Economic Report of the President

Transmitted to the Congress
February 1992

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February 1992

TOGETHER WITH
THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS

UNITED STATES GOVERNMENT PRINTING OFFICE

WASHINGTON : 1992

For sale by the U.S. Government Printing Office
Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328
ISBN 0-16-036052-8

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ECONOMIC REPORT
OF THE PRESIDENT

ECONOMIC REPORT OF THE PRESIDENT

To the Congress of the United States:

1991 was a challenging year for the American economy. Output was stagnant and unemployment rose. The recession, which began in the third quarter of 1990, following the longest peacetime expansion in the Nation's history, continued into 1991. The high oil prices and the uncertainty occasioned by events in the Persian Gulf were quickly resolved with the successful completion of Operation Desert Storm early in the year. Most analysts expected a sustained recovery to follow. Indeed, signs of a moderate expansion began to appear in the spring. Industrial production and consumer spending rose for several months. By the late summer, however, the economy flattened out and was sluggish through the rest of the year.

Our recent economic problems are a reminder that even a well-functioning economy faces the risk of temporary setbacks from external shocks or other disturbances. Market economies, such as the United States, are continually restructuring in response to technological changes and external events. Occasionally, structural imbalances develop that can interrupt economic growth. The American economy experienced an unusual confluence of such imbalances in recent years, for example in the financial and real estate sectors, and in household, corporate, and governmental debt. At the same time, a major reallocation of resources from defense to other sectors has been under way. Not least, the lagged effects of a relatively tight monetary policy coupled with problems in the availability of credit, especially for small and medium-sized businesses, dampened economic growth.

The U.S. economy, however, remains the largest and strongest in the world. The American people enjoy the highest standard of living on earth. American productivity is second to none. With less than 5 percent of the world's population, America produces a quarter of the world's output.

As we move into 1992, the fundamental conditions to generate economic growth are falling into place. Interest rates are at their lowest levels in decades and should help boost investment and consumer spending. Inflation is down and expected to remain relatively low. Generally lean inventories imply that increases in demand will be met mainly from new production, which will generate gains in employment and income. America's international competitive position has improved, as evidenced by record levels of exports.

Nevertheless, the United States faces serious economic challenges: to speed, strengthen, and sustain economic recovery; and, simultaneously, to provide a firmer basis for long-term growth in productivity, income, and employment opportunities. In both my State of the Union address and my fiscal 1993 Budget, I presented a comprehensive program to encourage short-term recovery and long-term growth. I have already taken steps to accelerate job-creating Federal spending, to adjust income tax withholding that will add about $25 billion to the economy over the next year, and to renew the attack on excessive regulation and red tape that hamper business formation and expansion and job creation. I will also continue to support a monetary policy that keeps inflation and interest rates low while providing adequate growth of money and credit to support a healthy economic expansion.

Most of my program will require congressional action. In addition to the executive actions I have already announced, my immediate agenda includes:

- Investment incentives to promote economic growth: a reduction in capital gains tax rates; a 15-percent investment tax allowance; and an improved alternative minimum tax.
- Incentives to help revive real estate: a $5,000 tax credit for first-time homebuyers; penalty-free withdrawals from individual retirement accounts for first-time homebuyers; low-income housing credits; tax preferences for mortgage revenue bonds; a modified passive loss tax rule; and a tax deduction for losses on the sale of a personal residence.

My intermediate and longer term agenda includes:

- Investment in the future: record levels of spending for Head Start and for anti-crime and drug abuse programs; a comprehensive Job Training 2000 initiative, which will enhance the skills and flexibility of our work force; record levels of spending for research and development and infrastructure; record spending on math and science education; and Enterprise Zones.
- Pro-family initiatives: an increase in the personal tax exemption for families with children; new flexible individual retirement accounts for health, education, and first home purchases; and tax deductibility of interest paid on student loans.
- Comprehensive health reform: vital cost containment measures and tax credits for the purchase of health insurance.

Also before the Congress is an urgent unfinished agenda that I proposed earlier, including financial sector reform to make our banking system safer, sounder, and more internationally competitive; the America 2000 education reforms necessary to meet the national education goals, produce a new generation of American schools, and provide the choice and competition that will promote better performance and strengthen accountability; the National

Energy Strategy to meet our Nation's energy needs through a combination of enhanced production, diversification of sources, and conservation, thereby enhancing our energy security; and legal reforms to reduce the litigiousness that unnecessarily adds to costs and stifles innovation and productivity.

Successful completion of the Uruguay Round of the General Agreement on Tariffs and Trade and a North American free-trade agreement remain major priorities. I also urge congressional action on the Enterprise for the Americas Initiative. These market-opening initiatives will spur growth and create jobs.

My program can be accommodated within the limits established in the budget agreement of 1990. I am also asking the Congress for budget process reforms: a line-item veto and caps on so-called mandatory programs to control the growth of government spending. Maintaining fiscal discipline is essential to reallocating resources toward investment in the future.

These proposals are described in detail in the fiscal 1993 Budget, and in legislative proposals I am forwarding to the Congress. *The Annual Report of the Council of Economic Advisers,* which accompanies this *Report,* discusses the strengths of the U.S. economy and the challenges it faces in the short run and the long run. It also explains how my comprehensive economic growth proposals are designed to move us toward a more prosperous America.

George Bush

THE WHITE HOUSE

FEBRUARY 6, 1992

THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS

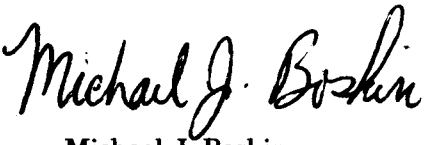
LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., January 31, 1992

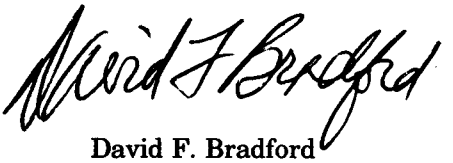
MR. PRESIDENT:

The Council of Economic Advisers herewith submits its 1992 Annual Report in accordance with the provisions of the Employment Act of 1946 as amended by the Full Employment and Balanced Growth Act of 1978.

Sincerely,



Michael J. Boskin
Chairman



David F. Bradford
Member



Paul Wonnacott
Member

FOREWORD

In this *Annual Report of the Council of Economic Advisers*—the third by the Council during this Administration—we repeat a theme that has been emphasized in *Annual Reports* since the statutory establishment of the Council 46 years ago: the primary goal of economic policy is to achieve the highest possible rate of sustainable economic growth. Economic growth is the fundamental determinant of the long-run success of any nation, the basic source of rising living standards, and the key to meeting the needs and desires of the American people. Although America's economic growth was interrupted at the beginning of the 1990s, that does not signal a decline in the basic long-term vitality of the U.S. economy. Still, the Nation faces serious short- and long-run economic challenges—among them, accelerating, strengthening, and ensuring recovery; raising long-run productivity growth to increase the growth of real wages; and improving programs to lift the disadvantaged into the mainstream of American life. The United States cannot take economic growth for granted. In the following pages, we describe these challenges as well as the policy prescriptions that must be adhered to if the Nation is to meet them successfully.

By tradition, in conjunction with a discussion of recent economic trends and the economic outlook, much of the Council's *Annual Report* is composed of topical chapters, the subject matter of which changes from year to year. The Council selects the topics of these chapters from the vast array of significant economic issues and does not necessarily attempt to provide a comprehensive analysis of every issue. Successive *Annual Reports* written during a single Administration should be viewed as an interrelated whole. In this regard, the 1990 *Annual Report*—the first in this Administration—focused on explaining the policy principles necessary for achieving the maximum rate of sustainable economic growth, as well as on such issues as the environment, investment in technology and human capital, education, and improving economic opportunities of low-income households. The 1991 *Annual Report* highlighted such issues as financial market reform, the economy's flexibility to respond to change, and nations in transition from central planning to market economies all around the world. This year's *Annual Report* focuses on the labor market, the distribution of income, regulation, international trade and investment, and economic statistics.

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CHAPTER 1

The American Economy: Responding to Challenges

THE UNITED STATES IS THE most prosperous and productive Nation on earth. With less than 5 percent of the world's population, America produces a quarter of the world's total output. The longest peacetime economic expansion in the Nation's history, 1982 to 1990, produced 30 percent more output, 21 million jobs, and 5 million new corporations.

However, no economic system is immune to disruption. Even well-functioning market economies face the risk of temporary setbacks from external shocks, policy mistakes, or other disturbances. This was starkly demonstrated in the first 2 years of the 1990s. The American economy, which already was experiencing slow growth, fell into recession in the second half of 1990. Between the third quarter of 1990 and the first quarter of 1991, output fell 1.6 percent and 1.7 million jobs were lost. The unemployment rate, which had averaged 5¼ percent for the 18 months prior to the recession, rose to 7.1 percent in December 1991. Sluggish growth and recession reflect the serious difficulties that the U.S. economy has faced in correcting structural imbalances while adjusting to previous monetary tightening, the credit crunch, and the August 1990 oil shock.

Over the past few years, structural imbalances had developed in the financial and real estate sectors, in household and corporate debt positions, and in governments' fiscal positions. A major reallocation of resources from defense to other sectors is under way, reversing the trend of the 1980s. The economy also has had to deal with changing national demographics, and a productivity growth slowdown that began two decades ago.

The monetary policy initiated in the late 1980s to ease incipient inflationary pressure slowed growth by the early 1990s. The anticipated increase in demand for world capital resulting from the historic changes in the former Soviet bloc increased interest rates substantially in early 1990. Problems in financial markets have limited the availability of credit.

Oil prices surged following Iraq's invasion of Kuwait and consumer and business confidence plummeted as the immediate outlook for growth weakened and uncertainty increased about the worldwide consequences of the crisis. The U.S. economy was not re-

silient enough to continue to grow in the face of the combination of the oil shock, structural adjustments, monetary restraint, and problems of credit availability. The Nation entered 1991 in the midst of the ninth recession since the end of World War II.

The other industrial countries also were buffeted by many of the same problems that hit the United States—the oil shock, sinking consumer and business confidence, and high interest rates. Several of these countries also were experiencing structural problems related to government budget positions and serious difficulties in their financial and real estate markets. Recessions began in Canada and the United Kingdom earlier in 1990, and with jobless rates at or exceeding 10 percent in late 1991, the recessions have been deeper than in the United States. Growth in other industrial countries, including France and Italy, slowed in 1991, and the unemployment rate for the European Community as a whole was about 9 percent in 1991. Growth in Japan and Germany slowed considerably in the second half of 1991.

The current economic difficulties in the United States and other industrial countries should not obscure the fundamental strengths of market economies. The United States is the world's best example of the interrelated strengths of democratic pluralism and market-oriented economies. Americans have the highest standard of living in the world. U.S. gross domestic product (GDP) per capita of $22,056 in 1990, the latest year for which comparable data are available, places the United States more than 35 percent above Germany and more than 25 percent above Japan, when calculated using purchasing power equivalents (Chapter 7). The United States has the highest level of productivity of any country in the world, with output per worker about 20 percent above the average of the other major industrial countries. As of 1990, the last year for which comparable data are available, the United States produced a larger share of the industrial output of the Organization for Economic Cooperation and Development—24 of the largest industrial economies—than it did in 1970. U.S. firms are competitive internationally, and America is unsurpassed in basic research.

Nor should we ignore the remarkable sweep of countries around the world seeking to emulate our economic and political system. The collapse of central planning and communism—the most important economic and political event of the postwar era—was, in large part, a consequence of these command systems' inability to provide their populations with adequate standards of living and personal freedoms. Change in the former Soviet bloc is only the most conspicuous; countries in Latin America, Asia, and Africa are discarding their centrally controlled economies and privatizing state-owned enterprises. All are embracing market principles conscious that the transition to the market economy can be difficult. On the

political side as well, institutional transformations leading to democratic freedoms are in ascendancy. Market reliance and democracy are mutually reinforcing principles and practices; they lead to the highest standards of living and the greatest personal freedoms.

ADJUSTING TO IMBALANCES

Modern market economies such as the United States are constantly restructuring in response to changes in the goods and services that consumers desire, innovations in productive technologies, and external events that affect the ability of the economy to produce goods and services. In the last decade, for example, computer technology has transformed the workplace and greatly increased the demand for skilled workers.

In responding to structural change, however, even a fundamentally sound market economy can occasionally develop imbalances. Or external shocks or policy mistakes can knock it off track. A flexible and productive economy generally can adapt to such events with a minimal amount of disruption to the economy as a whole, although the costs of adjustment usually are concentrated in specific groups of the population or regions of the country. But if an unusual confluence of imbalances, mistakes, and shocks occurs, then the self-adjusting mechanisms may be inadequate to sustain overall economic growth. And if productivity growth is slow, the economy has less of a cushion to absorb the adjustment that markets undertake naturally without sliding into recession. The American economy is struggling today with such a confluence of events.

For the year and a half prior to the recession that began in the third quarter of 1990, the U.S. economy was growing at only a 1¼-percent annual rate as it adjusted to policies and worked to correct its imbalances. When the recession began, the Administration and most private analysts believed that it would not be as severe as the last recession, or even the average of postwar recessions. Partly as a consequence of expecting a less severe recession, the subsequent recovery also was expected to be more moderate than those following other postwar recessions. Moreover, many, including the Administration, believed that the continuing resolution of structural imbalances would inhibit the recovery.

The recession appeared to end in the spring of 1991, and signs of a moderate recovery began to emerge. The index of leading indicators, industrial production, real income, and retail sales all bottomed out in the first quarter and showed upward trends into the second quarter. Other key data also pointed to a recovery. Housing starts, new orders for durable goods manufactured in the United States, and manufacturers' shipments reached their recession

troughs in the first quarter and then climbed through midsummer. Real GDP grew modestly in the second and third quarters of 1991.

Rather than continuing its modest rebound, the economy flattened from the late summer to the end of 1991. Payroll employment, industrial production, and retail sales all turned down. Real GDP was essentially flat in the fourth quarter. On the positive side, exports continued to rise and housing starts continued their slow upward progress. The Administration, along with most private analysts, expect the economy to be sluggish early in 1992 but then to pick up in the second half of the year. Some indicators of future economic activity reinforce this view.

ADJUSTING TO CYCLICAL FACTORS

The economy had been slowing even before the oil shock in August 1990. In 1988 and the first half of 1989, the Federal Reserve and central banks around the world had adopted tighter monetary policies in an effort to temper growing inflationary pressure by slowing the rate of growth of their economies. In the presence of structural imbalances and combined with the oil shock, these policies proved too contractionary in most countries, including the United States.

Interest rates around the world, which had been relatively flat in 1989, rose sharply in early 1990. This rise in interest rates in part reflected an increased demand for capital originating from the anticipated unification of Germany, a reemergent Latin America, and prospective developments in Eastern and Central Europe and the former Soviet Union. At the same time, the supply of capital to the rest of the world from the two largest capital exporting countries, Germany and Japan, declined abruptly. The higher long-term interest rates that resulted dampened U.S. growth.

In the United States, governments at all levels have encountered budget problems. The sluggish economy and structural problems created deficits at the State and local level. As the economy weakened, tax revenues declined and pressure on spending mounted. To reduce their deficits, many State and local governments have raised taxes, and more are likely to do so in 1992. The tax increases dampen private spending, further impeding economic recovery.

At the Federal level, the 1990 budget agreement established a program to restrain spending and reduce the structural deficit—that is, the deficit excluding the cyclical component of expenditures and revenues. (Chapter 7 discusses budget concepts.) As an economy dips into recession, income tax receipts fall and outlays for the cyclical components rise, even without any legislated changes in programs. Such automatic stabilizers are an important element of systematic fiscal policy because they cushion the fall in the economy, preventing further contraction. On balance, for example, the

automatic stabilizers were larger than other fiscal factors in 1991; the overall stance of Federal fiscal policy was slightly stimulative.

Usually late in a recession or early in a recovery, tax cuts or increases in discretionary fiscal spending increase the structural budget deficit, providing notably more stimulus than the automatic stabilizers alone. In contrast, between fiscal 1990 and 1991, the structural budget deficit, excluding outlays for deposit insurance, changed little. The structural deficit is expected to increase considerably in 1992, however, adding a discretionary stimulus to the automatic stabilizers (Chapter 2).

The initial fiscal position inherited from the past and expectations concerning future fiscal policy can restrict the use and effectiveness of discretionary fiscal stimulus. Obviously, in the current fiscal situation, an attempted stimulus that abandoned, or was perceived to abandon, serious discipline on the growth of future spending or on the reduction in the multiyear structural deficit probably would produce a substantial rise in interest rates. That would offset a large portion of the direct stimulus in the short run and would leave the economy thereafter with a higher cost of capital, which would be detrimental to investment necessary for long-run growth.

Finally, it is important to note that the deficit has been boosted by a temporary bulge in deposit insurance outlays, which exceeded 1 percent of GDP in fiscal 1991 and are expected to be larger in fiscal 1992. It is widely accepted that the actual timing of outlays and borrowing to protect insured depositors has little impact on credit markets, interest rates, and the economy. So the component of the deficit due to deposit insurance (about $66 billion, or roughly one-quarter of the deficit in fiscal 1991) does not represent fiscal stimulus.

ADJUSTING TO STRUCTURAL FACTORS

The unusual confluence of the cyclical factors, structural imbalances, and long-run trends in the U.S. economy has hindered adjustment and slowed the pace of recovery.

The Financial Sector

The financial sector has been buffeted by disturbances of both an external and policy nature, as well as by problems of its own making. The high inflation and interest rates of the 1970s wiped out a large fraction of the value of the assets held by savings and loans (S&Ls), primarily long-run, fixed-rate mortgages. The debt crisis in the developing countries shocked commercial bank portfolios in the 1980s. The expansion of deposit insurance that did not account for the riskiness of an institution's investments enabled weak banks and S&Ls to stay open and to overinvest in risky assets without losing depositor confidence. Many financial institu-

tions already were in poor financial condition when the downturn in real estate markets hit in the late 1980s. Real estate normally is a cyclical part of the economy; but changing tax laws boosted the upturn in real estate activity in the early and mid-1980s, and a reversal in the laws accentuated the downturn that began in some regions of the country in the late 1980s. The downturn has been most pronounced in commercial real estate and has been particularly deep in certain regions of the country.

While prudent supervision of financial institutions is extremely important, it is widely thought that examiners have been discouraging banks and S&Ls from engaging in some sound lending opportunities. In addition, banks have changed the composition of their lending portfolios and have increased their equity in response to the financial markets' demands for more capital as well as to meet domestic capital requirements and to accommodate the new international agreement on bank capital standards. Once monetary policy shifted actively toward the objective of bolstering economic growth, its effectiveness was dampened by these problems. Indeed, growth of commercial and industrial bank loans slowed during 1990 and fell dramatically in 1991.

Taken together, these unexpectedly tight credit conditions created a credit crunch. Some businesses, particularly small and medium-sized firms that traditionally depend on banks for financing and that normally would help stimulate an upturn in economic activity, have been hit hard by the credit crunch. Such businesses generally account for a large percentage of job growth.

Demographics

Some of the slower growth in recent years is a direct consequence of demographic shifts. As the baby-boom generation matured in the late 1970s and early 1980s, the rate of household formation increased. That contributed to higher demand for big-ticket items such as houses, cars, and appliances, and with it higher levels of mortgage and installment debt. The boost to demand for these items coming from demographic factors has diminished as the baby boomers have grown older and the rate of household formation has slowed. This has reinforced problems in the auto and real estate markets.

As the baby-boom generation was forming new households in the 1970s and early 1980s, it also was entering the work force in record numbers. Female participation in the labor force was rising particularly quickly. However, growth of the working-age population has slowed in the late 1980s and early 1990s. Hence, the contribution to economic growth from an expanding labor force has declined.

Private Debt

Private debt increased substantially during the expansion. From 1982 to 1988, household borrowing almost doubled, growing nearly twice as fast as personal income, and corporate borrowing surged. By the end of the expansion, consumers and businesses faced relatively high levels of debt. Although the value of assets grew as well—a point often ignored when the growth of debt is discussed—the high ratios of household debt to income and corporate debt to profits probably were not sustainable. A period of slower consumption and investment naturally results as households and corporations restructure their balance sheets.

The largest asset for most households is the equity in their homes. After rising rapidly in the 1970s and 1980s, residential real estate values flattened and even fell in many areas. When consumers' expectations for a continued increase in wealth were dampened, growth of consumer spending tapered off.

Defense Spending

Increases in defense spending were an important contributor to growth in the 1980s. By the end of the decade, fiscal constraints and shifting spending priorities led to cuts in defense spending; real defense purchases of goods and services surged between 1979 and 1987, but fell somewhat from 1987 to 1990. A much larger defense downsizing has already begun to affect employment in defense industries as firms adjust to expected changes.

The United States has accommodated reductions in defense spending before. But the transition is never easy and, in fact, is costly in the short run, as people retrain and industrial resources are retooled for other purposes. Moreover, local economies where defense industries are a primary source of employment can experience significant disruption. Despite these difficulties the long-run potential dividends to the United States that come from turning military capacity to civilian endeavors is large. Obviously, the benefits to the world of the end of the Cold War transcend these economic factors.

FOUNDATIONS FOR RENEWED GROWTH

Fundamentals that promote growth are beginning to fall into place. Declining real and nominal interest rates should help boost interest-sensitive spending. Inflation, too, is expected to remain near its current, relatively low levels. Imbalances in international accounts have been substantially reduced, and exports should continue to grow as the Nation's international competitive position strengthens. Some structural imbalances are being righted: Households and corporations are reducing their credit burdens, and

banks are improving their capital positions. It will take time to correct all the imbalances, but a start has been made.

With the exception of a few industries, there does not appear to be a widespread inventory imbalance that would foreshadow further cuts in production. Increases in domestic and foreign demand will therefore be met mainly from *new* production and not from drawing down existing stocks. New production will generate income, increase consumption, and lead to further gains in production, employment, and income.

The international competitive position of the United States has improved. After adjusting for exchange rates, the pattern of unit labor costs in manufacturing has been favorable relative to that of the Nation's major trading partners. As foreign economic growth rebounds, U.S. exports should increase.

A particularly positive factor is the reduced inflation rate. Although special factors in agriculture, energy, and excise taxes may cause an occasional temporary blip in, for example, the consumer price index, underlying inflation is widely believed to be down. The economy currently is operating well below full capacity. Thus, during a moderate recovery, resource constraints that could rekindle inflationary pressures are unlikely to emerge. Furthermore, a credible and systematic monetary policy that is designed to reduce inflation gradually has ample room to accommodate a healthy expansion.

Nominal interest rates generally are at their lowest levels in two decades. Real rates may not be as low as they have been around the trough in some other cycles. But the lagged effects of lower interest rates already in the pipeline should help the economy in 1992. The lowest mortgage rates in almost 20 years should spur housing starts and sales. Low rates also allow households to refinance mortgages, improving their balance sheets and providing a foundation for consumption growth. For many businesses, lower interest rates reduce the cost of borrowing to finance new investment. They also increase corporate cash-flow. Some corporations are using the strong stock market to issue equity and repay debt, thus improving their financial position and freeing funds for investment. There is some offset to the expansionary effect of these factors because lower interest rates reduce interest income and the consumption based on it.

Because their capital positions have improved greatly, banks should be in a better position to lend than they have been for some time. Furthermore, the Administration, under the leadership of the Treasury Department and in conjunction with banking and thrift regulators, has been working to ensure that lenders make prudent loans and that examiners perform their reviews in a balanced, sensible manner. Still, bank lending remains tight; many banks are in-

vesting in Treasury securities rather than making loans. A combination of slack demand, due to the soft economy and the need to rebuild balance sheets still further, and skittishness, in response to regulatory overreaction, is preventing the banking system from playing its normal role in financing economic expansion.

POLICIES FOCUSED ON GROWTH

Economic growth is not just an abstract concept; it is the key to ensuring America's future. Growth will raise our standard of living; it will create a legacy of prosperity for our children; it will enable us to afford nontraditional goods and services, such as a better environment. It will provide new employment opportunities for those seeking upward economic and social mobility, and it will allow the United States to maintain its leadership role in the world.

The Nation must choose between sound policies that promote long-term growth and those that stifle the flexibility of the economy, stunt incentives to work, save, invest, and innovate, and place our economic future at risk. If the proper choices are made today, the Nation's long-run growth potential will improve and a crucial step will be taken toward improving the current performance of the economy. Policies that promote short-term growth can and should be made consistent with medium- and long-term goals. This is one of the fundamental principles of the President's growth agenda.

PRODUCTIVITY—THE KEY TO SUSTAINABLE GROWTH

The major long-run challenge confronting the American economy is to increase the Nation's rate of productivity growth—that is, growth in output per worker. The United States still has the highest level of productivity, but other countries have had higher productivity growth in recent decades. After a quarter of a century of rapid advance following World War II, U.S. productivity growth collapsed between 1973 and 1981. It has only partially rebounded since then, although productivity growth in the manufacturing sector has improved much more than in the rest of the economy. Higher saving rates have helped Europe and Japan maintain higher productivity growth rates.

Productivity depends on capital formation, workers' skills, and new technology. The Nation cannot be complacent about the fundamentals of economic growth and productivity. Quite simply, without adequate productivity growth, America's standard of living will neither keep pace with the expectations of our citizens, nor remain the highest in the world.

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The Nation must increase its rate of saving to ensure that funds are available to finance job-creating investment and research and development leading to new technologies. Raising America's saving and investment rates to enhance future productivity growth is a key goal of the Administration's policies.

The United States cannot remain the world's leading economy without the world's leading labor force. Competing in a rapidly changing international economy requires a skilled and flexible work force able to adapt to changes unforeseen today. Effective job training programs to retrain workers are a key to increasing productivity and remaining internationally competitive.

The most important step the Nation can take to confront these long-term challenges is to restructure our elementary and secondary education system. By some measures, the United States spends more per pupil than any country in the world except Switzerland, but test scores reflect less than world-class performance. Another urgent priority for the Nation is to eliminate the scourge of crime and drugs. Not only is it costly to address the consequences of these problems, but the Nation is losing the potential contribution these people can make to economic growth.

A key source of the U.S. economy's dynamism and resiliency is the flexibility it derives from reliance on markets. Of course, some markets are not perfect, and achieving certain desirable social goals such as a cleaner environment may require rules and regulation. Long-run productivity is enhanced if regulation does not unnecessarily hamper the efficient allocation of resources and reduce the economy's flexibility. Incentive regulation, which encourages firms to operate more efficiently while at the same time achieving the social objective, is an important innovation in this regard. In particular, regulation must not inhibit competition by discouraging technological innovation that would enable new firms to compete with those that are currently regulated.

Just as improper regulation harms the economy, protection from foreign competition retards innovation, raises production costs, and decreases choices for consumers. Long-term productivity growth, therefore, depends on opening, rather than closing or segmenting, markets.

THE ADMINISTRATION'S AGENDA TO MEET THE CHALLENGES

The President has presented a comprehensive and coordinated growth agenda for the Nation. The agenda includes fiscal and other measures that will stimulate the economy in the short run, address the structural imbalances, and promote the Nation's long-term growth.

The Administration's policies for raising long-run productivity growth and thus the standard of living are based on five principles: a pro-growth fiscal policy that enhances incentives for entrepreneurship, saving, and investment, and that continues to reduce the multiyear structural budget deficit; a trade policy that promotes growth through opening markets worldwide; a regulatory policy that avoids unnecessary burdens on business and consumers; a human capital investment policy that focuses on education, training, and preventive health care; and strong support of a monetary policy that keeps inflation and interest rates low, while providing adequate growth of money and credit to support solid real growth.

The agenda focuses directly on increasing economic growth. The short-term agenda includes executive actions and proposed legislation that will stimulate economic growth immediately. Executive actions with immediate impact include a reduction in excessive personal income tax withholding and acceleration of previously appropriated Federal spending. Reinvigorated action to reduce the burden of unnecessary regulation and prudent measures to reduce the credit crunch will improve the environment for growth now. Proposed legislation focuses on spurring job-creating investment. The proposed 15-percent investment tax allowance and simplified and liberalized treatment of depreciation under the alternative tax, as well as the reduction in the capital gains tax rate, will stimulate business investment. The reduction in the capital gains tax rate will quickly raise asset values, improving confidence and encouraging spending. A $5,000 tax credit and penalty-free withdrawal from individual retirement accounts for first-time homebuyers, along with other incentives, will increase housing construction and sales.

Bolstering the short-term agenda are proposals for the long term that invest in the Nation's future by increasing the productivity of people and business. Record Federal investment in research and development and infrastructure, and the extension of the research and development tax credit will help increase business productivity. Record Federal investment in Head Start, children, and education, as well as proposals that strengthen the war on drugs and improve the implementation of job training through Job Training 2000 will help increase labor productivity. The long-term growth agenda also includes continued efforts to expand international markets through multilateral, regional, and bilateral negotiations.

Fiscal discipline has been a centerpiece of all of this Administration's budgets. Fiscal policy is designed to foster long-term growth by encouraging saving and investment as outlined in the Omnibus Budget Reconciliation Act of 1990. Controlling the growth of government spending and deficits so that resources are freed up for investment is but part of a more comprehensive fiscal program that, within proposed spending categories, shifts spending from current

consumption to investment, such as expenditures for research and development and investments in public infrastructure that pass cost-benefit tests.

Some of the President's reform proposals are awaiting congressional action. Education reform through America 2000 will revolutionize education, strengthen accountability, and improve performance. Financial sector reform will strengthen the financial system, improve its ability to contribute to business growth, and sustain its international competitiveness. Civil justice reform will curb wasteful litigation and enhance productive activity. And the National Energy Strategy will increase energy security and conservation.

The President has repeatedly proposed reducing the tax rate on capital gains. This will encourage entrepreneurial activity, create new products, new methods of production, and new businesses. These, in turn, will generate new jobs. A capital gains differential will reduce the tax bias against equity financing and the overall cost of capital, thereby increasing investment and growth. Moreover, the Administration has supported a zero capital gains tax for areas designated as Enterprise Zones to spur investment and encourage entrepreneurial activity in inner cities and rural areas.

Innovation increases productivity growth and the standard of living. The Administration has advocated making the research and experimentation tax credit a permanent part of the tax code and has proposed large increases in both basic and applied research and development spending in the Federal budget.

There are also proposals to assist families. These policies include an increase in the tax exemption for each child, a new flexible individual retirement account, and deductibility of interest paid on student loans. Comprehensive health reform will increase the affordability and security of health insurance at a cost that is economically sustainable. The incentives for first-time homebuyers, mentioned earlier will encourage homeownership—one of the most important ingredients to family financial and social well-being. The homeownership and opportunities for people everywhere (HOPE) program helps low-income residents of public and assisted housing to manage and eventually own their own homes.

Fundamental banking reform is critical to ensuring efficient operation of credit markets. The recent bill passed by the Congress is at best only a start. Important provisions in the Administration's proposal that would remove many unnecessary and antiquated restrictions on the banking industry are missing from the legislation. These reforms are needed to rebuild the soundness of the banking industry and enable it to be internationally competitive.

The Administration believes a well-functioning legal and regulatory system should increase, not impede, economic activity. Through its Agenda for Civil Justice Reform in America, the Ad-

ministration has proposed a comprehensive set of reforms to the civil justice system that will improve the efficiency of the legal system and reduce unnecessary and costly litigation. This would free up resources and enhance productivity. (These reforms are explained in detail in Chapter 5.)

The Administration believes that investments in the Nation's human capital increase its productivity and living standards at home and increase its competitiveness abroad. The National Education Goals, America 2000 Excellence in Education Act, and Job Training 2000 all are directed at improving the quality of our most important resource—our people. The America 2000 Excellence in Education Act focuses on setting world-class educational standards, measuring performance against those standards, and increasing the educational choices available to American families so as to generate the competition that will improve performance and accountability of schools. The Administration's Job Training 2000 system is designed to train millions of workers in the skills needed in the evolving labor market. (This initiative is described more fully in Chapter 3.)

Moreover, the President has initiated a variety of measures to expand opportunities and improve the well-being of individuals and families. Although not often thought of as economic policy, expanded tax relief for child care, Head Start, Healthy Start, protecting the civil rights of all Americans, the strategy to eliminate substance abuse, and measures against violent crime all serve to improve U.S. productivity in the long term. Starting our children on the right path, providing our children the finest education, and continuing to provide programs that ensure public safety are sound economic policies.

The President's economic and domestic agenda also includes investing in America's future by improving the Nation's infrastructure, enhancing energy efficiency and security, and improving the quality of the environment and life. The Administration continues to promote an energy policy that relies on the flexibility of market forces to ensure that the Nation's resources are used most efficiently. Implementation of the Administration's National Energy Strategy would enhance competition in the generation of electric power and in the delivery of natural gas and would reduce vulnerability to oil disruptions abroad. (Chapter 5 addresses these items.)

This Administration is committed to free and fair trade. Because trade enhances long-term growth, the Administration is following a multipronged effort to open markets, expand trade, and spur growth. (The rationale underlying this policy is described fully in Chapter 6.) The Administration is committed to achieving a successful conclusion of the Uruguay Round of multilateral trade negotiations, under the auspices of the General Agreement on Tariffs

and Trade. These ambitious talks, which were initiated in 1986 involve 108 countries and cover topics ranging from the elimination or reduction of tariffs, to the strengthening of international rules for trade in textiles and agriculture, to the extension of rules to cover trade in services and intellectual property. A successful Uruguay Round would expand market opportunities globally for our exporters, increase jobs, and provide lasting gains for both the United States and the world. The Administration also has important proposals to expand trade in this hemisphere—notably the Enterprise for the Americas Initiative and the historic North American free-trade area—and is continuing to achieve market access through bilateral negotiations.

Taken together, the President's proposals constitute a comprehensive agenda to stimulate short-term economic growth and support long-term productivity growth. These policies will expand opportunities for workers and families, increase living standards, and support the global competitiveness of the U.S. economy.

CONCLUSION

The United States confronts serious economic challenges in the 1990s. The flexibility and resilience of the U.S. economy and the resourcefulness of our people provide America the ability to meet these challenges. But as the Council noted when the United States was in the midst of the longest peacetime expansion in American history and the unemployment rate had hit a 15-year low, **the Nation cannot take economic growth for granted.** The U.S. economy remains the largest and most productive in the world. Sound policies are essential to guarantee that American living standards will continue to rise substantially from one generation to the next and that the United States will remain the world's leading economy.

The President's agenda, based on sound economic policy principles, seeks to achieve the maximum possible rate of sustainable economic growth. If enacted, the President's policies will not only make near-term recovery faster, stronger, and more certain, but also will solidify the foundation for long-term growth and help ensure that the United States remains the world's leading economy in the 1990s and beyond.

CHAPTER 2

Recent Developments and the Economic Outlook

THE U.S. ECONOMY ENTERED 1991 in the midst of the ninth recession since the end of World War II. The recession began in the second half of 1990, following the longest peacetime expansion in the Nation's history. A recovery appeared to begin in the spring of 1991 and continue into the summer, as production, employment, and spending all rose. Total output grew in the second and third quarters of 1991, recovering about one-half of the decline that occurred during the recession. In midsummer, however, the economy began to flatten out, and then production, employment, and spending faltered late in the year.

Even during the initial months of recovery, many key economic indicators did not improve much. Only about one-fifth of the jobs lost from July 1990 to April 1991 were regained by October 1991, and employment declined toward the end of the year. The unemployment rate hovered around the 6.9-percent level reached in June, before rising to 7.1 percent in December. By June personal income, adjusted for inflation and taxes, recovered about four-fifths of its 1.5-percent decline but then flattened out for most of the second half of the year. Although many indicators were sluggish or fell back at the end of the year, others continued to improve. For example, growth in exports contributed to a further reduction of the Nation's trade deficit and residential investment showed a strong gain.

The economy is expected to be sluggish in early 1992, but growth is expected to pick up in the middle part of the year. With adoption of the Administration's pro-growth policies, real, or inflation-adjusted, growth, as measured by the change in gross domestic product (GDP) in 1987 dollars, is forecast to be 2.2 percent in 1992, and to average 3 percent in the mid-1990s. The unemployment rate is expected to plateau, or perhaps rise slightly, in early 1992 but should begin to decline by midyear. As the economy picks up, inflation and interest rates are expected to rise slightly over the next year from their recent lows, and then stabilize, before gradually falling.

Although the economy is expected to improve in 1992, the magnitude of the improvement is still uncertain. In addition to uncer-

tainties about the economy's short-term cyclical performance, there also are various structural imbalances in the economy that are being worked through. Beyond the short term, the economy faces the serious challenge of improving productivity; slow productivity growth has plagued the economy for two decades.

One of the major cyclical concerns is whether growth of money and credit—which has been quite sluggish—will be sufficient to promote near-term recovery. Also, consumer confidence, which has fallen significantly, likely will be restored only when prospects for employment and income improve and household balance sheets reflect stable or rising asset values. Higher levels of consumer confidence are essential for growth in consumer spending. Because consumer spending accounts for two-thirds of total spending, its growth is a key ingredient for a durable economic recovery. While exports are expected to continue to promote growth in the domestic economy, the export sector faces risks from the possibility that growth abroad will be slower than expected.

Underlying these cyclical issues are structural imbalances and adjustments that also pose potential difficulties. Although the economy is flexible and continuously restructuring, the number of major structural adjustments currently occurring is abnormally large. Changes in world capital markets in recent years have affected the cost of capital in the United States. In early 1990, for example, long-term interests rates were pushed up significantly by expectations of increased demand for capital—associated with German unification, a reemergent Latin America, and the opening up of Eastern Europe—and an abrupt decline in the supply of capital to the rest of the world from Germany and Japan. The availability of credit also has been restricted as financial institutions have moved to shore up their capital positions and as they have faced more stringent regulation. Sufficient credit is necessary to finance expansion. High levels of public and private debt, high vacancy rates in commercial and residential buildings, and failing financial institutions also could limit prospects for spending. Budget problems of State and local governments have resulted in higher taxes and spending constraints, adding a fiscal drag on the recovery. Impediments to free and fair trade must be removed or avoided to bolster international trade and growth of U.S. exports.

Nonetheless, fundamentals are in place to promote growth in the economy. Nominal interest rates are generally at their lowest levels in two decades, and recent declines should help boost interest-sensitive spending. Lower interest rates also are allowing many homeowners to refinance their mortgages, thereby reducing monthly payments and increasing income available for purchases of goods and services. Inflation is relatively low, and is expected to remain low in the near term. Low and stable inflation reduces the uncer-

tainty confronting businesses and consumers about prices and the purchasing power of money and income, and thus provides a better environment for investment, production, and growth. Imbalances in international accounts have been substantially reduced, and the Nation's trade position should improve further over time as exports continue to grow and the Nation's international competitive position strengthens.

As has been stated in previous *Economic Reports* of this Administration, *the Nation faces serious challenges and cannot take economic growth for granted.* The Administration's policies are designed to support sustained increases in the Nation's standard of living by raising long-run productivity growth. Such policies include a pro-growth fiscal policy that enhances incentives for entrepreneurship, saving, and investment and reduces the multiyear structural budget deficit over time; a trade policy that promotes growth through opening markets worldwide; and a regulatory policy that avoids unnecessary burdens on business and consumers. The Administration also supports a monetary policy that promotes solid real growth while gradually reducing inflation pressures. The adoption of the Administration's pro-growth policies would not only boost the expected rate of growth in the near term and beyond but also would reduce uncertainty and the risk that the economy's performance will be worse than expected.

AN OVERVIEW OF THE ECONOMY IN 1991

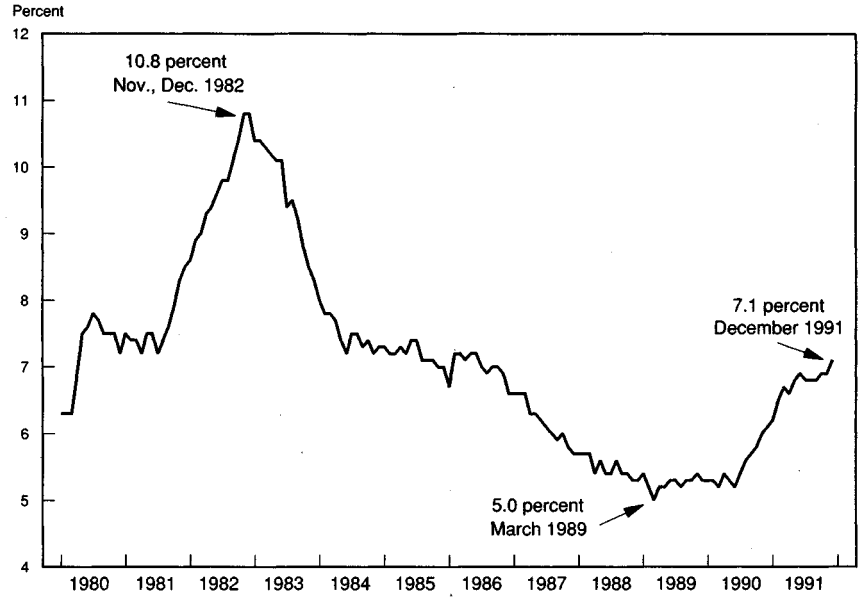
The major economic indicators reflected the effects of the recession in the second half of 1990 and the first half of 1991. Payroll employment, industrial production, real sales, and real personal income fell during this period. The unemployment rate rose to 6.9 percent in June 1991, up from 5.2 percent in June 1990—the approximate level for most of the previous 2 years (Chart 2–1). The unemployment rate then fell slightly and flattened out for several months before rising at the end of the year. Real GDP—the value of all goods and services produced in the United States—rose 0.2 percent during 1991 (on a fourth-quarter-to-fourth-quarter basis), following a 0.1-percent decline in 1990 (Chart 2–2).

SIGNS OF A RECOVERY

In the spring of 1991 signs of a recovery began to emerge. The index of leading indicators reached its low in January and then rose sharply through July. Production, sales, and income all bottomed out between February and April and then rose into the summer. By July industrial production had recovered about 3 percentage points of the 5-percent decline that occurred from September 1990 to March 1991. Nonfarm payroll employment did not re-

Chart 2-1 **Civilian Unemployment Rate**

The unemployment rate fell to its lowest level in a decade and a half in 1989 but then rose during the 1990-91 recession to hover around 7 percent.



Source: Department of Labor.

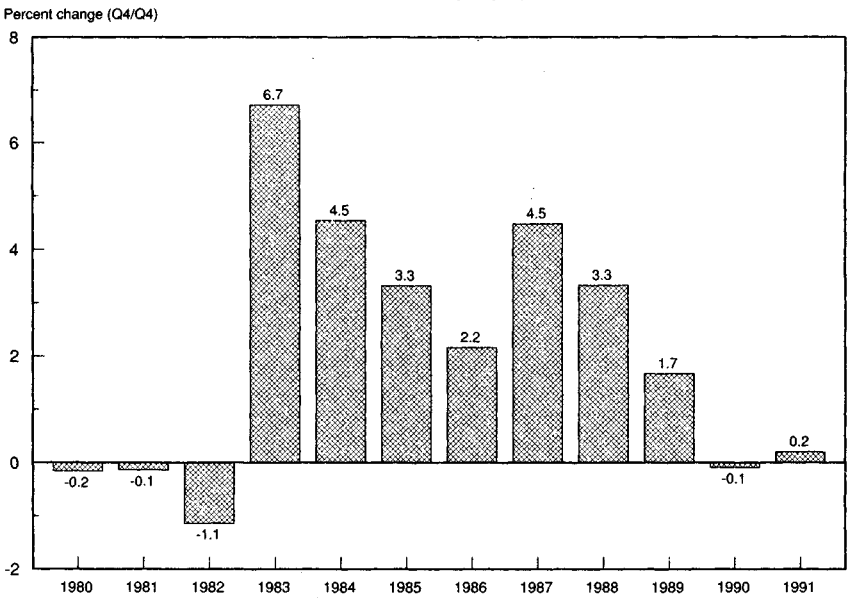
spond very much, however, and after increasing significantly in May, trended up only slightly through October. Total output and spending also rose; following the 1.6-percent decline registered over the fourth quarter of 1990 and the first quarter of 1991, real GDP increased in the second and third quarters, recovering about 0.8 percent, or about half, of the earlier loss.

Other key data also pointed to recovery. Total retail sales and sales of cars and light trucks hit lows in January 1991 and rose into the early summer. Housing starts, which bottomed out in January, rose 25 percent by August. New orders and shipments for manufacturers' durable goods reached lows in March and rose through July; the 11.7-percent increase in new orders in July was the largest monthly increase on record. Initial claims for unemployment insurance reached a peak in March and then fell for 4 consecutive months through July.

Various conditions had emerged in early 1991 that helped set the stage for the pickup in the economy. Oil prices, which had shot up after Iraq invaded Kuwait in August 1990, fell back to their pre-invasion levels within hours of the successful launch of the air-war phase of Operation Desert Storm in January. Prospects for growth in the international economy—and continued growth in U.S. ex-

Chart 2-2 **Real GDP Growth, 1980-1991**

Real gross domestic product grew strongly during the first 6 years of the expansion but slowed in 1989 and fell in 1990. Growth resumed in 1991, but at a very slight pace.



Source: Department of Commerce.

ports—improved as the threat to oil supplies was eliminated. With the successful end of the ground war, consumer and business confidence rebounded in March. Declining interest rates in late 1990 and early 1991—both short and long term—supported an upturn in residential construction and other interest-sensitive sectors. Furthermore, household net worth recovered somewhat in the first half of 1991; the value of owner-occupied housing and land stopped declining, the runup in the stock market boosted the value of financial assets, and the increase in household liabilities was quite modest.

THE ECONOMY FLATTENS OUT

By late summer the recovery lost momentum. A self-reinforcing process of growth—in which increases in spending, production, and employment tend to bolster one another—typically occurs in recoveries. In 1991, however, the spending and production gains and the positive feedback between them were not sufficient to sustain a solid recovery. The leading index flattened out in the late summer and early fall and even declined slightly at the end of the year. After rising through the summer from its trough in April, payroll employment fell significantly in November before rising slightly in

December. Industrial production rose slightly from July through September and then fell slightly in each of the final 3 months of the year. Real income was sluggish from August through October and fell in November, before rising in December.

Other indicators pointed to a lackluster economy at the end of the year. Retail sales were relatively flat from late summer into the fall but declined at the end of the year. Motor vehicle sales slipped in July and August and then remained weak in the fall and early winter. Initial claims for unemployment insurance were higher at the end of the year than at midyear. Manufacturers' shipments of durable and nondurable goods showed gains throughout most of the second half of the year, but fell significantly in December.

On the positive side, merchandise exports continued to rise, and housing starts continued on an upward trend through the end of the year. Stock prices rose strongly at year-end, with various market indexes hitting record highs. And, according to a government survey, businesses plan to increase spending for plant and equipment by 5.4 percent in 1992, following a 0.5-percent decrease in 1991. Thus, by the end of 1991, the economy was sluggish at best, but some forward-looking indicators were pointing to improvement in mid-1992.

The fundamental causes underlying the faltering recovery likely will be a source of continuing debate. Most forecasts—including the Administration forecast of a year ago—had foreseen a relatively modest rebound from a relatively shallow downturn. Until the last few months, this scenario seemed to be on track. It now appears that the structural imbalances in the economy were larger—and were taking longer to work off—than expected; it soon became evident that the oil shock and the war were not the economy's only problems. Credit remained tight and money growth was slow. Relatively high levels of household debt incurred earlier constrained consumer spending. The weaker outlook for the economy created greater uncertainty about employment and income prospects as businesses became more cautious in hiring and spending plans; several major corporations announced plans for further downsizing in efforts to reduce costs and become more competitive. These factors contributed to lower consumer confidence and restrained consumer spending. The State and local fiscal drag continued.

SUMMARY

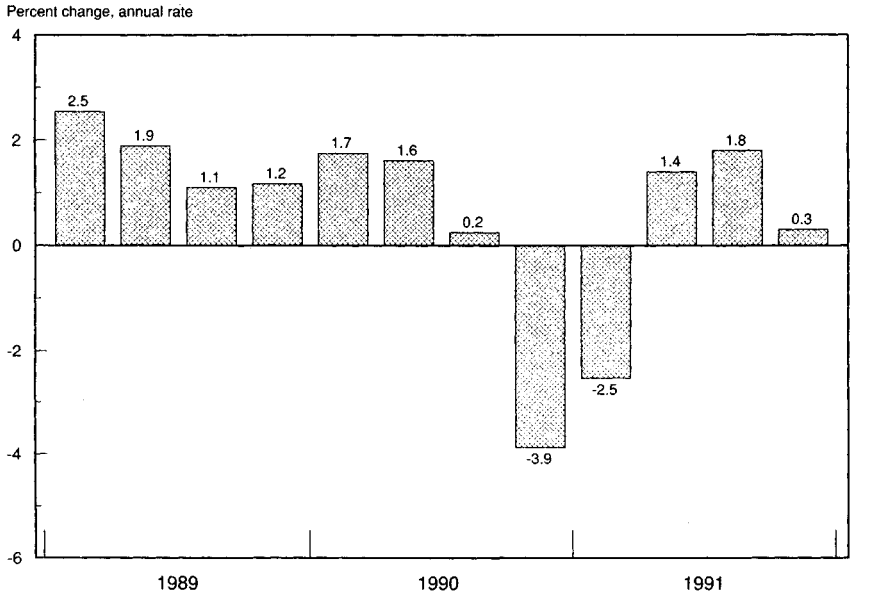
- The economy entered 1991 in a recession that began in the second half of 1990. In the spring, various indicators pointed to the beginning of a recovery.
- Late in the summer, however, the recovery lost momentum and the economy was sluggish in the second half of the year.

REASONS FOR THE SLUGGISH ECONOMY

The recession of 1990–91 followed the longest peacetime expansion in the Nation's history. During the expansion of 1982–90, real output increased by more than 30 percent, more than 21 million jobs were created, and 5 million businesses were incorporated. The unemployment rate fell from a peak of almost 11 percent in late 1982 to 5 percent in March 1989—a level not experienced since 1973. Employment as a percentage of working-age population reached a peacetime high of more than 63 percent in early 1990. Consumer price inflation remained relatively low and stable throughout the expansion, averaging about 4 percent a year. For a year and a half before the recession, however, real GDP grew at an annual rate of only about 1¼ percent (Chart 2–3). (All real figures are measured in constant 1987 dollars.)

Chart 2-3 **Quarterly Real GDP Growth, 1989-1991**

Real GDP had been growing slowly for a year and a half before the recession. Slow growth resumed in the final 3 quarters of 1991.



Source: Department of Commerce.

Economic expansions do not end on their own; they end as a result of external shocks to the economy, economic imbalances that must be worked off, or inappropriate economic policies. Hopes that the expansion would continue were dashed in August 1990, when the economy was hit with an external shock—the rise in oil prices resulting from the Iraqi invasion of Kuwait. Oil prices rose sharply, from less than $19 a barrel in July to more than $30 in late

August, and peaked at about $40 in early October. It is natural to point to the oil shock—coupled with the resulting declines in consumer and business confidence—as the event that pushed the economy into recession. However, a number of structural imbalances and the lagged effect of tight monetary policy in 1988 and 1989 also slowed the economy. While the oil shock significantly aggravated weakness in the economy, it is a matter of debate whether these other factors on their own eventually would have pushed the economy into recession, or, alternatively, whether the economy would have experienced a prolonged period of sluggish growth.

STRUCTURAL ADJUSTMENTS

By the end of the 1980s, economic growth was constrained by various imbalances that had accumulated over the past two decades. Although some of these imbalances were concentrated in specific sectors and regions of the country, their effects generally were felt nationwide. The economy also has had to deal with a reallocation from defense to other sectors and changing national demographic trends.

Demographic Trends

The baby-boom generation matured in the 1970s and early 1980s, boosting the rate of household formation. As household formation rises, so does the demand for houses and big-ticket durable items such as cars and appliances. The assumption of higher levels of mortgage and installment debt in the process of acquiring better housing and durable goods is a natural result of these demographic trends.

The more recent shift to lower growth in residential housing and in the demand for cars and other durable goods also in part reflects demographic trends. The average annual rate of household formation was 1.8 percent during the 1960s, 2.5 percent during the 1970s, and 1.7 percent from 1983 to 1989. The rate then fell to about 0.8 percent from 1989 to 1991. According to middle-path projections by the Department of Commerce, the rate of household formation is expected to be about 1.3 percent from 1990 to 2000, higher than in recent years but lower than the average rate of the past several decades. While household formation varies cyclically, the declines from the 1970s to 1980s and prospective declines in the rate of household formation reflect an underlying trend to an older population.

Buildup in Private Debt

Private debt relative to income rose significantly during the expansion. From 1982 to 1988 household borrowing increased at a 12-percent annual rate, while personal income measured in current

dollars increased at the much lower rate of 7 percent. Similarly, corporate borrowing surged, rising at an annual rate of 11 percent.

Borrowing to finance real estate purchases grew substantially. From 1982 to 1989 home mortgage borrowing increased at a 12-percent annual rate and commercial mortgage borrowing at a 10-percent rate. During this period, national income increased about 67 percent, but nonfarm mortgage debt more than doubled. The borrowing financed a surge in construction, which began to outstrip demand. By the late 1980s, both commercial and residential real estate showed signs of overbuilding; the problem was particularly acute in commercial real estate. Vacancy rates in rental housing rose from just above 5 percent in 1982 to about 8 percent at the end of 1987. Commercial office vacancy rates in downtown areas increased from less than 8 percent in 1982 to more than 16 percent in 1988, according to the Coldwell Banker Office Vacancy Index. Favorable provisions in the 1981 tax laws had boosted building and contributed to the upswing in the early to mid-1980s, but the changes in 1986 reversed many of those provisions, hitting commercial real estate and building hard.

By the end of the expansion, many consumers had accumulated relatively high levels of debt. At the same time, the value of their largest asset—their homes—was flat or declining. Householders' expectations of continued increases in the equity in their homes were not being realized. After rising at an average annual rate of 7.5 percent—about twice the rate of inflation—from the end of 1984 through 1989, the value of owner-occupied housing and land fell 1.6 percent in 1990. In addition, the value of other household assets, such as durable goods, stocks, bonds, pensions, and other financial assets, grew only slowly in 1990. Total household net worth—the difference between the household sector's assets and liabilities as measured by the Federal Reserve's flow of funds accounts—fell 1 percent in 1990.

Financial Sector Imbalances

The real estate situation brought about a further erosion of confidence by exacerbating problems in the already troubled financial sector. Also, a shifting financial regulatory environment—from being too lax during the good times of the expansion to being too tight more recently—further aggravated financial sector difficulties and constrained lending activity and economic growth.

Those troubles had begun in the 1970s, when an increase in inflation and interest rates had produced large and widespread losses on mortgage portfolios—the predominant assets on the balance sheets of savings and loans (S&Ls). These assets consisted primarily of fixed-rate, 20- to 30-year mortgages, but deposit liabilities were primarily short term. When interest rates rose, S&Ls had to increase deposit interest rates to retain deposits—the source of their

funds. Hence, the cost of funds to S&Ls increased, even though revenues from outstanding mortgages remained fixed. Moreover, because the market value of a fixed-rate asset falls as interest rates rise, the increase in interest rates in the 1970s slashed the market value of the outstanding mortgages held by S&Ls. By 1980 the thrift industry as a whole was already heavily insolvent.

In the 1980s, an extension of deposit insurance that did not account for the riskiness of the institution's investments and a loosening of lending restrictions—both of which came about mainly in response to the problems in the industry—allowed weak S&Ls to stay open and to pursue risky investment strategies without losing the confidence of their depositors. Government insurance meant that shaky S&Ls could continue to attract deposits because depositors knew they were protected. Many of the risky investments were real estate projects that eventually failed as a result of overbuilding and declining real estate prices. The risk ultimately was borne by the insurer—in the end, the Federal Government and the taxpayers. In fact, in 1984, a task force headed by then Vice President Bush proposed risk-based deposit insurance, which would have sharply curtailed the excessive risk-taking by requiring depository institutions to pay higher deposit insurance premiums if they pursued risky investment strategies.

Besides S&Ls, other financial institutions also experienced balance sheet difficulties as the value of commercial real estate assets declined, and many large banks continued to carry problem loans to Third World countries on their balance sheets. As a result of these factors, bankers grew more cautious about extending loans. Their caution also reflected hesitancy over the profitability of lending projects as a result of the slowing economy.

Tighter lending standards cannot be attributed entirely to caution resulting from a weak economy. Banks' balance sheets had deteriorated with the increase in loan losses taken during the 1980s, and banks moved to rebuild equity and shift their portfolios away from business loans and toward assets with lower default risk. Much of this shift in bank portfolios was a response to financial market demands for increased equity.

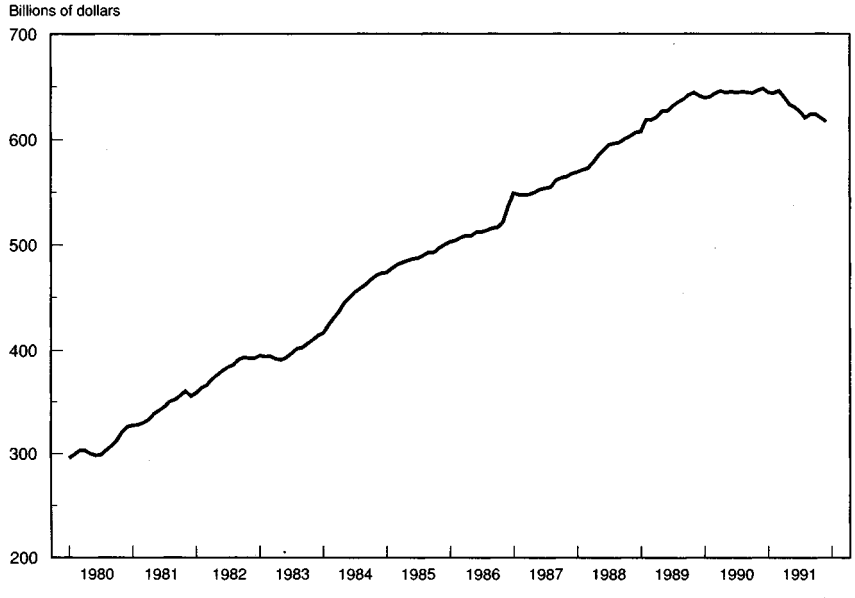
But bank regulatory policies played a significant role as well. Although tighter supervision clearly was warranted, it appears that examiners overcompensated and discouraged financial institutions from engaging in some viable lending opportunities. Moreover, the phase-in of capital standards established in the 1988 Basle Accords—an agreement among banking regulators in the major industrialized countries that set capital adequacy standards—also caused some banks to reduce business loans and move into assets deemed safer by the accords, such as Treasury notes and securities issued by U.S. Government agencies. All of these factors likely

have contributed to overly restrictive credit supplies, or a "credit crunch" (Box 2-1).

Indeed, growth of commercial and industrial loans by banks slowed during 1990 and fell in 1991 (Chart 2-4); the 4.8-percent decline in commercial and industrial loans during 1991 was the first annual decline since the 3.8-percent fall in 1975. For many small and medium-sized businesses, bank loans represent their only source of external finance, and the fall in commercial and industrial lending likely has stifled activity for a large number of potentially prosperous businesses. Furthermore, borrowing on the high yield, below-investment-grade bond market—the junk bond market—contracted precipitously in 1990. This market had provided an alternative source of funds for many businesses that otherwise could not tap the commercial paper market.

Chart 2-4 **Commercial and Industrial Loans**

Commercial and industrial loans by commercial banks fell in 1991, the largest decline in a decade and a half.



Source: Board of Governors of the Federal Reserve System.

Financial sector problems have had a significant effect on the current economic situation because of the integral role the financial sector plays in ensuring a growing, healthy, and flexible economy. When functioning properly, financial institutions help allocate capital efficiently and thus promote economic growth. Structural problems—like the recent constraints on credit—that impair the

Box 2-1.—Credit Crunches

A credit crunch occurs when the supply of credit is restricted below the range usually identified with prevailing market interest rates and the profitability of investment projects. Credit crunches often involve a reduction in the funds that depository institutions, such as commercial banks and savings and loans, channel from savers to investors. Credit crunches affect economic activity because most small and medium-sized businesses depend on banks when financing investment projects or current operations. Thus, unusual circumstances that force depositories to reduce business loans can restrict the activity of these firms regardless of market interest rates. Households, however, have been relatively unaffected by the recent credit crunch because innovations such as home equity lines of credit and the secondary market in repackaged home mortgages have supported lending to households.

Credit crunches used to occur from time to time because regulations fixed an upper limit on the interest rates that could be paid on deposits. When market rates rose above those limits, depositors withdrew funds from banks and thrifts and put them in assets paying higher rates of return. Depository institutions had difficulty attracting deposits and had to cut back on loans. Eliminating the interest rate caps on deposit accounts removed this source of credit crunches.

As discussed in this chapter, restructuring of depositories' balance sheets—in part market driven and in part to meet new international capital standards—as well as the overreaction of examiners to the earlier excesses of banks and savings and loans have contributed to a credit crunch over the past 2 years. This experience reminds us that a tension exists between the short- and long-run consequences of policies overseeing financial markets. When the economy is sluggish, it is important that depository institutions do not deny credit to worthy borrowers: Undue restrictions on credit would depress spending even more and hamper the recovery. In the long run, however, a well-capitalized banking system is less vulnerable to risky excesses in lending.

ability of financial institutions to function efficiently also reduce growth.

Defense

At the end of the 1980s and into the 1990s, public-sector budgets came under increasing pressure and tax increases put a drag on the economy. Also, Federal spending priorities shifted. The defense

buildup in the mid-1980s gave way to a period of moderate cutbacks in the late 1980s and then to planned significant cuts from the early to mid-1990s. This shifted the defense sector from being a stimulus to the economy to being a contractionary force.

While increases in defense spending contributed to growth in the economy for much of the 1980s, by the end of the decade, international developments, fiscal constraints, and shifting spending priorities led to cuts in defense spending, and the effects of these cuts were felt throughout the economy. Real defense purchases of goods and services in the national income and product accounts (NIPAs) rose nearly 60 percent from 1979 to 1987 but fell 4 percent from 1987 to 1990. As a share of Federal spending, national defense rose from 23 percent in fiscal 1979 to 28 percent in fiscal 1987 but then fell back to about 21 percent in fiscal 1991. The defense downsizing is projected to continue and has already begun to affect both direct Defense Department employment (military and civilian) and employment in defense industries as firms adjust to expected changes. The economy has adjusted to defense downsizing in the past and is flexible enough to do so now. Such adjustment is neither instantaneous nor without costs, however; significant disruptions can occur in local economies where defense industries are a primary source of employment.

MONETARY POLICY AND INTEREST RATE DEVELOPMENTS

The Federal Reserve has stated a policy goal of achieving, over time, "price stability." Price stability need not literally mean a zero change in the price level, but a change that is low enough so that inflation no longer is an important factor in the economic decisions of consumers and businesses. Over the past few years, the Federal Reserve generally has maintained a relatively tight monetary policy in an attempt to achieve this goal. These efforts have prevented inflation from being higher than it otherwise would have been, but they also have been one of the important factors contributing to slower growth over the past 3 years.

The Nation's long-term growth prospects were enhanced by the reduction of inflation from the double-digit rates experienced in the 1970s. High inflation causes households and businesses to divert effort from productive activities toward preventing the value of their assets from eroding with inflation. High and variable inflation often is associated with increased uncertainty about the future course of the economy; such uncertainty can add a risk premium to interest rates and reduce investment. Variable inflation makes it difficult to judge the change in the prices of items relative to one another; in market economies, relative prices signal suppliers to devote more resources to products that consumers value more.

Thus, low and stable inflation is an important ingredient in achieving maximum sustainable long-term growth. But just as high and variable inflation can be costly, lowering inflation sometimes has costly consequences in the short run for economic growth and employment, which also must be considered when implementing monetary policy.

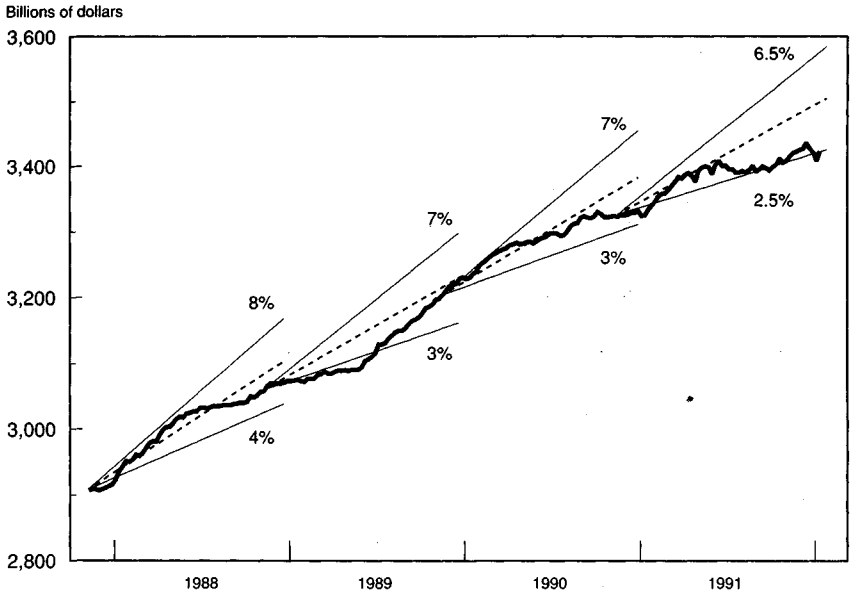
Monetary Policy, Nominal GDP, and Inflation

The growth in nominal GDP is composed of growth in real GDP and changes in prices—or inflation. Over the long run, there has been a fairly stable relationship between the growth in money as measured by the M2 aggregate—the primary definition of money monitored by the Fed (Chapter 7)—and the rate of growth of nominal GDP. Over the past several years, the Federal Reserve has aimed to lower the growth of money gradually in order to lower inflation without a recession. When money growth slows for an extended period of time, it is likely that nominal GDP growth will fall. However, there are lags—which cannot be predicted with certainty—between the time money growth slows and the effect on nominal GDP. And determining how much of the slower nominal GDP growth will be reflected in lower inflation and how much in lower real GDP growth is difficult.

Each February, the Fed sets a target range for growth of the money supply over the coming year. (The target ranges for the growth in money define the cones, pictured in Chart 2-5, within which the Fed attempts to keep the quantity of money. The new targets are set from where the money supply ends the year, not the midpoint of the previous target range.) The midpoint of the target range for M2 was lowered from 7 percent in 1987 to 4.5 percent in 1991. In addition, actual M2 growth has tended to be in the lower part of the target range. It has taken some time, however, for inflation to begin to moderate, and much of the monetary restraint apparently has shown up in terms of lower output in the last 3 years. Indeed, the growth in real GDP was lower than the Federal Reserve, the Administration, and most private analysts had expected.

While the long-run relationships between money and nominal GDP are relatively stable, the short-run relationships are not. Furthermore, particularly in the short and medium terms, the Fed is able only to influence, not control, the quantity of money. The Federal Reserve is, however, able to directly affect the Federal funds rate, the interest rate on overnight borrowing among banks. Consequently, in its short-run implementation of monetary policy the Fed focuses mainly on managing the Federal funds rate. The Fed generally increases the Federal funds rate when inflation pressures appear to be rising and lowers the rate when inflation appears to be waning and the economy is sluggish. Changes in the Federal funds rate, however, do not necessarily signal a fundamental shift

Chart 2-5 **M2 Money Stock and Federal Reserve Target Ranges**
In recent years, the Federal Reserve has gradually lowered the target range for M2 growth. M2 generally has been below the middle of the target cones.



Note: Weekly data. Percentage growth lines mark out growth ranges set by the Federal Reserve for that year.
Source: Board of Governors of the Federal Reserve System.

in policy toward loosening or tightening because of the natural tendency for market interest rates to decline when the demand for credit falls during a period of sluggishness or to rise when demand for credit increases in a strong economy.

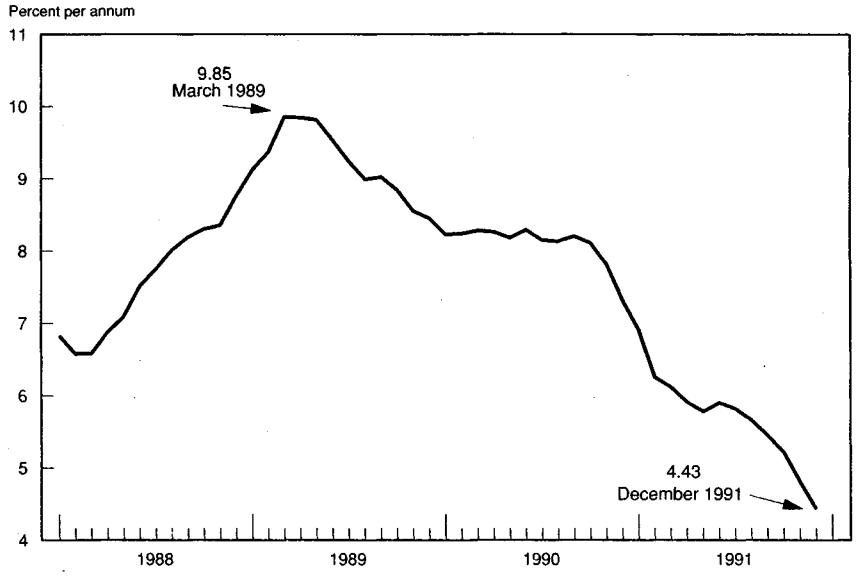
The Attempt to Engineer a Soft Landing in 1988 and 1989

Solid economic growth in 1987 and 1988 pushed capacity utilization up, and unemployment rates fell to their lowest levels in a decade and a half. These developments spurred concerns that the economy might be outstripping its productive capacity, increasing the possibility of rising inflation. Monetary policy moved toward engineering a "soft landing"—slower growth with low inflation but no recession. Beginning in early 1988, the Federal Reserve gradually increased the Federal funds rate (Chart 2-6) and in 1988 and in 1989 it lowered the midpoint of the target range for the growth of M2 a full percentage point from the previous year.

This tight monetary policy removed some of the incipient inflationary pressure from the economy. However, tighter monetary policy also put substantial downward pressure on output and employment growth.

Chart 2-6 **Federal Funds Rate**

The federal funds rate rose in 1988 and early 1989 and then fell as the economy weakened.



Source: Board of Governors of the Federal Reserve System.

Monetary Policy and Credit Conditions in Late 1989 and 1990

As growth slowed in 1989 and inflation pressures waned, market interest rates began to fall. The Federal Reserve began to reduce the Federal funds rate in the middle of 1989; over the remainder of the year the rate fell from roughly 9¾ percent to about 8¼ percent.

Despite declining short-term rates, by early 1990 long-term interest rates were rising. Yields on long-term Treasury bonds rose from below 8 percent at the end of 1989 to more than 9 percent in September 1990, and high-grade corporate bond yields rose to more than 9.5 percent. The rise partly reflected the increase in long-term interest rates throughout the world, discussed earlier. Because interest rates in the United States are influenced by developments in world markets, these events put upward pressure on U.S. long-term rates. Furthermore, tighter credit conditions—the credit crunch described in the previous section—held lending by banks and S&Ls to levels below those normally associated with the prevailing market interest rates and the profitability of investment projects. Higher world interest rates and the credit crunch resulted in tighter credit conditions than otherwise would have been associated with the level of the Federal funds rate.

Monetary Policy and Interest Rates From Late 1990

Market interest rates fell in late 1990 and much of 1991, reflecting lower demand for borrowed funds in the weakened economy, and, after early 1991, declining inflation rates. Furthermore, the prospect of reducing the long-term Federal structural budget deficit led many people to expect that improved coordination between monetary and fiscal policy could result in lower interest rates.

The Federal Reserve proceeded cautiously with a small reduction in the Federal funds rate following passage of the Omnibus Budget Reconciliation Act in late October 1990. In late 1990 and early 1991, as weakness in the economy became more evident and short-term market rates continued to move downward, the Federal funds rate was lowered by 2 percentage points to 5¾ percent by late April 1991 (Chart 2-6). In the late spring and early summer, when the economy appeared to be entering a recovery, there was little movement in the Federal funds rate.

M2 growth was somewhat erratic during much of this period (Chart 2-5). Through most of the first half of 1991, M2 stayed near the middle of its target cone. M2 then fell for several weeks, reaching the lower bound of the cone in early September. Broader measures of credit also were weak, particularly bank loans to businesses. The implications of these developments were not clear; as mentioned above, in the short run the relationship between M2 and nominal GDP can be quite unpredictable, and money supply data can be quite difficult to interpret (Box 2-2). Nonetheless, the weak money growth raised concerns that the growth in credit would be insufficient to support a healthy expansion.

In the late summer and the fall, employment, sales, and other indicators flattened or fell. As the recovery wavered and money growth remained weak, a series of cuts brought the Federal funds rate to 4.5 percent by early December. In mid-December, the Fed responded to growing concerns about the faltering recovery by lowering the Federal funds rate one-half percentage point to around 4 percent and cutting the discount rate—the rate the Federal Reserve charges on its loans to banks—a full percentage point to 3.5 percent, the lowest nominal discount rate since 1964. This aggressive move by the Fed contributed to a downward movement in market interest rates around the end of the year.

In retrospect, it appears that monetary policy should have been geared to lowering interest rates faster and earlier. It is likely that sluggish demand for credit in a weaker-than-expected economy and continued fallout from the problems in the banking industry prevented the quantity of credit from expanding as the Fed thought it would when it lowered interest rates. Indeed, M2 growth did not react as the Fed expected when it lowered the Federal funds rate in the second half of 1991.

Box 2-2.—Interpreting the Money Statistics in the Second Half of 1991

Interpreting the money statistics during the second half of 1991 was not a straightforward matter. Although M2 growth was weak, M1—a narrower measure of money composed solely of components used in transactions—grew at nearly a 9-percent annual rate in the second half of 1991, compared to an average annual rate of 7.6 percent from the end of 1982 to the end of 1989, when the economy was expanding rapidly.

The weakness in M2 and credit growth likely reflected a variety of demand and supply factors. On the demand side, weak credit growth in part was caused by sluggish loan demand; businesses saw fewer profitable borrowing opportunities than during a period of rapid expansion. Households also appear to have moved out of M2 assets such as money market accounts to seek higher returns in longer maturity bond and equity mutual funds. Declining yields on M2 assets relative to consumer debt also may have caused consumers to move away from financing purchases with debt or to use M2 assets to pay down existing debt. Such shuffling of assets by households likely had little effect on the overall availability of credit in the economy.

On the supply side, banks apparently were not actively seeking deposits; they likely felt that they could satisfy loan demand with their current deposit base. Furthermore, loan supply may have been restricted by a continuation of some of the factors underlying the credit crunch.

At the end of 1991 and into early 1992, interest rates generally were at their lowest levels in 2 decades or more. Three-month Treasury bill rates fell from 7.2 percent in October 1990 to about 3.8 percent in early 1992, the lowest level of nominal Treasury bill rates since 1972. Near troughs of recessions, however, short-term real interest rates—that is, interest rates adjusted for expected inflation—often are quite low, sometimes negative. Currently, real short-term rates are higher than they have been during many comparable periods in the past.

By mid-January 1992, nominal long-term interest rates also were relatively low. Yields on 10-year Treasury notes were about 6.8 percent, the lowest level of nominal interest rates since 1977. Rates on 30-year fixed mortgages fell from a little more than 10 percent in late 1990 to about 8¼ percent in mid-January 1992. The decline in mortgage rates has substantially enhanced the affordability of housing. In addition, interest rates on adjustable rate mortgages

have come down, many homeowners have refinanced mortgages at lower rates, and interest rates on consumer installment credit also have fallen. These factors have freed up income for other purposes, allowing households to reduce their debt burdens and to enhance their purchasing power. Of course, these effects are offset somewhat by the lower income earned by holders of interest-bearing assets.

Yields on publicly traded short-term commercial paper and longer term corporate bonds also fell between late 1990 and early 1992. Although some rates lagged a bit late, the overall decline in yields on corporate debt was roughly in line with the fall in interest rates on Treasury issues of comparable maturity. As with households, the decline in borrowing costs has improved the cash-flow positions of businesses, enhancing profitability and freeing funds for productive purposes.

In contrast, the prime rate—the rate banks charge their best business borrowers—generally did not fall as quickly or as much as other short-term interest rates. This rising spread reflected an attempt by banks to increase profitability and rebuild their balance sheets as well as some reluctance to lend to small and medium-size businesses because of the unfavorable effects such loans might have on their capital positions. In December, however, following the 1-percentage-point cut in the Federal Reserve's discount rate, the prime rate fell 1 percentage point to 6.5 percent, its lowest level since 1977.

SUMMARY

- A number of structural imbalances that had evolved over a number of years—including high public and private debt, overbuilding in commercial real estate, and financial sector difficulties—constrained growth in the economy in the late 1980s and early 1990s. Constraints on State and local budgets along with defense downsizing also put a drag on the economy. The large Federal fiscal stimulus usually present during a recession did not occur.
- In the late 1980s, the Federal Reserve tightened monetary policy in an effort to restrain incipient inflation pressures. However, the tighter monetary policy also was one of the factors contributing to the sluggish performance of output and employment over the past 3 years.

RECENT ECONOMIC PERFORMANCE IN HISTORICAL CONTEXT

CYCLICAL COMPARISONS

Table 2-1 compares the 1990-91 recession with previous recessions since World War II. GDP data consistent with the December 1991 revisions are not yet available for the years before 1959 (Box 2-3). Comparisons between a given recession and the *average* of the experiences over a number of cycles are informative, but one should keep in mind that there is no such thing as a *typical* or *average* recession. Because of differences in the events causing recessions, the state of the economy when those events occur, and the responses of markets, individuals, and the government to the downturn in activity, the range of cyclical experiences is quite broad.

TABLE 2-1.—*Cyclical Comparisons*

Recession	Duration[1]	Real GDP	Payroll employment	Unemployment rate	
				Change	High
	Months	Percent Change	Percent change	Percentage points	Percent
1948-49	11	[2]	−5.2	4.2	7.9
1953-54	10	[2]	−3.5	3.6	6.1
1957-58	8	[2]	−4.3	3.8	7.5
1960-61	10	−0.6	−2.2	2.3	7.1
1969-70	11	−1.0	−1.5	2.6	6.1
1973-75	16	−4.1	−2.9	4.4	9.0
1980	6	−2.6	−1.4	1.9	7.8
1981-82	16	−2.8	−3.1	3.6	10.8
Recession Average	11	−2.2	−3.0	3.3	7.8
1990-91	[3]	[4] −1.6	[4] −1.5	[4] 1.9	[4] 7.1

[1] Duration based on National Bureau of Economic Research dating of business cycle peaks and troughs.
[2] Data for GDP in 1987 dollars is not yet available prior to 1959.
[3] The trough of the recession has not yet been determined, although a majority of the Blue Chip forecasters surveyed in January 1992 placed it in the second quarter of 1991.
[4] The values for the recession that began in 1990 may differ depending on the course of the economy and data revisions.
Note.—Changes determined from series-specific peaks and troughs in neighborhood of recession.
Source: Department of Commerce, Department of Labor, and National Bureau of Economic Research.

Gross Domestic Product

In terms of the direct effect on output—assuming that output does not fall significantly in 1992 (the Administration forecasts an increase)—the 1990-91 recession was somewhat milder than the average for recessions since 1959. As the Administration predicted last year, real GDP fell for two consecutive quarters—the fourth quarter of 1990 and the first quarter of 1991—and then rose in the second and third quarters. However, real GDP was essentially flat in the fourth quarter. The decline in real GDP from the third quarter of 1990 through the first quarter of 1991 was 1.6 percent, compared with the 2.2-percent average for recessions since 1959.

Box 2–3.—Emphasizing GDP and the NIPA Benchmark Revision

In 1991 the national income and product accounts (NIPAs) began emphasizing GDP, or gross domestic product, instead of gross national product (GNP). GDP measures the value of items produced *within the borders* of the United States, while GNP measures the output of the *residents* of the United States (Chapter 7). GDP corresponds more closely than GNP to many other indicators—such as employment and industrial production—that are used to analyze near-term developments in the economy. GDP also is more useful for making international comparisons.

The shift to GDP was one element of the comprehensive, or "benchmark," revision to the NIPAs that took place in December 1991. Benchmark revisions are the final phase of the NIPA estimating cycle; the last benchmark was in December 1985. In the first month of each quarter, the Bureau of Economic Analysis (BEA) publishes the initial, or "advance," NIPA estimate for the preceding quarter. In the subsequent 2 months, as more data become available, revised "preliminary" and "final" estimates are published. Many sources of data are useful for constructing the NIPAs, but are not available even for the final estimate. Some of these can be incorporated in annual revisions each July. Other information is available even less regularly; some examples are the quinquennial censuses of businesses and government, data from taxpayer compliance programs, and a number of special studies. The benchmark revisions incorporate such newly available data as well as institute changes in definitions and statistical methodology.

Between 1977 and 1990, real GDP now is estimated to have increased at a 2.5-percent annual rate, 0.2 percentage point less than before the benchmark revisions. Real GDP measures output using prices in a fixed "base period" to isolate changes in quantities from inflation. Not all prices change at the same rate, however, and the price of one item relative to another is likely to vary over time. The benchmark changed the base period from 1982 to 1987 so real GDP would reflect more recent relative values of goods and services (Chapter 7). The revisions to real GDP growth largely were accounted for by the change in the base period; other revisions to GDP growth generally were smaller, and largely offset one another.

Employment and Unemployment

Based on data available through the end of 1991, the effect of the 1990–91 recession on labor markets also was less severe than average. The 1.5-percent decline in nonfarm payroll employment from June 1990 to April 1991 was about half the average for all postwar recessions, and the 1.9-percentage point increase in the unemployment rate from June 1990 to December 1991 was about 40 percent less than the postwar average. Similarly, through the fourth quarter, the number of discouraged workers—those who are no longer actively seeking work because they think they cannot find a job—increased about 270,000, less than half the 680,000 increase that resulted from the more severe recession of 1981–82. Although the unemployment rate is expected to improve in the middle of 1992, both it and the number of discouraged workers could rise in early 1992, depending on the course of the economy. Other labor market indicators suggest greater severity of the recession. During recessions, for example, businesses often lay off workers temporarily, planning to rehire them when demand picks back up. Over the past several years, however, there has been a trend toward laying off workers permanently. During the second half of 1991, more than 40 percent of the unemployed did not expect to be recalled to their old jobs.

Duration

The National Bureau of Economic Research, the private organization that officially dates the beginning and end of recessions, has not yet decided on the trough of the most recent recession. There is uncertainty about whether the trough of the recession occurred in the spring of 1991 or whether the recession continued, with a trough at a later date. Thus, at this time, the length of the recession cannot be compared with those of other recessions since World War II, which varied between the 6-month recession in 1980 and the 16-month downturns in 1973–75 and 1981–82.

PERFORMANCE OF GDP COMPONENTS IN 1991

The decline in real economic activity during the recession from the third quarter of 1990 through the first quarter of 1991 was spread across the various sectors of the economy, but much of the decline occurred in investment, with a less severe fall in consumption. In fact, the decline in investment exceeded the total decline in GDP but was offset by an improved net export position and by government spending, which rose slightly. In the second and third quarters of 1991, the performance of GDP components was largely consistent with what would be expected in the early stages of recovery. However, in the fourth quarter the economy flattened out, with declines in consumption and government spending being

offset by a small increase in investment and a significant improvement in net exports.

Consumption and Saving

Consumer spending in real terms fell by about 1¼ percent during the recession, compared with a slight increase, on average, in previous recessions. During 1991, real consumer spending rose 0.3 percent. Real disposable personal income, a key determinant of consumer spending, rose 0.4 percent during 1991. In terms of current dollars, consumer spending and other outlays rose less than disposable income so that personal saving rose to 5.3 percent in 1991 from 5.1 percent in 1990.

Real purchases of durable goods fell 2.8 percent during 1991, falling in the first and second quarters, before picking up in the third quarter and then falling again in the fourth quarter. Expenditures for nondurable goods fell 1.1 percent during 1991, declining slightly in the first quarter, rising slightly in the second quarter before being unchanged in the third quarter. In the fourth quarter, however, expenditures on nondurable goods fell significantly. Spending on services rose in each quarter of 1991, increasing 1.9 percent from the end of 1990 through the end of 1991.

The fundamentals underlying consumer spending were volatile but generally weak for much of the year. Real disposable personal income was essentially flat. Consumer confidence was on a roller coaster, falling in the second half after a strong post-Operation Desert Storm rebound (Chart 2–7). In fact, consumer confidence by year-end was very low, which suggests that consumer spending in early 1992 will be sluggish.

Residential Investment

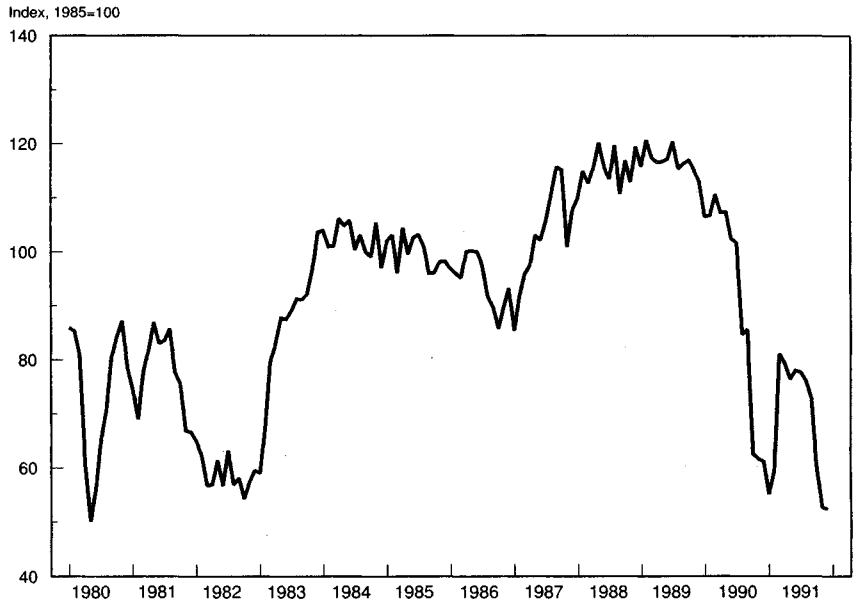
Real residential investment fell by about 10½ percent during the recession, just over half of the average decline in previous recessions since 1959. Residential investment fell 1.3 percent during 1991. However, residential investment climbed steadily in the last three quarters of the year, after falling significantly in the first quarter. Economic fundamentals—the most important being low mortgage rates (Chart 2–8)—supported the pickup in residential investment. By the end of 1991 mortgage rates were at their lowest levels in nearly two decades.

Business Fixed Investment

The decline in nonresidential fixed investment during the recession was on a par with the average for previous recessions—just above 6 percent. The 9-percent decline in investment in structures, however, was three times as large as the recession average of about 3 percent. That disproportionately large decline reflects the imbalances described earlier, particularly the high vacancy rates for commercial office space. Investment in durable equipment fell

Chart 2-7 **Consumer Confidence**

Consumer confidence plummeted during the Persian Gulf crisis, rebounded in early 1991, but then fell back at the end of the year.



Source: The Conference Board.

about 5 percent during the recession, about two-thirds the decline in the average recession.

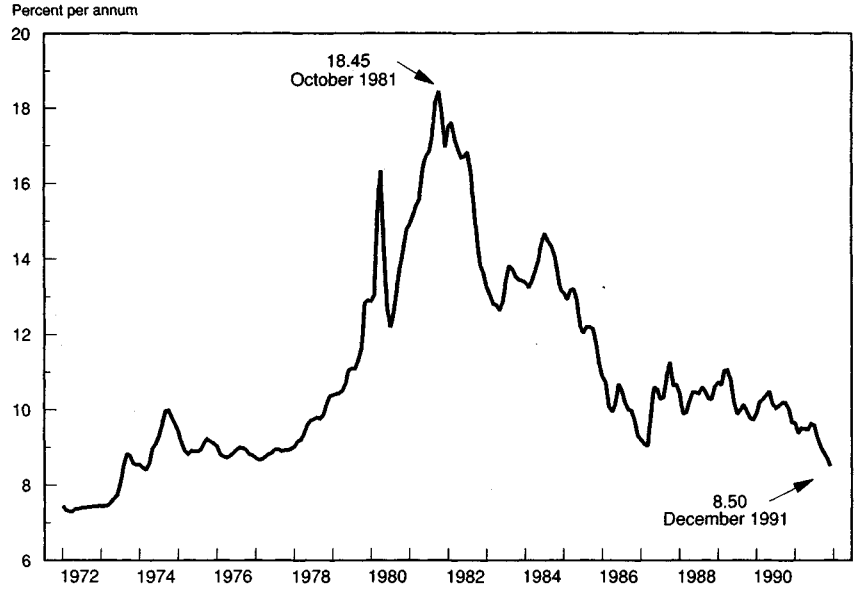
During 1991, nonresidential fixed investment fell 6.9 percent, with investment in structures falling 15 percent and expenditures for durable equipment falling by more than 3 percent.

Inventories

As the economy entered the recession, many analysts cited the lean inventory position of businesses as one reason the recession would be relatively mild. However, early in the recession, businesses began cutting inventories almost as soon as demand began to fall. Inventories fell at an annual rate of $31 billion (1987 dollars) in the fourth quarter of 1990, and businesses continued to liquidate inventories through the second quarter of 1991. The shift in inventory investment of about $47 billion (1987 dollars)—from an accumulation of about $14 billion in the third quarter of 1990 to a liquidation of about $32 billion in the first quarter of 1991—represented nearly 1 percent of real GDP. Hence, a significant part of the fall in real output during the recession can be attributed directly to the inventory cutback, which occurred earlier than has typically been the case in previous recessions. By the end of 1991, inventory liqui-

Chart 2-8 **Mortgage Rates**

At the end of 1991, mortgage rates were at their lowest level in nearly a decade and a half and were much lower than their peak in 1981.



Note: Contract interest rates on commitments for fixed-rate first mortgages.
Source: Federal Home Loan Mortgage Corporation.

dation had ceased, and some accumulation of inventories began in the fourth quarter.

Government Spending

Real government purchases of goods and services fell 1.7 percent during 1991. On average, Federal defense purchases fell by about $13 billion, or 4.6 percent. Federal nondefense purchases rose only slightly during 1991. On average, Federal purchases increased by about 1 percent in previous recessions and by about 1¼ percent during the first year of expansions.

State and local government purchases were somewhat more constrained than the average for other recessions, falling about 0.6 percent during 1991. The fall in 1991 followed a 3.8-percent rise during 1990. The decline in 1991 reflected the tight State and local government budget situation. In earlier recessions, State and local government purchases were countercyclical, increasing 2 percent on average during recessions. During the first year of recoveries since 1959, State and local government spending increased 2.7 percent on average.

Exports and Imports

The improvement in the Nation's international trade position helped keep the recession from being more severe. Real exports continued to grow in 1991 and by the end of the year reached 11.6 percent of real GDP. In fact, over the past 4 years, real exports have gone up by nearly 1 percentage point of GDP each year. Over the same period, real imports as a percent of GDP remained relatively stable, usually between 11 and 12 percent.

The rising share of exports coupled with the stable share of imports has resulted in significant reductions in the Nation's trade deficit. Real net exports as measured in the national income and product accounts rose from −$155 billion (1987 dollars) in 1986 to −$27 billion in 1991. During the recession, real net exports were one bright spot, increasing by $47 billion, or nearly 1 percent of GDP—from the third quarter of 1990 through the first quarter of 1991. The importance of the improving trade position becomes more obvious when compared with the recession of 1981–82, when real net exports fell by nearly $40 billion, or approximately 1 percent of GDP. During 1991 real net exports improved from −$31 billion at the end of 1990 to -$8 billion at the end of 1991. The recent improvement in the trade balance and its contribution to economic growth help to reinforce the importance of maintaining open international markets in which free and fair trade can flourish.

The above discussion focuses on real imports and exports in the national income and product accounts and their contribution to real GDP growth. Other measures of U.S. international transactions in current-dollar terms also showed marked improvement in 1991. Through November, with exports reaching a record high, the merchandise trade deficit in 1991 was running at an annual rate of $65 billion, down from $102 billion in 1990. The current account balance—which includes trade of goods and services, flows of income payments, and unilateral transfers—showed a surplus of about $4 billion at an annual rate through the third quarter, a significant change from the $92 billion deficit of 1990. A major part of the improvement, however, resulted from the cash contributions of coalition partners in Operation Desert Storm.

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

Industrial production—the output of the Nation's factories, mines, and utilities—peaked in September 1990. From its trough after the 1981–82 recession in December 1982, industrial production increased by nearly 40 percent during the expansion—representing an average growth of about 4.4 percent a year. From September 1990 through March 1991, industrial production fell 5 percent, giving up the equivalent of slightly more than a year's worth of

growth during the expansion. The average decline in industrial production during previous recessions in the postwar era was about 9 percent, nearly twice as large as the decline from September 1990 to March 1991.

Capacity utilization—the percentage of available equipment and structures used in production—also fell as industrial production declined. Capacity utilization peaked at 83.8 percent in June and July 1990. By March 1991 it had fallen to 78.4 percent.

The initial pickup in economic activity that occurred in the spring boosted industrial production and capacity utilization. Industrial production rose about 3 percent from March to July, and capacity utilization rose to 80 percent in July. Industrial production then flattened out in the second half of the year and even declined at the end of the year. Capacity utilization fell from 80 percent in July to 79 percent in December.

SECTORAL AND REGIONAL DIVERSITY DURING THE RECESSION

Developments in demand and technology vary significantly among industries; as a result, not all sectors of the economy expand or contract at the same rate. The efficient allocation of economic resources requires industries experiencing increases in demand or rapid technological advances to grow faster than industries not experiencing those advantages. Differences in relative demands and technological change mean that during a recession some industries still experience growth while others contract; conversely, an industry with outdated technology or falling demand may still decline during an expansion. Because of differences in natural resources, composition of the labor force, and historical development, a wide variety of industrial concentrations exists across the country. Regions experience fluctuations in growth commensurate with activity in their industrial concentration.

Industrial and regional diversity enhances the cyclical resiliency of the economy as a whole. The flow of labor and capital among regions and sectors permits more rapid adjustment to shocks, a more efficient allocation of scarce resources, and a larger national product. Indeed, subsidizing declining industries inhibits the efficient flow of resources from those industries to the expanding sectors of the economy. In contrast, policies aimed at aiding the flow of workers and capital among sectors can improve efficiency and enhance growth.

Sectoral Diversity in Employment

Table 2-2 presents the proportion of the decline in total nonfarm payroll employment attributable to each of the major industrial groupings during postwar recessions. These declines are compared

to behavior of employment between its peak in June 1990 and its 1991 low in April.

TABLE 2-2.—*Accounting for the Decline in Payroll Employment*

[Decline in sector divided by total decline, percent]

Recession	Manufacturing	Construction	Service Producing	Mining
1948–49	72.4	0.9	8.8	17.9
1953–54	102.5	−.6	−6.8	4.9
1957–58	76.4	11.5	8.2	3.9
1960–61	81.6	11.4	2.2	4.7
1969–70	131.3	5.6	−36.7	−.2
1973–75	81.4	19.1	.3	−.8
1980	81.2	15.8	3.7	−.8
1981–82	82.2	12.5	−.4	5.7
Recession Average	88.6	9.5	−2.6	4.4
June 1990 to April 1991	[1]46.9	[1]29.1	[1]23.5	[1].5

[1] The values for the recession that began in 1990 may differ depending on subsequent changes in payroll employment and data revisions.

Note.—Changes determined from the peaks and troughs in total payroll employment in the neighborhood of the recession. Mining includes oil and gas extraction. A minus sign indicates an increase in employment in the sector.

Source: Department of Labor and National Bureau of Economic Research.

The manufacturing sector accounted for about 47 percent of the decline in total employment between June 1990 and April 1991, roughly half the average of previous postwar recessions. (Manufacturing employment, however, had fallen somewhat during 1989 and early 1990.) Before 1990–91, manufacturing had never accounted for less than 72 percent of the jobs lost during a recession. The smaller negative effect of manufacturing on the economy as a whole is not simply a result of its lower share of total employment; in percentage terms, the decline in manufacturing employment also was about half its cyclical average.

In the late 1970s and early 1980s, the cost-competitiveness of U.S. manufacturing declined relative to that of the Nation's major trading partners, in large part because of the rising exchange value of the dollar. The decline in competitiveness forced manufacturing to scale back operations. The restructuring caused painful dislocations—particularly in Midwestern States with a high dependence on traditional heavy manufacturing industries such as steel and autos—that lasted longer than the recessions in the national economy. But by the end of the 1980s, the competitive footing of U.S. manufacturing was much improved, a result both of cost-cutting steps and the decline in the exchange value of the dollar between 1985 and 1987. Indeed, over the past year and a half, the manufacturing sector has received a welcome boost from export demand. As a result of these factors, manufacturing did not display the same

degree of cyclical sensitivity in 1990 and 1991 that it had during earlier recessions.

In contrast, construction accounted for 29 percent of the jobs lost between June 1990 and April 1991, about three times its cyclical average. The surge in building activity during the 1980s resulted in an excess supply of office space, commercial property, and apartments. Many of these buildings are vacant. And over the past 3 years, there has been a notable rise in vacancies in the Northeast—where the number of vacant residential rental units rose from 4.9 percent of the rental stock in the fourth quarter of 1988 to 6.3 percent in the fourth quarter of 1991. Because it could take some time for renewed demand to work off existing vacancies, construction is not likely to be robust even after the recovery gains momentum.

The service sector accounted for almost one-quarter of the overall decline in employment between June 1990 and April 1991, by far its largest share during any postwar recession. This sector covers a large number of diverse industries, such as wholesale trade, retailing, real estate, banking, insurance, health care, business services, and government. Many of these industries are undergoing longer term structural changes that have caused their cyclical behavior to differ noticeably from earlier experiences. Furthermore, there has been a trend toward manufacturers contracting out activities to workers that are counted in the services category, thereby increasing the cyclical sensitivity of the service-producing sector.

Wholesale and retail trade accounted for nearly one-third of the decline in total payroll employment between June and April; this share was about three times its cyclical average. Retail trade in particular has undergone significant structural changes over the past several years. The 1980s witnessed a large expansion in retailing. According to estimates by the Department of Energy, in 1983 there were 44 square feet of floorspace at mercantile and service establishments for every person in the Nation; by 1986, this figure had risen to 53 square feet per person. Such increases apparently reflected building beyond the demand for retail services. More recently, many traditional department store chains have scaled back operations as they face intense competition, much of it coming from expanding discount outlets.

Employment in the finance, insurance, and real estate industries typically has grown during recessions. In 1990–91, however, the number of jobs in these industries fell, accounting for about 1½ percent of the total decline in payroll employment. The problems with the financial industries noted earlier—as well as changes in the way that financial services are provided to households and businesses—have resulted in a restructuring that likely will leave

the Nation with fewer banks and savings and loans. Job opportunities in real estate were adversely affected by the slump in the construction industry.

One industry that did not contract during this recession was health care services. This industry continued to expand during the recession despite the weakness in the aggregate economy. All told, the services subgrouping, which includes health and business services as well as a miscellany of other service industries, added more than 300,000 jobs between June 1990 and April 1991.

Regional Disparity

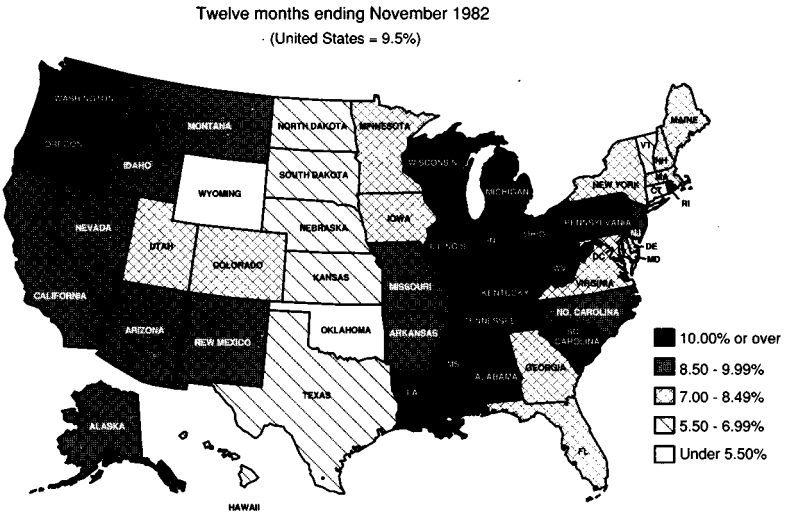
Before this latest cycle, some people argued that the East and West coasts were "recession proof." This claim seems to have been based on the experience of the early 1980s. Chart 2-9 plots the average unemployment rate in each State during the 12 months ending at the cyclical trough in November 1982. The figure highlights that unemployment rates generally were much lower on the East Coast than in the Midwestern industrial States and some portions of the South, which were hard hit by the problems in manufacturing. Despite the claims, unemployment on the West Coast was higher than in the country as a whole. Chart 2-10, which plots average unemployment rates from December 1990 to November 1991, indicates that many of the coastal States—namely, Maine, New Hampshire, Massachusetts, Rhode Island, Florida, and California—fared worse than the Nation as a whole during the latest recession. The unemployment rate through much of the industrial parts of the Midwest has been closer to the national average. Both charts highlight, however, that there has been significant diversity in the economic performance of different regions of the country. (Data for State-level unemployment rates in December 1991 were not available at the time this *Report* was published; for the Nation as a whole, the unemployment rate rose 0.2 percentage point in December.)

One exception in the Midwest has been Michigan, where the weakness in the automobile industry has caused high unemployment. Indeed, in 1991 the "big three" domestic automakers sold roughly 8½ million cars and trucks in the United States, only about 14 percent above sales in 1982 during that severe recession. In addition to cyclical developments, motor vehicle sales have been adversely affected by the decline in the rate of household formation, which is one of the key determinants of longer run trends in demand for big-ticket durable items such as automobiles.

Was This a White-Collar Recession?

Because of the job losses in banking, insurance, real estate, and other industries with a high proportion of white-collar workers, some have argued that the 1990–91 recession was a "white-collar

Chart 2-9 **Unemployment Rates by State, Year Ending November 1982**



Note: Average of the rates for the twelve months ending November 1982.
Source: Department of Labor.

Chart 2-10 **Unemployment Rates by State, Year Ending November 1991**



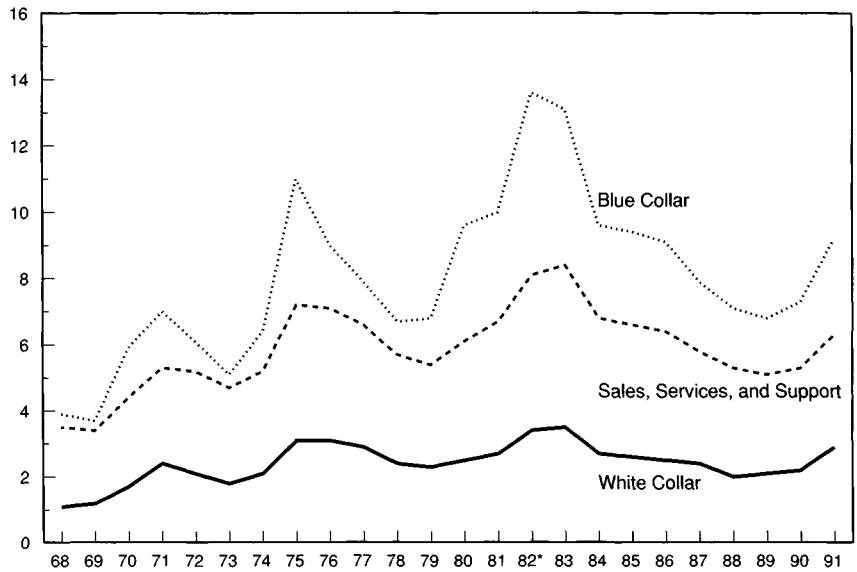
Note: Average of the rates for the twelve months ending November 1991.
Source: Department of Labor.

recession." Chart 2-11 illustrates that the unemployment rate for white-collar workers is lower than in other occupations, and also is

below its recent peak in 1983. Because of the trend toward more employment in the typically white-collar jobs, however, these workers now account for a larger proportion of total unemployment than they have in previous recessions. Nonetheless, they still account for a smaller proportion of total unemployment than the blue-collar or sales, services, and support categories.

Chart 2-11 **Unemployment Rates by Occupation**

White-collar unemployment rates are below those of other broad occupational categories.



WHITE COLLAR: Managerial, Professional, Technical, and Administrative.
SALES, SERVICES, AND SUPPORT: Sales, Clerical and Kindred, and Services.
BLUE COLLAR: Precision Production, Operators, Fabricators, Laborers, Farming, Forestry, and Fishing.
* The occupational classifications used to construct these series are not strictly comparable before and after 1982.
Source: Department of Labor.

Blue-collar unemployment rates on average run higher, and recently have risen more, than the rates for white-collar and service workers. However, the less severe cycle in manufacturing has meant that the blue-collar unemployment rate is substantially below the peaks experienced in the mid-1970s and early 1980s.

SUMMARY

- While a majority of the private Blue Chip forecasters surveyed in January 1992 placed the end of the recession in the second quarter of 1991, as noted above the trough of the recession has not yet been officially determined. Thus, the statements in this section are consistent with the majority Blue Chip view, but it should be borne in mind that the future course of the economy may affect the values for the recession that began in the third quarter of 1990.

- The decline in output from the third quarter of 1990 through the first quarter of 1991 and the number of jobs lost between June 1990 and April 1991 was somewhat less severe than the average for post-World War II recessions. Much of the decline in output occurred in investment, particularly in inventories. There was a smaller decline in consumption, and an improvement in net exports helped to keep the recession from being more severe.
- Sectoral comparisons show that, relative to previous recessions, manufacturing accounted for a smaller proportion of jobs lost; the construction and service-producing sectors accounted for a much larger proportion.
- The rise in white-collar unemployment represented a larger proportion of total unemployment compared to previous recessions. However, blue-collar unemployment still accounted for a larger share of total unemployment than white-collar unemployment did.

THE INFLATION RECORD

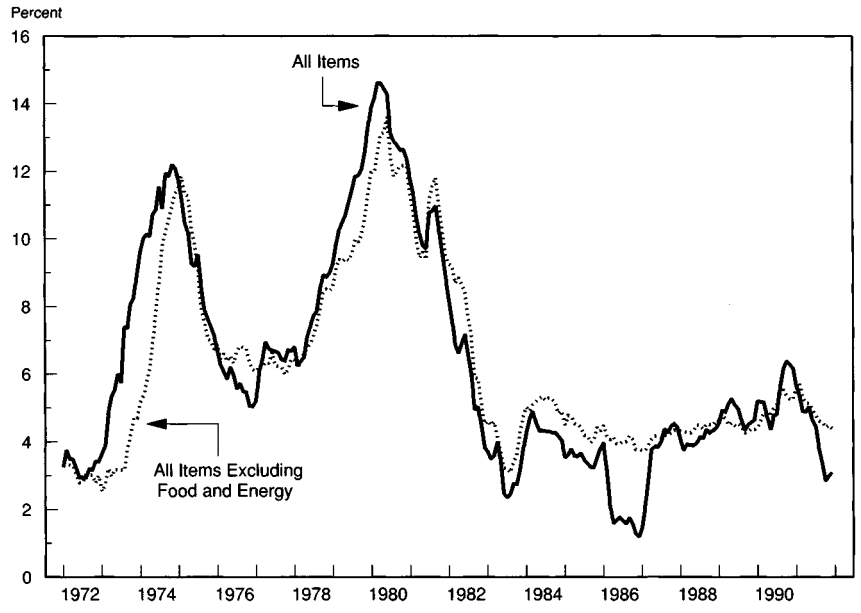
Falling energy prices and the weak economy held inflation in 1991 at relatively low levels in comparison to the past two decades. Price inflation, measured by the annual rate of change in the consumer price index (CPI), averaged 9.3 percent from the end of 1973 through 1981, peaked at over 13 percent in 1979 (December-to-December), but fell to 3.9 percent from the end of 1982 through 1991 (Chart 2-12). Core or underlying inflation—as measured by the CPI excluding food and energy—peaked in 1980 at more than 12 percent and averaged 9 percent from the end of 1973 through 1981 but declined to 4.5 percent from the end of 1982 through 1991. During 1991 consumer price inflation was only 3.1 percent, down from 6.1 percent in 1990 and the second lowest rate since 1967. Core inflation was 4.4 percent, down from 5.2 percent in 1990.

