriate funds to that

agency for the provision of direct loan subsidies. As loans were made, the agency would provide the Fund with the information required to estimate the present value of the direct loan subsidies. The central revolving account would be charged for the market value, or nonsubsidized component, of direct loans. The agency would then be charged for the subsidy component of direct loans.

In the case of loan guarantees, Congress would first make appropriations to the agency. As the agency granted loan guarantees, it would provide the Fund with the information necessary to estimate the present value of the guarantee subsidies. The agency would be charged for the value of the subsidy and would also transmit to the Fund any fees paid by the borrowers. The Fund would then assume the contingent liability for the guarantees.

To establish an objective measure of direct loan subsidies, newly made direct loans would be sold to the public without recourse. Similarly, new loan guarantees would be reinsured with private insurers.

Adoption of the Administration's proposal would ensure that the budget reflected the true economic costs of Federal credit programs. It would provide the President and Congress with the information necessary to make informed decisions about the allocation of budget resources to these programs.

A Capital Budget

The Federal budget is a comprehensive statement of expected cash outlays and cash receipts. The budget includes both operating and investment outlays, but does not report separate operating and capital budget subtotals. However, details of Federal investment outlays are presented in a special analysis that is published with the budget. The comprehensive outlay and receipt totals are indispensable for evaluating the effect of Federal policies on the level and composition of aggregate economic activity. The unified budget deficit, which is the difference between total Federal outlays and receipts, figures prominently in macroeconomic analysis precisely because it measures the government's demand for private domestic and foreign saving as well as the change in the outstanding stock of government debt.

For many years, proposals have been made to separate the unified Federal budget into an operating budget and a capital budget. Although the proposals differ in important respects, all share the essential feature that Federal receipts and outlays would be disaggregated into their operating and capital components. In general, investment outlays would not be charged against operating receipts in the calculation of the operating deficit, and only the subsidy component of direct loans and loan guarantees would be considered an operating outlay. Investment expenditures and the market value of direct loans

would constitute the outlays used in calculating the capital budget deficit.

Several arguments have been made in favor of a capital budget. First, it would provide the information and incentives necessary to promote economically efficient government capital planning. Second, borrowing to finance capital outlays would spread the cost of government investments more equitably among current and future beneficiaries and thus link the payment for a government investment with its use. For this reason, it has been argued that operating and capital budget subtotals should be calculated separately so as to distinguish between Federal borrowing that finances current operations from borrowing that finances capital investments yielding future benefits.

Opponents argue that the capital budget would not promote economically efficient capital planning. Because capital outlays would not be deducted from receipts in the calculation of the operating deficit, the constraint on capital outlays might be relaxed to such an extent that budget decisions would be biased in favor of capital spending. Furthermore, technical disagreement over the definition of capital outlays would likely occur, such as whether expenditures for research and development or education should be included in the capital budget and thus not be charged against receipts in calculating the operating budget deficit. More generally, opponents argue that a unified budget is needed to hold public officials accountable for appropriations of tax receipts. Separate capital and operating budgets would, according to this view, invite manipulation to hide and expand Federal spending.

It is important that the long-term benefits of government capital investments be adequately assessed against the current budget cost of the resulting capital outlays. However, it is at least equally critical that budget deliberations take into account the effect of proposed policies on total outlays, receipts, and the unified budget deficit.

The Line-Item Veto

The line-item veto would authorize the President to veto individual line items in appropriation bills, subject to the current provisions for overriding a veto of any bill. Governors in 43 States now have such authority. Congress has approved such authority for the Governors of the Commonwealth of Puerto Rico and the Trust Territories and for the Mayor of the District of Columbia—but not for the President.

For more than a century, Congress has rejected Presidential requests for this authority in order to maintain the opportunity to package spending proposals that the President would otherwise veto in broader appropriations that the President would approve. Appropriations are presented to the President in only 13 general appropriation bills. Indeed, last year Congress did not pass a single one of the 13

appropriation bills, but instead passed one 389-page omnibus spending bill. Because Congress had not completed action on the annual appropriation bills, the President was compelled by law to shut down the Federal Government. Such abrogation of a responsible budget process by Congress not only discourages careful, prudent legislation—it encourages excessive spending and waste.

Effective use of the line-item veto would change the composition and level of Federal expenditure. A Member of Congress is elected by voters in a specific congressional district or State, while the President is elected by the voters of the Nation. As a consequence, a Member of Congress has stronger preferences for programs and projects that benefit his or her regional constituency, especially because only a fraction of the cost of such programs and projects are borne by his or her constituency. The expected result of granting approval for a line-item veto would be a decrease in expenditures on programs and projects whose regional benefits do not exceed the cost to the Nation's taxpayers. This result should be a sufficient basis for early approval of Presidential authority for a line-item veto.

Balanced Budget Amendment

The President has endorsed the concept of a balanced budget/tax limitation amendment to the Constitution. The objective is to change the rules by which decisions are made to borrow or to increase the size of Federal outlays and receipts relative to national income. Although several amendments have been proposed, two that have been considered in the Senate share the following provisions:

- A requirement that total outlays be no greater than total receipts, unless three-fifths of the whole number of both Houses of Congress decide otherwise in a vote devoted solely to that subject;
- A prohibition on increases in the public debt, absent approval by three-fifths of the whole number of both Houses of Congress;
- A requirement that all or some revenue-increasing bills be enacted by a majority of the whole number of both Houses of Congress by roll call vote; and
- The authority for Congress to waive these requirements in the event of war.

Approval of this proposed amendment would be a recognition that each generation may need to bind itself to responsible fiscal decisions in the interests of the current and future American community.