Commodity prices declined significantly over the past year and a half, signaling continued low inflation. Crude oil prices were down nearly 50 percent from their peak in the fall of 1990, and nonenergy commodity prices also fell. Producer prices for sensitive crude and intermediate materials (which do not include energy commodities) declined about 4 percent during 1991, and the Commodity Research Bureau's index of spot market prices for raw industrial materials was down more than 10 percent. Many view gold as a hedge against inflation; its price fell by about 12 percent from the beginning of 1990 to the end of 1991.

The labor cost situation in 1991 also was quite favorable for reducing inflation pressures. Unit labor costs, which influence inflation by affecting the cost of producing goods and services, are de-

Chart 2-12 **Inflation and Core Inflation**

Overall consumer price inflation fell significantly in 1991. Core inflation, a measure that excludes food and energy prices, also fell.



Note: Percent change in CPI from 12 months earlier.
Source: Department of Labor.

termined by dividing hourly compensation by output per hour. Effects of increases in wages and salaries and other labor compensation are thus offset by any increases in the productivity of workers. Although real compensation tends to follow productivity gains (Chapter 3), nominal compensation typically increases at a higher rate than productivity, raising unit labor costs and contributing to inflation. Unit labor costs continued to rise in 1991, but at a much slower rate than in recent years. Through the first three quarters of 1991, unit labor costs increased at an annual rate of only 2.3 percent, as labor compensation rose at a 3.4-percent rate and productivity increased at about a 1-percent rate. This compares favorably to the 6-percent rise in unit labor costs in 1990, and the 4½ percent average annual increase during the 1980s.

Price changes during 1991 were affected primarily by the declines in energy prices from their peak in the fall of 1990; the slowdown in labor markets, money growth, and the economy in general also helped keep inflation pressures low. Still, some longer run trends continued in 1991 as prices for consumer services rose faster than those for consumer goods. During 1991 services prices rose 4.6 percent, compared with a 1.2-percent rise for consumer goods. In

particular, the cost of medical care services continued to soar, rising 7.9 percent.

SUMMARY

- Inflation in 1991 was relatively low, partly as a result of lower oil prices, but also as a result of several years of slow money growth, slack labor markets, and excess capacity in many industries.
- Inflation is expected to remain relatively low in the coming years.

FISCAL POLICY

Fiscal policy comprises the spending, tax, borrowing, and credit activities of the Federal Government. The Administration supports a responsible growth-oriented fiscal policy. The Omnibus Budget Reconciliation Act of 1990 established spending constraints that will help reduce the medium-term structural budget deficit—that is, the deficit excluding the cyclical component of expenditures and revenues. (Chapter 7 discusses budget concepts.)

In fiscal 1991 total Federal outlays were $1.323 trillion and Federal receipts were $1.054 trillion, yielding a Federal budget deficit of $269 billion. As a percent of GDP, receipts were 18.7 percent, outlays were 23.5 percent, and the deficit was 4.8 percent. In comparison, in fiscal 1990 the deficit was $220 billion, or 4 percent of GDP.

The rise in the deficit reflects a number of factors. As an economy dips into recession, income tax receipts fall and outlays for some programs rise, even without any legislated changes in the programs. Such automatic stabilizers are an important element of systematic fiscal policy since they cushion the fall in the economy, preventing further contraction. On balance, for example, the automatic stabilizers offset other factors in fiscal 1991, leaving the overall stance of Federal fiscal policy slightly stimulative. Usually late in a recession or early in a recovery, tax cuts or an increase in discretionary fiscal spending increases the structural budget deficit, providing notably more stimulus than the automatic stabilizers alone. In contrast, between fiscal 1990 and fiscal 1991, the structural budget deficit, excluding outlays for deposit insurance, changed little.

It is important to note that the deficit has been boosted by a temporary bulge in deposit insurance outlays, which exceeded 1 percent of GDP in fiscal 1991. It is widely accepted that the actual timing of outlays and borrowing to protect insured depositors has little impact on credit markets, interest rates, and the economy. So the component of the deficit due to deposit insurance—about $66

billion, or roughly one-quarter of the deficit in fiscal 1991—does not represent fiscal stimulus.

For fiscal 1992, outlays are projected to be $1.475 trillion, receipts $1.076 trillion, and the deficit $399 billion, or 6.8 percent of GDP. Excluding deposit insurance outlays, projected to be about $80 billion, the projected deficit would be 5.5 percent of GDP. The projected increase in the deficit from fiscal 1991 reflects both the effect of automatic stabilizers and discretionary stimulus from an increase in the short-term structural deficit.

Growth Agenda

The President has presented a comprehensive and coordinated growth agenda for the Nation. The agenda includes fiscal and other measures that will stimulate the economy in the short run, address the structural imbalances, and promote the Nation's long-term growth.

The agenda focuses directly on increasing economic growth. The short-term agenda includes executive actions and proposed legislation that will stimulate economic growth immediately. Executive actions with immediate impact include the reduction in excessive personal income tax withholding and acceleration of previously appropriated Federal spending. Reinvigorated action to reduce the burden of unnecessary regulation and prudent measures to reduce the credit crunch will improve the environment for growth now.

Proposed legislation for a 15-percent tax allowance and simplified and liberalized treatment of depreciation under the alternative minimum tax will spur job-creating investment. Penalty-free withdrawal from individual retirement accounts and a $5,000 tax credit for first-time homebuyers along with other incentives will boost real estate. The President has repeatedly proposed reducing the tax rate on capital gains; the first effect of such a reduction would be to raise asset values, bolstering confidence and spending.

There also are proposals to assist families. These include an increase in the tax exemption for each child, a new flexible individual retirement account, and student loan interest deductions. The incentives for first-time homebuyers mentioned above will encourage homeownership—one of the most important ingredients to family financial and social well-being. Comprehensive health reform will increase the affordability and security of health insurance.

Bolstering the short-term agenda are proposals for the long term that invest in the Nation's future by increasing the productivity of people and business. Record Federal investment in research and development and infrastructure, and the extension of the research and experimentation tax credit will help generate new technologies that enhance productivity and employment growth. The Administration also has advocated making the research and experimentation

tax credit a permanent part of the tax code. Record Federal investment in Head Start will prepare all eligible disadvantaged 4-year-olds for effective learning when they start school. Record Federal investment in programs for children and education will improve the opportunities for today's youth when they enter the labor market in the future. Record Federal investment in programs designed to deal directly with the crime and drug problems will, in combination with other programs, move many of those from this subculture into socially productive activity. The comprehensive job-training program will help millions of Americans to acquire the skills necessary to succeed in the changing labor market.

A number of Administration proposals aimed at improving economic performance await congressional action. Education reform through America 2000 will revolutionize education, strengthen accountability, and improve performance. Financial sector reform will strengthen the financial system, improve its ability to contribute to business growth, and sustain international competitiveness. Civil justice reform will curb wasteful litigation and enhance productive activity. The National Energy Strategy will increase energy security and conservation. The long-term growth agenda also includes continued efforts to expand international markets through multilateral, regional, and bilateral negotiations.

The proposed cut in the capital gains tax rate is an important element of the long-term growth agenda. The capital gains tax rate cut would encourage entrepreneurial activity, create new products, new methods of production, and new businesses. These, in turn, would generate new jobs. A capital gains differential would reduce the tax bias against equity financing and the overall cost of capital, thereby increasing investment and growth. The Administration also has supported a zero capital gains tax rate for areas designated as Enterprise Zones to spur investment and encourage entrepreneurial activity in inner cities and rural areas.

Fiscal discipline has been a centerpiece of all of this Administration's budgets. The Administration's proposals are designed to foster long-term growth by encouraging saving, investment, and entrepreneurship. Controlling the growth of government spending and deficits frees resources for private investment. This is but one part of a more comprehensive fiscal program that, within proposed spending categories, also shifts spending from current consumption to investment (such as expenditures for research and development and investments in public infrastructure that pass cost-benefit tests).

SUMMARY

- Federal fiscal policy typically provides a significant stimulus to the economy during recessions and early recovery periods.

From 1990 to 1991, automatic stabilizers offset other factors, leaving fiscal policy slightly stimulative. Federal fiscal stimulus is projected to be stronger in fiscal 1992, but still within the constraints of the Omnibus Budget Reconciliation Act.

- The prompt enactment of the Administration's pro-growth policy proposals will boost the economy in the short run and will enhance productivity, investment, and economic growth in the long run.

DEVELOPMENTS OUTSIDE THE UNITED STATES

The increase in U.S. exports, noted above, was one of the important factors that kept the recession from being more severe. Exports have been aided by the exchange value of the dollar, which has fluctuated within a fairly narrow range since the significant depreciation between 1985 and 1987. During 1990 and 1991, however, several of our major trading partners were in recession—among them Canada and the United Kingdom—or, more recently, periods of slower growth—such as Germany and Japan. These developments have reduced growth in demand for U.S. exports.

BUSINESS CYCLE DEVELOPMENTS ABROAD

In Canada, the United States' largest trading partner, GDP began to fall in the second quarter of 1990, two quarters before the decline in output in the United States. The recession in Canada was more severe than in the United States, with GDP falling 2.8 percent from the first quarter of 1990 through the first quarter of 1991. Growth rebounded to a 5.7-percent annual rate in the second quarter of 1991, but activity has fallen back to a more sluggish pace in recent months. The United Kingdom also fell into recession before the United States and experienced a more severe downturn. Real GDP in the United Kingdom fell 1.2 percent in 1990 and remained on a downward course during the first half of 1991. Activity picked up around midyear, but the economy still was sluggish. French GDP fell a bit late in 1990, and recovery was subdued during 1991.

The cyclical experiences of Japan and Germany were quite different. While most of the industrial world experienced slow growth in 1989 and early 1990, Japan and Germany registered rather robust growth, which continued into early 1991. More recently, however, activity has begun to slow in Germany. The costs of unification, the pent-up demand for consumer goods by citizens who live in the former East Germany, and the one-for-one conversion of the East German mark all contributed to inflationary pressures. In response, the Bundesbank tightened monetary policy and growth slowed; this tightening has had repercussions for the other econo-

mies in Western Europe. Japan's gross national product grew solidly in 1990 and the first quarter of 1991 but has slowed since. The reduced pace of activity in Japan largely reflects the lagged effects of a tightening of monetary policy in 1989 and 1990.

About one-quarter of U.S. merchandise exports go to Latin America and the newly industrialized countries of Asia. The economic reform programs in Mexico and in a number of other Latin American countries have started to result in solid growth for them as well as expanded exports for the United States. The newly industrialized countries of Asia continue to register strong growth, and the share of U.S. exports going to these countries increased from less than 8 percent in 1985 to more than 10 percent in 1990.

INFLATION, MONETARY POLICY, AND INTEREST RATES ABROAD

Like the United States, other major industrial countries have sought to reduce inflation in recent years by following tight monetary policies. These policies have had substantial effects on output and employment. During 1991, the combination of slack demand for funds, lower expectations regarding inflation, and an easing of monetary policy led to declines in interest rates in a number of countries, including Japan, Canada, and the United Kingdom.

The experience of Germany has been different. The strains of unification have led to budget deficits, higher consumer price inflation, and increased wage pressures. After substantial upward movement in 1989–90, interest rates in Germany remained on a high plateau through most of 1991, with long-term government bonds yielding above 8 percent and short-term securities more than 9 percent. Continued wage and price pressures induced the Bundesbank to raise key official short-term rates again in December 1991, and the Lombard rate—the interest rate the Bundesbank charges banks for short-term borrowing—hit a historical peak. The operation of the exchange-rate mechanism—an agreement among European countries aimed at keeping exchange rates among European currencies relatively stable—combined with the high degree of capital mobility within the European Monetary System required central banks in some other European countries to limit monetary easing (particularly in the United Kingdom, and also in France). In other countries, central banks raised their rates in line with Germany (most notably the Netherlands and Belgium). This linkage of monetary policies has been a major reason why many countries in Europe are in recession or growing slowly.

The dollar appreciated about 15 percent (on a trade-weighted basis) in the first half of 1991 but returned back to beginning-of-year levels over the last half of the year. During 1991 as a whole, the dollar appreciated moderately against most European curren-

cies, while it depreciated about 7½ percent against the Japanese yen. The dollar was appreciating against European currencies at the beginning of 1992.

Developments in the major foreign stock markets mirrored those in the United States early in 1991; stock indexes surged from mid-January to April with the resolution of the Middle East crisis. After April, most foreign stock markets experienced little movement, on balance. The major exception was Japan, where the Nikkei index fell about 15 percent between March and December after falling even more sharply in 1990.

EXTERNAL ACCOUNTS

While economic activity in both Japan and Germany was slowing, their external accounts were behaving quite differently. Following declines in 1989 and 1990, Japan's external surplus rose in 1991; these movements largely reflected developments in the exchange value of the yen and changes in the prices of exports relative to imports.

In contrast, Germany's external balance moved sharply into deficit. Most of the movements in the German accounts can be traced to unification, which resulted in a shift in resources from exports to internal reconstruction and a spillover of higher domestic demands onto imports. Indeed, the shift in the external balance from surplus to deficit in Germany was on the same order of magnitude as the large and rapid shift that occurred in the United States in the early to mid-1980s. Such a change in the external balance of one of the world's traditional surplus nations provided stimulus for Germany's trading partners and was a factor elevating world long-term interest rates higher than they otherwise would have been.

SUMMARY

- Many of the Nation's trading partners recently experienced slower growth or recessions.
- Tighter monetary policies in many major industrialized countries have helped to reduce inflation pressures, but also have contributed to lower real growth.

THE ECONOMIC OUTLOOK

The Administration projects that the economy is likely to remain sluggish in the early part of 1992 but that a renewed pickup is likely to begin by the middle of the year. With the adoption of the President's policy proposals, the economy is then expected to return to solid real GDP growth of about 3 percent a year through the mid-1990s, and the unemployment rate is expected to decline from around 7 percent to less than 5½ percent.

The sluggish performance of the economy and the declines in consumer and business confidence at the end of 1991 all point to a continued slow economy in the early part of 1992. Various recent developments, however, indicate a resumption of stronger growth in the middle of the year. The cuts in interest rates in the second half of 1991 are expected to support gains in consumer and business spending by the middle of 1992. Relatively low interest rates also should help households and businesses reduce debt-servicing costs and improve their financial positions. The improvement in personal finances would help boost consumer confidence and encourage growth in consumer spending. Declines in long-term interest rates should continue to have positive effects on investment spending; low mortgage rates, in particular, should help to boost residential investment. Business inventories remain relatively lean. As a result, production likely will respond quickly to meet increases in demand, and a sustained increase in demand would encourage businesses to rebuild inventories. The relatively low exchange value of the dollar and growth in the world economy should help to promote continued export growth.

Economic forecasting is an imprecise science, however. Unexpected events and policy changes can cause actual events to be substantially different from the forecast. Forecasts are based largely on predictions about human behavior, usually taking previous patterns of behavior as a guide. But human behavior is complex, difficult to predict, and subject to change. People do not always respond the same way, or with the same speed, in what appear to be similar circumstances. Hence, uncertainty remains about the outlook for the economy.

If the problems the economy has been facing are resolved relatively quickly and confidence is restored, growth could rise faster than is expected. The relatively low rate of inflation combined with the large degree of slack in the economy is particularly noteworthy, for it could allow the Federal Reserve to keep interest rates low—or cut them further, if necessary—to help boost growth with little immediate concern about reintroducing inflation pressures. A quick shift to a significant rebuilding of inventories alone could add as much as a percentage point to the rate of growth over the next year. Alternatively, if the problems are resolved slowly, the economy could perform worse than expected. Tight credit and slow money growth, along with the continuing structural adjustments described earlier could continue to hinder the economy. Under those conditions confidence could remain low, and the rate of growth likely would be lower than expected.

THE PRESIDENT'S POLICIES OR BUSINESS AS USUAL

With the adoption of the President's pro-growth proposals as outlined in the State of the Union address and presented in detail in the budget, the prospects for renewed solid growth improve markedly. The policy forecast in Table 2–3 shows the expected course of the economy given the adoption of the pro-growth policies. The President's proposals will inspire confidence and provide a stimulus to the economy in the short run, boosting output, income, and employment. The productivity-enhancing nature of the proposals will also improve the economic outlook in future years. If the President's policy proposals are not adopted relatively promptly, however, and a "business-as-usual" situation persists in determining Federal spending and tax policies, the economy is expected to perform worse than projected, as indicated by the business-as-usual forecast.

TABLE 2–3.—*Administration Forecasts*

Item	1991	1992	1993	1994	1995	1996	1997
	Percent change, fourth quarter to fourth quarter						
POLICY FORECAST							
Real GDP	0.2	2.2	3.0	3.0	3.0	2.9	2.8
GDP deflator, 1987=100	3.2	3.2	3.4	3.3	3.3	3.2	3.2
Consumer price index	2.9	3.1	3.3	3.2	3.2	3.2	3.1
	Calendar year average, percent						
Unemployment rate	6.7	6.9	6.5	6.1	5.8	5.4	5.3
Interest rate, 91-day Treasury bills	5.4	4.1	4.9	5.3	5.3	5.2	5.1
Interest rate, 10-year Treasury notes	7.9	7.0	6.9	6.7	6.6	6.6	6.6
Civilian employment	116.8	117.4	119.6	121.7	123.7	125.8	127.8
	Percent change, fourth quarter to fourth quarter						
BUSINESS AS USUAL FORECAST							
Real GDP	0.2	1.6	2.4	2.5	2.6	2.5	2.4
	Calendar year average, percent						
Unemployment rate	6.7	7.1	6.9	6.7	6.3	5.8	5.6
Interest rate, 91-day Treasury bills	5.4	4.2	5.1	5.5	5.5	5.4	5.3
Interest rate, 10-year Treasury notes	7.9	7.2	7.3	7.1	7.0	7.0	6.9

Sources: Council of Economic Advisers, Department of Commerce, Department of Labor, Department of the Treasury, and Office of Management and Budget.

With the President's pro-growth policies, the Administration expects real GDP to increase 2.2 percent from the fourth quarter of 1991 to the fourth quarter of 1992. This represents a significant improvement from the 0.2-percent growth during 1991 and the 0.1-percent decline during 1990. Inflation in 1992 should be only slightly higher than in 1991. The relatively low inflation pressures in 1991 partly were a result of the fall in oil prices from their peak in

late 1990. But several years of slow money growth and a slow economy, which eased tightness in labor markets and created excess capacity in many industries, also kept inflation pressures down. In 1993 real growth is expected to be even stronger than in 1992—at about a 3-percent rate—as the economy continues to rebound from the recession and the sluggish growth over the 1989–91 period.

The President's policies will also improve the outlook in labor markets, and the unemployment rate is expected to fall from about 6.9 percent in 1992 to 6.1 percent in 1994. Interest rates are expected to fall in 1992 from 1991, reflecting the sluggish economy and the low level of interest rates at the end of 1991. As the expansion becomes more robust, however, short-term interest rates are expected to rise somewhat through 1995 before declining slightly in 1996 and 1997. Long-term interest rates are expected to fall gradually through 1995 and then flatten out, reflecting continued, relatively low inflation and lower uncertainty about fiscal policy and the economic outlook.

Under the business-as-usual projection, real growth in 1992 would likely be around 1.6 percent, well below the rate that would be achieved with the adoption of the President's policy proposals. The period of slow growth that has existed since early 1989 would likely continue in 1992. By 1993 business-as-usual growth picks up some, but remains more than a half percentage point below policy growth. The differences in real growth in the policy and business-as-usual forecasts persist beyond the short-term outlook because of the productivity-enhancing nature of the President's proposals. In the policy forecast, real growth in the 3-percent range continues through the mid-1990s. With business-as-usual, growth averages only in the 2.5-percent range.

ACCOUNTING FOR GROWTH IN THE LONGER TERM

In the longer term the main determinants of average growth are the factors that influence the overall supply of goods and services generated in the economy. One way to focus on supply factors is to decompose real GDP growth into four components: (1) labor force growth, that is, the growth in the number of people available for work each year; (2) the change in the share of the labor force that is employed, or the employment rate; (3) the growth in the number of hours an employed person works each year, represented as the growth in average weekly hours; and (4) labor productivity growth, or the growth in the amount of goods and services that can be produced with an hour of labor.

Table 2–4 shows the contribution of these various factors in average real GDP growth for various periods. The first three columns provide historical comparisons for periods from business-cycle peak to business-cycle peak. The final column shows the contributions

for the period incorporating the historical performance since the recent business cycle peak (in the third quarter of 1990) along with the policy forecast period. Economic growth is projected to average 2.2 percent a year from the business cycle peak in 1990 through the end of the forecast in 1997.

TABLE 2-4.—*Accounting for Growth in Real GDP, 1960–97*

[Average annual percent change]

Item	1960 II to 1981 III	1973 IV to 1981 III	1981 III to 1990 III	1990 III to 1997 IV
GROWTH IN:				
1) Civilian noninstitutional population aged 16 and over	1.8	1.8	1.1	0.9
2) PLUS: Civilian labor force participation rate	.3	.5	.4	.2
3) EQUALS: Civilian labor force	2.1	2.4	1.6	1.1
4) PLUS: Civilian employment rate	−.1	−.4	.2	.0
5) EQUALS: Civilian employment	2.0	2.0	1.8	1.2
6) PLUS: Nonfarm business employment as a share of civilian employment[1]	.1	.1	.3	−.0
7) EQUALS: Nonfarm business employment	2.1	2.1	2.1	1.2
8) PLUS: Average weekly hours (nonfarm business sector)	−.6	−.7	.0	.0
9) EQUALS: Hours of all persons (nonfarm business)	1.5	1.3	2.1	1.2
10) PLUS: Output per hour (productivity, nonfarm business)	1.7	.6	.8	1.4
11) EQUALS: Nonfarm business output	3.3	1.9	2.9	2.6
12) LESS: Nonfarm business output as a share of real GDP[2]	.1	−.2	.2	.4
13) EQUALS: Real GDP	3.2	2.1	2.7	2.2

[1] Line six translates the civilian employment growth rate into the nonfarm business employment growth rate.
[2] Line 12 translates nonfarm business output back into output for all sectors, or GDP, which includes the output of farms and general government.

Note.—Data may not add due to rounding.
Time periods are from business cycle peak to business cycle peak to avoid cyclical effects.

Sources: Council of Economic Advisers, Department of Commerce, Department of Labor, Department of the Treasury, and Office of Management and Budget.

This projection assumes an average rise of 1.1 percent a year in the labor force over the 1990–97 period, a lower growth rate than during the 1980s. Slower labor force growth results from smaller increases in projected labor force participation rates and from slower growth in the working-age population. Although the labor force is assumed to grow 1.3 percent a year in the forecast, the low growth of the labor force that occurred in late 1990 and in 1991 pulls down the average for the entire period.

Decreases in the unemployment rate from the third quarter of 1990 through the end of the forecast are expected to contribute only slightly, on average, each year to real GDP growth. The largest contribution from a falling unemployment rate occurs in the 1992–94 period. As the economy nears full employment, increases in employment make smaller contributions.

A key assumption underlying the average 2.2-percent growth rate is that labor productivity growth will average 1.4 percent a year. After 1992, assuming the Administration's pro-growth initiatives are adopted, underlying economic growth is expected to approach 3 percent and labor productivity growth is projected to be about 1.6 percent. That is very close to the average rate of produc-

tivity growth since 1959. It is below the 2.4-percent rate from 1959 to 1969, but above the average rate for the 1980s. This rise in labor productivity will be facilitated by the higher level of capital accumulation that results from lower real interest rates, lower Federal borrowing as a percent of GDP, and the productivity-enhancing components of the President's proposals.

SUMMARY

- The economy is expected to remain sluggish in early 1992, but a renewed pickup should occur by midyear. The prompt enactment of the President's proposals would boost the economy in the short run and promote higher growth in the long run.
- However, if the President's proposals are not adopted promptly and a "business-as-usual" environment prevails, growth in the economy will be lower in both the short and long run.
- In the long run, the President's proposals will promote higher private capital accumulation and faster productivity growth. The economy's underlying medium-term growth potential is expected to be about 3 percent a year. Inflation and nominal interest rates are projected to rise slightly in the short run, but then fall gradually thereafter.

CONCLUSION

Following a year and a half of slow growth, the Nation's economy entered a recession in the second half of 1990. In the late spring of 1991, the economy began to recover. However, the recovery lost momentum in mid-summer, and by the end of the year the economy was sluggish at best.

It is natural to point to the oil shock and the resulting decline in confidence as the reason the economy fell into recession. However, growth in the economy already had been slowed by a number of structural imbalances and the lagged effects of tight monetary policy in earlier years. The flat economy at the end of 1991 was evidence that the structural imbalances in the economy were larger and taking longer to work off than had been expected.

Growth is expected to remain sluggish in the early part of 1992. By midyear, however, the economy is expected to improve. The prompt enactment of the President's pro-growth proposals announced in the State of the Union address will spur economic recovery and promote long-term investment and growth, as well as improve the Nation's competitive position in global markets.

Over the longer term, the Omnibus Budget Reconciliation Act establishes discipline to lower the multiyear structural Federal deficit and therefore, Federal borrowing requirements. Combined with a monetary policy aimed at maintaining solid economic growth

while gradually reducing the underlying inflation rate, both nominal and real interest rates are likely to remain relatively low. Credible monetary policy and growth-oriented fiscal policy will facilitate higher levels of capital accumulation, raise labor productivity and thereby real wages, and enhance the economy's growth potential.

CHAPTER 3

The American Labor Market

A SLUGGISH ECONOMY GENERALLY draws attention to short-run labor market conditions that affect the economic well-being of American workers and their families. Concern is naturally focused on the decline in job prospects and the increase in unemployment brought about by recession. Yet, longer run trends that underlie these shorter run events have profound importance as well. Although a temporary spell of unemployment disrupts a worker's earnings for weeks or months, the creation of job opportunities and the growth in real wages over a person's career determine the standard of living over his or her lifetime. Chapter 2 discussed the current cyclical situation. This chapter reviews the longer run developments.

Despite the temporary setbacks of several recessions, employment increased by 38 million, from 71 million in 1971 to 109 million in 1991. This 53-percent growth far surpassed that of most other major industrialized countries. Employment in Japan increased only half as fast; employment in France, Germany, and the United Kingdom grew at less than one-fifth the U.S. rate.

The U.S. economy not only provided employment for an extra 38 million workers, it also delivered improved opportunities in the labor market. The average wage level, adjusted for inflation, rose by 18 percent from 1971 to 1990 (the most recent year for which statistics are available).

To put this performance of the U.S. economy in expanding labor market opportunities in perspective, consider an extreme example of a rapid increase in the supply of workers. Imagine that suddenly tomorrow, with each 100 workers, 53 companions showed up at the factory, office, or farm. It is obvious that the economy would be hard pressed to employ those workers and that such an abrupt enlargement in the supply of workers would exert a strong downward pressure on wages.

In the course of the actual process of adjustment to the changing market, a gradual but significant shift toward high-skilled jobs has taken place. The evolutionary shift toward service sector employment and the restructuring within all industries in response to technological change has favored workers with more years of schooling. This trend is most evident in the real wage increase of

better educated and more experienced workers, despite the sizable increase in the supply of workers with these attributes.

Women have benefited from changes in the workplace. Since the late 1940s women have been entering the labor market in increasing numbers and now account for 46 percent of civilian employment. Women's job prospects have improved as they have attained more years of schooling and more work experience. As a result, their unemployment rates fell to the same levels as men's, they moved into traditionally male-dominated occupations, and their wages grew faster than men's wages.

Accompanying these long-term positive trends in the labor market were some troubling developments. Perhaps reflecting the magnitude of the task of absorbing such a large number of new workers, average real wages have grown, on average, less than 1 percent a year since 1973. Real wages of successive age cohorts of low-skilled workers—particularly young men with a high school education or less—have actually declined.

The slower rate of growth in average real wages is tied to the slower growth of labor productivity. Many factors have contributed to the productivity slowdown, in particular the reduced growth rate of capital per worker. Unless productivity increases at a faster rate, real wage growth will remain modest, and the rate of advance in living standards will fall below the robust pace that Americans enjoyed in the quarter century after World War II.

EMPLOYMENT GROWTH

Over the long-term, despite the temporary setbacks of several recessions, the U.S. economy has demonstrated great capacity to provide jobs to an increasing percentage of the population. Significant shifts in demand and supply accompanied this growth in jobs. Technology and product changes increased demand for more educated workers, while the strong demographic forces of the baby-boom generation and changing preferences of workers regarding work and schooling drove much of the change in supply.

CHANGES IN LABOR DEMAND

The steady increase in the demand for more educated and more skilled workers has been a dominant force in the U.S. labor market during the last two decades. The increase in the supply of college-educated men and women kept pace with demand throughout most of the 1970s. During the 1980s, though, demand outstripped the rising supply, as evidenced by the increasingly higher wage premium for college-educated workers.

Two structural changes account for most of the demand for more educated workers. First, changing preferences and demography, as

well as increased international trade, led to relative changes in the demand for different products and services. Second, and more importantly in recent years, changes in technology within industries favored people who could master complex technologies and learn new methods quickly.

Changes in Product Demand

Changes in product demand have been reflected in the expansion of industries that employ a higher-than-average proportion of college-educated workers and a contraction in industries that tend to hire a proportionally higher number of high-school-educated workers.

Contraction in the share of the Nation's output of mining, an industry in which the percentage of workers without college education is high, has diminished the demand for workers with less formal schooling. Manufacturing is another industrial sector that has traditionally employed less educated workers. Manufacturing employment has been declining as a share of total employment at least since World War II. In contrast with mining, however, the share of manufacturing in total U.S. output has been virtually constant. Thus, the decline in manufacturing employment does not portend the deindustrialization of the U.S. economy. It reflects rather the productivity gains that have been achieved in this industrial sector.

The most significant expansions in demand for college-educated workers have occurred in finance, various government sectors, and professional services. The health care sector, which employs a high proportion of college-educated workers, provides a striking example. The aging of the population, advances in medical technology, and a general increase in demand commensurate with rising incomes have increased the health care sector's share of output from 7 percent to 12 percent between 1970 and 1989. Its share in employment doubled from 4 percent to 8 percent.

Occupations in health care and similar sectors place a high value on cognitive and interpersonal skills. These skills are acquired primarily through formal education, and recent studies show that they are highly correlated with years of schooling. Therefore, as employment shifts to the service-producing sectors, demand for workers with more formal education increases.

Occupations with high concentrations of college-educated workers have typically grown faster than occupations with less educated workers. Managerial and professional specialty occupations, which are found primarily in the professional services sectors, have the highest average level of education of the major occupation groups. Sixty-one percent of the people holding these jobs had 4 or more years of college—more than twice the average for all occupations. Between 1983 and 1991, the number of these jobs grew nearly twice

as fast as total employment. In contrast, jobs in the occupational classification of operators, fabricators, and laborers, which are typically filled by workers with low educational attainment and located primarily in manufacturing, grew about half as fast as total employment.

Technological Change

Technological changes that have brought about internal restructuring within industries and firms have also increased the demand for workers with greater educational attainment, particularly in the 1980s. The most extensive restructuring in favor of more educated workers occurred in retail trade, government, and professional and financial services. Manufacturing, which 20 years ago had the least educated work force among industrial sectors, has hired increasing proportions of college-educated workers. In 1988, for example, 45 percent of all workers in high-skill manufacturing industries had a college education, up from 28 percent in 1968. Low-skill manufacturing firms have nearly doubled the percentage of such workers in their work forces, from 9 percent to 17 percent.

Computer technology has extensively changed the nature of the workplace and the operations of firms. In 1984, 8 percent of businesses reported using personal computers. By 1989 that figure had climbed to 36 percent. Proficiency in operating computers has become a requisite for an increasing number of jobs, from secretaries to production-line workers. This proficiency is linked to increased years of schooling; college-educated workers are twice as likely to use computers as are workers with only high school degrees.

Another development has been the shift away from material handling to information handling. Within manufacturing, the input of knowledge, rather than the input of material, accounts for an increasing share of the value added in the production process. The cost of the material content, such as the steel and plastic used in the manufacture of an automobile, for example, has steadily declined relative to the price of the automobile. Instead, the price increasingly incorporates the cost of knowledge embedded in features of the automobile and the production process: the car's advanced design, including the use of computer-aided engineering, the substitution of computer-controlled devices for mechanically controlled devices used in the operation of the vehicle, and the use of robotics in the assembly of the automobile. Consequently, the demand for people with the ability to work with and process knowledge and information, rather than with physical inputs, has increased.

CHANGES IN LABOR SUPPLY

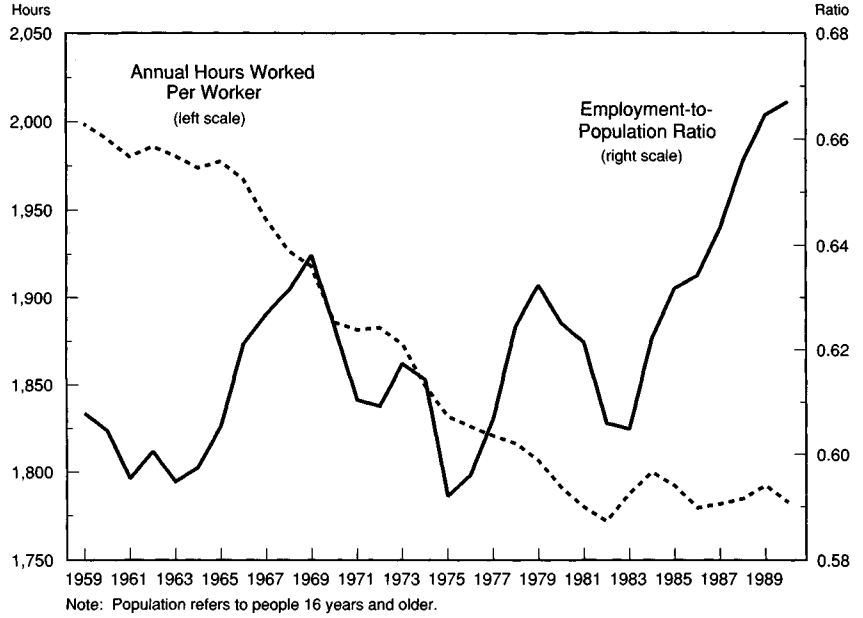
Changes in labor supply have been propelled by demographic changes, as the post-World War II baby-boom generation has

moved through the labor force, and by changes in people's choices regarding work and school. During the 1970s a large portion of the baby-boom generation began entering the labor force. By the 1980s, most of this generation had reached working age, and many had moved toward the midpoints of their careers. Consequently, the growth of the working-age population slowed considerably, and the labor force gradually aged and gained more work experience. At the same time, the percentage of the working-age population employed increased sharply.

Chart 3–1 shows this rising ratio of employment to working-age population during the 1980s. Also displayed is a decline in the average number of hours worked. Between 1965 and 1982, average annual hours worked fell by about 10 percent, from 1,977 hours to 1,772 hours. This trend occurred even though the length of the average work week of full-time employees remained constant at roughly 43 hours.

Chart 3-1 **Employment-to-Population Ratio and Hours Worked per Worker**

Since the early 1980s, the percentage of the working-age population employed has grown. Hours worked per worker fell from 1965 to 1982 but have remained roughly constant since.



Note: Population refers to people 16 years and older.
Sources: Council of Economic Advisers and Department of Labor.

Most of the decline in average hours worked is explained by an increase in part-time workers. The fraction of the labor force that worked part time rose from 18 percent in 1965 to 25 percent in 1982, and then declined to 21 percent by 1990. The majority of workers holding part-time, rather than full-time, jobs do so by choice. Many people choose this work option to maintain flexible

work schedules. Nonetheless, in recent years about 40 percent of part-time workers surveyed say they would prefer full-time jobs.

Women in the Work Force

The increasing participation of women in the work force accounts for the upward trend in the employment-to-working-age population ratio. Since the late 1940s, when about 31 percent of working-age women were employed, women have accounted for 60 percent of the increase in employment. In 1991, 54 percent of all working-age women and 70 percent of all working-age men were employed. The fraction of men in the labor market has been steady in recent years.

Women's increased presence in the work force is related to changes in social norms and behavior, which gained momentum during the 1960s and continued throughout the 1980s. Women found increasingly greater acceptance in jobs that were more career oriented and higher paying than the jobs they typically filled during the 1950s and 1960s. Even in the relatively short period between 1983 and 1989, for example, the proportion of working women holding traditionally male-dominated managerial and professional specialty jobs increased from 22 percent to 26 percent. Roughly the same percentage of working women now hold these jobs as do working men.

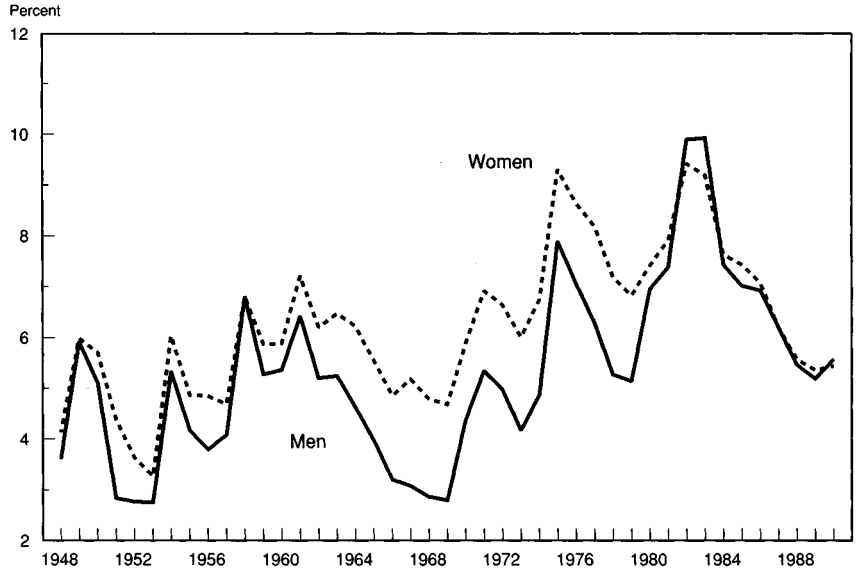
The increase in the number of working women is also associated with changes in American families. Women are marrying at an older age, divorce rates are up, and a greater percentage of married women are working outside the home. The proportion of families maintained by women increased from 11 percent in 1970 to about 17 percent in 1990.

As women's attachment to the labor force has increased and they have acquired more years of schooling, their labor market performance has increasingly resembled that of men's. One noticeable change in recent years has been the convergence of men's and women's unemployment rates. Throughout most of the post-World War II period, women had higher unemployment rates than men, as shown in Chart 3-2. In 1980, however, women's unemployment rates began to match those of men, and they have remained virtually the same since that time. As discussed in a subsequent section, women's wages have increased relative to men's during the last decade, even as the relative supply of working women has increased.

Married women have been steadily increasing their participation in the labor market since at least 1970, when data first became available. The proportion of married women in the paid work force rose from 39 percent in 1970 to 50 percent in 1980 and 58 percent in 1990. The increase in both the number and percentage of married women working was larger in the 1970s than in the 1980s. The

Chart 3-2 **Unemployment Rates By Gender**

After exceeding the unemployment rate of men for most of the post-World War II era, the unemployment rate of women has converged with that of men.



Source: Department of Labor.

common thread through this period is the sizable increase in real wages earned by wives in most income brackets. As the real wages available to them increased, the cost (in the form of wages forgone) of working on an unpaid basis in the home increased.

Diversity in Worker Characteristics

Like the U.S. population as a whole, the U.S. labor market is a melting pot of different races, nationalities, and ethnic groups. Categorizing the rich diversity of the work force into simple groups is very difficult, and possibly misleading, but it is useful to focus in particular on the progress of black, white, and Hispanic men and women. Each group has increased its participation in the labor market during the last several decades, but some groups have fared better than others, as market conditions and educational and employment opportunities have changed.

In 1990 blacks accounted for 11 percent of the civilian labor force, Hispanics accounted for 8 percent, and whites accounted for 86 percent. (These percentages add to more than 100, because the Census Bureau also identifies people of Hispanic origin by race.) Since 1980 the labor force shares of both blacks and Hispanics have increased, from 10 percent to 11 percent for blacks and from 6 percent to 8 percent for Hispanics.

In 1990, 64 percent of the white population was employed, compared with 56 percent of the black population and 62 percent of the Hispanic population. These rates were higher in 1990 than in 1980 for all these groups. Unemployment rates also varied, with whites experiencing the lowest rate at 6.3 percent, as of December 1991. The rate for Hispanics stood at 9.7 percent, and the rate for blacks was 12.7 percent. Although the rates have changed over the course of business cycles, the ordering has typically remained the same.

The flow of immigrants into the United States continues to add to the size and diversity of the labor force. More than 6 million people were admitted into the country in the 1980s, more than in any other decade since the early 1900s. Nearly a million immigrants from Mexico were admitted, and more than 2½ million from Asian countries, principally, Vietnam, China, India, Korea, and the Philippines. More than a third of the immigrants were the spouses or children of U.S. citizens or alien residents. Immigrants typically have had less schooling than the average U.S. citizen and thus have added disproportionately to the supply of less educated workers. Recent immigration laws have favored admitting a greater number of highly skilled people into the country.

Although the entry of immigrants raises the supply of labor, particularly that of lower skilled workers, studies provide no conclusive evidence of whether and by how much immigration has affected employment or earnings of other U.S. workers. One recent careful study concluded that immigration had a negligible effect on the employment status of less-skilled native workers and reduced their wage rates by only a fraction of 1 percent. Moreover, numerous studies suggest that the long-run benefits of immigration greatly exceed any short-run costs. The unskilled jobs taken by immigrants in years past have often complemented the skilled jobs typically filled by the native-born population, increasing employment and income for the population as a whole.

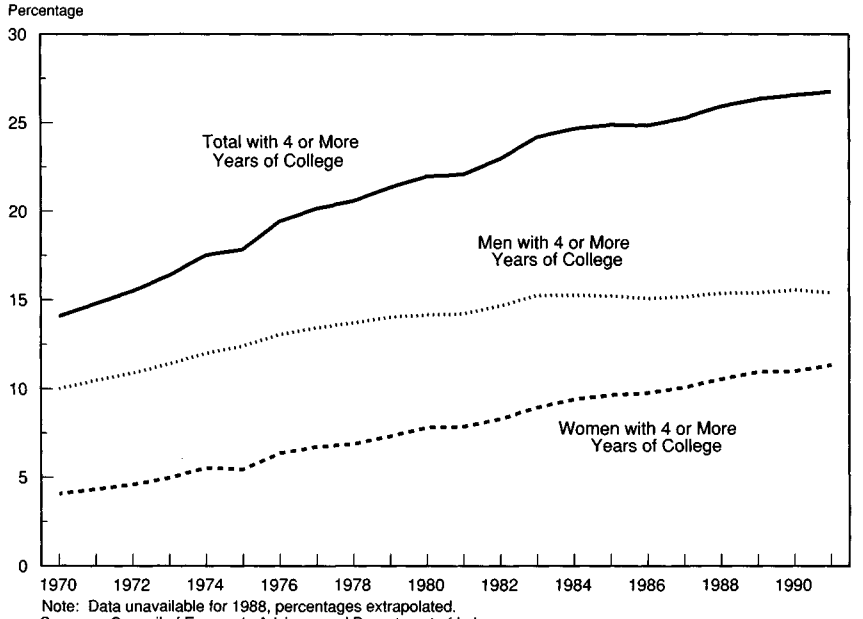
Educational Attainment

The labor force has become more educated over the last 20 years. Chart 3-3 shows that the proportion of workers in the labor force with 4 or more years of college has more than doubled since 1970. That means that the number of workers with college education has grown by more than 18 million since 1970. The growth in educational attainment for women has exceeded that of men. The proportion of women who have completed 4 or more years of college grew from 4 percent in 1970 to 11 percent in 1991, while the proportion of college-educated men increased from 10 percent to 15 percent. The rate of increase for men slowed during the latter half of the 1980s, while the rate for women grew at about the same pace throughout the entire period. Although a greater proportion of

male workers have college educations than female workers, the difference fell by more than half from 1980 to 1990.

Chart 3-3 **Percentage of Civilian Labor Force With 4 or More Years of College**

The educational attainment of both men and women in the labor force has increased over the last two decades.



Note: Data unavailable for 1988, percentages extrapolated.
Sources: Council of Economic Advisers and Department of Labor.

The proportion of black workers who had completed 4 or more years of college rose from 11 percent in 1980 to 16 percent in 1989. The proportion of white workers with college educations increased from 23 percent to 27 percent. Educational attainment of Hispanic workers has also risen. The proportion of Hispanic workers who had completed high school increased from 33 percent in 1970 to 51 percent in 1989. The proportion having completed 4 or more years of college climbed from 5 percent to 10 percent during the same period. These proportions are lower than for blacks or whites: In 1989, 65 percent of black workers and 78 percent of white workers had completed 4 years of high school.

SUMMARY

- Employment grew during the last two decades at rates that far surpassed those of other major industrialized countries.
- The proportion of whites, blacks, and Hispanics working in the paid labor force increased during the last decade.
- Employment increasingly favored workers with high levels of skills. The work force, in general, became more educated, as

the percentage of black, white, and Hispanic workers who had completed college increased.

- Women have entered the work force at a faster rate than men as a result of changing social norms and improving job prospects. Through greater educational attainment and work experience, women made considerable gains, both in absolute terms and relative to men.

PRODUCTIVITY TRENDS

The key to each worker's well-being and the Nation's prosperity is productivity growth. An increase in the Nation's standard of living, commonly measured as output per person, depends upon three factors: a greater percentage of the population employed, an increase in average hours worked, and greater labor productivity—output per hour worked. The historical trend in the United States has been toward a rising rate of participation in the labor market and lower hours per worker. Labor productivity has also grown historically, although its low rate of advance in the last two decades is a matter of great concern.

Long-term advances in labor productivity and employment have provided the United States with the highest standard of living in the world. Based on the commonly used measure of gross domestic product (GDP), the U.S. economy produced, on average, $45,918 worth of goods and services per worker in 1990, or $22,056 per capita. GDP per person in the United States was 25 percent above Japan and 35 percent above Germany. Another way to measure the relative prosperity of U.S. workers is to compare their purchasing power—the amount of goods and services that workers can purchase per hour worked. American workers have greater purchasing power than workers in most other major industrialized countries, although the leadership gap has narrowed.

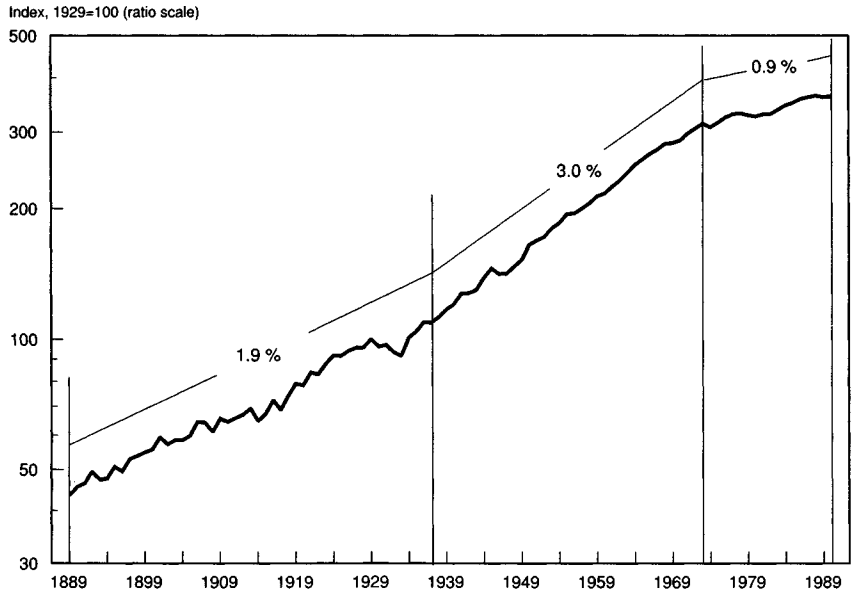
The variation in hours worked per worker and in the fraction of the labor force in paid employment is limited. *Therefore, long-run advances in living standards depend upon continuing improvements in productivity.* Even a modest annual growth rate in productivity, compounded over a long time, can make a very large difference. Growth of 2 percent maintained over 50 years would generate an increase in annual output per worker from the current level of $45,918 to $123,592 in today's dollars. A seemingly small increase in growth rates, similarly maintained over years, can have large consequences. A growth rate of 2.5 percent, instead of 2 percent, would raise output per worker to almost $160,000 after 50 years.

THE HISTORICAL RECORD OF PRODUCTIVITY GROWTH

Chart 3-4 pieces together a century-long path of average U.S. labor productivity in the private business sector. The vertical axis of this graph uses a "ratio scale," which means that equal vertical distances correspond to equal *percentage* changes in labor productivity. The slope of the line, therefore, corresponds to the percentage growth rate of productivity; a constant upward slope implies a constant annual percentage rate of growth of productivity.

Chart 3-4 **Historical Growth in Labor Productivity**

Labor productivity has increased steadily over the past century. Productivity growth has slowed in recent years.



Note: Labor productivity is private business sector GDP per hour. Percentages are average annual rates of change for periods indicated.
Sources: Council of Economic Advisers, Department of Labor, and National Bureau of Economic Research.

The long-term upward trend in labor productivity is clearly visible. Other, more subtle patterns are also seen: the downtick associated with the depression of the 1930s, the upward spurt in measured productivity during World War II, and the downturn of the postwar recession. Laying a ruler on the graph, though, one is tempted to see three historical epochs: from 1889 to 1937, when productivity growth averaged 1.9 percent a year; from 1937 to 1973, when productivity grew 3.0 percent a year; and the period since 1973, when productivity growth averaged 0.9 percent a year.

A qualitatively similar picture to this one characterizes the record for most other industrialized countries as well—long-term growth, with middle-level growth before the 1930s Depression, rela-

tively high growth coming out of the Depression and World War II, and relatively low growth starting in the early 1970s. This suggests that factors common to all countries, rather than factors specific to any one country, underlie these trends.

Looking at labor productivity over the last century, some economists contend that the slowdown in recent years should not necessarily be viewed as an historical aberration. Rather, the high growth rates from the late 1930s to the early 1970s may well be the exception, not only for the United States, but for all countries. Proponents of this view attribute the historically high average growth rate between 1937 and 1973 to a backlog of ideas and technology that went unused and investment projects that were postponed during the depression and World War II. In addition, new wartime technologies were developed that were eventually adopted for peacetime use. When the war ended, many products incorporating these new technologies were developed and produced. Pent-up consumer demand and the rebuilding of the economies of Europe and Japan also created a tremendous demand for investment in new factories and equipment. According to this view, as the surge in new investment slowed and the backlog of new ideas was depleted, growth rates in these countries slowed.

CAUSES OF THE SLOWDOWN IN PRODUCTIVITY GROWTH

Although many factors have contributed to the recent slowdown in productivity growth, most researchers look to three broad classes of explanations: a reduced rate of capital accumulation, a change in the rate of technological advance, and a reduced rate of improvement in the skill levels of the labor force. Government policies can have important effects on these determinants and hence on productivity growth.

Capital Accumulation

The notion of capital represents an attempt to capture the productive facilities with which an economy is equipped. These facilities are of a great variety—examples range from the storage tanks and pumps at the local gas station to a highly sophisticated complex for manufacturing microprocessing chips for personal computers. In a private enterprise economy, most capital is put in place by people who bear the risk of success or failure of the investments.

Growth in capital per worker is, over long periods of time, closely associated with productivity growth. From 1959 to 1973, for example, capital per worker grew by 2.4 percent a year in the private business sector, while productivity in that sector grew by 2.8 percent. From 1973 to 1989, capital per worker grew at 0.8 percent annually and annual productivity growth was 0.9 percent.

According to generally accepted economic analysis, a higher level of capital per worker should support a higher level of output per worker. A rough rule of thumb is that a 1-percentage-point higher level of capital per worker should lead to between a quarter and a third of a percentage point higher level of productivity.

Such a static view of capital may well understate the effect of the *process* of increasing the amount of capital per worker. The new investment required for such "capital deepening" is often the method for introducing new technology that contributes to the productivity of existing facilities. New investment may also foster learning by doing; in putting new equipment in place, companies discover new ways of doing things that make their further investments more productive.

These hypotheses are consistent with studies that find a high correlation between investment rates and rates of productivity growth in different countries. Among major industrialized countries, the United States had the lowest investment rate and the lowest rate of productivity growth in recent decades. According to a recent OECD survey, U.S. gross investment as a fraction of gross national product averaged 19 percent in 1971–80, and 18 percent in 1981–89; the corresponding figure for Japan was 29 percent. Between 1950 and 1979, the United States had the lowest rate of growth of capital per worker among the "group of seven" industrial countries (the others being Canada, France, Germany, Italy, Japan, and the United Kingdom). In 1979 the U.S. capital stock was estimated to be 73 percent older than Japan's.

A major suspect in the slowdown of U.S. productivity growth is thus to be found not in the labor markets but in the capital markets. To raise the rate of productivity growth, the national rate of investment should be increased. The Administration has stressed the need to encourage investment through numerous avenues of policy, including measures to reduce the tax bias against saving and investment. Capital formation is also a principal reason the Administration insists on maintaining budgetary discipline. Expanded government borrowing diverts saving from private investment that leads to higher productivity growth.

Innovation

The pace of innovation, or technological change, is also an important determinant of productivity growth. No number of barns or buggies could support today's standard of living. New methods of production, new products, new modes of organization, and new possibilities for communication have been essential to increased growth and have been forthcoming in remarkable degree. The rate of technological advance is difficult to measure quantitatively, other than by reference to productivity change that cannot be ex-

plained by measurable changes in inputs such as physical capital and labor.

Innovation requires the commitment of resources to development of new products and processes and to institutional change (for example, the intricately coordinated overnight delivery systems that have become part of everyday business life in the United States). Government can help make the most of opportunities to innovate in a wide variety of ways, from supporting basic scientific research to ensuring that tax laws do not discourage innovation.

Government has a particular role in encouraging innovation in areas where private investors find it difficult to capture the full benefits of new knowledge. The patent protection afforded an invention permits an inventor to require payments from users and hence to capture some of the benefits. But the innovation may convey an idea to another inventor, who is thereby able to create further benefits, an effect not captured by the original patent. For this reason, the Administration has favored tax policies that encourage innovation broadly. It has also proposed increased government support for basic and applied civilian research that has widespread benefits exceeding costs and from which the returns are not fully appropriable by the private firms that might undertake the research.

Labor Force Quality

Improvement in the "quality" of the labor force, that is, in the productive abilities of individual workers, is the third major contributor to advances in productivity. The term "human capital" refers to the stock of knowledge and skills possessed by workers and is sometimes used to express the analogy with the stock of facilities discussed above. Economists generally agree that the stock of human capital is an immensely important source of an economy's productive power.

All else being equal, higher levels of schooling in the population would be expected to lead to higher levels of output per worker. Productive skills are not perfectly correlated with years of classroom education, however. The quality and relevance of instruction are significant factors. Moreover, one of the concerns in recent years is how well the educational system prepares students for the demands of the workplace. The Administration has made improvements in the Nation's educational system a high priority, as described in the last section of this chapter.

SUMMARY

- Advances in labor productivity and employment have provided the United States with the highest standard of living in the world.

- In the United States, as in many other industrialized countries, labor productivity growth during the last 20 years has slowed.
- A slowdown in the rate of capital accumulation is one of several factors contributing to the slower productivity advance.

REAL WAGE GROWTH

Workers' earnings are closely linked to their productivity: In a competitive market economy, a worker will tend to be paid an amount equal to the contribution he or she makes to the value of the employer's output. For the economy as a whole, therefore, real wage growth is related to the growth of productivity. For individual workers, real wages differ according to worker characteristics and are affected by shifts in overall supply of and demand for these characteristics.

AGGREGATE REAL WAGE GROWTH

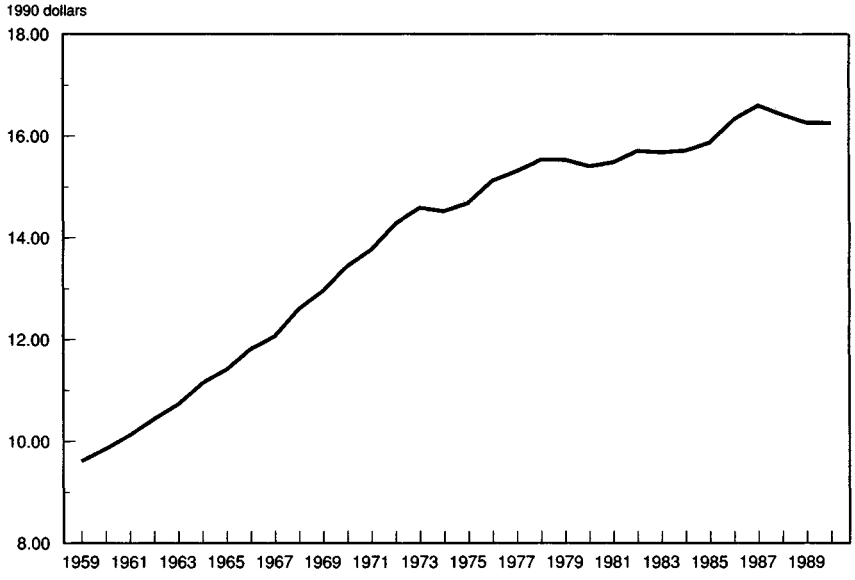
Various statistical measures of payments to workers are available, all of which track productivity trends closely. A comprehensive measure would include wages and fringe benefits and cover all workers in the economy. One of the measures that comes closest to meeting these criteria is compiled by the Bureau of Labor Statistics and includes payroll employees and the self-employed. Aggregate real hourly compensation is derived by dividing total compensation by hours worked by all employed people and adjusting for inflation using an improved version of the consumer price index, CPI-U-X1 (Chapter 7).

Chart 3-5 shows that although the year-to-year changes are sometimes small or negative, long-term wage growth has been significant. The average real hourly compensation of workers in the U.S. economy has increased 69 percent since 1959 and 11 percent since 1973. The slowdown in real wage growth since 1973 primarily reflects the sharp reduction in productivity growth, which collapsed between 1973 and 1981, and rebounded only modestly between 1981 and 1990.

The relationship between labor productivity and aggregate real hourly compensation in the private business sector is seen by comparing their growth rates over time. From 1959 to 1973, labor productivity grew at an average annual rate of 2.8 percent, while real hourly compensation grew 2.9 percent. After 1973 labor productivity grew at an annual average rate of 0.9 percent, while real hourly compensation grew at 0.7 percent. Similar patterns occurred in U.S. manufacturing.

Most other major industrialized countries displayed similar relationships. In Japan's manufacturing sector, for example, productiv-

Chart 3-5 **Real Hourly Compensation, 1959-1990**
Total compensation per hour has increased since 1959. Its rate of growth has slowed since 1973.



Note: Compensation deflated by CPI-U-X1.
Source: Council of Economic Advisers and Department of Labor.

ity grew at an average annual rate of 10.6 percent and real hourly compensation grew by 8.2 percent a year from 1959 to 1973. After 1973 annual productivity growth averaged 4.4 percent and real hourly compensation growth averaged 2.1 percent.

Changes in the attributes—particularly educational attainment and experience—of the work force have a significant effect on the change in aggregate wage measures. To demonstrate the effect of an increase in both schooling and experience (approximated by age) on real earnings growth, consider what would have happened to the average level of real earnings if the composition of the work force had remained the same in 1990 as it was in 1975. If year-round, full-time workers had maintained the same gender, age, and schooling structure in 1990 as in 1975, and the gender-, age- and educational-specific earnings levels were those prevailing in 1990, average real earnings would have been 8 percent lower than they actually were. Thus, changes in the composition of the work force can have a sizable effect on the growth of average real wages over time.

WORKER CHARACTERISTICS AND WAGE LEVELS

While aggregate real wage measures reveal the progress of the nation's work force as a whole, they do not identify the progress of any one group of workers, and they do not show how successive age cohorts of workers have fared. An age cohort refers to all workers born in the same period.

Earnings Growth Over a Worker's Career

The typical relationship between real earnings and age is that earnings rise steeply during the first part of a worker's career, level off in the middle years, and decline in the last years before retirement. Earnings generally increase faster in the earlier stages of a person's career—in part because training is usually concentrated in the first few years of a person's career, and, consequently, skills and knowledge accumulate at a faster rate for younger workers.

The average pattern of earnings growth over a person's career can be approximated by following workers of the same cohort over time. Consider, for example, the group of men who in 1980 were between the ages of 25 and 34, who had completed 4 years of college, and who worked full time year round. To see how their earnings changed in 10 years, one looks at the group of workers in 1990 with the same characteristics, except that they are 35 to 44 years old.

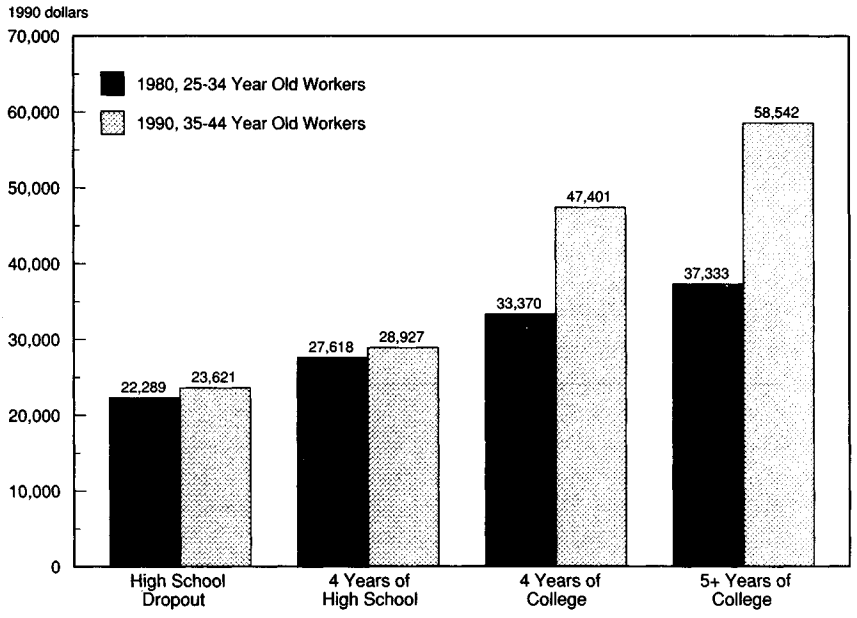
As shown in Chart 3–6, average annual real earnings of these men increased 42 percent, from $33,370 in 1980 to $47,401 in 1990. These numbers refer only to earnings and thus omit other forms of compensation. Including only year-round, full-time workers implicitly adjusts for much of the variation in the number of hours worked between these groups or within groups over time.

These real wage increases not only reflect the long expansion of the 1980s, but also the generally rapid increase in wages that workers typically obtain during the early years of their careers. The same relatively large increase is observed for college-educated men who were 25 to 34 years old in 1975. Average real earnings for this cohort of men were 36 percent higher in 1985 than in 1975.

As expected from the typical age-earnings profile, real earnings growth was slower for older men than for younger men. Average real earnings grew 11 percent between 1980 and 1990 for the group of men with 4 years of college aged 35 to 44 in 1980. Men in these age groups typically have at least 10 years more experience than workers who have embarked on their careers around the age of 25. *Thus, even though general economic conditions were the same for all workers, real earnings growth for the various age cohorts differed because they were moving through different stages of their lifetime careers.*

Chart 3-6 **Earnings Growth Early in Male Workers' Careers**

Average real earnings for male workers grew between 1980 and 1990. Earnings growth was larger for those with higher educational attainment.



Note: Data based on year-round, full-time workers. Dollar values deflated by CPI-U-X1.
Sources: Council of Economic Advisers and Department of Commerce.

Studies indicate that the proportionate rise in earnings in the first 20–25 years of workers' careers is similar for all education groups. The actual earnings growth of a particular group of workers results from the combined effect of more work experience, more training, developments in the labor market, and capital formation. The demand shift favoring more highly educated workers is evident in relatively higher wage growth from 1980 to 1990 for workers with more years of schooling (Chart 3-6). The chart also shows that the cohort of young men with low levels of education achieved low real earnings growth between 1980 and 1990. For less educated workers, developments in the labor market counterbalanced the wage-increasing effect of experience, resulting in a more modest rise in earnings.

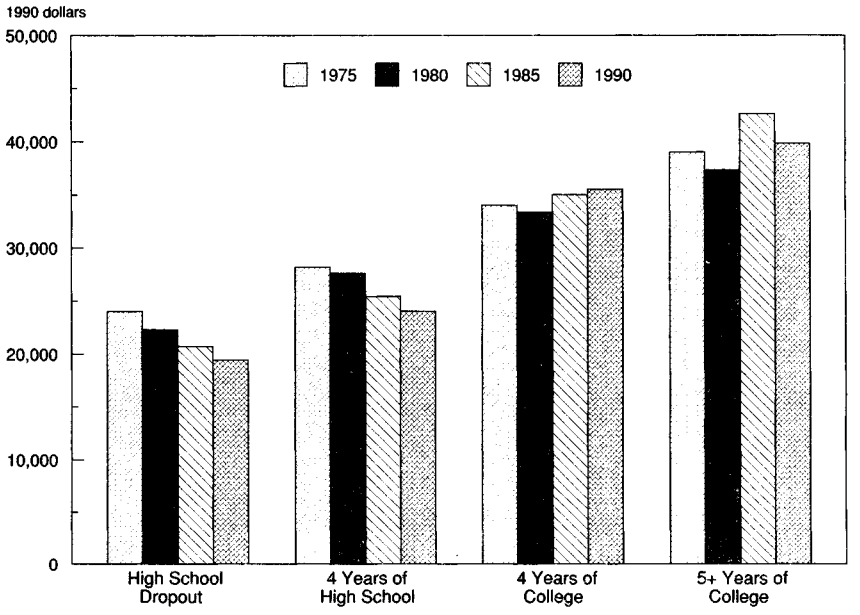
Young and middle-aged women with each level of educational attainment achieved even more marked relative increases, although women's average annual earnings were lower than men's. As was the case for men, increased earnings were most marked for the highly educated women.

Earnings Growth from One Cohort to the Next

Chart 3–7 shows how the experience of successive cohorts has varied. *Growth in average earnings by successive age cohorts of young men has varied by educational attainment.* The chart shows a general, but uneven, rise from 1975 to 1990 in average earnings of successive cohorts of men with at least 4 years of college. The chart also shows a deterioration of average earnings of successive cohorts of less educated young men. For older men the pattern is less pronounced.

Chart 3-7 **Earnings of Cohorts of Young Men, 1975-1990**

Average real earnings for 25-34 year old men grew only for workers with higher educational attainment.



Note: Data based on year-round, full-time workers. Dollar values deflated by CPI-U-X1.
Sources: Council of Economic Advisers and Department of Commerce.

A similar pattern holds for successive cohorts of women, in all age categories. Average earnings levels rise little or decline for the less educated. Average earnings levels rise for the more educated.

The common element for all cohort-education groups is the general increase in productivity. The relatively better wage growth experienced by the more highly educated groups is consistent with the previously discussed shift in demand for high-skill jobs.

SUMMARY

- **Aggregate real wages have grown by 69 percent since 1959 and by about 11 percent since 1973. Slower labor productivity**

growth during the last two decades slowed the growth in average real wages.

- Tracking workers within specific age cohorts over time reveals that most cohorts of young and middle-aged workers, men and women at all education levels, experienced increases in average real wages during the 1980s.
- The increase in average wages achieved in the early years of their careers was higher for workers with greater years of schooling.
- The average real wage of successive age cohorts of better educated men and women generally increased between 1975 and 1990, while wages of less educated workers declined.

WAGE DISPERSION AND MARKET FORCES

The shifting pattern of earnings growth for workers with different attributes has been one of the notable labor market developments in recent decades. Studies have shown that, for workers as a whole, the result has been some tendency toward equality in wage levels in the lower half of the earnings distribution, and a widening of the spread of earnings in the upper half of the distribution. When the earnings of men are considered separately, a tendency to greater dispersion is observed for the entire distribution. A growing spread between the earnings of those with college degrees and those with high-school or lesser levels of education is particularly noticeable. Even within groups of workers with similar years of schooling and experience, however, the wage dispersion increased, suggesting an increasing role of differences in work skills not attributable to the broad measures of years of experience or schooling.

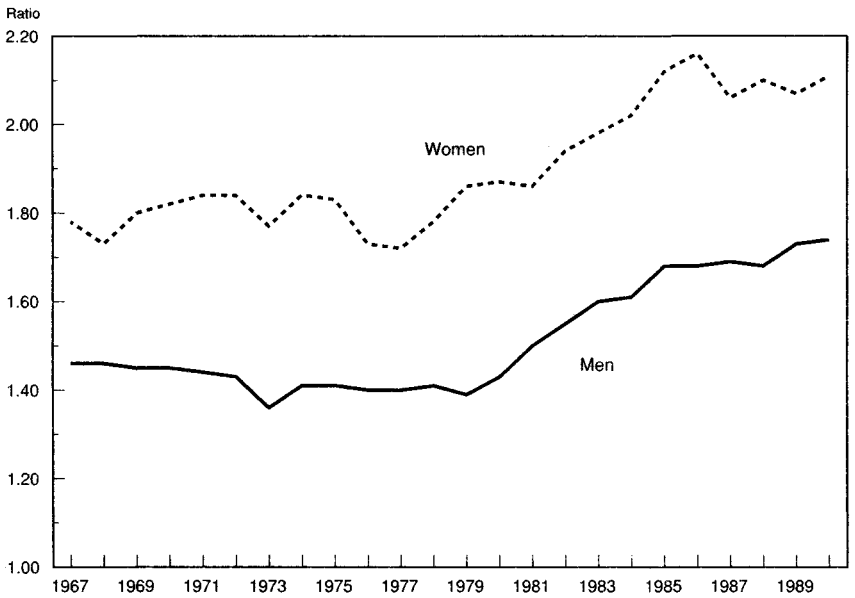
WAGE PREMIUMS FOR EDUCATION

Educational attainment is one of the primary characteristics that distinguishes high-income from low-income workers. The wage gap between workers with a college education and those with only a high school education began to widen at about the same time that the general increase in wage dispersion began during the late 1970s. As shown in Chart 3–8, the income (which consists predominately of labor earnings) of men with 4 years of college rose after 1979 relative to the income of men with only 4 years of high school. Before then, the income premium for college-educated workers actually had declined slightly. The income premium for women, based on the same differences in schooling, has followed the same trend since 1979 and is noticeably higher than for men.

The earnings premium for college-educated workers over the last two decades is consistent with a steadily increasing demand in the

Chart 3-8 **Ratio of Median Incomes of College- to High-School-Educated Workers**

The premium for an advanced education has increased for both men and women since 1979.



Note: Ratio of median income of people who have completed 4 or more years of college to median income of people who have completed 4 years of high school.
Source: Department of Commerce.

market for their skills. The proportion of the labor force with college educations increased from 14 percent to 22 percent between 1970 and 1980. As shown in Chart 3-8, the college premium was nearly constant this period. By 1990 the proportion of the labor force with college education had risen to 27 percent. The college premium rose significantly in the 1980s.

The current wage premium paid to college-educated workers should serve as an incentive for high school students to go to college. A recent study indicated that young people base decisions about college enrollment in part on their expectations of higher future earnings. This study also suggested that the increased wage gap between college and high school graduates has induced a significant number of students to enter or continue with college.

WAGES OF WOMEN

After remaining constant for most of the 1960s and 1970s, the difference between women's and men's earnings narrowed during the 1980s. Between 1980 and 1990, the median earnings for year-round, full-time female workers rose from 60 percent to 72 percent of the corresponding figure for men. The increase is particularly notable in light of the increased supply of female workers. In-

creased education was an important factor in the narrowing of the wage differential. The female-to-male earnings ratio for college-educated workers is higher than that of high-school-educated workers. In 1990 the ratio was 84 percent for college-educated workers between the ages of 25–34, compared with a ratio of 73 percent for high-school-educated workers.

Increase in labor force experience was also a key factor in narrowing the wage gap. Over their careers, many women enter and leave employment as they assume family or other responsibilities. As a result, women have tended to acquire fewer years of experience than men over a fixed period of time. In recent years, however, women have spent longer sustained periods employed and have accumulated more training and job experience. *This increased experience has paid off as women have entered traditionally male-dominated, higher-paying occupations in increasing numbers.* Consequently, the income growth over women's careers during the 1980s appears to be much closer to that of men in the same cohort than was true for earlier cohorts of workers.

This trend can be seen by examining the change over time in the ratio of male worker income to female worker income for different cohorts of workers. Table 3–1 shows that the income ratio fell over 10 years for workers who were between the ages of 25 and 34 in 1970. The ratio for workers in this age cohort was 65 percent in 1970 and 56 percent in 1980—when the group was 10 years older. That means that women did not maintain their earnings position relative to men as they grew older.

TABLE 3–1.—*Ratio of Women's Income to Men's Income (Percent)*

Age Groups	Year		
	1970	1980	1990
25–34	65	69	
35–44		56	69

Note.— Data are median annual income of year-round, full-time workers.
Source: Department of Commerce.

The age cohort that was between the ages of 25 and 34 in 1980 started out with an income ratio (69 percent) that was slightly higher than the rate for the previous cohort in 1970 (65 percent). But unlike the earlier cohort, the ratio stayed the same (69 percent) in 1990. Thus, women's age-earnings paths were comparable to men's during the 1980s.

WAGES OF BLACK WORKERS

In 1990 the median annual earnings of black men 25 years or older working year round, full time were 72 percent of the median annual

earnings of comparable white workers. For women 25 years or older working year round, full time, the ratio was 91 percent. A recent study has shown that these ratios have remained relatively constant through the 1980s. From 1963 to 1980, the earnings of black male and black female workers rose relative to comparable white workers.

The black-white wage differential is affected by several factors. One factor is the relative reduction in employment in industries that have traditionally employed a proportionately higher number of black workers receiving relatively high wages. Another factor has been the diminished employment opportunities in some central cities and regions of the country with a high concentration of the black population. Furthermore, the shift in demand to high-skill jobs disproportionately affected blacks, whose educational attainment, while improving, still lags behind that of whites.

Many studies document that discrimination in the labor market also contributes to wage and employment differentials. The Administration strongly opposes discrimination.

SUMMARY

- Median income of college-educated workers, both men and women, rose relative to high-school-educated workers in the 1980s.
- As women gained greater work experience and more schooling and made inroads into traditionally higher paying, male-dominated occupations, the difference in wages between men and women narrowed during the last decade.
- The difference in wages between white and black workers stayed roughly the same during the 1980s. While educational attainment improved for both black and white workers, there was still an educational gap, which contributed to the earnings differential.

UNEMPLOYMENT

Workers voluntarily leaving their jobs to find other jobs or people entering or reentering the labor force sometimes experience spells of unemployment. Involuntary unemployment occurs when a worker is laid off or dismissed. During the last business cycle, the proportion of the unemployed who lost their jobs involuntarily fluctuated between 45 and 60 percent, depending upon economic conditions. During the latter half of 1991, for example, when the economy was sluggish, about half of the unemployed had involuntarily lost their jobs.

For statistical purposes, everyone over 16 years of age who is either employed, actively searching for employment, or awaiting recall from a lay-off is considered part of the labor force. Estimates

of the number of people in each of these categories are obtained by surveying a random sample of the population each month. Those interviewed are asked whether they worked in the week prior to the survey, and if not, whether they were on layoff or were searching for work. The unemployment rate is defined as the number of people in the labor force who are not working divided by the number of people in the labor force.

Analysts sometimes extend the category of the unemployed to include "discouraged workers." Discouraged workers are those people who say they want a job but have stopped looking because they do not think they can find one. Because such people are not actively searching for employment, they are not technically defined as being in the labor force and therefore are not included in the standard unemployment measure. In the fourth quarter of 1991, just over 1 million people were counted as discouraged workers, about one-eighth the number of people who were officially recorded as unemployed.

Manufacturing employment is very sensitive to swings in aggregate demand. Mass production techniques, standardized products, and the durable nature of most goods produced in the manufacturing sector permit companies to stockpile items to ensure a ready supply for customers. At times, manufacturing companies respond to rising inventories by cutting back production. The usual practice is for companies to reduce their employment for short periods of time until inventories are drawn down to the desired level.

Service jobs, on the other hand, are more oriented toward performing tasks on demand. By their nature, services cannot be stored. They usually are performed at the time the customer requests assistance. Although people may postpone some services when the economy softens, service sector employment does not exhibit the wide swings that characterize the manufacturing sector. Service workers are less likely than manufacturing workers to become unemployed during an economic downturn.

To speak of "economic downturn" may give a misleading impression of the nature of much unemployment. Although many workers can reasonably expect to be recalled when general business conditions improve, many others are permanently laid off and their jobs abolished. Such dislocations can occur in good times as well as bad, and they may affect entire regions. A commonly cited example is the historical movement of the shoe and textile industries from New England to the South. These industrial shifts can affect skilled as well as unskilled workers. Nor are the changes necessarily wholly unexpected. Present projections of Federal Government defense expenditure imply substantial job dislocation over the coming years for many highly trained engineers and others em-

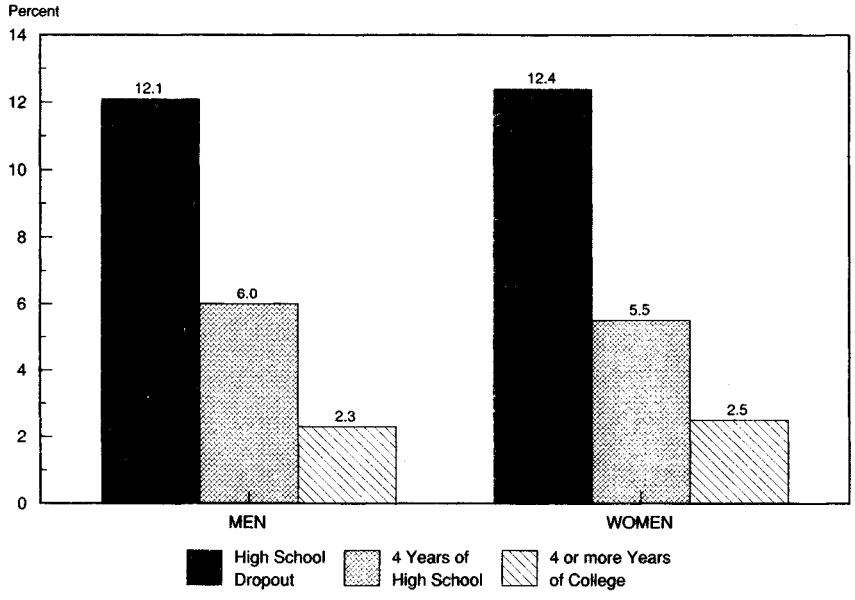
ployed in the defense industries, as well as for those entering the civilian labor force from the armed services.

Dislocated workers face special problems, particularly if they have been employed in a job that has involved developing knowledge and skills specific to a particular employer. Their reemployment may require moving to another geographical location and acquiring new training. As discussed in a later section, government programs can play a role in facilitating such transitions.

Workers with more classroom education often possess knowledge that is more general and can be applied to a variety of jobs, and thus they may find it easier to switch employers. The significantly lower unemployment rate for people with college education is consistent with this point (Chart 3-9). The unemployment rate for college graduates is typically one-quarter the rate for people with less than a high school degree.

Chart 3-9 **Unemployment Rate By Educational Attainment, 1990**

Unemployment rates are lower among people with higher levels of education.



Source: Department of Labor.

The 1990–91 slump hit white-collar, highly educated workers harder than past downturns had. Particularly affected were workers in the financial and retail sectors. In contrast, during the 1980–82 recessionary period, employment in these sectors, as well as in the service industries, continued to climb, despite a substantial fall in the economy-wide number of jobs. Unemployment rose among white-collar workers in 1990–91, but lower skilled production work-

ers suffered not only higher unemployment rates, but also larger increases in unemployment. Educational attainment and job security still go together.

UNEMPLOYMENT INSURANCE

Since 1935 States have administered an unemployment insurance (UI) program that provides financial assistance for workers who have lost their jobs through no fault of their own. Virtually all workers who receive wages or salaries are included in the program. The UI system is financed by Federal and State taxes placed on employers based on the size of their payroll. Each State also establishes its own tax base that funds regular unemployment insurance benefits, as well as 50 percent of extended benefits (described in the next section). The magnitude of the State tax varies across States and across firms. The Federal tax funds the administration of the UI program, the other half of the permanent extended benefits programs, and a loan account.

Most States base the amount of weekly benefit on a formula that compensates the unemployed worker for some percentage of his or her full-time weekly wage. Benefit levels vary among States but average roughly 35 percent of the unemployed worker's earnings. Eligibility criteria also differ across States. In general, a worker must have lost the job through no fault of his or her own, have sufficient job tenure, and be free from disqualification for any of a variety of reasons spelled out by State law. A worker can continue to receive benefits for a specified time period as long as he or she is looking for a job, is available and able to work, and has not refused to accept a "suitable" job. Unwillingness to accept available suitable work can lead to disqualification from benefits for a specified period of time, determined by each State's codes.

The financing structure of the unemployment insurance program levies higher tax rates on companies with histories of sizable layoffs. This tax system, known as experience rating, places much of the cost of the system on those firms (and indirectly on their employees through lower wages, their customers through higher prices, and their suppliers through reduced demand). Every State institutes a maximum and minimum rate that can be levied on a firm. The ceiling may prevent a firm with a history of extensive layoffs from being taxed the full cost of the benefits to its laid-off employees. In that case, the firm is subsidized by other firms whose relatively low layoff experience warrants a tax rate below the minimum allowed by law. Studies have shown that this arrangement provides firms in volatile industries with an incentive to hire more workers than they otherwise would, while expecting each worker to spend more time on temporary layoff because their UI benefits are subsidized by firms in more stable sectors.

EXTENDED BENEFIT PROGRAMS

The UI program provides benefits to eligible workers for up to 26 weeks in most States, which is usually sufficient time for the majority of unemployed workers to find new jobs. Median duration of unemployment has typically been between 5 and 8 weeks since 1968, when records began to be kept. Even during the depths of the 1980–82 recessionary period, the median duration never rose above 13 weeks. In December 1991 it stood at 8 weeks. Some people, of course, have much more difficulty finding reemployment than others. During economic slowdowns or recessions, more jobs are eliminated than created, making jobs harder to find. Immediately following the 1981–82 recession, 25 percent of the unemployed had been without work for more than 27 weeks. In December 1991, 17 percent of the unemployed had been without work for more than 27 weeks.

Workers who do not find jobs within the regular 26-week benefit period are currently covered by two extended benefits programs. A permanent program, established in 1970, provides up to 13 additional weeks of benefits to those workers in States that have particularly high unemployment rates. Workers are eligible for extended benefits under the permanent program if their State's insured unemployment rate is higher than a statutorily specified level. The insured unemployment rate is different from the commonly publicized total unemployment rate and is almost always lower (Box 3–1). Few States qualified for extended benefits under the permanent program in 1991, even though labor market conditions worsened in most of them. An emergency unemployment compensation program was enacted in the fall of 1991, which provided additional benefits to many of those who had exhausted regular UI benefits during the recession but had not found work.

Extended benefits are designed to assist people financially during particularly arduous times. Economists have observed, however, that extending benefits also tends to delay reemployment. Estimates from recent studies, which examined the job search experience during the 1980–82 recessionary period, suggest that an additional week of extended benefits will increase the expected duration of the unemployment spell up to half a week. Evidence also shows that extending benefits reduces the likelihood that workers will make a switch to industries other than the one in which they were previously employed.

Further evidence of the effects of extended benefits comes from those countries with relatively high unemployment experience. The United States has the shortest period of benefits and one of the lowest long-term unemployment rates, defined as the percentage of people who remain jobless for more than 12 months. Belgium has both the longest period of extended benefits and the highest long-

Box 3-1.—Total and Insured Unemployment Rates

Recent discussion regarding extended unemployment benefits has drawn attention to the difference between two measures of a State's unemployment conditions: the total unemployment rate and the insured unemployment rate. The total rate, the standard measure of unemployment, is defined as the total number of unemployed divided by the total labor force. The insured rate is defined as the number of people who are receiving unemployment insurance (UI) divided by the number of workers covered by the program.

Until the fall of 1991, the sole criterion for a State qualifying for extended benefits was the level of the State's insured rate. The emergency unemployment compensation program enacted in November 1991 uses either the insured rate, adjusted for those who have exhausted regular UI benefits, or the total rate to determine which States are eligible for various periods of extended benefits.

More than 90 percent of those employed are covered by UI. Excluded from covered employment are primarily the self-employed and some agricultural and household workers. Insured unemployment tends to be around 40 percent of total unemployment. Most of the disparity between the two rates stems from those who are not eligible for UI benefits but are considered unemployed: new entrants into the labor force, reentrants, those who quit voluntarily, and those who have exhausted regular UI benefits. A secondary source of difference is those who are unemployed and eligible to draw UI benefits but do not apply to do so. As a result, the insured rate and the total rate may give two different pictures of the economic conditions in a State. In August 1991, for example, Michigan's insured rate was 3.2 percent, while its total unemployment rate stood at 8.7 percent. West Virginia's total rate of 10.5 percent was the highest in the nation, but its insured rate was only 3.3 percent.

term unemployment rate among the major industrial countries—its rate is nearly eight times that of the United States. The correlation between long-term unemployment rates and long benefit periods holds when comparing many other countries.

Extending unemployment insurance benefits can be a critical addition to the Nation's social safety net. Ways should be sought, however, to mitigate any associated disincentives to either accept employment or take advantage of reemployment services. These serv-

ices include job training, job search assistance, and relocation assistance.

Some economists have proposed that training be linked directly to the UI program. Another option to get people back to work, currently being tested and developed in two states, offers UI recipients the opportunity to receive their benefit entitlement in a lump-sum payment as seed capital after they have started their own businesses. The program also provides training and assigns a business development counselor to each participant. This program puts people back to work and creates businesses at a time the economy needs such a stimulus. Although these projects have not been under way long enough to measure their success, experience with similar programs in Europe shows that they can provide the opportunity for some unemployed to become self-employed.

SUMMARY

- The unemployment insurance program provides financial assistance for workers who have lost their jobs through no fault of their own.
- The Emergency Unemployment Compensation program was enacted in November 1991 to extend benefits to those workers who have exhausted their regular UI benefits.

ENHANCING WORKER SKILLS

The wage gap between high-skilled and low-skilled workers has been growing. Low-skilled workers are more likely to work only part time and are more frequently unemployed. Workers at every level must possess skills that match the challenges of new technologies and more complex work environments. Even skilled workers must be prepared to move into other jobs as changing market conditions favor some industries at the expense of others.

How best to train people to meet the changing needs of the workplace is not easily resolved. Some firms provide extensive training, but most formal teaching of basic cognitive skills is left to institutions outside the workplace. Formal education can provide people with a stock of skills applicable to many different jobs. The increasing divergence in wages among people with various levels of educational attainment and the greater job security that comes with more schooling conveys a clear signal to America's youth that employers value education.

Greater involvement of the private sector, both employers and employees, in the educational system would help students transfer their skills and knowledge from school to the workplace. Businesses have the most immediate knowledge concerning the skills that people need to be productive workers. Cooperation between busi-

nesses and schools would help close the gap between the education schools provide and the skills businesses need in their employees.

Demand often outstrips supply for high-skilled workers. Even during the present sluggish state of the economy, manufacturers have reported shortages in skilled positions, such as technicians and technical professionals. One response to persistent shortages and high wages of skilled workers is to structure the workplace to accommodate the low-skill worker, for example, by developing routine procedures or using computers to simplify calculations workers might have to make. Such arrangements provide useful employment to presently low-skilled workers. To raise those workers' long-term prospects more significantly, their skills must be enhanced through education and training.

Defining jobs narrowly and making each job relatively easy to learn served the U.S. economy well when mass production was so prevalent and successful. In that system, a small group of technical and sales specialists did the thinking and planning, while the workers followed orders and carried out routine tasks quickly and efficiently. Today's workplace is increasingly one in which workers at all levels share responsibilities for day-to-day decisions. Work becomes technically more complex, and more cognitive skills and interpersonal skills are required.

Retraining displaced workers poses particularly difficult problems. Many of these workers have considerable work experience; returning to the classroom and taking several years to complete a course of training is difficult at that stage in their careers. The present institutional structure of the educational system, in which most substantive training is performed away from the job, precludes such workers from pursuing this route. The current Economic Dislocation and Worker Adjustment Assistance program, enacted in 1988, is more successful than previous job-training programs for displaced workers precisely because it is more flexible and geared to early intervention.

Another major Federal program designed to improve the economic well-being of workers is the job opportunities and basic skills training program (JOBS). Under the JOBS program, families receiving assistance from the aid to families with dependent children program can also obtain education, training, and employment needed to help them avoid long-term welfare dependency.

The Administration has recently announced a major program, Job Training 2000, to reform the Nation's job-training and vocational education system so that workers are better prepared for the future demands of the global marketplace. These initiatives target three groups: new labor force entrants who need basic education and job training, people who currently rely on public assistance, and displaced workers who seek jobs and placement assistance. The

reform proposal simplifies and better coordinates more than 60 existing Federal programs and services, encourages greater and more effective private sector involvement in training and placement programs, and creates a flexible training system that provides the skills needed in local labor markets (Box 3-2).

Box 3-2.— Job Training 2000

The Job Training 2000 [illegible] uses market-based approaches to improve the [illegible] training system. The initiative consists of three [illegible] components: reforming vocational training, facilitating the transition from welfare to work, and improving the transition from school to work. The nucleus of the vocational training program is the more than 600 business-led private industry councils established by the Congress in the late 1970s to provide ties between business and publicly supported job-training programs.

Under the new program, the councils would run skills centers, which would function as the primary points of entry into federally funded job-training and vocational education programs. These centers would provide skills assessment and testing, referral services, labor market information, job-training placement assistance, and counseling programs. The councils would also administer training vouchers and incentive grants to help ensure that vocational schools and training centers are offering the most relevant skills to students.

Job Training 2000 calls for private sector welfare-to-work demonstration projects that allow States to use private and nonprofit firms to provide basic training and job placement for welfare recipients. These firms would function in a manner similar to a temporary employment agency but would not receive full payment for their services until after the worker has been permanently placed and held a job for some period of time.

The reform proposal also establishes a youth apprenticeship program in which students in the 11th and 12th grades may choose a structured combination of academic instruction, classroom training, paid on-the-job training and work experience, and mentoring. Successful apprentices would receive a high school diploma or associate degree, a certificate attesting to their skill competencies and qualifications, and employment.

The effort to ensure that America's future workers have the skills they need must begin even before formal schooling. The Administration has recently proposed increased funding for the Head Start program, which helps prepare preschool children from low-

income families for elementary school. The main responsibility for schooling resides with the States and localities, where the funds and decisions about education originate and where the solutions are best found. The Administration's America 2000, discussed in last year's *Report,* lays out a long-range educational reform strategy for the Nation. Its goals have already been adopted by more than half the States and put in place in more than 1,000 communities across the country.

The Administration encourages communities to adopt programs that will allow parents and students the greatest latitude in choosing the school and curriculum that best meets their needs and preferences. Opening the educational system to choice will stimulate institutions to seek innovative ways to educate the workers of tomorrow.

SUMMARY

- The changing nature of the workplace has put greater demands on the U.S. educational system. Skills that were once sufficient to command high wages are no longer adequate, as occupational restructuring within U.S. industries favors high-skill workers.
- The Administration's Job Training 2000 initiative to reform job training and vocational education is designed to encourage greater and more effective involvement of business in training a highly skilled work force.
- The Administration's education reform initiative, America 2000, strives to provide every American with the basic skills necessary to be a productive worker.

CONCLUSION

Over the past two decades, despite the temporary setback of several recessions, the U.S. labor market has been flexible, dynamic, and resilient enough to provide nearly 40 million additional jobs, a percentage increase far surpassing that of most other major industrialized countries. Over the same period, average real wages rose 18 percent.

Although the earning power of workers in this country has improved over the last two decades, it has done so at a slower pace than during the first 25 years after World War II. The primary reason for the slower wage growth has been the slower growth of productivity. While many factors contributed to the slower growth of productivity, and hence real wages, a major factor has been the slower growth in capital per worker. This reflects developments in both capital and labor markets.

Ample evidence supports the view that investment in technology development and in the skills and knowledge of workers also raises productivity growth. In recent years, the worker characteristic most conducive to higher earnings has been higher levels of education. The Administration is committed to the goal of increased economic well-being for all Americans. The fundamental key is raising the earning power of American workers. This in turn will require greater capital formation, enhanced technology, and more and better job training and education. While much of this is the responsibility of the private sector and of State and local governments, the Federal Government has an important role to play as well.

The Administration's entire domestic policy agenda should be understood as addressing the objective of economic progress. Initiatives designed to modernize the financial system, ensure energy security, improve the civil justice system, and reduce the scourge of crime and drugs, each in its own way, will contribute to the future earning power of American workers. More directly, the Administration has taken the lead in developing a school reform strategy that will improve the quality of education and an improved job training program that will give millions of American workers the skills necessary for success in the labor market. A variety of fiscal and other initiatives designed to increase private investment and saving, spur entrepreneurship and innovation, and expand federal investment in technology development and infrastructure will ensure that American workers are equipped with the best possible capital to enhance their productivity.

CHAPTER 4

Government and the Level and Distribution of Income

INCOME FOR THE TYPICAL family has risen substantially over the past several decades. Rapid productivity growth and other factors fueled strong income growth from the late 1940s through the late 1960s. Since then, slower productivity growth and shifting demographic patterns have reduced the rate of income growth. Nevertheless, the typical family in 1990 received about $4,100 more in income after adjusting for inflation than the typical family did in 1970. Average incomes for families in each fifth, or quintile, of the income distribution have increased. Income growth, however, has been uneven for different segments of the population, and the distribution of income has gradually grown more dispersed since the mid-1960s.

Trends in the level and distribution of income are closely related and are affected by a variety of factors. The primary source of income for most families is labor earnings. Thus, the primary causes of the continued long-run increase in family income are the long-term increase in productivity, and hence in wages, the historic growth in employment, and related labor market factors. Changes in the distribution of wages and in employment patterns have also had important effects on the distribution of income.

The level of overall economic activity affects the incomes of families in each part of the income distribution. Sustained long-term economic growth has been the most effective and durable way to raise the income of families.

Demographic patterns also have substantial effects on the level and distribution of income. The average number of people per family has fallen significantly over the past three decades, and single-parent families are much more prevalent now than they were in the 1960s.

The level and structure of government taxes and transfers have important effects on the level, structure, and growth rate of overall economic activity. Many tax and transfer programs contain features that discourage people from working, saving, or investing. Some programs, like the earned income tax credit, can encourage work effort.

Many Federal, State, and local government programs and policies redistribute a substantial amount of income, wealth, and opportunities for economic advancement across the population. In 1990 according to estimates by the Census Bureau, the net effects of Federal and State taxes and transfers raised the income of households in the bottom fifth of the income distribution by an average of more than $8,800, from about $2,100 to about $10,900. Households in the top fifth paid $22,000 more in taxes, on average, than they received in transfers, reducing their average income from about $94,000 to under $72,000.

Most of this redistribution occurs through transfer programs. A network of means-tested programs transfers cash and specific goods, such as food, housing, health care, and job training to the Nation's neediest citizens. Other government programs redistribute in ways that are not means-tested. Social insurance programs protect individuals against a variety of contingencies. Recent decades have seen significant growth in spending on means-tested and social insurance programs and a shift in the composition of means-tested assistance toward the provision of specific goods and services rather than cash.

Despite long-term increases in income and transfer payments, poverty remains a serious problem in the United States. Society can and should provide a minimum level of support for those who are unable to provide for themselves. The most effective antidote to general conditions of poverty in the long run is sustained economic growth. Some poor people are unable to benefit from such growth, however, and require targeted programs. The Administration is firmly committed to the goal of alleviating poverty.

The Federal tax system also redistributes income toward lower income households. Major income tax reforms since the late 1970s reduced marginal tax rates, eliminated many tax shelters, broadened the tax base, and removed many low-income households from the income tax rolls. In addition, Social Security tax rate increases, enacted in the 1970s, were accelerated in 1983 to address short- and long-run financing problems in the Social Security trust fund. Amid these sweeping changes, redistribution of income within the Federal tax system has remained about the same as it was in the 1970s before the reforms took place.

Government tax and spending programs also transfer large amounts of wealth across generations. These transfers are sometimes clearly visible, as in the case of the Social Security program, where current workers make payments and current retirees receive benefits. As explained below, however, other policies embody intergenerational transfers that are much less obvious. In both cases, transfers across generations may be larger than transfers across income classes in a particular year.

THE LEVEL AND DISTRIBUTION OF INCOME

The most commonly used measure of income, and the one used in this section, is "money income" as defined by the Bureau of the Census. This measure includes all periodic earned and unearned monetary income except capital gains. Money income includes government cash transfers but does not count noncash government transfers, such as medicaid and food stamps, or fringe benefits, such as employer-provided health insurance, and it does not deduct taxes paid.

While wages are earned by individuals, income is typically shared among members of a family or household. Thus, analyses of income typically focus on these groups rather than on individuals. The Census Bureau defines a family as a group of two or more people related by birth, marriage, or adoption who live together. A household is defined as all related family members and all unrelated people living in a given housing unit. A family, a person living alone, or a group of unrelated people living together in a single housing unit each counts as a single household.

To measure the evolution of income over time, adjustments need to be made for the changing cost of living. Estimates of the cost of living are measured in the consumer price index (CPI) published by the Bureau of Labor Statistics. As discussed in Chapter 7, the CPI was modified in 1983 to incorporate an improved measure of the cost of shelter for homeowners. The modified price index used below, the CPI-U-X1, incorporates the improved measure of costs on a consistent basis back to 1967. Most analysts believe this index is the more appropriate measure of changes in the cost of living.

LEVEL OF INCOME

Median income adjusted for inflation is used to track the history of typical families and households. The median represents the midpoint of the income distribution; there are as many families (or households) with income above the median as there are with income below.

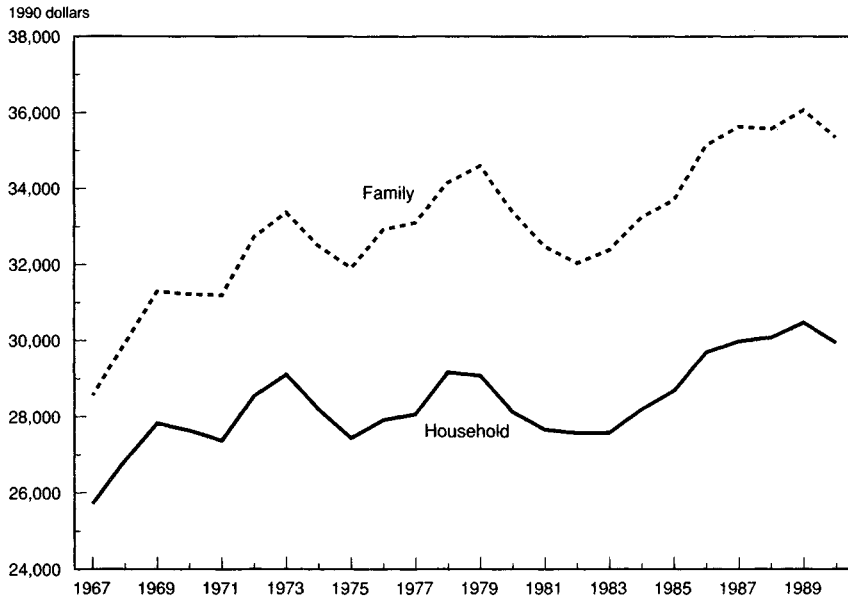
Chart 4-1 traces the evolution of real median family and household income since 1967. *Although the year-to-year changes are sometimes small, median family income grew by a substantial amount, from $28,563 in 1967 to $35,353 in 1990.* This represents an increase of about $6,800, or 23.8 percent. Median household income was $29,943 in 1990, an increase of about $4,200, or 16.4 percent, since 1967. Medians of both family and household income reached all-time highs in 1989.

Effects of the Level of Economic Activity

Fluctuations and trends in aggregate economic activity produce similar fluctuations and trends in median family and household

Chart 4-1 **Real Median Income**

Real median income of families and households has grown substantially since 1967.



Note: CPI-U-X1 used as deflator.
Sources: Department of Commerce and Department of Labor.

income. Long economic expansions in the 1960s and the 1980s led to strong advances in income. Inflation and three recessions between 1973 and 1982 resulted in fluctuating levels of income.

Chart 4-1 shows that real median family income rose sharply in 1967–69, was stagnant in the 1969–70 recession, and then rose during the expansion in 1971–73. After falling in 1974–75 in the recession following the first oil crisis, income rose again until 1979. However, the high inflation of the late 1970s and the subsequent back-to-back recessions in 1980 and in 1981–82 brought real wages and income down sharply. Real median family income in 1982 was lower than it was in 1973. From 1982 to 1990, median family income increased by about $3,300, or 10.4 percent. Since 1973, an earlier business cycle peak, median family income has increased by about $2,000, or 5.9 percent.

Similar cyclical patterns occurred for median household income and for black, Hispanic, and white families and households. *These patterns indicate that the most effective and durable way to raise the income of typical families and households has been through sustained, long-term economic growth.*

The Role of Demographics

Substantial income growth between 1967 and 1990 is particularly noteworthy in light of several long-term demographic trends. During this period, average family size fell by 14 percent, and average household size fell by 19 percent. Income growth rates for families and households thus understate the growth rate of income per person. *Between 1967 and 1990, average, or mean, real money income rose by 62 percent per person,* as opposed to 35 percent per family.

Large shifts in the composition of households have also influenced income growth. Between 1969 and 1989, the proportion of household heads living alone or with unrelated individuals rose from 18.5 percent to 29.1 percent, and the proportion of families with children that have a female householder rose from 11.3 percent to 21.7 percent. In 1990, more than two-thirds of household heads living alone or with unrelated individuals and one-third of female heads of families were under 35 years old. At this age, many workers are still acquiring skills and training and may also have had short job tenure or little overall labor market experience. Female heads of families also often face child care responsibilities that make full-time participation in the labor force difficult. The means-tested transfer system creates incentives for some women to reduce or eliminate work outside the home. For these and other reasons, female-headed families and people living alone or with unrelated individuals have median incomes well below the overall median. One study found that in the absence of these demographic trends, real median household income between 1969 and 1989 would have grown another $3,200, more than doubling its actual rate of growth.

Two-Earner Families

A related issue is the extent to which sustained income growth is due to the increased proportion of married women that work outside the home. In 1970, 39 percent of married women worked outside the home. That figure rose to 50 percent in 1980 and 58 percent in 1990. The number of working married women rose more in absolute and percentage terms in the 1970s than in the 1980s.

Determining the effect of this trend on *median* income is difficult. Determining the contribution of new second earners to overall income growth is much more straightforward. Average income for married couple families rose by $4,232 (in 1990 dollars) between 1970 and 1980, and $6,035 between 1980 and 1990. The role of the increased number of second earners can be calculated using data on the number and average income of married couple families and second earners. *The increased number of married women in the labor force accounts for only about 18 percent of the real increase in*

income of married couple families between 1980 and 1990. The corresponding figure for the 1970s is 19 percent. For all families, about 14 percent of the increase in income in the 1980s and 16 percent in the 1970s is due to the increase of two-earner families.

The small role of the rising number of two-earner families in income growth can be attributed to two factors. First, average earnings of second earners are lower than average earnings for all earners, in part because a high proportion of second earners work part-time. Second, the recent *increase* in two-earner families is small relative to the total number of families. From 1980 to 1990, the number of married women in the labor force rose by 5.5 million; the total number of families in 1990 was 66.3 million.

DISTRIBUTION OF ANNUAL INCOME

The long-term and cyclical factors that affect income levels also affect the distribution of income. Incomes in any year can differ across households for many reasons. Because the primary source of income for most people is labor earnings, the determinants of the wage distribution discussed in Chapter 3, including workers' education and changes in labor supply and demand, also help determine the distribution of annual income. Because families and households in the United States experience a significant amount of mobility across income classes, the distribution of *long-term* income differs from the distribution of annual income.

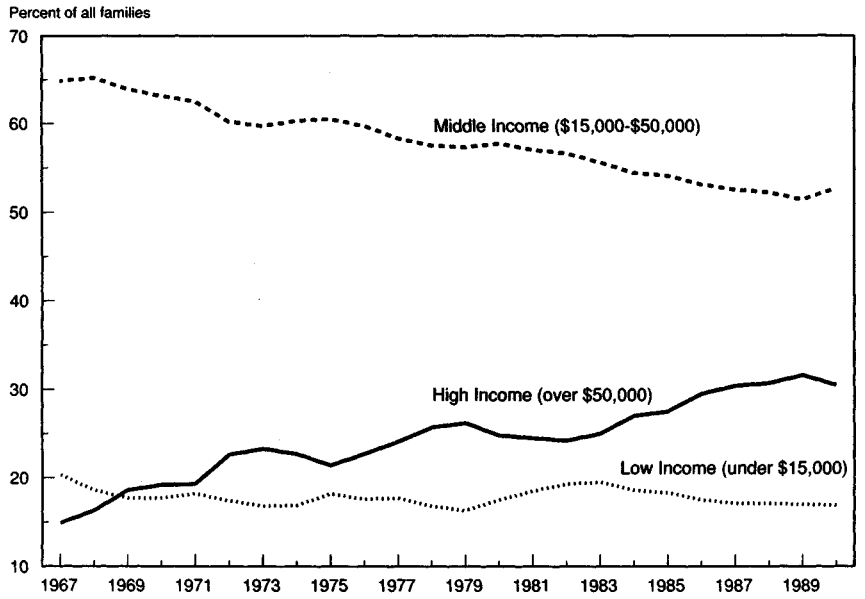
The distribution of income and its evolution over time can be measured in several ways. Perhaps the simplest approach is to choose particular income thresholds and examine what percentage of families exceed these thresholds. Although there is no official definition of the middle class, the range of $15,000 to $50,000 (in 1990 dollars) in money income is used in Chart 4-2 to demarcate middle-income families. The chart shows the often-noted declining proportion of families in the middle-income range. The proportion of families with middle incomes fell from 64.8 percent in 1967 to 52.7 percent in 1990.

Many middle-income families have moved into higher income categories; the proportion of families with real income above $50,000 showed a sustained increase, from 14.9 percent in 1967 to an all-time high of 31.6 percent in 1989, before it declined slightly in 1990. The proportion of families with real money income below $15,000 fell from 20.3 percent in 1967 to 16.9 percent in 1990.

Using alternative definitions of middle income (for example, $25,000 to $75,000, or $25,000 to $50,000) preserves the basic results that the proportion of high-income families has increased and the proportion of low-income families has fallen. Similar patterns hold for households as well. *These trends indicate that substantial num-*

Chart 4-2 **Distribution of Families by Income Class**

The proportion of high-income families has more than doubled since 1967, while the proportion of low- and middle-income families has fallen.



Note: All income is in 1990 dollars; CPI-U-X1 used as deflator.
Sources: Department of Commerce and Department of Labor.

bers of families and households have moved into higher income categories over time.

Income Growth by Quintile

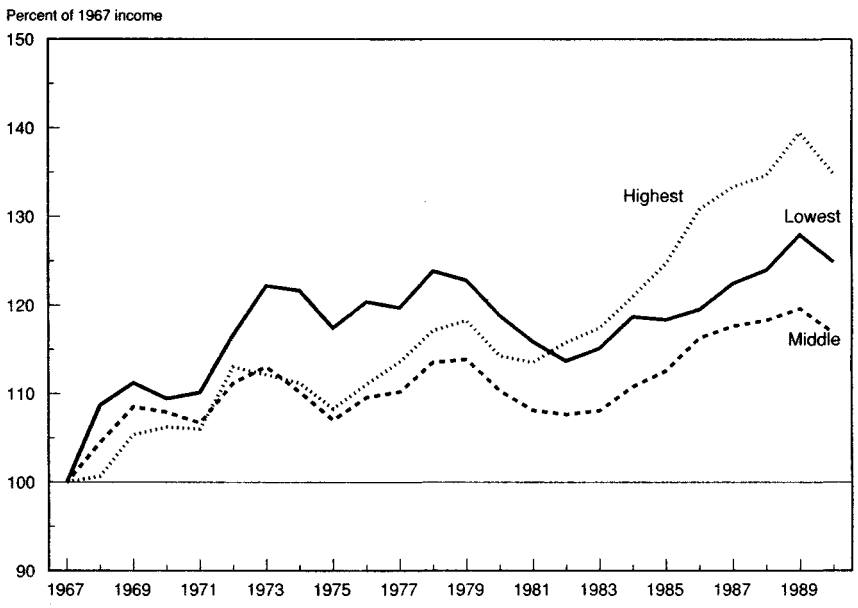
Chart 4–3 displays mean, or average, money income for the highest, middle, and lowest fifth, or quintile, for households from 1967 to 1990, as a percentage of 1967 income. (The major points below also hold for families.) *Average money income in each quintile has increased since 1967.* Thus, long-term trends have raised money income in each part of the income distribution.