The line-item veto and a balanced budget amendment cannot substitute for the hard choices necessary to restrain the growth of Federal expenditure and to reduce the Federal deficit. Early approval of these proposals, however, could force a resolution of the choices necessary to resolve major near-term fiscal issues.

TAX REFORM

This section assesses the economic effects of the Tax Reform Act of 1986. The purpose of this assessment is twofold: to forecast the effects that tax reform will have on future macroeconomic activity and, by demonstrating the substantial benefits of tax reform, to guard against possible future changes in the tax code that would undo the important progress that has been made.

OVERVIEW

The Tax Reform Act of 1986 fundamentally alters the structure of the Federal income tax. It broadens the personal and corporate income tax bases and substantially lowers tax rates. These changes will significantly alter private incentives and, accordingly, will influence the economy's performance through three principal channels:

- Lower marginal tax rates on personal income, in conjunction with a broader tax base, will increase labor effort and reduce the exploitation of tax loopholes.
- More uniform tax rates on income from alternative capital investments will induce a more efficient allocation of investment funds.
- A somewhat higher overall marginal tax rate on capital income will modestly reduce the economy's long-run capital intensity.

The analysis in this section indicates that tax reform will significantly improve the economy's long-run performance. This improvement will come from several sources, most of which have not been explicitly quantified. Estimates that have been made, however, suggest that the Nation's output of goods and services will permanently increase by approximately 2 percent because of the long-run consequences of tax reform.

This section begins with a discussion of the conditions leading to tax reform and a brief explanation of the importance of marginal tax rates for economic efficiency. The chapter then turns to an assessment of the Tax Reform Act of 1986 (TRA). This assessment begins with a description of the major provisions of TRA and an analysis of their microeconomic implications. Finally, the chapter explores the implications of TRA for long-run economic growth and short-run macroeconomic activity.

THE CONDITIONS LEADING TO TAX REFORM

Despite legislated "tax reductions" during the 1960s and 1970s, marginal tax rates rose substantially as inflation pushed taxpayers into higher tax brackets. As is shown in Table 2–1, a family of four with median earnings in 1965 paid 17 cents in tax on the last dollar

of income earned. Such a family, therefore, had a marginal tax rate of 17 percent. The marginal tax rate for a similar family in 1980, in contrast, had risen to 24 percent due to bracket creep. The growth in marginal tax rates was more dramatic at higher incomes: a family with twice the median income in 1980 had a marginal tax rate almost double that of a similar family in 1965.

TABLE 2-1.—*Marginal personal income tax rates for four-person families, selected years, 1965-88*[1]

[Percent]

Year	Family income		
	One-half median income	Median income	Twice median income
1965	14	17	22
1970	15	20	26
1975	17	22	32
1980	18	24	43
1986	14	22	38
1988 (TRA)	15	15	28

[1] Excludes social security taxes and State and local income taxes.
Source: Department of the Treasury, Office of Tax Analysis.

For income from capital gains, inflation not only increases the statutory rate of tax because of bracket creep, but it also causes the effective tax rate to exceed the statutory tax rate. This phenomenon was particularly important in the 1970s, when inflation rates were high. In 1979, for example, a 1-year investment yielding a 10 percent nominal capital gain yielded, after 9 percent inflation, a 1 percent real capital gain. Federal taxes, however, are levied on nominal capital gains. A taxpayer in the 70 percent tax bracket who received a 10 percent nominal capital gain, therefore, earned a 7.2 percent nominal after-tax return (taking the 60 percent capital gains exclusion into account). After 9 percent inflation, this translates to a minus 1.8 percent real after-tax return. Hence, for this hypothetical investor, inflation increased the effective tax rate on the 1 percent real pretax capital gain from 28 percent to 280 percent. This phenomenon is entirely independent of bracket creep and, for the taxation of capital gains, is quantitatively much more important.

Inflation also distorts the taxation of corporate bond interest. The nominal rate of return on bonds includes an inflation premium that is not distinguished, for tax purposes, from the real return. Corporations can deduct nominal bond interest paid from their taxable income and individual bondholders must include nominal bond interest received in their taxable income. Inflation, therefore, decreases (increases) the effective rate of tax on debt-financed corporate invest-

ment if the corporate tax rate exceeds (is less than) the marginal tax rate of the marginal bondholder. Because of the offsetting effects of the corporate and personal tax systems, inflation affects the taxation of real corporate bond interest much less than it does the taxation of real capital gains.

The high inflation rates of the 1970s distorted the taxation of capital income in still another way. Deductions for the depreciation of a capital asset, which are properly subtracted from gross capital income to determine taxable income, are set in accordance with the purchase price of the asset. Inflation therefore reduces the real value of depreciation deductions. This phenomenon, in addition to the taxation of inflationary capital gains, caused the effective rate of tax on equity-financed investments to rise substantially during the 1970s.

It became increasingly apparent in the late 1970s that these inflation-induced increases in effective tax rates were stifling private incentives to work and to save and were impeding economic growth. To restore private production incentives, therefore, the Administration proposed, and Congress passed, the Economic Recovery Tax Act of 1981. ERTA called for a phased reduction in personal tax rates that, when completed in 1984, substantially reduced personal marginal tax rates (see the 1986 tax rates in Table 2–1). The top marginal tax rate was reduced from 70 to 50 percent. ERTA also extended eligibility for individual retirement accounts (IRAs) to individuals with other pension plans. Beginning in 1985, the rate schedule, the zero bracket amount, and the personal exemption were indexed to the price level. ERTA also included substantial investment incentives. Although these incentives were scaled back somewhat by TEFRA, the Tax Equity and Fiscal Responsibility Act of 1982, ERTA and TEFRA together significantly lowered the effective tax rate on income from most capital investments.