Changes in average money income in every quintile reflect changes in the level of macroeconomic activity, just as the measures of median income did. The real money incomes of households along all parts of the income distribution have improved the most during periods of economic growth. In particular, *the economic expansion between 1982 and 1989 produced strong growth in each quintile.*

Money income grew faster in the highest quintile than in the other quintiles. From 1967 to 1990, real money income grew by 35 percent in the highest quintile, 25 percent in the lowest quintile, and 17 percent in the middle quintile. The relative magnitudes of growth rates for the highest and lowest quintiles shifted between 1979 and 1982. This shift coincided with a shift in real wage pat-

Chart 4-3 **Real Household Income Relative to 1967 Income for Selected Quintiles**

Real income of low-, middle-, and high-income households generally rose from 1967 to 1979, fell from 1979 to 1982, and rose after 1982.



Note: CPI-U-X1 used as deflator.
Sources: Department of Commerce and Department of Labor.

terns: wages for high-wage workers were roughly the same level in 1979 and in 1982, while wages for low-wage workers fell.

Chart 4-3 understates the improvement in income for the lowest group because, among other reasons, money income omits noncash transfers. Real Federal and State spending on means-tested medical assistance, the vast majority of which is medicaid, grew by $67 billion (in 1990 dollars) from 1967 to 1990, while spending on other means-tested noncash transfers grew by $46 billion. Real payments for medicare, which is not means-tested, grew by $96 billion. In 1990, households in the lowest income quintile received about 10 percent of medicare payments, 17 percent of medicaid payments, and 59 percent of other means-tested noncash transfers. Maintaining these allocations over time and using the Census Bureau's best estimates of the value of these transfers to recipients provides estimates of noncash transfers per household. *For households in the lowest quintile, money income plus the estimated value of noncash transfers, adjusted for inflation, increased by 48 percent between 1967 and 1990, nearly double the 25-percent growth rate for money income alone.*

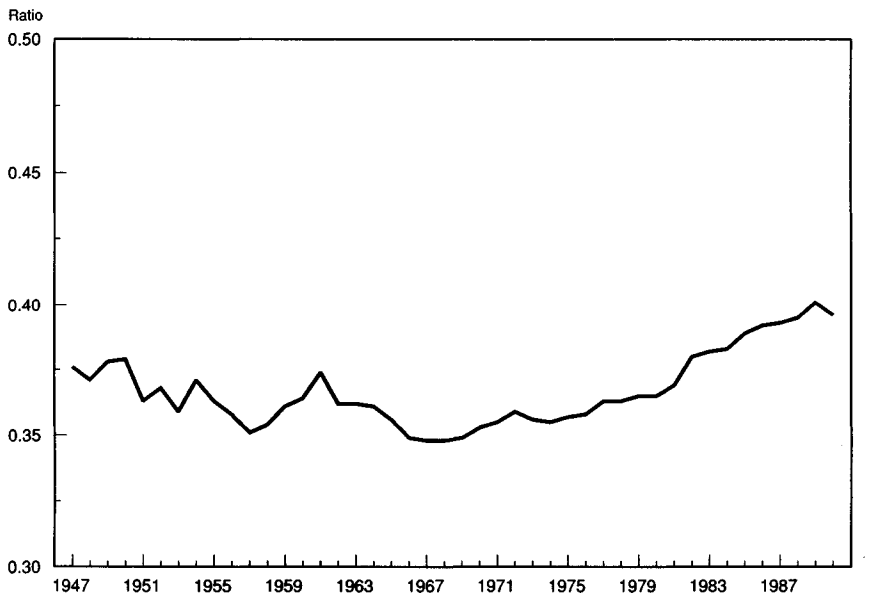
Gini Ratios

The Gini ratio is a measure of the dispersion of income that ranges between 0 and 1. A lower value indicates less dispersion in the income distribution; a Gini of 0 would occur if every family had the exact same amount of income. A higher value indicates more dispersion; a Gini of 1 would occur if all income accrued to only one family.

Chart 4-4 shows that from 1947 to 1968, despite some fluctuations, the dispersion of money income for families fell gradually. Since then, dispersion has risen slowly but steadily, by about 14 percent. Almost one-third of the increase occurred between 1979 and 1982, when wage and income patterns diverged sharply at the high and low ends of the spectrum. Slightly more than a third of the increase occurred between 1968 and 1979, with the increase from 1982 to 1990 accounting for the remaining third.

Chart 4-4 **Gini Ratios for Family Income**

The dispersion of money income followed a downward trend from 1947 to 1968 and increased gradually after that.



Source: Department of Commerce.

The Gini for households followed similar trends. One study found that shifting household composition accounted for almost half of the increase in dispersion between 1969 and 1989.

The Gini ratio is a measure of relative income rather than of the absolute level of income. Thus, changes in the Gini do not provide any information about the level of income for various groups in the population. In the 1980s, increasing dispersion of income did *not*

mean that the rich became richer while the poor became poorer. Incomes grew in all quintiles, but income in the top quintile grew fastest.

Trends in the share of income received by families in each quintile mirror those of the Gini coefficient. The share received by the lowest quintile rose from 5.0 percent in 1947 to 5.7 percent in 1968, and then fell to 4.6 percent in 1990. The share for the highest quintile fell from 43.0 percent in 1947 to 40.5 percent in 1968, before rising to 44.3 percent by 1990. Similar trends apply to income shares received by households. Like the Gini, however, measures of income shares do not show how the *level* of income has evolved for each group, and thus give an incomplete picture of income patterns.

Similar trends in income distribution appear in other countries as well. One study found that in the early 1980s, the distribution of earnings for prime-age males who headed households and worked full time became more unequal in all five countries studied: Canada, Sweden, Australia, West Germany, and the United States. The widening distribution in many countries indicates that the causes of the shift are more likely to be due to factors common to all of the countries rather than to any factor specific to only one of the countries.

THE DISTRIBUTION OF LONG-TERM INCOME AND WEALTH

Families and households display a substantial amount of mobility across income classes in the United States. For this reason, *analyses of income distribution that focus only on annual income tend to overstate the degree of income inequality.*

One reason annual income data are misleading is that earnings of individual workers tend to rise as they acquire training and experience and then to fall when they retire. A 20-year-old worker just starting out and a 45-year-old worker who is in his or her peak earning years could have equal incomes over their careers, but very different wages in the same calendar year.

Data on annual income can also prove misleading because of transitory income, that is, income gains or losses that are thought to be temporary. A person who owns a small business, for example, may face greater year-to-year fluctuations in income than someone who works at a steady wage.

There is substantial mobility across income classes from year to year. One study found that in the mid-1980s, *about one-third of all families were in a different income quintile than they had been in the previous year.* In each of the lowest three quintiles, about 18 percent of the families moved to a higher quintile the following year. In each of the highest three quintiles, more than 20 percent

of the families moved to lower quintiles the following year. Another study found that more than half of families in the highest quintile in 1971 had fallen into lower quintiles by 1978. Similarly, almost half of those in the lowest quintile had risen to a higher quintile.

Over longer periods, the extent of mobility increases. One study, using data from the 1970s and 1980s, found that *more than 75 percent of households are in a different decile when ranked by lifetime income than when ranked by current income.* A decile includes one-tenth of the households. About 44 percent had current income two or more deciles away from their lifetime income. More than half of households in each of the lowest three deciles for annual income had lifetime income in a higher decile. More than half of households in the top three deciles for annual income had lifetime income in a lower decile.

A recent study, using tax return data from the 1960s, 1970s, and 1980s, estimates that the Gini coefficients for income over 4-year or 7-year periods are between 5.0 percent and 7.7 percent less than the average of the Gini coefficients for the individual years. Another study, using data from 1969 to 1981, found that the Gini for lifetime income in the United States was 19 percent lower than the Gini for annual income, indicating less dispersion in lifetime income.

These findings underscore the importance of income mobility for a large number of families. Nevertheless, even after removing temporary income changes and the effects of the life-cycle on income, part of the population still faces very low long-term income prospects.

Because the distribution of long-term income is less dispersed than are annual incomes, trends in the distribution of annual income may not accurately reflect trends in the distribution of long-term income. For example, an increase in income mobility or in the importance of transitory income can increase inequality of annual income but have no effect on the distribution of long-term income. Nevertheless, one study found that, like annual incomes, incomes averaged over 4- and 7-year periods became more dispersed between 1967–73 and 1979–85.

A related issue is the distribution of wealth. A family's wealth holdings consist of financial assets, such as saving accounts; property, such as a house or family business; pensions and future Social Security benefits; and human capital, the value of future labor earnings. For most households, housing, public and private pensions, and human capital constitute the vast bulk of wealth. One study found that between 1983 and 1989 the median value of households' real financial net worth and property rose 11 percent and that holdings of these assets became more concentrated.

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SUMMARY

- Median levels of family and household money income have shown sustained long-term growth since the mid-1960s. Median income is influenced by cyclical and long-term economic activity and demographic patterns.
- Since the mid-1960s and in particular since the early 1980s, income growth has occurred in all quintiles and the distribution of annual money income has become more dispersed in the United States. Earnings distributions have also become more dispersed in several other countries in recent years.
- Because money income omits in-kind transfers, data on money income understate both the level of and improvement in income for the lowest income groups.
- Families and households display significant mobility across income classes. The distribution of long-term income is more equal than the distribution of annual income.

TRENDS IN TAXES AND TRANSFERS

Tax and transfer policies in the United States have undergone major changes in level and composition in the last 30 years. These changes are among the principal ways that government influences the distribution of resources and the level and structure of economic activity.

TRANSFERS

The two main categories of transfers are means-tested programs and social insurance. Means-tested programs provide benefits or services to people and families whose financial resources have fallen below a certain level. Distributed by Federal, State, or local governments, means-tested transfers can be cash grants, such as aid to families with dependent children, or goods and services, such as food and health care. Transfers of goods and services ensure that assistance is used for the purposes intended. Means-tested service programs also provide education and job training. (Brief descriptions are in Boxes 4-1 and 4-2; fiscal 1990 spending totals are in Table 4-1.)

Social insurance programs compensate people for income loss due to retirement, disability, and unemployment, and provide health insurance for the elderly. The three major Federal social insurance programs are Social Security, medicare, and unemployment insurance (Box 4-3). These programs are financed primarily by payroll taxes. Because they are predominantly not means-tested, social insurance programs can sometimes make large direct payments to the well-off (Box 4-4).

Box 4–1.—Means-Tested Cash Transfers

The principal means-tested cash transfer programs:

- *Aid to families with dependent children* (AFDC) provides income to low-income, single-parent families with dependent children and to low-income couples with children in which the primary breadwinner is unemployed or incapacitated. Benefit levels are set by the States. Recipients are eligible for Federal job training programs and for health care assistance through medicaid. In 1990 AFDC assisted a monthly average of 11.4 million people.
- *Supplemental security income* (SSI) began providing payments in 1974 to needy aged, disabled, and blind people meeting nationwide eligibility requirements. SSI provided benefits to nearly 5 million recipients each month in 1990.
- The *earned income tax credit* (EITC), a refundable tax credit for low-income working families with children, was established in 1975. The maximum credit has more than doubled since 1975. The credit was claimed on 11.9 million tax returns for 1989.

Federal spending on means-tested and social insurance programs has grown dramatically since 1967. Chart 4–5 shows that these expenditures more than doubled relative to gross domestic product (GDP), from 4.3 percent in fiscal 1967 to 9.2 percent in fiscal 1990. That represents an annualized growth rate of 6.3 percent in real expenditures.

Real spending on social insurance programs grew at an annual rate of 5.8 percent from fiscal 1967 to 1990. In 1990, Federal outlays for social insurance were $388 billion, 31 percent of total Federal outlays. Social Security and medicare accounted for more than 90 percent of the total. Federal expenditures on unemployment insurance were approximately $17 billion.

Real means-tested spending grew at an annual rate of 8.3 percent from fiscal 1967 to 1990, and accounted for approximately $121 billion, or 9.6 percent, of total Federal outlays in 1990. Most of the long-term increase occurred through noncash programs (Chart 4–5). From 1967 to 1990, real Federal outlays on medicaid grew by $37 billion (in 1990 dollars), while food stamp outlays rose by almost $15 billion. Real expenditures on the special supplemental food program for women, infants, and children and on Head Start rose about 90 percent and 33 percent, respectively, from 1980 to 1990. Real means-tested cash expenditures grew at 4.7 percent per year from 1967 to 1990.

Box 4-2.—Means-Tested Noncash Transfers

The principal means-tested noncash transfer programs:

- *Medicaid*, enacted in 1965, covers a broad range of health services including hospital care, physicians' services, and long-term care. In 1990, 25.3 million people who were disadvantaged or faced high medical expenses received benefits.
- The *food stamp* program, formally established in 1964, distributes coupons for food, based on household size and income. In 1990, 21 million people received benefits in an average month. The *special supplemental food program for women, infants and children* (WIC) provides food vouchers to pregnant women, infants, and children through age 4 considered to be at nutritional risk. The *child nutrition* program subsidizes meals for needy children in school.
- *Head Start* provides education and medical, nutritional and social services to economically disadvantaged 3- and 4-year-olds. In 1990, 541,000 children participated.
- *Housing assistance*, enacted in the 1930s, provides rental subsidies and aid for construction or rehabilitation of housing for low-income families.
- The *Job Training Partnership Act*, passed in 1982, funds education, training, and related services for economically disadvantaged adults and youths. Job Corps and the Summer Youth Employment Program provide education, training, and jobs to youths. *Job Opportunities and Basic Skills* (JOBS) programs provide educational, training, and placement services for AFDC adult recipients.
- *Pell Grants* provided assistance to 3.4 million needy undergraduate students enrolled at least half-time in 1990.
- *Energy assistance* is provided to low-income households through cash, vouchers, and vendor and tax credits.

Many means-tested programs are funded jointly by the Federal and State governments and administered at the State level. Real expenditures by State and local governments on these programs rose from $22 billion (in 1990 dollars) in 1970 to $36 billion in 1977, fluctuated between 1977 and 1982, and have increased by about 50 percent since then. The largest State programs are medicaid, AFDC, and general assistance, which consists of programs that provide funds to low-income households who are ineligible for AFDC and SSI.

Box 4-3.—Social Insurance Programs

The three major social insurance programs:

- *Social Security*, introduced in 1935, provides monthly payments to workers who retire or face long-term disability and their dependents and to survivors of deceased workers. Benefits are based on a worker's earnings history, age, marital status, and other factors. Social Security covers more than 90 percent of the work force.
- *Medicare*, enacted in 1965, covers inpatient care at hospitals and limited acute care at nursing homes. An optional part pays for physicians, supplies, and other services outside hospitals. In 1987 medicare covered 45 percent of the health costs of the elderly.
- *Unemployment insurance*, established in 1935, replaces income loss due to temporary unemployment for workers with recent work histories who lost their jobs through no fault of their own. Virtually all wage and salary workers are covered. (Details are in Chapter 3.)

Other social insurance programs include Workers' Compensation, Veterans' Disability Compensation, Railroad Retirement, and Black Lung.

Federal expenditures for many programs take the form of grants to State governments. Over time, Federal regulations have given the States increased flexibility to make the best use of funds and authority to experiment with programs. The Administration has encouraged innovation at the State level in the design of assistance programs.

Total real Federal grants to States grew steadily between 1967 and 1978, rising from $57 billion (in 1990 dollars) to $150 billion. In 1981 eligibility requirements were tightened for means-tested programs. Federal grants fell to $113 billion in 1983. Since then, some of the eligibility requirements have been relaxed, and Federal grants increased to $131 billion in 1990. Federal grants were about 20 percent of State and local governments' own revenues in the late 1960s. The ratio rose to 31 percent in 1978 before falling to about 19 percent in 1987–90.

TAXATION

Federal tax revenues were 18.9 percent of GDP in 1990. Between 1960 and 1990, Federal tax revenues ranged between 17.5 percent and 20.2 percent of GDP.

Box 4-4.—Subsidies to the Well-Off

Although a large portion of government spending is targeted toward lower income persons, some transfers directly benefit high-income groups as well as others. Data from the Census Bureau show that in 1990 about $30 billion in transfers were received by households with pretax, pretransfer income in the top fifth for all households.

For example, supplementary medical insurance (SMI), part B of medicare, pays for physicians, supplies, and other items and is highly subsidized. For a 65-year-old in 1991, premium payments covered only about 17 percent of the costs. The remaining portion was financed from general revenues. More than 90 percent of the elderly are enrolled in medicare, and more than 95 percent of medicare enrollees choose to participate in SMI. Thus, a large proportion of high-income elderly households receive very highly subsidized medical insurance through SMI.

The average lifetime subsidy for men who were 65 years old in 1991 is estimated to be more than $25,000. For women of the same age, the estimated lifetime subsidy is $39,000. The difference in subsidies reflects differences in life expectancies, and other factors.

While subsidies for low-income people are generally supported by many people, most people are unaware that high-income households receive subsidies of this magnitude.

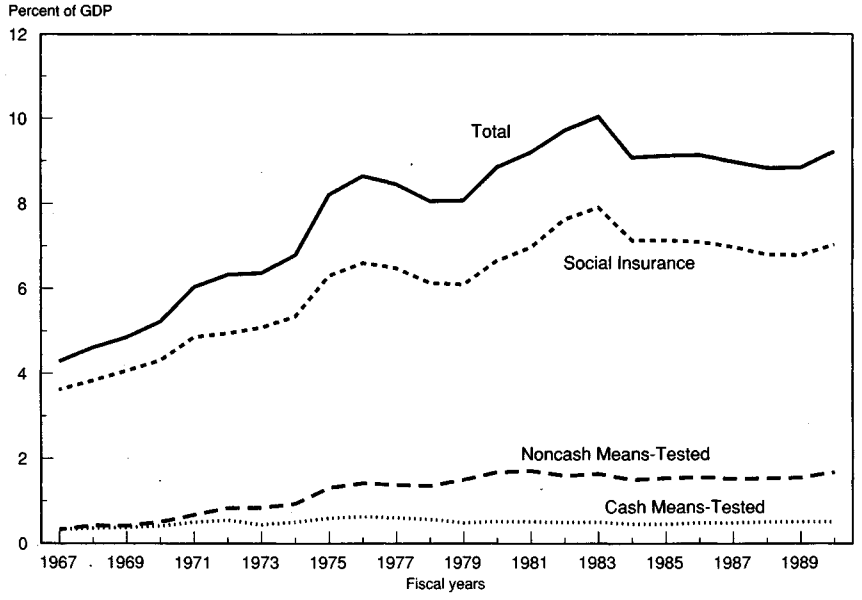
The composition of Federal tax revenues has changed since 1960. Social insurance taxes (mostly Social Security) rose from 16 percent to 37 percent of revenues between 1960 and 1990. The rise was due initially to the increase in contributors into the Social Security system and higher benefit levels. Since the late 1970s, Social Security tax rates have been increased in order to ensure the future solvency of the system. Revenues from corporate income taxes fell from 23 percent of revenues in 1960 to about 9 percent in 1990, primarily because of declining corporate profits relative to national income. The individual income tax constituted 45 percent of revenues in 1990, and between 41 and 48 percent of revenues annually since 1960.

Income Tax Reforms

Several major tax reforms since the late 1970s have substantially changed the nature of the tax system, beyond the shift in the composition of revenues described above. Many of these reforms developed as a response to events in the 1960s and 1970s.

Chart 4-5 **Federal Social Insurance and Means-Tested Transfers Relative to GDP**

Federal social insurance and means-tested transfers have more than doubled relative to GDP since 1967. Means-tested spending has shifted toward noncash benefits.



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

Bracket creep, a process in which sustained inflation pushes many people's income into higher income tax brackets, raises people's marginal and average income tax rates even in the absence of any explicit tax policy changes. Between 1964 and 1980, when annual inflation averaged more than 6 percent, bracket creep and other factors had significant effects on tax rates. The proportion of adjusted gross income that was taxed at a rate of 35 percent or higher *quadrupled*, from 7.7 percent in 1964 to 31.2 percent in 1980. The proportion of tax filers who faced a marginal Federal income tax rate of 35 percent or higher increased tenfold.

High marginal tax rates can have strong, negative effects on the level and growth of GDP by reducing the return to working, saving, investing, and innovating. High marginal tax rates also increase incentives for tax avoidance and evasion and thus do not always translate into higher average tax rates or higher tax revenues. Tax avoidance occurs when taxpayers make investment and consumption decisions that are influenced by the desire to reduce tax liabilities. Tax evasion is the failure to comply with the tax laws.

Reform of the U.S. income tax system to address these concerns began with the Revenue Act of 1978, which reduced income tax rates and raised the exclusion for capital gains income. The Eco-

TABLE 4-1.—*Expenditures on Selected Means-Tested Government Assistance Programs, Fiscal 1990*

[Outlays in millions of dollars]

Program	Federal expenditures	State/local expenditures	Total expenditures
Medicaid	41,103	31,033	72,136
AFDC	10,147	9,691	19,838
Food stamps	14,992	1,185	16,177
Housing assistance	15,901	[2]	15,901
SSI	11,493	3,626	15,119
General assistance	0	7,784	7,784
Child nutrition	4,996	[2]	4,996
Pell grants	4,484	0	4,484
Earned income tax credit[1]	4,354	0	4,354
Job Training Partnership Act	3,784	0	3,784
WIC	2,196	[2]	2,196
Head Start	1,552	388	1,940
Energy assistance	1,314	122	1,436
JOBS	463	184	647
Total	116,779	54,013	170,792

[1] Expenditures include refunded portion of the credit only.
[2] Not available.

Note.—State/local expenditures include administrative expenses.

Sources: Office of Management and Budget and Congressional Research Service.

nomic Recovery Tax Act of 1981 created sweeping across-the-board reductions in marginal tax rates. The top marginal tax rate was reduced from 70 percent to 50 percent. The act also indexed tax brackets and personal exemptions in the individual income tax for inflation starting in 1985, and provided incentives to save by allowing near-universal eligibility for tax-preferred individual retirement accounts (IRAs). A variety of changes in depreciation and leasing rules provided new incentives for investment. Tax reforms in 1982 and 1984 scaled back some of these provisions.

The Tax Reform Act of 1986 reduced the top statutory individual tax rate from 50 percent to 28 percent, with an effective rate of 33 percent for some high-income taxpayers. The corporate income tax rate was reduced to 34 percent from 46 percent. The income tax base was broadened substantially by changing several features of the tax code that affect saving and investment. Depreciation deductions were reduced. The investment tax credit was repealed, as was the tax exclusion for capital gains income. Passive loss restrictions were imposed. Eligibility for tax-deductible IRAs was restricted. Interest deductions for consumer borrowing were phased out. The earned income tax credit (EITC) was expanded, and along with increased personal exemptions and standard deductions, exempted

more than 4 million low-income taxpayers from having to pay Federal income taxes.

The Omnibus Budget Reconciliation Act of 1990 installed a variety of tax policy changes, in addition to the spending and deficit limitations discussed in last year's *Economic Report of the President.* The EITC was expanded, with supplemental credits added for families with young children and for health care expenses. Statutory marginal tax rates for the highest levels of income were equalized at 31 percent. A phase-out of personal exemptions, limitations on itemized deductions, and new excise taxes levied on furs, jewelry, and expensive cars effectively raised taxes for the affluent.

On the whole, the changes in the tax code since 1981 have reduced the role of the income tax in economic decisionmaking. Statutory rates on the highest levels of income fell from 70 percent in 1980 to 31 percent in 1990. Differentials in the tax treatment of investment in most kinds of assets were reduced, and the tax base was broadened.

Despite these generally desirable reforms, the income tax continues to discourage saving and investment. This concern is especially timely in light of the low rates of saving and investment in the United States relative to other countries and the critical role of such activity in spurring long-term economic growth. Limited loss offset provisions and the taxation of nominal rather than real incomes create a wedge between statutory tax rates and effective tax rates. Capital gains tax payments can exceed 100 percent of capital gains adjusted for inflation. To increase incentives to save and invest, the Administration's fiscal 1993 budget calls for the restoration of the capital gains tax exclusion, a new flexible IRA, penalty-free IRA withdrawals for first-time homebuyers, a tax credit for first-time homebuyers, an investment tax allowance for machinery and capital equipment, improvements in the corporate alternative minimum tax, and other items.

Social Security Reforms

A second development in the 1970s and early 1980s concerned the financial status of the Social Security system. The system narrowly averted cash-flow crises in 1977 and 1983, and faced long-run financing problems in meeting the retirement needs of the baby-boom generation.

To put the Social Security system on sounder footing, a schedule of tax rate increases was passed in 1977. In 1983 further reforms incorporating some of the recommendations of the bipartisan National Commission on Social Security Reform were enacted. These recommendations accelerated the dates of previously legislated tax increases, raised tax rates for the self-employed, imposed income taxes on half of all Social Security benefits for people with income above certain amounts, required a small and gradual increase in

the retirement age in the 21st century, delayed annual cost-of-living adjustments by 6 months, and extended mandatory coverage to new Federal workers. These changes reduced substantially the long-run deficit in the Social Security trust fund and eliminated the trust fund's short-run cash-flow problems.

SUMMARY

- Federal and State spending on means-tested and social insurance programs has grown significantly since the mid-1960s. Means-tested spending has shifted dramatically toward non-cash programs.
- A series of major income tax reforms since 1978 has broadened the tax base, closed loopholes, and reduced marginal tax rates substantially. The income tax, however, continues to discourage saving, investment, and entrepreneurship.
- Social Security reforms have averted financial crises and initiated the buildup of funds necessary to finance the retirement of the baby-boom generation.

EFFECTS OF TAXES AND TRANSFERS ON THE DISTRIBUTION OF INCOME

Government tax and transfer policies can have large effects on the distribution of income. The effects of taxes and transfers can occur directly, through receipt of transfers from, or payments of taxes to, the government, or indirectly, when the government program changes a person's behavior. The people who are actually affected by a tax or transfer are not necessarily the same people who send the money directly to, or receive the transfer from, the government. Making the distinction between the two is sometimes difficult (Box 4–5).

There are many ways to measure and describe the redistribution that occurs within an economic system. One common measure uses the relationship between average ("effective") tax rates—the ratio of taxes to income—and income level. If the average tax rate increases with income, then the tax system is said to be progressive. If the average tax rate falls as income rises, the system is termed regressive. In a proportional tax system, average tax rates are constant across income classes.

This measure can easily be expanded to consider both taxes and transfers by examining the ratio of taxes minus transfers to income as income rises. Thus, a progressive system, for example, would show higher average rates of taxes net of transfers as income rises.

Box 4-5.—Behavioral Responses to Taxes and Transfers

Economic theory draws a key distinction between those who are legally obligated to make tax payments to the government and those who ultimately *bear the burden* of the tax. Firms, for example, may pass along tax increases to consumers or workers. Although the firms send the money to the government, consumers may bear the burden of the tax by paying higher prices, or workers may bear the burden by receiving lower wages or other compensation.

Just as the costs of a tax can sometimes be shifted, the benefits of a transfer are sometimes shifted as well. Shifting can occur over periods of time as well as among people. Expected future Federal farm payments raise the price that buyers are willing to pay for farmland now. People who buy land this year and receive the expected Federal benefits in the future will have paid for the benefits by paying a higher purchase price for the land. Current landowners who sell their land now will be the beneficiaries of expected future policy.

The extent of shifting depends on how people respond to the tax or spending program and on the timeframe considered. Analyzing the behavioral response can be quite complicated. If a tax is anticipated, the behavioral response can come before the actual implementation of the tax. A temporary tax or spending change may induce a very different response and thus a different pattern of tax shifting than a permanent change. The response to any policy, temporary or permanent, may be different in the short run, when people have little time to adjust, than in the long run, when full adjustments can take place.

Behavioral responses are crucial ingredients in understanding the effects of government policy. For example, Social Security benefits constitute a large portion of income for many elderly people. Social Security thus appears to raise incomes of elderly people by a substantial amount. However, Social Security provides disincentives for the elderly to work. Determining the net effects of Social Security on the recipient's income requires knowing how the program affects the work patterns of the elderly.

COMBINED EFFECTS OF TAXES AND TRANSFERS

The most comprehensive, and thus potentially the most informative, measures of redistribution examine the combined effects of taxes and transfers. Data prepared by the Bureau of the Census

and presented in Table 4-2 show in the second column the distribution of annual income for households ordered into quintiles by their income before taxes and transfers (including private income, capital gains, and the cash value of employers' contribution for health insurance). The third and fourth columns show the effects of Federal and State income and payroll taxes and cash and noncash transfers, keeping the assignment of households to quintiles the same as in the second column. Table 4-2 uses the Census Bureau's best estimates of the value of noncash transfers. Like virtually all of the available estimates, the data in Table 4-2 do not include adjustments for people's behavioral responses to taxes and transfers.

The combined effects of Federal and State taxation reduce the Gini by 5.5 percent, thus making the distribution of income more equal. Most redistribution, however, occurs through transfer programs. When income from cash and noncash transfers is added, the Gini falls by an additional 17 percent.

Table 4-2 shows that the tax and transfer system in 1990 raised the share of income for households in the lowest quintile from 1.1 percent to 6.5 percent, and reduced the share going to the highest quintile to 43.0 percent from 50.7 percent.

TABLE 4-2.—*Effects of Taxes and Transfer Payments on Household Income by Income Quintile, 1990*

Income quintile	Income before taxes and transfers	Income after taxes before transfers	Income after taxes and transfers
Gini	0.490	0.463	0.384
Share of Income (percent)			
Lowest	1.1	1.4	6.5
Second	7.9	9.0	11.2
Third	15.5	16.4	16.1
Fourth	24.7	25.2	23.2
Highest	50.7	48.0	43.0
Average Income (dollars)			
Lowest	2,096	2,045	10,904
Second	14,664	13,126	18,676
Third	28,836	24,102	27,017
Fourth	45,836	36,991	38,780
Highest	93,966	70,338	71,944

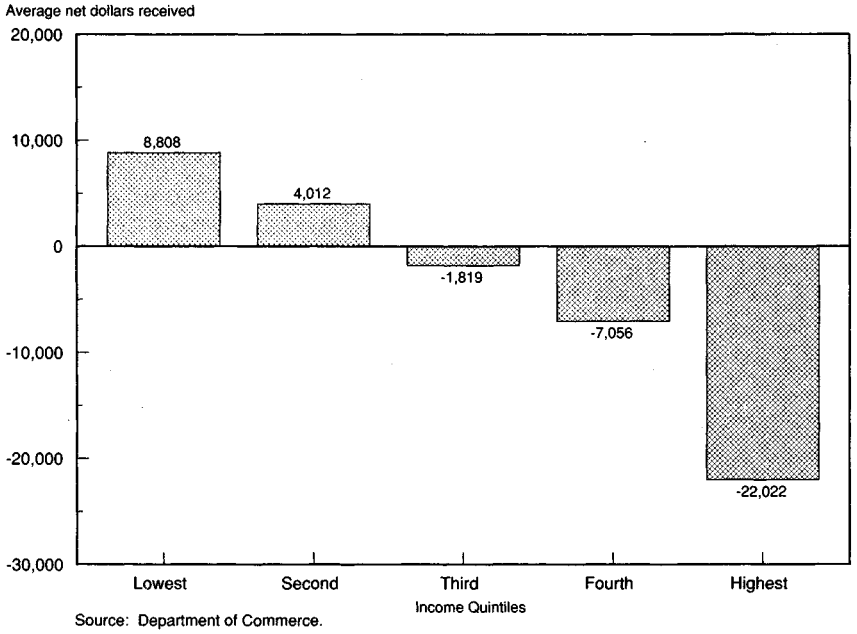
Source: Department of Commerce.

Chart 4-6 shows that *in 1990, households in the top 20 percent of the pretax, pretransfer income distribution paid an average of about $22,000 in taxes net of transfers to Federal and State governments. Households in the lowest income quintile received an average of about $8,800.* Average income in the lowest quintile rose from about $2,100 before accounting for taxes and transfers to about

$10,900 afterwards. Average income in the highest quintile fell from about $94,000 to about $72,000. Thus, *the combined effects of Federal and State taxes and transfers are highly progressive.*

Chart 4-6 **Effects of Taxes and Transfers on Income, 1990**

The combined effects of government taxes and transfers are to redistribute a substantial amount of income from higher income households to lower income households.



Source: Department of Commerce.

Redistributive Effects of Other Policies

While taxes and transfers represent a broad range of government activities, other government policies redistribute resources as well. For example, the tax deduction for private contributions to charitable organizations raises these contributions. The private contribution does not appear as a government transfer but is nonetheless influenced by the favorable tax treatment.

Direct government purchases of goods and services and government programs that improve the environment, maintain the infrastructure, and provide education, national defense, or other items can also have important distributional effects. These effects, however, are difficult to measure.

Long-Term Redistribution

The impact of government policies on the distribution of long-term income can differ significantly from the effects on the distribution of annual income. Low-skilled workers in their high-earning years may pay a relatively high amount of taxes compared with other taxpayers, even though income over their entire careers may be relatively low. In contrast, medical students pay relatively low

amounts of taxes even though their long-term income is relatively high. A tax increase on the older, low-skilled workers combined with a tax cut for the medical students would *reduce* inequality of annual incomes but *raise* inequality of long-term incomes.

One study, using data from 1969 to 1981, found that Federal taxes and cash transfers reduced the Gini for lifetime incomes by 19 percent and reduced the Gini ratio for annual incomes by 13 percent. Therefore, the combined effects of taxes and transfers may reduce inequality in long-term incomes by more than they reduce inequality in annual incomes.

Some government policies have the effect, intended or unintended, of redistributing wealth *across generations*. A well-known example is Social Security, which makes direct payments to the elderly, financed by payments from current workers. Intergenerational transfers can occur in less obvious forms as well. For example, most wealth in the United States is held by people who are older than 40, and most people over the age of 65 are retired. Therefore, a policy that raised tax rates on capital income and reduced rates on labor income would constitute an implicit transfer of wealth from older to younger generations. These transfers can be large.

Government policies can also transfer resources between currently living generations and generations yet to be born. Financing government through debt rather than through current taxes, for example, can push the burden of paying for current obligations onto future generations. Intergenerational issues concerning the deficit are discussed in Chapter 7.

REDISTRIBUTION IN THE FEDERAL TAX SYSTEM

By any of a variety of measures, the income tax and Social Security reforms beginning in the late 1970s have not significantly changed the redistributional effect of the tax system.

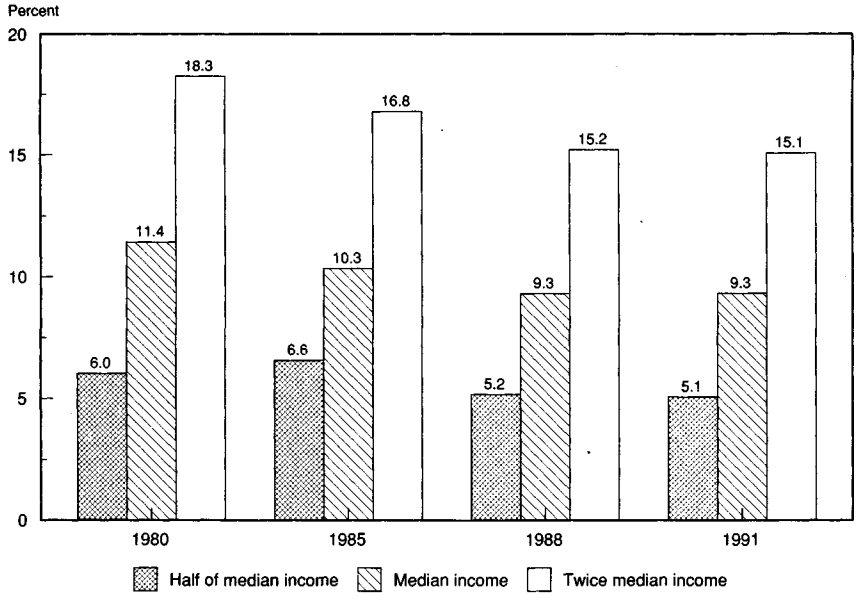
The Individual Income Tax

Chart 4–7 shows estimates from the Department of the Treasury of average Federal individual income tax rates for hypothetical four-member families with the median, half the median, and double the median income level, as reported by the Bureau of the Census. Median income for 1991 was estimated on the assumption that the real level of median income would not change from its 1990 level. Families are assumed to have only wage and salary income earned by one person. Comparisons made for the same type of family over time help to isolate the effect of changes in the tax system from changes in the sources and distribution of income and in demographics.

The chart shows that *the Federal individual income tax is progressive in each of the years because the average tax rate rises with income.* In 1991, for example, the average estimated income tax

Chart 4-7 **Average Federal Individual Income Tax Rates**

The Federal individual income tax system is progressive because average tax rates rise with income. The degree of progressivity has not changed substantially since 1980.



Note: Data are for four-person families with one wage earner.
Source: Department of the Treasury.

rate rises from 5.1 for families with half the median income to 15.1 for families with twice the median income. The average Federal income tax rate has fallen since 1980 for all three groups. The percentage change in average tax rates between 1980 and 1991 was virtually the same at all three relative income levels.

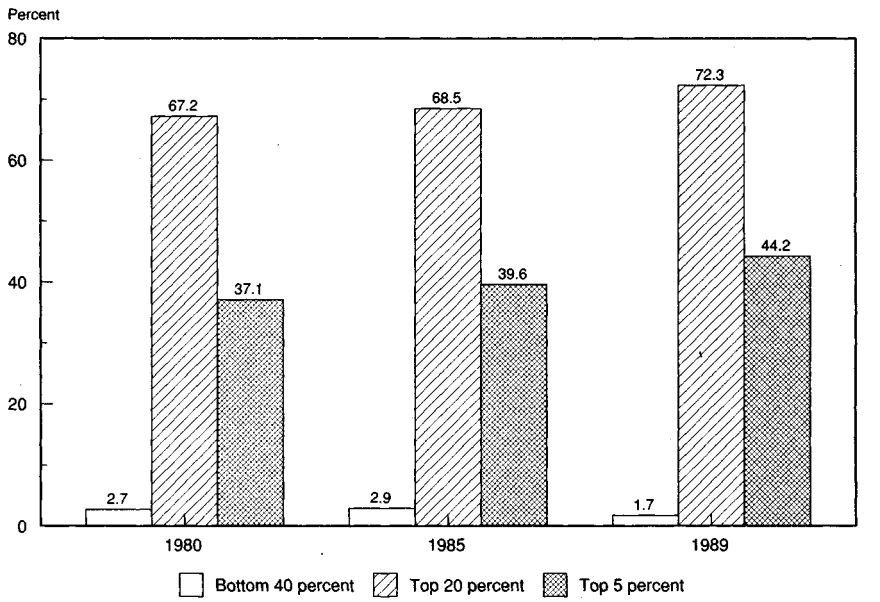
Chart 4-8 shows that *the share of individual income taxes paid by the highest income groups has increased since 1980, while the share paid by the lowest income groups has declined.* The share of taxes paid by households in the highest income quintiles has increased because their overall share of income has increased and because they pay higher average tax rates than all other households.

All Federal Taxes

Although it is the single largest revenue source for the Federal Government, the individual income tax accounts for less than half of all Federal revenues. Estimates by the Congressional Budget Office (CBO) of tax rates for all Federal taxes are reproduced in Table 4-3. CBO's definition of the demographic unit, measure of income, and basis for ordering units into quintiles differ substantially from those employed in the data developed by the Census Bureau and the Treasury Department and presented above. De-

Chart 4-8 **Shares of Federal Individual Income Tax Payments by Income Class**

The share of Federal individual income taxes paid by high-income groups has increased since 1980, while the share paid by low-income groups has fallen.



Source: Department of the Treasury.

spite these differences and the issues they raise, the implications of CBO's analysis are similar to those presented above.

The CBO data indicate that the overall Federal tax system is progressive in each year. The system appeared to have become less progressive between 1977 and 1985. Part of this change, however, is due to the 1977 and 1983 Social Security tax increases. As discussed below, examining Social Security taxes and ignoring Social Security benefits makes that particular program appear regressive. Taken as a whole, however, the Social Security system is progressive.

The tax system became more progressive between 1985 and 1988, when the Tax Reform Act of 1986 led to sizable tax increases in the higher income quintiles and a sizable tax reduction in the lowest quintile. The tax system is forecast to become even more progressive between 1988 and 1992, according to CBO's estimates. Tax reductions for the lowest four income quintiles and another tax increase for the highest quintile are expected to occur as a result of policies introduced in the 1990 budget accord.

CBO estimates in Table 4-4 indicate that *the share of all Federal taxes paid by the highest income groups has increased since 1977, while the share paid by middle and lower income families has fallen.*

TABLE 4-3.—*CBO Estimates of All Federal Taxes*

[As a percent of income]

Income quintile	1977	1980	1985	1988	1992
Lowest	9.3	8.1	10.3	9.3	8.6
Second	15.4	15.6	15.8	15.9	15.6
Third	19.5	19.8	19.1	19.8	19.7
Fourth	21.8	22.9	21.7	22.4	22.2
Highest	27.2	27.5	24.1	26.0	26.8

Note.—The individual income tax burden is allocated to families who directly pay the tax. Both the employer and employee portions of social insurance taxes are allocated to labor income. Excise tax burdens are allocated to the consumers who pay them. The corporate tax burden is divided equally between capital and labor income.

Source: U.S. House of Representatives, Committee on Ways and Means, *1991 Green Book.*

TABLE 4-4.—*CBO Estimates of Shares of All Federal Tax Payments*

[Percent]

Income quintile	1977	1980	1985	1988	1992
Lowest	2.0	1.6	1.8	1.5	1.3
Second	7.2	6.9	6.8	6.2	6.0
Third	13.4	13.2	13.0	12.5	12.1
Fourth	21.6	22.1	22.0	20.8	20.0
Highest	55.7	56.1	56.1	58.9	60.5
Addendum					
Top 5 percent	27.7	27.4	27.5	30.9	33.3

Source: U.S. House of Representatives, Committee on Ways and Means, *1991 Green Book.*

Thus, data developed separately by the Treasury Department and the Congressional Budget Office indicate that the Federal individual income tax and the overall Federal tax system redistribute income from high-income households to low-income households and thus are progressive. *The degree of progressivity of, and the amount of redistribution within, the tax system has not changed significantly since the mid-1970s.*

SOCIAL SECURITY

In 1990, $296 billion in Social Security taxes were paid to the Social Security trust fund by or on behalf of 134 million workers. At the same time, Social Security benefits totaling $248 billion were paid to more than 39 million people. Most people pay Social Security taxes during their working lives and receive benefits during retirement.

On average, Social Security redistributes resources from higher income households to lower income households. Redistribution within the Social Security program has long been a controversial topic, however, because the program transfers resources across people and over time and involves both taxes and benefits.

Social Security transfers resources *across generations*, from current workers to current retirees. Over the long term, the cumulative effects of long-term productivity growth imply that current workers will, on average, have higher wages and incomes over their lifetime than current retirees did. Thus, on average, the Social Security system to date has transferred resources from people in generations with higher overall resources to people in generations with lower resources.

Social Security also redistributes resources among people *within a generation*. For example, the payroll tax used to finance Social Security benefits is proportional up to an income threshold, above which the marginal rate falls to zero. Thus, examining only the tax structure would suggest (incorrectly) that the Social Security program is regressive.

If one adds in benefit payments, but focuses only on a 1-year period, Social Security appears highly progressive. Households in the lowest income quintile received 20 percent of Social Security benefits (net of taxes paid on those benefits) and paid less than 2 percent of Social Security taxes in 1990. Households in the top quintile paid 47 percent of the taxes and received 11 percent of the benefits.

However, because Social Security transfers resources over people's lifetimes, the program is best understood through analyses of longer periods. *Among households of the same generation, Social Security has redistributed resources from higher income households to lower income households through a combination of three factors.*

First, the formula that determines benefits replaces a higher percentage of wages of lower income workers than of higher income workers. This aspect of Social Security is progressive in that the ratio of benefits received to taxes paid falls as income rises. A recent study showed that a married worker who retires at age 65 after working since age 21 at the Federal minimum wage will recover all Social Security taxes paid, including the employer and employee shares, in 4.1 years. A married worker earning the maximum taxable amount each year will recover contributions in 7.2 years.

This effect is offset to some extent because heads of lower income households face higher mortality rates than heads of high-income households and thus, on average, collect Social Security benefits for a shorter period of time. After accounting for these factors, one study found that the rate of return earned on Social Security *retirement* contributions was roughly equal across wealth classes.

The study, however, omitted the third effect, namely the influence of survivors, dependents, and disability payments. Lower income households are likely to receive more of these payments precisely because of their higher mortality and disability rates.

When all three factors are considered, the Social Security program redistributes resources within a generation from households with higher lifetime income to those with lower lifetime income.

SUMMARY

- Federal and State tax and transfer programs shift a substantial amount of resources to lower income households from higher income households. Most redistribution occurs through the transfer system.
- The overall Federal tax system and the individual income tax are progressive. By several alternative measures, the extent of redistribution within the Federal tax system has not changed substantially since at least the mid-1970s.
- The Social Security system transfers resources both across generations and within generations. In each case, the program redistributes income, on average, from higher income households to lower income households.
- The impact of government policies on the distribution of wealth across generations can be larger than the impact on the distribution of annual incomes.

POVERTY AND THE SOCIAL SAFETY NET

Despite long-term increases in income and government transfer spending, poverty remains a serious problem in the United States. Integration of more low-income households into the economic mainstream will not only help those families gain economic independence, but will also increase the productive resources of the Nation and help maintain economic growth.

The Poverty Rate

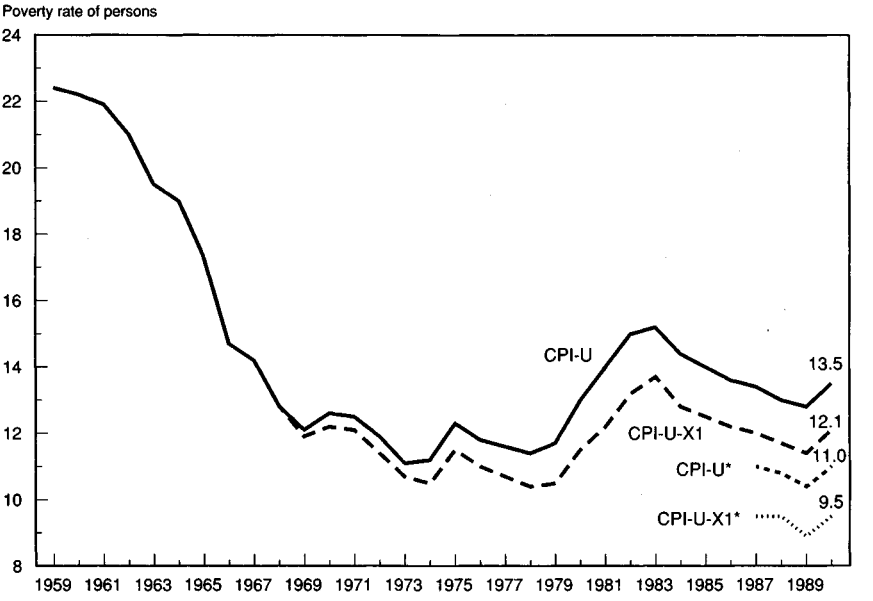
The poverty rate measures the percentage of people with incomes below a level associated with a minimally adequate standard of living (Box 4-6). The official poverty rate for persons fell from 22.4 percent in 1959 to a low of 11.1 percent in 1973, fluctuated throughout the remainder of the 1970s, and rose sharply from 11.4 percent in 1978 to 15.2 percent in 1983. The rate fell to 12.8 percent in 1989, and then rose to 13.5 percent in 1990 (Chart 4-9).

The official poverty rate, however, is somewhat misleading in several respects. The Census Bureau publishes several alternative poverty rates that adjust for some of these factors. For example, the official poverty measure omits noncash transfers. Including estimates of the value of noncash transfers reduces the poverty rate in 1990 to 11.0 percent (Chart 4-9).

The poverty threshold is adjusted annually for inflation using the CPI-U price index. For reasons discussed in Chapter 7, the CPI-U-X1 provides a more accurate and consistent measure of trends in

Chart 4-9 **Alternative Measures of the Poverty Rate of Persons**

Adjusting for government noncash benefits and measuring the cost of living on a consistent basis reduces the level of the poverty rate, but does not alter the trends.



* Includes noncash benefits.

Sources: Department of Commerce and Department of Labor.

the cost of living since the mid-1960s. Using the CPI-U-X1 to adjust the poverty thresholds since 1967 yields a 1990 poverty rate of 12.1 percent, excluding noncash transfers, and a rate of 9.5 percent when noncash transfers are included (Chart 4–9). By any measure, however, poverty is clearly a problem that requires serious attention.

Duration of Poverty

While most people in poverty remain impoverished for only a short time, most poverty in any extended period is accounted for by people who remain poor for a long time. Long spells of poverty have been associated with low educational attainment, low attachment to the work force, and early child bearing out of wedlock. Concern exists that the structure of means-tested transfer programs contributes as well. Studies have also shown that children of government-dependent parents are more likely to become dependent on government themselves.

Demographics and Poverty

Poverty rates and trends vary across age groups. For people 65 years and older, the poverty rate fell from 28 percent in 1966 to about 16 percent in 1980 and to about 12 percent in 1990. In con-

Box 4-6.—The Poverty Rate

The poverty rate measures the percentage of people or families with money income below the poverty threshold. The threshold was developed in 1964 by the Social Security Administration. The threshold was based on a 1955 survey that showed average families spent about one-third of their income (net of income and payroll taxes) on food. To estimate a minimally adequate total family income level, the Agriculture Department's economy food budget plan was multiplied by the same factor of three. For smaller families and people living alone, the cost of the economy food plan was multiplied by slightly higher factors to compensate for the relatively larger fixed expenses.

Standards of living have grown considerably since the mid-1950s and average families do not have to spend as much of their income now on food or other basics as they previously did. However, a higher multiplier reflecting the amount an average family now spends on food would introduce a *relative* measure of poverty not in the original poverty definition. The official poverty estimates maintain the same *absolute* standard of living by adjusting the threshold for inflation each year.

Income calculations for determining the poverty rate omit in-kind transfers and fringe benefits. The poverty measure also omits consideration of forms of wealth, such as homes, automobiles and savings accounts, and does not take into account regional variations in the cost of living.

trast, as discussed below, the poverty rate for children has increased over the last 25 years.

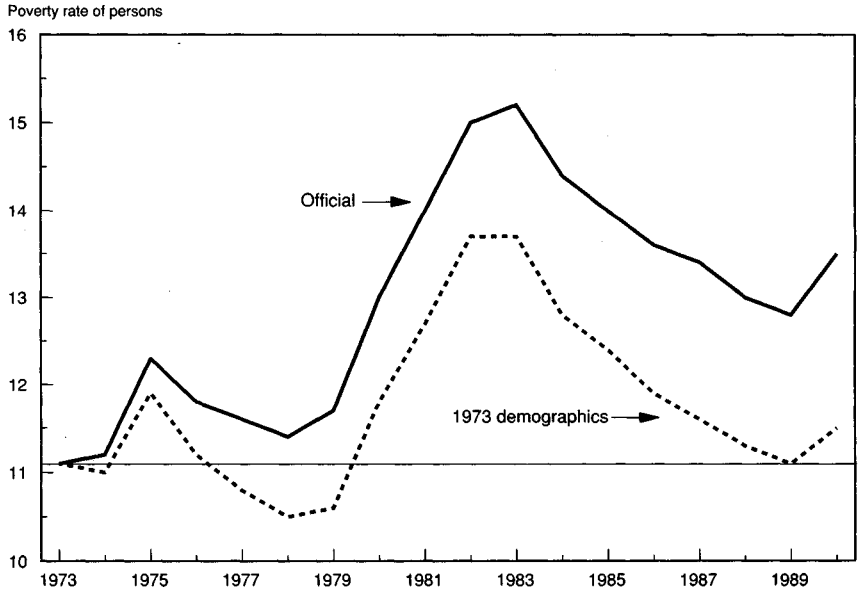
Shifts in household composition also affect poverty rates, primarily through their effects on earnings and income. The most common reason why people fall into or escape poverty concerns changes in their own or their family's earnings. Thus, for example, the long-term increase in the proportion of families with children headed by females has led to an increase in the overall poverty rate. Female heads of families tend to be younger than heads of other families and those in the labor force may have had shorter job tenure or less overall labor market experience. Female heads of households also often face child care responsibilities that severely limit their ability to take on jobs outside the home. Means-tested transfer programs provide incentives for female heads of households to reduce or eliminate work outside the home. About one-fourth of all female householders with children do not work outside the home; of these, nine in ten are poor. Due to these and other

factors, median income for all female householders was 60 percent of median income for all households in 1990 and the poverty rate for female-headed families with children was 44.5 percent. Between 1973 and 1990, the increase in the number of poor female-headed families was 69 percent of the increase in the number of all poor families, and the proportion of poor families headed by a female grew from 45.4 percent to 53.1 percent.

Chart 4-10 shows that, if the mix of population classified by householder status (married, female householder, or unrelated individual) were held constant at the 1973 proportions, the poverty rate in 1989 would have been 11.1 percent, the same as in 1973. As a purely statistical matter, shifting demographic patterns, through their effects on household earnings and income, can account for the entire increase in poverty between 1973 and 1989, while other effects on the poverty rate netted to zero.

Chart 4-10 **Demographics and the Poverty Rate of Persons**

If the mix of population classified by householder status were held constant at 1973 proportions, the official poverty rate in 1989 would have been the same as the rate in 1973.



Source: Department of Commerce.

This point should not be misunderstood. Families are not destined to have lower income simply because they have a particular demographic characteristic. However, family income is largely determined by the earnings capacity of its members—the number of workers, and their skills, job tenure, experience and availability to work outside the home. Some of the recent demographic changes, the growth in the number of female-headed households in particu-

lar, has made it harder for a larger number of families to develop earnings capacity.

THE SOCIAL SAFETY NET

Although there is no official definition, the social safety net refers generally to government programs and policies whose purpose is to ensure a minimum standard of living for individuals and families unable to provide for themselves. Means-tested programs (Boxes 4–1 and 4–2) are thus the centerpiece of the social safety net. Social insurance programs (Box 4–3) make payments to persons and families who experience income losses and thus provide protection against several important causes of poverty. Other programs, such as child support enforcement measures, are also important elements of the safety net.

Safety net spending has a significant effect on the official poverty rate. In 1990 cash and noncash transfers cut the poverty rate by more than half, from 19.3 percent to 9.5 percent, using the CPI-U-X1.

One measure of the safety net is Federal and State means-tested expenditures per poor person. Although not every dollar of means-tested spending goes to people in poverty, this measure provides a useful approximation of the extent of, and trends in, government spending on the poor.

Chart 4–11 shows that *despite a sharp drop between 1978 and 1982, real Federal and State means-tested spending per poor person (using the official definition of poverty) increased by more than 300 percent from 1967 to 1990.* Means-tested expenditures were $5,160 per poor person in 1990. Much of the long-term increase occurred through medicaid spending. Spending per poor person on other means-tested programs has increased 230 percent since 1967 and totaled $3,015 in 1990.

INCENTIVE EFFECTS OF MEANS-TESTED TRANSFERS

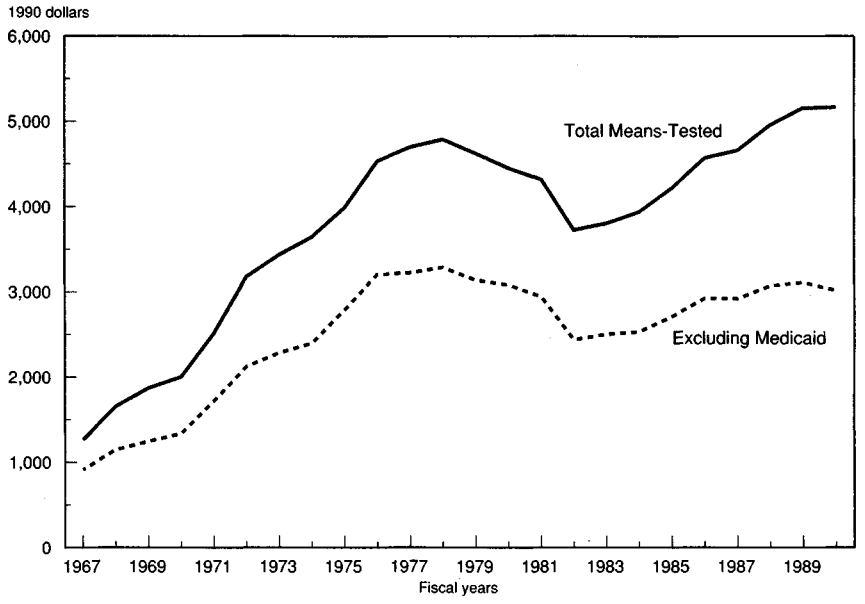
One of the major concerns about means-tested transfer programs is their effects on the labor supply, saving, and family structure of recipients. These effects are examples of the behavioral responses to tax and transfer programs discussed in Box 4–5.

Labor Supply

Recipients of means-tested transfers typically have very low levels of earnings, and the structure of these transfer programs is suspected to be at least partially at fault. Most means-tested programs provide guaranteed benefits to a target population with zero earnings. As earnings are increased, benefits are reduced and eventually eliminated. This reduction in benefits acts like a tax on earnings.

Chart 4-11 **Real Federal and State Means-Tested Transfer Spending Per Poor Person**

Real government means-tested spending per poor person grew rapidly between 1967 and 1978, fell between 1978 and 1982, and grew substantially again after that.



Note: CPI-U-X1 used as deflator.
Sources: Department of Commerce, Department of Labor, Office of Management and Budget, and Congressional Research Service.

For example, when AFDC recipients accept jobs, their AFDC and food stamp benefits may fall. If they earn sufficiently high amounts, they can eventually lose eligibility for medicaid and child care benefits as well. Studies have shown that effective tax rates on people leaving AFDC to work can be very high and can even exceed 100 percent. High effective tax rates such as these obviously reduce the incentive for people to work outside the home. The actual effect of these provisions on labor supply is the subject of much research.

The policy issues posed here have been well recognized for decades. Given the current structure of the system, reducing the high benefit reduction rate requires either allowing families to remain on AFDC at higher income levels than are currently allowed, with attendant higher government spending, or providing a lower amount of assistance to families with no earnings.

To reduce the disincentives created by AFDC, the Administration has proposed, as a demonstration project, setting up "escrow" saving accounts for long-term AFDC recipients, working their way off the rolls. The project would set aside the amount by which a long-term AFDC family's benefits are reduced when the family head takes a job, and would pay that amount in a lump-sum to the family if they succeed in working their way off the rolls.

Saving

Means-tested transfer programs have asset limits as well as income tests. To remain eligible for AFDC, a family may not have more than $1,000 in wealth, excluding a home, one automobile, and, at the State's option, items of personal property deemed essential for daily living.

Although asset limits ensure that families use their own resources before depending on the government for assistance, asset restrictions mean that people already receiving benefits cannot save much if they want to retain their eligibility for public benefits. People who are currently ineligible for benefits as a result of asset restrictions have an incentive to diminish their assets so they can qualify for benefits. But without the economic cushion that assets provide, people will be less likely to take steps to leave transfer programs and begin attaining economic self-sufficiency. For this reason, the 1993 budget calls for giving States the option to raise the AFDC asset limit to $10,000 for families already receiving AFDC benefits.

Family Structure

Because AFDC targets primarily single-parent families with children, many analysts think that the program has contributed to the increase in the number of female-headed families over the past 20 years. While the evidence concerning its effects on out-of-wedlock childbirth and divorce patterns is mixed, AFDC clearly penalizes marriage.

The average transfer income (including medicaid) in 1990 for a single parent with two children and no earnings was $9,196. Income net of work expenses and taxes from a minimum wage job was approximately $6,370. If an AFDC recipient married a minimum wage worker in 1990, combined family income would be only $10,887 because welfare benefits are reduced due to the spouse's labor earnings. The combined income before marriage was $15,566. *As a result of marrying, the couple would lose $4,679 in income.* Despite this apparent disincentive, marriage is a primary reason for leaving AFDC.

The existing system of means-tested transfers thus provides low-income families with incentives not to work, not to save, and not to keep families intact.

ISSUES REQUIRING SPECIAL ATTENTION

Over the past century, economic growth has done more to reduce general conditions of poverty and economic need than any specifically designed antipoverty policy. While a healthy economy is important in fighting poverty, by itself it is insufficient because not all low-income households benefit from economic expansion. Some

analysts have concluded that the ability of macroeconomic growth to reduce poverty may have diminished in recent years for either of two reasons. First, earning opportunities were less attractive for low-skilled workers in the 1980s. Second, due to child care responsibilities and other factors, income of poor female heads of families tend to be less responsive than income of other poor households to macroeconomic expansion. The proportion of such households among the poor has increased in the past 20 years. Thus, general policies to enhance growth need to be supplemented with programs that assist particular groups.

Administration policy for low-income households aims to give people choice and opportunity. Only with the ability to make crucial decisions regarding themselves and their families will people be able to participate fully in the mainstream economy. Policies that promote opportunity, choice, and responsibility foster the values that are central to attaining economic self-sufficiency.

Children

Children now have a higher poverty rate than any other age group. In 1990, about 20 percent of all children and 45 percent of black children in the United States lived in poor families. One explanation for the high child poverty rate is the increase in the proportion of families headed by single females. The proportion of children living in female-headed families doubled, from 11 percent in 1970 to 22 percent in 1990. In 1990, children living in female-headed families were more than five times as likely to live in poverty as children living in married-couple families. More than half of all poor children in 1990 were living in female-headed families.

Children need special consideration for several reasons. The economic position of a child depends on the economic position of his or her family. A child is therefore limited in the ability to make decisions or take actions to improve his or her economic situation.

Poverty and economic insecurity have negative effects on children. Children born into poor families suffer from higher infant mortality rates and lower average birth weights and are at greater risk of developing learning and health problems.

Today's youth represent the future. Social investment in children is economically vital not only for their own sake but also in preparing America for the 21st century. Over time, the benefits of assistance to poor children can be expected to accrue to all members of society.

The Administration continues to place a high priority on programs serving children. Government-wide funding for programs relating to children is projected to rise from $60 billion in fiscal 1989 to over $100 billion in fiscal 1993, representing a 66-percent increase in funding over the 4-year period.

The social safety net, in many cases, is unable to assist children directly. Rather, aid often must come through the child's parents. One direct way to assist children is through education. America 2000, the President's strategy for moving the Nation toward the national educational goals, seeks to focus attention on the needs of children by helping all children start school ready to learn.

Head Start is designed to do just that, by providing a wide range of services to low-income 3- and 4-year olds. Head Start provides cognitive and language development, medical, dental, and mental health services, and nutritional and social services. Analysis of Head Start has shown it to be effective in providing learning skills for disadvantaged children. The Administration's fiscal 1993 budget proposes a $600 million increase in Head Start funding, the largest ever. If the increase is approved by the Congress, Head Start funding will have more than doubled in this Administration.

The Administration also supports educational choice and flexibility. Choice is critical because it enables parents to make decisions about what is best for their children's education. The fiscal 1993 budget includes proposals to increase educational choice for low- and middle-income families, for educationally disadvantaged children, and for students pursuing higher education.

The Working Poor

The vast majority of families with workers are not poor. In 1990, the poverty rate for families with any employment was 7.5 percent, while the rate for families with full-time, year-round workers was 3.1 percent. Nevertheless, work is not always an immediate way out of poverty. In 1990 about 60 percent of all poor families had at least one employed worker and 20 percent had a full-time, year-round worker. Typically, these are larger families.

The tax and transfer system provides assistance to working families with low wages through food stamps, medicaid, child care assistance, and the earned income tax credit (EITC). The EITC reduces the income tax liability of low-income working taxpayers with children. The credit is refundable, so that families with no other tax liabilities receive a payment in the value of the credit. The basic credit rate was expanded from 14 percent in 1990 to 23 percent for families with one child and 25 percent for families with two or more children by 1994. The maximum credit will rise from $953 in 1990 to about $1,300 in 1992 and more than $1,900 in 1995. The EITC supplemental young child credit, enacted as part of the 1990 budget agreement, provides an additional 5-percent tax credit to eligible families with children less than a year old. A health insurance credit, also part of the 1990 budget agreement, allows a 6-percent tax credit to families to help defray the cost of health insurance policies that cover children. In 1992 the maximum health credit will be about $450.

Homelessness and Affordable Housing

One of the most visible problems of the last decade has been homelessness. The exact number of homeless people in the United States is uncertain, but one extensive study placed the number between 500,000 and 600,000 over a given week in 1987, with twice that number homeless at some point during the year.

Changes in urban housing markets are often cited as an important cause of homelessness. Rising rents and land prices and the rejuvenation of downtown areas have displaced low-income populations. The availability of boarding houses and rooms, typically used by poor single adults, has diminished in many cities. In some areas, rent control, restrictive building codes, and zoning regulations have also decreased the stock of low-income housing. Other factors in homelessness include deinstitutionalization of the mentally disabled, drug abuse, and spouse abuse.

The McKinney Act, passed in 1987, was the first bill to authorize major direct Federal expenditures on emergency food, shelter, and counseling for the homeless. In fiscal 1992, $1,008 million was authorized for homeless assistance. The fiscal 1993 budget calls for a 5.5-percent increase in funding.

Legislation signed into law in November 1990, homeownership and opportunity for people everywhere (HOPE), established a new, comprehensive strategy to address homelessness called shelter plus care. Shelter plus care is the first program to combine rental assistance with the necessary supportive services to assist the homeless in becoming self-sufficient.

Housing affordability is also a critical concern. A large portion of the poor pay more than half of their income for housing. The Administration continues to emphasize housing vouchers and other tenant subsidies to address low-income housing needs. The 1993 budget also contains proposals to make housing more affordable for many middle-income families.

The HOPE program also provides opportunities for low-income residents of public and assisted housing to manage and eventually own their own homes. The fiscal 1993 budget proposes that Federal funding for HOPE homeownership grants be raised by 185 percent to $1 billion.

Health Insurance

Health costs are increasing far more rapidly than the general price level and many Americans are without adequate access to health insurance. In 1988, roughly 13 percent of the population was medically uninsured. About 30 percent of the uninsured was in poverty.

As part of a comprehensive health-care reform proposal, the Administration proposes to establish tax credits and deductions for

low- and moderate-income people who are not covered by other federally subsidized health programs. The maximum credit for the purchase of health insurance would be $3,750 for families of three or more.

SUMMARY

- Since the mid-1960s, Federal and State means-tested expenditures per poor person have grown significantly.
- Administration antipoverty initiatives focus on providing people with the opportunity, incentives, choices, and responsibilities that help develop economic self-sufficiency.
- Demographic changes have influenced the poverty rate in recent years. Disincentives in means-tested transfer programs to work in the labor force, save, and marry exacerbate these effects.
- Although sustained economic growth remains the best way to improve economic welfare, special attention must be paid to children, the working poor, homelessness, affordable housing, and health insurance.

CONCLUSION

Over the long term, incomes for families and households in each part of the income distribution have increased substantially. Over the past 25 years, the distribution of money income has become more dispersed in the United States. Similar trends are evident in other countries as well. Trends in the level and distribution of income are determined by a complex interplay of aggregate economic activity, demographic changes, labor market changes, and government policy.

Government taxes and transfers redistribute a substantial amount of resources from higher income households to lower income households and across generations. Most of this redistribution occurs through transfer payments. Government spending on transfer programs has increased significantly, starting in the 1960s and continuing to the present. Redistribution within the Federal tax system has not changed substantially since at least the mid-1970s.

The status of low-income households remains an important concern. A combination of continued economic growth and targeted programs is the best strategy for alleviating poverty.

CHAPTER 5

Competitive Forces and Regulation

GOVERNMENT AT ALL LEVELS affects economic activity through such mechanisms as taxes, law enforcement, and the construction of roads and highways. Regulation, however, generally refers to legal rules that alter the way private companies and others conduct their operations or that mandate government provision of goods and services. "Economic" regulation takes many different forms. It includes regulating prices and limiting the extent of competition in an industry, by establishing, for example, a single local telephone company with rates set by a government body. The government also attempts to protect the environment, health, and safety through "social" regulation. Much of this regulation has been enacted in response to concern about exposure to risk.

Economic and social regulation, the main focus of this chapter, are part of a broader class of regulatory activities that affect businesses and consumers. Governments require schools to provide special services for certain groups of students, require places of business to be accessible to the handicapped, and require firms to provide certain benefits to their employees. The government sometimes provides services directly, such as mail services through the U.S. Postal Service, and prohibits others from competing to perform many of these services, including first-class mail.

While the intentions of many regulations are laudable, they can have unintended adverse impacts on the general public. For example, oil price controls and allocation schemes, begun in 1971 and abandoned in 1981, exacerbated the effects of the two energy crises of the 1970s by creating gasoline lines and spot shortages of gasoline. In contrast, during the Persian Gulf crisis, the short-lived price spike reflected the potential scarcity of oil created by Iraq's invasion of Kuwait. The higher prices encouraged consumers to reduce their gasoline use, avoiding the need for government allocations. Once it became apparent that future supply disruptions were unlikely to occur, prices receded.

Why are regulations that have an adverse impact on the general public instituted in the first place? One reason is that proponents of increased government regulation fail to consider the costs associated with new regulations relative to the benefits they are intended to achieve. This failure is particularly common when regula-

tions are developed to reduce exposure to risk. Similarly, regulation to prevent monopoly pricing by public utilities, although intended to benefit consumers, can be costly if it discourages innovation by the utility. Also, new regulation results from efforts by interest groups to influence legislators and regulatory agencies. As a result, regulations are adopted that sometimes benefit a particular interest group to the detriment of overall societal goals. *Appropriate regulation is based on a balancing of costs and benefits to society in general, taking into account hidden costs such as reductions in the incentives for firms to innovate.*

Once in place, regulations often are difficult to eliminate or to alter. A regulation is a legal rule that can be changed only by legislation or the further actions of a government agency. Moreover, special interests that would lose from the removal of a regulation that diminishes the well-being of consumers often resist proposed rule changes. Continued restrictions on price cutting on international air routes, for example, benefit the owners of some air carriers because they are protected from competition, but consumers in general suffer because they are forced to pay higher fares. Foreign governments that regulate or control air carriers that would be forced to become more efficient in a more competitive market resist the change to a deregulated environment. Deregulation, however, is appropriate when there is reason to believe that, without government intervention, a market would be competitive. Even when some regulation is required, reduced or modified regulation is warranted when the market outcome will be more competitive with less restrictive regulation.

The Administration remains committed to the continued process of deregulating or reducing regulation in markets that are or can be competitive and to advocating regulation only when there is a strong presumption that the benefits to society exceed the costs. Energy, for example, is an important input into production and is also consumed directly. Increased reliance on the competitive market has improved the ability of the economy to respond to shocks in energy supply. *The Administration's National Energy Strategy has proposed regulatory changes that would allow energy markets to function even more effectively.* Further reductions in regulation would increase the availability of natural gas. They would also increase competition in the generation of electric power by encouraging the entry of lower cost, more innovative producers.

Reforming the regulation of financial institutions while ensuring the integrity of the financial sector is another major goal of this Administration. In early 1991 the Administration proposed legislation to address the fundamental problems of the banking industry—the need to recapitalize the bank insurance fund; the need to make banks safer, stronger, and better able to compete; the need to

attract private capital into the industry; and the need to protect the taxpayer from a costly deposit insurance bailout. The legislation produced by the Congress provided critical funding for the bank insurance fund but little more. Further legislation is needed to make banks stronger and to improve the competitiveness of the industry. The regulation of financial markets was analyzed in detail in the 1991 *Report.*

Where regulation remains necessary, the movement toward "incentive regulation," which encourages firms to operate more efficiently, has been a positive regulatory innovation. As a transition to complete deregulation, the Federal Communications Commission (FCC) is now regulating the rates AT&T (American Telephone and Telegraph) charges for long-distance telephone services in a way that encourages the company to produce more efficiently. The Environmental Protection Agency (EPA) has pioneered the use of a regulatory mechanism that allows the market to determine the most efficient way to achieve air quality levels. While the burden of clean air legislation will be high, this Administration initiative will save several billion dollars over the next two decades.

Poorly designed regulations can impose burdens on firms and their workers that in the long run will hurt economic growth. As part of the Administration's agenda to enhance economic growth, the President has announced a regulatory reform initiative designed to reduce the economic burden of regulation (Box 5–1). When it is determined that the government should intervene directly, regulatory approaches that use or replicate market forces, rather than impose direct bureaucratic control on output and prices, will allow markets to retain their flexibility and encourage the most productive use of the economy's resources.

COMPETITION AND THE ROLE OF GOVERNMENT

The competitive market system has three important advantages. First, the discipline of competition encourages efficient production. In a competitive market, a firm that does not produce efficiently will have to charge a higher price to make a profit and will lose customers to its more efficient competitors. Ultimately the firm will be driven out of business.

Second, a competitive market ensures that the economy's productive resources are put to their best use. Automobile manufacturers, for example, decide what kind of cars to build based on the relative prices of different parts needed for the car and on what they think consumers will pay for different kinds of cars. As economists since Adam Smith have emphasized, in competitive markets, consumers and producers will be led to an outcome in which the value con-

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Box 5-1.—The President's Regulatory Reform Initiative

There is increasing concern that the high cost of regulation has become a barrier to economic growth. On January 28, 1992, the President announced a regulatory reform initiative as part of the Administration's agenda to enhance economic growth. The central theme of the regulatory reform initiative is to have Federal regulatory agencies review existing regulations and to accelerate action on initiatives that eliminate unnecessary regulations or otherwise promote economic growth, as allowed by law. The goals of the review are to:

- revise (or repeal where appropriate) those regulations that clearly impose costs that exceed their benefits;
- ensure that regulatory goals are being achieved at the lowest possible cost;
- ensure that existing rules rely on market forces rather than command-and-control requirements to the extent feasible; and
- ensure that regulations provide clarity and certainty to the regulated community and do not promote needless litigation.

To achieve these goals the agencies have been asked to refrain from issuing any new rules for 90 days (except for those regulations that have statutory deadlines, that would promote economic growth, or that are needed for health and safety emergencies) in order to focus their efforts on evaluating existing regulations.

As a first step, the President announced actions to begin the regulatory reform initiative. The goals of these specific actions are to increase the amount of credit and capital available to businesses and consumers, and to reduce the costs of regulation to small businesses. As the review of existing regulations proceeds further actions will be taken as well.

sumers place on the last unit of output of a good (or service) produced just equals the value that society forgoes in producing it.

Third, competition accommodates changes in consumer demand. If consumers demand more washing machines, store owners will quickly begin to run out of inventories. The price will increase to reflect the increased demand for the existing stock of washing machines. In turn, manufacturers will respond by producing more of them.

One of the roles of government is to establish an institutional framework that is conducive to competition and, when markets are

not performing well, to introduce regulation that accomplishes the goal of approximating competitive outcomes.

THE LEGAL SYSTEM

The law determines the ground rules under which market transactions take place. All legal rules, including regulations, impose costs and bestow benefits on different participants in a transaction and therefore alter their incentives. If an inventor knew that another person could copy an innovation and sell it to others, there would be very little incentive to invent in the first place. The legal system protects the inventor by creating specified rights to exclude others from the use of the invention for a fixed period of time, and therefore conveys the right to require compensation for its use. Besides defining and protecting a person's property rights, the legal system provides a method for enforcing contracts and for compensating people when they are victims of accident or injury.

Among its many benefits, the legal system provides a forum for resolving disputes and establishes the ground rules upon which market transactions take place. But resolving conflicts within the legal system also entails costs. A legal system can constrain economic activity if dispute resolution is slow, if the outcome is uncertain, or if the costs of litigation are high. Reform of the legal system, like regulatory reform, involves setting rules that achieve their aims in the most cost-effective way possible. The goal is to create rules and a system of adjudication that provides a fair and efficient system for settling disputes.

Property Rights, Contracts, and the Tort System

Ownership of a piece of land gives the owner the right either to exclude others from it or to give them access to the benefits or use of a resource on that property. The deed to a piece of land defines a property right, and the law protects that right by giving the owner access to the courts if someone tries to use the property without the owner's permission. Property rights are not defined in the abstract, however. Private property rights are determined by overall societal goals. In the case of land, local zoning laws limit property rights by restricting the types of buildings that can be constructed in a particular neighborhood.

Some regulations have been challenged as violating the Fifth Amendment prohibition against taking private property without just compensation (referred to as "takings"). In several recent cases, landowners discovered that newly enacted regulations intended to protect wetlands or endangered species prevented them from building on their property. They argued that although the public interest may be served by restricting land use, the landowners should be compensated for their loss. They also argue that the traditional justification for an uncompensated appropriation of pri-

vate property—the elimination of a "nuisance"—does not apply in these cases. If a court determines that a "taking" has occurred, it will consider the economic impact of the regulation on the value of the property and the extent to which the regulation has unreasonably interfered with investment expectations in determining compensation.

The *Lucas* case, now pending before the Supreme Court, presents these issues in the context of a claim that local restrictions on beachfront development, on a lot otherwise suitable for construction, deprived a property owner of all meaningful use of his land. The United States filed a brief in this case, emphasizing the narrow scope of the government's power to regulate nuisances without paying compensation. The Court's decision in the case will affect the value of land subject to regulation, the incentives of landowners to develop such land, and the incentives of political bodies to take such regulatory actions.

Property rights may also be granted in a form less tangible than a deed to a piece of land. A patent that allows an inventor to receive the profits from his work or a license from the FCC that gives the owner sole rights to use a part of the radio spectrum are also property rights. The licensee of a particular portion of the spectrum would have little incentive to invest in the frequency if any other person could broadcast on the same frequency. By defining what the license is and providing a forum to enforce that right, the legal system allows the license owner to capture the returns from the investment.

The rules of contract law provide for enforcement of agreements and establish remedies when contracts are breached. Even if a person could specify all outcomes when writing a contract, legal enforcement would still be necessary to ensure that people will honor the agreement. If a tire manufacturer, for example, has contracted to deliver tires to an auto manufacturer and then does not deliver them, the auto manufacturer can go to the courts to have the contract enforced. Without enforcement, people would have to depend exclusively on the good will of others to ensure that the agreement is carried out. The auto manufacturer can more easily plan production of new cars when the contract for tire delivery is clearly enforceable.

The legal system also includes a system of tort law, whose major goal is to provide victims of accidents and injury the opportunity to seek compensation for their losses. By awarding damages to victims, the tort law creates an incentive for individuals to behave responsibly. Because of the potential for being sued, people put more effort into preventing accidents and reducing the potential loss from accidents.

Proposed Reforms for the Legal System

Certain aspects of the process of enforcing civil law have been criticized for being costly, arbitrary, and unpredictable and for using unscientific standards. *Because of the way the rules for resolving legal disputes are currently written, parties to a legal case do not consider all of the costs of resolving a lawsuit.* For example, both sides to a legal dispute have almost unlimited ability to take sworn depositions of witnesses, request documents, and submit written questions to each other within the pretrial process called "discovery." Discovery is provided without payment from the requesting party, so there is virtually no incentive to limit the size of the request. As a result, more information than necessary is often gathered, adding substantially to the cost of litigation but providing little offsetting benefit.

Under the leadership of the Vice President, the President's Council on Competitiveness has proposed a comprehensive set of reforms to the civil justice system in its "Agenda for Civil Justice Reform in America." Many of the reforms are designed to accelerate the resolution of disputes and to discourage waste in litigation. The proposed civil justice reforms would establish rules to set quantitative limits on the amount of discovery provided without cost to the requesting party, encourage alternative methods of dispute resolution, place caps on punitive damages, and promote appropriate use of expert testimony (Box 5-2). In Executive Order 12778 the President directed all Federal agencies to implement several of these reforms, including changes in discovery procedures and in the use of expert witnesses, in civil proceedings in Federal courts to which the Federal Government is a party, to the extent feasible.

WHY AND HOW GOVERNMENTS REGULATE

Regulation, it is commonly argued, is intended to correct market imperfections, or "market failures." Imperfections in competition among firms are one type of market failure. For example, in an industry that is a "natural monopoly," where a single supplier can most efficiently meet consumer needs, regulation of prices and the number of competitors may be desirable. In a broader set of markets, no economic regulation is generally necessary. In those cases the antitrust laws exist as a check against the possibility of anticompetitive behavior.

A second justification given for regulation is the presence of "externalities," or third-party effects. An externality occurs when people do not account for all the effects of their actions on others. A manufacturer who dumps pollutants into a river, for example, does not consider the effects of those pollutants on fishermen who

Box 5-2.—Civil Justice Reform Proposals

In August 1991 the President's Council on Competitiveness recommended 50 specific changes to the civil litigation system. The major reforms include:

Loser Pays. The Council has proposed adoption of a modified version of the English rule in which the "loser pays." Under this proposal the person who loses a case would pay the winner's attorney fees. The amount of the payment would be capped at a level equal to the amount the loser spends on attorney fees. Knowing that the law establishes a penalty for losing would discourage a frivolous suit. The use of this modified English rule would be limited to cases involving State law brought under the Federal courts' diversity jurisdiction.

Punitive Damages. A victim may receive punitive damages over and above actual damages, but those awards are often distributed in a random and capricious manner. The Council proposes that the amount of the punitive damages not exceed an amount equal to the plaintiff's actual damages.

Expert Evidence. Often, "expert" testimony is unsupported by accepted professional practice or scientific knowledge. A principal recommendation would require experts to base their testimony on theories "widely accepted" by others in the field.

Voluntary Dispute Resolution. Most disputes are resolved through litigation, either at trial or in out-of-court settlements. The Council on Competitiveness recommends greater access to alternative mechanisms such as private mediation or arbitration to resolve matters without resort to the legal system.

also use the river. The presence of this type of harmful externality has been the rationale underlying most environmental regulation.

An externality can benefit rather than harm third parties. Information is one important example. Private organizations acquire information about product characteristics, such as the nutritional value of foods, which they then sell to consumers. However, it may be difficult for those organizations to capture all the benefits of supplying the information. Once the information is disclosed, consumers can benefit from the use of the information without compensating the provider for its use. In that event, the incentives to invest in supplying the information are diminished.

In principle, when the benefits to consumers of having the information outweigh the costs of requiring that it be provided, the government may want to supplement the role of the private market in supplying information. The government can provide information directly or require firms to provide it. People can then make more

informed choices about which products to buy. Examples of government-required information include food and drug labeling and energy-efficiency labels for household appliances.

Both the absence of competition and the presence of externalities represent imperfections in the market system. If government regulators were acting primarily to correct these imperfections, one would expect that the chief characteristic of regulation would be to simulate the features of the market by encouraging regulated businesses to produce efficiently. In practice, however, *the United States and other nations have too often relied on command-and-control mechanisms, which set a particular level of profits or require use of a specific technology, rather than on mechanisms that encourage firms to reduce their costs or to improve services.*

For example, EPA's 1979 rules for new electric power plants required costly limestone "scrubbers" to reduce sulfur emissions at virtually all new coal-fired plants. A better alternative would have been to set emissions targets and then allow firms to meet the targets by the most cost-effective means, such as by switching to lower sulfur coal. Other examples of command-and-control regulation include restricting price competition among ocean carriers, limiting the number of firms that can provide cable television service, and using administrative hearings to determine who gets the rights to new frequencies on the radio spectrum.

One reason that command-and-control regulations remain in place is that the decision to introduce regulatory reform or to deregulate an industry affects the distribution of wealth among consumers and regulated companies. *The outcome of the regulatory process may be determined by the strength of interest groups rather than by an assessment of whether the proposed regulatory action maximizes net benefits to society.* A regulated company that is producing inefficiently, for example, knows that competition will force the company either to go out of business or to invest in a more efficient production process. Such a company is highly likely to resist regulatory reform.

The Inefficiency of Monopoly

Sometimes an industry may not be competitive—either because a producer has a monopoly over production or because the industry consists only of a few large firms that can make decisions collusively. In these situations, producers tend to reduce the amount of production below what a competitive market would produce, causing prices and profits to rise at the expense of consumers. The desirable characteristics of markets are attenuated when competition is absent. In particular, the outcome is inefficient because some consumers would be willing to pay more for additional quantities of the good than the additional cost of its production. If competition were greater, producers' profits would decline, but by less than the

value of increased output, and all consumers would enjoy lower prices.

One way that the government discourages anticompetitive behavior is through antitrust enforcement. The antitrust laws are part of the institutional framework within which most businesses in the United States operate. The Federal Government enforces the antitrust laws through the Antitrust Division of the Department of Justice and the Federal Trade Commission. The primary focus of these agencies is to challenge mergers that significantly reduce competition and to prosecute businesses that collude to raise prices.

The Regulation of Prices and Competition

Economic regulation generally involves control over the prices a business can charge and limitations on the number of businesses that can provide a good or service. One goal of price regulation is to place a check on companies that have a monopoly in the market that they serve. Yet, price regulation has been imposed on competitive industries as well. Price regulation of initial natural gas sales was instituted in 1954, even though approximately 2,300 independent producers of natural gas were operating as of 1947. Because regulated prices were set too low in an industry that was already competitive, shortages of gas developed in the 1970s.

Another motivation for economic regulation is to protect existing companies from new competition. Regulation of interstate trucking by the Interstate Commerce Commission (ICC) in 1935 was partially stimulated by railroads' concern that unregulated trucking companies would be able to undercut rail prices in areas where regulated railroad rates were high relative to trucking costs. The ICC restricted the ability of trucking companies to offer discounts, and regulators were hostile to companies that wanted to extend service into new geographic regions and to the development of completely new firms. In fact, existing firms were allowed to protest proposed service by a new carrier. The Motor Carrier Act of 1980 changed all of that by limiting the ICC's regulatory authority. By 1990 the total number of licensed interstate carriers exceeded 40,000, compared with 17,000 in 1980. During fiscal 1987 truckers filed 1.2 million new rate schedules, compared with 394,000 in 1979. Because trucking services represent 75 percent of all expenditures on transporting goods, reduced regulation contributes to economic growth by cutting a major cost of production.

Price regulation and limitations on competition are generally justified in industries that are natural monopolies. These are industries where a single firm can produce all of a product at lower cost than several different firms can. Within a particular geographic area, electric utilities, local telephone companies, local distributors of natural gas, and similar industries have been considered natural monopolies.

If several electric utilities attempted to compete with each other to distribute electricity to customers in the same geographic area, each company, realizing that cost reductions in distribution come from having more local customers, would begin to lower prices to capture those customers. Eventually if it were less costly for one firm to provide all the service, only one local distribution company would survive this battle. Exactly this type of competition occurred in the late 19th century when several companies provided electric service in Chicago, with one company eventually emerging to serve the entire city. The expenditure on the overlapping electric lines was wasteful, since competing firms could not survive.

The usual policy response is to carve out a monopoly for an electric utility over a fixed geographic area and then to regulate its prices. This regulatory approach eliminates wasteful duplication while constraining the pricing of the monopolist, but it can also have drawbacks. As discussed below, *the way prices are regulated can diminish the incentive for the regulated company to minimize its costs. Government protection of a monopoly may also prevent new competitors from implementing technologies that do not have the cost characteristics of a natural monopoly.*

The Environment, Health, and Safety

Since World War II, the government has assumed an ever-increasing role in regulating the environment, health, and safety. Spurred by increasing public concern over risks, government agencies, for example, now regulate discharges of air pollutants, set safety standards for cars, and oversee the food that Americans eat.

A major goal of regulating the environment, health, and safety is to correct the problem of externalities. Externalities may take the form of something people want less of—like air pollution—or something they want more of—like information on safety. If one man's clothes are soiled by his rural neighbor's furnace, he may be able to reach an accommodation with his neighbor—for example, by offering to share the cost of switching to a cleaner fuel. In this way, the neighbor is led to take into account the external cost of his decision about which fuel to burn. But if the man's clothes are soiled by air pollution from a thousand furnaces and cars, then it is not practical to reach similar arrangements with, or even identify, all those who caused the harm. In this case, one person can pollute another's air without confronting the cost, and the result is too much air pollution. A regulatory approach can provide a corrective in such cases. Ronald Coase, the winner of the 1991 Nobel Memorial Prize in Economics, has emphasized the role of the cost of reaching agreements in determining the appropriate policy response to problems created by externalities (Box 5-3).

Besides protecting the environment, the government protects consumers by providing product information on health and safety

Box 5-3.—Ronald Coase, the Role of Transaction Costs, and the Definition of Property Rights

Professor Ronald Coase of the University of Chicago, the Nobel Laureate in Economics for 1991, is particularly known for his penetrating analysis of the role of transaction costs—the cost of effecting an exchange—in determining the characteristics of social institutions. Coase pointed out that, for example, whether an auto manufacturing company makes or purchases the seat belts it installs in the cars it produces depends upon the cost of making a product for which it may not be particularly well set up (the seat belts) compared with the cost of reaching a satisfactory supply arrangement with an external seat belt firm. In competitive markets, Coase noted, organizational forms that economize on transaction costs will tend to prosper and survive. Changes in the relative costs of such transactions, owing in part to the development of computers, are leading to major changes in the organizational structure of firms in market economies.

In a celebrated paper, Coase explored the role of transaction costs in determining how property rights ought to be defined. Should, for example, the property rights of an owner of a piece of land include the freedom to emit smoke that soils a neighbor's laundry, or, alteratively, should the neighbor's property rights include the option to ask a court to enforce a claim for damages against the emitter of smoke? Coase's answer is that how property rights in such cases should be defined depends on transaction costs. If, for example, it is easy to measure smoke emissions but hard to tell whether people are taking due precautions to do their laundry on smoke-free days, the better result may obtain if the property right includes the option to emit smoke! Launderers would then have an incentive to negotiate a satisfactory schedule with smoke-emitters (for example, smokeless Tuesdays).

A similar line of reasoning offers insights into the traditional legal doctrine that denies compensation for a "regulatory taking" to eliminate a "nuisance" and into the choices faced in several recent court cases that deal with new questions of regulatory taking. The Coase analysis emphasizes that in addition to the issues of equity, the courts should consider whether the net effect of a more or less stringent protection against taking in the definition of property rights will lead to the best use of land in the long run.

or requiring businesses to do so. To encourage disclosure, the President signed the Nutrition Labeling and Education Act of 1990, requiring the Food and Drug Administration (FDA) to establish rules that would make it easier for consumers to understand the nutritional content of foods. Among the proposals the FDA made in November 1991 is a requirement that food companies use standardized measures of a "serving" for more than 100 different foods, which would allow consumers to compare products easily. The FDA is also expected to rule on which specific health claims will be permitted on labels.

Although increased nutritional information benefits consumers, it is important to consider its cost when writing regulatory rules that implement legislation. Businesses will incur costs to develop the new information and to alter the food labels. Some of these costs will be borne by consumers in the form of higher food prices. Also, any restrictions on health claims should be balanced against the possibility that potentially useful information will not be disseminated. Furthermore, the presence of an externality does not mean that information on nutrition will be provided only when it is required by the government. Some information will still be supplied by other means, such as through consumer magazines.

For certain risks, the government goes beyond requiring that information be provided. In the case of automobiles, workplace safety, or a doctor's services, it may be costly for each person to invest in assessing the relative quality or safety of the goods provided. The government can play the role of gathering the information and then regulating the risks directly. Thus, all automobiles sold in the United States must satisfy safety regulations established by the National Highway Traffic and Safety Administration (NHTSA). Some products, such as certain pesticides, are banned entirely. The government, however, is not the only entity that can assist the consumer in evaluating product performance. Product manufacturers may be able to assure quality by providing product warranties. *Industry-established standards and companies' investments in their own brand names also demonstrate that the private market plays an important role in ensuring safety and quality without help from the government.*

Many actions have some external or third-party effects that could justify government intervention. But government action itself has third-party effects, and *government intervention to correct the market failure of an externality carries with it the risk of unintended outcomes because of "government failure."*

Government failure in regulation may occur for at least three reasons. First, it can be difficult to determine who is affected by an externality and to what extent. This is particularly true where the scientific consensus about an externality is still evolving. For ex-

ample, the scientific consensus on air pollutants and toxic substances has changed often enough to impede sound regulatory decisions, as the scientific debates surrounding asbestos, dioxin, and global climate change all illustrate.

Government failure in regulation may also occur when regulatory solutions impose large unintended costs on innocent third parties. Thus, long delays in the approval of new drugs harms those forced to use the older, often less effective, substances. The Administration has proposed using outside review organizations to complement the FDA's function of evaluating the safety and effectiveness of new drugs. The goal of contracting out some of the approval function is to reduce the time needed to approve new drugs, especially those that have the prospect of extraordinary benefits in reducing morbidity or mortality.

Third, as explained in the next section, government failure may occur when regulation becomes the mechanism that allows one group of people to take advantage of another.

Interest Groups and Regulation

Regulation creates winners and losers. Firms know this and spend considerable time and money trying to capture the benefits of regulation. New regulations rarely affect all firms equally. New firms may face higher costs than existing firms; large firms may be able to finance costly changes demanded by new regulations; some firms may be able to gain exemptions from the existing rules.

In each case the effect of a new regulation is to transfer income from one group to another. The government, for example, does this by creating or protecting a firm's position as a monopolist or by restricting a market to a small number of firms. Protected firms enjoy higher profits than competitive firms; these higher profits become the prize sought by others. Thus, as explained above, truckers used the ICC to block entry of new competitors.

But gaining a protected position from the government can involve large expenditures. Firms hire lobbyists and lawyers and even alter their business plans in order to acquire a protected position. *Because all interest groups must make similar expenditures to seek government favor, the regulatory process tends to favor those groups or businesses that can capture the greatest benefits from a protected position. Once achieved, a protected position must be defended against competitors trying to dislodge the incumbent firm.*

Before deregulation in 1978, for example, the Civil Aeronautics Board (CAB) granted effective monopolies to airlines on many routes. The CAB held hearings in which the airlines attempted to persuade the board members to award them exclusive franchises and to keep out competitors. Although the deregulated domestic airline industry continues to use lobbyists to gain a favorable hear-

ing for its views, the industry no longer has protected domestic monopolies to spend time and money defending.

The U.S. Department of Agriculture's agricultural marketing orders are another illustration of protection from competition. These orders restrict supply in markets for lemons, oranges, and other crops (Box 5–4). For decades farmers have made investments in the belief that the orders would protect their profitable position. Although in the long run, expansion by farmers dissipates these profits, some farmers resist proposals that would eliminate these orders because doing so would reduce the value of their investment.

Box 5–4.—Agricultural Marketing Orders

The current Federal marketing order for California-Arizona navel oranges has been in effect since 1953. Under the present order, the maximum quantity each handler (first buyer) may ship to the domestic fresh market is set weekly. Harvested oranges not sold in the domestic market are sold abroad or to the domestic processing industry. By limiting the quantity of oranges that may be sold in the high-valued fresh market, domestic fresh orange prices are raised and total revenue to growers may be increased.

Although farmers may gain in any one year from the higher farm income, such gains are dissipated as growers plant additional trees to earn some of the increased revenues brought about by regulation. The marketing order also penalizes growers who produce oranges at lower cost by limiting the volume of fresh oranges they may sell. Consumers of fresh oranges lose as well because of higher prices.

What are the costs and benefits of such regulation? A recent study by the Department of Agriculture suggests that eliminating the marketing order would cost producers about $13 million annually, while saving consumers about $30 million. On a per capita basis, however, each consumer would gain about $.12, while each grower would lose about $3,150.

Not only firms, but other interest groups as well, benefit from protected positions. The Advisory Commission on Regulatory Barriers to Affordable Housing found that many local land use controls (including zoning laws and building codes) are designed to restrict the availability of housing for families with incomes somewhat lower than current residents. By limiting the supply of affordable housing, local regulations drive up the cost of housing, particularly for moderate and lower income families.

The problem of entrenched protected interests can be avoided by arrangements that discourage expenditures solely to defend the special position. Auctioning public property, for example, not only gives the auction winners control of the property but also an incentive to make the best use of it. Currently, the FCC uses a lengthy process of hearings or a purely random lottery system to assign new licenses to the radio spectrum. The Administration has proposed legislation to permit competitive bidding for newly available portions of the radio spectrum to ensure that licenses will be assigned to those parties who value them most. Competitive bidding would also simplify the application process and bring in revenue to the government.

THE REGULATORY PROCESS

Regulation has become pervasive at the local, State, and Federal levels. Local regulation typically involves such matters as setting zoning restrictions and building codes, regulating sewer and water prices, and granting cable television franchises. In some cases local municipalities own the local electric utility, buying the needed power from generators of electricity. States regulate utilities through regulatory commissions, which set retail rates for local telephone calls, electric power, and natural gas. States also issue regulations in a broad range of areas including insurance, energy, transportation, health, safety, and the environment.

Federal regulation is concerned primarily with goods and services that are sold in interstate commerce. The Congress has responded to economic and social problems by creating regulatory agencies or by expanding the role of an existing Cabinet department. In health and safety, for example, 9 separate Federal agencies write regulations under the authority of 26 major statutes. In a process called a "rulemaking," agencies propose rules to conform with the requirements of the legislation (Box 5–5 describes the rulemaking mechanism). They are then published in the *Federal Register* and finalized only after a period for public comment.

As shown in Chart 5–1, researchers estimate that the administrative costs of enforcing and writing Federal regulations have increased almost threefold since 1970. *The administrative costs shown in Chart 5–1, however, do not include additional costs imposed on firms from regulation—costs that are ultimately borne by consumers. These additional costs result when regulation raises production costs and product prices, makes products unprofitable to provide, or retards product innovation.* Recent estimates put these costs in the hundreds of billions of dollars.

To make regulations more cost effective and to create some consistency in the way regulations are formulated in each agency, a system of regulatory oversight has been established within the Ex-

Box 5–5.—Writing the Rules: The Clean Air Act

The Congress legislates regulation broadly but leaves to the regulatory agencies the task of filling in the details. Each agency is charged with implementing certain laws. As an illustration, the Clean Air Act Amendments of 1990 contain 9 major titles running to 300 pages and require the Environmental Protection Agency (EPA) to issue at least 55 separate regulations in the first 2 years alone.

Consultation and Public Comment. On November 15, 1990, the President signed the Clean Air Act Amendments. In late 1990 the EPA began work on the first set of rules to be drafted, meeting formally and informally with affected industries, environmental groups, and other outside organizations. In early 1991 the EPA published in the *Federal Register* the first of a series of notices of proposed rulemaking, soliciting public comment. At several stages of the rule-writing process, the EPA must solicit public comments to be considered as the regulations are finalized.

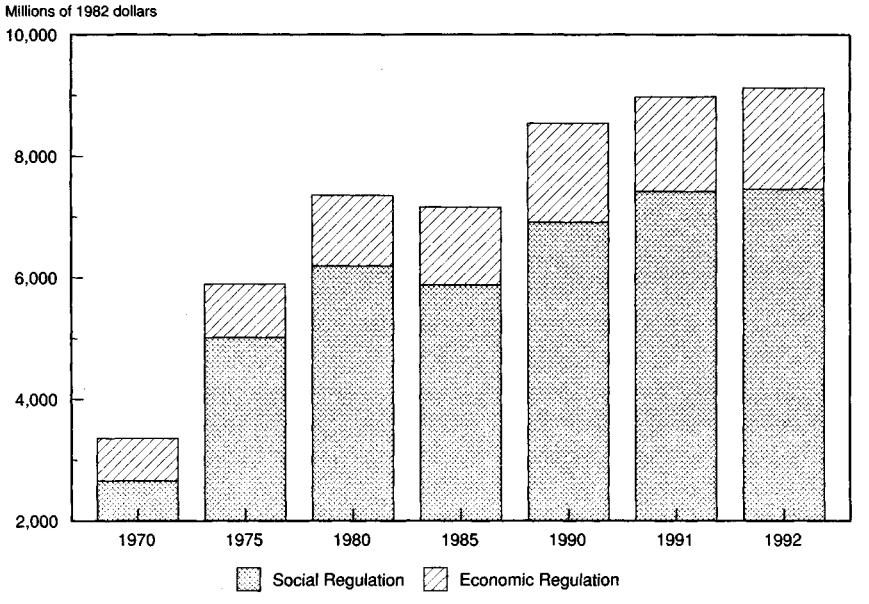
Reg-neg. Recently, some rules have been formulated through negotiated regulations or "reg-negs," which are designed to bring all parties affected by the regulation together to reach a consensus on its design. The regulation is then drafted by the responsible agency in a way that balances the welfare of the affected parties, including that of the general public. When successful, reg-negs are able to reduce the time and resources (including litigation) that might be expanded under the conventional rulemaking process.

Agency Review. The Office of Management and Budget (OMB) and other agencies have the opportunity, and in some cases the statutory obligation, to review proposed rules, generally for 30 to 60 days.

Final Rule. After a last round of public comments, and clearance from OMB, the EPA Administrator signs the final rule, which is promulgated in the *Federal Register*.

ecutive Office of the President. In 1981 President Reagan issued Executive Order 12291, which authorizes the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB) to work with the various regulatory agencies to develop more effective and less costly regulations. The Executive order directs all agencies proposing new regulations, reviewing old ones, or developing legislation to estimate costs and benefits and to demonstrate that the potential benefits outweigh the potential costs to society. OIRA reviewed more than 2,100 rules in 1990 to

Chart 5-1 **Administrative Costs of Federal Regulation**
The administrative costs of Federal regulation have increased greatly since 1970.



Note: 1991 and 1992 figures are projected.
Source: Center for the Study of American Business, Washington University.

ensure that the principles of Executive Order 12291 were applied. In addition, some major issues are reviewed by the President's Council on Competitiveness.

Federal vs. State Regulation

One barrier to increasing the overall effectiveness of regulation is the dual system of Federal and local regulation. Local governments often can respond more effectively to problems that arise in their communities. Federal involvement in local zoning laws, for example, would require knowledge of local conditions that would be very costly to accumulate. Overlapping jurisdictions can sometimes create problems. For example, State regulations that impose food labeling laws distinct from FDA rules force businesses to develop differently labeled products for these States. The inevitable increase in production costs is likely to lead to higher food prices for all consumers. *In cases where local regulation interferes with economies of production, a uniform system of Federal regulations could reduce the burdens on firms and their workers and lower prices for consumers.*

SUMMARY

- A system of competitive markets creates the discipline that encourages firms to produce efficiently and directs resources to their best use.
- A well-functioning legal system increases the efficiency of economic activity by appropriately defining and protecting property rights, ensuring that the terms of contracts are fulfilled, and facilitating compensation for the victims of injury. The Council on Competitiveness has proposed reforms that would improve the efficiency of the legal system and reduce unnecessary litigation.
- Government intervention to correct the market failure of an externality carries with it the risk of creating other unintended market failures.
- Once a regulatory goal is established, policies that incorporate market incentives are superior to command-and-control solutions.

THE BENEFITS OF ECONOMIC DEREGULATION

The primary purposes of deregulation are to allow competition to determine the amount of goods and services that are produced and the prices consumers are charged for those goods and services. Competition would also encourage innovation and the development of new products. For example, before deregulation, the CAB determined the number of airlines that could serve each air route and the air fares they could offer. Since deregulation in 1978, fares have decreased on long-distance routes and increased on short-distance routes, but average air fares overall have declined 20 percent in real terms. Half of all passenger trips are now in markets served by three or more carriers, double the percentage before deregulation. Also, once freed from regulation, airlines developed "hub-and-spoke" systems, an innovation that has given passengers a much greater range of flight choices.

New technologies mean that some industries may no longer be natural monopolies, but regulation can mask that fact by keeping the new technologies out of the marketplace. Instead of perpetuating the monopoly, deregulation would allow new firms to enter. The market would then determine how the service should be provided and at what price.

This is especially true in telecommunications where technology is changing rapidly. For many years most supporters of regulation considered long-distance telephone service to be a natural monopoly. Now firms have set up fiber optic and microwave networks that compete directly with AT&T in long-distance service. The Administration proposed in November 1991 to permit competition with the

International Telecommunications Satellite Organization (INTELSAT), the consortium that provides international long-distance telephone service by satellite. Under the new policy, international satellite companies would immediately be permitted to provide additional services, with the goal of opening the market to full competition by 1997.

Even when unfettered market competition is not feasible, there are better and worse ways to regulate. Under recently developed approaches, prices can be set in a manner that gives regulated firms greater incentives to reduce costs and to innovate. Currently, monopolies, such as local electricity distributors, are often regulated using traditional "cost-of-service regulation." The regulator tries to determine the cost of providing the service, and sets prices to cover those estimated costs, including a return on the capital that is invested in the regulated company. This method is used to ensure that the company will not lose money and that it will not be able to charge prices above its costs.

The problem with cost-of-service regulation is that it does not give the regulated firm the incentive to reduce its costs or provide better service. An attempt to reduce costs will eventually be followed by a reduction in allowed revenues, leaving the firm no better off. If new services lead to increases in profit, prices will eventually be reduced to bring revenues in line with costs. The incentive for firms to develop the new services are thereby diminished.

New regulatory approaches, commonly labeled "incentive regulation," are being tried as alternatives to cost-of-service regulation. In the transition from regulation to unregulated competition in long-distance telephone service, the FCC has tied some of AT&T's rates to an index that is adjusted for inflation minus a correction for expected productivity improvements. If AT&T reduces its costs or improves its products, it is allowed to keep some of the profits. The FCC and many States have also instituted this incentive regulation for local telephone companies. And in its National Energy Strategy, the Administration has proposed instituting incentive regulation for natural gas pipelines. In this way regulators limit monopoly profits while giving the regulated company incentives to produce efficiently and to innovate.

The following sections analyze proposals for further reductions in regulation that are now being considered to improve performance in the natural gas, electric power, and cable television industries. Regulatory reform will bring more competition to natural gas delivery and the generation of electric power. The benefits of deregulating cable television will be fully realized only when entry barriers to new competitors, possibly using alternative technologies, are removed. *The goal of deregulation is to promote general prosper-*

ity by creating a more efficient allocation of resources. That goal can be achieved by eliminating price regulation and barriers to entry where markets can be competitive.

NATURAL GAS

Regulation in the natural gas industry provides a good example of the problems that can arise when regulators set prices incorrectly. Before 1978 the price paid for the natural gas extracted from the ground, often called the "wellhead" price, was regulated by the Federal Energy Regulatory Commission (FERC). Unfortunately, the regulated prices were set too low, reducing the incentive to extract more natural gas. Because demand at the regulated price was greater than the amount being produced, Federal regulators were forced to ration the use of natural gas. To alleviate this problem, the Natural Gas Policy Act of 1978 began the process of decontrolling prices. The Natural Gas Wellhead Decontrol Act of 1989 set a timetable for completing wellhead deregulation. By January 1, 1993, all Federal regulatory control over wellhead prices will be eliminated.

The Current Status of Natural Gas Regulation

The process of transporting natural gas to a residence or a commercial user remains regulated by FERC and the States, however. Once natural gas is extracted from the ground, it is transported by pipeline, often over long distances and across State lines, and then sold to local distribution companies, electric utilities, and industrial users. FERC regulates the prices charged for interstate transportation of natural gas and the prices that pipelines charge for the gas they sell to local distributors and others. Pipeline companies must provide FERC with information on the costs they incur. These include the prices paid to producers for gas and the cost of building pipeline facilities to transport natural gas. FERC then sets rates to cover those costs.

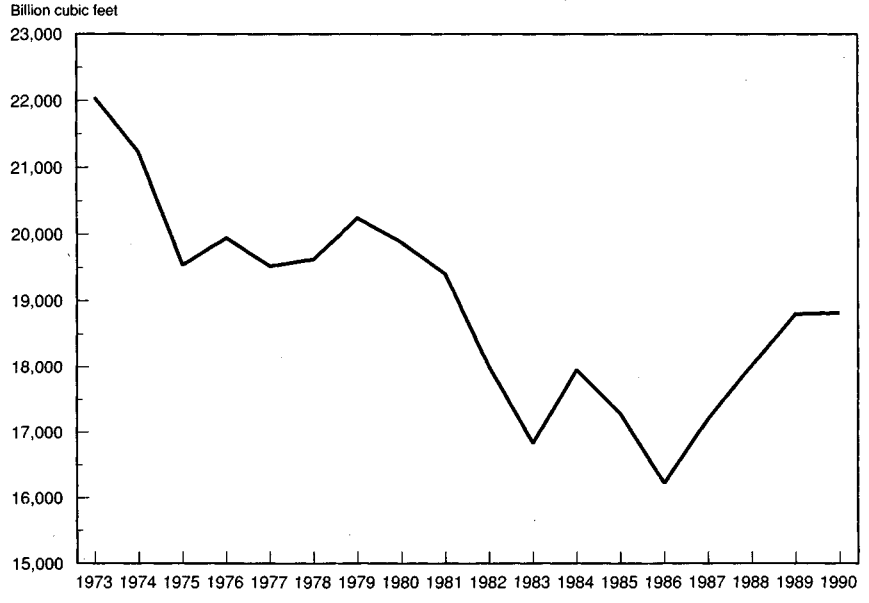
The local distribution segment of the industry, which distributes the gas to residential, commercial, and industrial users, remains largely a regulated monopoly. Generally, the least costly method of distribution is for a single company to deliver the gas to all homes within a market, although a small number of areas have competing distributors for nonresidential customers. Because distribution has natural monopoly characteristics, local distributors generally have franchised service areas in which they are the monopoly provider of service for most or all customers. States regulate the rates distributors may charge.