ERTA-TEFRA substantially reduced marginal tax rates but left two particularly undesirable features of the income tax. First, ERTA-TEFRA's investment incentives increased the opportunities for tax avoidance. Second, ERTA-TEFRA did not help to equalize marginal tax rates on alternative capital investments. In particular, investments in corporate equipment retained their tax advantages over investments in corporate structures. Uneven tax rates on income from alternative capital investments result in a misallocation of capital and a lower value of output than would otherwise be obtainable.

To correct these problems and others, and to reduce marginal tax rates further, the President submitted to Congress detailed proposals for income tax reform in May 1985. These proposals became the basis for congressional deliberations that culminated in TRA. This law differs somewhat from the President's proposals but retains their

overall thrust. TRA lowers marginal tax rates, broadens the personal and corporate tax bases, and helps to equalize marginal tax rates on alternative income-producing activities.

MARGINAL TAX RATES AND ECONOMIC EFFICIENCY

Marginal tax rates—the rates paid on the last dollar earned from income-producing activities—influence the incentives to engage in productive activities and, hence, are extremely important elements of the tax system. The marginal tax on labor income, for example, drives a tax wedge between the value of output that an additional unit of labor produces and the after-tax wage received by workers, thereby discouraging additional labor effort. A reform of the tax system that lowers the marginal tax rate on labor income, while raising the same total revenue, therefore increases labor effort and economic well-being. Economic well-being is increased because the value of total output is increased by more than the total value of leisure is decreased. Likewise, the marginal tax on investment income drives a tax wedge between the pretax return to investment and the after-tax return to saving. Additional saving that would be induced by a lower marginal tax rate on capital income increases the total value of output by more than it increases the inconvenience cost of postponing consumption.

A uniform tax on investment income distorts the overall savings decision. A nonuniform tax on capital income introduces an additional distortion in the allocation of saving and investment. Because investment funds tend to be directed toward assets with the highest expected after-tax returns and because the return to a particular asset type declines with its quantity, alternative investments tend, in equilibrium, to yield equal after-tax returns. Hence, the pretax return on a particular investment tends to be higher, the higher is the effective marginal tax rate. Unequal marginal tax rates on alternative capital investments, therefore, result in an output loss. That is, the value of output would be increased if investment funds were shifted away from investments with low marginal tax rates and low pretax returns, and toward investments with high marginal tax rates and high pretax returns. The greater are the differentials among marginal tax rates on alternative capital investments, the greater is the resulting output loss.

High marginal tax rates on labor income also encourage excessive consumption of untaxed employee fringe benefits. A worker with a 30-percent marginal tax rate, for example, gives up 70 cents in take-home pay for each dollar of (untaxed) fringe benefits he or she receives. The worker, or the worker's union, therefore rationally seeks

an amount of fringe benefits that have a value, at the margin, equal to only 70 percent of their true cost.

More generally, high marginal tax rates increase incentives to engage in tax avoidance and evasion. Tax avoidance occurs when taxpayers make legitimate investment or consumption choices that are influenced by the desire to reduce tax liabilities. As was demonstrated for the case of untaxed employee fringe benefits, tax avoidance leads to an inefficient allocation of resources and is apt to increase with the marginal tax rate on ordinary income. Tax evasion, conversely, is the failure to comply with the tax laws. The incentive to hide income from the tax authorities, so as to evade taxes, increases with the marginal tax rate. Tax evasion, like tax avoidance, ordinarily results in wasteful expenditures of time, energy, and tangible resources.

A MICROECONOMIC ANALYSIS OF THE TAX REFORM ACT

The Personal Income Tax

TRA significantly lowers tax rates on personal income. When the law is fully effective in 1988, two tax brackets, set at 15 and 28 percent, will replace the 14 that ranged from 11 to 50 percent. The 15-percent bracket and the personal exemption are phased out for high-income returns, which results in an implicit 33-percent tax rate for a broad income range. As is shown in Table 2–1, TRA reduces marginal tax rates to levels that are similar to those that prevailed in 1965.

These rate reductions are made possible, in part, by TRA's base-broadening measures. TRA broadens the personal tax base, or taxable personal income, to include the following: all long-term capital gains, State and local sales taxes, IRA contributions for high-income individuals with employer-provided pension plans, nonmortgage consumer interest payments, miscellaneous itemized deductions less than 2 percent of adjusted gross income, net losses from passive investments, and net losses from active real estate investments for high-income taxpayers. These base-broadening measures are partially offset by substantial increases in the standard deduction and personal exemption. By 1988, the personal exemption is nearly doubled and the standard deduction is increased 36 percent for joint returns and 21 percent for single returns.

An important feature of TRA is its strong limitations on tax-sheltered activities, which have grown greatly over the past several years. Two factors are largely responsible for the recent growth in tax shelters; first, the high inflation rates of the late 1970s and early 1980s increased the real value of nominal interest deductions on leveraged investments, and second, ERTA-TEFRA substantially accelerated depreciation deductions. These factors increased the opportunities for

claiming early losses in exchange for later capital gains that have the advantages of tax deferral and a lower tax rate.

TRA limits tax shelters directly and indirectly. The elimination of the capital gains preference, the deceleration of tax depreciation deductions, more stringent limitations on investment interest deductions, and the lowering of marginal tax rates all serve indirectly to make tax shelters less attractive. Moreover, any remaining tax avoidance opportunities are subjected to TRA's provisions concerning passive business losses and real estate losses. In particular, net losses from passive business investments and real estate investments for high-income taxpayers cannot be deducted from ordinary income; they must be carried forward and deducted from net income from like activities in later years.

These tax-shelter limitations not only make the personal income tax more equitable, but they should also result in more economically efficient investment decisions. Investments that previously provided opportunities for tax avoidance are put on a more equal footing with other investments. Investment funds, therefore, should have a greater tendency to flow to their most highly valued uses.

The elimination of the nonmortgage consumer interest deduction should also improve the current allocation of investment funds. Consumer durables yield a flow of services that, unlike alternative investments yielding monetary income, is untaxed. By disallowing nonmortgage consumer interest deductions, TRA partially eliminates the tax preference that is currently afforded to consumer durables. TRA, therefore, puts consumer durables on a more equal footing with alternative investments and should lead to more efficient investment decisions.

Allowing State and local taxes to be deducted from the Federal income tax base is both inefficient and inequitable. It is inefficient because it reduces the perceived cost of State and local government services and, except possibly in cases where State spending generates appreciable spillover benefits, encourages excessive State and local spending. It is inequitable because it causes residents of low-tax localities, who enjoy relatively small amounts of State and local government services, to pay a disproportionate share of Federal taxes. TRA ameliorates these problems in two ways: it disallows the State and local sales tax deduction, and, by lowering the marginal Federal tax rate, it lowers the value of other State and local tax deductions.

TRA disallows IRA deductions for high-income individuals with employer-provided pension plans. However, TRA still allows most working individuals to deposit $2,000 (nondeductible) each year in IRAs and defer tax on accrued interest until the funds are withdrawn

at retirement. This tax advantage is substantial, accounting for a large portion of the tax savings afforded by deductible IRAs.

Although TRA significantly limits itemized deductions, it substantially raises the standard deduction. As a result, TRA is estimated to reduce the number of itemized personal Federal income tax returns in 1988 by 11.5 million, thereby yielding an approximate $1.3 billion reduction in compliance costs.

Equity. TRA will cut total personal income taxes by about 6.6 percent in 1988. Table 2-2 gives the percentage tax cut for eight income classes. The estimates are based on an expanded definition of income that equals adjusted gross income plus such items as excluded capital gains, passive business losses, and tax-exempt bond interest.

TABLE 2-2.—*Effects of the Tax Reform Act of 1986 on Federal tax liabilities and average Federal tax rates, by income class, 1988*

Income class (1986 dollars)[1]	Percent change in income tax liability	Average tax rate (percent)	
		Prereform	TRA
0 to 10,000	−56.2	2.0	0.9
10,000 to 15,000	−27.8	5.4	3.9
15,000 to 20,000	−14.8	7.0	6.0
20,000 to 30,000	−8.5	8.9	8.1
30,000 to 50,000	−7.1	11.0	10.3
50,000 to 100,000	−.9	13.9	13.7
100,000 to 200,000	−1.0	17.4	17.1
200,000 and over	−.9	13.6	13.4
ALL INCOME CLASSES	−6.6	10.3	9.6

[1] The income concept (modified expanded income) is one of many possible income classifiers and was used by the Joint Committee on Taxation to present the distributional effects of the Tax Reform Act of 1986. An alternative measure, "economic income," was used in the Treasury Department's *The President's Tax Proposals* in 1985.

Note.—Distributions reflect most but not all of the provisions of the individual income tax code.

Source: Department of the Treasury, Office of Tax Analysis.

The percentage tax cut under TRA is largest for low-income returns. The number of poor families paying Federal income tax is estimated to fall by 4.3 million in 1988 under TRA. With one small exception, the estimated percentage tax cut under TRA steadily falls for higher income returns. Thus, these estimates indicate that TRA actually increases the effective progressivity of the personal Federal income tax despite a less graduated rate structure. This result is shown in the last two columns of Table 2-2, which give the estimated average tax rate for each income class under TRA and the prereform tax law. TRA cuts the average tax rate much more for taxpayers with income less than $50,000 than it does for higher income taxpayers.

Table 2-2 concerns only personal Federal income taxes. Because all taxes are ultimately paid by individuals, a complete analysis of tax

incidence would allocate undistributed corporate income and Federal corporate taxes to the various income classes. Exactly how this should be done, however, is uncertain. Current evidence is not conclusive, but it suggests that part of the corporate tax burden is borne by workers and that the majority is borne by owners of capital. If this inference is correct, it would imply that high-income taxpayers, who earn a disproportionate share of capital income, bear a relatively large share of the corporate tax burden. Because TRA shifts 6.6 percent of the individual income tax burden to corporations, it would follow that a proper imputation of corporate taxes to the various income classes would probably reinforce the conclusion that TRA enhances the effective progressivity of the Federal income tax.

TRA increases the long-run horizontal equity of the Federal income tax. Horizontal equity concerns the degree to which taxpayers with equal amounts of economic income have equal tax liabilities. Because of TRA's limitations on tax preferences, including the elimination of the capital gains preference, the limitations on tax shelters, and a stricter minimum tax, it substantially reduces the variation in the amount of tax paid by taxpayers with the same real income.

As does any significant reform of the tax system, TRA will cause a one-time change in asset values that will redistribute wealth. Existing assets that received tax preference under ERTA-TEFRA and have their tax preferences curtailed under TRA suffer capital losses. Contrariwise, any existing assets that are taxed less heavily under TRA than they were under ERTA-TEFRA enjoy capital gains. Special transition rules make these changes in asset values less severe in some cases. The deductions for passive business losses and real estate losses attributable to assets acquired prior to tax reform, for example, are phased out gradually over 4 years. The same is true for deductions of interest payments on preexisting nonmortgage loans.