Despite the fact that most wellhead prices have been deregulated, the electric generation and industrial sectors have actually reduced their use of natural gas over the last two decades. *Although natural gas is a relatively clean fuel with abundant domestic sup-*

plies, total domestic consumption has declined more than 10 percent since 1973 (Chart 5-2). One primary barrier to increased use is the process of granting permits for construction of new natural gas pipelines. FERC approval must be obtained before any new interstate pipeline can be constructed. Often, an administrative hearing is held in which outside parties, including competitors, can object to the application. Several years may elapse before a construction permit is granted, sometimes prompting consumers to turn to alternative, more expensive fuels. Legislation based on the Administration's National Energy Strategy would streamline the process of reviewing applications for pipeline construction.

Chart 5-2 **Consumption of Natural Gas**

Domestic consumption of natural gas has declined from 1973 levels.



Source: Department of Energy.

Consumption may also have declined because local distribution companies, electric utilities, and industrial users were limited in their ability to negotiate directly with natural gas producers. Before 1985, when FERC initiated open access to natural gas pipelines, almost all natural gas was actually purchased by pipeline companies and then resold to distributors, utilities, and industrial users. In 1982, for example, only 3 percent of the natural gas transported by the pipelines was owned by others. Consequently, for most users the only source for natural gas was the monopoly pipeline that served their plant. With a monopoly over gas transporta-

tion, a pipeline company may not offer the lowest priced natural gas, prompting the user to consider other fuels.

Open Access to Natural Gas Pipelines

The FERC initiatives have significantly changed the position of pipeline companies by creating incentives for them to transport gas that is owned by other companies. Pipelines that market their own gas, as well as provide transportation services for gas owned by others are called "open access" pipelines. These pipelines are required to provide gas transportation services to owners of natural gas not affiliated with the pipeline that are comparable to those it provides for its own gas sales. Because of this policy, gas owned by firms other than pipelines now accounts for about 80 percent of the interstate sales of natural gas transported by pipelines.

The effect of the open access policy is that electric utilities, industrial users, and local distribution companies can now contract to purchase gas directly from gas producers and marketers as well as from pipeline companies.

Although open access has dramatically expanded, the extent to which competition can be fully realized in the market for gas delivered by pipelines has been questioned. When a pipeline sells its own gas, it is actually selling a bundled commodity consisting of the gas and various transportation, storage, and other services. Other gas sellers pay for the transportation services separately, but the price they pay and the quality of service they receive may not be comparable to the rate and service implicitly provided for the pipeline's own gas sales. If there is no other competing pipeline through which the natural gas can be delivered to a particular customer, the nonpipeline seller will be at a disadvantage relative to the pipeline's own gas sales. Discrimination of this type could reduce the benefits of competition.

One of the goals of the Administration's National Energy Strategy is to eliminate that potential for discrimination. In July 1991 FERC proposed that pipelines be required to separate their business of selling gas from their business of transporting gas for others. After this restructuring, gas would be sold unbundled from the various transportation services, as on an "a la carte" menu, making the comparability of transportation rates and services much easier to monitor.

FERC has proposed to relax regulation of pipeline gas sales once this unbundling occurs. This relaxation would mean that the competitive natural gas sales market will determine which transactions take place and at what price. Because local distributors and other gas consumers may still be captive to a single pipeline, the rate the pipeline charges for transporting the natural gas would remain regulated.

Mandatory unbundling may not always be necessary, however. If a customer has access to competing pipelines, then the likelihood of discrimination is reduced. In that case a competitive gas sales market could flourish without unbundling. Mandatory unbundling can also impose costs on producers. With unbundling, pipelines may lose the ability to coordinate and manage gas shipments. Mandating unbundling would deny pipelines the benefit of these "economies of scope." These economies of scope cannot be recaptured by simply allowing buyers to purchase the services together. The potential loss of productive efficiency needs to be considered before unbundling is mandated on a blanket basis.

ELECTRIC POWER

Similar to the natural gas industry, the electric power industry consists of three different segments: the generation of power, the transmission of power from generators to local utilities, and the distribution of electricity to homes and businesses by the local utility company. Unlike the natural gas industry, however, the same firm frequently performs all three functions: it produces and transmits its own power and then distributes that power to retail customers. A small but growing number of firms specialize in one particular segment, such as generating electric power that is sold wholesale to utilities.

Currently, all three segments of the industry are subject to State and Federal regulation to some extent. Competition in the distribution of electricity has generally been considered infeasible because of the natural monopoly characteristics of these services. Instead, local utilities are granted monopolies over the markets they service, and States or local municipalities regulate the rates they can charge customers. FERC regulates the prices charged for use of interstate transmission facilities, which also have natural monopoly characteristics, and the price of interstate sales of wholesale power. But competition has emerged among firms that generate wholesale power. Regulators now face the problem of determining when to step aside and allow the market to determine the price at which that power is sold.

Promoting Competition in Electricity Generation

The ability to buy and sell electric power allows utilities to make more efficient use of existing capacity. By buying power from other companies, for example, a local utility can satisfy an extraordinary demand for electricity, such as that which occurs on an unusually hot day, without having to build the additional capacity itself. When utilities purchase power, however, the Federal Power Act of 1935 requires FERC to ensure that prices charged for any interstate sales are "just and reasonable." The seller must provide cost information to FERC, and significant delays in determining the

rates can occur. With the emergence of a more competitive generation market, however, the need to regulate all sales on a cost-of-service basis has been questioned.

One major step in developing competition in the sale of electric power was the Public Utilities Regulatory Policies Act of 1978 (PURPA). PURPA exempts "qualifying facilities," such as cogenerators of steam and electricity, from FERC rate control and relieves them of other financial requirements. PURPA has been successful in encouraging the development of nontraditional sources of power. In the 1980s qualifying facilities that sell power to utilities added 13,000 to 15,000 megawatts of capacity to the national market, while utilities that produce their own power ordered only about 9,500 megawatts of new capacity. Other independent power producers that do not qualify under PURPA have also begun to emerge. *The availability of alternative power sources has encouraged 13 States to use competitive procurement, rather than cost-of-service regulation, when a utility needs generating capacity.* FERC has also adopted, for some power sales, the use of rates arrived at through competitive bidding.

A major barrier to the further development of a wholesale electricity market is the Public Utility Holding Company Act of 1935 (PUHCA). The original intent of the 1935 law was to curb financial abuses by electric utility holding companies. Its effect today, however, is to restrict the development of independent generating sources. For example, certain holding companies are barred from owning more than 10 percent of a power producer whose sole purpose is to sell power in the wholesale market. Legislation supported by the Administration as part of the National Energy Strategy would amend PUHCA to eliminate obstacles to entry by new independent power producers and barriers to the development of new sources of wholesale power affiliated with utilities.

Transmission Access

The control of access to transmission services by firms that sell wholesale power raises the possibility that power sales will not take place at competitive prices. A utility may be captive to a single provider of transmission who also sells power. The owner of the transmission capacity could deny other power producers access to the lines, allowing it to charge prices above competitive levels for its own power. The presence of a monopoly provider of transmission forces FERC to keep a close watch over the prices charged for wholesale power.

A seller of power who also controls transmission cannot always set rates above the competitive level, however. A purchaser may have several alternative sources of supply. It could generate power itself, it could purchase power produced by others in its own service area, or it could purchase power produced outside of its service

area by firms that have access to the necessary transmission. *When the purchaser of power has a number of alternative sources, a competitive market can develop. Prices that arise from competitive markets can take the place of prices based on cost-of-service regulation.*

When there are no alternative sources of power, denial of access to transmission would leave the utility captive of a single supplier. In that case a requirement that the transmission owner give a buyer access to alternative sellers, while being compensated for the opportunity costs of transmitting that power, would increase competition in wholesale markets and ensure that power can be purchased at competitive rates. At present, FERC has limited legal authority to require owners of transmission to provide access. Legislation may be needed to expand FERC's authority to order a transmission owner to provide access to a power supplier when such access would enhance competition in the wholesale power market.

CABLE TELEVISION

Cable television is now available to more than 90 percent of all homes with television, and more than 60 percent of these households subscribe to cable service. Cable television normally includes television stations that are broadcast over the air, as well as services such as CNN and ESPN, that are delivered by satellite to the cable operator. Consumers in most communities can obtain these services only by subscribing to the local cable television service. The operator typically charges subscribers a monthly fee for delivering these services. The problem now facing policymakers is how to encourage competition that will restrain local cable systems from setting fees too high.

The Effects of Cable Deregulation

By virtue of their control over permits to string cable along and across public rights-of-way, local communities established the right to regulate cable television. Many communities decided that having more than one cable system was inefficient. Multiple systems would have meant duplicating all of the cable connected to each household and business. Most cable television companies were thus granted a monopoly franchise over the market they serve. A local authority regulated the rates of "basic service," a package that usually includes both broadcast channels and satellite-delivered programs.

By the early 1980s the availability of alternatives to cable brought into question the necessity of continued regulation. Possible alternatives included purchasing satellite dishes, using videocassette recorders (VCRs), or simply opting to limit viewing to channels available via broadcast antennas. The Cable Communications Policy Act of 1984 (Cable Act) barred regulation in communities where there was "effective competition," which the FCC de-

fined as communities that receive at least three over-the-air broadcast channels. The effect of this rule was to leave only 3 percent of all cable franchises regulated by the end of 1989, down from 63 percent before deregulation.

Cable television rates increased substantially between the end of 1986, when the Cable Act took effect, and the end of 1990. Over that period, the average rate for the lowest priced basic service increased 32 percent in constant dollars. Cable operators explain the increase by arguing that they now include more channels and a greater variety of programs in the basic service. But others blame deregulation, noting that the alternatives of watching broadcast television or renting video tapes do not provide enough competition to restrict the prices charged by cable operators.

Introducing Competition for Cable

Responding to that criticism, the FCC changed its effective competition standard in 1991. Now local communities may regulate rates in those areas that receive fewer than six over-the-air broadcast channels. Although there have been calls to increase the scope of rate regulation even further, *the Administration has supported a policy whose ultimate goal is to introduce new competition for cable operators, encouraging both price competition and alternative sources of television programming.* Although cable television has been traditionally perceived as a natural monopoly that requires limitations on competition and regulated prices, new transmission technologies such as satellite-delivered services are emerging. Reliance on rate regulation and restriction on entry prevents those technologies from being fully implemented. Rather than perpetuating the existing monopolies, competition among video providers will determine how the services should be provided and at what price.

The emergence of competition will depend on whether a second company finds it profitable to install the necessary wires and other equipment or to use a different technology to compete with the incumbent cable operator. One possible competitor that has already invested in some of the fixed equipment is the local telephone company, although it would have to install fiber optic cable to provide a service comparable to that provided by existing cable companies. Currently, however, FCC regulations and the Cable Act prevent direct competition from the local telephone company.

Under one reform proposal, local telephone companies would be permitted to transmit television or other video signals provided by both the telephone company and other companies. Critics of this plan worry that because telephone rates in some States are still determined by cost-of-service regulation, the telephone companies might seek to transfer the costs of their video operations to the regulated telephone sector, thereby inflating the costs of telephone

service and putting competing video program providers at a disadvantage. This practice is commonly called "cross-subsidization." There are also concerns that telephone companies might use their control over the telephone lines to discriminate against competing programmers simply by designing the network to favor their own product.

The problems of discrimination and cross-subsidization are legitimate concerns. The FCC has developed rules that could be used to minimize the risk of cross-subsidization and discrimination in video services. If problems arise, these rules can be strengthened further. Even with the proper rules in place, full participation by telephone companies in providing video content cannot occur until the Cable Act is changed. As an interim step, *competition for existing cable operators could be enhanced by permitting local telephone companies to carry television and other video services that are controlled by independent companies.* The FCC began to ask for comment on such a policy in November 1991. The alternative policy would be to continue banning the most likely competitor for incumbent cable operators. Such a policy is untenable in the face of unregulated rates and monopoly franchises.

SUMMARY

- Implementation of the National Energy Strategy would enhance competition in the generation of electric power and the delivery of natural gas.
- In the long run, removal of the barriers to competition for existing cable operators, rather than price regulation, will benefit consumers by lowering rates and providing alternative services.
- By limiting competition, economic regulation may be inhibiting the introduction of innovations that would benefit consumers.
- The economies of producing in both a regulated and unregulated market should not automatically be sacrificed to eliminate problems of discrimination and cross-subsidization.

REFORMING REGULATION OF THE ENVIRONMENT, HEALTH, AND SAFETY

Environmental, health, and safety regulation is directed in part toward remedying externalities or third-party effects. During the past two decades, *the Federal Government has significantly widened the scope of regulatory activity in these areas, generally using a command-and-control approach. As a result, costs to the economy have increased substantially,* because legislation in these areas has rarely required regulators to balance the costs and benefits of their actions. Recent initiatives have attempted to improve on tradition-

al regulation by allowing more flexibility and by balancing benefits and costs. These initiatives offer significant cost savings compared with traditional command-and-control regulation.

IMPROVING THE ENVIRONMENT

By requiring firms to account for the costs they impose on others through pollution, the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act have dampened the incentives for the excessive use of environmental resources.

At the same time, their costs have been significant. Just one new initiative, the Clean Air Act Amendments of 1990, when fully implemented in 2005, will cost an estimated $25 billion to $30 billion per year or more. The EPA estimates that expenditures to reduce pollution were at least $115 billion in 1990, more than in any other major industrialized country, and one of the highest as a percentage of gross national product (GNP). Between 1972 and 1990, pollution control costs tripled (in constant dollars), rising from 0.9 percent to 2.1 percent of GNP; the EPA expects this total to rise to 2.6 percent by 2000. By some estimates, indirect costs of compliance add significantly to this total; to comply with a regulation, for example, firms may turn to higher cost inputs as substitutes or produce lower quality finished goods.

Acid Rain

Significant uncertainties surround many environmental issues. This was seen in the scientific controversy that resulted in the National Acid Precipitation Assessment Program (NAPAP), a 10-year, $550 million effort authorized by the Congress because of concern that acid rain might be harming the environment. When the NAPAP study began in 1980, the consensus view held that acid rain caused acidic lakes; the study demonstrated, however, that soil and other conditions had a far greater influence than acid rain on the acidity of lakes. Other studies have also suggested that simple mitigation strategies would be far more cost effective than the technology-based command-and-control regulation usually favored by the Congress.

In the recent past, scientific consensus has shifted abruptly on several other important issues as well, including the risks associated with dioxin, asbestos, and radon. These examples should serve as reminders not to rush into expensive new regulatory regimes on the basis of incomplete evidence. But once a policy decision has been made to correct an externality associated with the environment, then market-based incentive programs usually can accomplish their objectives at a lower cost than traditional command-and-control approaches.

The Clean Air Act Amendments of 1990 institute the first large-scale emissions trading regime for a pollutant. This program sets a

maximum national level of sulfur dioxide that can be emitted annually from coal-fired power plants. Firms must possess an emission allowance for each unit of SO_2 they emit or face heavy fines (Box 5–6). To comply, firms are allowed to buy and sell allowances; the maximum level of emissions will be attained efficiently because firms self-select, purchasing or selling allowances to minimize costs. The same level of emissions could be achieved under command-and-control regulation, but the cost of compliance, which falls ultimately on the consumer through increased electricity prices, would be greater, in some cases much greater.

Box 5–6.—Are Emission Allowances Licenses to Pollute?

Some have opposed the implementation of emission allowance trading systems on the ground that the allowances give their holder a license to pollute. By that standard, however, any environmental regulation that does not hold pollution to zero also constitutes a license to pollute. The costs of pollution abatement become prohibitive compared with benefits as emissions are reduced toward zero, making some tradeoffs inevitable. Consequently, regulatory regimes should be chosen that protect the environment to some desired level while minimizing losses in economic growth.

An allowance trading system is merely a method of allocation; it does not confer new licenses to pollute. Under command-and-control regulation, firms pay nothing for residual emissions after they install the required equipment. An allowance trading system, on the other hand, requires firms to pay for each unit of pollution they emit.

Economic incentives decrease firms' compliance costs by offering them the flexibility to make the best use of information regarding their production process. In contrast, efficient command-and-control regulation requires the regulating agency to collect detailed, firm-specific information on pollution control costs, alternative production processes, and the value of capital stock in place—an impossible task. *With economic incentives, regulators merely lay down ground rules and allow firms to make their own production choices; the government—and the Nation—benefits from the firm's internal information without having to discover it.*

Fuel Economy Standards

The transportation sector accounts for two-thirds of U.S. petroleum consumption, with more than half going to gasoline for cars, trucks, and buses. Gasoline consumption imposes at least two kinds of externalities on society: vulnerability to oil shocks and pollution. Reducing oil consumption, and in turn the demand for imported

oil, was the original justification for corporate average fuel economy (CAFE) standards in 1975. Proponents also claim that the standards improve air quality, particularly in cities, by reducing ground-level ozone.

Current CAFE standards require each auto manufacturer to meet a target of 27.5 miles per gallon for both its domestic and imported fleet. Recent proposals would increase CAFE standards by varying amounts. Proponents argue that higher standards would reduce both oil imports and consumption.

Government can correct the externalities associated with gasoline consumption by several means. The Clean Air Act Amendments of 1990 address those pollution externalities in provisions covering new car tailpipe emissions, reformulated gasoline, and enhanced inspection and maintenance programs. Fuel and vehicle taxes also correct these externalities. The most direct solution would be for regulators to determine the damage caused by gasoline consumption and then set a fee on its use equal to that damage. (State and Federal gasoline taxes, which now average 32 cents per gallon, already correct 32 cents worth of externalities in this way.)

Higher CAFE standards would be a poor substitute for the use of fees, because they fail to address the externalities directly. First, higher CAFE standards might reduce pollution, because drivers would burn less gasoline per mile. However, because higher mileage cars generally cost less to drive per mile, motorists would drive more, offsetting a portion of the gain from the higher standards. (More driving makes road congestion worse, meaning that CAFE standards are themselves responsible for a negative externality.) Second, although higher CAFE standards would indeed reduce oil imports, they may not reduce U.S. vulnerability to oil shocks, which depends not only on the level of imports, but also on the flexibility provided by alternative energy sources and on economic responses to the shock.

Much of the CAFE debate has centered on engineering feasibility, on what mileage targets the automakers *could* achieve. But consumers, who are the ultimate decisionmakers, do not base vehicle purchase decisions on engineering feasibility or on fuel efficiency alone. Size, options, and performance are also important. Indeed, engineering feasibility does not itself establish value to society; it does so only in conjunction with economic feasibility. Manufacturers can produce cars with high fuel economy ratings, but if consumers will not buy them, then such cars should not be produced.

Proponents of higher CAFE standards generally overlook the indirect effects of their proposals, which would tend to offset many of the purported benefits. First, to comply with higher CAFE standards, firms would probably produce fewer large cars and more

small cars. This would raise the price of large cars and likely cause consumers to respond by holding onto their older, less fuel-efficient vehicles. Second, because small cars, all else being equal, are less safe than large cars, higher CAFE standards could significantly increase deaths and injuries on the Nation's highways.

Higher CAFE standards pose other problems as well. The requirement that manufacturers divide production into a "domestic" and an "import" fleet ignores the realities of a globalized auto industry and forces them to make less-than-efficient input choices to meet the standard in each category. Moreover, current proposals would penalize firms whose technology gives them a comparative advantage in the production of larger cars. They could be forced to abandon these competitive technologies in order to comply. Finally, as with other forms of regulation, CAFE standards could be coopted by political forces and used by some firms to gain an advantage over others. *The shortcomings of the CAFE program serve as a reminder of the dangers of an ill-designed regulatory program. A successful regulatory program must first define the externality it intends to address, then design incentives to address these externalities without introducing any new ones.*

Global Climate Change

Global climate change is another example of an environmental externality. The presence of "greenhouse gases" such as carbon dioxide, methane, and water vapor in the atmosphere helps to maintain surface temperatures at historic levels. If these gases were wholly absent, the temperature of the earth would be about 33° C lower. These gases retain and reflect some of the heat given off by the earth back to its surface, providing a sort of blanket over the planet. Some production processes such as the burning of fossil fuels result in the emission of greenhouse gases. These additions to the earth's natural supply of such gases have raised concerns over possible effects on global climate. Those who emit greenhouse gases do not account in their production decision for the climatic effects they may cause. A negative externality is present if these emissions cause harmful ecological or economic effects.

As with many global environmental issues, much of the research regarding the effects of greenhouse gas emissions is in its preliminary stage. Indeed, the Intergovernmental Panel on Climate Change (IPCC), under the aegis of the United Nations, estimated that it may take a decade or more to ascertain whether human-induced climate change has indeed occurred. In part, this uncertainty is caused by growing evidence that certain factors counteract a potential increase in global temperature. The 1992 IPCC Supplemental Science Assessment states that the cooling effect of sulfur emissions may have offset a significant part of greenhouse warming in the northern hemisphere.

Most scientists agree that additions to the earth's natural supply of greenhouse gases through fossil fuel burning, deforestation, and other human activities have a warming effect on the climate. By most estimates, the concentration of CO_2 in the atmosphere will have doubled worldwide from preindustrial levels by the middle of the next century. Concentrations of most other greenhouse gases are also projected to increase.

At issue is the timing and magnitude of the potential warming caused by such increases. As stated above, coincident offsetting factors could mitigate the effects of greenhouse gas emissions. Additionally, other recent work cited by the IPCC indicates that most warming is likely to occur at night rather than during the day, and in winter rather than summer. These and other recent studies generally discount the severe effects (such as dramatic sea level increases, major changes in precipitation patterns, and significant threats to certain species) predicted in some preliminary work a few years ago.

From an economic perspective, the following questions must be addressed: First, do greenhouse gas emissions from human activities constitute a significant externality? Second, if so, is it negative (such as an increase in sea level), positive (such as a longer growing season in Canada and the former Soviet Union), or both (a mix of effects that benefits some regions and harms others)? The scientific consensus is by no means clear on this point. If a negative externality is determined to exist, the next step is to identify the major sources, from natural as well as human activities, of all greenhouse gases and to determine their relative contributions to potential warming. At the same time, materials that absorb greenhouse gases ("sinks"), such as forests, should also be identified. One must then determine if it is better to reduce emissions now, perhaps using economic incentives, or to wait and respond later to the observed effects.

In choosing among alternative courses of action, the scientific uncertainty surrounding climate change should be considered along with estimated costs and benefits of action. Although immediate large-scale actions in anticipation of global warming have been suggested, a prudent course would include taking those actions that would be desirable on their own merits, while deferring costly steps that should properly await resolution of key scientific uncertainties. Rational policy requires balancing the costs of delay with the benefits of information that will be available later.

The potential effects of climate change are generally long term, and the initial costs of proposed remedies may be high. One proposal aims to stabilize global greenhouse gas emissions at 80 percent of 1985 totals by 2010. Studies put the eventual cost of achieving this goal at 1 to 5 percent of world gross domestic product per year,

with most of the cost attributed to the reduction in output needed to achieve the emission reduction. In today's world economy, this would be $200 billion to $1 trillion per year ($1 trillion is considerably more than the GNP of China and India combined). Hasty attempts to remedy the externality imposed by greenhouse gas emissions could have small benefits relative to these very large costs. A better understanding of the science of global climate change is needed before agreeing to policies with potentially large costs.

The Administration has taken the view that a successful climate change strategy must be comprehensive, incorporating all relevant greenhouse gases, their sources and sinks. It must be flexible, built on many diverse actions, and readily adjustable as knowledge improves; and it must be integrated, designed to involve all nations. Integral to the U.S. climate change strategy is the world's largest program of research. For fiscal 1993 the President's budget contains $1.4 billion for global change research, including $17 million for research in the economics of global change.

HEALTH AND SAFETY REGULATION

Decisions to wear a seat belt, to take a job as a telephone lineman, or to fly a small plane all involve balancing exposure to risk against other objectives. In the United States, government addresses risk indirectly, by providing the legal framework for the market and the tort system, and directly, by an extensive and growing program of safety regulation. A 1967 NHTSA rule sets safety standards for automobile steering columns, for example, a 1979 EPA rule regulates chemicals used to treat drinking water, a 1985 Federal Aviation Administration rule sets fire protection standards for aircraft cabins, and a 1990 EPA decision lists certain wood-preserving chemicals as hazardous wastes.

Proponents of a larger government role in health and safety assert that in these areas, people are not able to make proper decisions about risk bearing. Some also argue for intervention on equity grounds. If a certain risk is exceptionally high or prohibitively expensive for an individual to bear, society will sometimes assume the burden through regulatory intervention or public funding, as it does for neonatal intensive care, and burn and trauma centers.

The Congress has expanded budgets, staffs, and the regulatory scope of the agencies regulating these areas, almost tripling administrative costs of health, safety, and environment regulation between 1970 and the present. The *Federal Register* chronicles official actions of the regulatory agencies, including those that regulate health and safety. Its size gives an idea of the regulatory burden on the economy. The *Register* occupied 26 inches of shelf space for

1956, 36 inches for 1966, and more than 10 feet at its apogee in 1978; in more recent years it has been somewhat thinner.

Public perceptions have fueled this regulatory growth. The public believes, according to surveys, that life is becoming more risky. In fact, life is becoming safer, as demonstrated by the steady increase in life expectancy, from 70.8 years in 1970 to 74.9 years in 1988; by the steady decrease in age-adjusted death rates from most diseases; and by the steady decrease in death rates on highways and in the workplace.

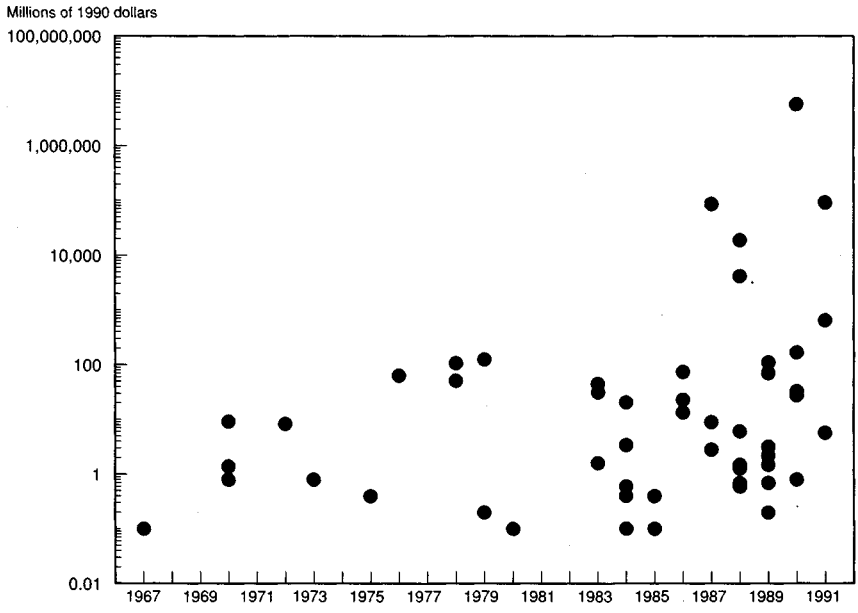
Public concern over risk has sometimes given rise to legislation requiring that all risk be eliminated. The Delaney Clause of the Food, Drug, and Cosmetics Act prohibits the use in food of any "substance shown to cause cancer in animals or humans." Courts have interpreted this clause to mean that such substances are automatically prohibited at any dose no matter how small. Further, a ban may be based on animal studies showing carcinogenicity in any amount, even if the animals were fed unrealistically large doses. In the Clean Air Act, the Congress set a slightly more flexible standard when it instructed the EPA to fix primary air quality standards that "protected the most sensitive group in the population with an adequate margin of safety." Similarly, the Congress charged the Occupational Safety and Health Administration with ensuring that "insofar as possible, no employee will suffer diminished health, functional capacity, or life expectancy as a result of his work."

Just as individuals must balance risks and benefits in making their individual decisions, so must government regulators. Commercial air travel, for example, is relatively safe; at some cost, though, it could be made still safer. Yet each extra safety-related increase in ticket prices makes some travelers decide to drive instead, which is up to 20 times more dangerous per mile traveled.

As Chart 5-3 indicates, *regulations issued during the 1980s were, on average, far more costly per unit of safety achieved than earlier ones had been.* (The vertical axis is logarithmic; each grid line represents 100 times more cost per unit of safety than the one below it.) In part, this cost increase is due to congressional mandates placed on agencies. Before 1985 only two regulations exceeded a cost of $100 million per death averted. Eight such regulations have been enacted since that time. EPA's rule regulating wood-preserving chemicals, while not large in total costs, is estimated to avert only one case of cancer every 2.9 million years, and cost at least $5 trillion dollars per death averted; that is 10 million times more costly per unit of safety than a number of earlier rules. In this example and elsewhere, *regulation often targets expensive risks and passes over those where greater reductions are possible at the same cost.*

Chart 5-3 **Cost per Premature Death Averted of Federal Health and Safety Regulations**

Federal regulation of risk has become less cost-effective.



Note: Dots represent Federal regulations.
Source: Office of Management and Budget.

Recent initiatives often impose high total costs as well as high per-unit costs. For example, several laws including Superfund, which are designed to reduce damage from hazardous wastes, were formulated when little was known about the environmental benefits or economic costs of the requirements. Recent evidence indicates that these laws will cost $500 billion to $1 trillion (in 1991 dollars) over the life of the programs. While no definitive estimate yet exists, benefits to public health and the environment from these programs are not likely to approach the magnitude of the costs.

Market failure may justify government intervention only if the government can improve on the market. Cost-benefit analysis can be a useful tool for setting appropriate goals when regulating risk, even though precise estimates of costs and benefits may not exist. Several regulatory agencies, including EPA, have recently attempted to establish risk regulation priorities as part of the Federal Government's larger initiative to develop a risk-based regulatory agenda. In regulating risk, as in regulating other areas, *government policies should strive to maximize net benefits, enacting only those regulations in which benefits to society outweigh costs. To do otherwise di-*

verts resources from more important risks and impedes economic growth.

SUMMARY

- Market-based solutions are the most efficient means of allocating a given level of pollution.
- Increased CAFE standards are potentially costly, would encourage consumers to maintain their older, less fuel-efficient automobiles, and could decrease highway safety.
- In addressing the possibility of global climate change, the economic effects of proposed policies must be carefully evaluated before deciding which policies to implement.
- In regulating health and safety risks, government policies should maximize net benefits, promulgating only those regulations whose benefits to society outweigh their costs.

CONCLUSION

The government plays a crucial role in facilitating competition through the establishment of a legal system that governs contracts, defines and protects property rights, and compensates people who have been injured. The Administration's proposed reforms to the legal system would lift the burden of litigation on economic productivity, while maintaining a fair system for settling disputes. Regulation can also play a direct role in improving the performance of the market system. *Any proposal to regulate the market, however, should be tempered by an understanding that regulation can be at least as imperfect as the market it is trying to improve.* The goal of the Administration's regulatory reform initiative is to have all regulatory agencies, to the maximum extent allowed by law, reexamine existing regulations, eliminate or revise those that clearly impose costs that exceed their benefits, and ensure that other regulations are implemented in a cost-effective manner.

The government must constantly reevaluate the need to intervene in markets. The necessity of continuing to regulate industries should be reconsidered whenever innovations or technical changes allow a natural monopoly to be replaced by competition. The National Energy Strategy would accelerate deregulation in the markets for pipeline sales of natural gas and in the generation and sales of electric power, benefiting consumers with lower energy prices. Environmental protection is also an important goal of this Administration, but measures should reflect the costs of shifting resources away from other uses to meet this challenge. Tradable allowances are an efficient tool for meeting strict pollution standards at minimum cost. Current regulations to reduce risk sometimes fail to strike the proper balance between costs imposed and benefits re-

alized. To improve on this performance, the effectiveness of resources spent to reduce one type of risk must be weighed against the effectiveness of using those same resources to reduce other risks.

CHAPTER 6

Open International Markets and Prosperity

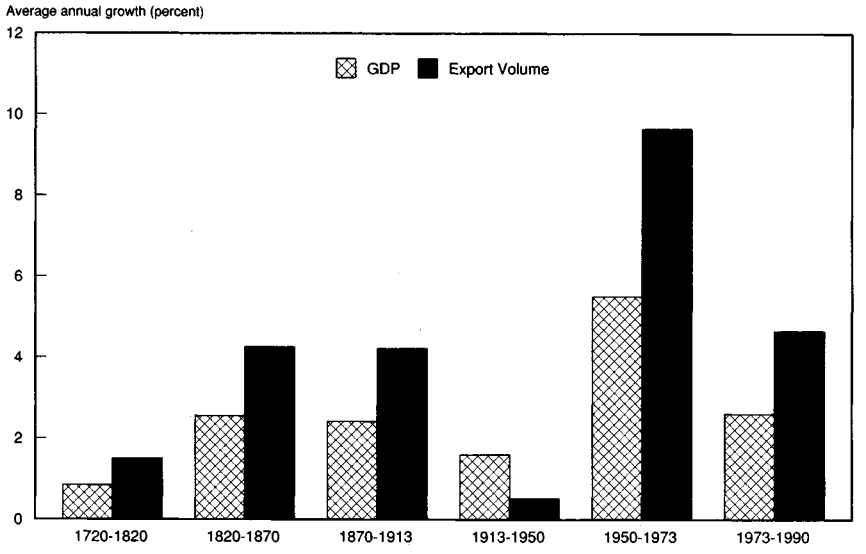
INTERNATIONAL TRADE AND INVESTMENT make important contributions to U.S. and world prosperity. In the broad sweep of history, rising prosperity and rising international trade have gone hand in hand. Indeed, international trade has grown much more rapidly than domestic production in all major periods of the past 300 years, with one notable exception—the period that includes the Great Depression of the 1930s and the two World Wars (Chart 6-1). Domestic economic growth contributes to the rapid growth of international trade; as people have more income to spend, they spend part of it on foreign goods and services. At the same time, increases in trade and investment are powerful engines contributing to efficiency and growth.

Several major developments are under way that could open international markets further and boost worldwide prosperity. These developments come as many countries of the world face the prospect of temporarily slower economic growth. Although such periods often lead to renewed calls for protection, now is not the time for the United States or its trading partners to turn inward: There is simply too much at stake. *Retreating from a focus on open international markets now would undermine opportunities to promote a growing and efficient world economy.*

Foremost among these opportunities is the Uruguay Round of multilateral negotiations under the General Agreement on Tariffs and Trade (GATT). These negotiations, which were initiated at Punta del Este, Uruguay, in 1986, involve more than 100 countries and address a wide array of issues from the reduction of tariffs to the safeguarding of intellectual property rights. The gain to the United States and to the world from a successful Uruguay Round would be large, but the costs of a failed round are potentially enormous: The prospect of a successful round has kept many trade frictions from becoming full-blown trade disputes. The alternative to a successful Uruguay Round is therefore the possibility of an increase in trade disputes and a proliferation of retaliatory tariffs, voluntary restraint arrangements, and other restrictions on trade, which could lead to a period of contracted world trade and slower world economic growth.

Chart 6-1 **GDP and Export Growth Trends, 1720-1990**

Historically, GDP growth and export growth have reinforced each other. Trade has generally grown more rapidly than output.



Note: The figure for first period GDP uses 1700-1820 data. Data are for France, Germany, Italy, Japan, the United Kingdom, and the United States. Not all countries are represented in the first two periods.
Sources: Department of Labor, International Monetary Fund, the World Bank, and Maddison, Phases of Capitalist Development.

Regional initiatives to further liberalize trade and investment are also under way. The United States has entered into negotiations with Mexico and Canada to form a North American free-trade area, which will build on the U.S.-Canada Free-Trade Agreement of 1988 and provide for freer trade and investment throughout the North American continent. These negotiations offer a historic opportunity to create a market with 360 million consumers and a total annual output of more than $6 trillion. Further market openings could come from the hemisphere-wide system of freer trade and investment envisioned in the Administration's Enterprise for the Americas Initiative.

The economies in transition also present new opportunities for trade and investment. The collapse of communism and central planning in Central and Eastern Europe and the former Soviet Union is only the most obvious and recent event in a ground swell of changes to political and economic systems around the world. The reorientation of economic systems toward greater dependence on market forces has become more apparent in other parts of the world as well. Providing open international markets is perhaps the most important single thing that the West can do to help the economies in transition, particularly the countries of the old Soviet bloc, in their efforts to build democratic and market-oriented soci-

eties. While aid—particularly technical assistance—can play a constructive role during the transition, trade, not aid, is the most important force for integrating these economies into the world market.

MUTUAL GAINS FROM TRADE

The case for an open trading system is even stronger today than in 1817, when the English economist David Ricardo first argued for the benefits of free trade on the basis of comparative advantage.

Ricardo argued that countries could gain from specialization and trade by taking advantage of their differences. He showed that whenever the same products sold at different prices in different locations, the possibility of mutually beneficial trade between countries arose. For example, as long as wine was relatively more expensive in England and cloth in Portugal, each country could gain by exporting some of the product that was inexpensive at home in exchange for imports of the product that it found relatively expensive to produce. Through the process of free international trade, the world's resources would be directed to their most efficient uses and the standard of living of each country would be enhanced. With this insight, the basic case for free trade had been established.

Today, as in Ricardo's time, people engage in trade to improve their standards of living. This is true whether the trade is among individuals, among States, or among nations.

States or countries often specialize to take advantage of their distinctive climate or natural resources. Thus, it is the fertile land and plentiful rain that leads Iowa farmers to produce corn; it is the warm climate that induces farmers in Florida to grow oranges. If Iowans sell corn to Floridians in exchange for oranges, both sides gain. Similarly, if the United States sells wheat to Brazil in exchange for coffee, both countries gain. Special skills or technology can likewise lead to specialization; advanced technology enables U.S. companies to manufacture many sophisticated goods more cheaply than foreign countries and to pay high wages while doing so.

Economies of large-scale production provide an additional reason for specialization, even among regions that are broadly similar. It would be enormously inefficient for each American State to attempt to become self-sufficient in every variety of manufactured good and specialized service. For many products, research and development (R&D) costs are significant; their production may also require complex and costly machinery. By extending their production runs, firms can spread their overhead costs and lower the cost of producing each unit.

Thus, in the United States, airplane production is concentrated in the Northwest, automobiles in the Midwest, and motion pictures on the West Coast. Each industry produces for a larger market than any single State could sustain, and exports to other States. Similarly, by exporting to other countries, American aircraft companies can lengthen their production runs, lower their costs, and increase their profit margins; this, in turn, can increase the return to innovation and lead to greater investment in R&D, higher growth, and greater choice for domestic consumers.

For many other countries with much smaller domestic markets than that of the United States—which, after all, is the largest economy in the world—economies of scale provide an even greater incentive to engage in international trade. The Swiss pharmaceutical industry, for example, is dependent upon export markets for its prosperity.

In addition to the gains from trade associated with economies of scale and specialization, reducing barriers to imports of goods and services may produce important investment-enhancing and procompetitive effects, especially in countries with high tariffs and relatively closed markets. The doubling of foreign direct investment in Mexico in the past 5 years, for instance, came largely in response to Mexico's unilateral trade and investment liberalization beginning in the mid-1980s. Moreover, although the lower cost of imports that comes with an open trading system can eliminate some import-competing jobs, an open trading system promotes exports and creates export-related jobs. Export growth accounted for 25 percent of the growth in private industry jobs in the United States between 1986 and 1990.

Just as open international markets permit countries to enjoy the mutual gains from trade, protectionism interferes with the ability to realize these gains. Trade barriers not only raise the price of imported goods to consumers but also the price of domestically produced goods that compete with those imports. Such barriers may help import-competing producers, but they do so by hurting other domestic industries. By encouraging domestic production of import-competing goods, protection acts to discourage a nation's resources from reorienting toward exporting sectors. And where scale economies are important, import barriers can fragment the market in ways that diminish the ability of firms to achieve the benefits of large-scale production.

In practice, the costs of protection can be substantial. Between 1981 and 1985, for example, U.S. imports of Japanese automobiles were restricted by a voluntary restraint agreement (VRA), under which Japan agreed to reduce its exports of automobiles to the United States. According to one study, the higher prices brought about by this VRA cost U.S. consumers $5.8 billion in 1984, while

U.S. automakers gained only $2.6 billion. VRAs on imports of steel into the United States, which will expire on March 31, 1992, have also been costly to the U.S. economy. One study estimates that the elimination of VRAs and tariffs on U.S. steel imports would have saved U.S. consumers more than $800 million in 1988; maintaining this protection provided less than $300 million in benefits to U.S. steel producers.

In agriculture, import quotas for commodities such as peanuts and sugar keep domestic prices high at the expense of U.S. consumers. The sugar import quota, for example, maintains domestic prices that are often two to three times the world price. Losses to U.S. consumers were estimated at $1.9 billion in 1987. The current peanut quota is set at 1.7 million pounds, less than one-tenth of 1 percent of total U.S. peanut production. A recent study estimates that the effects of the peanut quota is equivalent to as much as a 90-percent tariff on peanut imports. Another study estimates that the losses to U.S. consumers because of the peanut import quota totaled over $400 million in 1987. These losses are disproportionately shared by lower income groups who spend a larger share of their income on peanut butter. Higher peanut butter costs affect government domestic feeding and child nutrition programs such as the Temporary Emergency Food Assistance Program.

Losses to U.S. consumers from the sugar and peanut quotas are partially offset by the gains to U.S. producers, through higher prices. Sugar and peanut producers are estimated to have gained $1 billion and $370 million, respectively, from import quotas in 1987. Over time, however, these benefits become capitalized into higher land prices. Thus, farmers who lease land and new entrants into farming pay for much of the "benefit" of import quotas through high rental rates and higher land prices.

While the costs of protection can be substantial, new justifications for protection continue to emerge. The recent focus on industries with scale economies, for example, has raised new questions about the possibility of gains from government intervention designed to "create" comparative advantage in such industries. Academic research on this question, however, has generally reinforced the basic case for free trade and the arguments against government intervention (Box 6–1).

If trade barriers are reduced and market forces allowed to act, countries will export the goods for which they are the relatively efficient, low-cost producers and will import other goods in exchange. As the world economy changes, so too will efficient patterns of international specialization and trade, but gains from specialization and trade remain. Such international specialization promotes low-cost, efficient production and contributes to the economic well-being of all trading nations.

Box 6–1.—Economies of Scale and Trade Policy

As discussions of trade policy have broadened to include industries where scale economies are prevalent and a small number of firms dominate the market, one school of thought has argued that government should intervene to "create" a comparative advantage in such industries, in the expectation that they will provide attractive rates of return.

Far from providing a strong case for government intervention, studies of so-called strategic trade policy generally illustrate more than anything else the pitfalls associated with such a policy. The form of intervention cannot be prescribed without detailed knowledge of industry information, such as the nature of competition among firms, the nature of the research and development process, details of the production technology, and entry conditions in the industry. These information requirements make successful government intervention on a case-by-case basis virtually impossible. Moreover, targeting one favored, "winning" industry to help it achieve large-scale production would typically mean shifting resources away from other industries. Thus, successful intervention in one case is not enough: Anything less than a comprehensive program that *correctly* identifies and implements the prescribed intervention for a wide range of industries is likely to do more harm than good. That makes successful intervention even less likely.

In practice, evidence suggests the futility of a government attempting to "pick winners." The case of Japanese steel has been widely cited as the classic example of successful Japanese industrial policy in the 1960s and early 1970s, yet the very low returns on Japanese investment in steel suggest that this government policy was anything but successful.

Economies of scale are often suggested as a reason for government intervention, including trade barriers to keep out imports that will spoil the home market. But there is a fundamental paradox here. When economies of scale are present, the gains to the world as a whole from open international trade are particularly great: Open world markets permit firms to extend their production runs and lower their costs. Rather than suggesting that governments should attempt to create comparative advantage in selected industries, economies of scale underline the importance of multilateral commitments to refrain from such attempts and the trade-distorting policies that accompany them.

DISTRIBUTIONAL EFFECTS OF TRADE LIBERALIZATION

Even though each country as a whole enjoys lasting gains from the general reduction of trade barriers, some individuals and firms may nevertheless lose, particularly in the short run.

As the tariff on a good comes down, the domestic price of the good generally falls, to the benefit of the consumer. The owners of the firms in this industry generally lose in the short run as the value of their investment declines, and workers may face wage reductions and temporary job dislocations. Protecting the industry in an attempt to avoid this dislocation, however, typically imposes a large ongoing cost on domestic consumers. The annual consumer cost per job saved by U.S. protection against imports of specialty steel in 1988, for example, was estimated to be more than $340,000.

Those who lose in the short run from tariff reductions are relatively easily identified, but the permanent impact of trade liberalization on the distribution of income is difficult to predict. As affected workers and firms find new opportunities in other sectors, their relocation can affect the structure of wages and returns to investment throughout the economy in ways that are complex and indirect.

Finally, a tariff reduction creates lasting gains, but the gainers are often diffuse or hidden. They are the large group of consumers—who often are unaware of the price decrease that lower tariffs cause—and the workers and owners in export industries, who gain as trade barriers fall and export markets increase.

Because the reduction of trade barriers leads to increased efficiency and improved standards of living for the population as a whole, the possibility that some individuals may lose from trade liberalization is therefore not a reason for a country to resist movement toward more open markets. Rather, it is a reason to allow a gradual phase-in of trade liberalization, to give those who will be adversely affected a better chance to adjust. In fact, gradual phase-ins are a standard feature of international trade agreements. Adjustment programs, which in the United States include programs such as Economic Dislocation and Worker Adjustment Assistance, are also available to reduce the burdens and speed the relocation of workers and firms in trade-impacted industries. Finally, the ability to reimpose temporary protection, which is also a standard feature of international trade agreements, provides an important avenue to prevent or remedy serious injury due to increased imports.

THE NEED FOR STRONG TRADING RULES

While each country has much to gain from trade, the temptation to deviate from open trade policies can be very strong. The readily identifiable distributional effects of trade liberalization in the short

run can create strong lobbying interests who resist the removal of trade barriers even when their removal benefits the nation as a whole. And in times of increasing unemployment, the temptation to use protection to stimulate domestic employment at the expense of foreigners may be especially strong.

The presence of such temptations, which all countries are likely to face, does not justify going ahead with that protection, however. Rather, these temptations signal the need for strong international rules to avoid the reciprocal trade wars that would result if all countries shortsightedly pursued such policies (Box 6–2).

Box 6–2.—A Lack of Discipline: The Case of Agriculture

Agriculture has effectively been beyond the discipline of the General Agreement on Tariffs and Trade. This has allowed a web of national policies to evolve that has distorted production patterns and trade. For example, the agricultural export subsidy war being waged by the United States and the European Community (EC) cost EC taxpayers over $11 billion in direct export subsidies in 1988. In the United States, export subsidies totaled more than $1 billion in 1988.

The export subsidies are a direct consequence of agricultural support programs within the EC and the United States. The EC supports high internal prices by subsidizing the export of surplus production. In response to deteriorating market share, some of which was caused by its own high support prices, the United States began subsidizing exports in 1985. Since then, U.S. support prices have been lowered substantially, and new U.S. export subsidies are focused on combating EC subsidies.

The clear winners of the EC-U.S. trade wars have been consumers in the importing countries. At times, U.S. subsidies have been as high as 30 to 40 percent of the world price to counter EC export subsidies, which have been as high as twice the world price. The losers are consumers and taxpayers within the EC and the United States, and producers in nonsubsidizing exporting countries who cannot easily compete with subsidized exports.

In practice, protectionist actions have evoked similar reactions from trading partners. The most notorious episode of "beggar-thy-neighbor" trade policy is the well-known tariff war that erupted with the onset of the Great Depression. Driven by the misguided view that the short-term imposition of tariffs could alleviate the growing unemployment experienced in the U.S. manufacturing and agriculture sectors by "switching" expenditure from foreign to domestic products, the Smoot-Hawley Act of 1930 raised the average

tariff rate on dutiable imports in the United States to 60 percent. Rather than benefiting the U.S. manufacturing and agriculture sectors, the Smoot-Hawley tariffs had the opposite effect by provoking foreign trade partners to adopt retaliatory tariffs. More than 60 nations responded with tariffs of their own within 2 years. A breakdown in world trade followed, contributing to the global depression.

SUMMARY

- The case for an open trading system is even stronger today than when David Ricardo first argued for the benefits of free trade on the basis of comparative advantage. Comparative advantage provides a reason for countries to gain from specialization and trade by exploiting their differences, while economies of large-scale production provide an additional reason to specialize, even among regions that are broadly similar.
- By exporting to the world, American companies can lengthen their production runs, lower their costs, and increase their profit margins. This, in turn, can increase the return to innovation and lead to greater investment in research and development, higher growth, and a greater variety of goods and services for consumers.
- Even though each country as a whole enjoys lasting gains from the general reduction of trade barriers, some individuals and firms may nevertheless lose, particularly in the short run. Rather than serve as a reason to maintain trade barriers, however, this is a reason to provide for a gradual phase-in of trade liberalization and to have effective adjustment programs.
- While each country has much to gain from trade, the temptation to deviate from open trade policies can sometimes be strong. Such temptations signal the need for strong international trading rules.

INTERNATIONAL INVESTMENT

Along with the flow of trade, greater international investment over the past four decades has increased the global integration of markets. International investment takes two forms. Some is *direct* investment, where the investing foreign party exercises control over the management of a business; this is judged to occur when foreign ownership reaches at least 10 percent of the voting equity of the business. The remainder is *portfolio* investment, passive foreign ownership of financial instruments, including corporate stocks or bonds, government securities, or bank deposits.

Worldwide, foreign direct investment flows, which are manifested in the operations of multinational corporations, have grown

since 1983 at an unprecedented rate of 29 percent a year, roughly four times that of the growth of output (with output and investment both being measured at current prices). For the United States, in recent years foreign direct investment has become more significant relative to foreign portfolio investment. Foreign direct investment's share of total foreign investment flows into the United States increased from 13 percent in the 1970s to 23 percent in the 1980s; by 1990, direct investment accounted for 43 percent of total foreign investment flows into the United States. Today, the United States is the world's largest recipient of foreign direct investment. In the other direction, 58 percent of U.S. investment flows abroad during 1990 was direct investment.

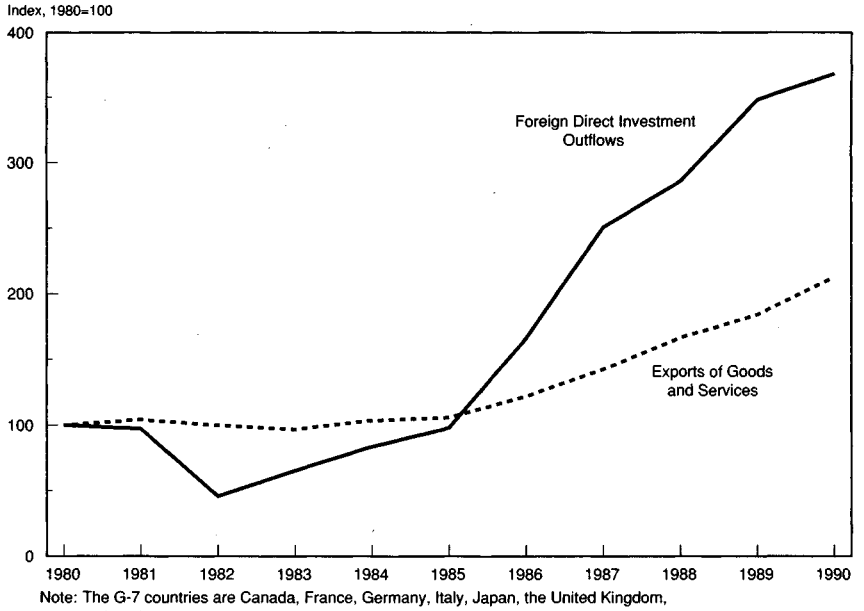
THE CLOSE TIES BETWEEN TRADE AND FOREIGN DIRECT INVESTMENT

Although foreign direct investment flows are not a new development—the advent of the multinational enterprise dates back several centuries—they are far less extensive than international trade. As Chart 6-2 shows, however, foreign direct investment has grown faster than trade in recent years. By integrating national markets, the recent dramatic increase in foreign direct investment could foster greater trade flows, setting the stage for a new era of global economic growth. Direct investment stimulates companies to be more competitive internationally, which can generate exports. Also, plants established abroad often rely on inputs exported from the home country.

In general, trade and investment do not substitute for one another; direct investment is not likely to displace exports. In many cases, if a firm does not establish an affiliate abroad to produce for a local market, it is likely to be too distant for an export strategy to give it an effective, sustainable presence in that market in the long run. Moreover, in these circumstances, it is likely that companies from *other* countries would ultimately attempt to establish production facilities in the market. Thus, in general it is a mistake to presume that if direct investment abroad did not take place, production would be maintained at home and exports to the foreign market would continue.

Still, there are similarities between trade and investment. As with trade, both "home" and "host" countries gain from foreign direct investment. Indeed, the mutual gains from trade tend to be reinforced by flows of foreign direct investment. The benefits of foreign direct investment also stem from comparative advantage, and many of the factors that determine the flow of trade are similar to those that influence investment. Through their international production networks, multinational corporations move inputs and out-

Chart 6-2 **Foreign Direct Investment Outflows and Exports of G-7 Countries**
Since 1985 foreign direct investment outflows have grown much more rapidly than exports, measured in nominal dollars.



Note: The G-7 countries are Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Source: Organization for Economic Cooperation and Development.

puts among geographically dispersed plants, providing for cross-country specialization, economies of scale, and greater competition.

On a global basis, multinational corporations play a significant role in trade. For example, 28 percent of all U.S. exports go to, and 20 percent of U.S. imports come from, U.S. firms abroad. Generally, in the countries where they operate, foreign-owned multinationals engage in trade more extensively than do their local counterparts.

The rapid growth of worldwide foreign direct investment has been accompanied by a change in its composition. During the 1950s foreign direct investment was concentrated in raw materials and natural resource-based manufacturing; today, it is increasingly in technology-intensive manufacturing and in services, such as banking, insurance, and telecommunications. The shift toward services has been particularly pronounced. Services accounted for 16 percent of cumulative U.S. direct investment abroad in 1982 and for 31 percent in 1990.

The growing importance of the high-technology and service sectors enhances global economic integration. Downsized, high value-added, sophisticated products made from multifaceted, interchange-

able components can be shipped easily for processing. Today, more trade takes place in computer chips and less in heavy machinery.

Openness in trade and openness in investment work hand in hand to enhance prosperity and competitiveness. Both increase the efficiency of resource allocation and raise living standards. There is an important synergy between open trade and open investment flows: Cross-border corporate linkages increase pressure to keep open markets for goods and services as well as for capital. Continued progress toward an open international investment regime can contribute to strong worldwide growth in the 1990s.

THE BENEFITS OF FOREIGN INVESTMENT

International flows of capital through foreign direct and portfolio investment affect growth and the standard of living in several ways. They have kept U.S. interest rates lower than they would have been, thereby helping to sustain private investment and growth despite the Nation's low saving rate. Moreover, they have reduced the interest cost of financing the U.S. Federal budget deficit.

Of course, capital inflows mean that the United States will have to make interest and dividend payments to foreigners in future years. Raising domestic saving is essential to achieving the high levels of investment on which long-run economic growth depends. *A goal of Administration policy is to increase national saving to support a higher level of domestic investment that is sustainable over the long run—a level that can be achieved regardless of future flows of international capital.*

International capital flows in the form of direct investment are also important avenues for transferring technology. Early in this century, such investment emerged as a major conduit for technological know-how, especially between the United States and Europe. More recently, capital flows to developing countries—ranging from Hong Kong to Mexico to Thailand—have increased the diffusion of technology.

Foreign direct investment involves the investment not only of financial and physical resources, but also of entrepreneurial and managerial skills. Indeed, the presence of foreign companies results in "spillover" improvements in the efficiency of local firms through the diffusion of state-of-the-art, productivity-enhancing activities. These transfers are no longer viewed as flowing predominantly in one direction—with a net transfer of American expertise to other nations; there is much that the United States has learned, and will continue to learn, from other nations.

FOREIGN INVESTMENT IN THE UNITED STATES IN PERSPECTIVE

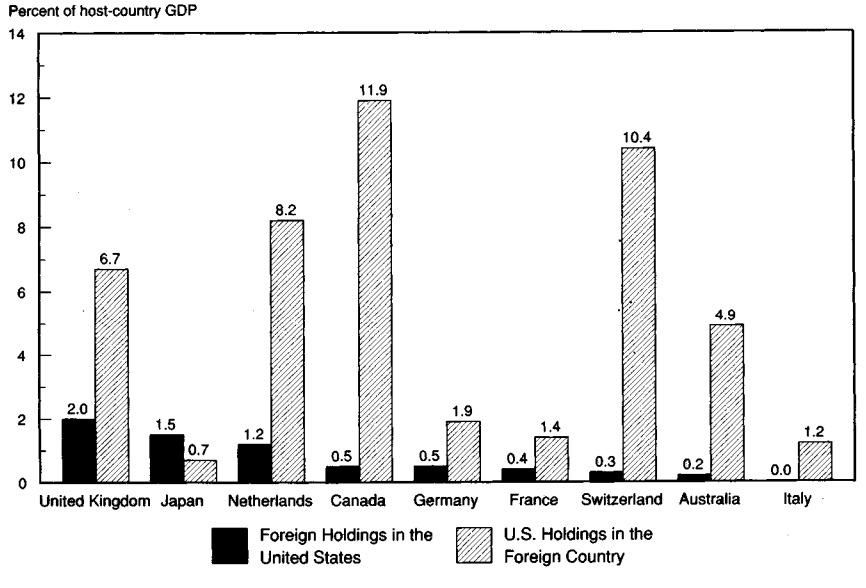
The increase in total foreign investment in the United States reflects both the worldwide trend toward greater economic integration and the American economy's underlying dynamism and attractiveness.

Although flows of foreign direct investment into the United States decreased in 1990 and 1991—due, in part, to the U.S. recession and competing investment opportunities abroad—cumulative foreign direct investment in the United States, as measured by market value, reached $530 billion at the end of 1990, having increased at an average annual rate of 18 percent since 1985.

Still, on a comparative basis, foreign direct investment in the United States remains modest (Chart 6-3). Indeed, foreign multinationals account for only about 5 percent of U.S. jobs and U.S. gross domestic product.

Chart 6-3 **Foreign Direct Investment, 1990**

In most industrialized countries, U.S. holdings of direct investment represent a substantially larger share of host country GDP than the respective foreign country's holdings in the United States.



Note: Japan data based on GNP. German output is for former West Germany.
Source: Department of Commerce and Organization for Economic Cooperation and Development.

As discussed in detail in last year's *Economic Report*, foreign multinationals in the United States generally appear to operate in a manner similar to U.S.-owned companies. On average, however, foreign multinationals do spend more than U.S. firms on wages and on plant and equipment per worker. Available evidence also indicates that R&D spending per dollar of gross product by foreign

manufacturing multinationals in the United States appears to be significantly higher than that by all U.S. manufacturing firms.

Until recently, statistics on stocks of foreign direct investment were quite misleading, primarily because they were based on historical purchase prices, not current market values. Much of U.S. direct investment abroad was made decades ago, while the bulk of foreign direct investment in the United States was made more recently. Because prices have risen over time, historical valuation understates the current value of U.S. holdings abroad relative to that of foreign direct investment in the United States. New valuation measures have rectified this problem (Box 6–3 and Chart 6–4).

Box 6–3.—Measuring International Investment

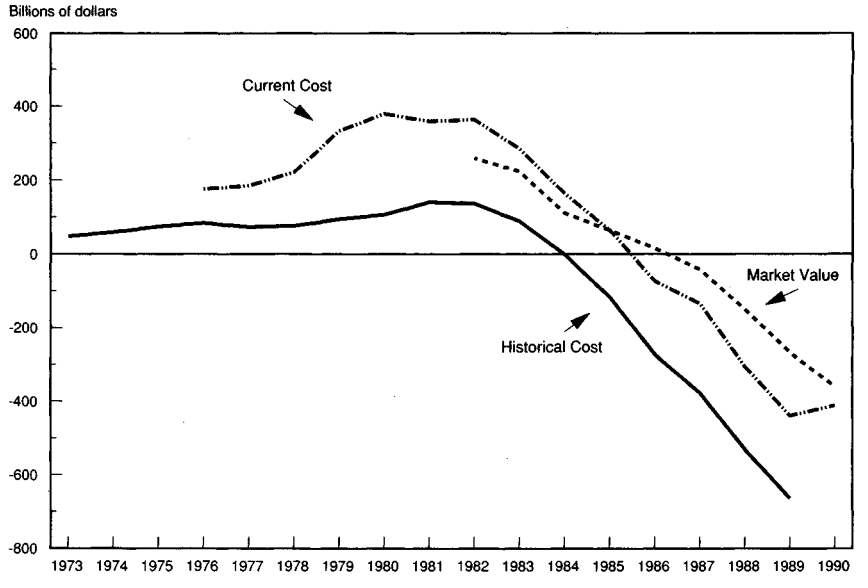
Until last year, data on U.S. direct investment abroad were valued at historical cost, that is, at the original price paid for the investment. These data greatly understated the value of U.S. investments abroad. As a result, the negative U.S. net international investment position was overstated.

In 1991 data were revised to count U.S. direct investments abroad and foreign direct investments in the United States at current cost, or what they would cost to replace. Since much of U.S. direct investment overseas occurred between the 1950s and 1970s, while most foreign direct investment in the United States has taken place in the last two decades, the adjustment from historical cost to current cost increased the value of U.S. investments abroad more than the value of foreign investments in the United States. With the revised method, these international data are now consistent with other fixed investment data, such as the Bureau of Economic Analysis's fixed reproducible tangible wealth and the Federal Reserve Board's estimates of U.S. domestic wealth.

Chart 6–4 shows the net international investment position using historical cost and current cost. It also shows a third estimate for the net position that uses stock market prices to value direct investments. The net position—subtracting foreign direct and portfolio investment in the United States from U.S. direct and portfolio investment abroad—remains negative regardless of how assets are measured. Nevertheless, total income received by the United States on foreign investment is still somewhat larger than total income earned by foreigners on their U.S. holdings.

Chart 6-4 **Net International Investment Position**

On a current cost or market value basis, the negative U.S. net international investment position is significantly smaller than on a historical cost basis.



Source: Department of Commerce.

POLICY TOWARD FOREIGN INVESTMENT

Official U.S. policy toward foreign investment, as reaffirmed in a statement by the President in December 1991, recognizes that unhindered international flows of capital are beneficial to home and host countries alike. The basic principle underlying this open investment policy is that all countries should provide "national treatment" for foreign investment, so that foreign investors are able to make the same kinds of investments, under the same conditions, as local investors. Exceptions to this principle should be few and generally related to national security. The United States has limited foreign investment restrictions in certain sectors as a result of such considerations. These sectors include aviation, nuclear energy, telecommunications, broadcast communications, shipping, and defense. The interagency Committee on Foreign Investment in the United States is authorized to investigate foreign investments to determine their effects on national security and, under certain circumstances, recommend that the President suspend or prevent acquisitions by foreigners.

Despite the growing worldwide recognition that flows of foreign direct investment produce benefits for all countries, national foreign investment policies differ significantly, particularly with respect to rights of establishment, local content restrictions, export

performance requirements, regulations on profit remittance, and protection of intellectual property. *The increased globalization of both markets and corporate production networks is forging an international consensus on the need for multilateral rules governing national policies toward foreign direct investment.* This issue will be considered in more detail below, in the discussion of the Uruguay Round negotiations.

SUMMARY

- The internationalization of companies through increased foreign direct investment complements the global integration of markets through the expansion of trade.
- All countries—both sources and recipients—benefit from investment flows, in terms of greater economic growth, increased competitiveness, and enhanced technology development.
- The increase in foreign investment in the United States reflects not only the worldwide trend toward greater economic integration, but also the attractiveness of the American economy. The volume of foreign direct investment in the United States is modest by international standards.
- The United States' open investment policy is based on the principle of national treatment: Foreign investors should not be treated differently from domestic investors. This policy promotes growth and prosperity.

MULTILATERAL AND REGIONAL APPROACHES TO LIBERALIZATION

The world is currently witnessing a number of major initiatives to reduce barriers to international trade and investment. The United States and 107 other countries are working toward the completion of the Uruguay Round, the eighth round of multilateral negotiations under GATT. At the same time, there are a number of important regional initiatives to reduce barriers to trade and investment below the level that would currently be possible on a multilateral worldwide basis. An important issue is how multilateral and regional approaches to liberalization fit together.

THE MOST-FAVORED-NATION PRINCIPLE AND GATT

Nondiscrimination, or the most-favored-nation (MFN) principle, is the cornerstone of the GATT system. Under MFN, a GATT member undertakes to apply its trade policies in a uniform and like manner to all of its GATT trading partners; it applies the same tariff to imports of a specific product, regardless of which GATT member exported it.

There are two major reasons for abiding by the MFN principle. First, it promotes worldwide efficiency. Under an MFN regime, a country will import from the lowest cost foreign source. In contrast, if tariffs are applied in a discriminatory manner, low tariffs in themselves may be enough to induce importers to choose a less-efficient, higher cost source of supply. Second, MFN greatly facilitates international negotiations to reduce trade barriers. Indeed, the MFN principle was partially based on U.S. experience with the Reciprocal Trade Agreements Act of 1934. Under this act, the United States negotiated 20 bilateral trade agreements between 1934 and 1939. The negotiated tariff reductions in each of the agreements were relatively small, but all the agreements provided for MFN treatment. Such treatment was deemed necessary to move the bilateral negotiations along, since it ensured that each individual negotiating country would receive the benefits of any further tariff reductions that might later be negotiated between the United States and other countries.

EXCEPTIONS: FREE-TRADE ASSOCIATIONS AND CUSTOMS UNIONS

GATT, however, recognizes several exceptions to the MFN rule. First, GATT allows industrialized countries to extend preferential tariff treatment to less developed countries under the Generalized System of Preferences. Second, GATT permits the creation of free-trade areas (a set of countries that eliminate internal tariffs but maintain their independent external trade barriers) and customs unions (which also eliminate internal tariffs but adopt a set of common external tariffs) but only under certain conditions. The two principal conditions are (1) that the formation of a free-trade area or customs union must not result in barriers that are more restrictive to outside exporters than preexisting barriers, and (2) that trade barriers must be eliminated on substantially all trade within the region. If these two conditions are met, the predominant effect of the preferential trading area is likely to be the creation of new, efficiency-enhancing trade among the members. Such trade creation is likely to exceed trade diversion—the redirection of trade from a low-cost supplier outside the region to a higher cost, less-efficient source of supply within the region, simply because the inside supplier escapes the tariff that is applied to the more efficient outside producer. Such trade diversion reduces worldwide efficiency and is particularly harmful to outside countries who lose their markets within the customs union or free-trade area. It is to avoid the harmful trade-diverting effects of preferential trading arrangements that GATT places conditions on free-trade associations and customs unions.

The view embraced in the GATT articles and shared by the Administration is that bilateral and multilateral initiatives can both contribute to international economic efficiency. Free-trade associations that are predominately trade-creating stimulate efficient trade within the region. By demonstrating the prosperity that comes with the elimination of trade barriers, they can also stimulate further steps toward multilateral liberalization.

Although regional free-trade areas can enhance the prosperity that comes from more open international markets, continued multilateral cooperation on trade and investment issues becomes even more crucial in their presence. The absence of such cooperation could lead to increased rivalry and friction among the free-trade areas, to greater barriers to trade and investment among regions, and to reduced prosperity worldwide (Box 6-4). U.S. trade policy is guided by a primary emphasis on multilateral initiatives but sees a beneficial role for bilateral and regional initiatives that are consistent with GATT.

SUMMARY

- There are two major reasons for abiding by the principle of MFN: It promotes worldwide efficiency, and it facilitates international negotiations to reduce trade barriers.
- GATT, however, recognizes an exception to the MFN rule by permitting the creation of free-trade areas and customs unions under certain conditions aimed at ensuring continued access for imports from countries that do not participate in regional trade agreements.
- The view embraced in the GATT and shared by the Administration is that bilateral initiatives can complement multilateral initiatives, by stimulating efficient trade within the region and by stimulating further steps toward multilateral liberalization as well.

THE URUGUAY ROUND

Since its inception in 1947, GATT has proved remarkably successful in orchestrating the reduction of world tariff rates. Through successive negotiating rounds, world tariffs have fallen from an average of 40 percent in 1947 to 4 percent today. However, the expected completion of the Uruguay Round, by far the most ambitious of the eight rounds of GATT negotiations to date, comes at a time when GATT faces great challenges.

A number of developments that have become increasingly clear since the mid-1970s have defined the scope of the round. First, the inadequacy of established GATT rules covering agriculture and textiles has become apparent. Second, several new areas not previous-

Box 6–4.—The Role of Regional Free-Trade Initiatives

Although the benefits of the most-favored-nation (MFN) principle are generally acknowledged, economists disagree about the advisability of allowing exceptions from MFN in the case of customs unions and regional free-trade agreements. One point of disagreement concerns how the existence of such regional free-trade areas might alter the cost of a trade war.

The answer to this question depends in part on which kind of trade—trade based on traditional comparative advantage or trade based on the exploitation of scale economies—is dominant. Regional integration may lead to greater similarity among the resulting free-trade regions—in terms of natural resource availability and overall level of development—than existed among the individual countries. If this occurs, and if trade stems primarily from differences between trading partners as in Ricardo's world of comparative advantage, then free trade among countries within each free-trade area could diminish the need for trade between regions, and the cost of any subsequent trade wars between regions could be small. Where scale economies are important, however, the formation of regional free-trade areas and the creation of large unified markets can increase the potential gains from trading between regions and increase the damage that would result if these regions were to engage in trade wars.

Because specialization and trade based on economies of scale are clearly important in today's economy, even free-trade regions that are broadly similar have much to gain from trading with each other, and therefore have much to lose from the outbreak of a trade war. Avoiding trade frictions through strengthened multilateral trade relations is therefore essential to assure that the formation of regional free-trade areas contributes to greater world welfare.

ly covered in detail by GATT rules have grown in importance and are increasingly in need of international rules—trade in services, international investment flows, and intellectual property rights as they relate to trade in goods and services. Third, the previous success in tariff reduction has increased both the relative importance of nontariff barriers, and the need for better GATT dispute settlement mechanisms. Fourth, the rise in antidumping and countervailing duty actions and the increasing use of trade actions that fall outside GATT restrictions have led many countries to question the efficacy of GATT rules governing the use of so-called trade remedy laws.

In the Uruguay Round, negotiators are attempting to respond to these new challenges, and are also pursuing the more traditional goal of market opening, by seeking agreements in a broad range of areas. Significant progress has been made in clarifying the issues and moving toward possible agreement in a number of the areas. That progress has been slow, however, and considerable disagreement remains. To move the process along, GATT Director General Arthur Dunkel in late 1991 produced a draft agreement that built upon the negotiations over the past 5 years; this draft agreement has become the working text for continuing the negotiations and finalizing the agreement. Although the draft text covers many of the topics, several important areas not covered by the text were left to be negotiated in the coming months, most notably, specific market access commitments in goods and services. Important areas of the working text are discussed below.

AGRICULTURE

Agricultural reforms in the Uruguay Round would mark a historic departure from the costly protectionist measures that have flourished in that sector, largely outside GATT disciplines. These reforms would have significant consequences for farmers, taxpayers, and consumers in the United States and the rest of the world.

Agreements on agricultural reforms fall into four categories: market access, internal supports, export subsidies, and sanitary and phytosanitary measures. First, countries would agree to reduce agricultural tariffs by an average 36 percent from 1986 levels over the 6 years beginning in 1993. Nontariff barriers such as quotas and licenses would be converted to tariff equivalents. Also under the agreement, countries would guarantee a minimum access equal to 3 percent of consumption over the period 1986–88.

Second, countries would agree to reduce internal supports (such as deficiency payments or price supports) by 20 percent over 6 years starting in 1993. Internal supports would be measured using 1986–88 world reference prices and 1986 policies as a base. Government assistance would be permitted under categories of internal support agreed upon as non-trade-distorting. These permitted, or "green box," policies would include, for example, conservation measures, crop insurance and disaster assistance, extension programs, and income payments that are not based on current production levels. Third, under the export subsidies reforms, countries would agree to reduce the volume of subsidized exports by 24 percent and budgetary expenditures by 36 percent from 1986–90 levels over the 6 years beginning in 1993.

Last, the rights of countries to protect human, animal, and plant life and health through sanitary and phytosanitary measures would be recognized. Countries would be prevented, however, from

erecting protectionist trade barriers under the guise of health and safety measures.

These reforms would allow the United States to export more grains to replace subsidized exports of the European Community and allow U.S. consumers to enjoy lower prices for some dairy products and peanuts. Japan and other highly protectionist agricultural markets would begin to open their doors to commodities such as rice. With lower internal supports, disposal of surplus stocks on world markets would be less likely. This, coupled with the gradual reduction of export subsidies, would begin to halt the costly and distortive trade subsidy wars between the United States and the EC.

TEXTILES

Since 1961 world trade in textiles has, like agriculture, effectively taken place outside the discipline of GATT through a series of negotiated side-agreements. These agreements established a special regime of quotas to limit exports of textile and apparel products from developing to developed countries. The accords were ultimately put together to form the Multi-Fiber Arrangement (MFA). At the same time, many developing countries placed exceptionally high tariffs on textile and apparel imports or banned them altogether.

A major objective of the Uruguay Round has been to open world textile and apparel markets and reintegrate these products into the normal GATT regime. Under the working text, this would be done via two channels during a 10-year transition period, which would begin in 1993. First, an increasing percentage of textile and apparel products would no longer be subject to quotas; by the end of the transition period, 51 percent of the volume of those products currently covered by the MFA would have been freed of quotas. Second, during the transition period, the products still subject to quotas would have their quota levels expanded at an accelerated rate. Finally, at the end of 10 years, MFA coverage on the remaining 49 percent of textile and apparel products currently covered by the MFA would be terminated, and all textile and apparel trade would once again be subject to normal GATT rules. In addition, all countries would promote improved access to markets for textiles and clothing through such measures as tariff reductions, reduction or elimination of nontariff barriers, and facilitation of customs, administrative, and licensing formalities. Consumers worldwide would gain billions of dollars annually.

SERVICES, INVESTMENT, AND INTELLECTUAL PROPERTY

Several changes in the global trading environment have combined to place on the table a number of important issues that have never before been the subject of explicit and systematic GATT negotiations. In recent years the importance of services in world trade has become increasingly recognized. Trade in services is now about one-quarter as large as trade in goods. At the same time, the globalization of modern companies and the accompanying intrafirm trade mean that barriers to foreign direct investment act increasingly as barriers to trade. The trend toward globalization has also brought to the forefront the degree to which inadequate protection of intellectual property can serve as a barrier to trade. For example, the inadequacy of a country's patent or copyright protection can permit "pirated" versions to replace exports of legitimate products and can deter foreign direct investment. Together, these changes underlie the efforts of negotiators to formulate international rules governing trade in services, trade-related investment measures and trade-related intellectual property rights.

Services

The General Agreement on Trade in Services (GATS) contained in the working text rests on three pillars. The first is the Articles of the Agreement, which provide legally enforceable rules governing trade and investment in services covered by country commitments. The second pillar consists of several annexes that elaborate the principles as they apply to various sectors such as telecommunications and financial services. The third pillar of the GATS agreement will set out the initial commitments made by each country concerning market access and national treatment.

The creation of GATS would provide the framework for further beneficial liberalization of services in the future, much as the creation of GATT did for goods 45 years ago. Moreover, the initial commitments to liberalization, which will be negotiated in the coming months, should translate into immediate benefits for the United States.

Investment

Companies that invest in foreign countries tend to import many of the inputs they use in production and to export a significant portion of their output. Restrictions on investment therefore directly affect the flow of trade. The Uruguay Round has included negotiations on new rules that would discipline the use of investment policies that inhibit or distort trade.

There is no generally accepted definition of what constitutes such a trade-related investment measure (TRIM). Examples include government requirements that foreign firms use specific amounts

of locally produced goods in their products (local content requirements), that foreign multinationals export a certain share of their output (export performance requirements), and that foreign investors use only a limited amount of the foreign exchange they earn to purchase inputs (foreign exchange restrictions). Current GATT rules indirectly cover a few of these measures, but the rules are neither comprehensive nor clear.

The U.S. position, shared by most industrialized countries, is that GATT should explicitly prohibit all TRIMs that inherently restrict or distort trade and develop a timeline to phase out prohibited TRIMs already in existence. Deep differences of opinion between developed and developing countries have hindered these negotiations, however. Many developing nations, which are largely host countries for foreign direct investment, insist that control of such investment through TRIMs is crucial to achieving their development objectives. The proposed Uruguay Round text embodies systematic, explicit prohibitions of some TRIMS. Importantly, however, it does not cover export performance requirements, which are not currently treated even indirectly in the GATT articles.

In the long run, given the increasing links between investment and trade, it is desirable to have strong rules covering all aspects of foreign investment—not merely trade-related foreign investment—analogous to those that cover trade. Even if the Uruguay Round adopts rules regarding trade-related investment measures, nothing comparable to GATT's rules on goods trade would exist for investment. *Establishing common, multilateral rules for investment throughout the world continues to be a high priority for the United States because differences in foreign investment policies across countries reduce the benefits that stem from the global production networks of multinational corporations.*

Intellectual Property

The current system for protecting international property rights consists of a number of conventions and agreements. Its inadequacy stems from a number of factors. First, not all countries adhere to the existing conventions and agreements. Second, the coverage of the rules themselves is incomplete, permitting, in some cases, exceptions from patent coverage for foods, drugs, and chemicals. Third, these conventions and agreements rely on the principle of national treatment: Each country must afford to others the same intellectual property protection it provides its own citizens. The weak standards of protection within many countries, however, make national treatment an inadequate standard for protection. Fourth, existing conventions and agreements contain no enforcement and dispute settlement mechanisms.

The working text addresses many of these deficiencies by providing a comprehensive set of rules governing trade-related intellectual

property rights. The draft agreement sets new and higher standards for the protection of a full range of intellectual property rights, including patents, copyrights, trademarks, and trade secrets. It also provides for strengthened enforcement of those standards both within countries and at the border. It would subject these standards and enforcement obligations to effective multilateral dispute settlement. The draft agreement would provide substantial benefits to the computer software, pharmaceutical, sound recording, semiconductor, and equipment manufacturing industries.

MARKET OPENING

The working text does not include specific market access commitments, which are to be negotiated in the coming months. If the round is successful, however, participants in the round are likely to reduce their average tariffs by about one-third. This includes a U.S. initiative to create 10 free-trade sectors, where tariffs would be eliminated altogether: Sectors covered by this initiative include electronics, steel, construction equipment, and pharmaceuticals, among others. Under the Zero-for-Zero Initiative, the United States has offered to cut its tariffs to zero in particular sectors provided that other countries agree to cut their tariffs to zero in the same sectors. *To place the importance of the round's market access negotiations in perspective, the 10 free-trade sectors would reduce tariffs to zero on a greater value of U.S. exports than that covered by the U.S.-Canada Free-Trade Agreement and by more than three times the value of U.S. exports to Mexico covered by the North American free-trade negotiations.*

TRADE REMEDIES

The case for open trade does not deny a potentially legitimate role for the use of various trade remedies that allow limited, temporary deviations from open trade. When used appropriately, such trade remedies can actually enhance the benefits of trade and strengthen the international trading system by encouraging countries to reduce their trade barriers and other trade-distorting measures. When used for protectionist purposes, however, these remedies can undo open trade policies and threaten the international trading system. A major focus of the Uruguay Round has been to make changes in the GATT rules governing the use of safeguards, antidumping actions, and countervailing duty actions to ensure that these trade remedies serve their intended purposes.

Safeguards

By allowing countries to impose temporary import restrictions when increased imports cause or threaten to cause serious injury to an industry, safeguards act as an escape clause in trade agreements. An important part of any agreement to which countries

accede voluntarily, safeguards provide some degree of flexibility in what might otherwise be a rigid commitment to liberalization. With appropriate design, the existence of such a safety valve can encourage countries to enter into liberalizing agreements that they might not otherwise. Once countries have entered into such agreements, safeguards can provide them with an agreed-upon avenue to respond to protectionist pressures that might otherwise lead to a breakdown of international cooperation and the outbreak of a trade war. Finally, safeguards can allow for some flexibility while staying within the existing rules, so that extraordinary actions can be taken without sacrificing all the restraining effects that the international rules place on protectionist pressures at home.

The challenge is to design safeguards that are neither inadequate nor too readily available. Safeguard provisions that err on the side of stringency risk the possibility that fissures will develop in the workings of the trade agreement that lead either to trade wars or to "solutions" that in effect operate outside the rules of the agreement. Provisions that err on the side of permissiveness risk the possibility that liberalization embodied in the trade agreement will be undone by frequent safeguard actions. *The changes to GATT safeguard provisions that are contained in the working text represent a balance between these conflicting considerations.* One crucial change would eliminate the loophole that allowed so-called grey-area measures—such as voluntary export restraints, orderly marketing arrangements, and other similar measures—to be applied outside GATT rules (Box 6-5). In addition, the existing requirement that compensation be provided to trading partners when a safeguard action is taken would be waived, provided that the safeguard action lasts 3 years or less. This change would increase the incentive to use safeguard actions only as short-term, temporary measures.

Antidumping and Countervailing Duty Laws

Whereas safeguard actions are designed to remedy a kind of "no-fault" injury claim, antidumping and countervailing duty laws are intended to address unfair trading practices of foreign exporters and their governments, respectively. Under antidumping laws, duties may be imposed on a firm's imports when that firm is found to be "dumping," that is, exporting its product at a price that is below either the selling price in its home market or the cost of production. Countervailing duty law allows the imposition of duties on imports to offset government subsidies.

From the viewpoint of economic efficiency, the circumstances that warrant the imposition of antidumping or countervailing duties are quite narrow. Dumped or subsidized imports have their clearest detrimental effect on economic efficiency if they allow foreign firms to drive out domestic suppliers and monopolize the

Box 6-5.—The Cost of Weak Multilateral Rules

A major objective of the Uruguay Round has been to reinforce General Agreement on Tariffs and Trade (GATT) principles and to strengthen GATT rules that delimit the use of extraordinary measures of protection. The stronger rules would help prevent such aberrations as the Multi-Fiber Arrangement (MFA), which operates under GATT but has deviated from some of GATT's most important principles. The MFA is the latest in a string of "temporary" textile arrangements that began in the early 1960s.

Under the MFA, participants negotiate bilateral quotas that exporters promise to respect. The bilateral nature of the negotiations undermines GATT's fundamental most-favored-nation principle. This has allowed some high-cost countries to continue exporting textiles and apparel while the trade of competitive countries is limited. The negotiation of quotas contravenes GATT Article XI, which states that quantitative restrictions should be avoided. The quantitative restrictions have prompted some countries to export more expensive products, thereby further distorting trade flows. The cost to U.S. consumers of protection in the textile and apparel sector has been high, while the gains to U.S. producers have been much smaller. One estimate put the cost to U.S. consumers at about $11 billion in 1987, while U.S. producers gained slightly more than $4 billion.

The MFA itself would be phased out under the proposed Uruguay Round text. Stronger GATT rules governing the use of safeguards would help to prevent the development of any successor agreements.

market, or if they are sporadic and interfere with the ability of the domestic industry to undertake investment in capital equipment and R&D, and thereby lead to higher prices or lower quality for consumers.

However, antidumping and countervailing duty laws are primarily motivated not by economic efficiency concerns, but by concern for fairness to the import-competing industry. This concern is embodied in the criterion under which dumping is actionable under GATT: A finding that dumped products have injured the domestic industry is both necessary and sufficient to permit the imposition of antidumping duties, regardless of the effect on consumers. An analogous criterion applies for subsidized imports under GATT countervailing duty rules.

A concern for fairness to the import-competing industry is appropriate; however, the abuse of antidumping or countervailing duty

laws for protectionist purposes by any country is unfair to consumers and to exporting firms. The challenge to negotiators in the Uruguay Round has been to strengthen the GATT antidumping and countervailing duty rules, particularly in the area of effective anticircumvention provisions, while at the same time ensuring that such trade remedies are not misused for protectionist purposes (Box 6-6).

Box 6-6.—Strengthening GATT Antidumping Rules

Important changes in the GATT rules governing antidumping procedures are under consideration in the Uruguay Round. These changes could strengthen the ability of the law to prevent injury to import-competing industries from dumped imports at the same time that they could reduce the likelihood that antidumping actions would be used for protectionist purposes.

Several changes under negotiation that have been proposed by the United States are aimed at including provisions against the circumvention of legitimate antidumping orders. Negotiators are attempting to ensure that exporting firms that face antidumping duties may not easily circumvent those duties by, for example, setting up "screwdriver" operations in the importing country. Such operations could allow an exporting firm to circumvent an antidumping duty by exporting the parts and components for final assembly rather than exporting the final product on which an existing antidumping duty has been imposed.

Among numerous changes to methodology offered by other countries and included in the proposed text is the addition of new rules governing the use of exchange rates in the calculation of dumping margins. This change would reduce the chance that normal business practices—specifically, the use of forward exchange contracts tied directly to export transactions—might lead to a mistaken finding of dumping.

DISPUTE SETTLEMENT PROCEDURES

An essential element of any effective trade agreement is the threat of retaliation, or other penalty, if a country does not live up to its end of the agreement. The enforcement mechanism is typically contained in the dispute settlement procedures of the agreement. Without a workable enforcement mechanism, international trade agreements, like any other agreement, would become meaningless.

Section 301 of the Trade Act of 1974 also provides the authority and procedures for the President unilaterally to enforce U.S. rights

under international trade agreements and to respond to certain unfair foreign practices where no trade agreement exists. The inclusion of section 301 in the 1974 Trade Act and subsequent amendments reflects a growing concern that GATT's existing dispute settlement mechanisms are not sufficient and that its inadequate coverage has left policies in important areas of trade and investment undisciplined. This raises a quandary for U.S. trade policy, as it does for all countries that take up unilateral enforcement. On the one hand, negotiating trade agreements without the ability to enforce them is meaningless. On the other hand, unilateral enforcement can weaken the international trading system. The difficulty lies in ensuring that unilateral action is used in a constructive manner. Outside of GATT, there is a risk that conflicts can degenerate into either escalating protection, or "resolutions" that diverge from market principles.

The challenge negotiators face has been to make the GATT dispute settlement mechanism prompt, reliable, effective, and fair. *The working text would provide for tight procedural time limits on the formation and operation of dispute settlement panels, automatic adoption of panel reports, and broad provisions for retaliation should the panel recommendations not be implemented (or compensation not be paid).* With these changes, the new dispute settlement mechanism contained in the working text should become the central means of enforcing trade agreements under GATT. At the same time, by extending comprehensive GATT coverage to include areas such as services and intellectual property, the working text should obviate the need for unilateral actions in those areas.

SUMMARY

- GATT has proved remarkably successful in orchestrating the reduction in world tariff rates over the past 45 years. The expected completion of the Uruguay Round, however, comes at a time when GATT faces great challenges.
- A number of developments have defined the scope of the round, including the increasing inadequacy of GATT rules covering agriculture and textiles; the growing need to extend international rules to trade in services, international investment flows, and intellectual property rights as they relate to trade in goods and services; the need for better GATT dispute settlement mechanisms; and the desire for better GATT disciplines on the use of so-called trade remedy laws.
- When completed, the Uruguay Round has the potential to have a profound effect on the integration of global trade and investment for many years to come, and to provide substantial and lasting benefits to the United States and the world.

THE NORTH AMERICAN FREE-TRADE AGREEMENT

The Administration is in the midst of negotiating an agreement with Mexico and Canada that will build on the U.S.-Canada Free-Trade Agreement of 1988 and provide for freer trade and investment throughout North America. By the end of 1991, the negotiations had made considerable progress in laying out points of convergence and in identifying the main problems that must be solved to reach agreement.

The talks are divided into several negotiating groups. The Administration has important objectives in the areas of market access, services, investment, intellectual property rights, and trade rules. Both within the negotiations on the North American free-trade agreement (NAFTA) and through parallel discussions, the Administration is also addressing concerns regarding the areas of labor and the environment.

MARKET ACCESS

Market access negotiations cover trade in goods among the United States, Canada, and Mexico. *The fundamental goal of the United States is the removal of all tariffs and the removal or reduction of nontariff trade barriers* (the latter include, for example, quotas and import licenses). When necessary, this liberalization should take place over a transition period to ease the adjustment pressures in sensitive sectors. Because Mexico's tariffs are, on average, significantly higher than those of the United States, U.S. exporters have a great deal to gain from these talks.

Areas such as automobiles, agriculture, textiles and apparel, and energy and petrochemicals are complicated enough to merit their own negotiating groups. A number of restrictions specific to the automobile sector have distorted automotive assembly and component manufacture investments in North America. These distortions include a web of local content provisions, export performance requirements, and restrictions on foreign ownership. Integrating the North American automobile market offers great opportunities for U.S. products that have been subject to such restrictions. The sensitive textiles and apparel sector has its own intricate system of protection. Finally, Mexico's constitution limits that country's ability to liberalize the energy sector; for example, it prohibits foreign ownership of domestic oil resources. The United States will respect Mexico's constitutional provision on energy, but there are other areas in which progress could be made to enhance cooperation in this sector.

Duty-free trade in North American goods among the three countries raises the question of what constitutes a North American

good. Because all three participants in the negotiations import raw materials and intermediate goods that are often included in final products, a rule must be formulated to distinguish between products that qualify for duty-free treatment and those that do not. U.S. negotiators are building on the rule from the U.S.-Canada Free-Trade Agreement, which uses changes in tariff classification as the principal criterion for qualifying for duty-free treatment.

TRADE IN SERVICES AND INVESTMENT

In services, the United States seeks additional market openings in Mexico in such areas as banking, securities, insurance, telecommunications, and land transportation. In these areas in particular, market entry is restricted and in some sectors U.S. firms are denied access to the Mexican market. The negotiations can be used to build upon the existing free-trade agreement with Canada to create greater services opportunities in all three countries.

The United States wants to guarantee all NAFTA investors nondiscriminatory treatment when they invest in another NAFTA country. The United States also wants access to arbitrations for the settlement of disputes, guarantees against expropriation, and the right for U.S. firms to repatriate profits from investments in Mexico.

INTELLECTUAL PROPERTY RIGHTS

The United States seeks the achievement of adequate and effective legal protection for the rights of owners of such intellectual property as patents, trademarks, copyrights, and trade secrets. U.S. negotiators are pressing for acceptance among NAFTA parties of the principle of according national and MFN treatment to holders of intellectual property rights. The establishment of measures to ensure timely and effective enforcement of laws governing intellectual property rights is another area of attention.

TRADE RULES

Issues concerning the rules of the trading system are dealt with in the groups on safeguards; antidumping, subsidies, and countervailing duties; standards; and dispute resolution.

As in the Uruguay Round, safeguard provisions are an important element of the NAFTA negotiations. In NAFTA, the United States is seeking a transitional, bilateral safeguard with Mexico similar to its bilateral safeguards with Canada in the U.S.-Canada Free-Trade Agreement. The United States also wants to retain the ability to limit NAFTA imports temporarily as part of a global safeguard action if they contribute to serious injury of a U.S. industry.

The United States is trying to ensure that remedies to unfair trade operate transparently and without unduly burdening busi-

ness in North America. In the area of product standards, U.S. negotiators are insisting on maintaining the right to impose standards more stringent than international standards, where there is a scientific justification for doing so. The agreement, however, will contain provisions to prevent the use of product standards and technological regulations as trade barriers. Finally, the NAFTA parties hope to establish an efficient dispute settlement mechanism to resolve conflicts arising from the NAFTA accord.

LABOR AND THE ENVIRONMENT

When NAFTA was proposed, concerns were raised about its potential effect on the environment and about the treatment of labor in Mexico. These are not among the primary subjects under discussion in the negotiations themselves, since the purpose of the agreement is to liberalize trade and investment. The Administration, however, has addressed and continues to address these concerns in parallel discussions. Government experts in environmental matters and in labor affairs from the United States and Mexico are consulting and cooperating on a broad range of issues. Where it is possible and appropriate, the United States and Mexico are consulting and sharing information with regard to the enforcement of labor and environmental regulations. A successful conclusion of the NAFTA talks should enhance the level of cooperation in these important areas. At the same time, the Administration is committed to working with the Congress to ensure that an effective, adequately funded worker adjustment program is in place when NAFTA takes effect.

SUMMARY

- The Administration is in the midst of negotiating an agreement with Mexico and Canada that will provide for freer trade and investment throughout North America.
- Major goals of the United States in NAFTA negotiations include the removal of all tariffs and the removal or reduction of nontariff barriers to trade in goods among NAFTA countries; nondiscriminatory treatment among NAFTA countries for a broad range of service providers; nondiscriminatory treatment for all NAFTA investors when they invest in another NAFTA country; and the achievement of adequate and effective legal protection among NAFTA countries for the rights of owners of such intellectual property as patents, trademarks, copyrights, and trade secrets.

EC 92 AND EUROPEAN ECONOMIC AND MONETARY UNION

In 1985 the 12 member states of the European Community proposed abolishing nearly all internal impediments to the free movement of goods, capital, services, and people by the end of 1992. At the Maastricht Summit in December 1991, the EC agreed to establish an economic and monetary union (EMU) with a single currency by the end of the decade. The EC also defined a new social charter and forged a closer political union, with common foreign and defense policies the primary goals. Most of the rules for EC 92 are now in place, and the outline of a European economic and monetary union is taking shape. The resulting integration of the European marketplace, the culmination of the 1957 Treaty of Rome, is intended to overcome historical, cultural, and political barriers that have separated these countries for centuries.

Since the late 1960s the EC has operated as a customs union with a common external tariff but no internal tariffs. Yet various nontariff barriers have remained, including differences among the member states in safety, health, and environmental standards; rules governing the operations of financial institutions; internal export and import licensing restrictions; border shipping taxes and customs procedures; intra-EC immigration policies; and public procurement practices. The 1992 reforms are intended to eliminate or substantially reduce barriers by liberalizing financial sector regulations, harmonizing technical standards and aspects of tax systems, and enforcing intra-European competitive bidding in public procurement.

Substantial gains could come from the 1992 reforms. Benefits will come from lower production costs, economies of scale, and reduced transportation costs. Efficiency is likely to increase from more competitive bidding in government procurement and from tax harmonization. Integration of financial services and markets is expected to lower the cost of capital to firms. EC consumers stand to enjoy greater product variety.

For both U.S. exporters and investors, EC 92 offers potential benefits, partly because it creates an integrated market, and partly because the process of integration could promote growth. As a trading partner, the United States (as well as other non-European countries) could gain through increased EC demand for imported products. The realization of these benefits, however, depends on the EC market's openness to external trade and how much more competitive European companies become.

As investors, U.S. firms could gain even more than their European counterparts from EC 92 because American multinationals frequently operate in more than one European country already and

therefore are particularly likely to gain from uniform standards and a reduction in nontariff barriers. Based on decades of foreign direct investment, American firms (in contrast to Japanese firms, other foreign companies, and even some European firms) are accustomed to serving a pan-European market. However, these gains depend on American firms located in Europe enjoying national treatment, that is, the same rights of market access as European firms. Moreover, the advantage some U.S. firms have will not last forever; Japanese automobile and electronics multinationals, for example, will be building up European production facilities, and native European firms will also establish operations in more efficient configurations.

Overall, while the market integration initiatives embodied in EC 92 should foster greater long-term economic growth, they by no means guarantee such an outcome. And, of course, it will not prevent short-term cyclical fluctuations. Europe's prosperity will depend on, among other things, guarding against establishing additional layers of bureaucracy associated with implementation of EC 92.

European monetary union with a single currency and a single central bank would complement the internal market. Monetary union would advance market integration by eliminating the nuisance and cost of switching from one currency to another as borders are crossed, and it would reduce business uncertainties associated with exchange rate variability and divergent monetary and fiscal policies in EC member countries. Monetary union, however, would also eliminate independent monetary policies, and thus limit the policy instruments available to respond to country-specific economic fluctuations. At Maastricht, EC members determined the timetable and conditions needed to move from the current system of limited exchange-rate flexibility to "irrevocably fixed" exchange rates and then to a single currency. Europe should have a single currency by the end of the decade.

Although monetary union is some years away, members of the Community have used the exchange rate mechanism of the European Monetary System to bring about some of the necessary discipline that is a prerequisite to monetary union. The exchange rate mechanism requires exchange rates among the member countries to be kept within a narrow band, which has encouraged a convergence of inflation rates and interest rates. Fiscal stance still differs markedly among the member countries, however, and will have to converge to support an EC currency.

A single currency would prevent exchange-rate adjustments among European countries from absorbing external economic shocks or differences in domestic economic policies; adjustment would have to take place instead through changes in domestic wages and prices.

Therefore, for monetary union to be sustainable, wages and prices in each country need to be flexible. If domestic performance in the member countries "converges" sufficiently, there will be less differentiation among regional wages and prices and therefore less pressure for change. In preparation for monetary union, the EC Council is monitoring the macroeconomic policies of member countries to encourage a convergence of both monetary and fiscal policies. Policies to encourage labor market flexibility in individual member states, as well as policies which may stem from Maastricht's social charter, should further reduce interregion tensions.

The dollar remains the most widely used currency for international transactions and reserves, although in recent years financial innovation and increased international capital mobility have reduced its relative importance. The single currency resulting from the EMU will likely be used along with the dollar in international transactions and world capital markets. It will be an important reserve and transactions asset in non-European countries that trade with Europe. Within Europe, the need to hold dollar reserves will decline as countries consolidate reserve holdings.

Where there is agreement on policy objectives, an EMU may facilitate greater cooperation among the Federal Reserve, the proposed European central bank, and other major central banks in setting their respective monetary policies. This, along with better coordination of fiscal policies, will likely enhance overall world growth. Moreover, because a successful move to the EMU requires flexible labor and product markets, countries have been undertaking structural reforms directed toward greater flexibility. These policies by themselves promote growth.

SUMMARY

- EC 1992 and an Economic and Monetary Union represent successive steps toward integrating the national markets of Europe. Liberalization of trade in goods is scheduled to be completed this year. Economic and monetary union, including a single currency and central bank, is scheduled to be completed before the end of the decade.
- As long as EC integration proceeds in an open manner, U.S. producers in Europe and U.S. exporters are likely to benefit from EC 92 and the EMU. Growth of the European market should be enhanced by efficiencies gained through reduction of barriers and harmonization of standards, by convergence of fiscal and monetary policies associated with the EMU, and by structural changes to labor and goods markets that increase their flexibility.

ACHIEVING MARKET-ORIENTED POLICIES AND GROWTH IN ECONOMIES IN TRANSITION

Around the globe, previously repressive political systems are turning toward democratic pluralism, and heavily controlled economic systems are being restructured to allow market forces to flourish. *Democratic pluralism and market-oriented economies do not guarantee wealth, but they do establish an environment that promotes growth and prosperity.*

Economies in transition—both developing economies with market structures in place and economies emerging from the command system—need comprehensive reforms and balanced policies, both macroeconomic and structural, to create the foundations for long-run prosperity.

The industrial economies can aid the transition with robust, non-inflationary growth in their own economies and by opening their markets to encourage international trade. In turn, growth and development of economies in transition will benefit the industrial countries.

POLITICAL CHANGE AND REFORMS

The sovereignty of the Baltic nations and free elections in some of the former Soviet republics made 1991 a watershed year for political change and economic reform. These countries are only the most obvious and recent participants in a surge of change around the world.

In other countries as well, new political beginnings portend new economic eras. Zambia held its first multiparty elections in about two decades. Cambodia achieved peace and scheduled elections after nearly a generation of war. The new Colombian Constitution embraces all peoples in Colombia. The nations in the Middle East are talking instead of fighting. *To no small degree, these political changes are responses to the clear economic advantages of an open and peaceful society.*

These worldwide changes promise to settle intellectual debates that have persisted for decades. The "convergence hypothesis" that emerged in the 1950s held that the capitalist and communist systems would eventually evolve toward each other, with the final result a hybrid of the two systems. It is now unmistakably clear that this hypothesis has been rejected. The developed market economies have reversed their leanings toward socialism, and the leaders in the former Soviet Union, Eastern and Central Europe and the other countries with command-style economies in transition are turning away from these approaches. These leaders instead push market-oriented economics with individual choice and private property rights as the foundations of progress and prosperi-

ty. The failure of economic socialism and central planning have brought about a fundamental rethinking by their proponents. In many respects the model of central planning is no longer even a hypothetical ideal.

CAUSES OF THE MARKET REVOLUTION

Although pressure for market-oriented change had been increasing in many countries for a decade or more, it erupted first in the developments in Eastern and Central Europe during 1989 and 1990 and subsequently in the former Soviet Union in 1991. The fall of the Berlin Wall and the events that followed raised hopes and expectations around the world. Indeed, the unification of East and West Germany is a case study of how poor economic performance has been a major impetus for shifting centrally planned economies toward market economies (Box 6–7).

Box 6–7.—Economic Performance in the Two Germanys

East and West Germany were unified on October 3, 1990, less than a year after the fall of the Berlin Wall in November 1989. At the time of unification, the contrast between the two systems in Germany could scarcely have been more stark. Starting from a similar economic base at the end of World War II and sharing a common culture, East and West Germany went two different ways. West Germany achieved one of the highest standards of living in the world, while East Germany became an industrial wasteland with rundown, outmoded factories and a poisoned environment.

Several contrasting examples make the point. Only 7 percent of East German households had telephones in 1988; in West Germany virtually every one (98 percent) did. Moreover, only a few hundred East German phone lines stretched outside the country. In East Germany, the percentage of households with cars and color televisions was about half that in West Germany. A recent study estimated that productivity in East Germany was, at best, half that in West Germany. Another recent assessment found that, as of 1989, output per capita in East Germany was $9,670, while in West Germany, it was $15,250, almost 60 percent higher.

A fundamental motivation for change—not just in East Germany, but in the other countries dominated by central planning as well—was the failure of their economies to perform adequately. *The economic policies followed in these countries failed because they were unable to provide adequate incentives for producers to supply efficiently the goods and services that consumers wanted to buy.*

The impact of these economic regimes on living standards has been devastating. The repercussions are epitomized in the case of the former Soviet Union. By the time of the attempted coup in August 1991, the Soviet Union had most, if not all, of the generic difficulties inherent in central planning. Other inefficiencies associated with a command-and-control economy were also pervasive. For example, although estimates are imprecise, perhaps as much as a fifth of the Soviet Union's output had been allocated to the defense sector in recent years. Also, because many goods and services had been unavailable for years, Soviet citizens had stored up massive amounts of rubles.

The information technology revolution made the success of market-oriented economies and the weakness of the centrally planned countries more apparent. Ideas flowing easily across national borders spurred momentum for fundamental change. Most East Germans, for example, could receive West German television broadcasts before the Berlin Wall fell. The pressure for change that was created ultimately overwhelmed governments.

PRINCIPLES OF REFORM IN ECONOMIES IN TRANSITION

Regardless of the stage of transition, sound economic foundations and flexible markets create an environment in which individuals succeed and the economy prospers. Institution building, human resource development, and political will are always important for policy success but are especially critical in some economies in transition. Economic policy builds on these foundations to unlock the key engines of growth: productivity increases and private investment.

Three economic fundamentals underpin the market-oriented system: a stable macroeconomic environment, market-determined prices, and private sector entrepreneurship. Key complementary reforms to the legal framework, the financial sector, labor markets, and fiscal systems are necessary to unleash growth. Economies in transition around the world face challenges in each of these economic policy areas.

A stable macroeconomic environment assures people of the value of money. Because goods and services are exchanged for money in a market system, the value of money needs to be reasonably stable for the system to work well. A stable macroeconomic environment also allows savers and investors to look to the long term, by assuring them that a successful investment made today will reap a positive benefit in the future. Many of the most profitable investments take a long time to mature.

Market-determined prices encourage resources to move to sectors with the highest return. Freeing prices allows consumers, produc-

ers, and investors to read the signals of supply and demand, choose products and services that yield the most benefits for the money, maximize returns, and increase well-being. Price liberalization is complete only when the domestic economy is open to international market forces. That requires currency convertibility and liberalizing trade. Markets where prices are flexible adjust more easily to changes in the domestic and international environments.

Entrepreneurship is particularly important. Because restructuring and privatization are slow processes, and because incentives and behavior in large organizations are hard to alter, new private firms and small and medium-sized privatized enterprises are likely to be the major sources of growth and dynamism in economies in transition.

Complementary policies bring together these fundamentals. A solid legal foundation ensures that private property rights are established and respected, which is a prerequisite for entrepreneurship and innovation. A functioning financial sector channels savings to investment opportunities and is the conduit for monetary policy signals to affect the economy. A flexible labor market enables workers to build skills, find the best jobs, and reap the benefits of greater productivity. A fiscal system that raises revenues in a relatively nondistortionary way and undertakes the appropriate level of social expenditures is an integral part of the transition process. A procompetition policy fosters the small and medium-size enterprise sector. A liberal trade regime encourages competition and creates new opportunities for industry and entrepreneurs.

The success of a market economy depends on people who take opportunities that the market creates. In some transitional economies, removing government regulation will help redirect entrepreneurship toward productive activity and away from wasted efforts of jumping through bureaucratic hoops. In other economies with little experience with competition, market-responsive behavior may take time to develop.

PROGRESS AND POLICY CHALLENGES

Economies in transition in Latin America, Africa, Asia, Central and Eastern Europe, and the former Soviet Union have some of the underpinnings of a market economy, have undertaken many of these reforms, and have achieved successes in many areas, although to varying degrees. *Policymakers face different challenges in the various countries to sustain the momentum of development and promote growth.*

In recent years several Latin American countries have improved fiscal and monetary policy control and have made a commitment to trade liberalization and private ownership. Popular support and understanding of economic reforms appears stronger. They have

emerged from nearly a decade of poor performance into a new environment of lower inflation, higher investment, voluntary capital flows, and improved growth.

As the transition to an industrial market economy proceeds, policymakers in each country are focusing on particular challenges that will move the process ahead. In Mexico, for example, privatization of banks, telecommunications, and airlines is widening the private sector's role in the economy. Along with trade liberalization, this privatization will lead to increased competition and greater efficiency in domestic markets. Argentina's Decree 2284, a sweeping deregulation of domestic and international trade and liberalization of labor markets, is strengthening the market mechanism and, combined with renewed vigor in macroeconomic discipline, should create a more flexible environment for further growth. In Chile, policy attention is focused on raising the quality of life by improving education, health, infrastructure, and the environment.

Encouraging the private sector and increasing market opportunities through trade and investment are key elements of U.S. policies for Latin America. Policies include the NAFTA, Enterprise for the Americas Initiative, and the Andean Trade Preference Initiative, the latter two discussed in more detail in last year's Economic Report.

Several African countries have undertaken important reforms to improve the investment climate. Zambia rewrote its investment codes to protect investors against expropriation and to allow profit repatriation. Tanzania, only recently a Marxist regime, opened the private Investment Promotion Center. Policy reforms in many African countries need to be geared to the challenges of achieving sustained growth within the context of low and stable inflation, expanding opportunities for the private sector, and diversifying exports according to comparative advantage.

Many East Asian countries have applied the principles of market economics with great success. Real per capita output growth in the four Asian newly industrializing economies (Hong Kong, Singapore, South Korea, and Taiwan) averaged 7.5 percent annually between 1983 and 1990. Policy challenges remain for these Asian success stories, in particular to reduce government guidance in the financial sector and with respect to investment choice and direction of trade.

Transforming the economies of Eastern and Central Europe into market economies is a difficult, complex, and lengthy process. Progress has been made in economic reform. In less than two years, many of the countries have liberalized prices, and some have approached macroeconomic stability. Most have written new laws and defined property rights. Financial systems are being created,

and privatization is moving forward. While essential regulatory and institutional underpinnings are in place and the spirit of the marketplace is beginning to take hold, expectations for a quick transformation are unrealistic. It will take time for institutions to serve the objective of growth efficiently. All the countries face massive dislocation and restructuring of industry. Finally, a critical mass of citizens must seize their new economic empowerment.

Private sector development is a key element of reform in Central and Eastern Europe. The Administration has encouraged the development of small and medium-size enterprises through the Enterprise Funds (Box 6–8). The Trade Enhancement Initiative has lowered barriers to Central and Eastern European exports of agricultural, steel, and textile products to the United States and has focused on reducing these countries' impediments to exports, both of which should create new opportunities for the emerging private sector.