This phenomenon of changing asset values is one reason why changes in the tax law should be infrequent and implemented only for compelling reasons. Investments tend to be inherently risky; further riskiness introduced by frequent changes in the tax law unnecessarily destabilizes the business environment.

Business Taxes

The proper measurement of economic income from investments in real assets requires that deductions be made for the decline in real asset values attributable to depreciation. Since 1954, tax law has allowed investors to deduct for more rapid depreciation on most assets than actually occurs. Accelerating depreciation in this manner lowers the cost of capital, which is defined as the minimum pretax investment return that is profitable. The cost of capital has also been reduced by the investment tax credit, which applied primarily to equip-

ment assets and allowed investors to deduct a percentage of an asset's purchase price immediately from tax liabilities.

TRA repeals the investment tax credit, allows less accelerated depreciation, and lowers the corporate tax rate from 46 to 34 percent. These provisions taken together have two general effects: they tend to raise the cost of capital overall, and they tend to equalize the cost of capital for alternative capital investments. The latter effect is due primarily to more equal effective rates of tax on investments in corporate equipment and corporate structures.

Table 2-3 gives the estimated percent change in the cost of capital brought about by TRA for three sectors of the economy and for various assets within the corporate sector. For the corporate sector, the calculations take into account corporate, property, and personal taxes. Investments are taxed differently depending on whether they are financed with debt or equity. Table 2-3 gives results for three different modes of finance; for debt, equity, and a combination of debt and equity.

TABLE 2-3.—*Percent change in cost of capital under the Tax Reform Act of 1986*

Sector	Financing mode				
	Debt	Equity		Debt and equity	
		Old view[1]	New view[1]	Old view[1]	New view[1]
Corporate sector	48.6	−4.8	4.7	2.8	11.9
Equipment	197.3	26.6	43.7	43.7	62.2
Nonresidential structures	44.5	1.0	10.6	7.7	16.6
Public utilities	47.9	6.5	16.2	13.3	22.2
Residential structures	24.2	−5.7	2.1	−.4	6.5
Inventories	21.1	−18.6	−11.0	−13.0	−5.8
Nonresidential land	19.3	−18.0	−10.6	−12.5	−5.5
Residential land	16.5	−17.0	−9.9	−11.6	−5.1
Noncorporate business sector	4.7	.6	.6	1.9	1.9
Owner-occupied housing	3.3	1.6	1.6	2.2	2.2
Total business	22.1	−2.8	3.0	2.4	7.4
TOTAL	16.8	−2.1	2.7	2.3	6.2

[1] See text for explanation of the old view and the new view of dividend taxation.

Note.—Changes are relative to the prereform tax law. The computations take into account corporate taxes, property taxes, and personal taxes at all levels of government.

Source: Department of the Treasury, Office of Tax Analysis.

As is shown in the first column of the table, TRA substantially increases the cost of debt-financed capital investments. This result follows largely because the value of interest deductions falls with the fall in corporate and personal tax rates.

There are currently two views in the economics profession concerning the relative importance of taxes on capital gains and on dividends for determining the cost of equity capital. The "new view" of dividend taxation maintains that taxes on capital gains are very important, while taxes on dividends are nearly irrelevant, for determin-

ing the cost of equity capital. The "old view" of dividend taxation, conversely, maintains that taxes on dividends, as well as taxes on capital gains, are important for the cost of equity capital. It follows that TRA, which raises the marginal tax rate on capital gains and lowers the marginal tax rate on dividends, increases the cost of capital more under the new view of dividend taxation than under the old view. No consensus has formed as to which of these two views is correct. Although the new view gained wide acceptance when first introduced, recent empirical evidence does not uniformly support either view over the other.

The estimates in Table 2–3 indicate that the overall cost of equity-financed investment falls under the old view and rises under the new view. The cost of corporate equipment rises much more than the cost of corporate structures. This finding also applies to the noncorporate sector and is attributable to the repeal of the investment tax credit. Because TRA reduces corporate and personal tax rates, the cost of capital falls dramatically for nondepreciable capital assets, such as inventories and land.

Historically, approximately one-third of investment is financed with debt and two-thirds with equity. The last two columns of Table 2–3 use these weights to obtain overall percentage changes in the cost of capital for both views of dividend taxation. These calculations indicate that the overall cost of capital rises by 2.3 to 6.2 percent. Because debt finance becomes relatively more expensive under TRA, and the financing shares are not allowed to respond to this change, these estimates tend to overstate the rise in the cost of capital. On the other hand, these estimates do not incorporate tax-shelter limitations or changes in accounting rules, provisions of TRA that raise the cost of capital.

TRA substantially evens the cost of capital across assets within each sector. This effect is shown in the first part of Table 2–4, which concerns the variation in the cost of capital within the corporate sector. For every asset, TRA is estimated to reduce the magnitude of the percentage deviation of the cost of capital from the overall average cost of capital in the corporate sector. Because relative costs of capital within each sector depend primarily on the investment tax credit and depreciation allowances, and these features of the tax law are the same for the corporate and the noncorporate sectors, these conclusions also apply to the noncorporate sector.

However, TRA does not alleviate the intersectoral distortions in the capital income tax, as is shown in the second part of Table 2–4. The corporate sector is taxed most heavily, followed, in order, by the noncorporate sector and owner-occupied housing.