A range of domestic policy challenges face reformers in Central and Eastern Europe. Hungary's impressive pace of foreign and domestic investment can be sustained only if it quickly revamps its antiquated banking and telecommunications systems. Labor retraining and creation of a housing market would help Poland restructure and privatize its industries, which would also reduce pressure on fiscal balance.

In the former Soviet republics, as in Eastern and Central Europe, a credible and comprehensive economic reform program is a prerequisite for real change. Economic reformers in the former Soviet republics face some unique problems, making their challenges even greater.

Clarifying economic relations among the republics would assist the reform efforts. Continuing trade ties would significantly reduce adjustment costs and aid the overall reform process since a high degree of specialization and interrepublic trade existed in the former Soviet Union. In Eastern and Central European countries, the collapse in intraregional trade has made adjustment much more difficult. Decisions on whether to have one currency, a currency union, or multiple currencies will affect other reforms, such as the responsibilities of the central bank and other financial institutions. Clarifying responsibility for Soviet debt, dividing up Soviet assets, and property right laws are a prerequisite for new investment. Moreover, the allocation of economic decisionmaking responsibilities between republic and local authorities must be determined.

THE ROLE FOR INDUSTRIAL COUNTRIES

Economic development and the transition to pluralistic, market-oriented economies is taking place in the broader context of an interdependent global economy. The industrial countries can con-

Box 6–8.—Enterprise Funds

Creating a private sector from scratch is a daunting task. One innovative approach to help accelerate this process has been the creation of Enterprise Funds, private investment firms that channel U.S. Government grants to the fledgling private sectors in economies in transition.

Four Enterprise Funds, one each for Poland, Czechoslovakia, Hungary, and Bulgaria, have been created. All but the Bulgarian-American Fund are currently in operation. Using more than $400 million authorized by the Congress under the Support for East European Democracy Act of 1989 (the SEED Act), these private, nonprofit corporations help promote small businesses, agricultural projects, and joint ventures between the United States and host country firms. The funds typically make loans, grants, and equity investments, undertake feasibility studies, and offer technical assistance, training, insurance, and loan guarantees.

Enterprise Funds are particularly attractive because they allow private sector participants to select investments that will maximize returns. By raising additional capital from private sources and by reinvesting profits, the financial impact of the initial grant will be multiplied many times over.

About 750 serious business proposals were submitted to the Hungarian-American Enterprise Fund between July 1989, when the President announced its creation, and December 1991. Initial interest among potential entrepreneurs has been substantial. The fund has made investments and loans totaling about $27 million in a variety of projects including a music recording company, a computer and office automation equipment distributor, and a firm engaged in capital equipment leasing.

tribute to the success of the transition process through sustained, noninflationary economic growth and open international markets—actions that will also enhance the performance of their own economies. *A renewed commitment to open markets and policies that encourage competitive and undistorted markets and greater productivity are keys to growth—for both industrial countries and economies in transition.* In particular, the benefits of an open trading regime accrue gradually and build over time. A long-term commitment to free trade based on market principles guides investment at home and abroad to the sectors of greatest productivity.

Although the Uruguay Round offers the most comprehensive, nondiscriminatory approach to opening markets, the Administration has pursued bilateral market opening measures that comple-

ment the multilateral negotiations. These include the Trade Enhancement Initiative for Central and Eastern Europe, and the Enterprise for the Americas Initiative and the Andean Trade Preference Initiative in the Western Hemisphere. These multilateral and bilateral arrangements have two-way benefits. By encouraging growth abroad, they increase exports and growth in the United States.

THE ROLE FOR ASSISTANCE

Aid of several types—humanitarian, financial, and technical—can complement active policy reforms. An infusion of humanitarian and financial aid early in the adjustment process can be particularly important to prevent catastrophic declines in consumption and maintain support for reforms. As the reform process proceeds, properly designed, coordinated, and balanced financial and technical assistance programs from the international institutions and bilateral donors can support and complement private sector development.

Financial aid should be viewed as a transitional mechanism. Over the longer term, sustained growth depends on greater integration into the international trading system and increased access to private capital, both of which depend on comprehensive reforms. Financial aid is not a panacea and can, at times, reduce the momentum of reform. Financial aid that supports an unsustainable exchange rate or an unsustainable level of consumption only delays adjustments that will, in the end, be more difficult. *If policies are sound, economies can prosper without extraordinary official support; if policies are faulty, economies can fail even with abundant external finance.*

Technical assistance is an especially important form of aid that focuses on improving the environment for investment and growth. The Administration's technical assistance program has emphasized the development of the private sector through support for privatization, restructuring, and the development of labor markets and of legal, financial, and business infrastructure, to name only a few areas. The U.S. Agency for International Development provides staff and technical assistance to help design economic policies. The Trade and Development Program in the Department of Commerce finances feasibility and project planning studies to aid industrial development. Developing a partnership between the U.S. Government and the U.S. private sector to further economic development is an objective of U.S. assistance efforts.

The International Monetary Fund, the World Bank, and other multilateral institutions can play a key role, both by themselves and in conjunction with donor nations (Box 6-9). In helping to design adjustment programs for transitional economies, these insti-

tutions can draw on their experiences in other countries. Their presence helps commit governments to market-oriented reforms that will elicit private investment. They can also coordinate and participate with industrial economies in the overall effort through financial and technical assistance and training.

Box 6-9.—International Institutions

Chief among the several multilateral institutions that provide pivotal support to economies in transition are the World Bank and the International Monetary Fund (IMF). The twin financial institutions were created in 1944 to aid in reconstruction after World War II and to stabilize the world financial system. The World Bank is an investment bank. Its historical mission has been to finance specific projects, such as roads, dams, power stations, agriculture, and education, that aid in the development of the world's poorer countries. The IMF is more like a credit union where members pay fees into a pool of resources that supplements members' own foreign exchange reserves when they face problems of external adjustment.

In recent years, it has become clear that coordinated assistance reinforces reform. Development projects are more effective when countries pursue sound macroeconomic policies. Consequently, the two institutions have increasingly focused on medium- and long-term structural reform. Continued lending has been conditioned on policy variables such as money growth, tariff structure, and government deficit levels.

The Organization for Economic Cooperation and Development, the Paris Club, the European Bank for Reconstruction and Development, the Bank for International Settlements, the European Investment Bank, and the International Labor Organization are also cooperating to ensure coordinated and effective assistance. The G-24 (a group of industrial market economies) has been coordinating bilateral financial and technical assistance from its members to Eastern and Central Europe to complement that from multilateral institutions.

SUMMARY

- The dissolution of the Soviet Union is the most recent and spectacular example of the collapse of communism, the failure of central economic planning, and the move toward market principles. A fundamental motivator of change was inadequate economic performance.
- Economies in transition, both developing market economies and economies emerging from the command system, face the

economic policy challenges of establishing and maintaining a stable macroeconomic environment, encouraging competition and market-determined prices, and, perhaps most important, fostering creativity, innovation, and entrepreneurship. These policies will unleash the key drivers of growth and prosperity: productivity increases and private investment.

- The most important contribution the industrial countries can make to economies in transition is to assure robust, noninflationary world growth with open international markets. That will enable economies in transition to grow, and to develop industrial structures based on comparative advantage.
- Financial aid can play an important role at key points, but it is not a panacea. Overall programs of assistance must be properly designed and implemented to ensure that they support rather than undermine reforms. In many economies in transition, technical assistance will be the most beneficial form of aid.

CONCLUSION

International trade and investment are increasing U.S. and world prosperity. Domestic economic growth, together with the decline in transportation costs and improvements in communications, contributes to the rapid growth of international trade. At the same time, increases in trade and investment are powerful engines contributing to efficiency and growth.

An unprecedented number of major multilateral and regional initiatives designed to reduce barriers to international trade and investment are under way that could have dramatic effects on global trade and investment for many years to come. Foremost among these is the Uruguay Round of multilateral negotiations under GATT. When completed, the Uruguay Round has the potential to have a profound effect on the integration of global trade and investment, and to provide substantial and lasting benefits to the United States and the world. The United States has also entered into negotiations with Mexico and Canada to form a North American free-trade area. NAFTA will eliminate trade and investment barriers with the first- and third-largest U.S. trading partners. Additional market openings could come from the hemisphere-wide system of freer trade and investment envisioned in the Enterprise for the Americas Initiative.

At the same time, the nations of the European Community are integrating their economies more closely. The 12 member states are in the process of abolishing, by the end of 1992, remaining internal impediments to the free movement of goods, capital, services, and people.

Along with the collapse of communism and central planning in Central and Eastern Europe and the former Soviet Union, the reorientation of economic systems toward greater reliance on market forces has become more apparent in other parts of the world as well. Providing open international markets is perhaps the single most important thing that the West can do to help the economies in transition, particularly the countries of the old Soviet bloc, build democratic and market-oriented societies. The Administration is committed to achieving and maintaining open international markets for both trade and investment.

CHAPTER 7

Economic Statistics: Measuring Economic Performance

EVERY DAY, NEWSPAPER, radio, and television reports offer the American public a wealth of information about the U.S. economy. They may tell us how many new jobs have been created, how many cars have been sold, or how much the prices for goods and services have changed. We may learn that interest rates have gone up or down, that exports have increased, or that personal saving has remained flat.

Economic data provide snapshots of the economy that answer a great variety of questions. How much is the Nation producing? How does the U.S. standard of living compare with Germany's or Japan's? How much of the Nation's income does the government collect in taxes? Without good data, these questions cannot be answered. Many questions require that snapshots be compared over time. How much has the standard of living increased over the past 30 years? How much more productive are today's factories than those that existed 10 years ago? And because the economy is continually changing, data that provided a focused picture 10 years ago may no longer adequately measure today's economy. To maintain an accurate picture, statistical measures—and the ways they are interpreted—need to account for the changing structure of the economy.

Individuals, corporate managers, and public policymakers all rely on economic data to make informed decisions that affect economic well-being and to judge whether they are achieving their goals. A consumer might use information about changing interest rates in deciding when to buy a new home. An automobile manufacturer is likely to use a wide range of data to determine how many cars to produce in the coming months. Sales data give useful information about the current demand for cars, while data on the number of people employed, changes in household income, and the level of consumer confidence are useful in assessing future sales.

Laws and contracts often depend on economic data for their operation. Some labor contracts, for example, include cost-of-living allowances that adjust wages in response to inflation. A measure of inflation is therefore needed to make such adjustments. Similar cost-of-living adjustments are made to Social Security benefits.

Because data are critical for charting the course of the economy, a large number of statistical tables have been included in every *Economic Report of the President* since 1947. This chapter is intended to help readers understand many of these commonly used economic statistics.

Care is needed in interpreting statistics. It is important that people who use data understand the concepts that lie behind the measurements, the activity actually measured by the published numbers, and the statistical accuracy of the data. Practical limitations often prevent economic statistics from corresponding exactly to the concepts the user is interested in. Some economic statistics—particularly early estimates based on incomplete data—inevitably contain a great deal of error. Changes in definitions or reporting conventions can be a source of confusion and in some cases may affect the consistency of the data over time.

Furthermore, substantial changes in the economy—for example, new technologies, demographic shifts, and changes in the nature and volume of international transactions—require statistical agencies to revise periodically the types of data they collect, the ways they collect the data, and the concepts they use to measure the economy. In November 1989 the President signed the Economic Statistics Initiative to upgrade the Federal statistical system. Its aim is to help the major producers of economic data develop new techniques to measure economic concepts, improve the accuracy of statistics, and provide a more complete framework for understanding the economy (Box 7-1).

USING THE MOST APPROPRIATE DATA

There are many sources of economic data. Any one set of statistics, however, is limited in the questions it can answer; the features that make numbers appropriate for certain uses may make them inappropriate for others. Unfortunately, sometimes data that can give a definitive—or even a very good—answer to an important question simply do not exist. Decisionmakers must be careful, first, to choose the most appropriate data to analyze issues and, second, to recognize the shortcomings of the measures they use.

Consider, for example, the number of people employed in the United States. According to the survey of households, published by the Bureau of Labor Statistics (BLS), 117,555,000 civilians were employed in October 1991. According to the BLS survey of businesses and government, known as the establishment survey, 109,796,000 people were on the Nation's payrolls in October 1991. Why are these numbers different, and is one better than the other?

The numbers are different because the two surveys measure employment differently and have different coverage. The household survey measures the number of *people* who are working, while the

Box 7–1.—The Economic Statistics Initiative: Improving the Quality of Economic Statistics

The U.S. statistical system is among the finest in the world, staffed by dedicated and highly competent professionals. The rapid pace of change in today's economy, however, strains the statistical agencies. Keeping abreast of these changes requires both the development of new measurement techniques and the timely improvement of the existing statistical system. In 1989 a working group, which included representatives of many of the major producers and users of economic statistics in the Federal Government, developed a package of high-priority projects designed to improve the quality of statistics. The President approved this package on November 25, 1989.

The programs are aimed at addressing many of the measurement problems discussed in this chapter. They include 1) improving and modernizing our national and international economic accounts, and making U.S. data more internationally comparable; 2) improving coverage and measures of service sector output; 3) extending existing methods and developing new techniques to incorporate quality adjustment in price indexes; 4) improving the establishment and household labor market surveys; 5) tracking changes across industries; 6) establishing a university center for graduate-level training in statistics for current and prospective staff of the Federal statistical agencies; and 7) sharing data among statistical agencies.

Work began on these programs in fiscal 1991. The President's fiscal 1992 budget proposed spending $30 million on these programs; $18 million was appropriated. The initiative envisions spending more than $150 million during fiscal 1993–97. The funds are included in the budgets of the Census Bureau, the Bureau of Economic Analysis, the Bureau of Labor Statistics, the National Agricultural Statistics Service, and the National Science Foundation.

establishment survey measures the number of *jobs* on the payrolls of business and government. The establishment survey does not cover jobs in agriculture, the self-employed, proprietors, unpaid family workers, or household domestic workers; but the household survey counts these people as employed.

Consequently, one might think that the household number is a better measure of total employment. But it samples only about 60,000 households each month, while the establishment survey samples almost 370,000 establishments. Because the establishment survey counts a much larger number of workers than the house-

hold survey, it is less likely to suffer a random miss in its estimate of the true value for the entire country. On the other hand, a number of issues concerning the construction of the establishment survey make these data susceptible to certain nonrandom errors (those issues are discussed later).

Thus, neither employment measure is clearly "better." The user must judge which is better-suited to answering the question at hand. Many economists believe that on a month-to-month basis, the establishment survey probably gives a more accurate reading of job developments for the nonfarm economy as a whole because of its large sample. But if one is concerned with employment among teenagers or women, for example, then the household survey data are appropriate because the establishment survey does not collect comprehensive information on the demographic characteristics of the work force.

HOW MUCH DATA?

One of the most important principles of economics is that people are better off expanding an activity as long as the additional, or "marginal," benefit exceeds the marginal cost. This principle also applies to the collection of data—additional resources should be committed as long as the marginal benefit from additional data is greater than the marginal cost of collection. Costs and benefits often cannot be measured precisely, but expected costs and benefits should nonetheless be compared when deciding the amount of resources to devote to collecting data.

Clearly, it is too costly to measure all the household, business, and government activities in the economy every day, week, or month. Consequently, most economic data are based on only a portion, or sample, of individuals or establishments. The larger the sample, the smaller the probable error in estimating the true number. One basic question, therefore, is whether it is worth increasing the size of the sample to reduce the size of errors (Box 7–2).

A tradeoff also exists between the accuracy of data and the timeliness of their publication. For example, the first estimate of gross domestic product (GDP) for a given quarter is released during the month following the end of the quarter. To produce this "advance" estimate, the Bureau of Economic Analysis (BEA) of the Commerce Department estimates some important data that are not yet available. Other data are available only in a preliminary form and are subject to substantial revision. If the BEA were to wait several weeks until better data became available, it could publish more accurate GDP estimates. On the other hand, many private and public decisionmakers eagerly await the GDP data; they want a comprehensive summary of the Nation's economy as quickly as possible.

As more and better data become available, the advance estimate of GDP is revised in a "preliminary" and then a "final" estimate. These revisions are useful for judging the quality of the advance and preliminary estimates. Between 1977 and 1988, the final estimate of real GDP growth (at an annual rate) was within −1.0 to +1.6 percentage points of the advance estimate 90 percent of the time. Between the preliminary and final estimates, 90 percent of the revisions fell in the range of −0.6 to +0.7 percentage point.

Box 7-2.—Measuring the Quality of Statistics

A sample covers only a fraction of the firms or individuals in the economy. Because not everyone is counted, sample-based estimates do not give the actual numbers for the entire economy. The differences are called sampling errors. The larger the sample, the smaller is the error. For example, the second estimate of monthly retail sales, published by the Census Bureau, is based on a much larger sample of businesses than the advance estimate, and has a sampling error only one-third the size.

Other statistical errors, called nonsampling errors, occur because respondents misunderstand questions or provide incorrect information, because there are errors in data processing, or because systematic problems arise in sampling procedures. Such errors, however, often cannot be quantified.

Statistical errors can be reduced in several ways. Sample sizes can be increased. Procedures can be improved to avoid nonsampling errors. Surveys can be revised to account for structural changes in the economy. Some surveys suffer from poor response rates and imprecise answers; better survey methods can reduce the burdens on participants, making it easier for the public to play its part in providing high-quality data. Further automation for some surveys could improve the speed and quality of data collection and processing.

PROBLEMS WITH INACCURATE DATA

Data that are inaccurate can be misleading. From time to time, inaccurate preliminary estimates of key data, conceptual measurement difficulties, or other data problems have made it more difficult to implement sensible economic policy. Two examples follow.

Example: Business Inventories in 1973 and 1974

Early in the 1973–75 recession, businesses appeared to be controlling inventories fairly well. According to data available in April 1974, increases in inventories in constant dollars were not that large; inventory investment was estimated at 1.5 percent of total

gross national product (GNP) in the fourth quarter of 1973 and 0.6 percent of GNP in the first quarter of 1974. These figures suggested that firms probably would not have to cut production to work off excessive inventories and thus led policymakers to believe it was not necessary to stimulate the economy. Revised data, however, showed that serious inventory excesses actually had developed. Data available by July 1974 indicated that inventory investment actually had been 2.4 percent of GNP in the fourth quarter of 1973, and 1.3 percent in the first quarter of 1974. The subsequent liquidation of inventories placed a severe drag on GNP growth in 1975.

Example: Mismeasurement of Consumer Price Changes Before 1983

A principal measure of inflation is the change in the consumer price index (CPI), which includes the prices of a wide variety of household goods and services—food, clothing, medical care, and so on. One of the largest household expenditures is for shelter. For those who rent their homes, statisticians have a relatively straightforward task—to find out how much rent actually is paid for an apartment or house. But how should owner-occupied housing be treated statistically?

Before 1983 the CPI did not capture the monthly cost of shelter associated with *living* in an owner-occupied house. Instead, the CPI measured the costs—in terms of purchase prices and mortgage rates—experienced by those people who *purchased and financed* a home. Furthermore, some analysts believe the weights on house prices and mortgage rates were overstated in the index. When housing prices and interest rates soared in the late 1970s and early 1980s, the CPI rose out of proportion to the actual costs of housing, because unrealized capital gains of homeowners were inappropriately treated as increasing the monthly cost of shelter. Because many wage, benefit, and transfer payments are tied by contract or mandate to the CPI, this overstatement of inflation caused unwarranted increases in wages and government transfers.

In 1983 the BLS acted to correct this problem in the CPI-U (CPI for all urban consumers); in 1985 the correction was made in the CPI-W (CPI for urban wage earners and clerical workers). Instead of looking at current purchase prices and interest rates, the BLS began to estimate the cost of the shelter provided by owner-occupied houses by looking at rents paid on houses and apartments that are comparable to the stock of owner-occupied housing. To have a series that is consistent before and after 1983, the BLS has constructed another index, the CPI-U-X1, that extends estimates of housing costs consistent with the new methodology back from 1983 to 1967.

Although those revisions were a major improvement, problems may still exist because many communities have very few rental

properties with attributes typical of the owner-occupied housing stock. Owner-occupied housing makes up almost 20 percent in the total CPI; therefore, a large component of the index could suffer from a sampling problem. The BLS has addressed this problem by screening areas with high concentrations of owner-occupied housing for suitable rental units and plans to study the cost-effectiveness of increasing the rental sample. Because of these and other sampling issues, the BLS suggests that users look beyond month-to-month variations in the data and consider changes over longer time periods when trying to discern trends in owner-occupied housing costs.

WHY THE GOVERNMENT IS IN THE DATA BUSINESS

The entire Nation benefits from having access to unbiased, high-quality economic data. It is unlikely, however, that the potential profits would be high enough to induce the private sector to produce the quantity, quality, and types of data that would balance society's marginal benefits and costs. It may be difficult, for example, for private data collectors to avoid unauthorized reproduction that would cost them sales. Furthermore, it often is less costly for the government to obtain data as a by-product of other activities than it is for private firms to collect statistics from scratch. Information on personal income and corporate profits, for example, are gathered in conjunction with tax collection. Survey participants also naturally prefer that their answers remain anonymous, and because of strong legal protection, government statistical agencies are able to ensure confidentiality more easily than private collectors can. Finally, the government may legally require people to respond, as in the case of the census.

Although it is appropriate for the government to gather economic data, there also is a role for the private sector in the Nation's statistical system. Some private businesses have found it profitable to collect some types of economic information. For example, private firms compile a large amount of balance sheet information for publicly traded corporations and sell it to investors and researchers. Other private businesses gather, organize, and interpret data for clients, adding value to data originally published by the government or other sources.

SUMMARY

- Individuals, business managers, and public policymakers all rely on economic data to make informed decisions that affect the economic well-being of the Nation.
- Users of economic data should be aware of the activity measured by published data, the statistical accuracy of the data,

and the effect that changes in the structure of the economy can have on their interpretation of economic statistics.

- Any set of economic statistics is limited in the questions that it can answer. The features that make numbers appropriate for certain uses may make them inappropriate for others. Even when used properly, however, imprecise data can mislead decisionmakers.

GNP AND GDP

GNP, or gross national product, is one of the most common measures of the overall performance of the economy. It is defined as the market value of all goods and services produced during a particular time period by U.S. residents, that is, U.S. individuals, business, and government. GNP includes income earned by U.S.-owned corporations overseas and U.S. residents working abroad; it excludes income earned in the United States by residents of the rest of the world.

A closely related measure, gross domestic product (GDP), is the value of output produced by people, government, and firms in the United States, whether they are U.S. or foreign citizens, or American- or foreign-owned firms. Profits earned by foreign-owned businesses in the United States are included in U.S. GDP, but not in U.S. GNP. In contrast, profits earned by U.S. firms abroad are included in U.S. GNP (because the firms are owned by Americans), but they are not included in U.S. GDP (because they are not earned in the United States). GDP is measured quarterly and annually. Data on GDP and its components are found in Tables B–1 through B–26 of Appendix B to this *Report*.

The distinction between GDP and GNP is not very great for the United States. Relatively few U.S. residents work abroad, and U.S. earnings on foreign investments are about the same as foreign earnings on investments in the United States. For other countries, such as Pakistan and Portugal that have many workers in foreign countries or Brazil and Canada that have more foreign investment in their country than they have abroad, the difference between GNP and GDP can be large. GDP corresponds more closely than GNP does to other indicators used to analyze short-term movements in the U.S. economy, such as employment and industrial production. This past December, the national income and product accounts (NIPAs) shifted emphasis from GNP to GDP.

GNP and GDP measure output at market prices. Because prices change over time, a distinction must be made between a change in the quantity of goods and services produced and a change in the prices paid for those products. Real GNP or GDP adjusts for inflation and measures the quantity of goods and services produced;

they are therefore better measures of output than nominal GNP or GDP.

MEASURING THE STANDARD OF LIVING

Growth in real GNP or GDP does not ensure an increase in the standard of living. If real GDP grew less rapidly than the population, for example, real GDP per person would fall. But even real GDP per person is not a perfect measure of economic well-being because some transactions are not recorded in GDP.

GDP measures principally the production of those goods and services that are sold through a marketplace. It also includes a few imputed items, such as the value of living in owner-occupied housing. Many nonmarket activities are, however, omitted from GDP even though they affect economic well-being. If a person mows his or her own lawn, for example, there is no entry in the GDP accounts, but if he or she hires a lawn service, the costs of the service are included in GDP. Similarly, GDP does not include volunteer work. Were the volunteers to work for a wage, GDP would rise, although economic well-being might not.

Changes in the condition of the environment affect well-being, but they are hard to quantify in the GDP accounting framework. An increase in pollution makes life less pleasant, but it is not subtracted from GDP. Indeed, if increased pollution leads to more expenditures for health care, it actually increases GDP. On the other hand, GDP does include the value of production of goods and services to improve the environment, such as catalytic converters or toxic waste consultants. The United States is examining how satellite accounts to the United Nations' system of national accounts would better measure the influence of natural resources and environmental factors on economic well-being (Box 7–3).

Leisure time affects economic well-being but is not counted in GDP. In the last two decades, real GDP per person rose almost 40 percent, while leisure—that is, time spent outside the workplace—increased by 7 percent (if it is measured by a decrease in the average hours worked per week). Did economic well-being rise by more than the 40-percent increase in output because working people also had more leisure time? Or did economic well-being rise by less than 40 percent because some of the increase in output came from an increase in the number of two-earner families for whom "family leisure" time declined. Vacation spending is another leisure-related issue. Money spent on airfares, hotels, and recreation increases GDP, while relaxing at home does not. Yet both types of vacations increase economic well-being.

Box 7–3.—System of National Accounts

Gross domestic product (GDP) is the primary measure of aggregate activity presented in the U.S. national income and product accounts. GDP measures the value of production in a given time period. But other indicators such as national wealth are valuable to gauge economic well-being. Saving links these two major concepts of economic well-being because saving out of GDP augments national wealth. But real wealth also is affected when the prices of the Nation's existing assets and liabilities change at different rates or when there is net lending or borrowing from other countries.

The United Nations' system of national accounts (SNAs) is an integrated presentation of an economy's stocks of assets and liabilities and its flows of income, production, consumption, and saving. The system of national accounts integrates the factors that affect national wealth with the GDP data, providing a more complete framework for analyzing the economy than do the national income and product accounts.

As part of the President's Statistical Initiative, the U.S. national accounts will adopt the SNAs' framework in the mid-1990s. The Federal Reserve Board already prepares much of the additional asset and liability information needed to fill in the framework. Because many countries already use the SNAs, developing these accounts for the United States will facilitate international comparisons of GDP, its components, and supporting financial data.

SUMMARY

- The United States recently shifted emphasis from GNP to GDP. In contrast to GNP, GDP includes income of foreign corporations and foreign residents working in the United States, but excludes the income of U.S. residents and corporations overseas. GDP corresponds more closely to other indicators of domestic short-term economic performance.
- Adjusting GDP and GNP for inflation and for population growth makes them better measures of the standard of living, but some factors that affect economic well-being, such as nonmarket activities and pollution, are not recorded in either measure.

EMPLOYMENT AND UNEMPLOYMENT

How many people lost their jobs during 1991? How many people found employment? What are the demographic characteristics of the unemployed? To answer such questions, one can turn to several sources of labor market data.

The most common data describing labor markets come from three sources: a survey of the Nation's households, a survey of the Nation's businesses and governments (the establishment survey), and the unemployment insurance systems of the States. No one of these sources records all labor market indicators, and the three sources sometimes give different readings of apparently similar labor market indicators. For example, nonfarm wage and salary employment *fell* 0.3 percent between April and November 1991 in the household survey, while jobs *rose* 0.1 percent in the establishment survey. To prevent confusion about these figures, it is important to understand how these labor market data are generated.

THE HOUSEHOLD SURVEY

The most familiar labor market statistic is the unemployment rate, which is based on information the Census Bureau collects for the BLS through the Current Population Survey. Many series from this survey are found in Appendix Tables B–31 through B–39. About 60,000 households are on the interview list; in any given month, on average, 4–5 percent of these are not interviewed for a variety of reasons. The population estimates underlying the survey are benchmarked every 10 years to the decennial census—that is, they are adjusted to make them consistent with the census.

Surveyors ask respondents about the major activity of each member of their household 16 years and older. Those who are working, including the self-employed and unpaid workers in a family enterprise, are counted as employed. Those who are reported to be not working but who have actively sought work in the last 4 weeks or who were waiting to be recalled from layoff or report to a new job within 30 days are counted as unemployed. Those who are not looking for a job or who are unavailable for work are not considered part of the labor force. The unemployment rate is the number of unemployed people divided by the civilian labor force, which is the sum of the employed and unemployed. As discussed in Chapter 3, the unemployment rate does not count people who are not looking for work because they feel no work is available. Current Population Survey data on these "discouraged workers" are published once a quarter.

The household survey also includes a comprehensive set of questions concerning the household members' age, sex, race, occupation, industry of employment, number of hours worked, duration of any

unemployment, and whether the unemployed workers quit or involuntarily left their last jobs. People working fewer than 35 hours a week are classified as part-time workers. Data are published at both the national and State levels. Except for 11 large States, however, the State-level samples are small and monthly estimates cannot be obtained directly from the household survey. The monthly labor force and unemployment data published for these smaller States are based on estimating equations that use information from more than just the household survey. On an annual basis, however, the household survey does provide enough data for State-level estimates.

THE ESTABLISHMENT SURVEY

Every month, the BLS surveys almost 370,000 establishments that, combined, employ more than 40 million workers. For purposes of the survey, an establishment is a business or government operation that, in general, is at a single location and engages in one type of activity. The agricultural sector is not included. Private firms and State and local governments report information concerning workers who receive pay for any part of the payroll period that includes the 12th day of the month. Federal Government employment, which is counted on the last day of the month, covers only civilians. Some of the results from the survey are presented in Tables B–41 and B–42 in the Appendix.

The survey collects information by industry on the number of workers, the number of production and nonsupervisory workers, average weekly hours paid, overtime hours, and average hourly earnings. The survey does not distinguish between full-time and part-time workers in its count of jobs. The only demographic information published is gender. State and metropolitan area breakdowns also are published.

When a sample of establishments is surveyed, the question arises as to how employment in the sample is related to the total number of jobs. To shed light on this relationship and make appropriate adjustments in the survey results, the BLS each year conducts a more comprehensive study, or *benchmark,* of civilian nonfarm jobs, relying primarily on information that firms and government agencies are required by law to report to the State unemployment insurance systems. The benchmark indicates that the coverage of the monthly establishment survey is quite large; the establishments in the monthly sample employ 39 percent of the workers enumerated in the 1991 annual benchmark. Indeed, the BLS reports that the "sample of establishment employment and payrolls is the largest monthly statistical sampling operation in social statistics." Some issues have been raised regarding the survey, however. Its sample may overrepresent large establishments relative to their share of

employment. And, particularly in the short term, the survey probably has difficulty accounting for the emergence of new establishments and for firms that go out of business.

The establishment and household surveys measure different concepts. The establishment survey counts the number of jobs, not the number of employed people. Thus, a person holding more than one job is counted more than once in the establishment survey but only once in the household survey. The establishment survey counts hours paid, which includes, for example, paid vacations. In contrast, the household survey asks respondents the number of hours worked.

STATE UNEMPLOYMENT INSURANCE SYSTEM

Every week data are published showing the number of people who filed new claims for unemployment insurance—the "initial claims" figure—and the number of people covered by unemployment insurance who were unemployed for any part of the week—the "insured unemployment" number. These data, found in Table B–40, are compiled by the Employment and Training Administration of the Department of Labor, using information collected from the State unemployment insurance systems.

The insured unemployment count does not include workers whose unemployment insurance coverage has lapsed, initial claimants who do not qualify for benefits, workers who qualify but do not apply, or individuals not covered by unemployment insurance. This final category includes new entrants or reentrants into the work force who have not yet found jobs. These persons would be counted in the household survey if they met that survey's tests for unemployment.

Once a quarter, employers are required to report the number of persons on their payrolls each month and the total wages that they paid. Because virtually all businesses are required to belong to the State systems, these reports provide very accurate readings of employment. Indeed, the data are used to benchmark the establishment survey's estimates once a year. The State data are not very timely, however; the reports are not available until about 6 months after the end of the quarter.

WHEN TO USE THE DIFFERENT LABOR MARKET DATA

Each of the labor market data sources has its strengths and weaknesses (Box 7–4). The lag between the collection and publication of the initial claims numbers is less than 2 weeks; these data provide the most up-to-date, but quite incomplete, reading on unemployment conditions. Although the State unemployment system provides information about those persons seeking unemployment benefits, it does not provide timely information on jobs gained or

the industrial structure of employment, or offer any data on the number of hours people worked. The establishment survey does provide timely information on these questions. And despite some problems with the establishment survey, many economists believe that because of its large sample coverage, it generally provides a relatively accurate reading of month-to-month changes in the number of nonfarm jobs. It also provides useful industry detail.

Over long periods of time, the establishment survey and the nonagricultural component of the household survey generally yield similar trends. The establishment survey, however, does not contain any information about people who are without jobs. The household survey provides details of the demographic composition of the population with and without jobs, information on the duration of unemployment, and reasons why people may be working part time or have dropped out of the labor force.

Box 7-4.—Error and Revision Properties of Labor Market Surveys

Comprehensive work has been done to determine the statistical accuracy of the household and establishment surveys. The estimate of the civilian unemployment rate in the household survey has a standard error of 0.11 percentage point. This means that because of sampling error, there is a one-in-three chance that the true unemployment rate will be more than 0.11 percentage point higher or lower than the published number. Thus, for most analyses, one should not consider movements in the unemployment rate that are less than 0.2 percentage point as significant changes in the labor market.

One useful measure of the statistical accuracy of the establishment survey is how well the monthly survey forecasts the annual benchmark. For the past 10 years, the difference between the final monthly estimate of total nonfarm employment from the establishment survey and the benchmark has averaged 0.2 percent.

The first estimate of payroll employment for each month is revised in subsequent months as late reports are received and processed. Between the first and final estimates, there is approximately a one-in-three chance that the first reading of total nonfarm employment will be revised up or down by 78,000 jobs. One program in the President's Statistical Initiative will upgrade automated data collection techniques to improve the quality of the establishment survey's first estimate of employment.

OTHER SOURCES OF LABOR MARKET DATA

In addition to these three sources, several other important labor market surveys are published less frequently. These include the quarterly employment cost index, the survey of income and program participation, the national longitudinal survey, and the public use micro data sample from the decennial census. The employment cost index provides comprehensive information on wages and benefits at the industry level. The last three surveys record a variety of demographic, employment, income, and wealth information on an individual-by-individual basis.

SUMMARY

- Three sources of labor market data—the household survey, the establishment survey, and the State unemployment insurance system—give complementary, but sometimes differing readings of the labor market.
- The weekly data on initial claims for unemployment insurance are the most timely, if quite incomplete, report on unemployment. The establishment survey provides useful information on month-to-month changes in nonfarm employment. The household survey reports detailed information on the demographic and economic characteristics of the employed, the unemployed, and those people out of the labor force.

PRICES AND INFLATION

Inflation is an increase in the average level of prices. As discussed in Chapter 2, high and variable inflation inhibits the efficient allocation of resources in the economy, and if unanticipated, redistributes income and wealth capriciously. To achieve strong and sustainable economic growth over the long run, the Nation must maintain low and stable inflation rates. Good measures of prices and inflation are necessary to help gauge progress toward achieving this goal. Appendix Tables B–56 through B–64 provide a variety of price indexes that commonly are used to measure inflation (Box 7–5).

CHANGES IN QUALITY

Some price changes reflect changes in quality. For example, suppose the purchase price of a car increases solely because antilock brakes are added as standard equipment. Because the higher price reflects an increase in quality, it should not be included in a calculation of inflation. If such a price change were included in a price index, then inflation would be overstated. To avoid this problem, price indexes are adjusted for quality where possible.

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Box 7–5.—Price Indexes

Inflation is measured using indexes that record price changes for a market basket of items representing the purchases or sales of some portion of the economy. Some price indexes, called fixed-weight or Laspeyeres indexes, weight items by their shares in the market basket during a base period. Examples are the producer price index, the consumer price index, and the fixed-weight price index for gross domestic purchases. (The BEA has shifted emphasis from the GDP fixed-weight index—which measures prices of everything produced in the Nation—to the gross domestic purchases index, which measures the price of everything purchased in the Nation, including imports.) In other price indexes, the weights change with every observation to reflect the current period's market basket. The most common example of such an index is the GDP deflator.

On a month-to-month or quarter-to-quarter basis, economists generally prefer measuring inflation using fixed-weight indexes. Because the weights do not change, movements in these price indexes reflect changes *only* in prices. In contrast, movements in deflators reflect changes *both* in prices and in the composition of the market basket. Indeed, even over long periods of time, point-to-point comparisons of deflators can be affected by unusual shifts in the composition of spending.

Over time, consumers and producers tend to shift purchases away from higher priced items, and advances in technology tend to reduce relative prices in many fast-growing sectors. Because of such substitutions and other changes in the economy, the composition of a fixed-weight index may become quite different from the market basket currently purchased by consumers and businesses. Consequently, fixed-weight indexes are updated periodically to keep pace with changes in the economy. In addition, price indexes constructed from various alternative weighting formulas are being used more frequently in economic analyses.

Some items are adjusted by "direct quality adjustments." Autos are an example. The average transaction price of autos sampled in the CPI for the 1992 model year was $917.30 higher than for the 1991 model year. BLS analysts determined that $259.79 of this change represented higher quality from better warranties, the inclusion of passive restraints, and other improvements. Thus, the BLS used a price increase of only $657.51 ($917.30 – $259.79) to calculate the change in the auto component of the CPI.

Other items are adjusted for quality by "price-linking" methods. For example, when a new item replaces an old one in the marketplace, the BLS also must make this substitution in the CPI's market basket. If the characteristics of the original and substitute items differ substantially, then the difference between their prices is assumed to reflect a change in quality and is not counted as a price change. The link is made when the price of the new item, adjusted for the amount attributable to the quality change, replaces the price of the old item in the index. Sometimes a new item is so different from the old one that the prices are not immediately comparable. Here, the quality adjustment is estimated as the difference between the price of the new item and a value imputed from the prices of a collection of items in the broader class, or stratum, of the CPI that includes the new item.

In a few cases, quality adjustment is made by statistically estimating the value of certain attributes that have changed over time. Such statistical estimates have been termed "hedonic quality adjustments." Two of the main areas that use hedonic quality adjustment are housing and computer equipment. Technological advances have significantly increased the processing speed and storage capacity of computers. Suppose a computer purchased today performs twice as many operations as a computer purchased 5 years ago for the same price. Because two 5-year old computers would be needed to perform the same tasks as one of today's machines, it is clear that the true price of computers has fallen substantially.

With the aid of private industry, the BEA has constructed statistical estimates of how the market valuation of various attributes of information-processing equipment has changed with technology over time. Such hedonic quality-adjusted prices for information-processing units fell at an annual rate of 23 percent between 1977 and 1984. In contrast, a price index constructed from a method similar to price linking fell at only a 12-percent annual rate over the same period.

For many items, particularly for services, adjusting prices for changes in quality is very difficult. Medical care services in the CPI, for example, are estimated in part from the prices paid for a set of common medical procedures. The prices have risen significantly over time. But some of the increases reflect advances in medical science that have resulted in better diagnoses, higher cure rates, and lower postprocedure complications. Ideally, the value of these improvements would be measured and prices adjusted accordingly. While such measurement is impossible in some areas, there clearly is room for improvement in others. As part of the President's efforts to upgrade the quality of economic statistics, the BLS

is undertaking research to improve quality adjustment in the service sector.

Because all changes in quality cannot be accounted for accurately, and because no explicit quality adjustments are made for some items, inflation may not be measured accurately in the United States or in other countries. Whether the measure is too high or too low is not known. Many economists believe that the scales tip toward inflation being overstated in the United States, perhaps by as much as a percentage point. Furthermore, because price indexes are used in the construction of some components of real GDP, long-run real GDP growth may be understated. The allocation of real GDP between sectors with and without adequate quality adjustment may be misstated as well. For example, real medical services likely have grown faster than shown in the national accounts because some real gains in services have been mistaken for inflation.

REBASING REAL GDP

Real GDP measures the value, at base-period prices, of all the goods and services produced in the Nation. Because all prices do not change at the same rate, the price of one item relative to another varies over time. Periodically, the BEA updates the base period so that real GDP reflects more recent relative values of goods and services. The base year was moved, from 1982 to 1987, in the benchmark revisions published in December 1991.

Rebasing can change the size, composition, and rate of growth of real GDP. The recent rebasing significantly reduced computers' share of real GDP because their relative prices had been falling so rapidly. Between 1982 and 1987, the deflator for information-processing equipment (which is much broader than simply computers) *fell* 4.4 percent while the deflator for total GDP *rose* 19.4 percent. Moving the base from 1982 to 1987 therefore substantially lowered the relative importance of computers in GDP. Because computers are a rapidly growing sector of the economy, reducing their weight in this way reduced the growth rate of real GDP. As the computer example illustrates, rebasing often can lower measured real GDP growth because it reduces the influence of fast-growing sectors with declining relative prices. When measured in 1982 dollars, real GDP growth from 1982 to 1987 averaged 4.1 percent per year; when measured in 1987 dollars, growth over this period averaged 3.8 percent per year.

Measuring real GDP at base-period prices has the virtue of being simple and easy to interpret. For some purposes, however, alternative formulas that do not restrict valuations to a single period may be better. The BEA plans to introduce such alternative measures for GDP and its components. Although somewhat more complex than the traditional formula, these measures of output and related

prices indexes are more flexible and will be useful for certain economic analyses.

SUMMARY

- Inflation is the increase in the average level of prices. Inflation is measured using price indexes, which calculate the change in prices for a market basket of items.
- Price indexes are adjusted so that price changes reflecting changes in quality are not counted in inflation. For many items, it is difficult to adjust completely for quality changes, particularly services. Consequently, inflation may not be measured accurately.
- Real GDP values items at prices in a base year. Because of changes in relative prices, it is necessary to change the base year periodically to reflect more current relative prices. Rebasing often lowers the growth rate of real GDP.

MONEY

Money greatly facilitates the efficiency of transactions by allowing producers to sell their goods and services for money instead of searching for someone willing to barter. Sometimes—during the early 1920s in Germany, for example, or recently in Russia—the government issues too much money, and as money loses its value, people resort to inefficient barter. But even in less extreme cases, monetary disturbances can create economic problems. The collapse of the U.S. banking system and the decline in the quantity of money in the early 1930s propelled the economy more deeply into depression. Changes in the rate of growth of money also have played a role in the more moderate fluctuations of recent decades—sometimes stabilizing and sometimes accentuating the business cycle.

By exercising influence over the quantity of money, the Federal Reserve can affect interest rates, prices, the availability of credit, and short-term movements in overall economic activity. To underline the Federal Reserve's responsibilities, the Congress has mandated that the Fed announce target ranges for money growth and report twice a year on the conduct of monetary policy with respect to those targets.

Timely and accurate measures of the quantity of money are important in developing and monitoring monetary policies. Because money supply data are available with only about a 10-day lag, the Federal Reserve is able to observe almost continuously how well money growth targets are being met. There are many ways to define money, however, and it has not always been clear which definition better serves as an intermediate target of monetary policy.

DEFINITIONS OF MONEY

Traditionally, economists considered assets to be money if they served as a medium of exchange, a unit of account, and a store of value. Given the large number of financial assets in today's world, however, the once well-defined boundaries between money and other financial assets have become increasingly fuzzy. Because it is difficult to pinpoint exactly which assets should be considered money, several definitions of money have been devised, each composed of a specific set of assets.

One narrow definition of the money stock is M1, which consists of items that are most commonly used to buy goods and services—specifically currency, travelers' checks, and checkable deposits. A broader definition of money, M2, includes all of the items in M1 plus savings and small time deposits, as well as some more sophisticated financial instruments such as money market deposit accounts, money market mutual funds, overnight repurchase agreements, and overnight Eurodollar accounts. Many of the components of M2 that are not in M1 can be used for transactions, but their primary use is as a store of savings. An even broader measure of money is M3, which includes the components of M2 plus larger, investment-type accounts that generally are held by businesses.

The Federal Reserve Board collects and publishes money statistics on a weekly basis. A number of these series are found in Appendix Tables B–65 and B–66. A primary source of these data is the balance sheet items that large banks and thrifts are required by law to report to the Federal Reserve each week in conjunction with required reserve regulations. These reports cover nearly 9,000 institutions that hold more than 90 percent of the deposit components of the monetary aggregates. Several additional surveys collect data from small banks and information on nondeposit components of the monetary aggregates.

CHANGES IN THE VELOCITY OF MONEY

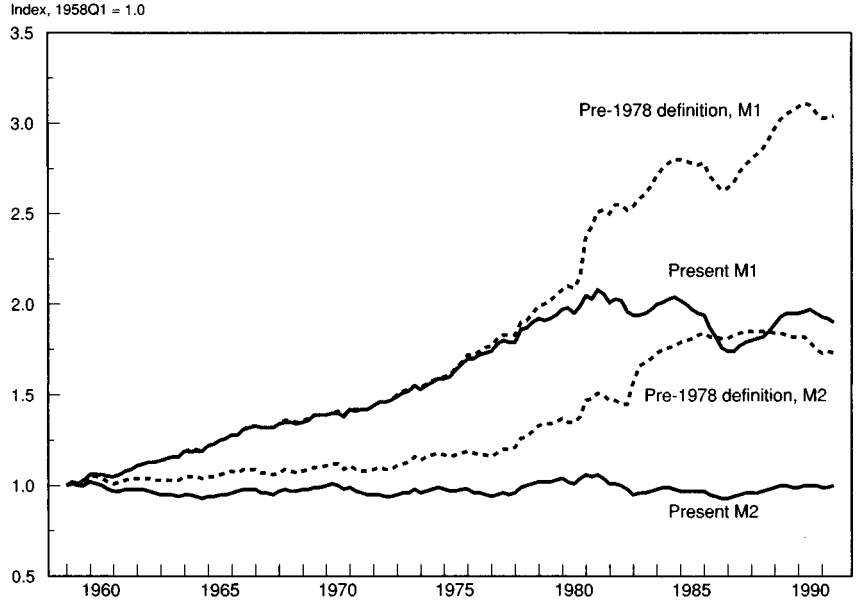
The velocity of money—the ratio of nominal GDP to the money stock—is a commonly used statistic for summarizing the relationship between money and nominal output. The more stable and predictable the velocity of money, the greater the ability of the Federal Reserve to anticipate the effects of monetary policy on nominal GDP.

Until the mid-1970s, the velocity of M1 appeared to be on a fairly stable and predictable upward trend, as seen in Chart 7–1. This steady relationship stemmed largely from the use of M1 to facilitate transactions and from a fairly regular association between nominal GDP and the number of transactions occurring in the economy. Because M1 velocity was fairly stable, many economists

focused on M1 when discussing the effects of money on the economy, although some prominent economists advocated concentrating on broader measures of money.

Chart 7-1 **Velocities of M1 and M2**

As defined currently, the velocity of M2 is more stable than the velocity of M1 and the velocities of previous definitions of M1 and M2.



Note: Pre-1978 definitions are reconstructions from other Federal Reserve data.
Pre-1978 M2 is a proxy which excludes all large time deposits.
Sources: Department of Commerce and Board of Governors of the Federal Reserve System.

Until the late 1970s, the definition of M1 included only currency and checking accounts, neither of which paid interest. During the 1970s and early 1980s, increases in market interest rates caused households and businesses to move their funds toward interest-bearing assets. New types of interest-bearing deposit accounts began to be offered as savings and loans (S&Ls), banks, and other institutions competed to attract funds. Many of these instruments carried check-writing privileges; in effect, they were interest-bearing checking accounts.

As seen in Chart 7-1 the emergence of new financial instruments that could play the traditional roles of money coincided with a large increase in the volatility of the velocities of M1 and of M2. The Federal Reserve responded by redefining the money aggregates in the late 1970s and early 1980s. Certain interest-bearing checkable deposits and travelers checks were added to M1 because they clearly were used for transactions purposes. Even with these changes, however, M1 velocity remained quite volatile, as consumers and businesses continually reshuffled their funds between assets included in M1 and those not included.

In addition to the assets added to M1, the Fed added certain savings-type deposits, overnight repurchase agreements, overnight Eurodollar accounts, and money market mutual fund accounts to M2 in the late 1970s and early 1980s. The relationship between redefined M2 and nominal GDP has been much more stable than the velocity of M1. Because of that stability and the relative trendlessness of M2 velocity, many economists have switched their primary focus from M1 to M2. Indeed, the Federal Reserve no longer announces M1 growth targets in its biannual reports to the Congress.

SUMMARY

- Accurate measures of money are important for managing monetary policy. But money is difficult to define because of the large number of financial assets that can play the roles of money.
- The more stable and predictable the velocity of money, the better the ability of the Federal Reserve to anticipate the effects of monetary policy on nominal GDP. The velocity of M1 became much more volatile following the financial innovations in the 1970s and 1980s; the relationship between redefined M2 and nominal GDP has been much more stable.

BUSINESS ACCOUNTING

Aggregate economic data, such as GDP and employment, are measures of how the overall economy is performing. However, the aggregate economy is composed of the productive activities of thousands of firms and millions of individuals. Measures of individual firm performances are sometimes used in the construction of aggregate measures of the economy, and they are also of particular interest to investors, suppliers, customers, and employees.

The Financial Accounting Standards Board, an independent rule-making body in the private sector, sets accounting standards for firms. The Securities and Exchange Commission also rules on the acceptability of various accounting procedures. Even so, accounting practices do not always constitute good economic measurements.

MARKET VALUE AND BOOK VALUE

One of the most important pieces of information about a firm is its net worth. Net worth, sometimes referred to as shareholders' equity, is the excess of the assets of the firm over its liabilities. An enterprise is solvent when its net worth is positive. In addition to physical assets, a firm has intangible assets, such as the value created by the firm in coordinating, developing, and deploying its physical assets. Intangible assets are often not included in the firm's balance sheet.

Tangible assets are typically registered on a firm's accounts at "book" value, which is their historical cost less depreciation. Assets can also be valued at market, the current prices that would be received if the assets were sold. The book value of an asset need not correspond closely with its market value.

A liability, likewise, can be valued at market. For example, the market value of a firm's pension liabilities could be measured by the price required to compensate someone for assuming the present and future financial obligations of the firm's pension plan. In practice, however, the balance sheets of firms do not measure the market value of all assets and liabilities. Often, market values cannot be determined because of the absence of active markets in particular assets and liabilities.

An example of the importance of the difference between book and market value is presented in Box 6–3 on measuring international investment. Data in the box show that the difference between book and market value of U.S. direct investment abroad amounts to hundreds of billions of dollars.

The difference between market value and book value is important for the government. It has an interest in the market value of assets and liabilities of private businesses, especially when it insures those liabilities, as it does for banks and savings and loan institutions. Deposit insurance represents taxpayers' commitment to reimburse depositors in the event the institution is closed because the market value of a bank's or S&L's assets (loans, for example) are less than the value of its insured liabilities (deposits).

Regulators of financial institutions are increasingly using tools such as stress tests to capture principles of market valuation in assessing net worth. Stress tests apply adverse scenarios to an economic model of an institution's balance sheet to determine the sensitivity of asset and liability values to changes in interest rates and other relevant economic variables. Regulators now routinely apply stress tests in the banking industry. Recent legislation would require some of the government-sponsored enterprises, such as the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation, to use stress tests to evaluate the soundness of their balance sheets.

ACCRUAL VERSUS CASH ACCOUNTING

Standard accounting practice registers assets and liabilities as they accrue rather than as cash is received or disbursed. A pension liability, for example, accrues as workers earn additional claims on their pension plan.

Until recently, firms were permitted to register nonpension benefits for retired workers, such as medical benefits, on a cash basis. As employers' commitments to provide these benefits increased, so

did concern that financial reporting did not adequately track the assumed liabilities. The Financial Accounting Standards Board statement, FAS No. 106 of 1990, requires firms to recognize postretirement benefit costs as the liabilities accrue rather than waiting until the benefits are actually paid out. To minimize disruptions to their balance sheets, firms can elect either to recognize these obligations immediately or to phase in recognition over 20 years.

SUMMARY

- Net worth measures the excess of a firm's assets over its liabilities. Book value measures assets at historical costs less depreciation and often excludes intangible assets. Market value is the current price that would be received or paid for an asset or liability.
- Under a recent ruling, firms are required to register their nonpension employee benefits as they accrue, rather than when the benefits are actually paid.

FIXED INVESTMENT

One of the important policy questions facing the Nation is whether Americans are investing enough to boost productivity and increase the standard of living. Business fixed investment represents the purchases of new structures and equipment. Data on investment are found in Appendix Tables B–1, B–2, B–14, and B–15. There are large fluctuations in business fixed investment, as Chart 7–2 shows; but the trend in investment over the past 30 years is not clear. As measured by the NIPAs, the ratio of real gross business fixed investment to real GDP appears to have a small upward trend, whereas the ratio of real net business fixed investment to real net domestic product has trended down since the mid-1960s.

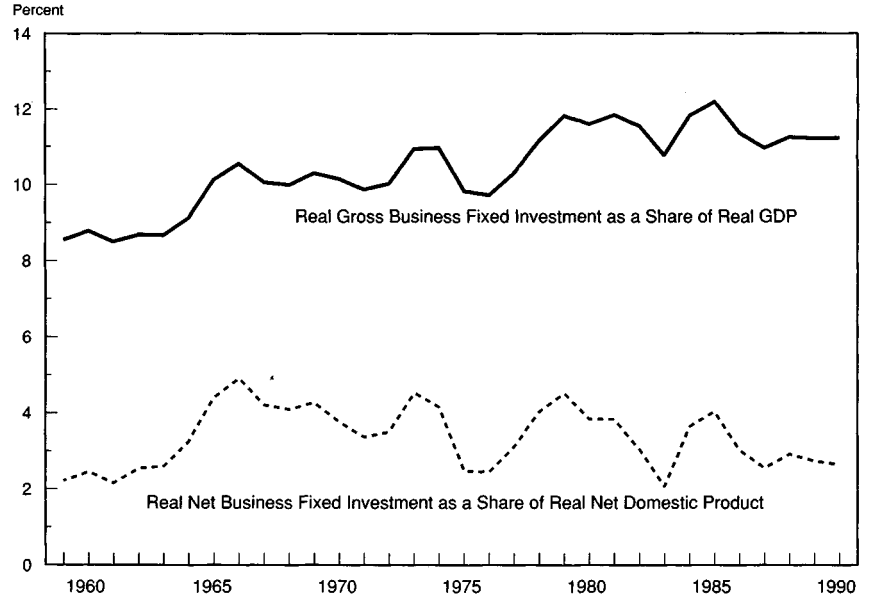
The difference between the two ratios in Chart 7–2 is depreciation: Gross investment refers to total outlays for capital items, while net investment is gross investment less depreciation. Thus, net investment represents the net addition to the Nation's capital stock. (The NIPA measure of depreciation is called the consumption of fixed capital.)

GROSS VERSUS NET INVESTMENT

Both the gross and net figures provide useful measures of investment trends. Real gross investment measures the flow of *new* capital into the capital stock. Real net investment essentially measures the change in the *quantity* of the capital stock. Many economists believe that the price indexes and depreciation allowances used to convert nominal investment to real investment do not completely adjust for changes in the quality of some capital. The prob-

Chart 7-2 **Investment Shares of Output**

Increased NIPA depreciation accounts for the rising gap between the shares of output accounted for by real gross investment and real net investment.



Note: Investment and domestic product are measured in 1987 prices.
Source: Department of Commerce.

lem is most notable for high-technology items that are adjusted for quality by price-linking methods. Because technology is continually improving, the real value of newly produced additions to the capital stock may be undervalued compared with the depreciated older capital stock. Thus, net investment may understate the value of the technological advances more than gross investment does.

MEASURING DEPRECIATION

The Department of Commerce defines NIPA depreciation as "the decline in value due to wear and tear, obsolescence, accidental damage, and aging." The construction of the NIPAs assume all capital items follow straight-line depreciation. Private capital items are classified into various categories of equipment or structures; items in each category are depreciated according to the estimated retirement experiences of items in that category. Special estimates of depreciation are made when unusual circumstances such as hurricanes or earthquakes damage large quantities of capital. Nominal NIPA depreciation measures the cost of replacing the capital item in the current time period. Constant-dollar NIPA depreciation measures the cost of replacing the item at base-period prices. A number of questions have been raised concerning the concepts and

statistical methods used to construct NIPA depreciation, however, and the BEA currently is reviewing its procedures to improve the estimates of depreciation.

The widening gap between the gross and net investment ratios in Chart 7-2 represents increases in NIPA depreciation: real depreciation rose from 66 percent of real gross business fixed investment in 1979 to 79 percent in 1990. In turn, the larger share of NIPA depreciation reflects a rise in the share of real gross business fixed investment accounted for by equipment; it increased from 64 percent in 1979 to 68 percent in 1990. Equipment has a much shorter service life than structures do, so it depreciates at a much faster rate.

The tax code provides another method for depreciation accounting. The tax law divides capital items into various categories of equipment and structures and specifies what percentage of the historical cost of the item may count as a tax deduction in each year following its purchase. There are two principal differences between NIPA and tax depreciation. First, NIPA depreciation is measured at replacement cost, while tax depreciation is measured at historical costs of acquisition. Second, the service lives and depreciation patterns for the NIPA differ from those for tax depreciation. This difference was larger when the tax laws allowed more-pronounced accelerated depreciation of certain capital items. Because of these differences, tax records are not used to estimate NIPA depreciation.

Depreciation and Changes in the Market Value of Capital

Under NIPA depreciation, service lives attempt to capture "normal" obsolescence, but not obsolescence due to irregular changes in prices or technology. In contrast, the market value of capital changes in response to irregular obsolescence. For example, even if an older, fuel-inefficient airplane were perfectly maintained, a sharp rise in the price of oil could drive down its market value.

There is some disagreement on whether such changes in the value of capital should be considered as depreciation. Some economists would say no; they prefer that depreciation measure only the decline in the physical productivity of capital. Other economists would say yes; they prefer that depreciation measure the change in the contribution of the capital stock to national wealth. Because the market price of a capital item reflects the present value of the flow of services from the item, the best way to measure this latter concept of depreciation would be as a decline in the market price of existing equipment and structures. (An increase in the value of the existing capital stock would be an appreciation.)

Difficulties occur, however, in making a market-based measure of depreciation operational. There is a relatively active market for some used capital, such as trucks and aircraft, but for many types

of capital, there are no active second-hand markets to provide price information. In addition, the value of some capital currently owned by a particular firm might be quite different if it were acquired by another company; the "market" value of such capital is difficult to determine.

SUMMARY

- There is a small upward trend in real gross investment relative to real GNP, while there is a small downward trend in real net investment relative to net national product.
- The difference between the two series is the depreciation in the capital stock as measured by the NIPAs. Both gross and net investment are important for measuring the effect of changes in the capital stock on productivity.

SAVING

Saving is the primary source of funds for investment and therefore is necessary to increase productivity, enhance growth, and improve the Nation's standard of living. Saving is also the vehicle by which households transfer consumption through time by building up funds for retirement, college expenses, hard economic times—"saving for a rainy day"—or other purposes.

Because saving is so important, there has been much concern that U.S. saving rates have fallen over time and in relation to rates in other countries. Saving, however, is difficult to measure. Alternative yardsticks can provide very different estimates of both short-term fluctuations and longer term trends in saving.

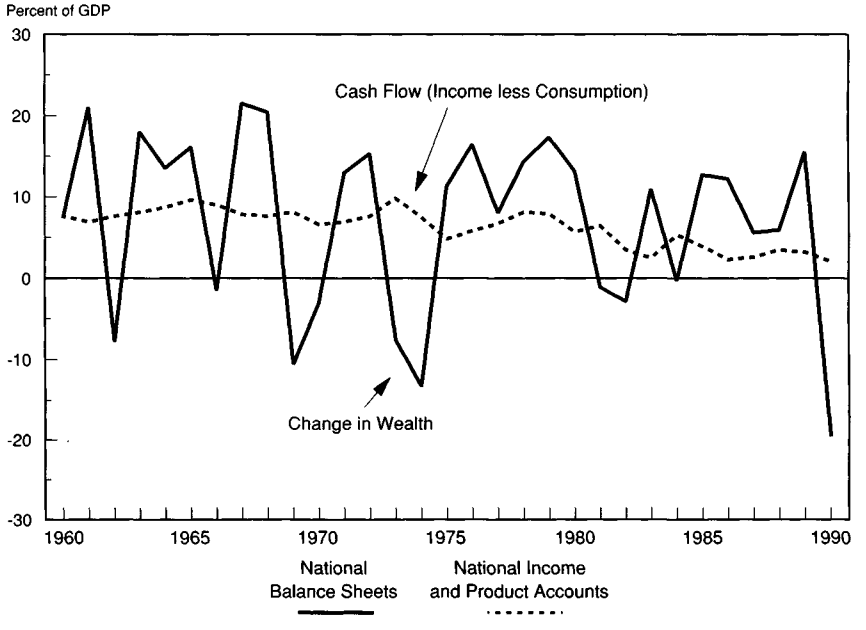
Saving can be defined two ways. First, cash-flow saving measures the excess of income or revenue over expenditures. Specifically, in the NIPAs, personal saving is disposable (after-tax) income less expenditures for consumption and net interest. For businesses saving is retained earnings; that is, net after-tax profit less dividends paid. For government, saving is revenue less expenditures, as explained later. Such saving data are presented in Appendix Tables B–24, B–26, and B–27. Second, saving may be defined as the change in real wealth as reported in the Federal Reserve Board's national balance sheets. These data are presented in Appendix Tables B–109 and B–110. In principle, the two definitions should provide the same answer: The excess of income over outlays should equal the increase in wealth. In practice, however, the two methods produce substantially different measures of saving because they implicitly define income, outlays, and wealth differently.

Chart 7–3 compares the cash-flow based national saving rate from the NIPAs with a measure of the change in wealth, specifically, the change in real household net worth (including ownership of

corporate stock) and in real government financial wealth taken from the Federal Reserve Board's national balance sheets. Because the saving rate from the national balance sheets is calculated using market prices for some assets, it fluctuates far more than the measure based on income and outlays. For example, the national balance sheets assume that a fall in the price of corporate common stocks represents "dissaving." And while a downward trend in the NIPA measure of saving is evident over the past decade, any trend in the national balance sheets saving is masked by its wide swings as asset prices fluctuate.

Chart 7-3 **National Saving**

Cash flow and change in wealth measures of saving provide very different estimates of saving patterns.



Sources: Department of Commerce and Board of Governors of the Federal Reserve System.

CASH-FLOW MEASURES OF SAVING

The NIPAs measure personal *expenditures* on consumer items. Because these include purchases of consumer durables, they are not necessarily the same as personal current-period consumption. Only part of expenditures on durables represents current-period consumption: The car, refrigerator, or other durable good purchased in January still has value at the end of December. Logically, this value (less depreciation of durables acquired in previous years) might be considered as part of this year's saving, but instead the entire purchase is counted as consumption in the NIPAs. On the income side, the NIPAs do not include capital gains or losses.

Excluding net capital gains leads to an understatement of income and therefore to an understatement of saving; the opposite would be the case in a year with net capital losses.

An alternative measure of personal saving, available from the flow of funds accounts produced by the Federal Reserve, does count consumer durable expenditures (net of depreciation) as saving. It also treats certain government insurance credits and realized capital gains as personal income. These additions make this personal saving measure higher than the NIPA measure.

Because cash-flow saving is measured as the difference between income and consumption, substantial measurement error may occur. An error in measuring consumption or income translates dollar for dollar into an error in saving. Because saving is much smaller than either consumption or income, the proportional effect of the error on saving is much larger than on consumption or income.

HUMAN CAPITAL

A significant omission from all the standard measures of saving is human capital, the productive skills people acquire through education, job training, and on-the-job experience. Like investment in physical plant and equipment, investment in human capital boosts productivity and increases the standard of living. Like other forms of capital, human capital depreciates over time; skills, like machinery, may become obsolete, and skilled people retire. Some studies have shown that investment in human capital is of approximately the same order of magnitude as investment in physical assets.

SUMMARY

- Saving is the source of funds for investment and a vehicle to transfer consumption through time. Different measures of saving can vary by large amounts, and each measure has errors.
- There are two basic ways to measure saving. The cash-flow approach measures saving as income less consumption. The change-in-wealth measure of saving is based on changes in market values and is highly volatile.

FEDERAL GOVERNMENT FINANCE

Economic measures of Federal Government activity encompass all of its spending, taxing, borrowing, and financing policies. Government expenditure and taxation data frequently are used to argue that government is too big or too small, that it is overly intrusive or insufficiently involved in various sectors of the economy, or that it neglects a particular constituency or concentrates too

many resources on it. A variety of statistics measuring government activity are found in Appendix Tables B–74 through B–84.

In fiscal 1991 total Federal outlays were about $1.32 trillion, Federal revenues were about $1.05 trillion, and the resulting deficit was $269 billion. These broad aggregates, however, do not fully measure the extent of the Federal Government's involvement in the economy. Through a variety of special tax rules, credit subsidies, mandates, and quotas, the government affects the economy in ways similar to many tax and spending programs.

CONCEPTS AND MEASURES OF THE BUDGET DEFICIT

Several measures of the Federal budget deficit are shown in Table 7–1.

TABLE 7–1.—*Reconciliation Between Deficits in Fiscal 1990*

Item	Billions of dollars
On-budget-to-consolidated reconciliation	
On-budget deficit	277.1
Plus: Off-budget deficit	−56.6
Equals: Consolidated deficit	220.5
Consolidated-to-primary reconciliation	
Consolidated deficit	220.5
Minus: Net interest	184.2
Minus: Deposit insurance	56.7
Equals: Primary deficit (net of deposit insurance)	−20.4
Consolidated-to-real reconciliation	
Consolidated deficit	220.5
Minus: Decline in value of outstanding debt	97.8
Equals: Real deficit	122.7
Consolidated-to-cyclically adjusted reconciliation	
Consolidated deficit	220.5
Minus: Deposit insurance	56.7
Minus: Other NIPA adjustments[1]	6.3
Equals: NIPA deficit	157.5
Minus: Cyclical adjustment	−18.2
Equals: Cyclically adjusted NIPA deficit	175.7

[1] These adjustments include changing the timing of outlays and receipts to NIPA conventions, NIPA geographic exclusion, and other miscellaneous factors.

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

The *on-budget deficit* is the difference during a fiscal year between the revenues and outlays that by law are classified as "on the budget." Currently, the only government operations treated as "off budget" are Social Security and the Postal Service.

The *consolidated deficit* is the sum of the on-budget deficit and the deficit of the off-budget activities, that is, Social Security and the Postal Service. If the off-budget activities run a surplus, as is currently the case, the consolidated deficit is lower than the on-budget deficit by the amount of the surplus. Because any surplus from off-budget programs must be invested in Treasury bonds, the consolidated deficit measures the borrowing that must be met from nongovernment sources.

The *primary deficit*, net of deposit insurance, measures the deficit net of spending on inherited liabilities, such as interest pay-

ments on the government debt and payments to cover losses in previous years of insured depository institutions. Large current deficits do not imply that the Nation is creating large *new* burdens for future generations. Table 7–1 shows that in fiscal 1990 the entire current consolidated deficit was attributable to deposit insurance expenditures and net interest payments, which are most properly viewed as borrowing to finance the continuing costs of previously incurred liabilities.

Inflation reduces the value of outstanding government debt; it acts as a tax on holders of debt. The consolidated deficit adjusted for the reduction in value of government debt due to inflation provides a measure of the *real deficit*. Table 7–1 shows that this adjustment can be large. In fiscal 1990 the inflation adjustment was almost half as large as Federal borrowing from nongovernment sources.

The *NIPA deficit* measures the difference between government expenditures and revenues in a manner consistent with national income accounting. For certain receipts and expenditures, NIPA conventions involve somewhat different classification and timing than the on-budget and consolidated budgets. For example, asset sales and other financial transactions are excluded from the NIPA deficit. For this reason, outlays for deposit insurance are not included in the current year's NIPA deficit.

Business cycle fluctuations cause changes in the deficit. When the economy contracts, the government's deficit increases even if there is no change in tax rates or spending programs. As incomes fall, tax revenues fall and government expenditures for unemployment and welfare benefits increase. Likewise, when the economy expands, income tax receipts rise and unemployment and welfare benefits typically fall. These changes in tax collections and expenditures automatically dampen the impact of economic fluctuations. That is, they act as *automatic stabilizers*.

It is informative to separate changes in the deficit that occur automatically, as a result of cyclical swings in the economy, from those that result from explicit policy changes, such as changes in tax rates. This is the purpose of the *structural or cyclically adjusted* deficit. This measure shows what the NIPA deficit would be, with existing tax rates and existing programs, if the economy had no cyclical fluctuations and maintained a constant unemployment rate of 6 percent. Table 7–1 shows that the unadjusted NIPA deficit was lower than the cyclically adjusted deficit in fiscal 1990. This occurred because the unemployment rate was below 6 percent during fiscal 1990. Because it eliminates the automatic cyclical changes in tax collections and expenditures, changes in the cyclically adjusted deficit are a better measure of discretionary fiscal policy than are changes in the unadjusted NIPA deficit.

ACCOUNTING FOR GOVERNMENT ASSETS AND LIABILITIES

Like private businesses, governments have assets and liabilities. These can be tangible or intangible, and physical or financial. A government purchase of assets at market value without an accompanying increase in taxes increases measures of the deficit discussed in Table 7–1, even though it increases government assets and government liabilities by the same amount. To measure changes in government assets and liabilities in the Federal budget, a separate capital account would have to be established. The Federal Government would, of course, continue to maintain a current account, which measures revenues arising from and expenses for current operations. With separate current and capital accounts, depreciation on government capital would appear as an expenditure in the current account.

Because the Federal budget treats all borrowing the same, it imposes a bias in favor of current-account spending relative to spending for long-term infrastructure and productivity-enhancing programs. Furthermore, financing that lowers front-end costs of an acquisition (such as leasing) might be preferred to an economically superior decision that has higher front-end costs (such as buying). The budget agreement of 1990 sought to eliminate some of these biases toward leasing.

Moving to a system of capital accounting would require resolving some conceptual issues surrounding the definition of capital. First, valuing intangible capital, such as investment in human capital or research and development, is problematic. Second, government capital accounting, like private sector capital accounting, would require estimating the depreciation of capital, but how is an aircraft carrier to be depreciated? Despite these difficulties, however, many countries and State governments have incorporated aspects of capital accounting.

Separating the Federal budget into a current and capital account could dramatically alter the way the public views fiscal policy, as well as the way the public views particular components of government spending. The spending devoted to building the interstate highway system during the Eisenhower Administration, or the spending on infrastructure in the Intermodal Surface Transportation Efficiency Act signed by the President in 1991, would be considered investment and thus an addition to government assets. The value of these assets would decline over time due to depreciation unless offsetting maintenance or improvement expenditures were made in the current account.

The United States will adopt the United Nation's system of national accounts (SNAs) in the mid-1990s. The SNA framework will

provide more information on government assets and liabilities. (Box 7–3).

ACCOUNTING FOR INTERGENERATIONAL REDISTRIBUTION OF WEALTH

The government's assets and liabilities are owned and owed collectively by all of the Nation's citizens. By reducing government assets or increasing government liabilities, the current generation can increase its consumption at the expense of future generations. Many factors affecting intergenerational burdens are not captured in cash-flow measures of the deficit. For example, a pay-as-you-go Social Security system would have no impact on the deficit in any year, but it would redistribute wealth from generations with few people in the labor force to generations with a large number of Social Security recipients. Government expenditure on scientific research that is paid for by current taxes does not affect the deficit but redistributes wealth to future generations who will reap the benefits of the research.

As discussed in the fiscal 1993 budget, generational accounting is a new method for comparing the fiscal treatment of different generations. It is still being developed, and a number of the assumptions used are controversial. Generational accounts measure, from a particular base year, the present value of the future taxes that the average person of each age is estimated to pay to the government minus the present value of the future transfers that the average person of that age is expected to receive. The difference is the net payment to government.

ALTERNATIVES TO DIRECT EXPENDITURES AND TAXES

Government programs frequently are structured in ways that produce a similar allocation of costs and benefits to society, but have different effects on *measured* government spending and taxes. Direct spending, for example, can be replaced with a tax expenditure, provision of credit guarantees, or a mandate for private action. Direct taxation can be replaced with a quota or restriction. These alternatives are not scored in the budget even though the government influences the economy through their use.

Tax Rules as an Alternative to Expenditures

Many alternatives to direct Federal spending can be found in the tax code. An example is the deduction for State and local income and property taxes. This deduction has the same economic effect as a grant to the individuals paying those taxes. If the deduction were converted to an actual grant, both reported taxes and reported Federal spending would be higher.

Such special tax rules are sometimes known as tax expenditures. The Congressional Budget Act of 1974 defines tax expenditures as "revenue losses attributable to provisions of the ... tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of liability." This concept, however, is controversial because of disagreement over how to define a neutral, or "baseline," tax system—that is, one that is free of special exclusions, exemptions, or deductions.

Direct and Guaranteed Loans

The government often makes loans to finance agriculture, housing, education, medical facilities, purchases of arms by foreign governments, rural development, railroads, and other activities. These loans can be financed with either taxes or Federal borrowing. Sometimes, the Federal Government guarantees loans issued by others. Government loans and guarantees affect the availability of credit, most notably to homebuyers, students, and small business owners.

Before the Omnibus Budget Reconciliation Act of 1990, the budget treated the two kinds of loans very differently. Direct loans were treated as an expenditure at the time the loan was issued and as a negative expenditure when the loan was repaid. A loan guarantee was treated as an expenditure only when a default occurred.

Because a direct loan is only costly to the government when a default occurs, the expected cost of a direct loan is the same as that of a guarantee of a loan made to the same borrower at the same terms. As a result of the 1990 budget act, the budget accounts for direct loans and guaranteed loans in the same manner.

The President's fiscal 1993 budget proposes that these credit reform principles be extended to deposit insurance and pension guarantees. Budget outlays for banks and thrifts would be calculated in terms of a measure of accrued costs instead of cash disbursements starting in fiscal 1992. Accrued costs can be measured from financial information provided quarterly to regulators by each institution. An aggregate measure of accrued costs would constitute an estimate of what it would cost the insurance fund to recognize all current insolvencies.

Mandates

As a substitute for direct spending, governments can require individuals or businesses to perform certain actions. The Federal Government even imposes mandates on State and local governments. Requiring owners of public buildings to install access facilities for handicapped persons, for example, is equivalent to the government installing those facilities with revenues from a tax on

building owners. If the latter program were counted in the budget, it would increase both spending and revenue figures.

Quotas

The Federal Government may also limit certain economic activities through direct prohibition or quotas. This alternative is an important issue in international trade, where both quotas and taxes (that is, tariffs) commonly are used to restrict imports. A tariff causes the quantity of imports to fall by increasing their price. A quota sets specific limits on the quantity of imports. Either a tariff or a quota on a particular good restricts markets and shifts income away from consumers of the good toward domestic producers of the good. Under a tariff, the government collects revenues. Under a quota, the revenue goes instead to the fortunate businesses who are granted the right to import the limited quantity.

SUMMARY

- Different measures of the budget deficit are used to gauge the stimulus to the economy from current policies and the government's borrowing requirements. A new measure is being developed to assess the intergenerational burden of government programs.
- Large current deficits do not in themselves mean that the Nation is currently generating new large burdens on future generations. Today, virtually all of the consolidated deficit is accounted for by deposit insurance and net interest outlays, which represent borrowing to finance previously incurred liabilities.
- Cash-flow measures of the deficit do not reflect changes in government assets and liabilities. Issuing debt to finance government investment projects represents an increase in both assets and liabilities, although under current budgetary practices it is scored as an increase in the deficit.
- The size and effects of government are reflected through a variety of policies such as mandates, quotas, and tax expenditures, as well as through the more obvious channels of spending and taxation.

INTERNATIONAL STATISTICS

As the United States becomes more integrated into the world economy through trade and financial flows, international forces exert a greater influence on the Nation's economic performance and affect the transmission of domestic economic policies to the national economy. International statistics help us better understand these influences. Data that are comparable across countries can lead to a better understanding of the interactions among nations'

economies and therefore can improve policy coordination and facilitate international negotiations. It is, moreover, natural to want to compare U.S. economic performance with other countries. Data on transactions between the United States and the rest of the world, exchange rates, and a number of measures of economic activity in other major industrial nations can be found in Appendix Tables B–99 through B–108.

WHERE DO INTERNATIONAL DATA COME FROM?

International statistics as they relate to the domestic economy come from many of the U.S. statistical agencies discussed earlier in this chapter. For internationally comparable data, the international institutions are the most important source. The Organization for Economic Cooperation and Development prepares extensive internationally comparable data for the industrial market economies, including measures of economic activity, labor market structures, consumption and saving, and financial flows. The International Monetary Fund compiles data from member countries on a variety of macroeconomic measures, including monetary and fiscal data, price indexes, exchange rates, and balance of payments data. The World Bank publishes development indicators, such as life expectancy and literacy, and measures of the structure of production, exports and outstanding debt, among other data. The United Nations and the Secretariat of the General Agreement on Tariffs and Trade prepare disaggregated trade data and compile information on trade barriers. A host of other organizations keep internationally comparable data on specific topics.

DIFFICULTIES IN INTERNATIONAL COMPARISONS

Each country's data system focuses on and is influenced by the characteristics of its domestic economy. Because these characteristics vary from country to country, the statistical methodology, sector detail, and degree of economic aggregation also differ among countries. Thus, constructing comparable data requires detailed knowledge of the individual national data sources. Of course, comparable data are only as good as the underlying national data. Quality and availability of data remain a problem in some countries (Box 7–6). In the developing countries, the funding for statistical systems is particularly tight as governments balance the value of statistics for policymaking against social needs.

International comparisons often require converting data from valuation in national currencies to a common unit of account. Standards of living, for example, are commonly compared by converting per capita GDP into dollars. But how should foreign currencies be converted into dollars? To compare income or living standards, the exchange-rate conversion should take into account

the goods and services that a currency actually can buy within a country. When calculated using these "purchasing power parity" exchange rates, U.S. GDP per person in 1990 ranked first in the world, about 8 percent above the next highest country, Canada; 25 percent above Japan; and 35 percent above Germany.

Box 7–6.—Measuring Economies in Transition

Unique data problems occurred in centrally planned economies where the planning agency that set targets for output was also the agency that collected statistics. When reporting data, factory managers had an obvious incentive to tell their overseer in the planning agency that they had fulfilled their assigned tasks. The resulting statistics were often poor indicators of what was actually happening in the economy.

Those countries moving toward a market economy and private ownership have generally eliminated centralized pricing and production quotas, but the statistical framework for measuring market-based transactions is not yet in place. Some privately owned factories in Central and Eastern Europe, for example, are not reporting data to any statistical authority. As the private sector has grown, a larger fraction of output has gone unrecorded. This accounts, in part, for the dramatic decline in measured GDP. Without adequate data, changes in production and income in these economies, and ultimately the success of their economic reform programs, are very difficult to assess. These issues are manifest in Eastern and Central Europe, and in the new nations of the former Soviet Union.

A common mistake in comparing living standards across countries is the use of market exchange rates to convert GDP from national currencies into dollar terms. Market exchange rates affect what people can buy *from foreign countries*, and therefore are an appropriate measure of the purchasing power of income only if people spend *all* of their income on foreign goods or services. Americans, for example, spent only about 14 percent of their income on imports between 1988 and 1990. To see how misleading market exchange rates can be, consider an example. In 1985 German per capita income calculated using market exchange rates was 63 percent below the United States. Real income per capita grew about 5 percent more in Germany than in the United States over the next 5 years. Yet, when compared at the market exchange rate, income per person in Germany had vaulted 9 percent ahead of the United States by 1990. This anomaly is explained by the sharp real depreciation of the dollar against the German mark; as noted above, using the prices of products actually purchased in each country, in

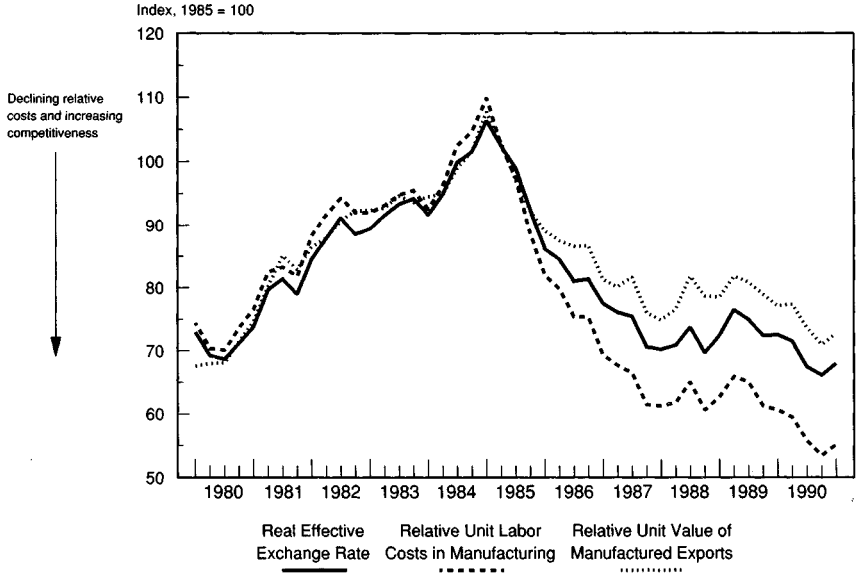
1990 real GDP per capita was 34 percent higher in the United States than in Germany.

INTERNATIONAL COMPETITIVENESS

Global integration has heightened interest in U.S. international competitiveness, another difficult concept to define and measure. Chart 7-4 shows movements in three measures of international competitiveness. Relative unit labor costs measure changes in the relative *cost* competitiveness of goods produced with U.S. labor. Relative average unit value of manufactured exports indicates changes in the relative *price* competitiveness of U.S. exports. The real exchange rate is the nominal exchange rate adjusted for changes in the relative consumer price indexes at home and abroad and therefore broadly indicates changes in the real purchasing power of money in terms of foreign goods and services.

Chart 7-4 **Measures of U.S. Competitiveness**

All measures of U.S. competitiveness have improved, but the competitiveness of U.S. labor has improved the most.



Source: International Monetary Fund.

All three series show the same trend because the nominal exchange rate is a common factor in all three measures. Nonetheless, these indexes do differ significantly. From 1985 to 1990, U.S. international competitiveness based on relative unit labor costs improved 60 percent more than the measure based on relative unit value of exports of manufactured goods. The difference occurs because unit labor costs measure only one input into the production

process for exports, because the unit value of manufactured exports can move differently from labor costs due to changes in exporters' price-cost margins, and because real exchange rates are affected by differences across countries in the composition of consumer market baskets that include nontraded goods and services.

DISCREPANCIES IN INTERNATIONAL ACCOUNTS

Because international data systems vary and statistical systems sometimes are limited, international flows of goods, services, and capital may be mismeasured, and worldwide aggregates may deviate from accounting identities. In theory, for example, the sum of all of the world's current account balances should equal zero—one country's exports of goods and services and investment income are another country's imports of goods and services and investment payments. Likewise, the global capital account should sum to zero—one country's capital outflows are another country's investment from abroad. After carefully accounting for flows of goods, services, and investment income, the global current account has been calculated at close to zero. Several statistical agencies have tried to account for all international flows of capital, but without complete success; the calculated global capital account in 1989 was about $80 billion. That implies that all the countries of the world combined were a net importer of capital—an obvious impossibility.

The U.S. international accounts show a discrepancy between current account and capital account transactions of $18 billion in 1989 and $64 billion—more than 1 percent of GDP—in 1990. The discrepancy, which is both large and volatile, arises from imperfect recording of many items in both the capital and current accounts. An important source of the discrepancy is the underreporting of investment income that is based on estimates of U.S. portfolio investment abroad. The last benchmark of these data occurred during World War II; it has been proposed that a new benchmark be made. In addition, financial innovation and the globalization of financial markets have made capital flows more difficult to track accurately. Direct transactions between U.S. and foreign residents bypass the recording system altogether. Moreover, increased foreign holdings of U.S. currency abroad is omitted entirely from the accounts and was an important source of the U.S. statistical discrepancy in 1990.

SUMMARY

- Internationally comparable data lead to a better understanding of the interactions among nations' economies. Yet, accurate comparisons are often difficult because each country's data system focuses on and is influenced by characteristics of the domestic economy.

- Exchange rates are often required to compare data recorded in different currencies. The choice of exchange rate has an important effect on the comparison and must be made with care.
- The difficulty of generating internationally comparable data is illustrated by the discrepancy between recorded current and capital accounts, both for the United States and for the world.

CONCLUSION

Economic data are essential tools for describing the state of the economy, investigating how the economic well-being of the Nation has changed over time, and comparing the economic performance of the United States with that of other countries. Economic data are valuable inputs to the decisionmaking processes of individuals, businesses, and public policymakers.

Users of economic data should be aware of a number of factors that can complicate their analyses. The available economic data may not correspond well to the concept the analyst wants to measure. Changes in the structure of the economy can alter the relationships among various economic statistics and may render certain measures obsolete. It takes time to become familiar with new definitions, refined methodologies, and improved reporting conventions. Some economic statistics—particularly early estimates based on incomplete data—contain measurement error and must be used with caution.

The economy is made up of complex interactions among individuals, businesses, and government, and these relationships change rapidly. By continually developing new measurement techniques and improving the accuracy and collection of statistics, the Nation's statistical system can reflect these changes and provide a more complete framework for understanding the economy.

Appendix A
REPORT TO THE PRESIDENT ON THE ACTIVITIES OF THE COUNCIL OF ECONOMIC ADVISERS DURING 1991

LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS
Washington, D.C., December 31, 1991

MR. PRESIDENT:

The Council of Economic Advisers submits this report on its activities during the calendar year 1991 in accordance with the requirements of the Congress, as set forth in section 10(d) of the Employment Act of 1946 as amended by the Full Employment and Balanced Growth Act of 1978.

Sincerely,

Michael J. Boskin, *Chairman*
David F. Bradford, *Member*
Paul Wonnacott, *Member*

Council Members and their Dates of Service

Name	Position	Oath of office date	Separation date
Edwin G. Nourse	Chairman	August 9, 1946	November 1, 1949.
Leon H. Keyserling	Vice Chairman	August 9, 1946	
	Acting Chairman	November 2, 1949	
	Chairman	May 10, 1950	January 20, 1953.
John D. Clark	Member	August 9, 1946	
	Vice Chairman	May 10, 1950	February 11, 1953.
Roy Blough	Member	June 29, 1950	August 20, 1952.
Robert C. Turner	Member	September 8, 1952	January 20, 1953.
Arthur F. Burns	Chairman	March 19, 1953	December 1, 1956.
Neil H. Jacoby	Member	September 15, 1953	February 9, 1955.
Walter W. Stewart	Member	December 2, 1953	April 29, 1955.
Raymond J. Saulnier	Member	April 4, 1955	
	Chairman	December 3, 1956	January 20, 1961.
Joseph S. Davis	Member	May 2, 1955	October 31, 1958.
Paul W. McCracken	Member	December 3, 1956	January 31, 1959.
Karl Brandt	Member	November 1, 1958	January 20, 1961.
Henry C. Wallich	Member	May 7, 1959	January 20, 1961.
Walter W. Heller	Chairman	January 29, 1961	November 15, 1964.
James Tobin	Member	January 29, 1961	July 31, 1962.
Kermit Gordon	Member	January 29, 1961	December 27, 1962.
Gardner Ackley	Member	August 3, 1962	
	Chairman	November 16, 1964	February 15, 1968.
John P. Lewis	Member	May 17, 1963	August 31, 1964.
Otto Eckstein	Member	September 2, 1964	February 1, 1966.
Arthur M. Okun	Member	November 16, 1964	
	Chairman	February 15, 1968	January 20, 1969.
James S. Duesenberry	Member	February 2, 1966	June 30, 1968.
Merton J. Peck	Member	February 15, 1968	January 20, 1969.
Warren L. Smith	Member	July 1, 1968	January 20, 1969.
Paul W. McCracken	Chairman	February 4, 1969	December 31, 1971.
Hendrik S. Houthakker	Member	February 4, 1969	July 15, 1971.
Herbert Stein	Member	February 4, 1969	
	Chairman	January 1, 1972	August 31, 1974.
Ezra Solomon	Member	September 9, 1971	March 26, 1973.
Marina v.N. Whitman	Member	March 13, 1972	August 15, 1973.
Gary L. Seevers	Member	July 23, 1973	April 15, 1975.
William J. Fellner	Member	October 31, 1973	February 25, 1975.
Alan Greenspan	Chairman	September 4, 1974	January 20, 1977.
Paul W. MacAvoy	Member	June 13, 1975	November 15, 1976.
Burton G. Malkiel	Member	July 22, 1975	January 20, 1977.
Charles L. Schultze	Chairman	January 22, 1977	January 20, 1981.
William D. Nordhaus	Member	March 18, 1977	February 4, 1979.
Lyle E. Gramley	Member	March 18, 1977	May 27, 1980.
George C. Eads	Member	June 6, 1979	January 20, 1981.
Stephen M. Goldfeld	Member	August 20, 1980	January 20, 1981.
Murray L. Weidenbaum	Chairman	February 27, 1981	August 25, 1982.
William A. Niskanen	Member	June 12, 1981	March 30, 1985.
Jerry L. Jordan	Member	July 14, 1981	July 31, 1982.
Martin Feldstein	Chairman	October 14, 1982	July 10, 1984.
William Poole	Member	December 10, 1982	January 20, 1985.
Beryl W. Sprinkel	Chairman	April 18, 1985	January 20, 1989.
Thomas Gale Moore	Member	July 1, 1985	May 1, 1989.
Michael L. Mussa	Member	August 18, 1986	September 19, 1988.
Michael J. Boskin	Chairman	February 2, 1989	
John B. Taylor	Member	June 9, 1989	August 2, 1991
Richard L. Schmalensee	Member	October 3, 1989	June 21, 1991
David F. Bradford	Member	November 13, 1991	
Paul Wonnacott	Member	November 13, 1991	

Report to the President on the Activities of the Council of Economic Advisers During 1991

THE MISSION OF THE PRESIDENT'S Council of Economic Advisers, which was established by the Employment Act of 1946, is to provide the President with the best possible economic advice, to develop and recommend economic policies to the President, and to appraise programs and activities of the Federal Government as they pertain to the health of the Nation's economy. In addition to the Council's role in directly advising the President, the Council is represented, usually by the Chairman, at Cabinet meetings, meetings of the Economic Policy Council, the Domestic Policy Council, and the Council on Competitiveness, and at National Security Council meetings on issues of economic importance.

Michael J. Boskin continued to serve as Chairman in 1991. Dr. Boskin is on a leave of absence from Stanford University, where he is the Burnet C. and Mildred Finley Wohlford Professor of Economics. The President nominated David F. Bradford and Paul Wonnacott as the two other Members of the Council on September 6, 1991. After Senate confirmation, Dr. Bradford and Dr. Wonnacott were sworn in on November 13, 1991. Dr. Bradford is on a leave of absence from Princeton University, where he is a Professor of Economics and Public Affairs. Dr. Wonnacott came to the Council from the University of Maryland, where he was a Professor of Economics. Richard L. Schmalensee resigned as a Member on June 21, 1991, to return to the Massachusetts Institute of Technology, where he is the Gordon Y Billard Professor of Economics and Management and Director of the Center for Energy and Environmental Policy Research. John B. Taylor resigned as a Member on August 2, 1991, and returned to Stanford University, where he is a Professor of Economics.

As in previous years, the Council in 1991 continued to stress the importance of maximizing sustainable economic growth to raise American living standards, setting ambitious but realistic long-term economic goals, and removing barriers to market forces. In its interactions with various outside groups—the Congress, the business community, international organizations, the press—as well as within the Administration, the Council continued to emphasize the Administration's fiscal, monetary, regulatory, and trade policy principles. This year's *Economic Report* follows the previous two *Economic Reports* of this Administration in outlining these princi-

ples and indicating how they contribute to strong economic growth and improved standards of living.

The recession that began in the second half of 1990, following the longest peacetime expansion in the Nation's history, continued as the U.S. economy entered 1991. The recession appeared to end in the spring, with the beginning of a very modest recovery boosting production, employment, and spending into the summer. Total output grew in the second and third quarters and recovered about one-half of the decline that occurred during the recession. In midsummer, however, the economy flattened out, and production, employment, and spending faltered late in the year.

The first years of the 1990s served as a reminder that the economy faces the risk of setbacks from external shocks and other disturbances. Economic expansions do not end on their own; they end as a result of the working-off of economic imbalances, inappropriate economic policies, or external shocks to the economy. The 1990–91 recession was associated with all three: Attempts by households, corporations, and the Federal Government to work off imbalances and reduce debt created structural adjustment problems for the economy. The lagged effects of a restrictive monetary policy initiated in 1988 to contain inflationary pressures, along with a credit crunch, engendered a slowdown in growth beginning in 1989. The Iraqi invasion of Kuwait in August 1990 produced a sharp rise in world oil prices, followed by a plummeting in business and consumer confidence.

In the Council's view, the Nation faces serious challenges and cannot take economic growth for granted. Abiding by sound economic policy principles is therefore all the more important. The Administration's policies are designed to support sustained increases in the standard of living by raising the Nation's long-run productivity growth. Such policies include a pro-growth fiscal policy that enhances incentives for entrepreneurship, saving, and investment and continues to reduce the multiyear structural budget deficit; a trade policy that promotes growth through opening markets worldwide; and a regulatory policy that avoids unnecessary burdens on business and consumers. The Administration also supports a monetary policy that promotes real growth while maintaining low and stable inflation. Implementing these policies would greatly improve the prospects for growth in the U.S. economy in 1992 and beyond.

MACROECONOMIC POLICIES

Throughout the year, the Council emphasized the importance of credible, systematic fiscal and monetary policies as a key to mitigating the recession and ultimately sustaining maximum economic growth. The Council briefed the President and participated in regu-

lar discussions on macroeconomic policy issues with the Department of the Treasury, the Office of Management and Budget (OMB), and other members of the President's economic team. The Council also regularly exchanged information and met with the Federal Reserve Board on monetary policy issues and the economic outlook.

The Council, Treasury, and OMB—the "Troika"—continued to produce the Administration's economic forecasts and projections. Two official forecasts are published each year: one at the start of the year, which is used as part of the President's budget, and one as part of the mid-session budget review in July. The Council chairs the Troika's forecasting group. In preparing its forecasts, the Troika continued the practice, initiated in the first year of the Administration, of indicating that the forecasts and resulting budget calculations have a considerable degree of uncertainty.

The Council continued to work to improve the general understanding of economics and the quality of economic information through a comprehensive series of memoranda and briefing papers on economic events for the President and the White House Senior Staff, regular briefings for the White House press on major economic news, and meetings with outside economists, forecasters, financial analysts, and business executives. The Chairman and the other Council Members appeared before numerous other organizations to explain the Administration's economic principles, policies, and outlook.

Dr. Boskin continued to chair the Working Group on the Quality of Economic Statistics. Based on the report of the working group, the President approved a list of 25 recommendations for improving economic statistics. During 1991 the Council worked closely with the major Federal statistical agencies to implement these recommendations.

The Council was one of the leading participants in the formulation of the Administration's economic policies through various Cabinet and sub-Cabinet working groups. In testimony to the Congress and in talks to business and other groups, the Chairman and Council Members stressed the importance of lowering the structural Federal budget deficit, shifting the composition of Federal spending toward investment in productive infrastructure and research and development, and maintaining and improving the structure of incentives in the tax system to work, save, invest, and innovate.

INTERNATIONAL ECONOMIC POLICIES

International economic issues again occupied a substantial part of the Council's time during 1991. The Chairman and Council Members stressed the benefits of free trade and open markets for goods, services, and investment, and they emphasized the risk to

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world economic growth posed by rising protectionism. The Council participated in formulating Administration policy on the Uruguay Round of the General Agreement on Tariffs and Trade, the proposed North American free-trade agreement, the Enterprise for the Americas Initiative, and many other issues pertaining to international trade policy. The Council also participated in formulating Administration positions on legislation in the international area.

The Council's involvement in economic reform in Eastern Europe and the former Soviet Union increased during 1991. Dr. Boskin was one of the three coordinators of U.S. assistance to Eastern Europe. He also chaired a working group on economic reform in the former Soviet Union and held numerous discussions in Washington with officials from the former Soviet bloc.

Dr. Boskin traveled to Paris as part of the U.S. delegation to the Organization for Economic Cooperation and Development (OECD) Ministerial Meeting. He also served as Chairman of the OECD Economic Policy Committee. Dr. Wonnacott led the U.S. delegation to the Economic and Development Review Committee at the OECD to assess U.S. economic policy. He was also a member of the U.S. delegation to the OECD Working Party 3 on macroeconomic policy coordination. Dr. Bradford headed the U.S. delegation to the OECD Working Party 1 meetings on microeconomic and structural issues.

The Council provided the President and the White House Senior Staff with regular briefings and analytical materials on international developments and participated in preparations for the Economic Summit in London.

The Council also participated in discussions on a wide range of issues—including developing-country debt, economic reform in Eastern Europe, and macroeconomic policy coordination—with other members of the Administration, the Federal Reserve, the World Bank, the International Monetary Fund, and representatives of other countries. The Council Members and the Council Senior Staff conducted numerous briefings on the U.S. economy for visiting officials and scholars.

MICROECONOMIC POLICIES

The Administration considered and proposed action this year on a wide range of microeconomic issues. In its work in this area, the Council repeatedly stressed that government regulation must pass careful cost-benefit tests and that where regulation is appropriate, it should be formulated to allow workers and firms maximum flexibility, as well as to provide incentives to meet social goals in the least costly manner. The Council worked with other agencies to ensure that the rules implementing the newly enacted amendments to the Clean Air Act balance costs and benefits in protecting the environment and minimize the costs of regulation to the maxi-

mum extent possible. The Council was also instrumental in ensuring that other legislative initiatives were designed to achieve reforms in a more cost-effective manner. The Council emphasized the principles of promoting flexibility, enhancing incentives, and placing maximum reliance on the private sector in a wide range of policy areas.

As a member of the Environmental Policy Review Group, Dr. Bradford dealt with a wide range of environmental issues, including analysis of the emissions allowance trading system under the Clean Air Act, global change, and reauthorization of the Resource Recovery and Conservation Act and the Comprehensive Environmental Response, Compensation, and Liability Act. He also participated in a variety of working groups on health care policy, income distribution, financial institution reform and regulation, public debt auctions, tax policy, telecommunications, energy markets, job training reform, automobile insurance, science and technology policy, drug policy, and empowerment.

PUBLIC INFORMATION

The Chairman and Council Members regularly testify before the Congress, make public speeches, and hold news briefings. In addition, the Council produces two publications a year for the public.

The *Economic Report of the President* is the principal medium through which the Council informs the public of its work and its views. It is an important vehicle for presenting the Administration's domestic and international economic policies. Annual distribution of the *Economic Report* in recent years has averaged about 45,000 copies. The Council assumes primary responsibility for the monthly *Economic Indicators,* which is issued by the Joint Economic Committee of the Congress and has a distribution of approximately 10,000.

THE COUNCIL AND THE STAFF

The Chairman is responsible for communicating the Council's views on economic developments to the President through personal discussions and written reports. The Chairman also represents the Council at daily White House Senior Staff meetings, at budget review group meetings with the President, and at many other formal and informal meetings with the President and White House Senior Staff, as well as with other senior government officials. The Chairman guides the work of the Council and is ultimately responsible for directing the work of the professional staff.

Members of the Council are responsible for the full range of issues within the Council's purview and for the direct supervision of the work of the professional staff. Members represent the Council at a wide variety of interagency and international meetings and

assume major responsibility for selecting issues for Council attention.

The small size of the Council permits the Chairman and the Members to work as a team on most policy issues. There is, however, an informal division of subject matter. Dr. Bradford is primarily responsible for microeconomic and sectoral analysis, including analyses of regulatory issues. Dr. Wonnacott is primarily responsible for international issues and macroeconomic analysis, including economic projections.

PROFESSIONAL STAFF

The Council's advice to the President depends on the analytical and empirical studies of its professional staff. The Council has benefited from an extraordinarily capable staff during 1991. The professional staff currently consists of the Special Assistant to the Chairman and Senior Staff Economist, a Staff Assistant to the Chairman, a Senior Statistician, 10 Senior Staff Economists, 7 Junior Staff Economists, and a Research Assistant. The professional staff and their respective areas of concentration at the end of 1991 were:

Special Assistant to the Chairman and Senior Staff Economist

Harry G. Broadman	International Trade and Investment, Science and Technology, and Regulation

Staff Assistant to the Chairman

Shelley A. Slomowitz

Senior Staff Economists

David S. Bizer	Financial Markets, Banking, and Insurance
Randall W. Eberts	Labor Markets and Education
William G. Gale	Public Finance
Joseph W. Glauber	Agriculture and International Trade
Andrew S. Joskow	Regulation and Energy
John H. Kitchen	Macroeconomics and Forecasting
Spencer D. Krane	Macroeconomics, Monetary Policy, and Quality of Statistics
Catherine L. Mann	International Macroeconomics and the former Soviet Bloc
Raymond L. Squitieri	Energy and Environment
Robert W. Staiger	International Trade

Senior Statistician

Catherine H. Furlong

Junior Staff Economists

Jeffrey S. Gray	Labor Markets, Education, and Public Finance
John A. Higgins	Macroeconomics
Thomas N. Hubbard	Regulation and Natural Resources
Philip I. Levy	International Trade
Nancy L. Maritato	Public Finance and Labor Markets
Derek H. Utter	International Macroeconomics and Finance
Michael G. Williams	Public Finance and Financial Markets

Research Assistant

Kimberly J. O'Neill	Forecasting, Macroeconomics, and Public Finance

David G. Fernandez (Princeton University) served as a Junior Staff Economist during the summer of 1991. K. C. Fung (University of California, Santa Cruz) joined the Council as a Senior Staff Economist in January 1992.

Mrs. Furlong is assisted in the operation of the Statistical Office by Susan P. Clements, Linda A. Reilly, and Margaret L. Snyder. The Statistical Office maintains and updates the Council's statistical information system and is responsible for overseeing the publication of the *Economic Indicators* and the statistical appendix to the *Economic Report of the President*, as well as for the verification of statistics in memoranda, testimony, and speeches.

Martha V. Gottron provided editorial assistance in the preparation of the 1992 *Economic Report*.

SUPPORTING STAFF

The Administrative Office, which provides general support for the Council's activities, consists of Elizabeth A. Kaminski, Administrative Officer, and Catherine Fibich, Administrative Assistant.

The Secretaries for the Council during 1991 were Alice H. Williams and Sandra F. Daigle (Secretaries to the Chairman), Lisa D. Branch (Secretary to Dr. Wonnacott), and Francine P. Obermiller (Secretary to Dr. Bradford). The Secretaries for the Council's staff were Mary E. Jones, Rosalind V. Rasin, Mary A. Thomas, and Janet J. Twyman.

Brian Amorosi, H. Brill Bundy, David J. Kogut, Ian B. Goldberg, and Lissa J. Rideout served as Student Assistants during 1991. Dorothy Bagovich served as a Statistical Assistant during the preparation of the 1992 *Economic Report*.

DEPARTURES

The Council's Senior Staff Economists, in most cases, are on leave of absence from faculty positions at academic institutions or from other government agencies or research institutions. Their

tenure with the Council is usually limited to 1 or 2 years. Most of the Senior Staff Economists who resigned during the year returned to their previous affiliations. They are Nicole S. Ballenger (U.S. Department of Agriculture), Michael W. Horrigan (Bureau of Labor Statistics), Charles J. Jacklin (Stanford University), Adam B. Jaffe (Harvard University), Robert B. Kahn (Board of Governors of the Federal Reserve System), Ralph M. Monaco (U.S. Department of Agriculture), and John K. Scholz (University of Wisconsin). Others went on to new positions: They are Richard E. Baldwin (Graduate Institute of International Studies in Geneva), Howard K. Gruenspecht (U.S. Department of Energy), Peter F. Kostiuk (KPMG Peat Marwick), and James A. Wilcox (Board of Governors of the Federal Reserve System).

Junior Staff Economists generally are graduate students who spend 1 year with the Council and then return to complete their doctoral programs. Those who returned to their graduate studies in 1991 are Eric D. Craft (University of Chicago), Alison F. Del Rossi (University of Pennsylvania), Brian J. Hall (Harvard University), and Arik M. Levinson (Columbia University). Mark A. Condon (Urban Institute) and Naomi S. Smith went on to new positions.

Natalie V. Rentfro, Statistical Assistant, retired in 1991 after having served the Council for 20 years; she returned in 1992 to assist in the preparation of this *Economic Report*. Stefanie J. Reiser, Staff Assistant to the Chairman, resigned to join the Washington staff of the Governor of California.

Appendix B
STATISTICAL TABLES RELATING TO INCOME, EMPLOYMENT, AND PRODUCTION

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General Notes

Detail in these tables may not add to totals because of rounding.
Unless otherwise noted, all dollar figures are in current dollars.
Symbols used:

*Preliminary.

——Not available (also, not applicable).

Data in these tables reflect revisions made by the source agencies from January 1991 through January 1992. In particular, tables containing data from the national income and product accounts reflect the recent comprehensive (benchmark) revision.

TABLE B–1.—*Gross domestic product, 1959–91*

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Personal consumption expenditures				Gross private domestic investment						
							Fixed investment					Change in business inventories
								Nonresidential			Residential	
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Producers' durable equipment		
1959	494.2	318.1	42.8	148.5	126.8	78.8	74.6	46.5	18.1	28.3	28.1	4.2
1960	513.4	332.4	43.5	153.1	135.9	78.7	75.5	49.2	19.6	29.7	26.3	3.2
1961	531.8	343.5	41.9	157.4	144.1	77.9	75.0	48.6	19.7	28.9	26.4	2.9
1962	571.6	364.4	47.0	163.8	153.6	87.9	81.8	52.8	20.8	32.1	29.0	6.1
1963	603.1	384.2	51.8	169.4	163.1	93.4	87.7	55.6	21.2	34.4	32.1	5.7
1964	648.0	412.5	56.8	179.7	175.9	101.7	96.7	62.4	23.7	38.7	34.3	5.0
1965	702.7	444.6	63.5	191.9	189.2	118.0	108.3	74.1	28.3	45.8	34.2	9.7
1966	769.8	481.6	68.5	208.5	204.6	130.4	116.7	84.4	31.3	53.0	32.3	13.8
1967	814.3	509.3	70.6	216.9	221.7	128.0	117.6	85.2	31.5	53.7	32.4	10.5
1968	889.3	559.1	81.0	235.0	243.1	139.9	130.8	92.1	33.6	58.5	38.7	9.1
1969	959.5	603.7	86.2	252.2	265.3	155.2	145.5	102.9	37.7	65.2	42.6	9.7
1970	1,010.7	646.5	85.3	270.4	290.8	150.3	148.1	106.7	40.3	66.4	41.4	2.3
1971	1,097.2	700.3	97.2	283.3	319.8	175.5	167.5	111.7	42.7	69.1	55.8	8.0
1972	1,207.0	767.8	110.7	305.2	351.9	205.6	195.7	126.1	47.2	78.9	69.7	9.9
1973	1,349.6	848.1	124.1	339.6	384.5	243.1	225.4	150.0	55.0	95.1	75.3	17.7
1974	1,458.6	927.7	123.0	380.8	423.9	245.8	231.5	165.6	61.2	104.3	66.0	14.3
1975	1,585.9	1,024.9	134.3	416.0	474.5	226.0	231.7	169.0	61.4	107.6	62.7	−5.7
1976	1,768.4	1,143.1	160.0	451.8	531.2	286.4	269.6	187.2	65.9	121.2	82.5	16.7
1977	1,974.1	1,271.5	182.6	490.4	598.4	358.3	333.5	223.2	74.6	148.7	110.3	24.7
1978	2,232.7	1,421.2	202.3	541.5	677.4	434.0	406.1	274.5	93.9	180.6	131.6	27.9
1979	2,488.6	1,583.7	214.2	613.3	756.2	480.2	467.5	326.4	118.4	208.1	141.0	12.8
1980	2,708.0	1,748.1	212.5	682.9	852.7	467.6	477.1	353.8	137.5	216.4	123.3	−9.5
1981	3,030.6	1,926.2	228.5	744.2	953.5	558.0	532.5	410.0	169.1	240.9	122.5	25.4
1982	3,149.6	2,059.2	236.5	772.3	1,050.4	503.4	519.3	413.7	178.8	234.9	105.7	−15.9
1983	3,405.0	2,257.5	275.0	817.8	1,164.7	546.7	552.2	400.2	153.1	247.1	152.0	−5.5
1984	3,777.2	2,460.3	317.9	873.0	1,269.4	718.9	647.8	468.9	175.6	293.3	178.9	71.1
1985	4,038.7	2,667.4	352.9	919.4	1,395.1	714.5	689.9	504.0	193.4	310.6	185.9	24.6
1986	4,268.6	2,850.6	389.6	952.2	1,508.8	717.6	709.0	492.4	174.0	318.4	216.6	8.6
1987	4,539.9	3,052.2	403.7	1,011.1	1,637.4	749.3	723.0	497.8	171.3	326.5	225.2	26.3
1988	4,900.4	3,296.1	437.1	1,073.8	1,785.2	793.6	777.4	545.4	182.0	363.4	232.0	16.2
1989	5,244.0	3,517.9	459.8	1,146.9	1,911.2	837.6	801.6	570.7	193.1	377.6	230.9	36.0
1990	5,513.8	3,742.6	465.9	1,217.7	2,059.0	802.6	802.7	587.0	198.7	388.3	215.7	.0
1991 *p*	5,671.8	3,886.8	445.2	1,251.0	2,190.5	725.3	745.6	550.4	174.5	376.0	195.1	−20.2
1982: IV	3,195.1	2,128.7	246.9	787.3	1,094.6	464.2	510.5	397.7	168.9	228.8	112.8	−46.3
1983: IV	3,547.3	2,346.8	297.7	839.8	1,209.3	614.8	594.6	426.9	154.6	272.3	167.7	20.2
1984: IV	3,869.1	2,526.4	328.2	887.8	1,310.4	722.8	671.8	491.5	184.1	307.3	180.4	51.0
1985: IV	4,140.5	2,739.8	354.4	939.5	1,446.0	737.0	704.4	511.3	195.4	315.9	193.1	32.6
1986: IV	4,336.6	2,923.1	406.8	963.7	1,552.6	697.1	715.9	491.7	168.4	323.3	224.2	−18.8
1987: IV	4,683.0	3,124.6	408.8	1,029.4	1,686.4	800.2	740.9	514.3	180.0	334.3	226.5	59.3
1988: I	4,752.4	3,199.1	428.8	1,041.5	1,728.8	770.6	753.8	526.8	176.6	350.2	227.0	16.8
II	4,857.2	3,260.5	433.1	1,062.0	1,765.4	788.4	774.6	544.1	181.4	362.6	230.5	13.8
III	4,947.3	3,326.6	433.5	1,085.8	1,807.3	800.7	783.6	550.3	183.1	367.3	233.3	17.1
IV	5,044.6	3,398.2	452.9	1,105.8	1,839.5	814.8	797.5	560.2	186.8	373.4	237.3	17.3
1989: I	5,139.9	3,436.5	449.4	1,120.0	1,867.1	844.7	801.6	565.1	191.1	374.0	236.5	43.2
II	5,218.5	3,490.6	457.2	1,142.5	1,891.0	844.3	802.0	570.2	190.0	380.2	231.8	42.3
III	5,277.3	3,551.7	474.5	1,155.3	1,921.9	826.8	803.5	574.2	194.9	379.3	229.2	23.3
IV	5,340.4	3,592.8	458.0	1,169.8	1,965.0	834.4	799.4	573.4	196.5	376.8	226.0	35.1
1990: I	5,422.4	3,667.3	479.9	1,194.9	1,992.5	812.0	815.3	586.3	202.4	384.0	229.0	−3.3
II	5,504.7	3,706.0	464.6	1,200.9	2,040.4	825.9	800.2	580.0	199.5	380.5	220.3	25.6
III	5,570.5	3,785.2	467.1	1,228.4	2,089.6	821.8	807.7	596.3	201.7	394.7	211.4	14.1
IV	5,557.5	3,812.0	451.9	1,246.4	2,113.6	750.9	787.4	585.2	191.2	394.0	202.2	−36.5
1991: I	5,589.0	3,827.7	440.7	1,246.3	2,140.7	709.3	748.4	560.0	184.0	375.9	188.4	−39.2
II	5,652.6	3,868.5	440.0	1,252.9	2,175.6	708.8	745.8	554.6	180.0	374.7	191.2	−37.1
III	5,709.2	3,916.4	452.9	1,257.4	2,206.1	740.9	744.5	546.8	169.0	377.8	197.7	−3.6
IV *p*	5,736.6	3,934.4	447.2	1,247.6	2,239.6	742.3	743.4	540.3	164.8	375.6	203.1	−1.1

See next page for continuation of table.

TABLE B–1.—*Gross domestic product, 1959–91*—Continued

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Net exports of goods and services [1]			Government purchases					Final sales of domestic product	Gross domestic purchases [2]	Addendum: Gross national product [3]	Percent change from preceding period	
					Federal			State and local					
	Net exports	Exports	Imports	Total	Total	National defense	Nondefense					Gross domestic product	Gross domestic purchases [2]
1959	−1.7	20.6	22.3	99.0	57.1	46.4	10.8	41.8	490.0	495.8	497.0		
1960	2.4	25.3	22.8	99.8	55.3	45.3	10.0	44.5	510.1	510.9	516.6	3.9	3.0
1961	3.4	26.0	22.7	107.0	58.6	47.9	10.6	48.4	528.9	528.4	535.4	3.6	3.4
1962	2.4	27.4	25.0	116.8	65.4	52.1	13.3	51.4	565.5	569.2	575.8	7.5	7.7
1963	3.3	29.4	26.1	122.3	66.4	51.5	14.9	55.8	597.5	599.8	607.7	5.5	5.4
1964	5.5	33.6	28.1	128.3	67.5	50.4	17.0	60.9	643.0	642.5	653.0	7.4	7.1
1965	3.9	35.4	31.5	136.3	69.5	51.0	18.5	66.8	693.0	698.8	708.1	8.4	8.8
1966	1.9	38.9	37.1	155.9	81.3	62.0	19.3	74.6	756.0	767.9	774.9	9.5	9.9
1967	1.4	41.4	39.9	175.6	92.8	73.4	19.4	82.7	803.8	812.9	819.8	5.8	5.9
1968	−1.3	45.3	46.6	191.5	99.2	79.1	20.0	92.3	880.2	890.6	895.5	9.2	9.6
1969	−1.2	49.3	50.5	201.8	100.5	78.9	21.6	101.3	949.8	960.7	965.6	7.9	7.9
1970	1.2	57.0	55.8	212.7	100.1	76.8	23.3	112.6	1,008.4	1,009.5	1,017.1	5.3	5.1
1971	−3.0	59.3	62.3	224.3	100.0	74.1	25.9	124.3	1,089.2	1,100.2	1,104.9	8.6	9.0
1972	−8.0	66.2	74.2	241.5	106.9	77.4	29.4	134.7	1,197.1	1,215.0	1,215.7	10.0	10.4
1973	.6	91.8	91.2	257.7	108.5	77.5	31.1	149.2	1,331.9	1,349.0	1,362.3	11.8	11.0
1974	−3.1	124.3	127.5	288.3	117.6	82.6	35.0	170.7	1,444.4	1,461.8	1,474.3	8.1	8.4
1975	13.6	136.3	122.7	321.4	129.4	89.6	39.8	192.0	1,591.5	1,572.3	1,599.1	8.7	7.6
1976	−2.3	148.9	151.1	341.3	135.8	93.4	42.4	205.5	1,751.7	1,770.7	1,785.5	11.5	12.6
1977	−23.7	158.8	182.4	368.0	147.9	100.9	47.0	220.1	1,949.4	1,997.8	1,994.6	11.6	12.8
1978	−26.1	186.1	212.3	403.6	162.2	108.9	53.3	241.4	2,204.8	2,258.8	2,254.5	13.1	13.1
1979	−23.8	228.9	252.7	448.5	179.3	121.9	57.5	269.2	2,475.9	2,512.5	2,520.8	11.5	11.2
1980	−14.7	279.2	293.9	507.1	209.1	142.7	66.4	298.0	2,717.5	2,722.8	2,742.1	8.8	8.4
1981	−14.7	303.0	317.7	561.1	240.8	167.5	73.3	320.3	3,005.2	3,045.3	3,063.8	11.9	11.8
1982	−20.6	282.6	303.2	607.6	266.6	193.8	72.7	341.1	3,165.5	3,170.2	3,179.8	3.9	4.1
1983	−51.4	276.7	328.1	652.3	292.0	214.4	77.5	360.3	3,410.6	3,456.5	3,434.4	8.1	9.0
1984	−102.7	302.4	405.1	700.8	310.9	233.1	77.8	389.9	3,706.1	3,879.9	3,801.5	10.9	12.2
1985	−115.6	302.1	417.6	772.3	344.3	258.6	85.7	428.1	4,014.1	4,154.3	4,053.6	6.9	7.1
1986	−132.5	319.2	451.7	833.0	367.8	276.7	91.1	465.3	4,260.0	4,401.2	4,277.7	5.7	5.9
1987	−143.1	364.0	507.1	881.5	384.9	292.1	92.9	496.6	4,513.7	4,683.0	4,544.5	6.4	6.4
1988	−108.0	444.2	552.2	918.7	387.0	295.6	91.4	531.7	4,884.2	5,008.4	4,908.2	7.9	6.9
1989	−82.9	504.9	587.8	971.4	401.4	300.0	101.5	570.0	5,208.1	5,326.9	5,248.2	7.0	6.4
1990	−74.4	550.4	624.8	1,042.9	424.9	313.4	111.5	618.0	5,513.8	5,588.1	5,524.5	5.1	4.9
1991 [p]	−27.1	593.3	620.4	1,086.9	445.1	323.4	121.7	641.8	5,692.0	5,699.0		2.9	2.0
1982: IV	−29.5	265.6	295.1	631.6	281.4	205.5	75.9	350.3	3,241.4	3,224.6	3,222.6	4.0	3.8
1983: IV	−71.8	286.2	358.0	657.6	289.7	222.8	66.9	367.9	3,527.1	3,619.1	3,578.4	11.7	12.2
1984: IV	−107.1	308.7	415.7	727.0	324.7	242.9	81.9	402.2	3,818.1	3,976.2	3,890.2	5.4	5.6
1985: IV	−135.5	304.7	440.2	799.2	356.9	268.6	88.3	442.4	4,107.9	4,276.0	4,156.2	6.4	7.9
1986: IV	−133.2	333.9	467.1	849.7	373.1	278.6	94.5	476.6	4,355.4	4,469.8	4,340.5	4.4	3.7
1987: IV	−143.2	392.4	535.6	901.4	392.5	295.8	96.7	509.0	4,623.7	4,826.2	4,690.5	9.9	9.6
1988: I	−122.0	418.5	540.5	904.7	386.6	296.7	89.9	518.1	4,735.6	4,874.4	4,764.3	6.1	4.1
II	−105.6	438.8	544.3	913.8	386.0	294.8	91.2	527.8	4,843.4	4,962.7	4,862.7	9.1	7.4
III	−98.5	452.4	550.9	918.5	383.5	294.0	89.5	535.1	4,930.2	5,045.8	4,951.6	7.6	6.9
IV	−106.0	467.0	573.1	937.6	392.0	296.8	95.2	545.7	5,027.3	5,150.7	5,054.3	8.1	8.6
1989: I	−88.9	486.1	575.0	947.5	392.6	293.9	98.7	554.9	5,096.7	5,228.8	5,144.3	7.8	6.2
II	−83.0	506.2	589.2	966.6	401.9	298.5	103.3	564.7	5,176.2	5,301.5	5,217.7	6.3	5.7
III	−82.1	506.2	588.3	980.9	407.6	305.8	101.8	573.3	5,254.0	5,359.4	5,279.8	4.6	4.4
IV	−77.5	521.3	598.8	990.7	403.7	301.6	102.1	587.0	5,305.3	5,417.9	5,350.9	4.9	4.4
1990: I	−78.0	534.6	612.6	1,021.2	417.2	309.3	107.9	604.0	5,425.7	5,500.5	5,432.7	6.3	6.2
II	−60.4	545.9	606.3	1,033.2	423.3	312.7	110.7	609.9	5,479.1	5,565.1	5,505.5	6.2	4.8
III	−82.5	548.7	631.2	1,046.0	424.7	311.1	113.6	621.4	5,556.5	5,653.0	5,576.8	4.9	6.5
IV	−76.6	572.6	649.2	1,071.2	434.5	320.6	113.9	636.7	5,594.0	5,634.0	5,583.2	−.9	−1.3
1991: I	−36.8	565.9	602.7	1,088.8	451.5	332.3	119.2	637.3	5,628.2	5,625.8	5,611.7	2.3	−.6
II	−17.2	589.8	607.0	1,092.5	452.1	328.4	123.7	640.4	5,689.6	5,669.8	5,660.6	4.6	3.2
III	−37.3	597.0	634.3	1,089.1	444.9	322.3	122.6	644.2	5,712.8	5,746.5	5,720.1	4.1	5.5
IV [p]	−17.3	620.4	637.7	1,077.0	431.9	310.7	121.3	645.1	5,737.6	5,753.8		1.9	.5

[1] New definition: Excludes receipts and payments of factor income from or to rest of the world.
[2] Gross domestic product (GDP) less exports of goods and services plus imports of goods and services.
[3] GDP plus net receipts of factor income from rest of the world.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–2.—*Gross domestic product in 1987 dollars, 1959–91*

[Billions of 1987 dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Personal consumption expenditures				Gross private domestic investment						
							Fixed investment					Change in business inventories
								Nonresidential				
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Producers' durable equipment	Residential	
1959	1,931.3	1,178.9	114.4	518.5	546.0	296.4	282.8	165.2	74.4	90.8	117.6	13.6
1960	1,973.2	1,210.8	115.4	526.9	568.5	290.8	282.7	173.3	80.8	92.5	109.4	8.1
1961	2,025.6	1,238.4	109.4	537.7	591.3	289.4	282.2	172.1	82.3	89.8	110.1	7.2
1962	2,129.8	1,293.3	120.2	553.0	620.0	321.2	305.6	185.0	86.1	98.9	120.6	15.6
1963	2,218.0	1,341.9	130.3	563.6	648.0	343.3	327.3	192.3	86.9	105.4	135.0	16.0
1964	2,343.3	1,417.2	140.7	588.2	688.3	371.8	356.2	214.0	95.9	118.1	142.1	15.7
1965	2,473.5	1,497.0	156.2	616.7	724.1	413.0	387.9	250.6	111.5	139.1	137.3	25.1
1966	2,622.3	1,573.8	166.0	647.6	760.2	438.0	401.3	276.7	119.1	157.6	124.5	36.7
1967	2,690.3	1,622.4	167.2	659.0	796.2	418.6	391.0	270.8	116.0	154.8	120.2	27.6
1968	2,801.0	1,707.5	184.5	686.0	837.0	440.1	416.5	280.1	117.4	162.7	136.4	23.6
1969	2,877.1	1,771.2	190.8	703.2	877.2	461.3	436.5	296.4	123.5	172.9	140.1	24.8
1970	2,875.8	1,813.5	183.7	717.2	912.5	429.7	423.8	292.0	123.3	168.7	131.8	5.9
1971	2,965.1	1,873.7	201.4	725.6	946.7	481.5	460.7	292.6	121.2	171.4	168.1	20.8
1972	3,107.1	1,978.4	225.2	755.8	997.4	532.2	509.6	311.6	124.8	186.8	198.0	22.5
1973	3,268.6	2,066.7	246.6	777.9	1,042.2	591.7	554.0	357.4	134.9	222.4	196.6	37.7
1974	3,248.1	2,053.8	227.2	759.8	1,066.8	543.0	512.0	356.5	132.3	224.2	155.6	30.9
1975	3,221.7	2,097.5	226.8	767.1	1,103.6	437.6	451.5	316.8	118.0	198.8	134.7	−13.9
1976	3,380.8	2,207.3	256.4	801.3	1,149.5	520.6	495.1	328.7	120.5	208.2	166.4	25.5
1977	3,533.2	2,296.6	280.0	819.8	1,196.8	600.4	566.2	364.3	126.1	238.2	201.9	34.3
1978	3,703.5	2,391.8	292.9	844.8	1,254.1	664.6	627.4	412.9	144.1	268.8	214.5	37.2
1979	3,796.8	2,448.4	289.0	862.8	1,296.5	669.7	656.1	448.8	163.3	285.5	207.4	13.6
1980	3,776.3	2,447.1	262.7	860.5	1,323.9	594.4	602.7	437.8	170.2	267.6	164.8	−8.3
1981	3,843.1	2,476.9	264.6	867.9	1,344.4	631.1	606.5	455.0	182.9	272.0	151.6	24.6
1982	3,760.3	2,503.7	262.5	872.2	1,368.9	540.5	558.0	433.9	181.3	252.6	124.1	−17.5
1983	3,906.6	2,619.4	297.7	900.3	1,421.4	599.5	595.1	420.8	160.3	260.5	174.2	4.4
1984	4,148.5	2,746.1	338.5	934.6	1,473.0	757.5	689.6	490.2	182.8	307.4	199.3	67.9
1985	4,279.8	2,865.8	370.1	958.7	1,537.0	745.9	723.8	521.8	197.4	324.4	202.0	22.1
1986	4,404.5	2,969.1	402.0	991.0	1,576.1	735.1	726.5	500.3	176.6	323.7	226.2	8.5
1987	4,540.0	3,052.2	403.7	1,011.1	1,637.4	749.3	723.0	497.8	171.3	326.5	225.2	26.3
1988	4,718.6	3,162.4	428.7	1,035.1	1,698.5	773.4	753.4	530.8	174.0	356.8	222.7	19.9
1989	4,836.9	3,223.1	440.8	1,049.3	1,732.9	789.2	756.6	542.4	177.4	365.0	214.2	32.6
1990	4,884.9	3,262.6	438.9	1,050.8	1,773.0	744.5	744.2	548.8	177.9	370.8	195.5	.2
1991 p	4,848.4	3,256.7	412.5	1,042.3	1,801.9	672.6	687.7	512.7	153.9	358.8	175.1	−15.1
1982: IV	3,759.6	2,539.3	272.3	880.7	1,386.2	503.5	548.4	417.2	173.2	244.0	131.2	−44.9
1983: IV	4,012.1	2,678.2	319.1	915.2	1,443.9	669.5	640.2	449.6	162.6	287.0	190.6	29.3
1984: IV	4,194.2	2,784.8	347.7	942.9	1,494.2	756.4	708.4	509.6	189.5	320.1	198.8	47.9
1985: IV	4,333.5	2,895.3	369.6	968.7	1,557.1	763.1	732.9	525.5	198.3	327.2	207.4	30.2
1986: IV	4,427.1	3,012.5	415.7	1,000.9	1,595.8	705.9	725.9	495.5	170.4	325.0	230.5	−20.1
1987: IV	4,625.5	3,074.7	404.7	1,014.6	1,655.5	793.8	733.9	510.6	177.9	332.7	223.3	59.9
1988: I	4,655.3	3,128.2	425.1	1,023.5	1,679.6	756.9	737.7	517.7	171.6	346.1	220.0	19.2
II	4,704.8	3,147.8	426.9	1,031.0	1,690.0	769.4	753.3	531.4	174.4	356.9	222.0	16.1
III	4,734.5	3,170.6	423.8	1,039.3	1,707.5	782.2	758.6	535.2	174.1	361.0	223.5	23.5
IV	4,779.7	3,202.9	439.2	1,046.8	1,716.9	785.0	764.1	538.8	175.7	363.1	225.3	20.9
1989: I	4,809.8	3,200.9	433.6	1,047.1	1,720.3	803.2	761.9	540.0	177.8	362.2	221.9	41.2
II	4,832.4	3,208.6	439.9	1,043.3	1,725.4	797.4	758.5	543.6	175.0	368.6	215.0	38.9
III	4,845.6	3,241.1	454.3	1,051.4	1,735.4	776.8	756.6	544.7	178.4	366.3	211.9	20.2
IV	4,859.7	3,241.6	435.6	1,055.3	1,750.7	779.2	749.2	541.3	178.6	362.7	207.9	30.0
1990: I	4,880.8	3,258.8	452.7	1,054.4	1,751.8	754.9	758.9	550.7	182.3	368.4	208.2	−4.0
II	4,900.3	3,258.6	438.7	1,050.3	1,769.6	766.0	743.8	544.3	178.9	365.4	199.5	22.1
III	4,903.3	3,281.2	440.3	1,053.7	1,787.3	760.3	746.4	555.5	180.0	375.5	190.9	13.9
IV	4,855.1	3,251.8	424.0	1,044.7	1,783.1	696.6	727.8	544.5	170.4	374.0	183.3	−31.2
1991: I	4,824.0	3,241.1	410.8	1,043.9	1,786.3	657.0	689.8	519.1	163.3	355.8	170.7	−32.8
II	4,840.7	3,252.4	408.9	1,046.2	1,797.2	656.3	686.8	514.8	158.9	355.8	172.0	−30.4
III	4,862.7	3,271.2	418.3	1,046.1	1,806.8	686.5	686.5	510.0	148.4	361.6	176.5	.1
IV p	4,866.3	3,262.2	412.1	1,033.0	1,817.1	690.6	687.9	506.9	144.8	362.1	181.0	2.7

See next page for continuation of table.

TABLE B–2.—*Gross domestic product in 1987 dollars, 1959–91*—Continued

[Billions of 1987 dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Net exports of goods and services [1]			Government purchases					Final sales of domestic product	Gross domestic purchases [2]	Addendum: Gross national product [3]	Percent change from preceding period	
					Federal								
	Net exports	Exports	Imports	Total	Total	National defense	Non-defense	State and local				Gross domestic product	Gross domestic purchases [2]
1959	−21.8	73.8	95.6	477.8	268.2			209.6	1,917.8	1,953.1	1,942.1		
1960	−7.6	88.4	96.1	479.2	261.3			217.9	1,965.0	1,980.8	1,985.1	2.2	1.4
1961	−5.5	89.9	95.3	503.3	271.9			231.4	2,018.4	2,031.1	2,039.0	2.7	2.5
1962	−10.5	95.0	105.5	525.9	289.0			236.9	2,114.2	2,140.3	2,145.0	5.1	5.4
1963	−5.8	101.8	107.7	538.7	288.1			250.6	2,202.0	2,223.8	2,234.2	4.1	3.9
1964	2.5	115.4	112.9	551.7	284.5			267.3	2,327.6	2,340.7	2,360.8	5.6	5.3
1965	−6.4	118.1	124.5	569.9	285.1			284.8	2,448.3	2,479.9	2,491.9	5.6	5.9
1966	−18.0	125.7	143.7	628.5	325.4			303.1	2,585.6	2,640.3	2,639.4	6.0	6.5
1967	−23.7	130.0	153.7	673.0	356.1			317.0	2,662.7	2,714.0	2,707.8	2.6	2.8
1968	−37.5	140.2	177.7	691.0	357.2			333.7	2,777.4	2,838.5	2,819.8	4.1	4.6
1969	−41.5	147.8	189.2	686.1	344.2			341.9	2,852.3	2,918.6	2,895.0	2.7	2.8
1970	−35.2	161.3	196.4	667.8	316.9			350.9	2,869.9	2,911.0	2,893.5	−.0	−.3
1971	−45.9	161.9	207.8	655.8	294.2			361.6	2,944.3	3,011.0	2,985.2	3.1	3.4
1972	−56.5	173.7	230.2	653.0	284.4	209.6	74.8	368.6	3,084.5	3,163.6	3,128.8	4.8	5.1
1973	−34.1	210.3	244.4	644.2	265.3	191.3	74.1	378.9	3,230.9	3,302.7	3,298.6	5.2	4.4
1974	−4.1	234.4	238.4	655.4	262.6	185.8	76.8	392.9	3,217.2	3,252.2	3,282.4	−.6	−1.5
1975	23.1	232.9	209.8	663.5	262.7	184.9	77.8	400.8	3,235.6	3,198.6	3,247.6	−.8	−1.6
1976	−6.4	243.4	249.7	659.2	258.2	179.9	78.3	401.1	3,355.3	3,387.1	3,412.2	4.9	5.9
1977	−27.8	246.9	274.7	664.1	263.0	181.6	81.4	401.0	3,499.0	3,561.1	3,568.9	4.5	5.1
1978	−29.9	270.2	300.1	677.0	268.6	182.1	86.5	408.4	3,666.3	3,733.3	3,739.0	4.8	4.8
1979	−10.6	293.5	304.1	689.3	271.7	185.1	86.6	417.6	3,783.2	3,807.4	3,845.3	2.5	2.0
1980	30.7	320.5	289.9	704.2	284.8	194.2	90.6	419.4	3,784.6	3,745.7	3,823.4	−.5	−1.6
1981	22.0	326.1	304.1	713.2	295.8	206.4	89.4	417.4	3,818.6	3,821.2	3,884.4	1.8	2.0
1982	−7.4	296.7	304.1	723.6	306.0	221.4	84.7	417.6	3,777.8	3,767.7	3,796.1	−2.2	−1.4
1983	−56.1	285.9	342.1	743.8	320.8	234.2	86.6	423.0	3,902.2	3,962.8	3,939.6	3.9	5.2
1984	−122.0	305.7	427.7	766.9	331.0	245.8	85.1	436.0	4,080.6	4,270.5	4,174.5	6.2	7.8
1985	−145.3	309.2	454.6	813.4	355.2	265.6	89.5	458.2	4,257.6	4,425.1	4,295.0	3.2	3.6
1986	−155.1	329.6	484.7	855.4	373.0	280.6	92.4	482.4	4,395.9	4,559.6	4,413.5	2.9	3.0
1987	−143.0	364.0	507.1	881.5	384.9	292.1	92.9	496.6	4,513.7	4,683.0	4,544.6	3.1	2.7
1988	−104.0	421.6	525.7	886.8	377.3	287.0	90.2	509.6	4,698.6	4,822.6	4,726.3	3.9	3.0
1989	−75.7	469.2	544.9	900.4	375.0	280.7	94.4	525.3	4,804.3	4,912.6	4,840.7	2.5	1.9
1990	−51.3	505.7	557.0	929.1	380.9	281.3	99.6	548.2	4,884.7	4,936.2	4,894.6	1.0	.5
1991 [p]	−17.6	539.6	557.2	936.7	384.8	281.4	103.4	551.9	4,863.6	4,866.0		−.7	−1.4
1982: IV	−19.0	280.4	299.4	735.9	316.0	229.4	86.6	419.9	3,804.5	3,778.6	3,791.7	.6	.7
1983: IV	−83.7	291.5	375.1	748.1	322.2	242.9	79.3	425.9	3,982.8	4,095.8	4,046.6	7.0	8.7
1984: IV	−131.4	312.8	444.2	784.3	341.7	254.3	87.4	442.6	4,146.2	4,325.5	4,216.4	2.7	3.0
1985: IV	−155.4	312.0	467.4	830.5	363.7	272.1	91.6	466.7	4,303.3	4,488.9	4,349.5	2.3	2.7
1986: IV	−156.0	342.9	498.9	864.8	377.5	282.2	95.3	487.3	4,447.2	4,583.1	4,430.8	1.3	.5
1987: IV	−136.0	386.1	522.1	893.0	391.6	295.0	96.6	501.4	4,565.6	4,761.5	4,633.0	5.9	5.4
1988: I	−113.4	407.1	520.5	883.7	379.7	290.8	88.9	503.9	4,636.2	4,768.7	4,667.1	2.6	.6
II	−98.1	417.2	515.2	885.6	377.2	287.1	90.1	508.3	4,688.7	4,802.8	4,710.3	4.3	2.9
III	−101.9	424.1	526.1	883.7	373.7	284.6	89.1	510.0	4,710.9	4,836.4	4,738.7	2.5	2.8
IV	−102.7	438.2	540.9	894.5	378.4	285.7	92.7	516.1	4,758.7	4,882.4	4,789.0	3.9	3.9
1989: I	−81.2	451.2	532.4	886.9	369.1	276.1	93.0	517.8	4,768.5	4,891.0	4,813.9	2.5	.7
II	−71.9	469.5	541.3	898.3	376.2	279.9	96.3	522.1	4,793.5	4,904.3	4,831.6	1.9	1.7
III	−79.8	470.5	550.3	907.4	380.9	286.7	94.2	526.4	4,825.4	4,925.4	4,847.9	1.1	1.7
IV	−70.0	485.8	555.7	908.9	373.9	279.9	94.0	534.9	4,829.7	4,929.7	4,869.3	1.2	.3
1990: I	−56.0	496.2	552.2	923.0	379.3	281.5	97.7	543.7	4,884.8	4,936.8	4,890.2	1.7	.6
II	−52.5	502.1	554.5	928.1	383.3	283.8	99.5	544.8	4,878.1	4,952.7	4,901.2	1.6	1.3
III	−65.7	501.6	567.4	927.5	378.4	278.0	100.4	549.1	4,889.4	4,969.1	4,909.2	.2	1.3
IV	−31.2	522.5	553.7	937.9	382.6	282.0	100.6	555.3	4,886.3	4,886.3	4,877.7	−3.9	−6.5
1991: I	−18.6	512.5	531.1	944.5	391.7	289.4	102.3	552.7	4,856.8	4,842.6	4,843.7	−2.5	−3.5
II	−12.3	535.7	548.0	944.3	392.7	287.0	105.7	551.7	4,871.2	4,853.1	4,847.8	1.4	.9
III	−31.1	545.2	576.3	936.1	384.5	280.4	104.1	551.6	4,862.6	4,893.8	4,872.0	1.8	3.4
IV [p]	−8.3	565.1	573.4	921.9	370.2	268.9	101.3	551.7	4,863.7	4,874.6		.3	−1.6

[1] New definition: Excludes receipts and payments of factor income from or to rest of the world.
[2] Gross domestic product (GDP) less exports of goods and services plus imports of goods and services.
[3] GDP plus net receipts of factor income from rest of the world.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–3.—*Implicit price deflators for gross domestic product, 1959–91*

[Index numbers, 1987=100, except as noted; quarterly data seasonally adjusted]

Year or quarter	Gross domestic product	Personal consumption expenditures				Fixed investment				
							Nonresidential			
		Total	Durable goods	Nondurable goods	Services	Total	Total	Structures	Producers' durable equipment	Residential
1959	25.6	27.0	37.4	28.6	23.2	26.4	28.1	24.4	31.2	23.9
1960	26.0	27.5	37.7	29.1	23.9	26.7	28.4	24.2	32.1	24.0
1961	26.3	27.7	38.3	29.3	24.4	26.6	28.2	24.0	32.2	24.0
1962	26.8	28.2	39.1	29.6	24.8	26.8	28.6	24.1	32.4	24.0
1963	27.2	28.6	39.7	30.1	25.2	26.8	28.9	24.4	32.6	23.8
1964	27.7	29.1	40.4	30.5	25.6	27.1	29.2	24.7	32.8	24.1
1965	28.4	29.7	40.6	31.1	26.1	27.9	29.6	25.4	32.9	24.9
1966	29.4	30.6	41.3	32.2	26.9	29.1	30.5	26.3	33.6	25.9
1967	30.3	31.4	42.3	32.9	27.8	30.1	31.5	27.2	34.7	26.9
1968	31.7	32.7	43.9	34.3	29.0	31.4	32.9	28.6	36.0	28.4
1969	33.3	34.1	45.2	35.9	30.2	33.3	34.7	30.5	37.7	30.4
1970	35.1	35.6	46.4	37.7	31.9	34.9	36.5	32.7	39.4	31.4
1971	37.0	37.4	48.3	39.0	33.8	36.4	38.2	35.2	40.3	33.2
1972	38.8	38.8	49.2	40.4	35.3	38.4	40.5	37.8	42.2	35.2
1973	41.3	41.0	50.3	43.7	36.9	40.7	42.0	40.7	42.7	38.3
1974	44.9	45.2	54.1	50.1	39.7	45.2	46.4	46.3	46.5	42.4
1975	49.2	48.9	59.2	54.2	43.0	51.3	53.3	52.0	54.1	46.6
1976	52.3	51.8	62.4	56.4	46.2	54.5	56.9	54.7	58.2	49.6
1977	55.9	55.4	65.2	59.8	50.0	58.9	61.3	59.2	62.4	54.6
1978	60.3	59.4	69.1	64.1	54.0	64.7	66.5	65.2	67.2	61.3
1979	65.5	64.7	74.1	71.1	58.3	71.2	72.7	72.5	72.9	68.0
1980	71.7	71.4	80.9	79.4	64.4	79.2	80.8	80.8	80.9	74.8
1981	78.9	77.8	86.4	85.7	70.9	87.8	90.1	92.5	88.5	80.9
1982	83.8	82.2	90.1	88.6	76.7	93.1	95.3	98.6	93.0	85.2
1983	87.2	86.2	92.4	90.8	81.9	92.8	95.1	95.5	94.8	87.3
1984	91.0	89.6	93.9	93.4	86.2	93.9	95.6	96.1	95.4	89.7
1985	94.4	93.1	95.4	95.9	90.8	95.3	96.6	98.0	95.7	92.0
1986	96.9	96.0	96.9	96.1	95.7	97.6	98.4	98.5	98.4	95.8
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	103.9	104.2	102.0	103.7	105.1	103.2	102.8	104.6	101.9	104.2
1989	108.4	109.1	104.3	109.3	110.3	106.0	105.2	108.8	103.5	107.8
1990	112.9	114.7	106.1	115.9	116.1	107.9	107.0	111.7	104.7	110.4
1991 *p*	117.0	119.3	107.9	120.0	121.6	108.4	107.4	113.4	104.8	111.5
1982: IV	85.0	83.8	90.6	89.4	79.0	93.1	95.3	97.5	93.8	86.0
1983: IV	88.4	87.6	93.3	91.8	83.7	92.9	95.0	95.1	94.9	88.0
1984: IV	92.2	90.7	94.4	94.1	87.7	94.8	96.4	97.2	96.0	90.7
1985: IV	95.5	94.6	95.9	97.0	92.9	96.1	97.3	98.5	96.5	93.1
1986: IV	98.0	97.0	97.8	96.3	97.3	98.6	99.2	98.8	99.5	97.3
1987: IV	101.2	101.6	101.0	101.5	101.9	101.0	100.7	101.2	100.5	101.5
1988: I	102.1	102.3	100.9	101.8	102.9	102.2	101.8	102.9	101.2	103.2
II	103.2	103.6	101.5	103.0	104.5	102.8	102.4	104.0	101.6	103.8
III	104.5	104.9	102.3	104.5	105.8	103.3	102.8	105.1	101.7	104.4
IV	105.5	106.1	103.1	105.6	107.1	104.4	104.0	106.3	102.8	105.3
1989: I	106.9	107.4	103.6	107.0	108.5	105.2	104.6	107.5	103.3	106.6
II	108.0	108.8	103.9	109.5	109.6	105.7	104.9	108.6	103.2	107.8
III	108.9	109.6	104.4	109.9	110.7	106.2	105.4	109.3	103.6	108.2
IV	109.9	110.8	105.2	110.8	112.2	106.7	105.9	110.1	103.9	108.7
1990: I	111.1	112.5	106.0	113.3	113.7	107.4	106.5	111.0	104.2	110.0
II	112.3	113.7	105.9	114.3	115.3	107.6	106.5	111.5	104.1	110.4
III	113.6	115.4	106.1	116.6	116.9	108.2	107.4	112.0	105.1	110.7
IV	114.5	117.2	106.6	119.3	118.5	108.2	107.5	112.2	105.3	110.3
1991: I	115.9	118.1	107.3	119.4	119.8	108.5	107.9	112.7	105.7	110.4
II	116.8	118.9	107.6	119.8	121.1	108.6	107.7	113.2	105.3	111.2
III	117.4	119.7	108.3	120.2	122.1	108.5	107.2	113.9	104.5	112.0
IV *p*	117.9	120.6	108.5	120.8	123.3	108.1	106.6	113.8	103.7	112.2

See next page for continuation of table.

TABLE B–3.—*Implicit price deflators for gross domestic product, 1959–91*—Continued

[Index numbers, 1987=100, except as noted; quarterly data seasonally adjusted]

Year or quarter	Exports and imports of goods and services [1]		Government purchases					Final sales of domestic product	Gross domestic purchases [2]	Percent change from preceding period, GDP implicit price deflator [3]
				Federal			State and local			
	Exports	Imports	Total	Total	National defense	Non-defense				
1959	28.0	23.4	20.7	21.3			19.9	25.5	25.4	
1960	28.6	23.8	20.8	21.2			20.4	26.0	25.8	1.6
1961	29.0	23.8	21.3	21.5			20.9	26.2	26.0	1.2
1962	28.9	23.7	22.2	22.6			21.7	26.7	26.6	1.9
1963	28.9	24.3	22.7	23.1			22.3	27.1	27.0	1.5
1964	29.1	24.9	23.3	23.7			22.8	27.6	27.5	1.8
1965	30.0	25.3	23.9	24.4			23.5	28.3	28.2	2.5
1966	31.0	25.8	24.8	25.0			24.6	29.2	29.1	3.5
1967	31.8	26.0	26.1	26.1			26.1	30.2	30.0	3.1
1968	32.3	26.2	27.7	27.8			27.7	31.7	31.4	4.6
1969	33.3	26.7	29.4	29.2			29.6	33.3	32.9	5.0
1970	35.3	28.4	31.8	31.6			32.1	35.1	34.7	5.4
1971	36.6	30.0	34.2	34.0			34.4	37.0	36.5	5.4
1972	38.1	32.2	37.0	37.6	36.9	39.3	36.5	38.8	38.4	4.9
1973	43.6	37.3	40.0	40.9	40.5	41.9	39.4	41.2	40.8	6.4
1974	53.0	53.5	44.0	44.8	44.5	45.5	43.5	44.9	44.9	8.7
1975	58.5	58.5	48.4	49.3	48.5	51.2	47.9	49.2	49.2	9.6
1976	61.2	60.5	51.8	52.6	51.9	54.1	51.2	52.2	52.3	6.3
1977	64.3	66.4	55.4	56.2	55.6	57.7	54.9	55.7	56.1	6.9
1978	68.9	70.7	59.6	60.4	59.8	61.7	59.1	60.1	60.5	7.9
1979	78.0	83.1	65.1	66.0	65.8	66.4	64.5	65.4	66.0	8.6
1980	87.1	101.4	72.0	73.4	73.5	73.3	71.1	71.8	72.7	9.5
1981	92.9	104.5	78.7	81.4	81.1	82.1	76.7	78.7	79.7	10.0
1982	95.2	99.7	84.0	87.1	87.6	85.9	81.7	83.8	84.1	6.2
1983	96.8	95.9	87.7	91.0	91.6	89.5	85.2	87.4	87.2	4.1
1984	98.9	94.7	91.4	93.9	94.8	91.3	89.4	90.8	90.9	4.4
1985	97.7	91.9	95.0	96.9	97.3	95.7	93.4	94.3	93.9	3.7
1986	96.9	93.2	97.4	98.6	98.6	98.6	96.4	96.9	96.5	2.6
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	3.2
1988	105.3	105.1	103.6	102.6	103.0	101.4	104.3	103.9	103.9	3.9
1989	107.6	107.9	107.9	107.0	106.9	107.5	108.5	108.4	108.4	4.3
1990	108.9	112.2	112.2	111.6	111.4	112.0	112.7	112.9	113.2	4.2
1991 [p]	109.9	111.3	116.0	115.7	114.9	117.8	116.3	117.0	117.1	3.6
1982: IV	94.7	98.5	85.8	89.0	89.6	87.7	83.4	85.2	85.3	3.4
1983: IV	98.2	95.4	87.9	89.9	91.7	84.3	86.4	88.6	88.4	4.2
1984: IV	98.7	93.6	92.7	95.0	95.5	93.7	90.9	92.1	91.9	2.6
1985: IV	97.7	94.2	96.2	98.1	98.7	96.4	94.8	95.5	95.3	3.9
1986: IV	97.4	93.6	98.3	98.8	98.7	99.2	97.8	97.9	97.5	3.3
1987: IV	101.6	102.6	100.9	100.2	100.3	100.1	101.5	101.3	101.4	3.6
1988: I	102.8	103.9	102.4	101.8	102.0	101.2	102.8	102.1	102.2	3.6
II	105.2	105.7	103.2	102.3	102.7	101.2	103.8	103.3	103.3	4.4
III	106.7	104.7	103.9	102.6	103.3	100.4	104.9	104.7	104.3	5.1
IV	106.6	106.0	104.8	103.6	103.9	102.6	105.7	105.6	105.5	3.9
1989: I	107.7	108.0	106.8	106.4	106.5	106.1	107.2	106.9	106.9	5.4
II	107.8	108.8	107.6	106.8	106.6	107.4	108.2	108.0	108.1	4.2
III	107.6	106.9	108.1	107.0	106.7	108.1	108.9	108.9	108.8	3.4
IV	107.3	107.7	109.0	108.0	107.8	108.6	109.7	109.8	109.9	3.7
1990: I	107.7	110.9	110.6	110.0	109.9	110.4	111.1	111.1	111.4	4.4
II	108.7	109.3	111.3	110.4	110.2	111.2	111.9	112.3	112.4	4.4
III	109.4	111.2	112.8	112.2	111.9	113.1	113.2	113.6	113.8	4.7
IV	109.6	117.2	114.2	113.6	113.7	113.2	114.7	114.5	115.3	3.2
1991: I	110.4	113.5	115.3	115.3	114.8	116.5	115.3	115.9	116.2	5.0
II	110.1	110.8	115.7	115.1	114.4	117.1	116.1	116.8	116.8	3.1
III	109.5	110.1	116.4	115.7	114.9	117.9	116.8	117.5	117.4	2.1
IV [p]	109.8	111.2	116.8	116.7	115.5	119.6	116.9	118.0	118.0	1.7

[1] New definition: Excludes receipts and payments of factor income from or to rest of the world.
[2] Gross domestic product (GDP) less exports of goods and services plus imports of goods and services.
[3] Quarterly changes are at annual rates.

Note.—Separate deflators are not calculated for gross private domestic investment, change in business inventories, and net exports of goods and services.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–4.—*Changes in gross domestic product and personal consumption expenditures, and related implicit price deflators and fixed-weighted price indexes, 1960–91*

[Percent change from preceding period; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product				Personal consumption expenditures			
	Current dollars	Constant (1987) dollars	Implicit price deflator	Fixed-weighted price index (1987 weights)	Current dollars	Constant (1987) dollars	Implicit price deflator	Fixed-weighted price index (1987 weights)
1960	3.9	2.2	1.6		4.5	2.7	1.9	
1961	3.6	2.7	1.2		3.3	2.3	.7	
1962	7.5	5.1	1.9		6.1	4.4	1.8	
1963	5.5	4.1	1.5		5.4	3.8	1.4	
1964	7.4	5.6	1.8		7.4	5.6	1.7	
1965	8.4	5.6	2.5		7.8	5.6	2.1	
1966	9.5	6.0	3.5		8.3	5.1	3.0	
1967	5.8	2.6	3.1		5.8	3.1	2.6	
1968	9.2	4.1	4.6		9.8	5.2	4.1	
1969	7.9	2.7	5.0		8.0	3.7	4.3	
1970	5.3	−.0	5.4		7.1	2.4	4.4	
1971	8.6	3.1	5.4		8.3	3.3	5.1	
1972	10.0	4.8	4.9		9.6	5.6	3.7	
1973	11.8	5.2	6.4		10.5	4.5	5.7	
1974	8.1	−.6	8.7		9.4	−.6	10.2	
1975	8.7	−.8	9.6		10.5	2.1	8.2	
1976	11.5	4.9	6.3		11.5	5.2	5.9	
1977	11.6	4.5	6.9		11.2	4.0	6.9	
1978	13.1	4.8	7.9		11.8	4.1	7.2	
1979	11.5	2.5	8.6		11.4	2.4	8.9	
1980	8.8	−.5	9.5		10.4	−.1	10.4	
1981	11.9	1.8	10.0		10.2	1.2	9.0	
1982	3.9	−2.2	6.2		6.9	1.1	5.7	
1983	8.1	3.9	4.1		9.6	4.6	4.9	
1984	10.9	6.2	4.4		9.0	4.8	3.9	
1985	6.9	3.2	3.7		8.4	4.4	3.9	
1986	5.7	2.9	2.6		6.9	3.6	3.1	
1987	6.4	3.1	3.2		7.1	2.8	4.2	
1988	7.9	3.9	3.9		8.0	3.6	4.2	
1989	7.0	2.5	4.3		6.7	1.9	4.7	
1990	5.1	1.0	4.2		6.4	1.2	5.1	
1991 p	2.9	−.7	3.6		3.9	−.2	4.0	
1982: IV	4.0	.6	3.4		11.2	6.0	4.9	
1983: IV	11.7	7.0	4.2		10.5	6.1	4.2	
1984: IV	5.4	2.7	2.6		8.1	4.5	3.1	
1985: IV	6.4	2.3	3.9		5.4	.3	4.8	
1986: IV	4.4	1.3	3.3		5.8	2.5	2.9	
1987: IV	9.9	5.9	3.6		4.4	−.1	4.5	
1988: I	6.1	2.6	3.6		9.9	7.1	2.8	
II	9.1	4.3	4.4		7.9	2.5	5.2	
III	7.6	2.5	5.1		8.4	2.9	5.1	
IV	8.1	3.9	3.9		8.9	4.1	4.7	
1989: I	7.8	2.5	5.4		4.6	−.2	5.0	
II	6.3	1.9	4.2		6.4	1.0	5.3	
III	4.6	1.1	3.4		7.2	4.1	3.0	
IV	4.9	1.2	3.7		4.7	.1	4.5	
1990: I	6.3	1.7	4.4		8.6	2.1	6.3	
II	6.2	1.6	4.4		4.3	−.0	4.3	
III	4.9	.2	4.7		8.8	2.8	6.1	
IV	−.9	−3.9	3.2		2.9	−3.5	6.4	
1991: I	2.3	−2.5	5.0		1.7	−1.3	3.1	
II	4.6	1.4	3.1		4.3	1.4	2.7	
III	4.1	1.8	2.1		5.0	2.3	2.7	
IV p	1.9	.3	1.7		1.9	−1.1	3.0	

Note.—Data are not yet available for fixed-weighted price indexes (1987 weights).

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–5.—*Selected per capita product and income series in current and 1987 dollars, 1959–91*

[Quarterly data at seasonally adjusted annual rates, except as noted]

Year or quarter	Current dollars							Constant (1987) dollars						Population (thousands) [1]
	Gross domestic product	Personal income	Disposable personal income	Personal consumption expenditures				Gross domestic product	Disposable personal income	Personal consumption expenditures				
				Total	Durable goods	Nondurable goods	Services			Total	Durable goods	Nondurable goods	Services	
1959	2,791	2,209	1,958	1,796	242	838	716	10,907	7,256	6,658	646	2,928	3,083	177,073
1960	2,840	2,264	1,994	1,839	240	847	752	10,916	7,264	6,698	638	2,915	3,145	180,760
1961	2,894	2,321	2,048	1,869	228	857	784	11,024	7,382	6,740	595	2,926	3,218	183,742
1962	3,063	2,430	2,137	1,953	252	878	823	11,414	7,583	6,931	644	2,964	3,323	186,590
1963	3,186	2,516	2,210	2,030	273	895	861	11,717	7,718	7,089	688	2,977	3,423	189,300
1964	3,376	2,661	2,369	2,149	296	936	917	12,209	8,140	7,384	733	3,065	3,586	191,927
1965	3,616	2,845	2,527	2,287	327	987	974	12,727	8,508	7,703	803	3,173	3,726	194,347
1966	3,915	3,061	2,699	2,450	348	1,060	1,041	13,338	8,822	8,005	844	3,294	3,867	196,599
1967	4,097	3,253	2,861	2,562	355	1,091	1,116	13,536	9,114	8,163	841	3,316	4,006	198,752
1968	4,430	3,536	3,077	2,785	404	1,171	1,211	13,953	9,399	8,506	919	3,417	4,169	200,745
1969	4,733	3,816	3,274	2,978	425	1,244	1,308	14,191	9,606	8,737	941	3,469	4,327	202,736
1970	4,928	4,052	3,521	3,152	416	1,318	1,418	14,022	9,875	8,842	896	3,497	4,449	205,089
1971	5,283	4,302	3,779	3,372	468	1,364	1,540	14,276	10,111	9,022	970	3,494	4,558	207,692
1972	5,750	4,671	4,042	3,658	528	1,454	1,676	14,801	10,414	9,425	1,073	3,601	4,751	209,924
1973	6,368	5,184	4,521	4,002	585	1,602	1,814	15,422	11,013	9,752	1,164	3,670	4,917	211,939
1974	6,819	5,637	4,893	4,337	575	1,780	1,982	15,185	10,832	9,602	1,062	3,552	4,988	213,898
1975	7,343	6,053	5,329	4,745	622	1,926	2,197	14,917	10,906	9,711	1,050	3,552	5,110	215,981
1976	8,109	6,632	5,796	5,241	734	2,072	2,436	15,502	11,192	10,121	1,176	3,674	5,271	218,086
1977	8,961	7,269	6,316	5,772	829	2,226	2,717	16,039	11,406	10,425	1,271	3,722	5,433	220,289
1978	10,029	8,121	7,042	6,384	909	2,432	3,043	16,635	11,851	10,744	1,316	3,795	5,633	222,629
1979	11,055	9,032	7,787	7,035	952	2,725	3,359	16,867	12,039	10,876	1,284	3,833	5,760	225,106
1980	11,892	9,948	8,576	7,677	933	2,999	3,745	16,584	12,005	10,746	1,154	3,779	5,814	227,715
1981	13,177	11,021	9,455	8,375	994	3,236	4,146	16,710	12,156	10,770	1,150	3,774	5,845	229,989
1982	13,564	11,589	9,989	8,868	1,018	3,326	4,523	16,194	12,146	10,782	1,131	3,756	5,895	232,201
1983	14,531	12,216	10,642	9,634	1,173	3,490	4,971	16,672	12,349	11,179	1,270	3,842	6,066	234,326
1984	15,978	13,345	11,673	10,408	1,345	3,693	5,370	17,549	13,029	11,617	1,432	3,953	6,231	236,393
1985	16,933	14,170	12,339	11,184	1,480	3,855	5,849	17,944	13,258	12,015	1,552	4,019	6,444	238,510
1986	17,735	14,917	13,010	11,843	1,619	3,956	6,269	18,299	13,552	12,336	1,670	4,118	6,548	240,691
1987	18,694	15,655	13,545	12,568	1,662	4,163	6,742	18,694	13,545	12,568	1,662	4,163	6,742	242,860
1988	19,994	16,630	14,477	13,448	1,783	4,381	7,284	19,252	13,890	12,903	1,749	4,223	6,930	245,093
1989	21,196	17,705	15,313	14,219	1,858	4,636	7,725	19,550	14,030	13,027	1,782	4,241	7,004	247,405
1990	22,056	18,720	16,236	14,971	1,864	4,871	8,236	19,540	14,154	13,051	1,756	4,203	7,092	249,992
1991 [p]	22,448	19,131	16,693	15,383	1,762	4,951	8,670	19,189	13,987	12,889	1,633	4,125	7,131	252,666
1982: IV	13,709	11,786	10,189	9,134	1,059	3,378	4,696	16,132	12,154	10,895	1,169	3,779	5,948	233,060
1983: IV	15,085	12,613	11,033	9,980	1,266	3,572	5,143	17,062	12,591	11,390	1,357	3,892	6,141	235,146
1984: IV	16,310	13,668	11,925	10,649	1,383	3,742	5,524	17,680	13,145	11,739	1,466	3,975	6,298	237,231
1985: IV	17,296	14,440	12,565	11,445	1,480	3,924	6,040	18,102	13,278	12,095	1,544	4,046	6,505	239,387
1986: IV	17,953	15,102	13,121	12,101	1,684	3,990	6,428	18,328	13,522	12,472	1,721	4,144	6,607	241,550
1987: IV	19,213	16,076	13,907	12,819	1,677	4,223	6,919	18,977	13,685	12,615	1,660	4,162	6,792	243,745
1988: I	19,458	16,245	14,154	13,099	1,756	4,264	7,078	19,061	13,840	12,808	1,740	4,190	6,877	244,235
II	19,846	16,499	14,332	13,322	1,770	4,339	7,213	19,223	13,836	12,862	1,744	4,213	6,905	244,744
III	20,161	16,720	14,570	13,556	1,767	4,425	7,365	19,294	13,886	12,921	1,727	4,235	6,958	245,387
IV	20,506	17,053	14,850	13,814	1,841	4,495	7,477	19,429	13,996	13,020	1,785	4,255	6,979	246,004
1989: I	20,852	17,460	15,131	13,942	1,823	4,544	7,575	19,513	14,093	12,986	1,759	4,248	6,979	246,491
II	21,125	17,616	15,197	14,130	1,851	4,625	7,655	19,562	13,969	12,989	1,781	4,223	6,984	247,032
III	21,304	17,726	15,337	14,338	1,916	4,664	7,759	19,561	13,996	13,084	1,834	4,245	7,006	247,711
IV	21,500	18,014	15,586	14,464	1,844	4,710	7,911	19,565	14,063	13,051	1,754	4,249	7,048	248,387
1990: I	21,781	18,400	15,963	14,731	1,928	4,800	8,004	19,606	14,185	13,090	1,818	4,235	7,037	248,950
II	22,055	18,649	16,154	14,848	1,862	4,812	8,175	19,633	14,204	13,056	1,758	4,208	7,090	249,594
III	22,251	18,851	16,344	15,120	1,866	4,907	8,347	19,586	14,168	13,107	1,759	4,209	7,139	250,349
IV	22,135	18,977	16,479	15,183	1,800	4,964	8,418	19,337	14,058	12,952	1,689	4,161	7,102	251,074
1991: I	22,206	18,944	16,492	15,208	1,751	4,952	8,505	19,166	13,965	12,877	1,632	4,148	7,097	251,689
II	22,406	19,110	16,678	15,334	1,744	4,966	8,624	19,188	14,022	12,892	1,621	4,147	7,124	252,281
III	22,567	19,184	16,752	15,481	1,790	4,970	8,720	19,221	13,992	12,930	1,653	4,135	7,142	252,990
IV [p]	22,611	19,286	16,849	15,508	1,763	4,918	8,828	19,181	13,970	12,858	1,624	4,071	7,162	253,705

[1] Population of the United States including Armed Forces overseas; includes Alaska and Hawaii beginning 1960. Annual data are averages of quarterly data. Quarterly data are averages for the period.

Source: Department of Commerce (Bureau of Economic Analysis and Bureau of the Census).

TABLE B–6.—*Gross domestic product by major type of product, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Final sales of domestic product	Inventory change	Goods [1]							Services [1]	Structures	Auto output
				Total			Durable goods		Nondurable goods				
				Total	Final sales	Inventory change	Final sales	Inventory change	Final sales	Inventory change			
1959	494.2	490.0	4.2	249.3	245.1	4.2	91.1	3.1	153.9	1.1	180.7	61.7	19.4
1960	513.4	510.1	3.2	257.3	254.0	3.2	93.8	1.6	160.2	1.6	194.2	61.1	21.3
1961	531.8	528.9	2.9	260.9	258.0	2.9	93.1	−.1	164.8	3.0	207.7	62.8	17.8
1962	571.6	565.5	6.1	281.5	275.4	6.1	103.4	3.4	172.0	2.7	222.3	67.0	22.4
1963	603.1	597.5	5.7	293.0	287.4	5.7	110.0	2.7	177.4	3.0	237.5	71.9	25.1
1964	648.0	643.0	5.0	313.1	308.1	5.0	119.6	4.0	188.5	1.0	256.2	77.6	25.9
1965	702.7	693.0	9.7	342.7	333.0	9.7	132.4	6.7	200.6	3.0	275.4	83.8	31.1
1966	769.8	756.0	13.8	379.7	365.9	13.8	147.9	10.2	218.1	3.6	302.3	86.9	30.2
1967	814.3	803.8	10.5	395.4	384.9	10.5	154.5	5.5	230.4	5.0	330.4	88.5	27.8
1968	889.3	880.2	9.1	428.7	419.5	9.1	169.1	4.7	250.4	4.4	362.8	98.9	35.0
1969	959.5	949.8	9.7	456.5	446.8	9.7	180.1	6.4	266.7	3.3	395.4	107.1	34.7
1970	1,010.7	1,008.4	2.3	467.0	464.7	2.3	182.1	−.1	282.6	2.3	433.8	108.6	28.5
1971	1,097.2	1,089.2	8.0	493.3	485.2	8.0	189.4	2.8	295.8	5.2	476.6	127.2	38.9
1972	1,207.0	1,197.1	9.9	537.4	527.5	9.9	209.7	7.2	317.8	2.7	523.6	145.9	41.4
1973	1,349.6	1,331.9	17.7	616.6	598.9	17.7	242.0	15.0	356.9	2.8	571.0	161.9	45.9
1974	1,458.6	1,444.4	14.3	662.8	648.5	14.3	257.1	11.2	391.4	3.1	631.3	164.5	38.8
1975	1,585.9	1,591.5	−5.7	715.1	720.8	−5.7	288.8	−7.0	432.0	1.3	706.9	163.8	40.3
1976	1,768.4	1,751.7	16.7	798.8	782.0	16.7	323.6	10.3	458.4	6.4	782.2	187.5	55.1
1977	1,974.1	1,949.4	24.7	880.4	855.7	24.7	368.3	9.7	487.4	15.0	870.4	223.3	64.2
1978	2,232.7	2,204.8	27.9	989.1	961.2	27.9	416.9	20.3	544.3	7.6	975.5	268.1	67.9
1979	2,488.6	2,475.9	12.8	1,100.2	1,087.5	12.8	474.5	9.6	613.0	3.1	1,079.6	308.8	66.2
1980	2,708.0	2,717.5	−9.5	1,176.2	1,185.7	−9.5	502.1	−2.6	683.6	−6.8	1,215.4	316.4	59.2
1981	3,030.6	3,005.2	25.4	1,324.6	1,299.2	25.4	544.2	6.2	755.0	19.2	1,357.4	348.6	68.3
1982	3,149.6	3,165.5	−15.9	1,315.0	1,330.9	−15.9	541.6	−16.0	789.3	.1	1,494.2	340.4	65.3
1983	3,405.0	3,410.6	−5.5	1,407.3	1,412.8	−5.5	579.4	5.5	833.4	−11.0	1,636.3	361.5	88.3
1984	3,777.2	3,706.1	71.1	1,591.9	1,520.8	71.1	647.0	44.9	873.8	26.2	1,770.7	414.7	104.2
1985	4,038.7	4,014.1	24.6	1,652.6	1,628.0	24.6	704.8	8.6	923.2	16.0	1,939.0	447.1	115.8
1986	4,268.6	4,260.0	8.6	1,705.3	1,696.7	8.6	730.2	1.6	966.5	7.1	2,097.3	466.0	120.4
1987	4,539.9	4,513.7	26.3	1,794.5	1,768.2	26.3	753.5	21.6	1,014.7	4.7	2,267.2	478.2	118.9
1988	4,900.4	4,884.2	16.2	1,942.0	1,925.7	16.2	835.6	24.3	1,090.1	−8.1	2,460.9	497.5	129.1
1989	5,244.0	5,208.1	36.0	2,098.1	2,062.1	36.0	892.9	26.9	1,169.2	9.1	2,634.7	511.3	133.9
1990	5,513.8	5,513.8	.0	2,167.6	2,167.6	.0	934.6	−7.0	1,233.0	6.9	2,834.0	512.2	130.3
1991 [p]	5,671.8	5,692.0	−20.2	2,192.8	2,213.0	−20.2	929.0	−24.5	1,284.0	4.3	3,012.7	466.4	117.9
1982: IV	3,195.1	3,241.4	−46.3	1,302.2	1,348.5	−46.3	550.6	−41.1	798.0	−5.2	1,553.3	339.5	63.2
1983: IV	3,547.3	3,527.1	20.2	1,483.0	1,462.8	20.2	620.5	25.5	842.3	−5.3	1,686.1	378.2	101.9
1984: IV	3,869.1	3,818.1	51.0	1,617.5	1,566.5	51.0	676.3	38.5	890.2	12.5	1,824.7	426.9	110.4
1985: IV	4,140.5	4,107.9	32.6	1,673.7	1,641.1	32.6	705.7	10.9	935.4	21.7	2,008.9	457.9	115.1
1986: IV	4,336.6	4,355.4	−18.8	1,714.5	1,733.3	−18.8	751.5	−11.9	981.8	−7.0	2,154.1	468.1	122.5
1987: IV	4,683.0	4,623.7	59.3	1,865.4	1,806.1	59.3	769.3	37.1	1,036.9	22.2	2,327.6	490.1	120.9
1988: I	4,752.4	4,735.6	16.8	1,875.7	1,859.0	16.8	809.0	11.0	1,049.9	5.7	2,391.0	485.7	116.4
II	4,857.2	4,843.4	13.8	1,924.5	1,910.8	13.8	833.7	14.3	1,077.0	−.5	2,436.7	495.9	133.4
III	4,947.3	4,930.2	17.1	1,960.7	1,943.6	17.1	838.8	36.6	1,104.8	−19.5	2,487.5	499.2	130.6
IV	5,044.6	5,027.3	17.3	2,007.0	1,989.7	17.3	861.0	35.3	1,128.7	−18.0	2,528.5	509.1	136.1
1989: I	5,139.9	5,096.7	43.2	2,058.9	2,015.7	43.2	866.9	39.2	1,148.9	4.0	2,568.8	512.1	135.3
II	5,218.5	5,176.2	42.3	2,102.9	2,060.6	42.3	894.0	17.7	1,166.6	24.6	2,608.1	507.5	133.9
III	5,277.3	5,254.0	23.3	2,114.1	2,090.8	23.3	916.5	12.6	1,174.3	10.7	2,651.8	511.5	136.2
IV	5,340.4	5,305.3	35.1	2,116.4	2,081.4	35.1	894.2	37.9	1,187.1	−2.9	2,709.9	514.0	130.1
1990: I	5,422.4	5,425.7	−3.3	2,140.2	2,143.5	−3.3	941.0	−14.4	1,202.5	11.0	2,753.0	529.2	121.8
II	5,504.7	5,479.1	25.6	2,176.5	2,150.9	25.6	931.1	1.4	1,219.8	24.3	2,812.6	515.6	133.2
III	5,570.5	5,556.5	14.1	2,195.6	2,181.6	14.1	939.3	14.5	1,242.3	−.4	2,864.8	510.1	147.6
IV	5,557.5	5,594.0	−36.5	2,158.0	2,194.5	−36.5	927.2	−29.4	1,267.3	−7.1	2,905.5	494.0	118.5
1991: I	5,589.0	5,628.2	−39.2	2,169.4	2,208.6	−39.2	916.4	−43.5	1,292.1	4.3	2,951.7	467.9	109.8
II	5,652.6	5,689.6	−37.1	2,186.1	2,223.2	−37.1	939.5	−33.5	1,283.7	−3.6	2,999.0	467.4	115.5
III	5,709.2	5,712.8	−3.6	2,210.5	2,214.1	−3.6	929.4	−9.2	1,284.7	5.6	3,035.1	463.5	125.2
IV [p]	5,736.6	5,737.6	−1.1	2,205.0	2,206.1	−1.1	930.8	−12.0	1,275.3	10.9	3,065.0	466.6	121.0

[1] Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–7.—*Gross domestic product by major type of product in 1987 dollars, 1959–91*

[Billions of 1987 dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Final sales of domestic product	Inventory change	Goods [1]							Services [1]	Structures	Auto output
				Total			Durable goods		Nondurable goods				
				Total	Final sales	Inventory change	Final sales	Inventory change	Final sales	Inventory change			
1959	1,931.3	1,917.8	13.6	825.2	811.6	13.6	273.8	8.6	537.8	5.0	846.2	259.9	62.6
1960	1,973.2	1,965.0	8.1	835.3	827.1	8.1	277.8	4.6	549.3	3.5	879.7	258.2	66.9
1961	2,025.6	2,018.4	7.2	840.9	833.7	7.2	273.5	−.3	560.2	7.5	918.6	266.1	56.3
1962	2,129.8	2,114.2	15.6	889.6	874.0	15.6	296.5	8.6	577.5	7.0	958.5	281.7	66.5
1963	2,218.0	2,202.0	16.0	914.9	898.9	16.0	310.4	7.5	588.5	8.6	1,002.3	300.8	72.1
1964	2,343.3	2,327.6	15.7	967.6	952.0	15.7	334.3	11.3	617.6	4.4	1,055.3	320.4	72.8
1965	2,473.5	2,448.3	25.1	1,033.0	1,007.9	25.1	364.1	18.3	643.8	6.9	1,105.0	335.4	86.6
1966	2,622.3	2,585.6	36.7	1,113.3	1,076.6	36.7	399.4	27.1	677.2	9.6	1,174.5	334.5	83.7
1967	2,690.3	2,662.7	27.6	1,129.4	1,101.7	27.6	413.7	14.5	688.0	13.1	1,231.7	329.3	72.5
1968	2,801.0	2,777.4	23.6	1,168.9	1,145.3	23.6	430.4	12.8	714.9	10.9	1,282.0	350.1	86.4
1969	2,877.1	2,852.3	24.8	1,193.9	1,169.1	24.8	438.4	15.7	730.7	9.1	1,328.7	354.5	82.9
1970	2,875.8	2,869.9	5.9	1,173.0	1,167.1	5.9	428.0	−.9	739.1	6.9	1,364.0	338.9	65.4
1971	2,965.1	2,944.3	20.8	1,187.8	1,167.0	20.8	424.9	8.9	742.1	11.9	1,405.2	372.1	85.3
1972	3,107.1	3,084.5	22.5	1,251.0	1,228.4	22.5	458.4	16.2	770.0	6.4	1,454.1	401.9	89.9
1973	3,268.6	3,230.9	37.7	1,349.8	1,312.1	37.7	528.0	31.2	784.1	6.5	1,508.3	410.4	98.7
1974	3,248.1	3,217.2	30.9	1,328.2	1,297.3	30.9	524.6	19.6	772.7	11.3	1,553.9	366.1	79.0
1975	3,221.7	3,235.6	−13.9	1,291.8	1,305.7	−13.9	521.6	−11.5	784.1	−2.5	1,602.2	327.7	74.8
1976	3,380.8	3,355.3	25.5	1,372.7	1,347.2	25.5	540.6	17.0	806.6	8.5	1,649.1	359.0	96.8
1977	3,533.2	3,499.0	34.3	1,436.9	1,402.6	34.3	583.6	15.6	819.0	18.7	1,701.2	395.2	106.0
1978	3,703.5	3,666.3	37.2	1,507.3	1,470.1	37.2	623.7	28.7	846.4	8.5	1,770.6	425.6	104.2
1979	3,796.8	3,783.2	13.6	1,537.1	1,523.5	13.6	654.1	11.7	869.3	1.9	1,821.7	438.0	94.8
1980	3,776.3	3,784.6	−8.3	1,509.5	1,517.7	−8.3	626.4	−4.3	891.4	−4.0	1,864.3	402.5	79.1
1981	3,843.1	3,818.6	24.6	1,547.4	1,522.9	24.6	619.4	6.3	903.4	18.3	1,895.7	400.0	86.8
1982	3,760.3	3,777.8	−17.5	1,468.7	1,486.2	−17.5	578.9	−16.0	907.3	−1.5	1,922.8	368.8	79.2
1983	3,906.6	3,902.2	4.4	1,531.7	1,527.3	4.4	601.5	6.3	925.8	−1.8	1,976.8	398.1	101.7
1984	4,148.5	4,080.6	67.9	1,667.7	1,599.8	67.9	655.1	45.7	944.7	22.3	2,033.1	447.7	115.8
1985	4,279.8	4,257.6	22.1	1,695.0	1,672.9	22.1	703.4	9.3	969.5	12.9	2,115.3	469.4	125.0
1986	4,404.5	4,395.9	8.5	1,740.1	1,731.6	8.5	731.5	1.9	1,000.1	6.7	2,185.0	479.3	124.4
1987	4,540.0	4,513.7	26.3	1,794.5	1,768.2	26.3	753.5	21.6	1,014.7	4.7	2,267.3	478.2	118.9
1988	4,718.6	4,698.6	19.9	1,892.5	1,872.6	19.9	833.1	23.3	1,039.5	−3.4	2,349.7	476.4	127.3
1989	4,836.9	4,804.3	32.6	1,962.0	1,929.4	32.6	868.2	25.2	1,061.3	7.4	2,402.7	472.1	127.1
1990	4,884.9	4,884.7	.2	1,958.0	1,957.8	.2	892.9	−6.7	1,065.0	6.9	2,464.8	462.0	121.1
1991 [p]	4,848.4	4,863.6	−15.1	1,929.2	1,944.3	−15.1	875.9	−22.2	1,068.4	7.0	2,504.5	414.8	105.9
1982: IV	3,759.6	3,804.5	−44.9	1,447.7	1,492.6	−44.9	580.9	−41.9	911.6	−3.0	1,942.1	369.8	75.3
1983: IV	4,012.1	3,982.8	29.3	1,597.8	1,568.5	29.3	639.4	26.7	929.1	2.6	1,998.3	416.0	113.7
1984: IV	4,194.2	4,146.2	47.9	1,680.9	1,633.0	47.9	677.6	39.7	955.3	8.3	2,058.1	455.1	122.4
1985: IV	4,333.5	4,303.3	30.2	1,708.1	1,677.9	30.2	703.1	11.9	974.9	18.3	2,148.8	476.5	122.4
1986: IV	4,427.1	4,447.2	−20.1	1,741.8	1,761.8	−20.1	750.4	−11.9	1,011.4	−8.2	2,208.2	477.2	124.1
1987: IV	4,625.5	4,565.6	59.9	1,850.8	1,790.9	59.9	769.4	36.9	1,021.5	23.0	2,290.9	483.8	120.3
1988: I	4,655.3	4,636.2	19.2	1,858.2	1,839.0	19.2	811.3	10.6	1,027.7	8.6	2,326.2	470.9	116.9
II	4,704.8	4,688.7	16.1	1,887.4	1,871.3	16.1	835.3	14.1	1,036.0	2.0	2,340.2	477.2	132.1
III	4,734.5	4,710.9	23.5	1,898.6	1,875.0	23.5	832.7	35.0	1,042.4	−11.5	2,359.9	476.0	125.6
IV	4,779.7	4,758.7	20.9	1,926.0	1,905.0	20.9	852.9	33.5	1,052.2	−12.5	2,372.4	481.3	134.6
1989: I	4,809.8	4,768.5	41.2	1,953.8	1,912.5	41.2	851.6	37.5	1,060.9	3.7	2,377.9	478.1	131.5
II	4,832.4	4,793.5	38.9	1,971.6	1,932.8	38.9	873.4	16.5	1,059.4	22.4	2,391.5	469.3	126.2
III	4,845.6	4,825.4	20.2	1,966.6	1,946.4	20.2	886.8	11.2	1,059.6	9.1	2,408.4	470.6	128.1
IV	4,859.7	4,829.7	30.0	1,956.1	1,926.1	30.0	860.9	35.6	1,065.2	−5.6	2,433.2	470.5	122.4
1990: I	4,880.8	4,884.8	−4.0	1,961.1	1,965.1	−4.0	902.3	−13.6	1,062.8	9.7	2,440.1	479.6	114.3
II	4,900.3	4,878.1	22.1	1,973.8	1,951.6	22.1	891.8	1.2	1,059.8	20.9	2,461.2	465.3	123.7
III	4,903.3	4,889.4	13.9	1,968.5	1,954.6	13.9	892.3	13.1	1,062.3	.8	2,476.3	458.5	135.9
IV	4,855.1	4,886.3	−31.2	1,928.6	1,959.8	−31.2	884.8	−27.3	1,075.0	−3.9	2,481.8	444.6	110.7
1991: I	4,824.0	4,856.8	−32.8	1,917.0	1,949.8	−32.8	866.4	−39.4	1,083.4	6.6	2,487.6	419.4	99.3
II	4,840.7	4,871.2	−30.4	1,922.0	1,952.4	−30.4	883.3	−30.5	1,069.1	.1	2,502.7	416.1	104.5
III	4,862.7	4,862.6	.1	1,940.5	1,940.4	.1	873.9	−8.4	1,066.5	8.4	2,511.8	410.4	112.3
IV [p]	4,866.3	4,863.7	2.7	1,937.2	1,934.5	2.7	879.9	−10.4	1,054.6	13.0	2,516.0	413.2	107.6

[1] Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–8.—*Gross domestic product by sector, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Business [1]				Households and institutions	General government [2]		
		Total [1]	Nonfarm [1]	Farm	Statistical discrepancy		Total	Federal	State and local
1959	494.2	436.9	419.8	18.9	−1.8	12.4	44.9	21.7	23.1
1960	513.4	451.4	434.7	19.8	−3.1	13.9	48.1	22.6	25.5
1961	531.8	465.7	447.9	20.1	−2.2	14.5	51.6	23.7	27.9
1962	571.6	500.5	481.4	20.2	−1.0	15.6	55.5	25.2	30.2
1963	603.1	527.1	508.7	20.4	−2.0	16.7	59.3	26.5	32.9
1964	648.0	565.8	547.2	19.3	−.7	17.9	64.4	28.5	35.9
1965	702.7	614.1	592.9	21.9	−.7	19.3	69.3	30.0	39.3
1966	769.8	670.1	644.4	22.9	2.8	21.3	78.4	34.3	44.1
1967	814.3	703.5	680.5	22.2	.8	23.4	87.4	37.9	49.5
1968	889.3	765.4	742.8	22.7	−.1	26.1	97.8	41.9	55.9
1969	959.5	822.5	799.9	25.2	−2.6	29.5	107.5	44.9	62.6
1970	1,010.7	858.7	832.5	26.2	.0	32.4	119.5	48.5	71.1
1971	1,097.2	931.2	900.0	28.1	3.1	35.6	130.4	51.1	79.3
1972	1,207.0	1,025.3	991.7	32.6	1.1	39.0	142.6	54.9	87.7
1973	1,349.6	1,151.5	1,102.2	49.8	−.5	43.0	155.1	57.2	97.9
1974	1,458.6	1,242.7	1,193.9	47.4	1.4	47.2	168.8	61.1	107.6
1975	1,585.9	1,346.1	1,291.4	48.8	6.0	52.0	187.7	66.6	121.1
1976	1,768.4	1,507.4	1,450.6	46.4	10.4	57.1	203.9	71.0	132.9
1977	1,974.1	1,691.1	1,633.0	47.2	10.9	62.4	220.6	75.6	145.0
1978	2,232.7	1,921.1	1,858.7	54.7	7.6	71.0	240.7	81.8	158.9
1979	2,488.6	2,147.9	2,069.7	64.5	13.8	78.9	261.9	87.1	174.8
1980	2,708.0	2,328.9	2,259.2	56.1	13.6	89.3	289.8	96.3	193.5
1981	3,030.6	2,611.7	2,530.9	69.9	10.9	100.5	318.4	107.7	210.7
1982	3,149.6	2,692.1	2,634.4	65.1	−7.4	111.6	345.8	117.3	228.5
1983	3,405.0	2,914.8	2,855.5	49.2	10.2	121.3	368.9	125.0	243.9
1984	3,777.2	3,251.1	3,191.6	68.5	−9.0	132.0	394.1	132.2	261.9
1985	4,038.7	3,473.5	3,420.3	67.1	−13.9	141.7	423.6	140.3	283.2
1986	4,268.6	3,665.7	3,601.5	62.9	1.2	153.3	449.6	143.7	305.9
1987	4,539.9	3,890.8	3,849.5	66.0	−24.8	170.5	478.7	151.4	327.3
1988	4,900.4	4,201.0	4,161.8	67.6	−28.4	187.6	511.7	159.8	351.9
1989	5,244.0	4,490.7	4,411.3	82.1	−2.7	205.0	548.3	169.2	379.1
1990	5,513.8	4,699.4	4,605.6	85.7	8.1	225.1	589.2	179.4	409.8
1991 [p]	5,671.8	4,802.9	4,702.7	80.5	19.6	246.4	622.6	188.8	433.7
1982: IV	3,195.1	2,724.0	2,674.1	60.0	−10.1	115.5	355.6	121.1	234.5
1983: IV	3,547.3	3,046.6	2,986.9	45.8	13.8	125.1	375.6	126.2	249.4
1984: IV	3,869.1	3,330.3	3,283.2	67.5	−20.5	135.6	403.2	134.1	269.2
1985: IV	4,140.5	3,561.2	3,501.5	65.7	−5.9	145.6	433.6	142.4	291.2
1986: IV	4,336.6	3,718.3	3,656.0	64.3	−2.0	157.8	460.5	144.9	315.6
1987: IV	4,683.0	4,016.6	3,970.9	70.6	−24.9	177.6	488.8	153.2	335.6
1988: I	4,752.4	4,070.6	4,034.0	70.9	−34.4	180.8	501.1	158.5	342.6
II	4,857.2	4,164.0	4,124.9	67.2	−28.1	185.3	507.8	159.4	348.5
III	4,947.3	4,242.2	4,196.4	71.6	−25.8	190.1	515.0	160.2	354.9
IV	5,044.6	4,327.3	4,291.9	60.8	−25.4	194.3	523.0	161.3	361.7
1989: I	5,139.9	4,404.6	4,348.2	82.5	−26.0	198.6	536.7	168.1	368.6
II	5,218.5	4,471.7	4,393.5	83.5	−5.2	202.8	544.0	168.7	375.3
III	5,277.3	4,518.3	4,436.2	79.6	2.5	207.1	551.9	169.4	382.5
IV	5,340.4	4,568.0	4,467.6	82.6	17.9	211.7	560.6	170.4	390.2
1990: I	5,422.4	4,630.6	4,538.3	87.8	4.4	216.1	575.7	177.5	398.2
II	5,504.7	4,696.2	4,608.9	89.6	−2.4	222.2	586.4	180.1	406.2
III	5,570.5	4,748.7	4,634.8	85.7	28.2	228.9	592.9	179.1	413.8
IV	5,557.5	4,722.3	4,640.4	79.8	2.1	233.3	601.9	181.0	420.9
1991: I	5,589.0	4,734.7	4,640.1	76.6	18.0	237.5	616.8	189.4	427.4
II	5,652.6	4,786.8	4,687.2	83.1	16.5	243.7	622.0	188.7	433.2
III	5,709.2	4,835.0	4,730.1	82.9	22.0	249.9	624.3	188.4	435.9
IV [p]	5,736.6	4,855.0	4,753.5	79.5	22.0	254.4	627.2	188.8	438.3

[1] Includes compensation of employees in government enterprises.
[2] Compensation of government employees.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–9.—*Gross domestic product by sector in 1987 dollars, 1959–91*

[Billions of 1987 dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Business [1]				Households and institutions	General government [2]		
		Total [1]	Nonfarm [1]	Farm	Statistical discrepancy		Total	Federal	State and local
1959	1,931.3	1,584.7	1,546.0	45.2	−6.5	80.1	266.5	130.5	136.0
1960	1,973.2	1,611.9	1,576.7	46.4	−11.2	86.5	274.8	132.1	142.7
1961	2,025.6	1,652.6	1,613.5	46.9	−7.8	87.5	285.6	135.3	150.3
1962	2,129.8	1,742.5	1,699.8	46.3	−3.6	91.1	296.2	141.6	154.7
1963	2,218.0	1,821.2	1,781.0	47.1	−6.9	93.6	303.2	140.9	162.3
1964	2,343.3	1,933.1	1,889.4	46.0	−2.4	96.5	313.7	141.7	172.0
1965	2,473.5	2,048.2	2,004.6	46.1	−2.5	100.4	324.8	142.3	182.5
1966	2,622.3	2,168.7	2,115.2	44.5	9.1	104.7	348.9	155.4	193.5
1967	2,690.3	2,213.2	2,164.0	46.5	2.6	108.3	368.9	168.1	200.8
1968	2,801.0	2,307.1	2,262.1	45.1	−.1	111.8	382.1	170.7	211.4
1969	2,877.1	2,370.3	2,330.8	46.8	−7.3	115.5	391.3	171.2	220.1
1970	2,875.8	2,370.3	2,320.8	49.5	.0	114.1	391.4	161.6	229.8
1971	2,965.1	2,456.6	2,397.7	50.5	8.3	116.7	391.8	152.4	239.5
1972	3,107.1	2,594.8	2,541.3	50.7	2.8	120.0	392.2	143.7	248.6
1973	3,268.6	2,749.7	2,702.0	48.6	−1.0	123.2	395.7	138.0	257.7
1974	3,248.1	2,719.6	2,666.0	50.7	3.0	124.3	404.1	137.9	266.2
1975	3,221.7	2,684.6	2,619.6	53.1	11.9	128.0	409.1	137.1	272.0
1976	3,380.8	2,840.1	2,768.1	52.5	19.5	128.6	412.0	137.0	275.0
1977	3,533.2	2,987.9	2,914.6	53.8	19.4	129.8	415.6	137.0	278.6
1978	3,703.5	3,144.2	3,083.8	48.2	12.2	135.1	424.2	138.4	285.8
1979	3,796.8	3,226.0	3,155.0	50.4	20.6	138.3	432.5	137.5	295.0
1980	3,776.3	3,193.4	3,123.4	51.0	19.0	142.6	440.3	139.2	301.1
1981	3,843.1	3,253.6	3,179.2	60.8	13.6	145.6	443.9	140.9	303.0
1982	3,760.3	3,167.3	3,115.8	60.2	−8.7	148.9	444.2	142.4	301.8
1983	3,906.6	3,308.2	3,243.1	53.7	11.5	151.0	447.4	144.8	302.6
1984	4,148.5	3,541.7	3,496.4	55.1	−9.8	154.9	451.9	146.4	305.4
1985	4,279.8	3,658.1	3,608.6	64.2	−14.7	159.9	461.8	148.6	313.2
1986	4,404.5	3,768.3	3,702.8	64.3	1.3	166.3	469.9	149.0	320.8
1987	4,540.0	3,890.8	3,849.6	66.0	−24.8	170.5	478.7	151.4	327.3
1988	4,718.6	4,050.6	4,014.8	63.2	−27.4	180.6	487.4	153.5	333.9
1989	4,836.9	4,150.4	4,085.9	67.2	−2.7	189.7	496.8	154.1	342.7
1990	4,884.9	4,180.4	4,101.9	71.4	7.2	195.7	508.8	155.7	353.1
1991 [p]	4,848.4	4,134.1	4,044.0	73.2	16.9	202.2	512.1	155.2	356.9
1982: IV	3,759.6	3,166.3	3,116.9	61.1	−11.7	149.6	443.8	143.2	300.6
1983: IV	4,012.1	3,411.5	3,349.0	47.0	15.5	151.7	448.9	145.2	303.7
1984: IV	4,194.2	3,583.0	3,548.9	56.1	−22.0	156.8	454.4	147.1	307.3
1985: IV	4,333.5	3,706.1	3,646.8	65.5	−6.2	162.3	465.1	148.7	316.5
1986: IV	4,427.1	3,786.7	3,724.4	64.4	−2.1	166.9	473.5	149.8	323.7
1987: IV	4,625.5	3,969.9	3,925.5	69.0	−24.6	173.2	482.3	152.8	329.5
1988: I	4,655.3	3,994.7	3,956.8	71.7	−33.8	176.2	484.4	153.3	331.2
II	4,704.8	4,039.7	4,001.2	65.8	−27.2	179.0	486.1	153.2	332.8
III	4,734.5	4,063.6	4,026.8	61.6	−24.7	182.4	488.4	153.6	334.8
IV	4,779.7	4,104.2	4,074.5	53.8	−24.1	184.7	490.7	154.0	336.7
1989: I	4,809.8	4,129.9	4,088.4	65.9	−24.4	187.2	492.7	153.8	338.9
II	4,832.4	4,148.0	4,084.0	68.9	−4.8	189.3	495.1	153.8	341.2
III	4,845.6	4,157.0	4,087.9	66.7	2.3	190.6	498.1	154.2	343.8
IV	4,859.7	4,166.6	4,083.2	67.1	16.3	191.8	501.3	154.5	346.7
1990: I	4,880.8	4,183.3	4,109.4	69.9	4.0	192.8	504.7	155.0	349.7
II	4,900.3	4,196.7	4,126.9	72.0	−2.1	194.8	508.7	156.4	352.3
III	4,903.3	4,196.4	4,099.9	71.7	24.9	197.2	509.6	155.3	354.4
IV	4,855.1	4,145.1	4,071.2	72.0	1.9	197.9	512.1	156.2	356.0
1991: I	4,824.0	4,111.4	4,024.6	71.1	15.7	198.8	513.9	157.0	356.9
II	4,840.7	4,126.4	4,040.1	72.1	14.3	201.1	513.2	155.5	357.7
III	4,862.7	4,148.6	4,055.6	74.1	18.9	203.1	511.0	154.4	356.6
IV [p]	4,866.3	4,150.1	4,055.9	75.5	18.8	205.7	510.5	153.8	356.6

[1] Includes compensation of employees in government enterprises.
[2] Compensation of government employees.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–10.—*Gross domestic product of nonfinancial corporate business, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product of nonfinancial corporate business	Consumption of fixed capital	Net domestic product												
					Domestic income										
							Corporate profits with inventory valuation and capital consumption adjustments								
								Profits					Inventory valuation adjustment	Capital consumption adjustment	Net interest
										Profits after tax					
			Total	Indirect business taxes [1]	Total	Compensation of employees	Total	Profits before tax	Profits tax liability	Total	Dividends	Undistributed profits			
1959	267.5	24.2	243.2	26.0	217.2	171.5	42.6	43.6	20.7	22.9	10.0	12.9	−0.3	−0.7	3.1
1960	278.1	25.2	252.8	28.3	224.6	181.2	40.0	40.3	19.2	21.1	10.6	10.6	−.2	−.2	3.5
1961	285.5	26.0	259.6	29.5	230.1	185.3	40.8	40.1	19.5	20.7	10.6	10.1	.3	.3	4.0
1962	311.7	26.9	284.8	32.0	252.8	200.1	48.2	45.0	20.6	24.3	11.4	13.0	.0	3.2	4.5
1963	331.7	28.1	303.7	34.0	269.7	211.1	53.8	49.8	22.8	27.0	12.6	14.4	.1	3.9	4.8
1964	358.1	29.5	328.6	36.6	292.0	226.7	60.0	56.0	24.0	32.1	13.7	18.4	−.5	4.5	5.3
1965	393.5	31.5	362.0	39.2	322.8	246.5	70.3	66.2	27.2	39.0	15.6	23.4	−1.2	5.3	6.1
1966	431.0	34.3	396.7	40.4	356.2	274.0	74.9	71.4	29.5	41.9	16.8	25.1	−2.1	5.6	7.4
1967	453.5	37.5	415.9	43.2	372.8	292.3	71.8	67.5	27.8	39.7	17.5	22.2	−1.6	5.8	8.8
1968	500.5	41.4	459.1	49.8	409.3	323.2	76.0	74.0	33.6	40.4	19.1	21.3	−3.7	5.6	10.1
1969	543.2	45.3	497.9	54.7	443.3	358.8	71.3	70.8	33.3	37.5	19.1	18.4	−5.9	6.3	13.2
1970	561.3	49.7	511.6	58.8	452.8	378.7	57.1	58.1	27.2	31.0	18.5	12.5	−6.6	5.5	17.1
1971	606.2	54.6	551.6	64.4	487.3	402.0	67.2	67.1	29.9	37.1	18.5	18.7	−4.6	4.7	18.1
1972	673.2	61.0	612.3	69.1	543.2	447.1	77.0	78.6	33.8	44.8	20.1	24.7	−6.6	5.0	19.2
1973	754.5	66.2	688.3	76.3	612.0	505.9	83.6	98.6	40.2	58.4	21.1	37.3	−20.0	5.0	22.5
1974	814.8	77.5	737.2	81.5	655.7	556.8	70.6	109.2	42.2	67.0	21.7	45.2	−39.5	.9	28.3
1975	881.1	93.3	787.8	87.2	700.6	580.3	91.5	109.9	41.5	68.4	24.8	43.6	−11.0	−7.4	28.7
1976	994.4	103.8	890.6	94.9	795.7	656.7	111.5	137.3	53.0	84.4	27.8	56.6	−14.9	−10.9	27.5
1977	1,124.3	116.2	1,008.1	103.9	904.2	741.6	132.0	158.6	59.9	98.7	32.0	66.8	−16.6	−10.0	30.6
1978	1,279.2	132.3	1,146.9	113.6	1,033.3	850.9	146.1	183.5	67.1	116.4	37.2	79.1	−25.0	−12.3	36.3
1979	1,423.6	153.0	1,270.6	121.9	1,148.7	965.5	138.1	195.5	69.6	125.9	39.3	86.7	−41.6	−15.9	45.1
1980	1,546.8	174.8	1,372.1	137.8	1,234.3	1,055.4	120.7	181.6	67.0	114.6	45.5	69.1	−43.0	−17.8	58.2
1981	1,749.1	207.0	1,542.1	165.8	1,376.3	1,167.4	136.9	181.0	63.9	117.1	53.4	63.7	−25.7	−18.4	71.9
1982	1,803.5	229.4	1,574.1	166.9	1,407.2	1,213.2	111.5	132.9	46.3	86.7	56.4	30.2	−9.9	−11.5	82.5
1983	1,937.1	242.1	1,695.0	182.6	1,512.3	1,275.7	159.9	155.9	59.4	96.4	66.5	29.9	−8.5	12.5	76.7
1984	2,167.3	248.1	1,919.1	202.5	1,716.6	1,414.4	214.3	189.0	73.7	115.4	69.5	45.9	−4.1	29.4	87.9
1985	2,295.5	258.0	2,037.5	216.4	1,821.0	1,509.0	221.4	165.5	69.9	95.6	74.5	21.1	.2	55.6	90.7
1986	2,391.3	271.4	2,119.9	230.0	1,889.9	1,587.8	203.8	149.1	75.6	73.5	76.3	−2.8	9.7	44.9	98.3
1987	2,544.6	281.4	2,263.2	237.1	2,026.1	1,676.1	244.2	212.0	93.5	118.5	77.9	40.6	−14.5	46.7	105.8
1988	2,762.1	297.5	2,464.6	254.3	2,210.3	1,814.4	274.4	256.6	101.7	154.9	82.0	72.9	−27.3	45.0	121.6
1989	2,910.8	316.2	2,594.7	268.8	2,325.9	1,922.9	261.0	251.5	99.2	152.3	104.4	47.9	−17.5	27.0	142.0
1990	3,008.9	327.3	2,681.6	285.5	2,396.1	2,023.3	224.3	232.5	96.1	136.4	112.2	24.2	−14.2	5.9	148.5
1991 [p]	3,052.3	343.3	2,709.0	307.7	2,401.3	2,052.6	203.3	202.4	83.0	119.4	116.5	2.9	3.8	−2.9	145.4
1982: IV	1,807.1	238.8	1,568.3	169.9	1,398.4	1,217.4	101.5	116.5	40.6	75.9	59.0	16.9	−8.6	−6.4	79.6
1983: IV	2,038.1	261.5	1,776.6	190.4	1,586.2	1,332.2	175.2	168.1	64.4	103.7	67.4	36.3	−7.6	14.7	78.9
1984: IV	2,230.0	258.9	1,971.1	208.7	1,762.5	1,455.2	211.4	169.0	62.6	106.4	68.7	37.7	3.5	38.9	95.8
1985: IV	2,341.3	263.4	2,077.9	220.3	1,857.6	1,546.1	221.4	168.4	71.1	97.2	74.7	22.5	−3.8	56.9	90.0
1986: IV	2,428.4	275.8	2,152.7	232.7	1,920.0	1,618.0	198.6	168.5	86.5	82.0	75.2	6.8	−10.7	40.8	103.5
1987: IV	2,625.9	286.1	2,339.8	242.2	2,097.6	1,731.6	256.8	224.8	99.6	125.1	84.0	41.2	−17.8	49.8	109.2
1988: I	2,685.3	291.3	2,393.9	247.8	2,146.1	1,758.1	273.3	243.3	95.9	147.4	70.9	76.5	−18.8	48.8	114.7
II	2,740.9	295.4	2,445.5	251.8	2,193.7	1,798.7	275.7	254.3	101.1	153.2	79.9	73.3	−26.1	47.5	119.3
III	2,782.2	298.7	2,483.5	256.7	2,226.8	1,832.9	270.0	257.5	102.0	155.5	92.8	62.7	−32.6	45.1	123.9
IV	2,840.1	304.5	2,535.6	260.9	2,274.7	1,867.8	278.5	271.4	107.9	163.5	84.3	79.2	−31.7	38.8	128.4
1989: I	2,870.3	308.6	2,561.7	262.6	2,299.1	1,896.7	267.6	270.5	108.0	162.5	108.4	54.1	−37.6	34.7	134.8
II	2,901.1	311.7	2,589.5	267.3	2,322.2	1,910.2	269.9	254.8	100.7	154.1	103.0	51.1	−15.7	30.8	142.1
III	2,928.7	320.1	2,608.6	272.4	2,336.2	1,928.9	261.9	241.2	94.8	146.5	104.7	41.8	−3.3	24.0	145.4
IV	2,943.3	324.4	2,618.8	272.8	2,346.1	1,955.7	244.5	239.5	93.4	146.0	101.4	44.6	−13.5	18.6	145.9
1990: I	2,974.7	322.5	2,652.2	279.8	2,372.4	1,982.0	244.7	237.1	98.2	138.9	111.6	27.2	−6.6	14.2	145.7
II	3,025.6	324.9	2,700.7	281.1	2,419.7	2,021.4	249.7	236.9	98.1	138.8	107.7	31.1	3.8	9.0	148.5
III	3,021.2	328.9	2,692.4	288.0	2,404.3	2,046.0	209.4	239.1	99.1	140.0	109.5	30.5	−32.6	2.9	149.0
IV	3,014.2	333.1	2,681.1	293.2	2,387.9	2,043.8	193.3	216.9	89.0	127.9	119.9	8.0	−21.2	−2.4	150.9
1991: I	3,011.8	339.6	2,672.2	301.3	2,370.9	2,028.0	194.4	194.4	79.9	114.5	114.1	.4	6.7	−6.6	148.4
II	3,043.9	342.5	2,701.4	303.0	2,398.5	2,046.1	206.4	202.4	83.6	118.9	115.3	3.6	9.9	−5.9	145.9
III	3,070.1	343.8	2,726.3	312.2	2,414.1	2,063.5	205.5	211.7	87.2	124.5	117.3	7.2	−4.8	−1.4	145.1
IV [p]		347.1		314.4		2,072.8					119.3		3.3	2.3	142.3

[1] Indirect business tax and nontax liability plus business transfer payments less subsidies.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–11.—*Output, costs, and profits of nonfinancial corporate business, 1959–91*

[Quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product of nonfinancial corporate business (billions of dollars)		Current-dollar cost and profit per unit of output (dollars) [1]								Output per hour of all employees (1987 dollars)	Compensation per hour of all employees (dollars)
			Total cost and profit [2]	Consumption of fixed capital	Indirect business taxes [3]	Compensation of employees	Corporate profits with inventory valuation and capital consumption adjustments			Net interest		
	Current dollars	1987 dollars					Total	Profits tax liability	Profits after tax [4]			
1959	267.5	928.7	0.288	0.026	0.028	0.185	0.046	0.022	0.024	0.003	15.442	2.851
1960	278.1	955.5	.291	.026	.030	.190	.042	.020	.022	.004	15.657	2.968
1961	285.5	978.2	.292	.027	.030	.189	.042	.020	.022	.004	16.167	3.063
1962	311.7	1,047.5	.298	.026	.031	.191	.046	.020	.026	.004	16.661	3.183
1963	331.7	1,104.6	.300	.025	.031	.191	.049	.021	.028	.004	17.190	3.284
1964	358.1	1,179.1	.304	.025	.031	.192	.051	.020	.031	.005	17.841	3.430
1965	393.5	1,262.1	.312	.025	.031	.195	.056	.022	.034	.005	18.061	3.527
1966	431.0	1,335.9	.323	.026	.030	.205	.056	.022	.034	.006	18.145	3.721
1967	453.5	1,367.6	.332	.027	.032	.214	.052	.020	.032	.006	18.356	3.923
1968	500.5	1,444.5	.347	.029	.034	.224	.053	.023	.029	.007	18.856	4.219
1969	543.2	1,492.4	.364	.030	.037	.240	.048	.022	.025	.009	18.742	4.506
1970	561.3	1,473.2	.381	.034	.040	.257	.039	.018	.020	.012	18.759	4.825
1971	606.2	1,525.5	.397	.036	.042	.264	.044	.020	.024	.012	19.467	5.133
1972	673.2	1,629.3	.413	.037	.042	.274	.047	.021	.027	.012	19.762	5.425
1973	754.5	1,706.9	.442	.039	.045	.296	.049	.024	.025	.013	19.741	5.855
1974	814.8	1,669.9	.488	.046	.049	.333	.042	.025	.017	.017	19.226	6.416
1975	881.1	1,625.3	.542	.057	.054	.357	.056	.026	.031	.018	19.729	7.053
1976	994.4	1,748.2	.569	.059	.054	.376	.064	.030	.033	.016	20.324	7.644
1977	1,124.3	1,866.1	.603	.062	.056	.397	.071	.032	.039	.016	20.745	8.244
1978	1,279.2	1,966.8	.650	.067	.058	.433	.074	.034	.040	.018	20.693	8.952
1979	1,423.6	1,995.5	.713	.077	.061	.484	.069	.035	.034	.023	20.214	9.780
1980	1,546.8	1,981.4	.781	.088	.070	.533	.061	.034	.027	.029	20.276	10.800
1981	1,749.1	2,035.8	.859	.102	.081	.573	.067	.031	.036	.035	20.560	11.790
1982	1,803.5	2,002.1	.901	.115	.083	.606	.056	.023	.033	.041	20.827	12.620
1983	1,937.1	2,113.3	.917	.115	.086	.604	.076	.028	.048	.036	21.597	13.037
1984	2,167.3	2,285.0	.949	.109	.089	.619	.094	.032	.062	.038	21.905	13.559
1985	2,295.5	2,366.3	.970	.109	.091	.638	.094	.030	.064	.038	22.144	14.121
1986	2,391.3	2,444.3	.978	.111	.094	.650	.083	.031	.052	.040	22.737	14.770
1987	2,544.6	2,544.6	1.000	.111	.093	.659	.096	.037	.059	.042	23.047	15.181
1988	2,762.1	2,682.2	1.030	.111	.095	.676	.102	.038	.064	.045	23.472	15.782
1989	2,910.8	2,715.3	1.072	.116	.099	.708	.096	.037	.060	.052	23.059	16.330
1990	3,008.9	2,717.4	1.107	.120	.105	.745	.083	.035	.047	.055	23.062	17.171
1991 [p]	3,052.3	2,690.5	1.134	.128	.114	.763	.076	.031	.045	.054	.....	.....
1982: IV	1,807.1	2,000.5	.903	.119	.085	.609	.051	.020	.030	.040	21.103	12.842
1983: IV	2,038.1	2,205.2	.924	.119	.086	.604	.079	.029	.050	.036	21.905	13.233
1984: IV	2,230.0	2,330.3	.957	.111	.090	.624	.091	.027	.064	.041	22.050	13.770
1985: IV	2,341.3	2,399.5	976	.110	.092	.644	.092	.030	.063	.038	22.340	14.395
1986: IV	2,428.4	2,469.0	.984	.112	.094	.655	.080	.035	.045	.042	22.891	15.001
1987: IV	2,625.9	2,602.4	1.009	.110	.093	.665	.099	.038	.060	.042	23.268	15.483
1988: I	2,685.3	2,648.6	1.014	.110	.094	.664	.103	.036	.067	.043	23.518	15.517
II	2,740.9	2,677.5	1.024	.110	.094	.672	.103	.038	.065	.045	23.512	15.700
III	2,782.2	2,685.6	1.036	.111	.096	.682	.101	.038	.063	.046	23.411	15.882
IV	2,840.1	2,717.1	1.045	.112	.096	.687	.102	.040	.063	.047	23.423	16.005
1989: I	2,870.3	2,714.9	1.057	.114	.097	.699	.099	.040	.059	.050	23.159	16.180
II	2,901.1	2,712.7	1.069	.115	.099	.704	.099	.037	.062	.052	23.039	16.223
III	2,928.7	2,718.5	1.077	.118	.100	.710	.096	.035	.061	.053	23.007	16.325
IV	2,943.3	2,715.3	1.084	.119	.100	.720	.090	.034	.056	.054	22.967	16.542
1990: I	2,974.7	2,720.0	1.094	.119	.103	.729	.090	.036	.054	.054	22.973	16.740
II	3,025.6	2,741.6	1.104	.119	.103	.737	.091	.036	.055	.054	23.181	17.092
III	3,021.2	2,710.4	1.115	.121	.106	.755	.077	.037	.041	.055	22.952	17.325
IV	3,014.2	2,697.6	1.117	.123	.109	.758	072	033	.039	.056	23.110	17.509
1991: I	3,011.8	2,668.1	1.129	.127	.113	.760	.073	.030	.043	.056	23.188	17.625
II	3,043.9	2,682.1	1.135	.128	.113	.763	.077	.031	.046	.054	23.355	17.818
III	3.070.1	2,699.0	1.138	.127	.116	.765	.076	.032	.044	.054	23.456	17.933

[1] Output is measured by gross domestic product of nonfinancial corporate business in 1987 dollars.

[2] This is equal to the deflator for gross domestic product of nonfinancial corporate business with the decimal point shifted two places to the left.

[3] Indirect business tax and nontax liability plus business transfer payments less subsidies.

[4] With inventory valuation and capital consumption adjustments.

Sources: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

TABLE B–12.—*Personal consumption expenditures, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Personal consumption expenditures	Durable goods			Nondurable goods					Services					
		Total [1]	Motor vehicles and parts	Furniture and household equipment	Total [1]	Food	Clothing and shoes	Gasoline and oil	Fuel oil and coal	Total [1]	Housing [2]	Household operation		Transportation	Medical care
												Total [1]	Electricity and gas		
1959	318.1	42.8	18.9	18.1	148.5	80.7	26.4	11.3	4.0	126.8	45.0	18.7	7.6	10.5	16.3
1960	332.4	43.5	19.7	18.0	153.1	82.6	27.0	12.0	3.8	135.9	48.2	20.3	8.3	11.2	17.4
1961	343.5	41.9	17.8	18.3	157.4	84.8	27.6	12.0	3.8	144.1	51.2	21.2	8.8	11.7	18.6
1962	364.4	47.0	21.5	19.3	163.8	87.1	29.0	12.6	3.8	153.6	54.7	22.4	9.4	12.2	20.7
1963	384.2	51.8	24.4	20.7	169.4	89.5	29.8	13.0	4.0	163.1	58.0	23.6	9.9	12.7	22.4
1964	412.5	56.8	26.0	23.2	179.7	94.6	32.4	13.6	4.1	175.9	61.4	25.0	10.4	13.4	25.7
1965	444.6	63.5	29.9	25.1	191.9	101.0	34.1	14.8	4.4	189.2	65.4	26.5	10.9	14.5	27.7
1966	481.6	68.5	30.3	28.2	208.5	109.0	37.4	16.0	4.7	204.6	69.5	28.2	11.5	15.9	30.5
1967	509.3	70.6	30.0	30.0	216.9	112.3	39.2	17.1	4.8	221.7	74.1	30.2	12.2	17.3	33.7
1968	559.1	81.0	36.1	32.9	235.0	121.6	43.2	18.6	4.7	243.1	79.7	32.3	13.0	18.9	39.0
1969	603.7	86.2	38.4	34.7	252.2	130.5	46.5	20.5	4.6	265.3	86.8	35.1	14.0	20.9	44.4
1970	646.5	85.3	35.5	35.7	270.4	142.1	47.8	21.9	4.4	290.8	94.0	37.8	15.2	23.7	50.1
1971	700.3	97.2	44.5	37.8	283.3	147.5	51.7	23.2	4.6	319.8	102.7	41.0	16.6	27.1	56.5
1972	767.8	110.7	51.1	42.4	305.2	158.5	56.4	24.4	5.1	351.9	112.1	45.3	18.4	29.8	63.5
1973	848.1	124.1	56.1	47.9	339.6	176.1	62.5	28.1	6.3	384.5	122.7	49.8	20.0	31.2	71.2
1974	927.7	123.0	49.5	51.5	380.8	198.1	66.0	36.1	7.8	423.9	134.1	55.5	23.5	33.3	80.1
1975	1,024.9	134.3	54.8	54.5	416.0	218.5	70.8	39.7	8.4	474.5	147.0	63.7	28.5	35.7	93.0
1976	1,143.1	160.0	71.3	60.2	451.8	236.0	76.6	43.0	10.1	531.2	161.5	72.4	32.5	41.3	106.2
1977	1,271.5	182.6	83.5	67.1	490.4	255.9	84.1	46.9	11.1	598.4	179.5	81.9	37.6	49.2	122.4
1978	1,421.2	202.3	92.2	74.0	541.5	280.6	94.3	50.1	11.5	677.4	201.7	91.2	42.1	53.6	139.7
1979	1,583.7	214.2	91.5	82.3	613.3	313.0	101.2	66.2	14.4	756.2	226.6	100.0	46.8	59.4	157.8
1980	1,748.1	212.5	84.0	86.0	682.9	341.8	107.3	86.7	15.4	852.7	255.2	113.0	56.3	65.1	181.3
1981	1,926.2	228.5	91.6	91.3	744.2	367.3	117.2	97.9	15.8	953.5	287.1	126.0	63.4	69.4	213.6
1982	2,059.2	236.5	97.7	92.5	772.3	386.0	120.5	94.1	14.5	1,050.4	311.1	141.4	72.6	71.6	240.5
1983	2,257.5	275.0	120.6	104.4	817.8	406.2	130.8	93.3	13.8	1,164.7	334.6	153.6	80.7	78.9	265.7
1984	2,460.3	317.9	144.6	115.3	873.0	430.2	142.5	94.5	14.2	1,269.4	362.3	165.5	84.6	89.1	290.6
1985	2,667.4	352.9	167.4	123.4	919.4	451.1	152.2	96.9	14.1	1,395.1	392.5	176.2	88.7	99.0	319.3
1986	2,850.6	389.6	184.9	135.5	952.2	476.8	163.2	79.7	12.0	1,508.8	421.8	181.1	87.1	105.8	346.4
1987	3,052.2	403.7	183.5	144.0	1,011.1	500.7	174.5	84.7	12.0	1,637.4	452.5	187.8	88.4	116.6	384.7
1988	3,296.1	437.1	197.8	156.7	1,073.8	533.6	186.4	86.9	12.1	1,785.2	484.2	199.5	93.4	128.5	427.7
1989	3,517.9	459.8	205.6	168.1	1,146.9	563.3	200.5	95.5	12.0	1,911.2	514.3	208.4	97.6	138.0	472.2
1990	3,742.6	465.9	203.7	173.2	1,217.7	595.8	208.7	106.8	12.5	2,059.0	547.1	212.7	97.2	147.6	523.1
1991 [p]	3,886.8	445.2	183.8	171.9	1,251.0	618.7	210.9	102.9	11.6	2,190.5	574.6	224.8	102.5	155.9	576.8
1982: IV	2,128.7	246.9	105.1	95.6	787.3	394.9	122.7	93.0	14.0	1,094.6	320.2	145.8	74.9	73.6	250.9
1983: IV	2,346.8	297.7	134.8	109.7	839.8	413.9	136.7	94.9	14.1	1,209.3	344.6	159.3	84.8	82.9	274.8
1984: IV	2,526.4	328.2	149.3	118.7	887.8	436.8	145.7	94.9	13.8	1,310.4	373.8	168.8	85.9	92.5	299.9
1985: IV	2,739.8	354.4	162.9	128.1	939.5	460.7	156.2	97.6	14.3	1,446.0	404.6	180.7	90.1	101.5	333.0
1986: IV	2,923.1	406.8	188.2	140.6	963.7	486.7	165.8	73.0	11.3	1,552.6	432.7	182.5	86.8	109.0	358.4
1987: IV	3,124.6	408.8	186.3	145.9	1,029.4	507.4	177.6	87.8	12.2	1,686.4	466.6	189.7	88.6	121.3	398.5
1988: I	3,199.1	428.8	198.2	150.8	1,041.5	515.8	180.1	85.2	12.3	1,728.8	473.5	194.9	92.2	122.7	409.9
II	3,260.5	433.1	196.4	155.7	1,062.0	528.0	183.2	86.3	12.1	1,765.4	479.5	196.8	91.7	127.5	421.4
III	3,326.6	433.5	193.3	158.0	1,085.8	541.1	188.1	87.6	12.1	1,807.3	487.8	202.4	94.5	130.9	435.1
IV	3,398.2	452.9	203.4	162.5	1,105.8	549.5	194.4	88.5	11.7	1,839.5	496.0	203.8	95.3	132.7	444.4
1989: I	3,436.5	449.4	201.4	165.3	1,120.0	556.6	195.1	89.0	11.1	1,867.1	502.2	206.0	96.4	135.7	457.4
II	3,490.6	457.2	204.3	167.5	1,142.5	560.3	199.7	97.9	11.8	1,891.0	508.8	204.8	94.7	136.1	466.4
III	3,551.7	474.5	218.1	169.2	1,155.3	565.3	202.7	97.1	11.7	1,921.9	518.2	207.2	96.1	138.6	475.7
IV	3,592.8	458.0	198.7	170.5	1,169.8	571.0	204.7	97.9	13.4	1,965.0	527.9	215.5	103.1	141.5	489.3
1990: I	3,667.3	479.9	213.9	176.1	1,194.9	585.2	208.5	100.4	11.9	1,992.5	534.1	205.2	91.7	144.1	501.8
II	3,706.0	464.6	203.6	173.4	1,200.9	592.3	208.3	97.3	11.7	2,040.4	541.5	213.4	98.3	146.2	515.8
III	3,785.2	467.1	204.7	173.1	1,228.4	601.1	211.0	106.4	13.3	2,089.6	553.6	215.8	99.1	148.5	531.3
IV	3,812.0	451.9	192.5	170.4	1,246.4	604.8	206.8	123.2	13.1	2,113.6	559.3	216.5	99.6	151.7	543.4
1991: I	3,827.7	440.7	180.7	171.1	1,246.3	616.3	208.2	105.0	12.2	2,140.7	565.7	218.6	99.8	152.2	555.9
II	3,868.5	440.0	179.3	172.8	1,252.9	620.5	212.8	102.0	11.4	2,175.6	571.7	225.4	103.7	153.9	570.0
III	3,916.4	452.9	188.4	173.9	1,257.4	620.4	214.6	101.7	11.7	2,206.1	577.0	226.5	102.4	157.4	583.5
IV [p]	3,934.4	447.2	186.6	169.8	1,247.6	617.7	207.9	102.9	11.1	2,239.6	583.8	228.8	104.0	160.2	597.7

[1] Includes other items not shown separately.