TABLE 2-4.—*Within-sector and between-sector variation in the cost of capital*

Sector	Old view[1]		New view[1]	
	Prereform	TRA	Prereform	TRA
	Percent deviation from average corporate cost of capital			
Corporate sector:				
Equipment	−34.9	−8.9	−37.2	−8.9
Nonresidential structures	−6.9	−2.5	−6.3	−2.3
Public utilities	−8.8	.5	−7.6	.9
Residential structures	21.9	18.1	24.8	18.8
Inventories	21.4	2.7	21.5	2.4
Nonresidential land	26.0	7.4	27.0	7.3
Residential land	35.4	16.5	37.9	17.0
	Percent deviation from overall average cost of capital			
Corporate sector	16.3	16.8	7.2	12.9
Noncorporate business sector	−5.9	−6.2	.5	−3.6
Owner-occupied housing	−17.6	−17.7	−12.0	−15.3

[1] See text for explanation of the old view and new view of dividend taxation.

Note.—Assumes financing is one-third debt and two-thirds equity.

Source: Department of the Treasury, Office of Tax Analysis.

A recent study indicates that eliminating the uneven taxation of assets within sectors, and retaining the intersectoral distortions, would cause investment funds to be reallocated so as to increase real net national product—real GNP less capital depreciation—permanently by about 0.2 percent. Because TRA reduces the within-sector variance in the cost of capital by about 60 percent, this finding suggests that this particular feature of TRA will, after a period of adjustment, permanently increase net national product by about 0.1 percent.

This estimate of the neutrality gains under TRA omits two important factors. First, the cost-of-capital estimates do not take into account the possible "churning" of assets. Churning occurs when a used asset is sold and redepreciated, for tax purposes, by the new owner. Under ERTA-TEFRA, this investment strategy was viable only for assets that have an active resale market, most particularly commercial structures and rental housing. TRA's limitations on tax shelters substantially reduce the tax preference afforded to such assets. Therefore, the quantified neutrality gains under TRA are mismeasured to the extent that TRA's neutrality gains associated with churnable structures are different than TRA's neutrality gains associated with other structures. Second, TRA increases the relative tax preference given to intangible assets, such as expenditures on marketing, advertising, and research and development. This result follows from the fact that TRA increases the overall cost of tangible capital, and income from intangible capital assets is entirely untaxed (at the margin) at the corporate level under both ERTA-TEFRA and TRA.

Because intangible assets are not included in the cost of capital computations, the quantified neutrality gains from TRA tend to be overstated.

Under both TRA and the prereform tax law, corporations are able to deduct interest payments. Because dividend payments are not deductible, equity finance is put at a disadvantage relative to bond finance, which presumably encourages corporate borrowing. The estimates of the cost of capital indicate that TRA reduces the tax advantage of financing corporate investments with debt rather than equity by about 25 percent. TRA, therefore, should reduce the incentive for corporate borrowing, thereby reducing bankruptcy costs and other economic costs attributable to the issuance of corporate debt.

Under TRA as well as the prereform tax law, inflationary returns to capital investments are taxed. Also, depreciation allowances are not indexed for inflation. The cost-of-capital estimates in Tables 2–3 and 2–4 assume that the inflation rate is 3 percent. If the inflation rate should rise, the cost of capital would increase. Table 2–5 gives the percentage change in the cost of capital under TRA caused by a 5-percentage-point increase in the inflation rate. The overall cost of capital rises 3.2 percent under the new view of dividend taxation and 5.1 percent under the old view. Higher inflation would also exacerbate the tax-induced distortion in the choice of debt and equity finance. Inflation must be kept low, therefore, to maintain appropriate investment and financing incentives.

TABLE 2–5.—*The cost of capital under the Tax Reform Act of 1986 for an 8-percent inflation rate: Percent change from case of 3- percent inflation*

Financing mode	Percent change
Debt	−13.8
Equity:	
Old view[1]	12.0
New view[1]	9.5
Debt and equity:	
Old view[1]	5.1
New view[1]	3.2

[1] See text for explanation of the old view and the new view of dividend taxation.

Source: Department of the Treasury, Office of Tax Analysis.

TRA'S EFFECT ON LONG-RUN ECONOMIC GROWTH

It has been argued that TRA will lead to more efficient consumption and investment decisions and, for fixed aggregate quantities of productive inputs, will lead to an increase in output and economic well-being. This section analyzes TRA's effects on the long-run supplies of capital and labor and the implications for economic growth

and economic well-being. This section abstracts from issues concerning the composition of the capital stock and of output, topics that were discussed in earlier sections.

Table 2-6 gives the marginal tax rate (averaged over taxpayers) for all levels of government on labor income, capital income, and output under TRA and the prereform tax law. So as to estimate conservatively the long-run gains under TRA, the effective marginal tax rate on capital income assumes that the new view of dividend taxation applies. The average marginal tax rate on labor income takes account of the social security and medicare payroll taxes. In so doing, the linkage between these payroll taxes and future benefits is assumed to be sufficiently weak and uncertain that these payments are regarded as taxes. As is shown in the table, TRA lowers the marginal tax rate on labor and raises it on capital. The marginal tax rate on output, which is a weighted average of the marginal tax rates on labor and capital, falls 4.3 percent under TRA.

TABLE 2-6.—*Average marginal tax rates on labor income, capital income, and output*

Item	Prereform	TRA
Labor income	41.6	38.0
Federal income tax	25.8	21.7
State and local income and sales tax [1]	4.9	5.4
Social security and medicare payroll tax [2]	10.9	10.9
Capital income [3]	34.5	38.4
Output [4]	39.8	38.1

[1] Rate is the statutory tax rate (measured as State and local income and sales taxes divided by net national product in 1985) adjusted down in accordance with the deductibility of State and local taxes (except sales taxes under TRA) from the Federal income tax base.