[2] Includes imputed rental value of owner-occupied housing.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–13.—*Personal consumption expenditures in 1987 dollars, 1959–91*

[Billions of 1987 dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Personal consumption expenditures	Durable goods			Nondurable goods					Services					
		Total [1]	Motor vehicles and parts	Furniture and household equipment	Total [1]	Food	Clothing and shoes	Gasoline and oil	Fuel oil and coal	Total [1]	Housing [2]	Household operation		Transportation	Medical care
												Total [1]	Electricity and gas		
1959	1,178.9	114.4	59.7	38.2	518.5	301.9	58.2	38.1	22.6	546.0	159.8	75.0	34.5	45.4	95.0
1960	1,210.8	115.4	61.3	37.7	526.9	305.8	58.7	39.4	21.7	568.5	168.1	78.5	36.3	46.7	98.4
1961	1,238.4	109.4	54.9	38.1	537.7	312.1	59.8	39.8	20.6	591.3	176.0	81.2	38.3	47.0	102.0
1962	1,293.3	120.2	62.2	40.4	553.0	316.3	62.4	41.5	20.6	620.0	185.8	85.2	40.9	48.7	110.2
1963	1,341.9	130.3	68.4	43.1	563.6	319.2	63.6	42.8	21.6	648.0	194.4	88.4	42.8	50.5	117.1
1964	1,417.2	140.7	71.2	48.3	588.2	331.0	68.5	45.1	22.5	688.3	203.5	92.6	45.1	53.0	129.8
1965	1,497.0	156.2	81.2	52.1	616.7	346.5	71.5	47.3	23.5	724.1	214.6	96.8	47.2	55.4	135.8
1966	1,573.8	166.0	81.8	57.6	647.6	359.1	76.3	50.2	24.2	760.2	224.4	101.4	49.7	58.6	142.3
1967	1,622.4	167.2	80.3	59.5	659.0	364.5	76.9	51.8	24.2	796.2	234.5	106.2	52.4	62.0	148.1
1968	1,707.5	184.5	91.8	62.9	686.0	380.7	80.2	55.5	23.0	837.0	246.0	110.1	55.0	65.4	159.5
1969	1,771.2	190.8	95.1	64.3	703.2	389.7	81.9	59.2	21.8	877.2	259.1	115.3	58.0	68.9	171.3
1970	1,813.5	183.7	85.6	64.4	717.2	397.5	81.0	62.9	20.2	912.5	269.3	118.9	60.4	71.0	180.7
1971	1,873.7	201.4	100.8	66.8	725.6	399.2	84.6	65.9	19.5	946.7	280.9	120.8	61.8	73.6	193.7
1972	1,978.4	225.2	114.3	73.6	755.8	411.9	90.4	68.6	21.5	997.4	295.9	126.8	64.9	77.8	207.0
1973	2,066.7	246.6	123.4	81.5	777.9	412.6	96.9	72.1	23.3	1,042.2	310.8	132.0	66.5	79.6	222.4
1974	2,053.8	227.2	102.2	81.9	759.8	404.7	95.4	68.6	18.4	1,066.8	326.9	132.5	66.9	79.9	231.1
1975	2,097.5	226.8	102.9	79.1	767.1	413.2	98.5	70.6	18.1	1,103.6	336.5	138.1	70.4	81.4	243.8
1976	2,207.3	256.4	124.6	84.2	801.3	431.9	103.2	73.4	20.3	1,149.5	346.7	143.9	72.9	84.4	255.5
1977	2,296.6	280.0	137.3	91.4	819.8	441.5	108.7	75.7	19.6	1,196.8	355.4	151.0	76.0	90.2	267.9
1978	2,391.8	292.9	141.5	96.6	844.8	442.8	119.0	77.4	19.5	1,254.1	372.9	158.0	78.8	92.9	279.2
1979	2,448.4	289.0	130.5	101.3	862.8	448.0	124.1	76.4	18.1	1,296.5	387.9	162.9	79.3	96.1	290.9
1980	2,447.1	262.7	111.4	98.5	860.5	448.8	126.0	72.0	14.0	1,323.9	399.4	167.1	81.6	91.3	302.1
1981	2,476.9	264.6	113.5	97.7	867.9	446.6	132.8	73.2	11.8	1,344.4	407.3	165.6	80.3	88.9	318.3
1982	2,503.7	262.5	115.6	94.2	872.2	451.4	133.7	73.9	10.9	1,368.9	409.6	166.7	81.2	87.4	323.7
1983	2,619.4	297.7	138.1	104.3	900.3	463.4	142.4	75.7	11.1	1,421.4	415.5	169.4	83.7	91.6	332.6
1984	2,746.1	338.5	160.3	115.3	934.6	472.3	153.1	77.9	11.2	1,473.0	426.8	173.7	84.3	100.0	341.9
1985	2,865.8	370.1	180.2	123.8	958.7	483.0	158.8	79.2	11.5	1,537.0	435.9	179.1	86.6	109.2	353.0
1986	2,969.1	402.0	193.3	136.3	991.0	494.1	170.3	82.9	12.1	1,576.1	442.1	180.8	85.6	112.6	366.2
1987	3,052.2	403.7	183.5	144.0	1,011.1	500.7	174.5	84.7	12.0	1,637.4	452.5	187.8	88.4	116.6	384.7
1988	3,162.4	428.7	194.8	155.4	1,035.1	513.4	178.9	86.1	12.0	1,698.5	461.8	196.9	92.7	122.5	399.4
1989	3,223.1	440.8	196.2	166.1	1,049.3	513.3	187.9	86.7	11.5	1,732.9	469.0	201.5	94.2	126.0	408.5
1990	3,262.6	438.9	191.4	170.6	1,050.8	515.8	187.4	85.0	10.0	1,773.0	474.5	202.1	92.2	129.0	424.3
1991 [p]	3,256.7	412.5	167.6	170.5	1,042.3	516.6	182.9	83.1	9.6	1,801.9	478.8	206.2	94.2	128.3	439.5
1982: IV	2,539.3	272.3	123.7	96.4	880.7	458.3	135.7	73.4	10.5	1,386.2	411.0	166.2	80.2	88.2	327.8
1983: IV	2,678.2	319.1	151.6	109.3	915.2	467.1	147.7	76.9	11.4	1,443.9	419.7	173.3	86.8	94.2	334.8
1984: IV	2,784.8	347.7	164.3	118.7	942.9	475.1	154.7	79.0	11.1	1,494.2	431.3	174.8	84.5	103.5	344.9
1985: IV	2,895.3	369.6	173.9	128.6	968.7	488.2	161.7	79.5	11.4	1,557.1	438.1	182.6	88.5	111.2	359.1
1986: IV	3,012.5	415.7	193.6	141.4	1,000.9	496.9	171.9	84.6	12.4	1,595.8	444.8	182.8	86.8	113.4	372.0
1987: IV	3,074.7	404.7	183.6	145.9	1,014.6	502.4	174.5	85.4	11.9	1,655.5	457.0	189.3	88.6	117.9	390.7
1988: I	3,128.2	425.1	197.1	150.5	1,023.5	506.8	176.5	85.1	12.1	1,679.6	458.4	194.8	92.4	120.3	395.3
II	3,147.8	426.9	195.0	154.3	1,031.0	513.1	176.0	86.1	11.9	1,690.0	460.3	194.7	91.4	122.1	397.7
III	3,170.6	423.8	189.6	156.3	1,039.3	515.8	180.2	85.8	12.1	1,707.5	462.8	199.5	93.9	123.5	401.7
IV	3,202.9	439.2	197.7	160.3	1,046.8	518.0	182.8	87.5	12.0	1,716.9	465.6	198.6	93.0	124.2	403.0
1989: I	3,200.9	433.6	193.6	163.5	1,047.1	517.6	183.4	86.6	10.8	1,720.3	466.1	200.2	94.0	124.6	406.9
II	3,208.6	439.9	195.0	166.4	1,043.3	512.5	186.8	83.2	11.5	1,725.4	467.2	198.3	91.4	125.0	406.8
III	3,241.1	454.3	208.4	166.9	1,051.4	511.3	191.2	86.6	11.3	1,735.4	470.2	200.7	92.8	126.3	408.7
IV	3,241.6	435.6	187.8	167.7	1,055.3	511.7	190.1	90.2	12.3	1,750.7	472.8	206.7	98.4	128.0	411.5
1990: I	3,258.8	452.7	200.7	173.1	1,054.4	513.9	190.1	87.2	9.5	1,751.8	472.8	195.6	87.0	128.7	417.7
II	3,258.6	438.7	192.0	170.9	1,050.3	516.3	187.2	84.5	10.5	1,769.6	473.0	202.8	93.2	128.9	422.4
III	3,281.2	440.3	192.9	170.5	1,053.7	517.1	188.2	84.4	11.0	1,787.3	475.4	206.3	94.9	129.6	427.7
IV	3,251.8	424.0	179.8	168.0	1,044.7	515.9	184.1	84.0	8.9	1,783.1	476.9	203.7	93.5	128.7	429.6
1991: I	3,241.1	410.8	166.7	168.9	1,043.9	518.7	181.7	81.8	9.3	1,786.3	477.3	201.7	91.7	127.0	432.9
II	3,252.4	408.9	164.2	171.1	1,046.2	517.0	186.1	83.0	9.8	1,797.2	478.3	207.1	95.6	127.9	436.9
III	3,271.2	418.3	170.9	172.5	1,046.1	517.4	184.7	83.6	10.1	1,806.8	479.4	208.0	95.2	128.9	441.7
IV [p]	3,262.2	412.1	168.5	169.3	1,033.0	513.5	178.9	83.9	9.2	1,817.1	480.4	207.9	94.4	129.4	446.5

[1] Includes other items not shown separately.

[2] Includes imputed rental value of owner-occupied housing.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–14.—*Gross and net private domestic investment, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross private domestic investment	Less: Consumption of fixed capital	Equals: Net private domestic investment						
			Total	Net fixed investment					Change in business inventories
				Total	Nonresidential			Residential	
					Total	Structures	Producers' durable equipment		
1959	78.8	44.6	34.2	30.1	12.3	6.6	5.7	17.8	4.2
1960	78.7	46.3	32.4	29.2	13.8	7.7	6.1	15.4	3.2
1961	77.9	47.7	30.3	27.3	12.2	7.6	4.6	15.1	2.9
1962	87.9	49.3	38.6	32.5	15.3	8.3	7.0	17.2	6.1
1963	93.4	51.3	42.0	36.4	16.4	8.3	8.1	20.0	5.7
1964	101.7	53.9	47.8	42.8	21.3	10.3	11.0	21.5	5.0
1965	118.0	57.3	60.7	51.0	30.3	14.1	16.2	20.7	9.7
1966	130.4	62.1	68.3	54.5	36.7	16.0	20.7	17.8	13.8
1967	128.0	67.4	60.6	50.1	33.2	15.1	18.1	16.9	10.5
1968	139.9	73.9	66.0	56.9	35.0	15.8	19.2	21.9	9.1
1969	155.2	81.5	73.7	64.0	40.5	17.9	22.6	23.5	9.7
1970	150.3	88.8	61.5	59.2	38.4	18.4	20.0	20.8	2.3
1971	175.5	97.6	78.0	69.9	36.8	18.4	18.4	33.1	8.0
1972	205.6	109.9	95.7	85.8	42.5	18.7	23.8	43.2	9.9
1973	243.1	120.4	122.7	105.0	59.0	23.8	35.2	46.0	17.7
1974	245.8	140.2	105.5	91.3	58.9	24.5	34.5	32.3	14.3
1975	226.0	165.2	60.9	66.5	41.5	18.8	22.7	25.1	−5.7
1976	286.4	182.8	103.6	86.8	45.6	19.9	25.6	41.2	16.7
1977	358.3	205.2	153.1	128.3	64.9	23.4	41.5	63.4	24.7
1978	434.0	234.8	199.3	171.3	94.1	35.5	58.6	77.3	27.9
1979	480.2	272.4	207.8	195.1	117.3	49.9	67.4	77.8	12.8
1980	467.6	311.9	155.7	165.2	113.8	59.1	54.7	51.4	−9.5
1981	558.0	362.4	195.6	170.2	127.1	75.5	51.6	43.1	25.4
1982	503.4	399.1	104.3	120.3	99.1	72.4	26.7	21.2	−15.9
1983	546.7	418.4	128.2	133.8	69.1	46.2	22.9	64.6	−5.5
1984	718.9	433.2	285.6	214.6	126.6	65.1	61.5	87.9	71.1
1985	714.5	454.5	260.0	235.4	146.1	75.2	70.9	89.3	24.6
1986	717.6	478.6	239.1	230.4	114.4	51.8	62.6	116.0	8.6
1987	749.3	502.2	247.1	220.9	103.0	46.7	56.3	117.9	26.3
1988	793.6	534.0	259.6	243.4	125.8	47.9	77.9	117.6	16.2
1989	837.6	574.5	263.1	227.1	122.1	48.5	73.6	105.0	36.0
1990	802.6	594.8	207.9	207.9	120.4	50.3	70.1	87.5	.0
1991 P	725.3	623.5	101.8	122.0					−20.2
1982: IV	464.2	412.5	51.7	98.0					−46.3
1983: IV	614.8	439.7	175.1	154.9					20.2
1984: IV	722.8	448.0	274.8	223.8					51.0
1985: IV	737.0	465.6	271.4	238.8					32.6
1986: IV	697.1	488.2	208.9	227.8					−18.8
1987: IV	800.2	512.1	288.1	228.8					59.3
1988: I	770.6	522.4	248.2	231.4					16.8
II	788.4	529.9	258.4	244.6					13.8
III	800.7	536.5	264.2	247.1					17.1
IV	814.8	547.2	267.6	250.3					17.3
1989: I	844.7	556.0	288.7	245.5					43.2
II	844.3	563.6	280.7	238.4					42.3
III	826.8	586.7	240.1	216.8					23.3
IV	834.4	591.7	242.8	207.7					35.1
1990: I	812.0	585.3	226.8	230.1					−3.3
II	825.9	590.1	235.8	210.1					25.6
III	821.8	598.3	223.5	209.4					14.1
IV	750.9	605.4	145.5	182.1					−36.5
1991: I	709.3	615.4	93.9	133.1					−39.2
II	708.8	620.0	88.8	125.8					−37.1
III	740.9	623.7	117.2	120.8					−3.6
IV P	742.3	635.1	107.2	108.3					−1.1

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–15.—*Gross and net private domestic investment in 1987 dollars, 1959–91*

[Billions of 1987 dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross private domestic investment	Less: Consumption of fixed capital	Equals: Net private domestic investment						
			Total	Net fixed investment					Change in business inventories
				Total	Nonresidential			Residential	
					Total	Structures	Producers' durable equipment		
1959	296.4	168.8	127.5	114.0	39.2	25.4	13.8	74.8	13.6
1960	290.8	173.7	117.1	109.0	44.1	30.5	13.7	64.8	8.1
1961	289.4	178.6	110.8	103.6	39.9	30.6	9.4	63.7	7.2
1962	321.2	183.6	137.6	122.0	49.5	32.9	16.6	72.5	15.6
1963	343.3	189.6	153.7	137.7	52.8	32.1	20.7	84.9	16.0
1964	371.8	196.4	175.4	159.7	69.7	39.5	30.2	90.0	15.7
1965	413.0	205.0	208.1	182.9	99.9	53.0	46.9	83.0	25.1
1966	438.0	214.9	223.0	186.3	118.1	58.3	59.8	68.2	36.7
1967	418.6	225.2	193.4	165.8	103.9	53.0	50.9	61.9	27.6
1968	440.1	235.3	204.7	181.1	105.1	52.2	52.9	76.0	23.6
1969	461.3	246.7	214.6	189.8	112.2	56.0	56.2	77.6	24.8
1970	429.7	258.0	171.7	165.8	98.7	53.5	45.2	67.1	5.9
1971	481.5	269.1	212.3	191.6	90.8	49.0	41.7	100.8	20.8
1972	532.2	285.0	247.2	224.6	98.9	49.2	49.7	125.7	22.5
1973	591.7	296.4	295.3	257.6	134.6	57.9	76.7	123.0	37.7
1974	543.0	310.3	232.6	201.7	122.3	53.4	68.9	79.4	30.9
1975	437.6	322.8	114.8	128.7	72.0	36.7	35.3	56.8	−13.9
1976	520.6	334.6	186.1	160.6	74.5	36.8	37.7	86.1	25.5
1977	600.4	348.4	252.1	217.8	99.0	39.8	59.2	118.8	34.3
1978	664.6	364.5	300.0	262.8	134.4	55.2	79.2	128.4	37.2
1979	669.7	384.5	285.2	271.6	154.1	70.1	84.0	117.5	13.6
1980	594.4	400.7	193.7	201.9	129.5	73.3	56.1	72.5	−8.3
1981	631.1	417.8	213.2	188.7	131.6	82.0	49.6	57.1	24.6
1982	540.5	429.5	111.0	128.5	101.0	75.3	25.7	27.5	−17.5
1983	599.5	447.4	152.1	147.7	71.6	50.3	21.4	76.0	4.4
1984	757.5	455.5	302.0	234.0	134.3	69.3	65.0	99.8	67.9
1985	745.9	471.5	274.4	252.3	154.0	79.4	74.6	98.3	22.1
1986	735.1	486.7	248.4	239.9	118.3	54.9	63.3	121.6	8.5
1987	749.3	502.2	247.1	220.9	103.0	46.7	56.3	117.9	26.3
1988	773.4	518.5	254.9	235.0	122.6	46.7	75.9	112.4	19.9
1989	789.2	542.1	247.1	214.5	117.4	45.8	71.7	97.0	32.6
1990	744.5	550.5	194.0	193.8	114.5	46.0	68.6	79.2	.2
1991 p	672.6	568.4	104.2	119.3					−15.1
1982: IV	503.5	439.2	64.3	109.2					−44.9
1983: IV	669.5	468.5	201.0	171.7					29.3
1984: IV	756.4	467.4	289.0	241.1					47.9
1985: IV	763.1	480.1	283.0	252.8					30.2
1986: IV	705.9	492.5	213.3	233.4					−20.1
1987: IV	793.8	508.1	285.7	225.8					59.9
1988: I	756.9	512.2	244.7	225.5					19.2
II	769.4	516.4	253.1	237.0					16.1
III	782.2	520.6	261.6	238.1					23.5
IV	785.0	524.7	260.3	239.3					20.9
1989: I	803.2	528.9	274.3	233.1					41.2
II	797.4	532.9	264.6	225.7					38.9
III	776.8	552.3	224.5	204.3					20.2
IV	779.2	554.3	224.9	194.9					30.0
1990: I	754.9	544.4	210.6	214.5					−4.0
II	766.0	548.3	217.7	195.5					22.1
III	760.3	552.4	207.9	193.9					13.9
IV	696.6	556.7	139.9	171.1					−31.2
1991: I	657.0	561.9	95.1	127.9					−32.8
II	656.3	565.3	91.0	121.4					−30.4
III	686.5	569.0	117.5	117.5					.1
IV p	690.6	577.5	113.1	110.4					2.7

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–16.—*Inventories and final sales of domestic business, 1959–91*

[Billions of dollars, except as noted; seasonally adjusted]

Quarter	Inventories [1]							Final sales of domestic business [3]	Ratio of inventories to final sales of domestic business	
	Total [2]	Farm	Nonfarm							
			Total [2]	Manufacturing	Wholesale trade	Retail trade	Other		Total	Nonfarm
Fourth quarter:										
1959	141.2	31.6	109.6	55.2	21.0	26.2	7.2	36.2	3.90	3.03
1960	145.2	33.0	112.2	56.2	21.3	27.5	7.2	37.4	3.88	3.00
1961	147.0	33.7	113.4	57.2	21.8	27.0	7.4	39.3	3.74	2.88
1962	153.4	34.8	118.6	60.3	22.4	28.3	7.5	41.5	3.69	2.86
1963	158.7	34.9	123.8	62.2	23.9	29.6	8.0	44.2	3.59	2.80
1964	164.2	33.3	130.9	65.9	25.2	31.0	8.8	47.1	3.49	2.78
1965	178.4	37.4	141.0	70.7	26.9	33.7	9.8	52.1	3.43	2.71
1966	194.0	36.3	157.8	80.9	30.3	36.2	10.4	55.1	3.52	2.86
1967	206.0	36.5	169.5	87.5	32.7	36.9	12.4	58.7	3.51	2.89
1968	221.4	38.7	182.6	94.0	34.6	40.7	13.3	64.5	3.43	2.83
1969	242.5	41.9	200.6	103.4	37.9	44.5	14.9	68.5	3.54	2.93
1970	249.4	40.1	209.2	105.8	41.7	45.8	16.0	72.3	3.45	2.90
1971	267.4	45.0	222.4	107.3	45.2	52.3	17.6	78.6	3.40	2.83
1972	296.6	55.3	241.3	113.6	50.0	57.7	19.9	87.5	3.39	2.76
1973	365.1	78.0	287.1	136.1	59.4	66.4	25.2	96.0	3.80	2.99
1974	435.2	74.3	360.9	177.0	75.6	74.6	33.7	104.0	4.18	3.47
1975	440.1	75.5	364.5	177.8	76.2	74.7	35.8	116.2	3.79	3.14
1976	475.3	72.2	403.1	194.9	86.1	82.7	39.4	127.6	3.72	3.16
1977	521.6	75.2	446.4	210.6	96.2	93.3	46.3	142.7	3.65	3.13
1978	605.3	92.1	513.2	238.0	111.7	107.5	55.9	164.5	3.68	3.12
1979	702.6	97.9	604.7	280.6	141.2	118.9	64.1	182.3	3.85	3.32
1980	784.1	104.9	679.3	309.8	174.2	125.0	70.3	201.2	3.90	3.38
1981	836.2	101.4	734.7	331.9	184.8	137.0	81.1	217.2	3.85	3.38
1982	817.0	103.6	713.5	318.5	174.7	139.5	80.7	228.6	3.57	3.12
1983	827.5	103.2	724.4	319.2	168.9	153.7	82.5	249.6	3.32	2.90
1984	898.9	100.9	797.9	349.0	187.2	173.5	88.3	271.5	3.31	2.94
1985	904.3	96.6	807.7	339.9	184.9	188.6	94.3	292.7	3.09	2.76
1986	887.9	90.5	797.3	328.1	183.4	193.4	92.4	311.1	2.85	2.56
1987	950.6	90.9	859.7	349.3	196.3	216.1	98.0	329.2	2.89	2.61
1988	1,025.1	95.4	929.6	383.2	215.3	229.9	101.2	358.4	2.86	2.59
1989	1,084.6	95.6	989.0	409.7	224.8	250.2	104.4	376.9	2.88	2.62
1990	1,103.4	93.1	1,010.3	416.6	234.3	248.8	110.7	394.4	2.80	2.56
1991 [p]	1,070.5	91.9	978.5	396.8	231.8	244.3	105.7	404.2	2.65	2.42
1988: I	963.8	90.2	873.6	356.4	202.8	216.3	98.2	336.8	2.86	2.59
II	986.8	94.2	892.6	365.2	208.6	220.4	98.4	345.4	2.86	2.58
III	1.006.6	95.9	910.8	372.7	213.2	225.4	99.5	351.7	2.86	2.59
IV	1,025.1	95.4	929.6	383.2	215.3	229.9	101.2	358.4	2.86	2.59
1989: I	1,048.3	97.4	950.9	393.1	216.9	238.5	102.3	363.1	2.89	2.62
II	1,061.9	98.2	963.7	400.6	220.7	239.3	103.0	369.2	2.88	2.61
III	1,068.7	95.0	973.8	407.4	222.1	240.1	104.1	374.4	2.85	2.60
IV	1,084.6	95.6	989.0	409.7	224.8	250.2	104.4	376.9	2.88	2.62
1990: I	1,084.6	95.8	988.9	409.9	226.6	244.5	107.9	385.3	2.81	2.57
II	1,092.9	98.4	994.5	410.6	228.5	246.9	108.6	389.1	2.81	2.56
III	1,114.8	96.8	1,018.0	423.1	233.7	249.8	111.3	394.0	2.83	2.58
IV	1,103.4	93.1	1,010.3	416.6	234.3	248.8	110.7	394.4	2.80	2.56
1991: I	1,087.8	95.6	992.1	410.3	233.3	241.5	106.9	395.9	2.75	2.51
II	1,081.0	98.0	983.1	404.8	229.1	242.1	107.0	401.3	2.69	2.45
III	1,079.0	96.2	982.8	403.7	229.1	243.9	106.1	402.3	2.68	2.44
IV [p]	1,070.5	91.9	978.5	396.8	231.8	244.3	105.7	404.2	2.65	2.42

[1] Inventories at end of quarter. Quarter-to-quarter change calculated from this table is not the current-dollar change in business inventories (CBI) component of GDP. The former is the difference between two inventory stocks, each valued at their respective end-of-quarter prices. The latter is the change in the physical volume of inventories valued at average prices of the quarter. In addition, changes calculated from this table are at quarterly rates, whereas CBI is stated at annual rates.

[2] Inventories of construction establishments are included in "other" nonfarm inventories.

[3] Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and general government and includes a small amount of final sales by farms.

Note.—The industry classification of inventories is on an establishment basis and is based on the 1987 Standard Industrial Classification (SIC) beginning 1987 and on the 1972 SIC for earlier years shown.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–17.—*Inventories and final sales of domestic business in 1987 dollars, 1959–91*

[Billions of 1987 dollars, except as noted; seasonally adjusted]

Quarter	Inventories [1]							Final sales of domestic business [3]	Ratio of inventories to final sales of domestic business	
	Total [2]	Farm	Nonfarm							
			Total [2]	Manufacturing	Wholesale trade	Retail trade	Other		Total	Nonfarm
Fourth quarter:										
1959	388.6	79.6	308.9	152.4	61.2	67.6	27.8	130.6	2.98	2.37
1960	396.7	80.5	316.2	153.9	62.4	71.4	28.5	133.6	2.97	2.37
1961	403.9	82.1	321.8	157.9	63.7	70.2	30.0	138.8	2.91	2.32
1962	419.5	83.9	335.7	166.1	65.9	73.8	29.9	144.0	2.91	2.33
1963	435.6	85.4	350.2	171.6	69.6	76.9	32.0	152.3	2.86	2.30
1964	451.2	83.4	367.8	179.6	73.4	80.3	34.5	159.8	2.82	2.30
1965	476.4	84.6	391.7	190.2	77.6	86.8	37.2	173.5	2.75	2.26
1966	513.1	83.5	429.6	212.1	86.5	92.5	38.4	176.3	2.91	2.44
1967	540.7	84.5	456.3	227.6	92.0	92.1	44.6	182.8	2.96	2.50
1968	564.3	86.9	477.5	237.4	94.7	99.3	46.1	191.3	2.95	2.50
1969	589.2	86.9	502.3	246.7	100.3	105.9	49.4	194.5	3.03	2.58
1970	595.1	86.3	508.8	246.1	106.9	105.8	50.0	196.4	3.03	2.59
1971	615.8	89.2	526.7	243.9	112.3	117.8	52.6	204.2	3.02	2.58
1972	638.4	90.6	547.7	249.6	116.3	125.3	56.5	218.4	2.92	2.51
1973	676.1	92.9	583.3	264.9	121.1	134.5	62.7	223.2	3.03	2.61
1974	707.0	92.5	614.5	283.7	130.8	133.6	66.4	218.5	3.24	2.81
1975	693.1	92.9	600.2	277.2	127.3	127.6	68.0	226.5	3.06	2.65
1976	718.6	90.8	627.8	289.6	135.3	134.8	68.1	235.6	3.05	2.66
1977	752.9	93.6	659.2	297.1	144.4	144.5	73.3	246.8	3.05	2.67
1978	790.1	93.0	697.1	309.2	155.8	153.7	78.3	261.3	3.02	2.67
1979	803.7	95.7	708.0	320.1	157.3	153.5	77.1	265.7	3.02	2.66
1980	795.4	92.3	703.1	319.9	161.9	146.7	74.6	265.4	3.00	2.65
1981	820.0	98.3	721.7	324.0	164.8	152.9	80.0	262.7	3.12	2.75
1982	802.5	101.4	701.0	311.3	159.9	151.7	78.1	264.9	3.03	2.65
1983	806.9	93.1	713.8	311.9	159.3	162.8	79.8	279.0	2.89	2.56
1984	874.8	94.8	780.0	339.4	174.7	181.4	84.5	292.7	2.99	2.66
1985	896.9	97.2	799.8	335.7	178.7	194.1	91.3	305.0	2.94	2.62
1986	905.5	95.1	810.4	333.6	185.7	196.7	94.4	316.9	2.86	2.56
1987	931.8	88.7	843.1	340.2	192.7	213.6	96.6	325.2	2.87	2.59
1988	951.7	81.7	870.0	355.3	199.1	219.7	95.9	339.5	2.80	2.56
1989	984.3	81.0	903.3	373.8	202.5	231.0	96.0	343.9	2.86	2.63
1990	984.5	82.7	901.9	372.5	205.6	224.2	99.5	346.1	2.84	2.61
1991 P	969.4	82.8	886.6	367.5	204.3	217.7	97.0	345.2	2.81	2.57
1988: I	936.6	87.6	849.0	343.4	196.9	212.2	96.5	330.3	2.84	2.57
II	940.6	85.6	855.0	346.3	198.2	214.1	96.3	334.8	2.81	2.55
III	946.5	84.1	862.4	349.3	199.7	217.1	96.3	336.3	2.81	2.56
IV	951.7	81.7	870.0	355.3	199.1	219.7	95.9	339.5	2.80	2.56
1989: I	962.0	83.1	879.0	359.5	198.6	225.2	95.7	340.4	2.83	2.58
II	971.7	84.5	887.3	365.9	201.7	224.3	95.5	342.5	2.84	2.59
III	976.8	83.0	893.8	372.3	201.7	223.9	95.9	344.5	2.84	2.59
IV	984.3	81.0	903.3	373.8	202.5	231.0	96.0	343.9	2.86	2.63
1990: I	983.3	81.4	901.9	374.5	203.5	224.3	99.6	348.2	2.82	2.59
II	988.8	83.0	905.8	374.6	204.7	226.0	100.5	347.8	2.84	2.60
III	992.3	84.1	908.3	375.9	205.4	226.4	100.5	348.1	2.85	2.61
IV	984.5	82.7	901.9	372.5	205.6	224.2	99.5	346.1	2.84	2.61
1991: I	976.3	82.2	894.1	372.6	206.1	217.2	98.2	343.7	2.84	2.60
II	968.7	82.3	886.4	369.1	202.6	216.4	98.3	345.8	2.80	2.56
III	968.7	83.1	885.7	368.0	202.3	217.9	97.4	344.9	2.81	2.57
IV P	969.4	82.8	886.6	367.5	204.3	217.7	97.0	345.2	2.81	2.57

[1] Inventories at end of quarter. Quarter-to-quarter changes calculated from this table are at quarterly rates, whereas the constant-dollar change in business inventories component of GDP is stated at annual rates.

[2] Inventories of construction establishments are included in "other" nonfarm inventories.

[3] Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and general government and includes a small amount of final sales by farms.

Note.—The industry classification of inventories is on an establishment basis and is based on the 1987 Standard Industrial Classification (SIC) beginning 1987 and on the 1972 SIC for earlier years shown.

Source: Department of Commerce, Bureau of Economic Analysis.

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TABLE B–18.—*Foreign transactions in the national income and product accounts, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Receipts from rest of the world					Payments to rest of the world									
	Total [1]	Exports of goods and services			Receipts of factor income [3]	Total	Imports of goods and services			Payments of factor income [4]	Transfer payments (net)				Net foreign investment
		Total	Merchandise [2]	Services [2]			Total	Merchandise [2]	Services [2]		Total	From persons (net)	From government (net)	From business	
1959	25.0	20.6	16.5	4.2	4.3	25.0	22.3	15.3	7.0	1.5	2.3	0.4	1.8	0.1	−1.2
1960	30.2	25.3	20.5	4.8	5.0	30.2	22.8	15.2	7.6	1.8	2.4	.4	1.9	.1	3.2
1961	31.4	26.0	20.9	5.1	5.4	31.4	22.7	15.1	7.6	1.8	2.7	.5	2.1	.1	4.3
1962	33.5	27.4	21.7	5.7	6.1	33.5	25.0	16.9	8.1	1.8	2.8	.5	2.1	.1	3.9
1963	36.1	29.4	23.3	6.1	6.6	36.1	26.1	17.7	8.4	2.1	2.8	.6	2.1	.1	5.0
1964	41.0	33.6	26.7	6.9	7.4	41.0	28.1	19.4	8.7	2.4	2.9	.7	2.1	.2	7.6
1965	43.5	35.4	27.8	7.6	8.1	43.5	31.5	22.2	9.3	2.7	3.0	.7	2.1	.2	6.3
1966	47.2	38.9	30.7	8.2	8.3	47.2	37.1	26.3	10.7	3.1	3.1	.7	2.2	.2	3.9
1967	50.2	41.4	32.2	9.2	8.9	50.2	39.9	27.8	12.2	3.4	3.3	.9	2.1	.2	3.6
1968	55.6	45.3	35.3	10.0	10.3	55.6	46.6	33.9	12.6	4.1	3.1	.9	1.9	.3	1.8
1969	61.2	49.3	38.3	11.0	11.9	61.2	50.5	36.8	13.7	5.8	3.1	1.0	1.8	.3	1.8
1970	70.8	57.0	44.5	12.4	13.0	70.8	55.8	40.9	14.9	6.6	3.5	1.2	2.0	.4	5.0
1971	74.2	59.3	45.6	13.8	14.1	74.2	62.3	46.6	15.8	6.4	4.0	1.2	2.4	.4	1.4
1972	83.4	66.2	51.8	14.4	16.4	83.4	74.2	56.9	17.3	7.7	4.2	1.2	2.5	.5	−2.8
1973	115.6	91.8	73.9	17.8	23.8	115.6	91.2	71.8	19.3	11.1	4.5	1.3	2.5	.7	8.9
1974	152.6	124.3	101.0	23.3	30.3	152.6	127.5	104.5	22.9	14.6	5.3	1.1	3.2	1.0	5.3
1975	164.4	136.3	109.6	26.7	28.2	164.4	122.7	99.0	23.7	14.9	5.2	1.0	3.5	.7	21.6
1976	181.6	148.9	117.8	31.1	32.8	181.6	151.1	124.6	26.5	15.7	5.8	1.0	3.7	1.1	9.0
1977	196.5	158.8	123.7	35.1	37.7	196.5	182.4	152.6	29.8	17.2	5.8	.9	3.4	1.4	−9.0
1978	233.3	186.1	145.4	40.7	47.1	233.3	212.3	177.4	34.8	25.3	6.0	.9	3.8	1.4	−10.3
1979	299.7	228.9	184.2	44.7	69.7	299.7	252.7	212.8	39.9	37.5	7.1	1.0	4.1	2.0	2.4
1980	360.9	279.2	226.0	53.2	80.6	360.9	293.9	248.6	45.3	46.5	8.5	1.2	5.0	2.4	11.9
1981	398.2	303.0	239.3	63.7	94.1	398.2	317.7	267.7	49.9	60.9	9.5	1.3	5.0	3.2	10.1
1982	379.9	282.6	215.2	67.4	97.3	379.9	303.2	250.6	52.6	67.1	11.6	1.6	6.4	3.6	−1.9
1983	372.5	276.7	207.5	69.2	95.8	372.5	328.1	272.7	55.4	66.5	12.5	1.4	7.3	3.8	−34.6
1984	410.5	302.4	225.8	76.6	108.1	410.5	405.1	336.3	68.8	83.8	15.2	1.9	9.4	3.9	−93.6
1985	399.3	302.1	222.4	79.7	97.3	399.3	417.6	343.3	74.3	82.4	16.9	2.2	11.4	3.2	−117.6
1986	415.2	319.2	226.2	93.0	96.0	415.2	451.7	370.0	81.7	86.9	17.9	2.1	12.3	3.5	−141.4
1987	469.0	364.0	257.7	106.2	105.1	469.0	507.1	414.8	92.3	100.5	16.0	2.4	10.4	3.2	−154.5
1988	572.9	444.2	325.8	118.4	128.7	572.9	552.2	452.1	100.1	120.8	17.3	2.1	10.4	4.8	−117.5
1989	650.3	504.9	371.4	133.5	145.4	650.3	587.8	484.6	103.3	141.2	17.3	2.1	10.8	4.4	−96.0
1990	698.2	550.4	398.2	152.2	147.7	698.2	624.8	507.4	117.4	137.0	19.2	2.1	12.6	4.5	−82.8
1991 [p]		593.3	428.1	165.2			620.4	499.4	121.1		−26.7	2.2	−33.8	4.9	
1982: IV	357.5	265.6	198.2	67.4	91.9	357.5	295.1	241.6	53.4	64.4	13.3	1.5	8.2	3.7	−15.3
1983: IV	388.3	286.2	218.2	67.9	102.1	388.3	358.0	300.0	58.0	71.0	17.4	1.6	11.0	4.8	−58.2
1984: IV	415.2	308.7	231.4	77.3	106.6	415.2	415.7	344.1	71.6	85.5	20.0	2.1	13.9	4.0	−105.9
1985: IV	402.9	304.7	222.6	82.1	98.1	402.9	440.2	363.0	77.2	82.4	18.9	2.0	13.5	3.4	−138.7
1986: IV	426.7	333.9	235.8	98.1	92.8	426.7	467.1	382.4	84.7	88.9	19.2	2.4	12.8	4.0	−148.6
1987: IV	506.8	392.4	283.3	109.2	114.4	506.8	535.6	437.6	98.0	106.9	20.7	2.4	14.6	3.8	−156.4
1988: I	541.8	418.5	304.7	113.8	123.3	541.8	540.5	441.6	99.0	111.4	16.2	2.3	9.1	4.8	−126.3
II	562.1	438.8	321.5	117.3	123.3	562.1	544.3	445.7	98.6	117.7	14.4	1.9	7.8	4.7	−114.4
III	580.7	452.4	331.6	120.7	128.3	580.7	550.9	451.1	99.8	124.1	15.3	2.1	9.4	3.8	−109.6
IV	606.9	467.0	345.4	121.6	139.9	606.9	573.1	470.1	103.0	130.2	23.2	2.2	15.1	5.9	−119.5
1989: I	627.2	486.1	358.6	127.5	141.1	627.2	575.0	473.6	101.5	136.7	16.3	1.9	9.8	4.6	−100.8
II	653.5	506.2	376.5	129.7	147.3	653.5	589.2	487.9	101.3	148.2	14.6	2.2	7.8	4.6	−98.4
III	649.6	506.2	370.3	135.9	143.4	649.6	588.3	485.1	103.2	140.9	16.7	2.0	10.7	4.0	−96.3
IV	671.1	521.3	380.4	140.9	149.8	671.1	598.8	491.8	107.0	139.2	21.7	2.2	14.8	4.6	−88.6
1990: I	679.6	534.6	390.3	144.2	145.0	679.6	612.6	500.2	112.4	134.8	17.2	2.1	10.9	4.2	−85.0
II	688.1	545.9	397.5	148.4	142.2	688.1	606.3	492.8	113.5	141.5	20.8	1.7	14.5	4.6	−80.4
III	694.1	548.7	395.0	153.7	145.4	694.1	631.2	511.8	119.4	139.1	19.1	2.5	12.3	4.3	−95.3
IV	730.9	572.6	410.0	162.6	158.3	730.9	649.2	525.0	124.1	132.6	19.6	2.1	12.7	4.9	−70.4
1991: I	713.8	565.9	412.3	153.5	147.9	713.8	602.7	485.4	117.3	125.2	−70.6	2.3	−77.8	4.9	56.5
II	721.4	589.8	426.7	163.1	131.6	721.4	607.0	488.3	118.7	123.5	−30.8	2.2	−37.9	4.9	21.7
III	728.9	597.0	427.3	169.7	132.0	728.9	634.3	511.1	123.2	121.0	−5.5	2.1	−12.5	4.9	−20.9
IV [p]		620.4	445.9	174.5			637.7	512.7	125.0			2.1	−7.1	4.9	

[1] Includes capital grants received by the United States (net), not shown separately. See Table B–26 for data.

[2] Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

[3] Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

[4] Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–19.—*Exports and imports of goods and services and receipts and payments of factor income in 1987 dollars, 1959–91*

[Billions of 1987 dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Exports of goods and services					Receipts of factor income [2]	Imports of goods and services					Payments of factor income [3]
	Total	Merchandise [1]			Services [1]		Total	Merchandise [1]			Services [1]	
		Total	Durable goods	Nondurable goods				Total	Durable goods	Nondurable goods		
1959	73.8	58.0	31.5	26.5	15.8	17.0	95.6	60.2	26.0	34.2	35.4	6.2
1960	88.4	71.2	39.2	32.0	17.2	19.1	96.1	59.1	24.7	34.4	37.0	7.2
1961	89.9	71.5	39.4	32.1	18.4	20.6	95.3	59.2	23.7	35.5	36.1	7.2
1962	95.0	74.8	41.2	33.5	20.3	22.6	105.5	68.0	28.0	40.0	37.5	7.3
1963	101.8	80.3	43.6	36.7	21.5	24.4	107.7	70.9	29.6	41.2	36.8	8.2
1964	115.4	91.4	50.2	41.2	24.0	26.7	112.9	75.6	32.8	42.8	37.3	9.1
1965	118.1	92.1	52.2	39.9	25.9	28.3	124.5	86.5	40.5	46.0	37.9	9.9
1966	125.7	98.4	56.1	42.3	27.3	28.1	143.7	100.2	50.6	49.6	43.5	11.0
1967	130.0	100.1	63.8	36.3	29.9	29.2	153.7	105.2	53.1	52.1	48.6	11.8
1968	140.2	108.8	70.0	38.7	31.5	32.3	177.7	128.1	68.7	59.4	49.6	13.6
1969	147.8	114.4	75.2	39.2	33.3	35.8	189.2	137.0	74.1	62.8	52.3	17.8
1970	161.3	125.2	80.4	44.7	36.1	36.8	196.4	142.1	75.4	66.7	54.4	19.2
1971	161.9	124.1	79.3	44.9	37.8	38.1	207.8	156.1	84.4	71.7	51.7	18.0
1972	173.7	136.5	87.1	49.5	37.2	42.2	230.2	177.5	95.7	81.7	52.8	20.5
1973	210.3	166.9	108.0	58.9	43.4	57.6	244.4	194.7	100.9	93.9	49.7	27.6
1974	234.4	183.4	123.5	59.9	51.0	67.5	238.4	189.3	101.3	87.9	49.2	33.2
1975	232.9	178.5	121.3	57.2	54.4	57.4	209.8	163.3	82.1	81.2	46.5	31.6
1976	243.4	183.9	121.8	62.1	59.5	63.0	249.7	200.4	100.9	99.5	49.3	31.5
1977	246.9	183.9	119.5	64.4	63.0	67.9	274.7	223.2	112.9	110.3	51.5	32.2
1978	270.2	203.0	132.1	70.9	67.2	78.7	300.1	245.2	130.0	115.3	54.8	43.2
1979	293.5	225.7	148.1	77.6	67.8	107.1	304.1	248.7	132.1	116.7	55.3	58.6
1980	320.5	248.2	161.0	87.3	72.3	113.7	289.9	235.6	133.6	102.0	54.2	66.6
1981	326.1	244.0	154.2	89.7	82.2	120.7	304.1	246.1	143.4	102.7	58.0	79.4
1982	296.7	217.7	130.5	87.2	79.0	117.9	304.1	243.1	143.0	100.1	61.1	82.1
1983	285.9	208.3	124.6	83.8	77.6	111.0	342.1	276.5	167.6	108.9	65.6	78.0
1984	305.7	221.3	133.8	87.5	84.4	119.4	427.7	346.1	219.9	126.2	81.6	93.5
1985	309.2	224.8	139.3	85.6	84.4	103.4	454.6	366.5	237.2	129.3	88.1	88.2
1986	329.6	234.3	144.8	89.6	95.3	99.2	484.7	398.0	254.6	143.4	86.7	90.2
1987	364.0	257.7	163.0	94.7	106.3	105.0	507.1	414.8	264.2	150.6	92.3	100.4
1988	421.6	307.4	202.8	104.6	114.2	123.8	525.7	431.3	274.7	156.7	94.3	116.1
1989	469.2	343.8	230.6	113.2	125.4	133.7	544.9	450.4	287.0	163.4	94.5	129.9
1990	505.7	369.4	249.3	120.1	136.2	130.2	557.0	458.5	290.0	168.4	98.5	120.4
1991 [p]	539.6	398.3	269.9	128.5	141.3	.....	557.2	458.7	291.9	166.7	98.5	.....
1982: IV	280.4	202.8	119.0	83.7	77.6	109.7	299.4	236.3	134.6	101.7	63.1	77.6
1983: IV	291.5	215.5	131.0	84.5	75.9	116.5	375.1	306.6	191.1	115.5	68.6	82.0
1984: IV	312.8	229.0	138.5	90.5	83.8	116.1	444.2	357.9	229.3	128.6	86.3	93.9
1985: IV	312.0	226.4	139.6	86.8	85.5	102.9	467.4	380.0	243.5	136.5	87.4	86.8
1986: IV	342.9	243.5	150.0	93.5	99.4	94.8	498.9	409.1	259.8	149.3	89.8	91.2
1987: IV	386.1	278.0	180.1	97.8	108.1	112.9	522.1	427.4	273.8	153.7	94.6	105.4
1988: I	407.1	296.0	192.7	103.3	111.2	120.8	520.5	426.5	271.1	155.4	94.0	109.0
II	417.2	303.6	201.2	102.4	113.6	119.3	515.2	422.8	269.3	153.4	92.5	113.8
III	424.1	308.1	202.7	105.4	116.0	122.6	526.1	431.3	274.4	156.9	94.8	118.4
IV	438.2	322.0	214.7	107.2	116.2	132.3	540.9	444.8	284.0	160.8	96.1	123.0
1989: I	451.2	330.3	220.8	109.5	120.9	131.7	532.4	439.9	282.4	157.4	92.5	127.6
II	469.5	347.0	232.8	114.1	122.5	136.1	541.3	447.5	286.0	161.5	93.8	136.9
III	470.5	343.1	230.9	112.2	127.4	131.2	550.3	455.4	288.8	166.6	94.9	129.0
IV	485.8	354.8	237.7	117.1	131.0	135.8	555.7	458.9	290.8	168.2	96.8	126.1
1990: I	496.2	364.9	243.9	121.0	131.3	130.0	552.2	455.9	283.7	172.3	96.3	120.6
II	502.1	368.0	249.9	118.1	134.1	125.9	554.5	457.2	287.1	170.1	97.4	125.0
III	501.6	365.1	248.6	116.5	136.5	127.2	567.4	467.9	296.4	171.5	99.5	121.4
IV	522.5	379.4	254.5	124.9	143.1	137.4	553.7	453.0	293.0	160.0	100.7	114.7
1991: I	512.5	379.9	251.2	128.7	132.6	126.8	531.1	435.9	278.9	156.9	95.3	107.0
II	535.7	395.8	271.0	124.8	139.9	111.8	548.0	451.2	283.2	168.0	96.8	104.7
III	545.2	400.3	272.8	127.6	144.8	111.4	576.3	475.7	304.8	170.9	100.6	102.2
IV [p]	565.1	417.3	284.5	132.8	147.8	.....	573.4	472.0	300.9	171.1	101.5	.....

[1] Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

[2] Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

[3] Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–20.—*Relation of gross domestic product, gross national product, net national product, and national income, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Plus: Receipts of factor income from rest of the world [1]	Less: Payments of factor income to rest of the world [2]	Equals: Gross national product	Less: Consumption of fixed capital	Equals: Net national product	Less:			Plus: Subsidies less current surplus of government enterprises	Equals: National income
							Indirect business tax and nontax liability	Business transfer payments	Statistical discrepancy		
1959	494.2	4.3	1.5	497.0	44.6	452.5	41.9	1.4	−1.8	−0.9	410.1
1960	513.4	5.0	1.8	516.6	46.3	470.2	45.5	1.4	−3.1	−.8	425.7
1961	531.8	5.4	1.8	535.4	47.7	487.7	48.1	1.5	−2.2	.2	440.5
1962	571.6	6.1	1.8	575.8	49.3	526.5	51.7	1.6	−1.0	.3	474.5
1963	603.1	6.6	2.1	607.7	51.3	556.4	54.7	1.8	−2.0	−.3	501.5
1964	648.0	7.4	2.4	653.0	53.9	599.2	58.8	2.0	−.7	.1	539.1
1965	702.7	8.1	2.7	708.1	57.3	650.7	62.7	2.2	−.7	.3	586.9
1966	769.8	8.3	3.1	774.9	62.1	712.8	65.4	2.3	2.8	1.4	643.7
1967	814.3	8.9	3.4	819.8	67.4	752.4	70.4	2.5	.8	1.2	679.9
1968	889.3	10.3	4.1	895.5	73.9	821.5	79.0	2.8	−.1	1.2	741.0
1969	959.5	11.9	5.8	965.6	81.5	884.2	86.6	3.1	−2.6	1.5	798.6
1970	1,010.7	13.0	6.6	1,017.1	88.8	928.3	94.3	3.2	.0	2.6	833.5
1971	1,097.2	14.1	6.4	1,104.9	97.6	1,007.3	103.6	3.4	3.1	2.4	899.5
1972	1,207.0	16.4	7.7	1,215.7	109.9	1,105.7	111.4	3.9	1.1	3.4	992.9
1973	1,349.6	23.8	11.1	1,362.3	120.4	1,241.9	121.0	4.5	−.5	2.6	1,119.5
1974	1,458.6	30.3	14.6	1,474.3	140.2	1,334.1	129.3	5.0	1.4	.4	1,198.8
1975	1,585.9	28.2	14.9	1,599.1	165.2	1,433.9	140.0	5.2	6.0	2.6	1,285.3
1976	1,768.4	32.8	15.7	1,785.5	182.8	1,602.7	151.6	6.5	10.4	1.4	1,435.5
1977	1,974.1	37.7	17.2	1,994.6	205.2	1,789.4	165.5	7.3	10.9	3.3	1,609.1
1978	2,232.7	47.1	25.3	2,254.5	234.8	2,019.8	177.8	8.2	7.6	3.6	1,829.8
1979	2,488.6	69.7	37.5	2,520.8	272.4	2,248.4	188.7	9.9	13.8	2.9	2,038.9
1980	2,708.0	80.6	46.5	2,742.1	311.9	2,430.2	212.0	11.2	13.6	4.8	2,198.2
1981	3,030.6	94.1	60.9	3,063.8	362.4	2,701.4	249.3	13.4	10.9	4.7	2,432.5
1982	3,149.6	97.3	67.1	3,179.8	399.1	2,780.8	256.4	15.4	−7.4	6.2	2,522.5
1983	3,405.0	95.8	66.5	3,434.4	418.4	3,016.0	280.1	16.6	10.2	11.7	2,720.8
1984	3,777.2	108.1	83.8	3,801.5	433.2	3,368.3	309.5	19.0	−9.0	9.5	3,058.3
1985	4,038.7	97.3	82.4	4,053.6	454.5	3,599.1	329.9	21.0	−13.9	6.4	3,268.4
1986	4,268.6	96.0	86.9	4,277.7	478.6	3,799.2	345.5	24.2	1.2	9.7	3,437.9
1987	4,539.9	105.1	100.5	4,544.5	502.2	4,042.4	365.0	24.0	−24.8	14.1	3,692.3
1988	4,900.4	128.7	120.8	4,908.2	534.0	4,374.2	385.3	25.6	−28.4	10.9	4,002.6
1989	5,244.0	145.4	141.2	5,248.2	574.5	4,673.7	411.0	26.8	−2.7	6.1	4,244.7
1990	5,513.8	147.7	137.0	5,524.5	594.8	4,929.8	439.2	27.7	8.1	4.8	4,459.6
1991 [p]	5,671.8				623.5	5,060.3	470.7	31.2		.6	
1982: IV	3,195.1	91.9	64.4	3,222.6	412.5	2,810.1	262.3	16.0	−10.1	9.6	2,551.5
1983: IV	3,547.3	102.1	71.0	3,578.4	439.7	3,138.7	291.7	18.1	13.8	19.2	2,834.3
1984: IV	3,869.1	106.6	85.5	3,890.2	448.0	3,442.2	317.7	20.2	−20.5	9.7	3,134.4
1985: IV	4,140.5	98.1	82.4	4,156.2	465.6	3,690.7	335.1	22.2	−5.9	2.6	3,341.9
1986: IV	4,336.6	92.8	88.9	4,340.5	488.2	3,852.3	351.6	24.9	−2.0	8.2	3,486.0
1987: IV	4,683.0	114.4	106.9	4,690.5	512.1	4,178.5	372.3	24.2	−24.9	22.0	3,828.8
1988: I	4,752.4	123.3	111.4	4,764.3	522.4	4,241.9	376.8	25.2	−34.4	14.6	3,888.8
II	4,857.2	123.3	117.7	4,862.7	529.9	4,332.8	382.0	25.3	−28.1	12.8	3,966.3
III	4,947.3	128.3	124.1	4,951.6	536.5	4,415.1	388.3	24.6	−25.8	−.3	4,027.6
IV	5,044.6	139.9	130.2	5,054.3	547.2	4,507.2	394.2	27.2	−25.4	16.5	4,127.6
1989: I	5,139.9	141.1	136.7	5,144.3	556.0	4,588.2	399.9	27.2	−26.0	15.4	4,202.6
II	5,218.5	147.3	148.2	5,217.7	563.6	4,654.1	408.1	26.9	−5.2	6.5	4,230.9
III	5,277.3	143.4	140.9	5,279.8	586.7	4,693.2	416.7	26.3	2.5	−3.0	4,244.7
IV	5,340.4	149.8	139.2	5,350.9	591.7	4,759.2	419.2	27.0	17.9	5.3	4,300.5
1990: I	5,422.4	145.0	134.8	5,432.7	585.3	4,847.4	430.8	26.8	4.4	10.2	4,395.5
II	5,504.7	142.2	141.5	5,505.5	590.1	4,915.4	432.3	27.7	−2.4	3.3	4,461.0
III	5,570.5	145.4	139.1	5,576.8	598.3	4,978.5	442.3	27.6	28.2	−5.2	4,475.2
IV	5,557.5	158.3	132.6	5,583.2	605.4	4,977.8	451.2	28.5	2.1	10.8	4,506.8
1991: I	5,589.0	147.9	125.2	5,611.7	615.4	4,996.3	461.6	29.6	18.0	2.7	4,489.8
II	5,652.6	131.6	123.5	5,660.6	620.0	5,040.6	464.5	30.7	16.5	1.9	4,530.8
III	5,709.2	132.0	121.0	5,720.1	623.7	5,096.4	475.6	31.8	22.0	−7.1	4,559.8
IV [p]	5,736.6				635.1	5,107.7	481.0	32.8		4.8	

[1] Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

[2] Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–21.—*Relation of national income and personal income, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	National income	Less:				Plus:				Equals:
		Corporate profits with inventory valuation and capital consumption adjustments	Net interest	Contributions for social insurance	Wage accruals less disbursements	Personal interest income	Personal dividend income	Government transfer payments to persons	Business transfer payments to persons	Personal income
1959	410.1	52.3	10.2	18.8	0.0	22.7	12.7	25.7	1.3	391.2
1960	425.7	50.7	11.2	21.9	.0	25.0	13.4	27.5	1.3	409.2
1961	440.5	51.6	13.1	22.9	.0	26.9	14.0	31.5	1.4	426.5
1962	474.5	59.6	14.6	25.4	.0	29.3	15.0	32.6	1.5	453.4
1963	501.5	65.1	16.1	28.5	.0	32.4	16.1	34.5	1.7	476.4
1964	539.1	72.1	18.2	30.1	.0	36.1	18.0	36.0	1.8	510.7
1965	586.9	82.9	21.1	31.6	.0	40.3	20.2	39.1	2.0	552.9
1966	643.7	88.6	24.3	40.6	.0	44.9	20.9	43.6	2.1	601.7
1967	679.9	86.0	28.1	45.5	.0	49.5	22.1	52.3	2.3	646.5
1968	741.0	92.6	30.4	50.4	.0	54.6	24.5	60.6	2.5	709.9
1969	798.6	89.6	33.6	57.9	.0	60.8	25.1	67.5	2.8	773.7
1970	833.5	77.5	40.0	62.2	.0	69.2	23.5	81.8	2.8	831.0
1971	899.5	90.3	45.4	68.9	.6	75.7	23.5	97.0	3.0	893.5
1972	992.9	103.2	49.3	79.0	.0	81.8	25.5	108.4	3.4	980.5
1973	1,119.5	116.4	56.5	97.6	−.1	94.1	27.7	124.1	3.8	1,098.7
1974	1,198.8	104.5	71.8	110.5	−.5	112.4	29.6	147.4	4.0	1,205.7
1975	1,285.3	121.9	80.0	118.5	.1	123.0	29.2	185.7	4.5	1,307.3
1976	1,435.5	147.1	85.1	134.5	.1	134.6	34.7	202.8	5.5	1,446.3
1977	1,609.1	175.7	100.7	149.8	.1	155.7	39.4	217.5	5.9	1,601.3
1978	1,829.8	199.7	120.5	171.8	.3	184.5	44.2	234.8	6.8	1,807.9
1979	2,038.9	202.5	149.9	197.8	−.2	223.2	50.4	262.8	7.9	2,033.1
1980	2,198.2	177.7	191.2	216.6	.0	274.0	57.1	312.6	8.8	2,265.4
1981	2,432.5	182.0	233.4	251.3	.1	336.1	66.9	355.7	10.2	2,534.7
1982	2,522.5	151.5	262.4	269.6	.0	376.8	67.1	396.3	11.8	2,690.9
1983	2,720.8	212.7	270.0	290.2	−.4	397.5	77.8	426.1	12.8	2,862.5
1984	3,058.3	264.2	307.9	325.0	.2	461.9	78.8	437.8	15.1	3,154.6
1985	3,268.4	280.8	326.2	353.8	−.2	498.1	87.9	468.1	17.8	3,379.8
1986	3,437.9	271.6	350.2	379.8	.0	531.7	104.7	497.1	20.7	3,590.4
1987	3,692.3	319.8	360.4	400.7	.0	548.1	100.4	521.3	20.8	3,802.0
1988	4,002.6	365.0	387.7	442.3	.0	583.2	108.4	555.9	20.8	4,075.9
1989	4,244.7	351.7	452.6	473.4	.0	669.0	119.8	602.0	22.4	4,380.2
1990	4,459.6	319.0	490.1	501.7	.1	721.3	124.8	661.7	23.2	4,679.8
1991 *p*			481.3	527.3	−.1	719.4	128.5	732.8	26.3	4,833.9
1982: IV	2,551.5	150.3	256.8	272.8	.0	373.6	69.4	419.9	12.3	2,746.8
1983: IV	2,834.2	229.1	281.8	298.3	.0	418.7	80.6	428.0	13.2	2,965.8
1984: IV	3,134.4	261.3	321.1	332.2	.6	485.4	79.3	442.3	16.2	3,242.5
1985: IV	3,341.9	284.9	331.9	362.3	.0	507.5	92.7	474.8	18.8	3,456.7
1986: IV	3,486.0	264.6	349.7	388.7	.0	532.6	105.6	505.8	20.9	3,647.8
1987: IV	3,828.8	343.3	368.6	409.6	−.2	562.3	100.1	528.1	20.4	3,918.5
1988: I	3,888.8	352.1	374.9	431.3	.0	564.8	103.1	548.9	20.5	3,967.7
II	3,966.3	364.2	376.5	438.7	.0	570.8	106.4	553.2	20.7	4,037.9
III	4,027.6	365.3	391.1	445.6	.0	588.1	110.5	557.9	20.8	4,102.9
IV	4,127.6	378.3	408.1	453.5	.0	608.9	113.8	563.5	21.3	4,195.2
1989: I	4,202.6	366.2	429.9	466.8	.0	639.4	117.0	585.0	22.6	4,303.8
II	4,230.9	361.0	448.4	471.3	.0	665.6	119.1	594.6	22.3	4,351.7
III	4,244.7	345.0	462.4	475.4	.0	679.1	120.8	606.8	22.3	4,390.9
IV	4,300.5	334.7	469.6	480.2	.0	691.9	122.2	621.8	22.4	4,474.4
1990: I	4,395.5	340.2	477.5	493.0	.0	703.0	123.7	646.6	22.6	4,580.6
II	4,461.0	339.8	484.5	498.6	.0	716.2	123.5	653.7	23.1	4,654.7
III	4,475.2	299.8	491.8	505.8	.0	729.1	124.8	664.4	23.2	4,719.3
IV	4,506.8	296.1	506.4	509.3	.2	736.9	127.0	682.2	23.6	4,764.7
1991: I	4,489.8	302.1	492.6	522.9	.2	730.1	128.7	712.5	24.7	4,768.0
II	4,530.8	303.5	481.6	525.7	−.4	721.8	127.4	725.7	25.8	4,821.1
III	4,559.8	306.1	480.1	529.5	.0	716.7	128.7	736.8	26.9	4,853.3
IV *p*			470.8	531.3	.0	709.1	129.4	756.2	27.8	4,893.1

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–22.—*National income by type of income, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	National income[1]	Compensation of employees			Proprietors' income with inventory valuation and capital consumption adjustments							
						Farm			Nonfarm			
		Total	Wages and salaries	Supplements to wages and salaries[2]	Total	Total	Proprietors' income[3]	Capital consumption adjustment	Total	Proprietors' income	Inventory valuation adjustment	Capital consumption adjustment
1959	410.1	281.2	259.8	21.4	51.7	10.7	11.6	−0.9	41.1	40.2	0.0	0.9
1960	425.7	296.7	272.8	23.8	51.9	11.2	12.1	−.8	40.6	39.8	.0	.8
1961	440.5	305.6	280.5	25.1	54.3	11.9	12.7	−.8	42.4	41.8	.0	.6
1962	474.5	327.4	299.3	28.1	56.4	11.9	12.7	−.8	44.5	43.9	.0	.6
1963	501.5	345.5	314.8	30.7	57.7	11.8	12.5	−.7	45.9	45.2	.0	.7
1964	539.1	371.0	337.7	33.2	60.5	10.6	11.3	−.7	49.8	49.2	−.1	.7
1965	586.9	399.8	363.7	36.1	65.0	12.9	13.7	−.7	52.1	51.9	−.2	.4
1966	643.7	443.0	400.3	42.7	69.4	14.0	14.8	−.8	55.3	55.4	−.2	.2
1967	679.9	475.5	428.9	46.6	70.9	12.7	13.5	−.8	58.2	58.3	−.2	.1
1968	741.0	524.7	471.9	52.8	75.1	12.7	13.6	−.9	62.4	63.0	−.4	−.2
1969	798.6	578.4	518.3	60.1	78.9	14.4	15.6	−1.1	64.5	65.0	−.5	.0
1970	833.5	618.3	551.5	66.8	79.9	14.6	15.9	−1.3	65.3	66.0	−.5	−.1
1971	899.5	659.4	584.5	74.9	86.2	15.2	16.6	−1.4	70.9	72.0	−.6	−.5
1972	992.9	726.2	638.7	87.6	97.4	19.1	20.9	−1.8	78.3	79.3	−.7	−.2
1973	1,119.5	812.8	708.6	104.2	116.5	32.2	34.3	−2.0	84.3	86.5	−2.0	−.2
1974	1,198.8	891.3	772.2	119.1	115.3	25.5	28.2	−2.8	89.8	94.2	−3.8	−.6
1975	1,285.3	948.7	814.7	134.0	121.2	23.7	27.5	−3.8	97.5	100.2	−1.2	−1.4
1976	1,435.5	1,058.3	899.6	158.7	132.9	18.3	22.5	−4.2	114.6	117.6	−1.3	−1.7
1977	1,609.1	1,177.3	994.0	183.3	146.4	17.1	21.8	−4.8	129.4	132.5	−1.3	−1.8
1978	1,829.8	1,333.0	1,120.9	212.1	167.7	21.5	27.0	−5.5	146.2	150.2	−2.1	−2.0
1979	2,038.9	1,496.4	1,255.3	241.1	181.8	24.7	31.2	−6.4	157.0	161.8	−2.9	−1.9
1980	2,198.2	1,644.4	1,376.6	267.8	171.8	11.5	19.4	−7.9	160.3	165.8	−3.0	−2.5
1981	2,432.5	1,815.5	1,515.6	299.8	180.8	21.2	30.2	−9.0	159.6	160.9	−1.4	.2
1982	2,522.5	1,916.0	1,593.3	322.7	170.7	13.5	23.1	−9.7	157.3	157.8	−.6	.0
1983	2,720.8	2,029.4	1,684.2	345.2	186.7	2.4	12.1	−9.7	184.3	176.1	−.6	8.7
1984	3,058.3	2,226.9	1,850.0	376.9	236.0	21.3	30.8	−9.4	214.7	197.1	−.5	18.1
1985	3,268.4	2,382.8	1,986.3	396.5	259.9	21.5	30.5	−9.0	238.4	212.4	−.2	26.1
1986	3,437.9	2,523.8	2,105.4	418.4	283.7	22.3	31.0	−8.7	261.5	230.6	−.1	30.9
1987	3,692.3	2,698.7	2,261.2	437.4	310.2	31.3	39.6	−8.3	279.0	252.4	−.8	27.4
1988	4,002.6	2,921.3	2,443.0	478.3	324.3	30.9	38.8	−8.0	293.4	266.8	−1.5	28.1
1989	4,244.7	3,101.3	2,585.8	515.5	347.0	41.4	49.6	−8.1	305.5	278.6	−1.2	28.1
1990	4,459.6	3,290.3	2,738.9	551.4	373.2	42.5	50.3	−7.9	330.7	308.9	−.8	22.7
1991 [p]		3,387.7	2,807.7	580.0	379.6	35.2	42.8	−7.6	344.5	325.4	−.3	19.4
1982: IV	2,551.5	1,940.4	1,611.8	328.6	179.9	10.2	20.0	−9.8	169.6	168.0	.6	1.1
1983: IV	2,834.3	2,101.2	1,747.3	353.9	200.1	6.3	15.8	−9.5	193.8	182.5	−1.6	12.9
1984: IV	3,134.4	2,288.1	1,903.9	384.2	239.6	21.9	31.2	−9.3	217.7	196.6	.1	21.0
1985: IV	3,341.9	2,442.5	2,039.1	403.3	268.7	17.8	26.7	−8.9	250.9	223.2	−1.4	29.1
1986: IV	3,486.0	2,582.5	2,153.9	428.6	284.4	23.6	32.1	−8.6	260.9	230.0	.7	30.1
1987: IV	3,828.8	2,785.1	2,336.7	448.4	325.0	42.4	50.6	−8.2	282.6	254.2	1.7	26.7
1988: I	3,888.8	2,834.6	2,371.5	463.1	320.9	35.4	43.6	−8.2	285.5	257.7	.8	26.9
II	3,966.3	2,895.4	2,422.9	472.5	326.1	34.1	42.1	−8.0	292.0	265.5	−1.3	27.8
III	4,027.6	2,950.2	2,467.0	483.2	316.8	23.1	30.9	−7.8	293.8	269.0	−4.0	28.7
IV	4,127.6	3,004.9	2,510.6	494.3	333.4	30.9	38.8	−7.9	302.5	274.9	−1.4	29.0
1989: I	4,202.6	3,051.8	2,547.8	503.9	357.0	51.5	59.5	−8.0	305.5	279.8	−3.3	29.1
II	4,230.9	3,081.0	2,569.4	511.6	347.0	43.8	51.8	−8.0	303.2	275.3	−1.0	28.9
III	4,244.7	3,114.9	2,595.8	519.1	332.7	29.6	38.0	−8.4	303.2	275.1	.2	27.9
IV	4,300.5	3,157.4	2,630.2	527.2	351.3	41.0	49.0	−8.0	310.2	284.4	−.7	26.6
1990: I	4,395.5	3,216.1	2,675.9	540.1	375.8	50.9	58.9	−8.0	324.9	300.6	−1.0	25.3
II	4,461.0	3,279.9	2,731.6	548.3	374.2	45.3	53.2	−7.8	328.8	306.1	−.9	23.6
III	4,475.2	3,325.3	2,769.9	555.4	368.8	32.4	40.2	−7.8	336.5	315.7	−.9	21.6
IV	4,506.8	3,340.0	2,778.3	561.6	373.9	41.2	49.0	−7.8	332.7	313.0	−.5	20.2
1991: I	4,489.8	3,342.9	2,771.1	571.8	364.2	32.8	40.5	−7.7	331.4	312.5	−.3	19.1
II	4,530.8	3,377.4	2,800.2	577.2	380.0	39.6	47.1	−7.6	340.4	321.6	−.3	19.2
III	4,559.8	3,405.3	2,822.4	582.9	382.5	32.0	39.6	−7.6	350.5	331.5	−.5	19.4
IV [p]		3,425.1	2,837.2	587.9	391.9	36.3	43.9	−7.6	355.6	336.0	−.1	19.7

[1] National income is the total net income earned in production. It differs from gross domestic product mainly in that it excludes depreciation charges and other allowances for business and institutional consumption of durable capital goods and indirect business taxes. See Table B–20.

See next page for continuation of table.

TABLE B–22.—*National income by type of income, 1959–91*—Continued

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Rental income of persons with capital consumption adjustment			Corporate profits with inventory valuation and capital consumption adjustments									Net interest
					Profits with inventory valuation adjustment and without capital consumption adjustment								
						Profits					Inventory valuation adjustment	Capital consumption adjustment	
								Profits after tax					
	Total	Rental income of persons	Capital consumption adjustment	Total	Total	Profits before tax	Profits tax liability	Total	Dividends	Undistributed profits			
1959	14.7	18.0	−3.4	52.3	53.1	53.4	23.6	29.7	12.7	17.0	−0.3	−0.8	10.2
1960	15.3	18.7	−3.4	50.7	51.0	51.1	22.7	28.4	13.4	15.0	−.2	−.3	11.2
1961	15.8	19.2	−3.3	51.6	51.3	51.0	22.8	28.2	14.0	14.3	−.3	.3	13.1
1962	16.5	19.8	−3.3	59.6	56.4	56.4	24.0	32.4	15.0	17.4	−.0	3.2	14.6
1963	17.1	20.3	−3.2	65.1	61.2	61.2	26.2	34.9	16.1	18.8	−.1	3.9	16.1
1964	17.3	20.5	−3.2	72.1	67.5	68.0	28.0	40.0	18.0	22.0	−.5	4.6	18.2
1965	18.0	21.3	−3.3	82.9	77.6	78.8	30.9	47.9	20.2	27.8	−1.2	5.3	21.1
1966	18.5	22.1	−3.6	88.6	83.0	85.1	33.7	51.4	20.9	30.5	−2.1	5.6	24.3
1967	19.4	23.4	−3.9	86.0	80.3	81.8	32.7	49.2	22.1	27.1	−1.6	5.7	28.1
1968	18.2	22.8	−4.6	92.6	86.9	90.6	39.4	51.2	24.6	26.6	−3.7	5.6	30.4
1969	18.0	23.9	−5.9	89.6	83.2	89.0	39.7	49.4	25.2	24.1	−5.9	6.4	33.6
1970	17.8	24.2	−6.4	77.5	71.8	78.4	34.4	44.0	23.7	20.3	−6.6	5.6	40.0
1971	18.2	25.6	−7.4	90.3	85.5	90.1	37.7	52.4	23.7	28.6	−4.6	4.8	45.4
1972	16.8	26.1	−9.3	103.2	97.9	104.5	41.9	62.6	25.8	36.9	−6.6	5.3	49.3
1973	17.3	28.2	−10.9	116.4	110.9	130.9	49.3	81.6	28.1	53.5	−20.0	5.5	56.5
1974	15.8	29.3	−13.5	104.5	103.4	142.8	51.8	91.0	30.4	60.6	−39.5	1.2	71.8
1975	13.5	29.5	−15.9	121.9	129.4	140.4	50.9	89.5	30.1	59.4	−11.0	−7.6	80.0
1976	12.1	29.9	−17.8	147.1	158.8	173.7	64.2	109.5	35.6	73.9	−14.9	−11.7	85.1
1977	9.0	30.0	−21.0	175.7	186.7	203.3	73.0	130.3	40.7	89.5	−16.6	−11.0	100.7
1978	8.9	34.4	−25.5	199.7	212.8	237.9	83.5	154.4	45.9	108.5	−25.0	−13.1	120.5
1979	8.4	39.1	−30.8	202.5	219.8	261.4	88.0	173.4	52.4	121.0	−41.6	−17.3	149.9
1980	13.2	49.0	−35.8	177.7	197.8	240.9	84.8	156.1	59.0	97.1	−43.0	−20.2	191.2
1981	20.8	61.1	−40.2	182.0	203.2	228.9	81.1	147.8	69.2	78.6	−25.7	−21.2	233.4
1982	21.9	64.4	−42.4	151.5	166.4	176.3	63.1	113.2	70.0	43.2	−9.9	−14.9	262.4
1983	22.1	64.8	−42.8	212.7	202.2	210.7	77.2	133.5	81.2	52.3	−8.5	10.4	270.0
1984	23.3	66.5	−43.2	264.2	236.4	240.5	94.0	146.4	82.7	63.8	−4.1	27.8	307.9
1985	18.7	63.4	−44.6	280.8	225.3	225.0	96.5	128.5	92.4	36.1	.2	55.5	326.2
1986	8.7	53.4	−44.7	271.6	227.6	217.8	106.5	111.3	109.8	1.6	9.7	44.1	350.2
1987	3.2	50.0	−46.8	319.8	273.4	287.9	127.1	160.8	106.2	54.6	−14.5	46.4	360.4
1988	4.3	53.4	−49.1	365.0	320.3	347.5	137.0	210.5	115.3	95.2	−27.3	44.7	387.7
1989	−7.9	46.9	−54.8	351.7	327.0	344.5	138.0	206.6	127.9	78.7	−17.5	24.7	452.6
1990	−12.9	40.6	−53.4	319.0	318.2	332.3	135.3	197.0	133.7	63.3	−14.2	.8	490.1
1991 [p]	−13.2	42.0	−55.3						137.8		3.8	−9.1	481.3
1982: IV	24.1	66.5	−42.3	150.3	160.0	168.6	58.7	109.9	72.5	37.5	−8.6	−9.6	256.8
1983: IV	22.2	64.5	−42.4	229.1	216.2	223.8	82.2	141.6	84.2	57.4	−7.6	12.9	281.8
1984: IV	24.3	67.6	−43.4	261.3	223.6	220.1	83.8	136.3	83.4	52.9	3.5	37.7	321.1
1985: IV	14.0	60.0	−46.0	284.9	228.0	231.8	97.6	134.2	97.4	36.9	−3.8	56.9	331.9
1986: IV	4.7	50.2	−45.5	264.6	225.0	235.7	116.6	119.2	111.0	8.2	−10.7	39.6	349.7
1987: IV	6.8	54.2	−47.4	343.3	293.4	311.2	135.2	176.0	106.3	69.7	−17.8	49.9	368.6
1988: I	6.2	54.9	−48.6	352.1	303.3	322.1	126.6	195.5	109.6	86.0	−18.8	48.8	374.9
II	4.1	53.0	−48.9	364.2	316.8	342.9	135.7	207.2	113.3	93.9	−26.1	47.4	376.5
III	4.2	53.2	−49.0	365.3	320.4	353.0	139.6	213.4	117.5	95.8	−32.6	44.8	391.1
IV	2.8	52.6	−49.7	378.3	340.5	372.2	146.2	226.0	121.0	105.0	−31.7	37.9	408.1
1989: I	−2.2	48.5	−50.7	366.2	332.9	370.5	149.2	221.3	124.6	96.6	−37.6	33.2	429.9
II	−6.5	45.3	−51.8	361.0	332.2	347.9	141.7	206.2	127.1	79.2	−15.7	28.7	448.4
III	−10.3	49.0	−59.4	345.0	323.6	326.9	131.2	195.7	129.1	66.7	−3.3	21.4	462.4
IV	−12.5	44.8	−57.3	334.7	319.2	332.8	129.8	203.0	130.7	72.3	−13.5	15.4	469.6
1990: I	−14.2	39.0	−53.2	340.2	330.0	336.6	137.6	199.1	132.3	66.7	−6.6	10.2	477.5
II	−17.3	35.8	−53.2	339.8	335.4	331.6	137.9	193.7	132.5	61.2	3.8	4.4	484.5
III	−10.4	43.5	−53.9	299.8	302.4	335.1	138.8	196.3	133.8	62.5	−32.6	−2.7	491.8
IV	−9.5	44.0	−53.5	296.1	304.9	326.1	127.1	199.0	136.2	62.8	−21.2	−8.8	506.4
1991: I	−11.9	41.9	−53.8	302.1	315.7	309.1	119.4	189.7	137.8	51.9	6.7	−13.6	492.6
II	−11.7	42.6	−54.2	303.5	316.1	306.2	123.5	182.7	136.7	46.1	9.9	−12.6	481.6
III	−14.2	40.9	−55.1	306.1	313.4	318.2	128.6	189.6	138.1	51.5	−4.8	−7.3	480.1
IV [p]	−15.2	42.8	−58.0						138.5		3.3	−2.9	470.8

[2] Consists mainly of employer contributions for social insurance and to private pension, health, and welfare funds.
[3] With inventory valuation adjustment.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–23.—*Sources of personal income, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Personal income	Wage and salary disbursements [1]						Other labor income [1]	Proprietors' income with inventory valuation and capital consumption adjustments	
		Total	Commodity-producing industries		Distributive industries	Service industries	Government		Farm	Nonfarm
			Total	Manufacturing						
1959	391.2	259.8	109.9	86.9	65.1	38.8	46.0	10.6	10.7	41.1
1960	409.2	272.8	113.4	89.8	68.6	41.7	49.2	11.2	11.2	40.6
1961	426.5	280.5	114.0	89.9	69.6	44.4	52.4	11.8	11.9	42.4
1962	453.4	299.3	122.2	96.8	73.3	47.6	56.3	13.0	11.9	44.5
1963	476.4	314.8	127.4	100.7	76.8	50.7	60.0	14.0	11.8	45.9
1964	510.7	337.7	136.0	107.3	82.0	54.9	64.9	15.7	10.6	49.8
1965	552.9	363.7	146.6	115.7	87.9	59.4	69.9	17.8	12.9	52.1
1966	601.7	400.3	161.6	128.2	95.1	65.3	78.3	19.9	14.0	55.3
1967	646.5	428.9	169.0	134.3	101.6	72.0	86.4	21.7	12.7	58.2
1968	709.9	471.9	184.1	146.0	110.8	80.4	96.6	25.2	12.7	62.4
1969	773.7	518.3	200.4	157.7	121.7	90.6	105.5	28.5	14.4	64.5
1970	831.0	551.5	203.7	158.4	131.2	99.4	117.1	32.5	14.6	65.3
1971	893.5	583.9	209.1	160.5	140.4	107.9	126.5	36.7	15.2	70.9
1972	980.5	638.7	228.2	175.6	153.3	119.7	137.4	43.0	19.1	78.3
1973	1,098.7	708.7	255.9	196.6	170.3	133.9	148.7	49.2	32.2	84.3
1974	1,205.7	772.6	276.5	211.8	186.8	148.6	160.9	56.5	25.5	89.8
1975	1,307.3	814.6	277.1	211.6	198.1	163.4	176.0	65.9	23.7	97.5
1976	1,446.3	899.5	309.7	238.0	219.5	181.6	188.6	79.7	18.3	114.6
1977	1,601.3	993.9	346.1	266.7	242.7	202.8	202.3	94.7	17.1	129.4
1978	1,807.9	1,120.7	392.6	300.1	274.9	233.7	219.4	110.1	21.5	146.2
1979	2,033.1	1,255.4	442.1	334.9	308.4	267.7	237.3	124.3	24.7	157.0
1980	2,265.4	1,376.6	471.9	355.7	336.4	306.9	261.4	139.8	11.5	160.3
1981	2,534.7	1,515.6	513.7	386.9	368.1	348.1	285.7	153.0	21.2	159.6
1982	2,690.9	1,593.3	513.5	384.3	385.8	386.5	307.5	165.4	13.5	157.3
1983	2,862.5	1,684.7	525.1	397.7	406.2	427.4	325.9	174.6	2.4	184.3
1984	3,154.6	1,849.8	580.8	439.8	445.4	475.8	347.8	184.7	21.3	214.7
1985	3,379.8	1,986.5	612.2	461.3	475.9	524.5	373.9	191.8	21.5	238.4
1986	3,590.4	2,105.4	628.5	473.8	501.7	579.5	395.7	200.7	22.3	261.5
1987	3,802.0	2,261.2	651.8	490.1	536.9	650.7	421.8	210.4	31.3	279.0
1988	4,075.9	2,443.0	699.1	524.5	575.3	719.6	449.0	230.5	30.9	293.4
1989	4,380.2	2,585.8	723.8	542.1	607.5	775.9	478.6	253.7	41.4	305.5
1990	4,679.8	2,738.9	745.4	555.8	634.6	845.0	514.0	274.0	42.5	330.7
1991 P	4,833.9	2,807.8	738.7	556.5	641.2	887.6	540.2	290.6	35.2	344.5
1982: IV	2,746.8	1,611.7	503.9	378.0	391.2	400.9	315.6	169.2	10.2	169.6
1983: IV	2,965.8	1,747.3	547.6	415.7	422.4	445.8	331.5	179.0	6.3	193.8
1984: IV	3,242.5	1,903.3	594.5	450.5	458.4	494.4	356.1	187.7	21.9	217.7
1985: IV	3,456.7	2,039.1	622.6	469.1	487.6	546.8	382.2	193.9	17.8	250.9
1986: IV	3,647.8	2,153.9	635.3	478.5	512.5	602.1	404.0	205.3	23.6	260.9
1987: IV	3,918.5	2,337.0	668.4	501.6	551.9	685.0	431.7	216.5	42.4	282.6
1988: I	3,967.7	2,371.5	682.1	512.6	559.6	690.2	439.7	221.4	35.4	285.5
II	4,037.9	2,422.9	694.8	520.6	571.0	711.4	445.7	226.6	34.1	292.0
III	4,102.9	2,467.0	703.9	527.3	580.8	730.1	452.1	233.6	23.1	293.8
IV	4,195.2	2,510.6	715.3	537.5	589.9	746.8	458.5	240.3	30.9	302.5
1989: I	4,303.8	2,547.8	720.8	542.1	599.9	758.7	468.4	245.8	51.5	305.5
II	4,351.7	2,569.4	719.7	539.6	605.1	770.0	474.7	251.0	43.8	303.2
III	4,390.9	2,595.8	724.2	541.8	608.8	781.1	481.8	256.4	29.6	303.2
IV	4,474.4	2,630.2	730.7	544.7	616.0	793.9	489.7	261.7	41.0	310.2
1990: I	4,580.6	2,675.9	737.4	548.0	624.6	812.4	501.5	267.8	50.9	324.9
II	4,654.7	2,731.6	747.7	557.5	634.5	838.0	511.4	272.1	45.3	328.8
III	4,719.3	2,769.8	751.2	560.4	640.4	860.6	517.7	276.3	32.4	336.5
IV	4,764.7	2,778.2	745.2	557.3	639.0	868.8	525.2	279.9	41.2	332.7
1991: I	4,768.0	2,770.9	733.4	549.3	635.1	866.5	535.8	284.2	32.8	331.4
II	4,821.1	2,800.6	735.2	552.3	642.0	883.0	540.5	288.5	39.6	340.4
III	4,853.3	2,822.4	742.3	559.9	644.0	894.4	541.8	292.8	32.0	350.5
IV P	4,893.1	2,837.2	744.0	564.4	643.8	906.6	542.8	297.0	36.3	355.6

[1] The total of wage and salary disbursements and other labor income differs from compensation of employees in Table B–22 in that it excludes employer contributions for social insurance and the excess of wage accruals over wage disbursements.

See next page for continuation of table.

TABLE B–23.—*Sources of personal income, 1959–91*—Continued

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Rental income of persons with capital consumption adjustment	Personal dividend income	Personal interest income	Transfer payments to persons							Less: Personal contributions for social insurance	Nonfarm personal income[2]
				Total	Old-age, survivors, disability, and health insurance benefits	Government unemployment insurance benefits	Veterans benefits	Government employees retirement benefits	Aid to families with dependent children (AFDC)	Other		
1959	14.7	12.7	22.7	27.0	10.2	2.8	4.6	2.8	0.9	5.7	7.9	376.2
1960	15.3	13.4	25.0	28.8	11.1	3.0	4.6	3.1	1.0	6.1	9.3	393.7
1961	15.8	14.0	26.9	32.8	12.6	4.3	5.0	3.4	1.1	6.5	9.7	410.4
1962	16.5	15.0	29.3	34.1	14.3	3.1	4.7	3.7	1.3	7.0	10.3	437.0
1963	17.1	16.1	32.4	36.2	15.2	3.0	4.8	4.2	1.4	7.6	11.8	460.0
1964	17.3	18.0	36.1	37.9	16.0	2.7	4.7	4.7	1.5	8.2	12.6	495.3
1965	18.0	20.2	40.3	41.1	18.1	2.3	4.9	5.2	1.7	9.0	13.3	534.9
1966	18.5	20.9	44.9	45.7	20.8	1.9	4.9	6.1	1.9	10.3	17.8	582.4
1967	19.4	22.1	49.5	54.6	25.5	2.2	5.6	6.9	2.3	12.2	20.6	628.3
1968	18.2	24.5	54.6	63.2	30.2	2.1	5.9	7.6	2.8	14.5	22.9	691.4
1969	18.0	25.1	60.8	70.3	32.9	2.2	6.7	8.7	3.5	16.2	26.2	753.1
1970	17.8	23.5	69.2	84.6	38.5	4.0	7.7	10.2	4.8	19.4	27.9	809.8
1971	18.2	23.5	75.7	100.1	44.5	5.8	8.8	11.8	6.2	23.0	30.7	871.5
1972	16.8	25.5	81.8	111.8	49.6	5.7	9.7	13.8	6.9	26.1	34.5	954.2
1973	17.3	27.7	94.1	127.9	60.4	4.4	10.4	16.0	7.2	29.5	42.6	1,058.1
1974	15.8	29.6	112.4	151.3	70.1	6.8	11.8	19.0	7.9	35.7	47.9	1,170.2
1975	13.5	29.2	123.0	190.2	81.4	17.6	14.5	22.7	9.2	44.7	50.4	1,272.5
1976	12.1	34.7	134.6	208.3	92.9	15.8	14.4	26.1	10.1	49.1	55.5	1,415.1
1977	9.0	39.4	155.7	223.3	104.9	12.7	13.8	29.0	10.6	52.4	61.2	1,569.9
1978	8.9	44.2	184.5	241.6	116.2	9.7	13.9	32.7	10.7	58.4	69.8	1,770.3
1979	8.4	50.4	223.2	270.7	131.8	9.8	14.4	36.9	11.0	66.8	81.0	1,989.3
1980	13.2	57.1	274.0	321.5	154.2	16.1	15.0	43.0	12.4	80.8	88.6	2,231.6
1981	20.8	66.9	336.1	365.9	182.0	15.9	16.1	49.4	13.0	89.7	104.5	2,488.5
1982	21.9	67.1	376.8	408.1	204.5	25.2	16.4	54.6	13.3	94.1	112.3	2,649.8
1983	22.1	77.8	397.5	438.9	221.7	26.3	16.6	58.0	14.2	102.1	119.7	2,832.6
1984	23.3	78.8	461.9	452.9	235.7	15.8	16.4	60.9	14.8	109.2	132.8	3,106.1
1985	18.7	87.9	498.1	485.9	253.4	15.7	16.7	66.6	15.4	118.1	149.1	3,333.2
1986	8.7	104.7	531.7	517.8	269.2	16.3	16.7	70.7	16.4	128.5	162.1	3,545.6
1987	3.2	100.4	548.1	542.2	282.9	14.5	16.6	76.0	16.7	135.5	173.6	3,749.4
1988	4.3	108.4	583.2	576.7	300.4	13.4	16.9	82.2	17.3	146.5	194.5	4,023.9
1989	−7.9	119.8	669.0	624.4	325.1	14.4	17.3	87.2	18.0	162.4	211.7	4,316.6
1990	−12.9	124.8	721.3	684.9	352.0	17.9	17.8	93.1	19.8	184.2	224.3	4,614.5
1991 [p]	−13.2	128.5	719.4	759.1	379.7	26.7	18.3	99.7	21.8	212.9	238.0	4,775.0
1982: IV	24.1	69.4	373.6	432.2	216.4	31.8	16.6	56.1	13.6	97.6	113.3	2,708.5
1983: IV	22.2	80.6	418.7	441.3	226.7	19.9	16.5	59.5	14.5	104.2	123.4	2,932.0
1984: IV	24.3	79.3	485.4	458.5	241.3	15.6	16.4	58.0	14.8	112.5	135.6	3,193.8
1985: IV	14.0	92.7	507.5	493.6	256.7	15.3	16.5	68.0	15.7	121.3	152.8	3,414.9
1986: IV	4.7	105.6	532.6	526.6	273.3	16.7	16.4	72.4	16.7	131.1	165.4	3,602.3
1987: IV	6.8	100.1	562.3	548.5	285.8	13.4	16.5	77.7	16.7	138.3	177.7	3,854.9
1988: I	6.2	103.1	564.8	569.4	297.8	14.0	16.9	81.0	17.0	142.7	189.6	3,911.2
II	4.1	106.4	570.8	573.8	298.9	13.4	16.9	82.5	17.1	145.1	192.9	3,982.8
III	4.2	110.5	588.1	578.7	301.2	13.3	16.9	82.3	17.3	147.6	196.0	4,058.7
IV	2.8	113.8	608.9	584.8	303.8	13.0	16.8	83.0	17.5	150.6	199.5	4,142.9
1989: I	−2.2	117.0	639.4	607.7	316.7	13.5	17.5	85.8	17.6	156.7	208.6	4,230.7
II	−6.5	119.1	665.6	616.9	321.7	13.8	17.3	86.7	17.8	159.5	210.8	4,286.0
III	−10.3	120.8	679.1	629.1	328.2	14.6	17.3	87.5	18.1	163.4	212.7	4,339.0
IV	−12.5	122.2	691.9	644.2	334.0	15.6	17.2	88.8	18.4	170.2	214.8	4,410.9
1990: I	−14.2	123.7	703.0	669.2	347.7	16.1	17.9	92.5	19.2	175.9	220.7	4,507.2
II	−17.3	123.5	716.2	676.8	348.9	17.1	17.8	92.4	19.5	181.1	222.3	4,586.5
III	−10.4	124.8	729.1	687.7	353.0	18.0	17.7	93.1	19.9	185.8	226.7	4,664.1
IV	−9.5	127.0	736.9	705.8	358.4	20.5	17.9	94.6	20.5	193.9	227.5	4,700.4
1991: I	−11.9	128.7	730.1	737.2	373.1	23.6	18.0	100.3	20.9	201.2	235.4	4,711.9
II	−11.7	127.4	721.8	751.5	377.2	27.0	18.7	98.9	21.7	208.0	237.0	4,757.9
III	−14.2	128.7	716.7	763.7	381.7	26.5	18.4	99.3	22.1	215.7	239.3	4,797.4
IV [p]	−15.2	129.4	709.1	784.1	386.8	29.6	18.2	100.2	22.5	226.7	240.4	4,832.6

[2] Personal income exclusive of the farm component of wages and salaries, other labor income, proprietors' income, and net interest.

Note.—The industry classification of wage and salary disbursements and proprietors' income is on an establishment basis and is based on the 1987 Standard Industrial Classification (SIC) beginning 1987 and on the 1972 SIC for earlier years shown.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–24.—*Disposition of personal income, 1959–91*

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Personal income	Less: Personal tax and nontax payments	Equals: Disposable personal income	Less: Personal outlays				Equals: Personal saving	Percent of disposable personal income [1]		
				Total	Personal consumption expenditures	Interest paid by persons	Personal transfer payments to rest of the world (net)		Personal outlays		Personal saving
									Total	Personal consumption expenditures	
1959	391.2	44.5	346.7	324.7	318.1	6.1	0.4	22.0	93.6	91.8	6.4
1960	409.2	48.7	360.5	339.9	332.4	7.0	.4	20.6	94.3	92.2	5.7
1961	426.5	50.3	376.2	351.3	343.5	7.3	.5	24.9	93.4	91.3	6.6
1962	453.4	54.8	398.7	372.8	364.4	7.8	.5	25.9	93.5	91.4	6.5
1963	476.4	58.0	418.4	393.7	384.2	8.9	.6	24.6	94.1	91.8	5.9
1964	510.7	56.0	454.7	423.1	412.5	10.0	.7	31.6	93.1	90.7	6.9
1965	552.9	61.9	491.0	456.4	444.6	11.1	.7	34.6	93.0	90.5	7.0
1966	601.7	71.0	530.7	494.3	481.6	12.0	.7	36.4	93.1	90.7	6.9
1967	646.5	77.9	568.6	522.8	509.3	12.5	.9	45.9	91.9	89.6	8.1
1968	709.9	92.1	617.8	573.9	559.1	13.8	.9	43.9	92.9	90.5	7.1
1969	773.7	109.9	663.8	620.4	603.7	15.7	1.0	43.4	93.5	90.9	6.5
1970	831.0	109.0	722.0	664.4	646.5	16.8	1.2	57.6	92.0	89.5	8.0
1971	893.5	108.7	784.9	719.3	700.3	17.8	1.2	65.5	91.7	89.2	8.3
1972	980.5	132.0	848.5	788.6	767.8	19.6	1.2	59.9	92.9	90.5	7.1
1973	1,098.7	140.6	958.1	871.9	848.1	22.4	1.3	86.2	91.0	88.5	9.0
1974	1,205.7	159.1	1,046.5	953.0	927.7	24.2	1.1	93.5	91.1	88.6	8.9
1975	1,307.3	156.4	1,150.9	1,050.4	1,024.9	24.5	1.0	100.4	91.3	89.1	8.7
1976	1,446.3	182.3	1,264.0	1,170.7	1,143.1	26.7	1.0	93.2	92.6	90.4	7.4
1977	1,601.3	210.0	1,391.3	1,303.1	1,271.5	30.7	.9	88.1	93.7	91.4	6.3
1978	1,807.9	240.1	1,567.8	1,459.6	1,421.2	37.5	.9	108.1	93.1	90.7	6.9
1979	2,033.1	280.2	1,753.0	1,629.3	1,583.7	44.5	1.0	123.7	92.9	90.3	7.1
1980	2,265.4	312.4	1,952.9	1,798.6	1,748.1	49.4	1.2	154.3	92.1	89.5	7.9
1981	2,534.7	360.2	2,174.5	1,982.1	1,926.2	54.6	1.3	192.4	91.2	88.6	8.8
1982	2,690.9	371.4	2,319.6	2,119.6	2,059.2	58.8	1.6	200.0	91.4	88.8	8.6
1983	2,862.5	368.8	2,493.7	2,324.7	2,257.5	65.7	1.4	169.1	93.2	90.5	6.8
1984	3,154.6	395.1	2,759.5	2,537.2	2,460.3	75.0	1.9	222.3	91.9	89.2	8.1
1985	3,379.8	436.8	2,943.0	2,753.2	2,667.4	83.6	2.2	189.8	93.6	90.6	6.4
1986	3,590.4	459.0	3,131.5	2,943.6	2,850.6	90.9	2.1	187.8	94.0	91.0	6.0
1987	3,802.0	512.5	3,289.5	3,146.9	3,052.2	92.3	2.4	142.6	95.7	92.8	4.3
1988	4,075.9	527.7	3,548.2	3,392.0	3,296.1	93.7	2.1	156.2	95.6	92.9	4.4
1989	4,380.2	591.7	3,788.6	3,621.6	3,517.9	101.6	2.1	166.9	95.6	92.9	4.4
1990	4,679.8	621.0	4,058.8	3,852.2	3,742.6	107.5	2.1	206.6	94.9	92.2	5.1
1991 *p*	4,833.9	616.0	4,217.8	3,995.8	3,886.8	106.8	2.2	222.1	94.7	92.2	5.3
1982: IV	2,746.8	372.1	2,374.7	2,190.4	2,128.7	60.2	1.5	184.2	92.2	89.6	7.8
1983: IV	2,965.8	371.6	2,594.3	2,417.6	2,346.8	69.2	1.6	176.7	93.2	90.5	6.8
1984: IV	3,242.5	413.4	2,829.1	2,606.1	2,526.4	77.6	2.1	223.0	92.1	89.3	7.9
1985: IV	3,456.7	448.8	3,007.9	2,828.2	2,739.8	86.4	2.0	179.7	94.0	91.1	6.0
1986: IV	3,647.8	478.5	3,169.3	3,017.8	2,923.1	92.3	2.4	151.5	95.2	92.2	4.8
1987: IV	3,918.5	528.6	3,389.9	3,219.4	3,124.6	92.4	2.4	170.5	95.0	92.2	5.0
1988: I	3,967.7	510.8	3,456.8	3,294.2	3,199.1	92.8	2.3	162.6	95.3	92.5	4.7
II	4,037.9	530.4	3,507.6	3,355.2	3,260.5	92.7	1.9	152.3	95.7	93.0	4.3
III	4,102.9	527.7	3,575.2	3,422.3	3,326.6	93.6	2.1	152.9	95.7	93.0	4.3
IV	4,195.2	542.0	3,653.2	3,496.2	3,398.2	95.8	2.2	157.0	95.7	93.0	4.3
1989: I	4,303.8	574.3	3,729.5	3,535.9	3,436.5	97.4	1.9	193.7	94.8	92.1	5.2
II	4,351.7	597.6	3,754.2	3,593.4	3,490.6	100.6	2.2	160.8	95.7	93.0	4.3
III	4,390.9	591.8	3,799.1	3,656.8	3,551.7	103.1	2.0	142.2	96.3	93.5	3.7
IV	4,474.4	602.9	3,871.4	3,700.4	3,592.8	105.4	2.2	171.0	95.6	92.8	4.4
1990: I	4,580.6	606.6	3,974.0	3,776.6	3,667.3	107.2	2.1	197.5	95.0	92.3	5.0
II	4,654.7	622.7	4,032.0	3,815.3	3,706.0	107.6	1.7	216.7	94.6	91.9	5.4
III	4,719.3	627.5	4,091.8	3,895.3	3,785.2	107.7	2.5	196.5	95.2	92.5	4.8
IV	4,764.7	627.2	4,137.5	3,921.7	3,812.0	107.6	2.1	215.8	94.8	92.1	5.2
1991: I	4,768.0	617.1	4,151.0	3,937.5	3,827.7	107.5	2.3	213.4	94.9	92.2	5.1
II	4,821.1	613.6	4,207.5	3,977.9	3,868.5	107.1	2.2	229.6	94.5	91.9	5.5
III	4,853.3	615.1	4,238.2	4,024.9	3,916.4	106.3	2.1	213.3	95.0	92.4	5.0
IV *p*	4,893.1	618.3	4,274.7	4,042.8	3,934.4	106.2	2.1	232.0	94.6	92.0	5.4

[1] Percents based on data in millions of dollars.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–25.—*Total and per capita disposable personal income and personal consumption expenditures in current and 1987 dollars, 1959–91*

[Quarterly data at seasonally adjusted annual rates, except as noted]

Year or quarter	Disposable personal income				Personal consumption expenditures				Population (thousands) [1]
	Total (billions of dollars)		Per capita (dollars)		Total (billions of dollars)		Per capita (dollars)		
	Current dollars	1987 dollars	Current dollars	1987 dollars	Current dollars	1987 dollars	Current dollars	1987 dollars	
1959	346.7	1,284.9	1,958	7,256	318.1	1,178.9	1,796	6,658	177,073
1960	360.5	1,313.0	1,994	7,264	332.4	1,210.8	1,839	6,698	180,760
1961	376.2	1,356.4	2,048	7,382	343.5	1,238.4	1,869	6,740	183,742
1962	398.7	1,414.8	2,137	7,583	364.4	1,293.3	1,953	6,931	186,590
1963	418.4	1,461.1	2,210	7,718	384.2	1,341.9	2,030	7,089	189,300
1964	454.7	1,562.2	2,369	8,140	412.5	1,417.2	2,149	7,384	191,927
1965	491.0	1,653.5	2,527	8,508	444.6	1,497.0	2,287	7,703	194,347
1966	530.7	1,734.3	2,699	8,822	481.6	1,573.8	2,450	8,005	196,599
1967	568.6	1,811.4	2,861	9,114	509.3	1,622.4	2,562	8,163	198,752
1968	617.8	1,886.8	3,077	9,399	559.1	1,707.5	2,785	8,506	200,745
1969	663.8	1,947.4	3,274	9,606	603.7	1,771.2	2,978	8,737	202,736
1970	722.0	2,025.3	3,521	9,875	646.5	1,813.5	3,152	8,842	205,089
1971	784.9	2,099.9	3,779	10,111	700.3	1,873.7	3,372	9,022	207,692
1972	848.5	2,186.2	4,042	10,414	767.8	1,978.4	3,658	9,425	209,924
1973	958.1	2,334.1	4,521	11,013	848.1	2,066.7	4,002	9,752	211,939
1974	1,046.5	2,317.0	4,893	10,832	927.7	2,053.8	4,337	9,602	213,898
1975	1,150.9	2,355.4	5,329	10,906	1,024.9	2,097.5	4,745	9,711	215,981
1976	1,264.0	2,440.9	5,796	11,192	1,143.1	2,207.3	5,241	10,121	218,086
1977	1,391.3	2,512.6	6,316	11,406	1,271.5	2,296.6	5,772	10,425	220,289
1978	1,567.8	2,638.4	7,042	11,851	1,421.2	2,391 8	6,384	10,744	222,629
1979	1,753.0	2,710.1	7,787	12,039	1,583.7	2,448.4	7,035	10,876	225,106
1980	1,952.9	2,733.6	8,576	12,005	1,748.1	2,447.1	7,677	10,746	227.715
1981	2,174.5	2,795.8	9,455	12,156	1,926.2	2,476.9	8,375	10,770	229,989
1982	2,319.6	2,820.4	9,989	12,146	2,059.2	2,503.7	8,868	10,782	232,201
1983	2,493.7	2,893.6	10,642	12,349	2,257.5	2,619.4	9,634	11,179	234,326
1984	2,759.5	3,080.1	11,673	13,029	2,460.3	2,746.1	10,408	11,617	236,393
1985	2,943.0	3,162.1	12,339	13,258	2,667.4	2,865.8	11,184	12,015	238,510
1986	3,131.5	3,261.9	13,010	13,552	2,850.6	2,969.1	11,843	12,336	240,691
1987	3,289.5	3,289.6	13,545	13,545	3,052.2	3,052.2	12,568	12,568	242,860
1988	3,548.2	3,404.3	14,477	13,890	3,296.1	3,162.4	13,448	12,903	245,093
1989	3,788.6	3,471.2	15,313	14,030	3,517.9	3,223.1	14,219	13,027	247,405
1990	4,058.8	3,538.3	16,236	14,154	3,742.6	3,262.6	14,971	13,051	249,992
1991 [p]	4,217.8	3,534.1	16,693	13,987	3,886.8	3,256.7	15,383	12,889	252,666
1982: IV	2,374.7	2,832.6	10,189	12,154	2,128.7	2,539.3	9,134	10,895	233,060
1983: IV	2,594.3	2,960.6	11,033	12,591	2,346.8	2,678.2	9,980	11,390	235,146
1984: IV	2,829.1	3,118.5	11,925	13,145	2,526.4	2,784.8	10,649	11,739	237,231
1985: IV	3,007.9	3,178.7	12,565	13,278	2,739.8	2,895.3	11,445	12,095	239,387
1986: IV	3,169.3	3,266.2	13,121	13,522	2,923.1	3,012.5	12,101	12,472	241,550
1987: IV	3,389.9	3,335.8	13,907	13,685	3,124.6	3,074.7	12,819	12,615	243,745
1988: I	3,456.8	3,380.1	14,154	13,840	3,199.1	3,128.2	13,099	12,808	244,235
II	3,507.6	3,386.3	14,332	13,836	3,260.5	3,147.8	13,322	12,862	244,744
III	3,575.2	3,407.5	14,570	13,886	3,326.6	3,170.6	13,556	12,921	245,387
IV	3,653.2	3,443.1	14,850	13,996	3,398.2	3,202.9	13,814	13,020	246,004
1989: I	3,729.5	3,473.9	15,131	14,093	3,436.5	3,200.9	13,942	12,986	246,491
II	3,754.2	3,450.9	15,197	13,969	3,490.6	3,208.6	14,130	12,989	247,032
III	3,799.1	3,466.9	15,337	13,996	3,551.7	3,241.1	14,338	13,084	247,711
IV	3,871.4	3,493.0	15,586	14,063	3,592.8	3,241.6	14,464	13,051	248,387
1990: I	3,974.0	3,531.4	15,963	14,185	3,667.3	3,258.8	14,731	13,090	248,950
II	4,032.0	3,545.3	16,154	14,204	3,706.0	3,258.6	14,848	13,056	249,594
III	4,091.8	3,547.0	16,344	14,168	3,785.2	3,281.2	15,120	13,107	250,349
IV	4,137.5	3,529.5	16,479	14,058	3,812.0	3,251.8	15,183	12,952	251,074
1991: I	4,151.0	3,514.8	16,492	13,965	3,827.7	3,241.1	15,208	12,877	251,689
II	4,207.5	3,537.4	16,678	14,022	3,868.5	3,252.4	15,334	12,892	252,281
III	4,238.2	3,539.9	16,752	13,992	3,916.4	3,271.2	15,481	12,930	252,990
IV [p]	4,274.7	3,544.3	16,849	13,970	3,934.4	3,262.2	15,508	12,858	253,705

[1] Population of the United States including Armed Forces overseas; includes Alaska and Hawaii beginning 1960. Annual data are averages of quarterly data. Quarterly data are averages for the period.

Source: Department of Commerce (Bureau of Economic Analysis and Bureau of the Census).