[2] Social security and medicare payroll tax rate, for both employees and employers, multiplied by the portion of total labor income earned by individuals who are subject to the payroll tax at the margin.

[3] Includes taxes at all levels of government.

[4] Tax rate on labor income multiplied by labor's share of income (0.75) plus the tax rate on capital income multiplied by capital's share of income (0.25).

Sources: Department of the Treasury (Office of Tax Analysis) and Council of Economic Advisers.

The immediate effect of TRA will be to raise the net wage by 6.2 percent and lower the net return to saving by 5.9 percent. These changes will increase labor effort and depress saving as a portion of an enlarged pool of labor income. Relative to their baseline growth paths, therefore, labor input will increase and capital input may increase or decrease. Capital input is more likely to increase the more labor compensation, and hence total income, increases. In any case, the ratio of capital to labor is decreased.

The long-run economic effect of TRA is most appropriately measured in terms of real net national product. The effect of TRA on net national product depends on its effects on capital and labor input. Net national product is more likely to rise the more labor supply responds to the after-tax wage, and the less the supply of savings re-

sponds to the after-tax return to capital. The change in economic welfare, or individual well-being, depends on changes in consumption and leisure. Because changes in net national product and consumption may come at the expense of less leisure, net national product is an imperfect measure of economic welfare.

These factors have been analyzed in the context of a formal model of economic growth. The assumptions of the model, among them that population and productivity grow at constant rates, are extremely simple. None of the assumptions, however, is expected to lead to biased results. That is, no a priori reason exists to believe that plausible alternative assumptions would yield qualitatively different conclusions. The model therefore gives useful guidance, but the precision of its estimates should not be overstated.

Table 2–7 summarizes the results of this analysis. The point estimates of TRA's long-run effects are given in the first column of the table. Relative to their baseline growth paths, it is estimated that real net national product rises 2.2 percent, aggregate consumption rises 3.6 percent, capital input falls 0.4 percent, and labor input rises 3.1 percent. Because the value of consumption is raised more than the value of leisure is decreased, economic welfare is increased. In fact, TRA is estimated to increase individual well-being by as much as would an annual distribution, from an outside source, equal to 1.2 percent of net national product.

TABLE 2–7.—*The long-run simulated effect of the Tax Reform Act of 1986*[1]

Item	Point estimate[2]	Plausible range[3]
Percent change in:		
Net national product	2.2	0.4 - 2.9
Consumption	3.6	1.5 - 4.3
Capital input	−.4	−4.6 - 1.3
Labor input	3.1	2.0 - 3.8
Net capital return	−2.6	−3.4 - −.6
Net wage	4.9	4.2 - 5.2
Annual welfare change as percent of net national product	1.2	.4 - 1.9

[1] The simulation model is adapted from Lawrence H. Summers, "Capital Taxation and Accumulation in a Life Cycle Growth Model," *American Economic Review*, September 1981. The Summers model is extended to allow for endogenous labor supply and an unfunded social security system.

[2] Elasticity of substitution in production (ESP) = 0.75. Elasticity of intertemporal substitution (EIS) = 0.20. The uncompensated elasticity of labor supply is zero for all cases.

[3] ESP varies between 0.5 and 1.0 and EIS varies between 0.05 and 1.0.

Source: Council of Economic Advisers.

The point estimates incorporate assumptions about production technology and behavior that, while consistent with the existing empirical literature, are subject to error. The second column of Table 2–7 gives ranges for the long-run changes under TRA that correspond to alternative plausible assumptions. All plausible assumptions

lead to the conclusion that TRA increases economic welfare, net national product, and consumption.

An important factor that has been omitted in this analysis is TRA's effect on productivity growth. The returns to education come, in large part, through higher future wages. Because TRA decreases the marginal tax rate on labor income, the incentive to invest in education and other forms of human capital is increased. Hence, TRA should lead to more human capital investment and consequently to higher levels of productivity and output growth.

Also, the model underlying the long-run simulations assumes a closed economy with no trade. The tax rates reported in Table 2–6, however, reflect on TRA's effect on U.S. production costs relative to those of other countries. The average marginal tax rate on output in the United States is estimated to decline by 4.3 percent under TRA. Hence, while TRA may cause the composition of U.S. exports to shift toward labor-intensive goods and away from capital-intensive goods, it should not adversely affect the overall U.S. current account trade balance for given exchange rates and given after-tax returns to U.S. factors of production.

THE SHORT-RUN MACROECONOMIC EFFECTS OF TRA

Although TRA will increase long-run economic growth, it may cause some short-run adjustment problems. First, TRA will slow the growth of investment to a modest extent as the capital stock adjusts to its new long-run equilibrium growth path. Hence, unless consumption or net exports takes up the slack, aggregate demand growth will be dampened somewhat. Second, TRA will cause a reallocation of investment that, in the short run, will cause some industries to grow less rapidly. Other industries, of course, will grow more rapidly under TRA, but possibly with a short lag.

Aggregate Investment

The long-run simulation results illustrate the relationship between investment and changes in the long-run equilibrium capital stock. If the point estimates given in Table 2–7 are correct, TRA will induce a 0.4 percent decline in the long-run capital stock relative to its baseline growth path. This result would imply that net and gross investment also fall 0.4 percent in long-run equilibrium. In the transition to the long-run equilibrium, however, net investment would fall an additional amount equal to 0.4 percent of the current capital stock, or a total of about $50 billion. Assuming a short 5-year adjustment period, this result would imply that TRA will cause gross investment to fall by less than 2 percent from baseline in each of the next 5 years. After this initial period of adjustment, however, TRA should have a minimal effect on investment.

This method of estimating TRA's effect on short-term investment encounters two problems. First, it assumes that the economy is currently on the long-run equilibrium growth path associated with the substantial investment incentives included in ERTA-TEFRA. Recent estimates, however, suggest that only about one-half of the additional desired capital accumulation induced by ERTA-TEFRA has been completed. This finding implies that Table 2–7 overestimates the percentage decline in the long-run capital stock. Second, the simulation results give a broad range for the probable change in the long-run capital stock. In fact, a relatively small change in assumptions raises the implied decline in the long-run capital stock from 0.4 to 1.0 percent. However, the conclusions regarding changes in economic welfare and net national product are robust with respect to alternative assumptions.

An alternative upper-bound estimate of TRA's effect on investment is suggested by the observation that the equilibrium capital stock path under TRA is significantly above that which would have prevailed under the 1980 tax law, prior to ERTA. This conclusion follows from estimates indicating that, relative to the 1980 tax law, TRA results in a similar cost of capital (the cost of equity capital, however, is much lower under TRA) and a substantially lower cost of labor. The resulting higher supply of labor under TRA, relative to what would have prevailed under the 1980 tax law, will simultaneously increase the demand for investment and the supply of savings. It follows that TRA only partially scales back the investment incentives included in ERTA-TEFRA. An extreme upper-bound estimate of the fall in the equilibrium capital stock under TRA, therefore, is the net addition to the capital stock that has been induced by ERTA-TEFRA over the past 6 years.

A recent econometric study concludes that ERTA-TEFRA's business tax cuts increased gross nonresidential fixed investment by about $28 billion in the first 2 years of the current economic expansion. Extrapolating this result to each of the past 6 years, and assuming the same proportionate effect on multifamily housing investment, leads to the conclusion that ERTA-TEFRA's business tax cuts increased gross investment by about $90 billion over the past 6 years. After adjustment for depreciation, this change in gross investment implies a $64 billion increase in the capital stock. TRA, therefore, will cause the equilibrium capital stock to decline, relative to baseline, by much less than $64 billion. Assuming a short 5-year adjustment period, the implied upper-bound reduction in annual gross investment from baseline over the next 5 years is less than 2 percent. An investment decline of this magnitude amounts to only 0.3 percent of GNP.

Investment in 1987 will be influenced by two additional factors. Because the corporate tax rate is 40 percent in 1987 and 34 percent thereafter, an incentive exists to shift investment from 1988 to 1987 so that the first year's depreciation allowances are written off against the higher 1987 tax rate. On the other hand, some investment that would have been made in 1987 may have been shifted to 1986 to take advantage of more accelerated depreciation allowances.

It is important not to confuse the short-run effects of TRA with its long-run effects. In the long run, investment will be little affected by TRA and, because of an increased labor supply and more efficient investment decisions, output and economic welfare will increase.

Transition Costs

A major advantage of TRA is that it evens effective marginal tax rates on alternative capital investments, thereby improving the economy's long-run allocative efficiency. Unfortunately, this evening of tax rates entails short-run transition costs.

TRA will cause investment to shift away from assets that enjoyed favorable tax treatment under ERTA-TEFRA. This shifting will directly affect producers of capital inputs. Construction, in particular, will be adversely affected because the new tax rules will limit the ability of individuals to deduct net losses on investments in commercial structures and rental housing in exchange for later capital gains. These provisions of TRA have probably contributed to the recent slowdown in the construction industry. New nonresidential construction expenditures were unchanged between 1985 and 1986 after having risen at a 7-percent annual rate between 1982 and 1985. Likewise, multifamily housing starts in 1986 were down 12 percent from the pace of 1985.

TRA may also induce a minor restructuring of the market for final goods and services. The general increase in business taxes under TRA does not significantly affect the relative cost of capital for the various producers of final goods and services, but it will raise the relative cost of capital-intensive goods and services. The mix of goods and services, therefore, will shift toward more labor-intensive goods. The magnitude of this change, however, will be small. The overall cost of capital rises less than 7 percent, which sets an upper limit on the increase in the price of one industry's output relative to another.

SUMMARY

TRA will lead to substantial long-run increases in economic welfare. Relative to net national product, the approximate changes in economic welfare that have been quantified are 0.1 percent for a more efficient allocation of investment funds and 1.2 percent for changing long-run factor supplies. Additional welfare gains, which have not been quantified, will result from greater levels of human capital investment; from less tax bias toward corporate debt; from less excessive consumption of employee fringe benefits, consumer

durables, and State and local government services; and from less tax evasion.

TRA will increase the long-run fairness of the income tax. All income classes receive a personal income tax cut and the percentage tax cut tends to be largest for low-income taxpayers. TRA also severely limits the opportunities for tax avoidance and will tend to equalize effective tax rates within income classes.

TRA will inflict some short-run costs on the economy as resources are reallocated to more highly valued uses. However, these transition costs will be minor relative to the permanent long-run gains.

CONCLUSION

The Tax Reform Act of 1986 is perhaps the most important reform of the Federal income tax since its inception in 1913. TRA restores incentives to work, save, and invest, and will substantially boost economic growth and individual well-being.

Important progress has recently been made in restraining the growth in Federal spending. More must be done. It is imperative that the Federal budget deficit be brought under control in accord with the provisions of Gramm-Rudman-Hollings. To preserve the gains of tax reform, and to free more resources for use in the private sector, deficit reduction should be accomplished primarily through additional spending restraint. This task will be difficult but it can be achieved without sacrificing essential government services. The effort could be aided by appropriate reforms of the budgetary process.