TABLE B–26.—*Gross saving and investment, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross saving								Gross investment			Statistical discrepancy
	Total	Gross private saving			Government surplus or deficit (−), national income and product accounts			Capital grants received by the United States (net)[2]	Total	Gross private domestic investment	Net foreign investment[3]	
		Total	Personal saving	Gross business saving[1]	Total	Federal	State and local					
1959	79.4	82.5	22.0	60.5	−3.1	−2.6	−0.5		77.6	78.8	−1.2	−1.8
1960	85.1	81.5	20.6	60.9	3.6	3.5	.0		82.0	78.7	3.2	−3.1
1961	84.4	87.4	24.9	62.5	−3.0	−2.6	−.4		82.2	77.9	4.3	−2.2
1962	92.8	95.8	25.9	69.9	−2.9	−3.4	.5		91.8	87.9	3.9	−1.0
1963	100.4	98.8	24.6	74.1	1.6	1.1	.4		98.4	93.4	5.0	−2.0
1964	110.0	111.6	31.6	80.0	−1.6	−2.6	1.0		109.3	101.7	7.6	−.7
1965	125.0	123.8	34.6	89.2	1.2	1.3	.0		124.3	118.0	6.3	−.7
1966	131.6	132.5	36.4	96.1	−1.0	−1.4	.5		134.4	130.4	3.9	2.8
1967	130.8	144.5	45.9	98.7	−13.7	−12.7	−1.1		131.6	128.0	3.6	.8
1968	141.8	146.4	43.9	102.5	−4.6	−4.7	.1		141.7	139.9	1.8	−.1
1969	159.6	149.6	43.4	106.2	10.0	8.5	1.5		157.0	155.2	1.8	−2.6
1970	155.3	165.9	57.6	108.2	−11.5	−13.3	1.8	0.9	155.3	150.3	5.0	.0
1971	173.8	192.3	65.5	126.8	−19.2	−21.7	2.5	.7	176.9	175.5	1.4	3.1
1972	201.8	205.0	59.9	145.1	−3.9	−17.3	13.4	.7	202.8	205.6	−2.8	1.1
1973	252.4	245.6	86.2	159.3	6.9	−6.6	13.4	0	252.0	243.1	8.9	−.5
1974	249.6	256.1	93.5	162.6	−4.5	−11.6	7.1	[4]−2.0	251.1	245.8	5.3	1.4
1975	241.6	306.5	100.4	206.0	−64.8	−69.4	4.6	0	247.6	226.0	21.6	6.0
1976	285.0	323.3	93.2	230.0	−38.3	−52.9	14.6	0	295.4	286.4	9.0	10.4
1977	338.4	355.2	88.1	267.1	−16.8	−42.4	25.6	0	349.3	358.3	−9.0	10.9
1978	416.1	413.2	108.1	305.0	2.9	−28.1	31.1	0	423.7	434.0	−10.3	7.6
1979	468.8	458.3	123.7	334.5	9.4	−15.7	25.1	1.1	482.6	480.2	2.4	13.8
1980	465.9	500.1	154.3	345.7	−35.3	−60.1	24.8	1.2	479.5	467.6	11.9	13.6
1981	557.2	586.4	192.4	394.1	−30.3	−58.8	28.5	1.1	568.1	558.0	10.1	10.9
1982	508.9	617.5	200.0	417.5	−108.6	−135.5	26.9	0	501.5	503.4	−1.9	−7.4
1983	501.9	641.7	169.1	472.7	−139.8	−180.1	40.3	0	512.1	546.7	−34.6	10.2
1984	634.3	743.1	222.3	520.7	−108.8	−166.9	58.1	0	625.2	718.9	−93.6	−9.0
1985	610.9	736.1	189.8	546.4	−125.3	−181.4	56.1	0	597.0	714.5	−117.6	−13.9
1986	575.0	721.8	187.8	533.9	−146.8	−201.0	54.3	0	576.3	717.6	−141.4	1.2
1987	619.6	731.3	142.6	588.7	−111.7	−151.8	40.1	0	594.8	749.3	−154.5	−24.8
1988	704.5	802.8	156.2	646.6	−98.3	−136.6	38.4	0	676.1	793.6	−117.5	−28.4
1989	744.2	827.3	166.9	660.3	−83.0	−124.2	41.1	0	741.5	837.6	−96.0	−2.7
1990	711.8	851.3	206.6	644.7	−139.5	−165.3	25.7	0	719.9	802.6	−82.8	8.1
1991 [p]			222.1		−171.2	−200.7	29.6	0	736.9	725.3	11.5	
1982: IV	459.0	615.9	184.2	431.6	−156.9	−183.4	26.5	0	448.9	464.2	−15.3	−10.1
1983: IV	542.8	679.1	176.7	502.4	−136.3	−184.6	48.3	0	556.6	614.8	−58.2	13.8
1984: IV	637.4	765.1	223.0	542.1	−127.8	−186.8	59.0	0	616.9	722.8	−105.9	−20.5
1985: IV	604.3	735.2	179.7	555.5	−130.9	−187.2	56.3	0	598.3	737.0	−138.7	−5.9
1986: IV	550.5	676.7	151.5	525.3	−126.2	−177.5	51.2	0	548.5	697.1	−148.6	−2.0
1987: IV	668.6	784.4	170.5	613.9	−115.8	−152.7	37.0	0	643.7	800.2	−156.4	−24.9
1988: I	678.6	801.0	162.6	638.4	−122.4	−157.5	35.1	0	644.2	770.6	−126.3	−34.4
II	702.0	797.5	152.3	645.1	−95.5	−134.6	39.1	0	673.9	788.4	−114.4	−28.1
III	717.0	797.5	152.9	644.6	−80.5	−119.5	39.0	0	691.1	800.7	−109.6	−25.8
IV	720.6	815.3	157.0	658.3	−94.7	−134.9	40.2	0	695.2	814.8	−119.5	−25.4
1989: I	770.0	842.0	193.7	648.3	−72.1	−114.5	42.4	0	743.9	844.7	−100.8	−26.0
II	751.1	816.6	160.8	655.8	−65.4	−110.5	45.1	0	745.9	844.3	−98.4	−5.2
III	727.9	813.7	142.2	671.4	−85.7	−128.4	42.6	0	730.5	826.8	−96.3	2.5
IV	727.9	836.9	171.0	665.8	−108.9	−143.3	34.4	0	745.8	834.4	−88.6	17.9
1990: I	722.6	853.1	197.5	655.6	−130.5	−160.8	30.3	0	727.0	812.0	−85.0	4.4
II	747.9	876.2	216.7	659.5	−128.4	−156.9	28.5	0	745.5	825.9	−80.4	−2.4
III	698.3	821.9	196.5	625.5	−123.6	−149.7	26.1	0	726.5	821.8	−95.3	28.2
IV	678.3	853.9	215.8	638.1	−175.6	−193.6	18.0	0	680.4	750.9	−70.4	2.1
1991: I	747.7	873.8	213.4	660.4	−126.1	−146.4	20.4	0	765.8	709.3	56.5	18.0
II	713.9	893.0	229.6	663.4	−179.1	−206.7	27.6	0	730.4	708.8	21.7	16.5
III	698.0	876.4	213.3	663.1	−178.4	−210.2	31.8	0	720.0	740.9	−20.9	22.0
IV [p]			232.0					0	731.3	742.3	−11.0	

[1] Undistributed corporate profits with inventory valuation and capital consumption adjustments, corporate and noncorporate consumption of fixed capital, and private wage accruals less disbursements.

[2] Consists mainly of allocations of special drawing rights (SDRs).

[3] Net exports of goods and services plus net receipts of factor income from rest of the world less net transfers plus net capital grants received by the United States. See also Table B–18.

[4] Consists of a U.S. payment to India under the Agricultural Trade Development and Assistance Act. This payment is included in capital grants received by the United States, net.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-27.—*Personal saving, flow of funds accounts, 1946–91* [1]

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Personal saving	Increase in financial assets									Net investment in tangible assets [7]			Less: Net increase in debt		
		Total	Checkable deposits and currency	Time and savings deposits	Money market fund shares	Securities			Insurance and pension reserves [5]	Other financial assets [6]	Owner-occupied homes	Consumer durables	Noncorporate business assets [8]	Mortgage debt on nonfarm homes	Consumer credit	Other debt [8 9]
						Government securities [2]	Corporate equities [3]	Other securities [4]								
1946	22.8	19.6	5.6	6.3		−1.5	1.2	−0.7	5.1	3.7	4.2	6.7	1.7	4.0	3.1	2.2
1947	25.0	12.6	.0	3.5		.5	1.1	−.7	5.4	2.7	7.9	9.4	6.4	4.9	3.7	2.8
1948	24.8	8.9	−2.9	2.3		1.0	1.0	.2	5.3	2.2	10.9	10.2	5.6	4.8	3.2	2.8
1949	25.9	8.9	−2.0	2.6		.5	.7	−.2	5.6	1.6	10.4	10.9	5.6	4.4	3.2	2.4
1950	32.0	15.0	2.7	2.4		.9	.7	−.6	6.1	2.9	14.9	14.9	4.5	7.1	4.6	5.5
1951	33.7	19.5	4.6	4.8		−.6	1.8	.6	6.3	2.0	13.4	11.4	3.1	6.6	3.3	3.8
1952	37.8	28.5	1.6	7.8		7.4	1.5	.2	7.7	2.4	12.5	8.7	1.2	6.4	3.3	3.4
1953	34.5	24.6	.9	8.2		3.7	1.1	.3	7.9	2.4	13.7	10.3	.0	7.6	4.1	2.4
1954	27.6	21.0	2.1	9.2		.2	.7	−1.1	7.8	2.0	14.2	7.0	.8	9.0	1.3	5.0
1955	36.5	28.6	1.2	8.6		6.4	1.1	1.0	8.5	1.7	18.2	12.7	2.1	12.3	7.0	5.8
1956	38.3	31.7	1.9	9.4		4.5	2.0	1.1	9.5	3.4	17.1	8.8	.1	11.0	3.6	4.7
1957	38.4	29.1	−.4	11.9		3.9	1.5	.9	9.5	1.9	15.1	7.9	1.0	8.8	2.6	3.3
1958	36.1	33.2	3.7	13.9		−2.3	1.8	1.3	10.4	4.3	14.6	3.7	1.2	9.6	.3	6.7
1959	36.7	35.3	.9	11.0		8.6	.6	.4	11.9	1.9	19.6	7.7	.8	12.9	7.7	6.0
1960	38.0	32.6	.9	12.2		2.5	.1	1.6	11.5	3.7	18.4	7.2	1.4	11.4	4.0	6.1
1961	37.7	35.4	−1.0	18.3		1.0	1.2	−.7	12.1	4.4	17.1	4.5	1.9	12.3	2.2	6.7
1962	44.5	40.1	−1.2	26.1		1.2	−1.3	−.3	13.0	2.5	19.5	8.6	2.9	14.1	5.9	6.6
1963	47.9	45.5	4.2	26.2		−.9	−1.5	1.4	13.9	2.1	22.0	11.9	2.9	16.4	8.5	9.4
1964	60.0	55.9	6.1	26.3		3.8	−.2	.5	16.4	3.2	23.8	15.1	2.5	17.2	9.5	10.6
1965	67.4	57.9	6.7	27.9		3.8	−1.5	.9	17.0	3.2	23.1	20.2	6.7	17.1	10.1	13.3
1966	80.6	62.1	2.4	19.1		13.6	.0	3.5	19.3	4.2	22.0	23.2	5.4	13.5	5.9	12.6
1967	83.0	71.7	10.3	35.4		−2.6	−3.1	6.2	18.8	6.8	19.4	21.3	5.6	12.9	5.1	17.0
1968	79.7	68.6	9.5	30.9		1.2	−6.1	7.4	19.9	5.7	26.3	26.9	3.7	17.2	10.8	17.8
1969	78.1	69.6	−1.1	8.9		27.5	−2.1	10.7	21.8	3.9	29.8	26.2	2.2	18.3	9.9	21.6
1970	88.3	80.1	7.4	43.5		−5.6	−.5	7.0	24.2	4.1	27.3	19.6	.6	13.6	4.6	21.2
1971	101.5	106.7	13.4	67.7		−11.1	−4.4	6.5	28.0	6.5	37.8	25.4	4.9	26.2	14.0	33.0
1972	118.3	134.2	13.4	74.0		−.7	−9.0	−1.2	48.5	9.4	50.1	34.3	5.1	38.8	19.0	47.6
1973	153.4	145.8	13.1	63.5		17.2	−4.4	8.4	39.9	8.1	57.4	40.6	6.5	44.1	22.7	30.1
1974	118.7	147.8	6.3	56.2	2.4	17.8	−2.0	14.0	43.7	9.5	47.0	29.1	−4.4	34.7	9.4	56.7
1975	154.6	174.6	6.0	77.6	1.3	18.8	−6.5	−4.9	71.9	10.3	36.9	27.4	−3.3	38.9	8.0	34.1
1976	166.7	207.5	15.6	107.1	.0	9.0	−.6	2.5	56.6	17.2	50.7	41.5	−3.7	60.7	22.9	45.6
1977	192.5	253.4	19.7	106.6	−.2	13.8	−7.7	16.8	78.6	25.8	73.9	51.5	5.9	91.4	36.7	64.0
1978	199.1	284.5	22.0	99.6	6.0	29.9	−12.8	9.8	95.0	35.0	95.3	56.8	5.2	109.3	45.1	88.3
1979	208.1	325.8	35.8	74.4	30.6	65.5	−25.4	4.0	101.8	39.1	109.6	50.4	−1.5	117.2	40.5	118.4
1980	210.9	327.1	9.2	124.9	24.5	32.0	−10.5	−9.0	118.5	37.5	89.6	26.3	−22.5	96.5	2.6	110.4
1981	237.9	321.6	36.2	72.0	90.7	40.8	−36.9	−9.7	117.9	10.5	83.0	27.3	−2.9	73.9	16.9	100.3
1982	265.6	386.3	24.6	122.6	32.8	65.1	−15.5	−20.1	153.5	23.4	57.8	22.4	−18.5	52.8	16.4	113.2
1983	307.9	495.0	33.6	203.3	−31.1	100.1	−2.3	18.3	142.4	30.6	96.1	50.6	−40.3	117.1	48.9	127.5
1984	371.0	552.5	20.8	218.6	44.0	112.1	−56.0	3.5	172.9	36.6	129.0	81.8	−11.6	136.4	81.7	162.7
1985	352.1	572.4	34.1	129.9	8.7	113.0	−45.7	41.5	223.3	67.6	132.1	95.8	−11.9	156.3	82.5	197.6
1986	429.0	576.5	99.2	98.3	39.6	−42.7	6.6	59.1	231.3	85.1	156.8	111.4	−23.3	216.8	58.0	117.5
1987	337.1	461.4	7.8	118.1	28.1	160.5	−27.8	8.0	118.7	47.9	164.9	102.9	−29.9	234.0	33.5	94.8
1988	390.8	537.2	7.3	152.6	23.5	176.5	−120.1	9.4	210.1	77.9	171.0	112.6	−37.0	230.7	50.4	111.9
1989	448.8	575.3	23.5	101.1	81.2	186.3	−90.9	−23.2	229.7	67.5	169.0	109.7	−40.4	218.6	43.1	103.1
1990	389.5	474.7	21.1	11.9	59.3	127.3	−.6	−25.3	215.3	65.8	137.9	86.7	−29.2	206.4	14.3	60.0
1989: I	370.7	477.5	30.0	86.8	71.9	243.6	−181.9	−55.6	220.9	61.7	173.1	110.6	−25.6	213.1	46.9	105.0
II	590.7	707.8	−3.0	124.8	89.9	154.9	−33.2	−15.9	305.2	85.1	172.6	113.8	−29.9	208.8	39.9	124.7
III	439.5	560.4	5.6	100.1	111.8	219.9	−97.7	36.9	174.7	9.1	167.7	117.0	−53.1	224.5	45.8	82.0
IV	394.2	555.4	61.5	92.6	51.2	127.0	−50.7	−58.2	218.0	114.2	162.6	97.4	−52.9	227.9	39.7	100.8
1990: I	424.1	579.2	35.4	73.8	106.5	202.4	−27.4	−13.2	160.2	41.6	147.0	106.7	−25.1	256.3	33.6	93.8
II	554.7	639.6	38.9	1.2	−23.3	234.1	16.4	46.4	265.7	60.3	146.8	88.4	−23.8	221.2	14.2	60.9
III	268.6	319.3	15.5	−20.8	109.5	116.7	25.9	−124.0	143.0	53.6	135.6	85.6	−25.8	186.0	13.4	46.7
IV	310.7	360.6	−5.3	−6.4	44.4	−44.1	−17.2	−10.6	292.3	107.5	122.4	65.9	−41.9	162.1	−4.2	38.4
1991: I	474.7	571.3	71.3	35.1	167.5	−24.4	43.7	−71.0	316.0	33.2	109.4	35.3	−48.7	144.5	−21.2	69.4
II	275.9	399.7	17.8	−46.0	−61.4	156.3	97.1	−50.3	245.8	40.4	100.2	31.6	−45.1	161.3	−7.0	56.2
III	389.3	449.4	86.2	−154.5	−3.3	30.7	120.4	−102.8	411.9	60.7	97.3	42.0	−41.8	141.2	−26.3	42.7

[1] Saving by households, personal trust funds, nonprofit institutions, farms, and other noncorporate business.

[2] Consists of U.S. savings bonds, other U.S. Treasury securities, U.S. Government agency securities and sponsored agency securities, mortgage pool securities, and State and local obligations.

[3] Includes mutual fund shares.

[4] Corporate and foreign bonds and open-market paper.

[5] Private life insurance reserves, private insured and noninsured pension reserves, and government insurance and pension reserves.

[6] Consists of security credit, mortgages, accident and health insurance reserves, and nonlife insurance claims for households, and of consumer credit, equity in sponsored agencies, and nonlife insurance claims for noncorporate business.

[7] Purchases of physical assets less depreciation.

[8] Includes data for corporate farms.

[9] Other debt consists of security credit, U.S. Government and policy loans, and noncorporate business debt.

Source: Board of Governors of the Federal Reserve System.

TABLE B–28.—*Median income (in 1990 dollars) and poverty status of families and persons, by race, selected years, 1971–90*

Year	Families [1]						Persons below poverty level		Median income (in 1990 dollars) of persons 15 years old and over with income [2]			
			Below poverty level						Males		Females	
	Number (millions)	Median income (in 1990 dollars)	Total		Female householder		Number (millions)	Percent	All persons	Year-round full-time workers	All persons	Year-round full-time workers
			Number (millions)	Percent	Number (millions)	Percent						
ALL RACES												
1971	53.3	$33,191	5.3	10.0	2.1	33.9	25.6	12.5	$22,277	$31,081	$7,771	$18,398
1973	55.1	35,474	4.8	8.8	2.2	32.2	23.0	11.1	23,714	33,758	8,231	19,099
1975 [3]	56.2	33,329	5.5	9.7	2.4	32.5	25.9	12.3	21,507	31,932	8,223	18,752
1977	57.2	34,528	5.3	9.3	2.6	31.7	24.7	11.6	21,833	32,502	8,500	19,010
1978	57.8	35,361	5.3	9.1	2.7	31.4	24.5	11.4	21,920	32,198	8,155	19,326
1979 [4]	59.6	35,262	5.5	9.2	2.6	30.4	26.1	11.7	21,205	31,467	7,835	18,959
1980	60.3	33,346	6.2	10.3	3.0	32.7	29.3	13.0	19,875	30,412	7,804	18,385
1981	61.0	32,190	6.9	11.2	3.3	34.6	31.8	14.0	19,372	29,752	7,848	17,911
1982	61.4	31,738	7.5	12.2	3.4	36.3	34.4	15.0	18,894	29,330	7,973	18,505
1983 [3]	62.0	32,378	7.6	12.3	3.6	36.0	35.3	15.2	19,239	29,533	8,405	19,012
1984	62.7	33,251	7.3	11.6	3.5	34.5	33.7	14.4	19,624	30,196	8,640	19,400
1985	63.6	33,689	7.2	11.4	3.5	34.0	33.1	14.0	19,813	30,366	8,766	19,741
1986	64.5	35,129	7.0	10.9	3.6	34.6	32.4	13.6	20,409	30,879	9,075	20,086
1987 [3]	65.2	35,632	7.0	10.7	3.7	34.2	32.2	13.4	20,463	30,697	9,544	20,208
1988	65.8	35,565	6.9	10.4	3.6	33.4	31.7	13.0	20,890	30,208	9,815	20,489
1989	66.1	36,062	6.8	10.3	3.5	32.2	31.5	12.8	20,968	30,151	10,144	20,704
1990	66.3	35,353	7.1	10.7	3.8	33.4	33.6	13.5	20,293	29,172	10,070	20,586
WHITE												
1971	47.6	34,440	3.8	7.9	1.2	26.5	17.8	9.9	23,355	31,955	7,900	18,611
1973	48.9	37,076	3.2	6.6	1.2	24.5	15.1	8.4	24,883	34,736	8,310	19,422
1975 [3]	49.9	34,662	3.8	7.7	1.4	25.9	17.8	9.7	22,593	32,697	8,308	18,796
1977	50.5	36,104	3.5	7.0	1.4	24.0	16.4	8.9	22,868	33,167	8,629	19,131
1978	50.9	36,821	3.5	6.9	1.3	23.5	16.3	8.7	22,959	32,795	8,253	19,509
1979 [4]	52.2	36,796	3.6	6.9	1.4	22.3	17.2	9.0	22,152	32,376	7,909	19,124
1980	52.7	34,743	4.2	8.0	1.6	25.7	19.7	10.2	21,140	31,279	7,847	18,563
1981	53.3	33,814	4.7	8.8	1.8	27.4	21.6	11.1	20,555	30,451	7,935	18,210
1982	53.4	33,322	5.1	9.6	1.8	27.9	23.5	12.0	19,975	30,111	8,082	18,754
1983 [3]	53.9	33,905	5.2	9.7	1.9	28.3	24.0	12.1	20,240	30,322	8,552	19,266
1984	54.4	34,827	4.9	9.1	1.9	27.1	23.0	11.5	20,715	31,230	8,741	19,592
1985	55.0	35,410	5.0	9.1	2.0	27.4	22.9	11.4	20,784	31,209	8,936	20,020
1986	55.7	36,740	4.8	8.6	2.0	28.2	22.2	11.0	21,537	31,741	9,254	20,393
1987 [3]	56.1	37,260	4.6	8.1	2.0	26.9	21.2	10.4	21,751	31,413	9,788	20,582
1988	56.5	37,470	4.5	7.9	1.9	26.5	20.7	10.1	22,051	31,224	10,057	20,796
1989	56.6	37,919	4.4	7.8	1.9	25.4	20.8	10.0	21,990	31,459	10,342	20,947
1990	56.8	36,915	4.6	8.1	2.0	26.8	22.3	10.7	21,170	30,186	10,317	20,840
BLACK												
1971	5.2	20,783	1.5	28.8	.9	53.5	7.4	32.5	13,928	21,851	6,922	16,433
1973	5.4	21,398	1.5	28.1	1.0	52.7	7.4	31.4	15,051	23,411	7,501	16,470
1975 [3]	5.6	21,327	1.5	27.1	1.0	50.1	7.5	31.3	13,507	23,924	7,548	17,958
1977	5.8	20,625	1.6	28.2	1.2	51.0	7.7	31.3	13,570	22,866	7,452	17,880
1978	5.9	21,808	1.6	27.5	1.2	50.6	7.6	30.6	13,754	25,118	7,431	18,082
1979 [4]	6.2	20,836	1.7	27.8	1.2	49.4	8.1	31.0	13,713	23,333	7,198	17,524
1980	6.3	20,103	1.8	28.9	1.3	49.4	8.6	32.5	12,704	22,008	7,265	17,313
1981	6.4	19,074	2.0	30.8	1.4	52.9	9.2	34.2	12,223	21,545	7,050	16,446
1982	6.5	18,417	2.2	33.0	1.5	56.2	9.7	35.6	11,970	21,386	7,128	16,762
1983 [3]	6.7	19,108	2.2	32.3	1.5	53.7	9.9	35.7	11,836	21,619	7,308	17,103
1984	6.8	19,411	2.1	30.9	1.5	51.7	9.5	33.8	11,885	21,313	7,754	17,656
1985	6.9	20,390	2.0	28.7	1.5	50.5	8.9	31.3	13,080	21,829	7,625	17,722
1986	7.1	20,993	2.0	28.0	1.5	50.1	9.0	31.1	12,905	22,379	7,830	17,845
1987 [3]	7.2	21,177	2.1	29.4	1.6	51.1	9.5	32.4	12,903	22,461	7,995	18,383
1988	7.4	21,355	2.1	28.2	1.6	49.0	9.4	31.3	13,306	22,887	8,119	18,635
1989	7.5	21,301	2.1	27.8	1.5	46.5	9.3	30.7	13,290	21,825	8,301	18,876
1990	7.5	21,423	2.2	29.3	1.6	48.1	9.8	31.9	12,868	21,540	8,328	18,518

[1] The term "family" refers to a group of two or more persons related by blood, marriage, or adoption and residing together; all such persons are considered members of the same family. Beginning 1979, based on householder concept and restricted to primary families.
[2] Prior to 1979, data are for persons 14 years and over.
[3] Based on revised methodology; comparable with succeeding years.
[4] Based on 1980 census population controls; comparable with succeeding years.

Note.—The poverty level is based on the poverty index adopted by a Federal interagency committee in 1969. That index reflected different consumption requirements for families based on size and composition, sex and age of family householder, and farm-nonfarm residence. Minor revisions implemented in 1981 eliminated variations in the poverty thresholds based on two of these variables, farm-nonfarm residence and sex of householder. The poverty thresholds are updated every year to reflect changes in the consumer price index. For further details, see "Current Population Reports," Series P–60, No. 174.

Source: Department of Commerce, Bureau of the Census.

TABLE B–29.—*Population by age groups, 1929–90*

[Thousands of persons]

July 1	Total	Age (years)						
		Under 5	5–15	16–19	20–24	25–44	45–64	65 and over
1929	121,767	11,734	26,800	9,127	10,694	35,862	21,076	6,474
1933	125,579	10,612	26,897	9,302	11,152	37,319	22,933	7,363
1939	130,880	10,418	25,179	9,822	11,519	39,354	25,823	8,764
1940	132,122	10,579	24,811	9,895	11,690	39,868	26,249	9,031
1941	133,402	10,850	24,516	9,840	11,807	40,383	26,718	9,288
1942	134,860	11,301	24,231	9,730	11,955	40,861	27,196	9,584
1943	136,739	12,016	24,093	9,607	12,064	41,420	27,671	9,867
1944	138,397	12,524	23,949	9,561	12,062	42,016	28,138	10,147
1945	139,928	12,979	23,907	9,361	12,036	42,521	28,630	10,494
1946	141,389	13,244	24,103	9,119	12,004	43,027	29,064	10,828
1947	144,126	14,406	24,468	9,097	11,814	43,657	29,498	11,185
1948	146,631	14,919	25,209	8,952	11,794	44,288	29,931	11,538
1949	149,188	15,607	25,852	8,788	11,700	44,916	30,405	11,921
1950	152,271	16,410	26,721	8,542	11,680	45,672	30,849	12,397
1951	154,878	17,333	27,279	8,446	11,552	46,103	31,362	12,803
1952	157,553	17,312	28,894	8,414	11,350	46,495	31,884	13,203
1953	160,184	17,638	30,227	8,460	11,062	46,786	32,394	13,617
1954	163,026	18,057	31,480	8,637	10,832	47,001	32,942	14,076
1955	165,931	18,566	32,682	8,744	10,714	47,194	33,506	14,525
1956	168,903	19,003	33,994	8,916	10,616	47,379	34,057	14,938
1957	171,984	19,494	35,272	9,195	10,603	47,440	34,591	15,388
1958	174,882	19,887	36,445	9,543	10,756	47,337	35,109	15,806
1959	177,830	20,175	37,368	10,215	10,969	47,192	35,663	16,248
1960	180,671	20,341	38,494	10,683	11,134	47,140	36,203	16,675
1961	183,691	20,522	39,765	11,025	11,483	47,084	36,722	17,089
1962	186,538	20,469	41,205	11,180	11,959	47,013	37,255	17,457
1963	189,242	20,342	41,626	12,007	12,714	46,994	37,782	17,778
1964	191,889	20,165	42,297	12,736	13,269	46,958	38,338	18,127
1965	194,303	19,824	42,938	13,516	13,746	46,912	38,916	18,451
1966	196,560	19,208	43,702	14,311	14,050	47,001	39,534	18,755
1967	198,712	18,563	44,244	14,200	15,248	47,194	40,193	19,071
1968	200,706	17,913	44,622	14,452	15,786	47,721	40,846	19,365
1969	202,677	17,376	44,840	14,800	16,480	48,064	41,437	19,680
1970	205,052	17,166	44,816	15,289	17,202	48,473	41,999	20,107
1971	207,661	17,244	44,591	15,688	18,159	48,936	42,482	20,561
1972	209,896	17,101	44,203	16,039	18,153	50,482	42,898	21,020
1973	211,909	16,851	43,582	16,446	18,521	51,749	43,235	21,525
1974	213,854	16,487	42,989	16,769	18,975	53,051	43,522	22,061
1975	215,973	16,121	42,508	17,017	19,527	54,302	43,801	22,696
1976	218,035	15,617	42,099	17,194	19,986	55,852	44,008	23,278
1977	220,239	15,564	41,298	17,276	20,499	57,561	44,150	23,892
1978	222,585	15,735	40,428	17,288	20,946	59,400	44,286	24,502
1979	225,055	16,063	39,552	17,242	21,297	61,379	44,390	25,134
1980	[1] 227,757	16,458	38,843	17,160	21,584	63,494	44,515	25,704
1981	[1] 230,138	16,931	38,190	16,771	21,821	65,620	44,570	26,235
1982	[1] 232,520	17,298	37,876	16,255	21,807	67,856	44,602	26,825
1983	[1] 234,799	17,651	37,669	15,704	21,700	69,971	44,679	27,426
1984	[1] 237,001	17,830	37,656	15,141	21,536	72,048	44,818	27,971
1985	[1] 239,279	18,004	37,692	14,819	21,214	74,077	44,934	28,540
1986	[1] 241,625	18,154	37,706	14,802	20,608	76,124	45,058	29,174
1987	[1] 243,942	18,267	37,687	14,958	19,982	77,897	45,310	29,841
1988	[1] 246,328	18,437	38,008	14,894	19,372	79,225	46,007	30,384
1989	[1] 248,781	18,759	38,441	14,570	18,885	80,635	46,503	30,988
1990	[1] 251,523	19,155	39,083	14,097	18,673	81,942	46,980	31,592

[1] Based on 1980 census of population. Total populations for July 1 based on 1990 census for 1980–1991 are: 227,722; 229,958; 232,192; 234,321; 236,370; 238,492; 240,680; 242,836; 245,057; 247,343; 249,975; and 252,626, respectively. Data for age groups consistent with these figures are not yet available.

Note.—Includes Armed Forces overseas beginning 1940. Includes Alaska and Hawaii beginning 1950.

Source: Department of Commerce, Bureau of the Census.

TABLE B–30.—*Population and the labor force, 1929–91*

[Monthly data seasonally adjusted, except as noted]

Year or month	Civilian noninstitutional population[1]	Resident Armed Forces[1]	Labor force including resident Armed Forces	Employment including resident Armed Forces	Civilian labor force					Unemployment rate		Civilian labor force participation rate[4]	Civilian employment/population ratio[5]
					Total	Employment			Unemployment	All workers[2]	Civilian workers[3]		
						Total	Agricultural	Nonagricultural					
	Thousands of persons 14 years of age and over									Percent			
1929					49,180	47,630	10,450	37,180	1,550		3.2		
1933					51,590	38,760	10,090	28,670	12,830		24.9		
1939					55,230	45,750	9,610	36,140	9,480		17.2		
1940	99,840				55,640	47,520	9,540	37,980	8,120		14.6	55.7	47.6
1941	99,900				55,910	50,350	9,100	41,250	5,560		9.9	56.0	50.4
1942	98,640				56,410	53,750	9,250	44,500	2,660		4.7	57.2	54.5
1943	94,640				55,540	54,470	9,080	45,390	1,070		1.9	58.7	57.6
1944	93,220				54,630	53,960	8,950	45,010	670		1.2	58.6	57.9
1945	94,090				53,860	52,820	8,580	44,240	1,040		1.9	57.2	56.1
1946	103,070				57,520	55,250	8,320	46,930	2,270		3.9	55.8	53.6
1947	106,018				60,168	57,812	8,256	49,557	2,356		3.9	56.8	54.5
	Thousands of persons 16 years of age and over												
1947	101,827				59,350	57,038	7,890	49,148	2,311		3.9	58.3	56.0
1948	103,068				60,621	58,343	7,629	50,714	2,276		3.8	58.8	56.6
1949	103,994				61,286	57,651	7,658	49,993	3,637		5.9	58.9	55.4
1950	104,995	1,169	63,377	60,087	62,208	58,918	7,160	51,758	3,288	5.2	5.3	59.2	56.1
1951	104,621	2,143	64,160	62,104	62,017	59,961	6,726	53,235	2,055	3.2	3.3	59.2	57.3
1952	105,231	2,386	64,524	62,636	62,138	60,250	6,500	53,749	1,883	2.9	3.0	59.0	57.3
1953[6]	107,056	2,231	65,246	63,410	63,015	61,179	6,260	54,919	1,834	2.8	2.9	58.9	57.1
1954	108,321	2,142	65,785	62,251	63,643	60,109	6,205	53,904	3,532	5.4	5.5	58.8	55.5
1955	109,683	2,064	67,087	64,234	65,023	62,170	6,450	55,722	2,852	4.3	4.4	59.3	56.7
1956	110,954	1,965	68,517	65,764	66,552	63,799	6,283	57,514	2,750	4.0	4.1	60.0	57.5
1957	112,265	1,948	68,877	66,019	66,929	64,071	5,947	58,123	2,859	4.2	4.3	59.6	57.1
1958	113,727	1,847	69,486	64,883	67,639	63,036	5,586	57,450	4,602	6.6	6.8	59.5	55.4
1959	115,329	1,788	70,157	66,418	68,369	64,630	5,565	59,065	3,740	5.3	5.5	59.3	56.0
1960[6]	117,245	1,861	71,489	67,639	69,628	65,778	5,458	60,318	3,852	5.4	5.5	59.4	56.1
1961	118,771	1,900	72,359	67,646	70,459	65,746	5,200	60,546	4,714	6.5	6.7	59.3	55.4
1962[6]	120,153	2,061	72,675	68,763	70,614	66,702	4,944	61,759	3,911	5.4	5.5	58.8	55.5
1963	122,416	2,006	73,839	69,768	71,833	67,762	4,687	63,076	4,070	5.5	5.7	58.7	55.4
1964	124,485	2,018	75,109	71,323	73,091	69,305	4,523	64,782	3,786	5.0	5.2	58.7	55.7
1965	126,513	1,946	76,401	73,034	74,455	71,088	4,361	66,726	3,366	4.4	4.5	58.9	56.2
1966	128,058	2,122	77,892	75,017	75,770	72,895	3,979	68,915	2,875	3.7	3.8	59.2	56.9
1967	129,874	2,218	79,565	76,590	77,347	74,372	3,844	70,527	2,975	3.7	3.8	59.6	57.3
1968	132,028	2,253	80,990	78,173	78,737	75,920	3,817	72,103	2,817	3.5	3.6	59.6	57.5
1969	134,335	2,238	82,972	80,140	80,734	77,902	3,606	74,296	2,832	3.4	3.5	60.1	58.0
1970	137,085	2,118	84,889	80,796	82,771	78,678	3,463	75,215	4,093	4.8	4.9	60.4	57.4
1971	140,216	1,973	86,355	81,340	84,382	79,367	3,394	75,972	5,016	5.8	5.9	60.2	56.6
1972[6]	144,126	1,813	88,847	83,966	87,034	82,153	3,484	78,669	4,882	5.5	5.6	60.4	57.0
1973[6]	147,096	1,774	91,203	86,838	89,429	85,064	3,470	81,594	4,365	4.8	4.9	60.8	57.8
1974	150,120	1,721	93,670	88,515	91,949	86,794	3,515	83,279	5,156	5.5	5.6	61.3	57.8
1975	153,153	1,678	95,453	87,524	93,775	85,846	3,408	82,438	7,929	8.3	8.5	61.2	56.1
1976	156,150	1,668	97,826	90,420	96,158	88,752	3,331	85,421	7,406	7.6	7.7	61.6	56.8
1977	159,033	1,656	100,665	93,673	99,009	92,017	3,283	88,734	6,991	6.9	7.1	62.3	57.9
1978[6]	161,910	1,631	103,882	97,679	102,251	96,048	3,387	92,661	6,202	6.0	6.1	63.2	59.3
1979	164,863	1,597	106,559	100,421	104,962	98,824	3,347	95,477	6,137	5.8	5.8	63.7	59.9
1980	167,745	1,604	108,544	100,907	106,940	99,303	3,364	95,938	7,637	7.0	7.1	63.8	59.2
1981	170,130	1,645	110,315	102,042	108,670	100,397	3,368	97,030	8,273	7.5	7.6	63.9	59.0
1982	172,271	1,668	111,872	101,194	110,204	99,526	3,401	96,125	10,678	9.5	9.7	64.0	57.8
1983	174,215	1,676	113,226	102,510	111,550	100,834	3,383	97,450	10,717	9.5	9.6	64.0	57.9
1984	176,383	1,697	115,241	106,702	113,544	105,005	3,321	101,685	8,539	7.4	7.5	64.4	59.5
1985	178,206	1,706	117,167	108,856	115,461	107,150	3,179	103,971	8,312	7.1	7.2	64.8	60.1
1986[6]	180,587	1,706	119,540	111,303	117,834	109,597	3,163	106,434	8,237	6.9	7.0	65.3	60.7
1987	182,753	1,737	121,602	114,177	119,865	112,440	3,208	109,232	7,425	6.1	6.2	65.6	61.5
1988	184,613	1,709	123,378	116,677	121,669	114,968	3,169	111,800	6,701	5.4	5.5	65.9	62.3
1989	186,393	1,688	125,557	119,030	123,869	117,342	3,199	114,142	6,528	5.2	5.3	66.5	63.0
1990	188,049	1,637	126,424	119,550	124,787	117,914	3,186	114,728	6,874	5.4	5.5	66.4	62.7
1991	189,765	1,564	126,867	118,440	125,303	116,877	3,233	113,644	8,426	6.6	6.7	66.0	61.6

[1] Not seasonally adjusted.
[2] Unemployed as percent of labor force including resident Armed Forces.
[3] Unemployed as percent of civilian labor force.
[4] Civilian labor force as percent of civilian noninstitutional population.
[5] Civilian employment as percent of civilian noninstitutional population.

See next page for continuation of table.

TABLE B–30.—*Population and the labor force, 1929–91*—Continued

[Monthly data seasonally adjusted, except as noted]

Year or month	Civilian noninstitutional population [1]	Resident Armed Forces [1]	Labor force including resident Armed Forces	Employment including resident Armed Forces	Civilian labor force					Unemployment rate		Civilian labor force participation rate [4]	Civilian employment/population ratio [5]
					Total	Employment			Unemployment	All workers [2]	Civilian workers [3]		
						Total	Agricultural	Nonagricultural					
	Thousands of persons 16 years of age and over									Percent			
1988: Jan	183,822	1,749	122,749	115,798	121,000	114,049	3,251	110,798	6,951	5.7	5.7	65.8	62.0
Feb	183,969	1,736	122,894	115,980	121,158	114,244	3,207	111,037	6,914	5.6	5.7	65.9	62.1
Mar	184,111	1,736	122,656	115,789	120,920	114,053	3,173	110,880	6,867	5.6	5.7	65.7	61.9
Apr	184,232	1,732	122,989	116,391	121,257	114,659	3,227	111,432	6,598	5.4	5.4	65.8	62.2
May	184,374	1,714	122,801	116,014	121,087	114,300	3,120	111,180	6,787	5.5	5.6	65.7	62.0
June	184,562	1,685	123,197	116,637	121,512	114,952	3,111	111,841	6,560	5.3	5.4	65.8	62.3
July	184,729	1,673	123,356	116,735	121,683	115,062	3,059	112,003	6,621	5.4	5.4	65.9	62.3
Aug	184,830	1,692	123,812	116,967	122,120	115,275	3,116	112,159	6,845	5.5	5.6	66.1	62.4
Sept	184,962	1,704	123,672	117,060	121,968	115,356	3,163	112,193	6,612	5.3	5.4	65.9	62.4
Oct	185,114	1,687	123,871	117,305	122,184	115,618	3,225	112,393	6,566	5.3	5.4	66.0	62.5
Nov	185,244	1,705	124,236	117,703	122,531	115,998	3,239	112,759	6,533	5.3	5.3	66.1	62.6
Dec	185,402	1,696	124,304	117,797	122,608	116,101	3,198	112,903	6,507	5.2	5.3	66.1	62.6
1989: Jan	185,644	1,696	125,100	118,429	123,404	116,733	3,299	113,434	6,671	5.3	5.4	66.5	62.9
Feb	185,777	1,684	124,830	118,485	123,146	116,801	3,239	113,562	6,345	5.1	5.2	66.3	62.9
Mar	185,897	1,684	124,916	118,727	123,232	117,043	3,200	113,843	6,189	5.0	5.0	66.3	63.0
Apr	186,024	1,684	125,239	118,777	123,555	117,093	3,162	113,931	6,462	5.2	5.2	66.4	62.9
May	186,181	1,673	125,180	118,809	123,507	117,136	3,122	114,014	6,371	5.1	5.2	66.3	62.9
June	186,329	1,666	125,710	119,105	124,044	117,439	3,075	114,364	6,605	5.3	5.3	66.6	63.0
July	186,483	1,666	125,674	119,140	124,008	117,474	3,221	114,253	6,534	5.2	5.3	66.5	63.0
Aug	186,598	1,688	125,838	119,323	124,150	117,635	3,272	114,363	6,515	5.2	5.2	66.5	63.0
Sept	186,726	1,702	125,651	119,041	123,949	117,339	3,219	114,120	6,610	5.3	5.3	66.4	62.8
Oct	186,871	1,709	125,893	119,252	124,184	117,543	3,206	114,337	6,641	5.3	5.3	66.5	62.9
Nov	187,017	1,704	126,244	119,534	124,540	117,830	3,139	114,691	6,710	5.3	5.4	66.6	63.0
Dec	187,165	1,700	126,204	119,563	124,504	117,863	3,209	114,654	6,641	5.3	5.3	66.5	63.0
1990: Jan	187,293	1,697	126,283	119,704	124,586	118,007	3,169	114,838	6,579	5.2	5.3	66.5	63.0
Feb	187,412	1,678	126,325	119,758	124,647	118,080	3,128	114,952	6,567	5.2	5.3	66.5	63.0
Mar	187,529	1,669	126,441	119,975	124,772	118,306	3,222	115,084	6,466	5.1	5.2	66.5	63.1
Apr	187,669	1,657	126,432	119,747	124,775	118,090	3,166	114,924	6,685	5.3	5.4	66.5	62.9
May	187,828	1,639	126,602	120,013	124,963	118,374	3,279	115,095	6,589	5.2	5.3	66.5	63.0
June	187,977	1,630	126,371	119,897	124,741	118,267	3,263	115,004	6,474	5.1	5.2	66.4	63.0
July	188,136	1,627	126,350	119,575	124,723	117,948	3,100	114,848	6,775	5.4	5.4	66.3	62.7
Aug	188,261	1,640	126,469	119,425	124,829	117,785	3,136	114,649	7,044	5.6	5.6	66.3	62.6
Sept	188,401	1,601	126,504	119,364	124,903	117,763	3,175	114,588	7,140	5.6	5.7	66.3	62.5
Oct	188,525	1,570	126,423	119,201	124,853	117,631	3,182	114,449	7,222	5.7	5.8	66.2	62.4
Nov	188,697	1,615	126,358	118,888	124,743	117,273	3,159	114,114	7,470	5.9	6.0	66.1	62.1
Dec	188,866	1,617	126,761	119,093	125,144	117,476	3,284	114,192	7,668	6.0	6.1	66.3	62.2
1991: Jan	188,977	1,615	126,355	118,592	124,740	116,977	3,194	113,783	7,763	6.1	6.2	66.0	61.9
Feb	189,115	1,602	126,669	118,539	125,067	116,937	3,237	113,700	8,130	6.4	6.5	66.1	61.8
Mar	189,243	1,460	126,710	118,294	125,250	116,834	3,124	113,710	8,416	6.6	6.7	66.2	61.7
Apr	189,380	1,456	127,100	118,844	125,644	117,388	3,187	114,201	8,256	6.5	6.6	66.3	62.0
May	189,522	1,458	126,717	118,188	125,259	116,730	3,256	113,474	8,529	6.7	6.8	66.1	61.6
June	189,668	1,505	127,029	118,414	125,524	116,909	3,286	113,623	8,615	6.8	6.9	66.2	61.6
July	189,839	1,604	126,808	118,333	125,204	116,729	3,244	113,485	8,475	6.7	6.8	66.0	61.5
Aug	189,973	1,616	126,620	118,100	125,004	116,484	3,254	113,230	8,520	6.7	6.8	65.8	61.3
Sept	190,122	1,624	127,214	118,713	125,590	117,089	3,283	113,806	8,501	6.7	6.8	66.1	61.6
Oct	190,289	1,614	127,122	118,481	125,508	116,867	3,204	113,663	8,641	6.8	6.9	66.0	61.4
Nov	190,452	1,605	126,979	118,377	125,374	116,772	3,272	113,500	8,602	6.8	6.9	65.8	61.3
Dec	190,605	1,604	127,223	118,332	125,619	116,728	3,183	113,545	8,891	7.0	7.1	65.9	61.2

[6] Not strictly comparable with earlier data due to population adjustments as follows: Beginning 1953, introduction of 1950 census data added about 600,000 to population and 350,000 to labor force, total employment, and agricultural employment. Beginning 1960, inclusion of Alaska and Hawaii added about 500,000 to population, 300,000 to labor force, and 240,000 to nonagricultural employment. Beginning 1962, introduction of 1960 census data reduced population by about 50,000 and labor force and employment by 200,000. Beginning 1972, introduction of 1970 census data added about 800,000 to civilian noninstitutional population and 333,000 to labor force and employment. A subsequent adjustment based on 1970 census in March 1973 added 60,000 to labor force and to employment. Beginning 1978, changes in sampling and estimation procedures introduced into the household survey added about 250,000 to labor force and to employment. Unemployment levels and rates were not significantly affected. Beginning 1986, the introduction of revised population controls added about 400,000 to the civilian population and labor force and 350,000 to civilian employment. Unemployment levels and rates were not significantly affected.

Note.—Labor force data in Tables B–30 through B–39 are based on household interviews and relate to the calendar week including the 12th of the month. For definitions of terms, area samples used, historical comparability of the data, comparability with other series, etc., see "Employment and Earnings."

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–31.—*Civilian employment and unemployment by sex and age, 1947–91*

[Thousands of persons 16 years of age and over; monthly data seasonally adjusted]

Year or month	Civilian employment							Unemployment						
		Males			Females				Males			Females		
	Total	Total	16–19 years	20 years and over	Total	16–19 years	20 years and over	Total	Total	16–19 years	20 years and over	Total	16–19 years	20 years and over
1947	57,038	40,995	2,218	38,776	16,045	1,691	14,354	2,311	1,692	270	1,422	619	144	475
1948	58,343	41,725	2,344	39,382	16,617	1,682	14,936	2,276	1,559	256	1,305	717	153	564
1949	57,651	40,925	2,124	38,803	16,723	1,588	15,137	3,637	2,572	353	2,219	1,065	223	841
1950	58,918	41,578	2,186	39,394	17,340	1,517	15,824	3,288	2,239	318	1,922	1,049	195	854
1951	59,961	41,780	2,156	39,626	18,181	1,611	16,570	2,055	1,221	191	1,029	834	145	689
1952	60,250	41,682	2,107	39,578	18,568	1,612	16,958	1,883	1,185	205	980	698	140	559
1953	61,179	42,430	2,136	40,296	18,749	1,584	17,164	1,834	1,202	184	1,019	632	123	510
1954	60,109	41,619	1,985	39,634	18,490	1,490	17,000	3,532	2,344	310	2,035	1,188	191	997
1955	62,170	42,621	2,095	40,526	19,551	1,547	18,002	2,852	1,854	274	1,580	998	176	823
1956	63,799	43,379	2,164	41,216	20,419	1,654	18,767	2,750	1,711	269	1,442	1,039	209	832
1957	64,071	43,357	2,115	41,239	20,714	1,663	19,052	2,859	1,841	300	1,541	1,018	197	821
1958	63,036	42,423	2,012	40,411	20,613	1,570	19,043	4,602	3,098	416	2,681	1,504	262	1,242
1959	64,630	43,466	2,198	41,267	21,164	1,640	19,524	3,740	2,420	398	2,022	1,320	256	1,063
1960	65,778	43,904	2,361	41,543	21,874	1,768	20,105	3,852	2,486	426	2,060	1,366	286	1,080
1961	65,746	43,656	2,315	41,342	22,090	1,793	20,296	4,714	2,997	479	2,518	1,717	349	1,368
1962	66,702	44,177	2,362	41,815	22,525	1,833	20,693	3,911	2,423	408	2,016	1,488	313	1,175
1963	67,762	44,657	2,406	42,251	23,105	1,849	21,257	4,070	2,472	501	1,971	1,598	383	1,216
1964	69,305	45,474	2,587	42,886	23,831	1,929	21,903	3,786	2,205	487	1,718	1,581	385	1,195
1965	71,088	46,340	2,918	43,422	24,748	2,118	22,630	3,366	1,914	479	1,435	1,452	395	1,056
1966	72,895	46,919	3,253	43,668	25,976	2,468	23,510	2,875	1,551	432	1,120	1,324	405	921
1967	74,372	47,479	3,186	44,294	26,893	2,496	24,397	2,975	1,508	448	1,060	1,468	391	1,078
1968	75,920	48,114	3,255	44,859	27,807	2,526	25,281	2,817	1,419	426	993	1,397	412	985
1969	77,902	48,818	3,430	45,388	29,084	2,687	26,397	2,832	1,403	440	963	1,429	413	1,015
1970	78,678	48,990	3,409	45,581	29,688	2,735	26,952	4,093	2,238	599	1,638	1,855	506	1,349
1971	79,367	49,390	3,478	45,912	29,976	2,730	27,246	5,016	2,789	693	2,097	2,227	568	1,658
1972	82,153	50,896	3,765	47,130	31,257	2,980	28,276	4,882	2,659	711	1,948	2,222	598	1,625
1973	85,064	52,349	4,039	48,310	32,715	3,231	29,484	4,365	2,275	653	1,624	2,089	583	1,507
1974	86,794	53,024	4,103	48,922	33,769	3,345	30,424	5,156	2,714	757	1,957	2,441	665	1,777
1975	85,846	51,857	3,839	48,018	33,989	3,263	30,726	7,929	4,442	966	3,476	3,486	802	2,684
1976	88,752	53,138	3,947	49,190	35,615	3,389	32,226	7,406	4,036	939	3,098	3,369	780	2,588
1977	92,017	54,728	4,174	50,555	37,289	3,514	33,775	6,991	3,667	874	2,794	3,324	789	2,535
1978	96,048	56,479	4,336	52,143	39,569	3,734	35,836	6,202	3,142	813	2,328	3,061	769	2,292
1979	98,824	57,607	4,300	53,308	41,217	3,783	37,434	6,137	3,120	811	2,308	3,018	743	2,276
1980	99,303	57,186	4,085	53,101	42,117	3,625	38,492	7,637	4,267	913	3,353	3,370	755	2,615
1981	100,397	57,397	3,815	53,582	43,000	3,411	39,590	8,273	4,577	962	3,615	3,696	800	2,895
1982	99,526	56,271	3,379	52,891	43,256	3,170	40,086	10,678	6,179	1,090	5,089	4,499	886	3,613
1983	100,834	56,787	3,300	53,487	44,047	3,043	41,004	10,717	6,260	1,003	5,257	4,457	825	3,632
1984	105,005	59,091	3,322	55,769	45,915	3,122	42,793	8,539	4,744	812	3,932	3,794	687	3,107
1985	107,150	59,891	3,328	56,562	47,259	3,105	44,154	8,312	4,521	806	3,715	3,791	661	3,129
1986	109,597	60,892	3,323	57,569	48,706	3,149	45,556	8,237	4,530	779	3,751	3,707	675	3,032
1987	112,440	62,107	3,381	58,726	50,334	3,260	47,074	7,425	4,101	732	3,369	3,324	616	2,709
1988	114,968	63,273	3,492	59,781	51,696	3,313	48,383	6,701	3,655	667	2,987	3,046	558	2,487
1989	117,342	64,315	3,477	60,837	53,027	3,282	49,745	6,528	3,525	658	2,867	3,003	536	2,467
1990	117,914	64,435	3,237	61,198	53,479	3,024	50,455	6,874	3,799	629	3,170	3,075	519	2,555
1991	116,877	63,593	2,879	60,714	53,284	2,749	50,535	8,426	4,817	709	4,109	3,609	581	3,028
1990: Jan	118,007	64,525	3,421	61,104	53,482	3,192	50,290	6,579	3,630	632	2,998	2,949	502	2,447
Feb	118,080	64,600	3,395	61,205	53,480	3,136	50,344	6,567	3,553	620	2,933	3,014	531	2,483
Mar	118,306	64,653	3,393	61,260	53,653	3,233	50,420	6,466	3,497	588	2,909	2,969	528	2,441
Apr	118,090	64,573	3,376	61,197	53,517	3,100	50,417	6,685	3,657	631	3,026	3,028	503	2,525
May	118,374	64,648	3,320	61,328	53,726	3,068	50,658	6,589	3,627	613	3,014	2,962	532	2,430
June	118,267	64,573	3,240	61,333	53,694	3,063	50,631	6,474	3,594	581	3,013	2,880	498	2,382
July	117,948	64,337	3,153	61,184	53,611	3,021	50,590	6,775	3,752	610	3,142	3,023	503	2,520
Aug	117,785	64,265	3,068	61,197	53,520	2,895	50,625	7,044	3,904	656	3,248	3,140	526	2,614
Sept	117,763	64,333	3,160	61,173	53,430	2,985	50,445	7,140	3,956	641	3,315	3,184	510	2,674
Oct	117,631	64,305	3,134	61,171	53,326	2,906	50,420	7,222	4,041	650	3,391	3,181	532	2,649
Nov	117,273	64,192	3,094	61,098	53,081	2,846	50,235	7,470	4,206	654	3,552	3,264	539	2,725
Dec	117,476	64,222	3,126	61,096	53,254	2,858	50,396	7,668	4,346	674	3,672	3,322	530	2,792
1991: Jan	116,977	63,819	3,051	60,768	53,158	2,830	50,328	7,763	4,337	689	3,648	3,426	616	2,810
Feb	116,937	63,611	3,038	60,573	53,326	2,888	50,438	8,130	4,684	674	4,010	3,446	566	2,880
Mar	116,834	63,563	2,966	60,597	53,271	2,863	50,408	8,416	4,858	752	4,106	3,558	570	2,988
Apr	117,388	63,836	2,889	60,947	53,552	2,863	50,689	8,256	4,730	695	4,035	3,526	585	2,941
May	116,730	63,528	2,890	60,638	53,202	2,778	50,424	8,529	4,895	752	4,143	3,634	566	3,068
June	116,909	63,514	2,823	60,691	53,395	2,756	50,639	8,615	4,966	751	4,215	3,649	560	3,089
July	116,729	63,427	2,756	60,671	53,302	2,621	50,681	8,475	4,952	727	4,225	3,523	605	2,918
Aug	116,484	63,378	2,773	60,605	53,106	2,564	50,542	8,520	4,891	680	4,211	3,629	570	3,059
Sept	117,089	63,767	2,924	60,843	53,322	2,683	50,639	8,501	4,955	712	4,243	3,546	535	3,011
Oct	116,867	63,597	2,851	60,746	53,270	2,706	50,564	8,641	4,894	679	4,215	3,747	615	3,132
Nov	116,772	63,572	2,808	60,764	53,200	2,726	50,474	8,602	4,845	695	4,150	3,757	576	3,181
Dec	116,728	63,426	2,754	60,672	53,302	2,689	50,613	8,891	4,990	700	4,290	3,901	605	3,296

Note.—See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–32.—*Civilian employment by demographic characteristic, 1954–91*

[Thousands of persons 16 years of age and over; monthly data seasonally adjusted]

Year or month	All civilian workers	White				Black and other				Black			
		Total	Males	Females	Both sexes 16–19	Total	Males	Females	Both sexes 16–19	Total	Males	Females	Both sexes 16–19
1954	60,109	53,957	37,846	16,111	3,078	6,152	3,773	2,379	396				
1955	62,170	55,833	38,719	17,114	3,225	6,341	3,904	2,437	418				
1956	63,799	57,269	39,368	17,901	3,389	6,534	4,013	2,521	430				
1957	64,071	57,465	39,349	18,116	3,374	6,604	4,006	2,598	407				
1958	63,036	56,613	38,591	18,022	3,216	6,423	3,833	2,590	365				
1959	64,630	58,006	39,494	18,512	3,475	6,623	3,971	2,652	362				
1960	65,778	58,850	39,755	19,095	3,700	6,928	4,149	2,779	430				
1961	65,746	58,913	39,588	19,325	3,693	6,833	4,068	2,765	414				
1962	66,702	59,698	40,016	19,682	3,774	7,003	4,160	2,843	420				
1963	67,762	60,622	40,428	20,194	3,851	7,140	4,229	2,911	404				
1964	69,305	61,922	41,115	20,807	4,076	7,383	4,359	3,024	440				
1965	71,088	63,446	41,844	21,602	4,562	7,643	4,496	3,147	474				
1966	72,895	65,021	42,331	22,690	5,176	7,877	4,588	3,289	545				
1967	74,372	66,361	42,833	23,528	5,114	8,011	4,646	3,365	568				
1968	75,920	67,750	43,411	24,339	5,195	8,169	4,702	3,467	584				
1969	77,902	69,518	44,048	25,470	5,508	8,384	4,770	3,614	609				
1970	78,678	70,217	44,178	26,039	5,571	8,464	4,813	3,650	574				
1971	79,367	70,878	44,595	26,283	5,670	8,488	4,796	3,692	538				
1972	82,153	73,370	45,944	27,426	6,173	8,783	4,952	3,832	573	7,802	4,368	3,433	509
1973	85,064	75,708	47,085	28,623	6,623	9,356	5,265	4,092	647	8,128	4,527	3,601	570
1974	86,794	77,184	47,674	29,511	6,796	9,610	5,352	4,258	652	8,203	4,527	3,677	554
1975	85,846	76,411	46,697	29,714	6,487	9,435	5,161	4,275	615	7,894	4,275	3,618	507
1976	88,752	78,853	47,775	31,078	6,724	9,899	5,363	4,536	611	8,227	4,404	3,823	508
1977	92,017	81,700	49,150	32,550	7,068	10,317	5,579	4,739	619	8,540	4,565	3,975	508
1978	96,048	84,936	50,544	34,392	7,367	11,112	5,936	5,177	703	9,102	4,796	4,307	571
1979	98,824	87,259	51,452	35,807	7,356	11,565	6,156	5,409	727	9,359	4,923	4,436	579
1980	99,303	87,715	51,127	36,587	7,021	11,588	6,059	5,529	689	9,313	4,798	4,515	547
1981	100,397	88,709	51,315	37,394	6,588	11,688	6,083	5,606	637	9,355	4,794	4,561	505
1982	99,526	87,903	50,287	37,615	5,984	11,624	5,983	5,641	565	9,189	4,637	4,552	428
1983	100,834	88,893	50,621	38,272	5,799	11,941	6,166	5,775	543	9,375	4,753	4,622	416
1984	105,005	92,120	52,462	39,659	5,836	12,885	6,629	6,256	607	10,119	5,124	4,995	474
1985	107,150	93,736	53,046	40,690	5,768	13,414	6,845	6,569	666	10,501	5,270	5,231	532
1986	109,597	95,660	53,785	41,876	5,792	13,937	7,107	6,830	681	10,814	5,428	5,386	536
1987	112,440	97,789	54,647	43,142	5,898	14,652	7,459	7,192	742	11,309	5,661	5,648	587
1988	114,968	99,812	55,550	44,262	6,030	15,156	7,722	7,434	774	11,658	5,824	5,834	601
1989	117,342	101,584	56,352	45,232	5,946	15,757	7,963	7,795	813	11,953	5,928	6,025	625
1990	117,914	102,087	56,432	45,654	5,518	15,827	8,003	7,825	743	11,966	5,915	6,051	573
1991	116,877	101,039	55,557	45,482	4,989	15,838	8,036	7,802	639	11,863	5,880	5,983	474
1990: Jan.	118,007	102,191	56,608	45,583	5,768	15,824	7,916	7,908	855	11,980	5,861	6,119	667
Feb.	118,080	102,163	56,590	45,573	5,720	15,931	8,016	7,915	806	12,034	5,922	6,112	609
Mar.	118,306	102,333	56,644	45,689	5,785	15,976	8,032	7,944	813	12,075	5,928	6,147	630
Apr.	118,090	102,108	56,494	45,614	5,678	15,988	8,070	7,918	807	12,095	5,948	6,147	627
May	118,374	102,368	56,537	45,831	5,625	16,001	8,094	7,907	755	12,152	5,970	6,182	585
June	118,267	102,352	56,506	45,846	5,565	15,877	8,022	7,855	737	12,056	5,970	6,086	558
July	117,948	102,215	56,395	45,820	5,449	15,667	7,958	7,709	691	11,880	5,894	5,986	531
Aug.	117,785	102,099	56,344	45,755	5,299	15,720	7,945	7,775	685	11,853	5,870	5,983	522
Sept.	117,763	102,082	56,368	45,714	5,404	15,634	7,900	7,734	707	11,845	5,872	5,973	552
Oct.	117,631	101,877	56,310	45,567	5,335	15,782	7,998	7,784	704	11,921	5,910	6,011	554
Nov.	117,273	101,517	56,200	45,317	5,269	15,773	8,026	7,747	689	11,897	5,916	5,981	540
Dec.	117,476	101,704	56,151	45,553	5,317	15,764	8,052	7,712	668	11,821	5,911	5,910	502
1991: Jan.	116,977	101,204	55,800	45,404	5,230	15,783	8,026	7,757	678	11,868	5,869	5,999	518
Feb.	116,937	101,184	55,595	45,589	5,265	15,767	8,021	7,746	662	11,845	5,886	5,959	498
Mar.	116,834	101,027	55,533	45,494	5,131	15,828	8,063	7,765	677	11,909	5,912	5,997	505
Apr.	117,388	101,504	55,793	45,711	5,102	15,888	8,038	7,850	661	11,939	5,892	6,047	490
May	116,730	101,033	55,616	45,417	4,997	15,681	7,892	7,789	661	11,748	5,742	6,006	495
June	116,909	101,050	55,470	45,580	4,921	15,832	8,015	7,817	659	11,851	5,857	5,994	486
July	116,729	100,792	55,407	45,385	4,712	15,902	8,053	7,849	649	11,903	5,880	6,023	474
Aug.	116,484	100,716	55,403	45,313	4,785	15,823	8,015	7,808	588	11,814	5,837	5,977	418
Sept.	117,089	101,053	55,612	45,441	4,973	16,004	8,092	7,912	606	12,043	5,953	6,090	465
Oct.	116,867	101,067	55,530	45,537	4,959	15,836	8,080	7,756	604	11,834	5,916	5,918	445
Nov.	116,772	100,977	55,530	45,447	4,928	15,813	8,073	7,740	629	11,779	5,906	5,873	456
Dec.	116,728	100,828	55,364	45,464	4,856	15,909	8,066	7,843	604	11,841	5,906	5,935	446

Note.—See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–33.—*Unemployment by demographic characteristic, 1954–91*

[Thousands of persons 16 years of age and over; monthly data seasonally adjusted]

Year or month	All civilian workers	White				Black and other				Black			
		Total	Males	Females	Both sexes 16–19	Total	Males	Females	Both sexes 16–19	Total	Males	Females	Both sexes 16–19
1954	3,532	2,859	1,913	946	423	673	431	242	79				
1955	2,852	2,252	1,478	774	373	601	376	225	77				
1956	2,750	2,159	1,366	793	382	591	345	246	95				
1957	2,859	2,289	1,477	812	401	570	364	206	96				
1958	4,602	3,680	2,489	1,191	541	923	610	313	138				
1959	3,740	2,946	1,903	1,043	525	793	517	276	128				
1960	3,852	3,065	1,988	1,077	575	788	498	290	138				
1961	4,714	3,743	2,398	1,345	669	971	599	372	159				
1962	3,911	3,052	1,915	1,137	580	861	509	352	142				
1963	4,070	3,208	1,976	1,232	708	863	496	367	176				
1964	3,786	2,999	1,779	1,220	708	787	426	361	165				
1965	3,366	2,691	1,556	1,135	705	678	360	318	171				
1966	2,875	2,255	1,241	1,014	651	622	310	312	186				
1967	2,975	2,338	1,208	1,130	635	638	300	338	203				
1968	2,817	2,226	1,142	1,084	644	590	277	313	194				
1969	2,832	2,260	1,137	1,123	660	571	267	304	193				
1970	4,093	3,339	1,857	1,482	871	754	380	374	235				
1971	5,016	4,085	2,309	1,777	1,011	930	481	450	249				
1972	4,882	3,906	2,173	1,733	1,021	977	486	491	288	906	448	458	279
1973	4,365	3,442	1,836	1,606	955	924	440	484	280	846	395	451	262
1974	5,156	4,097	2,169	1,927	1,104	1,058	544	514	318	965	494	470	297
1975	7,929	6,421	3,627	2,794	1,413	1,507	815	692	355	1,369	741	629	330
1976	7,406	5,914	3,258	2,656	1,364	1,492	779	713	355	1,334	698	637	330
1977	6,991	5,441	2,883	2,558	1,284	1,550	784	766	379	1,393	698	695	354
1978	6,202	4,698	2,411	2,287	1,189	1,505	731	774	394	1,330	641	690	360
1979	6,137	4,664	2,405	2,260	1,193	1,473	714	759	362	1,319	636	683	333
1980	7,637	5,884	3,345	2,540	1,291	1,752	922	830	377	1,553	815	738	343
1981	8,273	6,343	3,580	2,762	1,374	1,930	997	933	388	1,731	891	840	357
1982	10,678	8,241	4,846	3,395	1,534	2,437	1,334	1,104	443	2,142	1,167	975	396
1983	10,717	8,128	4,859	3,270	1,387	2,588	1,401	1,187	441	2,272	1,213	1,059	392
1984	8,539	6,372	3,600	2,772	1,116	2,167	1,144	1,022	384	1,914	1,003	911	353
1985	8,312	6,191	3,426	2,765	1,074	2,121	1,095	1,026	394	1,864	951	913	357
1986	8,237	6,140	3,433	2,708	1,070	2,097	1,097	999	383	1,840	946	894	347
1987	7,425	5,501	3,132	2,369	995	1,924	969	955	353	1,684	826	858	312
1988	6,701	4,944	2,766	2,177	910	1,757	888	869	316	1,547	771	776	288
1989	6,528	4,770	2,636	2,135	863	1,757	889	868	331	1,544	773	772	300
1990	6,874	5,091	2,866	2,225	856	1,783	933	850	292	1,527	793	734	258
1991	8,426	6,447	3,775	2,672	977	1,979	1,043	936	313	1,679	874	805	270
1990: Jan	6,579	4,871	2,720	2,151	852	1,764	963	801	283	1,536	832	704	250
Feb	6,567	4,905	2,709	2,196	873	1,655	846	809	272	1,449	725	724	247
Mar	6,466	4,825	2,671	2,154	854	1,672	866	806	272	1,448	740	708	242
Apr	6,685	5,005	2,797	2,208	854	1,637	840	797	269	1,422	723	699	235
May	6,589	4,891	2,751	2,140	851	1,668	849	819	289	1,428	718	710	256
June	6,474	4,794	2,684	2,110	772	1,671	886	785	291	1,412	728	684	257
July	6,775	4,964	2,791	2,173	829	1,806	958	848	288	1,523	807	716	251
Aug	7,044	5,191	2,936	2,255	880	1,832	944	888	302	1,568	813	755	274
Sept	7,140	5,254	2,943	2,311	890	1,905	1,028	877	272	1,634	876	758	240
Oct	7,222	5,344	3,030	2,314	885	1,866	988	878	302	1,588	849	739	260
Nov	7,470	5,489	3,144	2,345	864	1,964	1,047	917	332	1,661	879	782	297
Dec	7,668	5,694	3,315	2,379	879	1,964	1,014	950	325	1,665	851	814	287
1991: Jan	7,763	5,909	3,391	2,518	988	1,915	1,007	908	319	1,634	855	779	283
Feb	8,130	6,215	3,665	2,550	914	1,895	1,020	875	323	1,599	858	741	273
Mar	8,416	6,497	3,852	2,645	984	1,961	1,049	912	343	1,676	883	793	303
Apr	8,256	6,222	3,645	2,577	950	1,987	1,062	925	319	1,705	908	797	283
May	8,529	6,486	3,786	2,700	1,022	2,007	1,076	931	293	1,721	912	809	257
June	8,615	6,608	3,860	2,748	1,013	2,002	1,079	923	283	1,725	926	799	250
July	8,475	6,590	3,932	2,658	1,035	1,890	1,022	868	303	1,611	863	748	252
Aug	8,520	6,504	3,818	2,686	926	1,985	1,049	936	319	1,674	871	803	265
Sept	8,501	6,540	3,940	2,600	923	1,995	1,045	950	335	1,688	884	804	292
Oct	8,641	6,565	3,845	2,720	969	2,065	1,023	1,042	331	1,736	841	895	284
Nov	8,602	6,622	3,833	2,789	987	1,962	994	968	288	1,647	814	833	247
Dec	8,891	6,818	3,890	2,928	1,016	2,068	1,080	988	291	1,718	871	847	251

Note.—See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–34.—*Labor force participation rate and employment/population ratio, 1948–91*

[Percent; monthly data seasonally adjusted]

Year or month	Labor force participation rate								Employment/population ratio							
	Total [1]	Civilian [2]							Total [3]	Civilian [4]						
		Total	Males	Females	Both sexes 16–19 years	White	Black and other	Black		Total	Males	Females	Both sexes 16–19 years	White	Black and other	Black
1948		58.8	86.6	32.7	52.5					56.6	83.5	31.3	47.7			
1949		58.9	86.4	33.1	52.2					55.4	81.3	31.2	45.2			
1950	59.7	59.2	86.4	33.9	51.8				56.6	56.1	82.0	32.0	45.5			
1951	60.1	59.2	86.3	34.6	52.2				58.2	57.3	84.0	33.1	47.9			
1952	60.0	59.0	86.3	34.7	51.3				58.2	57.3	83.9	33.4	46.9			
1953	59.7	58.9	86.0	34.4	50.2				58.0	57.1	83.6	33.3	46.4			
1954	59.6	58.8	85.5	34.6	48.3	58.2	64.0		56.4	55.5	81.0	32.5	42.3	55.2	58.0	
1955	60.0	59.3	85.4	35.7	48.9	58.7	64.2		57.5	56.7	81.8	34.0	43.5	56.5	58.7	
1956	60.7	60.0	85.5	36.9	50.9	59.4	64.9		58.2	57.5	82.3	35.1	45.3	57.3	59.5	
1957	60.3	59.6	84.8	36.9	49.6	59.1	64.4		57.8	57.1	81.3	35.1	43.9	56.8	59.3	
1958	60.1	59.5	84.2	37.1	47.4	58.9	64.8		56.1	55.4	78.5	34.5	39.9	55.3	56.7	
1959	59.9	59.3	83.7	37.1	46.7	58.7	64.3		56.7	56.0	79.3	35.0	39.9	55.9	57.5	
1960	60.0	59.4	83.3	37.7	47.5	58.8	64.5		56.8	56.1	78.9	35.5	40.5	55.9	57.9	
1961	60.0	59.3	82.9	38.1	46.9	58.8	64.1		56.1	55.4	77.6	35.4	39.1	55.3	56.2	
1962	59.5	58.8	82.0	37.9	46.1	58.3	63.2		56.3	55.5	77.7	35.6	39.4	55.4	56.3	
1963	59.3	58.7	81.4	38.3	45.2	58.2	63.0		56.1	55.4	77.1	35.8	37.4	55.3	56.2	
1964	59.4	58.7	81.0	38.7	44.5	58.2	63.1		56.4	55.7	77.3	36.3	37.3	55.5	57.0	
1965	59.5	58.9	80.7	39.3	45.7	58.4	62.9		56.9	56.2	77.5	37.1	38.9	56.0	57.8	
1966	59.8	59.2	80.4	40.3	48.2	58.7	63.0		57.6	56.9	77.9	38.3	42.1	56.8	58.4	
1967	60.2	59.6	80.4	41.1	48.4	59.2	62.8		58.0	57.3	78.0	39.0	42.2	57.2	58.2	
1968	60.3	59.6	80.1	41.6	48.3	59.3	62.2		58.2	57.5	77.8	39.6	42.2	57.4	58.0	
1969	60.8	60.1	79.8	42.7	49.4	59.9	62.1		58.7	58.0	77.6	40.7	43.4	58.0	58.1	
1970	61.0	60.4	79.7	43.3	49.9	60.2	61.8		58.0	57.4	76.2	40.8	42.3	57.5	56.8	
1971	60.7	60.2	79.1	43.4	49.7	60.1	60.9		57.2	56.6	74.9	40.4	41.3	56.8	54.9	
1972	60.9	60.4	78.9	43.9	51.9	60.4	60.2	59.9	57.5	57.0	75.0	41.0	43.5	57.4	54.1	53.7
1973	61.3	60.8	78.8	44.7	53.7	60.8	60.5	60.2	58.3	57.8	75.5	42.0	45.9	58.2	55.0	54.5
1974	61.7	61.3	78.7	45.7	54.8	61.4	60.3	59.8	58.3	57.8	74.9	42.6	46.0	58.3	54.3	53.5
1975	61.6	61.2	77.9	46.3	54.0	61.5	59.6	58.8	56.5	56.1	71.7	42.0	43.3	56.7	51.4	50.1
1976	62.0	61.6	77.5	47.3	54.5	61.8	59.8	59.0	57.3	56.8	72.0	43.2	44.2	57.5	52.0	50.8
1977	62.6	62.3	77.7	48.4	56.0	62.5	60.4	59.8	58.3	57.9	72.8	44.5	46.1	58.6	52.5	51.4
1978	63.5	63.2	77.9	50.0	57.8	63.3	62.2	61.5	59.7	59.3	73.8	46.4	48.3	60.0	54.7	53.6
1979	64.0	63.7	77.8	50.9	57.9	63.9	62.2	61.4	60.3	59.9	73.8	47.5	48.5	60.6	55.2	53.8
1980	64.1	63.8	77.4	51.5	56.7	64.1	61.7	61.0	59.6	59.2	72.0	47.7	46.6	60.0	53.6	52.3
1981	64.2	63.9	77.0	52.1	55.4	64.3	61.3	60.8	59.4	59.0	71.3	48.0	44.6	60.0	52.6	51.3
1982	64.3	64.0	76.6	52.6	54.1	64.3	61.6	61.0	58.2	57.8	69.0	47.7	41.5	58.8	50.9	49.4
1983	64.4	64.0	76.4	52.9	53.5	64.3	62.1	61.5	58.3	57.9	68.8	48.0	41.5	58.9	51.0	49.5
1984	64.7	64.4	76.4	53.6	53.9	64.6	62.6	62.2	59.9	59.5	70.7	49.5	43.7	60.5	53.6	52.3
1985	65.1	64.8	76.3	54.5	54.5	65.0	63.3	62.9	60.5	60.1	70.9	50.4	44.4	61.0	54.7	53.4
1986	65.6	65.3	76.3	55.3	54.7	65.5	63.7	63.3	61.1	60.7	71.0	51.4	44.6	61.5	55.4	54.1
1987	65.9	65.6	76.2	56.0	54.7	65.8	64.3	63.8	61.9	61.5	71.5	52.5	45.5	62.3	56.8	55.6
1988	66.2	65.9	76.2	56.6	55.3	66.2	64.0	63.8	62.6	62.3	72.0	53.4	46.8	63.1	57.4	56.3
1989	66.8	66.5	76.4	57.4	55.9	66.7	64.7	64.2	63.3	63.0	72.5	54.3	47.5	63.8	58.2	56.9
1990	66.6	66.4	76.1	57.5	53.7	66.8	63.7	63.3	63.0	62.7	71.9	54.3	45.4	63.6	57.3	56.2
1991	66.3	66.0	75.5	57.3	51.7	66.6	63.1	62.6	61.9	61.6	70.2	53.7	42.1	62.6	56.1	54.9
1990: Jan	66.8	66.5	76.4	57.6	55.2	66.9	64.3	63.9	63.3	63.0	72.3	54.5	47.1	63.9	57.8	56.6
Feb	66.8	66.5	76.3	57.6	54.8	66.9	64.2	63.6	63.3	63.0	72.3	54.5	46.6	63.8	58.1	56.8
Mar	66.8	66.5	76.3	57.7	55.6	66.9	64.3	63.8	63.4	63.1	72.3	54.7	47.6	63.9	58.2	56.9
Apr	66.8	66.5	76.3	57.6	54.9	66.9	64.1	63.7	63.2	62.9	72.2	54.5	46.8	63.7	58.1	57.0
May	66.8	66.5	76.2	57.7	54.5	66.9	64.1	63.9	63.3	63.0	72.2	54.7	46.2	63.9	58.1	57.2
June	66.6	66.4	76.1	57.5	53.5	66.8	63.6	63.3	63.2	62.9	72.1	54.6	45.7	63.8	57.5	56.6
July	66.6	66.3	75.9	57.5	52.9	66.8	63.2	62.9	63.0	62.7	71.7	54.5	44.9	63.7	56.6	55.7
Aug	66.6	66.3	75.9	57.5	52.1	66.8	63.3	62.9	62.9	62.6	71.6	54.3	43.5	63.6	56.7	55.6
Sept	66.6	66.3	76.0	57.4	53.3	66.8	63.2	63.1	62.8	62.5	71.6	54.2	44.9	63.5	56.3	55.5
Oct	66.5	66.2	76.0	57.3	52.9	66.7	63.5	63.2	62.7	62.4	71.5	54.1	44.2	63.4	56.8	55.7
Nov	66.4	66.1	76.0	57.1	52.3	66.5	63.7	63.3	62.5	62.1	71.3	53.8	43.5	63.1	56.6	55.5
Dec	66.5	66.3	76.1	57.3	52.8	66.7	63.5	62.9	62.5	62.2	71.3	53.9	43.9	63.2	56.5	55.1
1991: Jan	66.3	66.0	75.6	57.2	53.0	66.5	63.3	62.9	62.2	61.9	70.8	53.8	43.3	62.9	56.4	55.3
Feb	66.4	66.1	75.7	57.4	53.0	66.7	63.0	62.5	62.2	61.8	70.5	53.9	43.8	62.8	56.3	55.1
Mar	66.4	66.2	75.8	57.4	53.0	66.7	63.4	63.1	62.0	61.7	70.4	53.8	43.2	62.7	56.4	55.3
Apr	66.6	66.3	75.9	57.6	52.3	66.8	63.6	63.3	62.3	62.0	70.7	54.1	42.7	62.9	56.5	55.4
May	66.4	66.1	75.7	57.3	52.0	66.6	62.8	62.4	61.9	61.6	70.3	53.7	42.2	62.6	55.7	54.5
June	66.4	66.2	75.7	57.5	51.5	66.7	63.2	62.9	61.9	61.6	70.2	53.8	41.7	62.6	56.1	54.9
July	66.2	66.0	75.5	57.3	50.4	66.5	62.9	62.5	61.8	61.5	70.0	53.7	40.4	62.4	56.2	55.0
Aug	66.1	65.8	75.3	57.1	49.5	66.3	62.9	62.3	61.6	61.3	69.9	53.5	40.1	62.3	55.9	54.6
Sept	66.3	66.1	75.7	57.2	51.5	66.5	63.4	63.3	61.9	61.6	70.3	53.7	42.2	62.5	56.4	55.5
Oct	66.2	66.0	75.4	57.3	51.7	66.5	62.9	62.5	61.7	61.4	70.0	53.6	41.9	62.4	55.7	54.5
Nov	66.1	65.8	75.2	57.2	51.4	66.4	62.4	61.7	61.6	61.3	69.9	53.5	41.8	62.4	55.5	54.2
Dec	66.2	65.9	75.2	57.4	51.1	66.4	62.9	62.3	61.6	61.2	69.7	53.5	41.2	62.2	55.7	54.4

[1] Labor force including resident Armed Forces as percent of noninstitutional population including resident Armed Forces.
[2] Civilian labor force as percent of civilian noninstitutional population in group specified.
[3] Employment including resident Armed Forces as percent of noninstitutional population including resident Armed Forces.
[4] Civilian employment as percent of civilian noninstitutional population in group specified.

Note.—Data relate to persons 16 years of age and over.
See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–35.—*Civilian labor force participation rate by demographic characteristic, 1954–91*

[Percent;[1] monthly data seasonally adjusted]

Year or month	All civilian workers	White							Black and other or black						
		Total	Males			Females			Total	Males			Females		
			Total	16–19 years	20 years and over	Total	16–19 years	20 years and over		Total	16–19 years	20 years and over	Total	16–19 years	20 years and over
									Black and other						
1954	58.8	58.2	85.6	57.6	87.8	33.3	40.6	32.7	64.0	85.2	61.2	87.1	46.1	31.0	47.7
1955	59.3	58.7	85.4	58.6	87.5	34.5	40.7	34.0	64.2	85.1	60.8	87.8	46.1	32.7	47.5
1956	60.0	59.4	85.6	60.4	87.6	35.7	43.1	35.1	64.9	85.1	61.5	87.8	47.3	36.3	48.4
1957	59.6	59.1	84.8	59.2	86.9	35.7	42.2	35.2	64.4	84.2	58.8	87.0	47.1	33.2	48.6
1958	59.5	58.9	84.3	56.5	86.6	35.8	40.1	35.5	64.8	84.1	57.3	87.1	48.0	31.9	49.8
1959	59.3	58.7	83.8	55.9	86.3	36.0	39.6	35.6	64.3	83.4	55.5	86.7	47.7	28.2	49.8
1960	59.4	58.8	83.4	55.9	86.0	36.5	40.3	36.2	64.5	83.0	57.6	86.2	48.2	32.9	49.9
1961	59.3	58.8	83.0	54.5	85.7	36.9	40.6	36.6	64.1	82.2	55.8	85.5	48.3	32.8	50.1
1962	58.8	58.3	82.1	53.8	84.9	36.7	39.8	36.5	63.2	80.8	53.5	84.2	48.0	33.1	49.6
1963	58.7	58.2	81.5	53.1	84.4	37.2	38.7	37.0	63.0	80.2	51.5	83.9	48.1	32.6	49.9
1964	58.7	58.2	81.1	52.7	84.2	37.5	37.8	37.5	63.1	80.1	49.9	84.1	48.6	31.7	50.7
1965	58.9	58.4	80.8	54.1	83.9	38.1	39.2	38.0	62.9	79.6	51.3	83.7	48.6	29.5	51.1
1966	59.2	58.7	80.6	55.9	83.6	39.2	42.6	38.8	63.0	79.0	51.4	83.3	49.4	33.5	51.6
1967	59.6	59.2	80.6	56.3	83.5	40.1	42.5	39.8	62.8	78.5	51.1	82.9	49.5	35.2	51.6
1968	59.6	59.3	80.4	55.9	83.2	40.7	43.0	40.4	62.2	77.7	49.7	82.2	49.3	34.8	51.4
1969	60.1	59.9	80.2	56.8	83.0	41.8	44.6	41.5	62.1	76.9	49.6	81.4	49.8	34.6	52.0
1970	60.4	60.2	80.0	57.5	82.8	42.6	45.6	42.2	61.8	76.5	47.4	81.4	49.5	34.1	51.8
1971	60.2	60.1	79.6	57.9	82.3	42.6	45.4	42.3	60.9	74.9	44.7	80.0	49.2	31.2	51.8
1972	60.4	60.4	79.6	60.1	82.0	43.2	48.1	42.7	60.2	73.9	46.0	78.6	48.8	32.3	51.2
									Black						
1972	60.4	60.4	79.6	60.1	82.0	43.2	48.1	42.7	59.9	73.6	46.3	78.5	48.7	32.2	51.2
1973	60.8	60.8	79.4	62.0	81.6	44.1	50.1	43.5	60.2	73.4	45.7	78.4	49.3	34.2	51.6
1974	61.3	61.4	79.4	62.9	81.4	45.2	51.7	44.4	59.8	72.9	46.7	77.6	49.0	33.4	51.4
1975	61.2	61.5	78.7	61.9	80.7	45.9	51.5	45.3	58.8	70.9	42.6	76.0	48.8	34.2	51.1
1976	61.6	61.8	78.4	62.3	80.3	46.9	52.8	46.2	59.0	70.0	41.3	75.4	49.8	32.9	52.5
1977	62.3	62.5	78.5	64.0	80.2	48.0	54.5	47.3	59.8	70.6	43.2	75.6	50.8	32.9	53.6
1978	63.2	63.3	78.6	65.0	80.1	49.4	56.7	48.7	61.5	71.5	44.9	76.2	53.1	37.3	55.5
1979	63.7	63.9	78.6	64.8	80.1	50.5	57.4	49.8	61.4	71.3	43.6	76.3	53.1	36.8	55.4
1980	63.8	64.1	78.2	63.7	79.8	51.2	56.2	50.6	61.0	70.3	43.2	75.1	53.1	34.9	55.6
1981	63.9	64.3	77.9	62.4	79.5	51.9	55.4	51.5	60.8	70.0	41.6	74.5	53.5	34.0	56.0
1982	64.0	64.3	77.4	60.0	79.2	52.4	55.0	52.2	61.0	70.1	39.8	74.7	53.7	33.5	56.2
1983	64.0	64.3	77.1	59.4	78.9	52.7	54.5	52.5	61.5	70.6	39.9	75.2	54.2	33.0	56.8
1984	64.4	64.6	77.1	59.0	78.7	53.3	55.4	53.1	62.2	70.8	41.7	74.8	55.2	35.0	57.6
1985	64.8	65.0	77.0	59.7	78.5	54.1	55.2	54.0	62.9	70.8	44.6	74.4	56.5	37.9	58.6
1986	65.3	65.5	76.9	59.3	78.5	55.0	56.3	54.9	63.3	71.2	43.7	74.8	56.9	39.1	58.9
1987	65.6	65.8	76.8	59.0	78.4	55.7	56.5	55.6	63.8	71.1	43.6	74.7	58.0	39.6	60.0
1988	65.9	66.2	76.9	60.0	78.3	56.4	57.2	56.3	63.8	71.0	43.8	74.6	58.0	37.9	60.1
1989	66.5	66.7	77.1	61.0	78.5	57.2	57.1	57.2	64.2	71.0	44.6	74.4	58.7	40.4	60.6
1990	66.4	66.8	76.9	59.4	78.3	57.5	55.4	57.6	63.3	70.1	40.6	73.8	57.8	36.7	60.0
1991	66.0	66.6	76.4	57.2	77.8	57.4	54.3	57.7	62.6	69.5	37.4	73.4	57.0	33.5	59.3
1990: Jan	66.5	66.9	77.2	60.6	78.6	57.4	56.5	57.5	63.9	70.4	45.3	73.6	58.5	39.2	60.5
Feb	66.5	66.9	77.2	60.3	78.5	57.4	56.7	57.5	63.6	69.9	41.8	73.5	58.6	36.4	60.9
Mar	66.5	66.9	77.1	60.3	78.5	57.5	57.9	57.5	63.8	70.0	43.1	73.4	58.7	38.0	60.8
Apr	66.5	66.9	77.1	61.1	78.3	57.5	55.8	57.6	63.7	70.0	42.1	73.5	58.5	38.0	60.6
May	66.5	66.9	77.0	59.9	78.3	57.6	56.2	57.7	63.9	70.0	41.1	73.7	58.9	37.1	61.1
June	66.4	66.8	76.8	58.9	78.2	57.6	55.2	57.7	63.3	70.0	38.5	74.0	57.7	37.5	59.8
July	66.3	66.8	76.7	58.6	78.2	57.6	54.8	57.8	62.9	70.0	38.8	73.8	57.1	34.3	59.4
Aug	66.3	66.8	76.8	57.9	78.3	57.6	54.0	57.8	62.9	69.7	38.6	73.6	57.3	35.8	59.5
Sept	66.3	66.8	76.8	59.0	78.2	57.6	55.4	57.7	63.1	70.3	39.1	74.2	57.2	35.1	59.4
Oct	66.2	66.7	76.8	59.0	78.2	57.4	54.5	57.6	63.2	70.4	39.6	74.2	57.3	36.8	59.4
Nov	66.1	66.5	76.8	58.4	78.2	57.1	53.7	57.3	63.3	70.6	40.7	74.4	57.3	37.0	59.4
Dec	66.3	66.7	76.9	59.2	78.2	57.4	54.4	57.6	62.9	70.2	38.5	74.1	56.9	35.5	59.1
1991: Jan	66.0	66.5	76.5	59.1	77.8	57.3	55.3	57.5	62.9	69.7	37.7	73.6	57.3	37.8	59.3
Feb	66.1	66.7	76.5	58.9	77.8	57.6	55.4	57.7	62.5	69.8	36.9	73.8	56.6	36.1	58.6
Mar	66.2	66.7	76.6	58.7	78.0	57.5	54.7	57.7	63.1	70.3	39.7	74.0	57.3	37.1	59.3
Apr	66.3	66.8	76.6	56.6	78.2	57.7	56.1	57.8	63.3	70.3	38.6	74.1	57.7	35.1	59.9
May	66.1	66.6	76.5	57.9	78.0	57.4	54.4	57.7	62.4	68.6	36.4	72.6	57.4	34.2	59.7
June	66.2	66.7	76.4	56.8	77.9	57.7	54.3	57.9	62.9	69.9	38.7	73.7	57.1	31.2	59.7
July	66.0	66.5	76.4	56.0	77.9	57.3	51.8	57.7	62.5	69.3	35.4	73.4	56.9	33.8	59.1
Aug	65.8	66.3	76.2	55.3	77.7	57.2	52.0	57.6	62.3	68.9	36.5	72.8	56.9	28.8	59.6
Sept	66.1	66.5	76.5	57.6	77.9	57.2	53.3	57.5	63.3	70.1	40.9	73.6	57.8	31.7	60.3
Oct	66.0	66.5	76.2	56.9	77.7	57.5	54.8	57.6	62.5	69.2	36.8	73.0	57.0	33.2	59.3
Nov	65.8	66.4	76.2	56.9	77.6	57.4	54.7	57.6	61.7	68.7	35.1	72.7	56.1	32.4	58.3
Dec	65.9	66.4	76.0	56.2	77.4	57.6	54.8	57.8	62.3	69.2	36.3	73.0	56.6	30.7	59.1

[1] Civilian labor force as percent of civilian noninstitutional population in group specified.

Note.—Data relate to persons 16 years of age and over.
See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-36.—*Civilian employment/population ratio by demographic characteristic, 1954–91*

[Percent;[1] monthly data seasonally adjusted]

Year or month	All civilian workers	White							Black and other or black						
		Total	Males			Females			Total	Males			Females		
			Total	16–19 years	20 years and over	Total	16–19 years	20 years and over		Total	16–19 years	20 years and over	Total	16–19 years	20 years and over
									Black and other						
1954	55.5	55.2	81.5	49.9	84.0	31.4	36.4	31.1	58.0	76.5	52.4	79.2	41.9	24.7	43.7
1955	56.7	56.5	82.2	52.0	84.7	33.0	37.0	32.7	58.7	77.6	52.7	80.4	42.2	26.4	43.9
1956	57.5	57.3	82.7	54.1	85.0	34.2	38.9	33.8	59.5	78.4	52.2	81.3	43.0	28.0	44.7
1957	57.1	56.8	81.8	52.4	84.1	34.2	38.2	33.9	59.3	77.2	48.0	80.5	43.7	26.5	45.5
1958	55.4	55.3	79.2	47.6	81.8	33.6	35.0	33.5	56.7	72.5	42.0	76.0	42.8	22.8	45.0
1959	56.0	55.9	79.9	48.1	82.8	34.0	34.8	34.0	57.5	73.8	41.4	77.6	43.2	20.3	45.7
1960	56.1	55.9	79.4	48.1	82.4	34.6	35.1	34.5	57.9	74.1	43.8	77.9	43.6	24.8	45.8
1961	55.4	55.3	78.2	45.9	81.4	34.5	34.6	34.5	56.2	71.7	41.0	75.5	42.6	23.2	44.8
1962	55.5	55.4	78.4	46.4	81.5	34.7	34.8	34.7	56.3	72.0	41.7	75.7	42.7	23.1	44.9
1963	55.4	55.3	77.7	44.7	81.1	35.0	32.9	35.2	56.2	71.8	37.4	76.2	42.7	21.3	45.2
1964	55.7	55.5	77.8	45.0	81.3	35.5	32.2	35.8	57.0	72.9	37.8	77.7	43.4	21.8	46.1
1965	56.2	56.0	77.9	47.1	81.5	36.2	33.7	36.5	57.8	73.7	39.4	78.7	44.1	20.2	47.3
1966	56.9	56.8	78.3	50.1	81.7	37.5	37.5	37.5	58.4	74.0	40.5	79.2	45.1	23.1	48.2
1967	57.3	57.2	78.4	50.2	81.7	38.3	37.7	38.3	58.2	73.8	38.8	79.4	45.0	24.8	47.9
1968	57.5	57.4	78.3	50.3	81.6	38.9	37.8	39.1	58.0	73.3	38.7	78.9	45.2	24.7	48.2
1969	58.0	58.0	78.2	51.1	81.4	40.1	39.5	40.1	58.1	72.8	39.0	78.4	45.9	25.1	48.9
1970	57.4	57.5	76.8	49.6	80.1	40.3	39.5	40.4	56.8	70.9	35.5	76.8	44.9	22.4	48.2
1971	56.6	56.8	75.7	49.2	79.0	39.9	38.6	40.1	54.9	68.1	31.8	74.2	43.9	20.2	47.3
1972	57.0	57.4	76.0	51.5	79.0	40.7	41.3	40.6	54.1	67.3	32.4	73.2	43.3	19.9	46.7
									Black						
1972	57.0	57.4	76.0	51.5	79.0	40.7	41.3	40.6	53.7	66.8	31.6	73.0	43.0	19.2	46.5
1973	57.8	58.2	76.5	54.3	79.2	41.8	43.6	41.6	54.5	67.5	32.8	73.7	43.8	22.0	47.2
1974	57.8	58.3	75.9	54.4	78.6	42.4	44.3	42.2	53.5	65.8	31.4	71.9	43.5	20.9	46.9
1975	56.1	56.7	73.0	50.6	75.7	42.0	42.5	41.9	50.1	60.6	26.3	66.5	41.6	20.2	44.9
1976	56.8	57.5	73.4	51.5	76.0	43.2	44.2	43.1	50.8	60.6	25.8	66.8	42.8	19.2	46.4
1977	57.9	58.6	74.1	54.4	76.5	44.5	45.9	44.4	51.4	61.4	26.4	67.5	43.3	18.5	47.0
1978	59.3	60.0	75.0	56.3	77.2	46.3	48.5	46.1	53.6	63.3	28.5	69.1	45.8	22.1	49.3
1979	59.9	60.6	75.1	55.7	77.3	47.5	49.4	47.3	53.8	63.4	28.7	69.1	46.0	22.4	49.3
1980	59.2	60.0	73.4	53.4	75.6	47.8	47.9	47.8	52.3	60.4	27.0	65.8	45.7	21.0	49.1
1981	59.0	60.0	72.8	51.3	75.1	48.3	46.2	48.5	51.3	59.1	24.6	64.5	45.1	19.7	48.5
1982	57.8	58.8	70.6	47.0	73.0	48.1	44.6	48.4	49.4	56.0	20.3	61.4	44.2	17.7	47.5
1983	57.9	58.9	70.4	47.4	72.6	48.5	44.5	48.9	49.5	56.3	20.4	61.6	44.1	17.0	47.4
1984	59.5	60.5	72.1	49.1	74.3	49.8	47.0	50.0	52.3	59.2	23.9	64.1	46.7	20.1	49.8
1985	60.1	61.0	72.3	49.9	74.3	50.7	47.1	51.0	53.4	60.0	26.3	64.6	48.1	23.1	50.9
1986	60.7	61.5	72.3	49.6	74.3	51.7	47.9	52.0	54.1	60.6	26.5	65.1	48.8	23.8	51.6
1987	61.5	62.3	72.7	49.9	74.7	52.8	49.0	53.1	55.6	62.0	28.5	66.4	50.3	25.8	53.0
1988	62.3	63.1	73.2	51.7	75.1	53.8	50.2	54.0	56.3	62.7	29.4	67.1	51.2	25.8	53.9
1989	63.0	63.8	73.7	52.6	75.4	54.6	50.5	54.9	56.9	62.8	30.4	67.0	52.0	27.1	54.6
1990	62.7	63.6	73.2	51.0	75.0	54.8	48.5	55.2	56.2	61.8	27.6	66.1	51.6	25.7	54.2
1991	61.6	62.6	71.5	47.2	73.3	54.3	46.1	54.8	54.9	60.5	23.8	64.9	50.3	21.4	53.1
1990: Jan	63.0	63.9	73.7	52.4	75.4	54.8	49.6	55.2	56.6	61.7	31.9	65.5	52.5	29.6	54.8
Feb	63.0	63.8	73.6	52.3	75.3	54.8	49.3	55.2	56.8	62.2	29.5	66.5	52.4	26.2	55.1
Mar	63.1	63.9	73.7	52.5	75.4	54.9	50.6	55.2	56.9	62.2	30.3	66.2	52.6	28.2	55.1
Apr	62.9	63.7	73.4	52.7	75.1	54.8	49.0	55.2	57.0	62.4	30.1	66.5	52.5	28.1	55.0
May	63.0	63.9	73.4	51.8	75.1	55.0	49.1	55.5	57.2	62.5	28.2	66.8	52.8	26.2	55.5
June	62.9	63.8	73.3	51.4	75.0	55.0	48.7	55.5	56.6	62.4	25.2	67.1	51.9	26.8	54.5
July	62.7	63.7	73.1	50.2	74.9	55.0	48.2	55.5	55.7	61.5	25.8	66.0	51.0	23.8	53.8
Aug	62.6	63.6	73.0	49.0	74.9	54.9	46.9	55.4	55.6	61.2	24.6	65.8	50.9	24.2	53.6
Sept	62.5	63.5	73.0	49.9	74.8	54.8	48.3	55.2	55.5	61.2	26.9	65.4	50.8	24.8	53.4
Oct	62.4	63.4	72.9	50.0	74.7	54.6	47.3	55.1	55.7	61.5	27.0	65.8	51.0	25.0	53.6
Nov	62.1	63.1	72.7	49.5	74.5	54.3	46.8	54.8	55.5	61.5	27.0	65.8	50.7	23.1	53.5
Dec	62.2	63.2	72.6	50.1	74.3	54.5	47.4	55.0	55.1	61.3	24.2	65.9	50.0	22.8	52.8
1991: Jan	61.9	62.9	72.1	49.5	73.8	54.3	46.7	54.8	55.3	60.8	24.4	65.3	50.7	24.4	53.4
Feb	61.8	62.8	71.8	49.5	73.5	54.5	47.9	55.0	55.1	61.0	23.7	65.5	50.3	23.5	53.0
Mar	61.7	62.7	71.7	48.1	73.4	54.4	47.1	54.9	55.3	61.2	24.8	65.5	50.6	23.2	53.3
Apr	62.0	62.9	71.9	47.1	73.8	54.6	47.9	55.1	55.4	60.9	24.0	65.3	51.0	22.7	53.8
May	61.6	62.6	71.7	47.1	73.5	54.2	46.1	54.8	54.5	59.2	23.1	63.7	50.6	23.4	53.2
June	61.6	62.6	71.4	46.0	73.3	54.4	46.1	55.0	54.9	60.3	24.6	64.7	50.4	21.6	53.2
July	61.5	62.4	71.3	45.1	73.2	54.1	43.3	54.9	55.0	60.5	23.9	64.8	50.6	21.3	53.4
Aug	61.3	62.3	71.2	45.9	73.1	54.0	44.0	54.7	54.6	59.9	23.1	64.3	50.2	16.9	53.4
Sept	61.6	62.5	71.5	47.9	73.2	54.1	45.7	54.7	55.5	61.1	24.3	65.4	51.0	20.3	54.0
Oct	61.4	62.4	71.3	47.3	73.1	54.2	46.1	54.8	54.5	60.6	23.5	65.0	49.5	19.2	52.5
Nov	61.3	62.4	71.2	47.0	73.0	54.1	46.0	54.6	54.2	60.4	22.4	64.9	49.1	21.4	51.8
Dec	61.2	62.2	71.0	46.1	72.8	54.1	45.7	54.6	54.4	60.3	23.4	64.6	49.6	19.5	52.4

[1] Civilian employment as percent of civilian noninstitutional population in group specified.

Note.—Data relate to persons 16 years of age and over.
See footnote 6 and Note, Table B-30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–37.—*Unemployment rate, 1948–91*

[Percent; monthly data seasonally adjusted]

Year or month	Unemployment rate, all workers [1]	Unemployment rate, civilian workers [2]													
		All civilian workers	Males			Females			Both sexes 16–19 years	White	Black and other	Black	Experienced wage and salary workers	Married men, spouse present [3]	Women who maintain families
			Total	16–19 years	20 years and over	Total	16–19 years	20 years and over							
1948		3.8	3.6	9.8	3.2	4.1	8.3	3.6	9.2	3.5	5.9		4.3		
1949		5.9	5.9	14.3	5.4	6.0	12.3	5.3	13.4	5.6	8.9		6.8	3.5	
1950	5.2	5.3	5.1	12.7	4.7	5.7	11.4	5.1	12.2	4.9	9.0		6.0	4.6	
1951	3.2	3.3	2.8	8.1	2.5	4.4	8.3	4.0	8.2	3.1	5.3		3.7	1.5	
1952	2.9	3.0	2.8	8.9	2.4	3.6	8.0	3.2	8.5	2.8	5.4		3.4	1.4	
1953	2.8	2.9	2.8	7.9	2.5	3.3	7.2	2.9	7.6	2.7	4.5		3.2	1.7	
1954	5.4	5.5	5.3	13.5	4.9	6.0	11.4	5.5	12.6	5.0	9.9		6.2	4.0	
1955	4.3	4.4	4.2	11.6	3.8	4.9	10.2	4.4	11.0	3.9	8.7		4.8	2.6	
1956	4.0	4.1	3.8	11.1	3.4	4.8	11.2	4.2	11.1	3.6	8.3		4.4	2.3	
1957	4.2	4.3	4.1	12.4	3.6	4.7	10.6	4.1	11.6	3.8	7.9		4.6	2.8	
1958	6.6	6.8	6.8	17.1	6.2	6.8	14.3	6.1	15.9	6.1	12.6		7.3	5.1	
1959	5.3	5.5	5.2	15.3	4.7	5.9	13.5	5.2	14.6	4.8	10.7		5.7	3.6	
1960	5.4	5.5	5.4	15.3	4.7	5.9	13.9	5.1	14.7	5.0	10.2		5.7	3.7	
1961	6.5	6.7	6.4	17.1	5.7	7.2	16.3	6.3	16.8	6.0	12.4		6.8	4.6	
1962	5.4	5.5	5.2	14.7	4.6	6.2	14.6	5.4	14.7	4.9	10.9		5.6	3.6	
1963	5.5	5.7	5.2	17.2	4.5	6.5	17.2	5.4	17.2	5.0	10.8		5.6	3.4	
1964	5.0	5.2	4.6	15.8	3.9	6.2	16.6	5.2	16.2	4.6	9.6		5.0	2.8	
1965	4.4	4.5	4.0	14.1	3.2	5.5	15.7	4.5	14.8	4.1	8.1		4.3	2.4	
1966	3.7	3.8	3.2	11.7	2.5	4.8	14.1	3.8	12.8	3.4	7.3		3.5	1.9	
1967	3.7	3.8	3.1	12.3	2.3	5.2	13.5	4.2	12.9	3.4	7.4		3.6	1.8	4.9
1968	3.5	3.6	2.9	11.6	2.2	4.8	14.0	3.8	12.7	3.2	6.7		3.4	1.6	4.4
1969	3.4	3.5	2.8	11.4	2.1	4.7	13.3	3.7	12.2	3.1	6.4		3.3	1.5	4.4
1970	4.8	4.9	4.4	15.0	3.5	5.9	15.6	4.8	15.3	4.5	8.2		4.8	2.6	5.4
1971	5.8	5.9	5.3	16.6	4.4	6.9	17.2	5.7	16.9	5.4	9.9		5.7	3.2	7.3
1972	5.5	5.6	5.0	15.9	4.0	6.6	16.7	5.4	16.2	5.1	10.0	10.4	5.3	2.8	7.2
1973	4.8	4.9	4.2	13.9	3.3	6.0	15.3	4.9	14.5	4.3	9.0	9.4	4.5	2.3	7.1
1974	5.5	5.6	4.9	15.6	3.8	6.7	16.6	5.5	16.0	5.0	9.9	10.5	5.3	2.7	7.0
1975	8.3	8.5	7.9	20.1	6.8	9.3	19.7	8.0	19.9	7.8	13.8	14.8	8.2	5.1	10.0
1976	7.6	7.7	7.1	19.2	5.9	8.6	18.7	7.4	19.0	7.0	13.1	14.0	7.3	4.2	10.1
1977	6.9	7.1	6.3	17.3	5.2	8.2	18.3	7.0	17.8	6.2	13.1	14.0	6.6	3.6	9.4
1978	6.0	6.1	5.3	15.8	4.3	7.2	17.1	6.0	16.4	5.2	11.9	12.8	5.6	2.8	8.5
1979	5.8	5.8	5.1	15.9	4.2	6.8	16.4	5.7	16.1	5.1	11.3	12.3	5.5	2.8	8.3
1980	7.0	7.1	6.9	18.3	5.9	7.4	17.2	6.4	17.8	6.3	13.1	14.3	6.9	4.2	9.2
1981	7.5	7.6	7.4	20.1	6.3	7.9	19.0	6.8	19.6	6.7	14.2	15.6	7.3	4.3	10.4
1982	9.5	9.7	9.9	24.4	8.8	9.4	21.9	8.3	23.2	8.6	17.3	18.9	9.3	6.5	11.7
1983	9.5	9.6	9.9	23.3	8.9	9.2	21.3	8.1	22.4	8.4	17.8	19.5	9.2	6.5	12.2
1984	7.4	7.5	7.4	19.6	6.6	7.6	18.0	6.8	18.9	6.5	14.4	15.9	7.1	4.6	10.3
1985	7.1	7.2	7.0	19.5	6.2	7.4	17.6	6.6	18.6	6.2	13.7	15.1	6.8	4.3	10.4
1986	6.9	7.0	6.9	19.0	6.1	7.1	17.6	6.2	18.3	6.0	13.1	14.5	6.6	4.4	9.8
1987	6.1	6.2	6.2	17.8	5.4	6.2	15.9	5.4	16.9	5.3	11.6	13.0	5.8	3.9	9.2
1988	5.4	5.5	5.5	16.0	4.8	5.6	14.4	4.9	15.3	4.7	10.4	11.7	5.2	3.3	8.1
1989	5.2	5.3	5.2	15.9	4.5	5.4	14.0	4.7	15.0	4.5	10.0	11.4	5.0	3.0	8.1
1990	5.4	5.5	5.6	16.3	4.9	5.4	14.7	4.8	15.5	4.7	10.1	11.3	5.3	3.4	8.2
1991	6.6	6.7	7.0	19.8	6.3	6.3	17.4	5.7	18.6	6.0	11.1	12.4	6.5	4.4	9.1
1990: Jan	5.2	5.3	5.3	15.6	4.7	5.2	13.6	4.6	14.6	4.5	10.0	11.4	5.1	3.4	7.6
Feb	5.2	5.3	5.2	15.4	4.6	5.3	14.5	4.7	15.0	4.6	9.4	10.7	5.0	3.1	7.6
Mar	5.1	5.2	5.1	14.8	4.5	5.2	14.0	4.6	14.4	4.5	9.5	10.7	5.0	3.1	8.4
Apr	5.3	5.4	5.4	15.7	4.7	5.4	14.0	4.8	14.9	4.7	9.3	10.5	5.1	3.2	7.5
May	5.2	5.3	5.3	15.6	4.7	5.2	14.8	4.6	15.2	4.6	9.4	10.5	5.0	3.2	7.6
June	5.1	5.2	5.3	15.2	4.7	5.1	14.0	4.5	14.6	4.5	9.5	10.5	5.0	3.1	8.0
July	5.4	5.4	5.5	16.2	4.9	5.3	14.3	4.7	15.3	4.6	10.3	11.4	5.2	3.4	8.4
Aug	5.6	5.6	5.7	17.6	5.0	5.5	15.4	4.9	16.5	4.8	10.4	11.7	5.3	3.5	8.3
Sept	5.6	5.7	5.8	16.9	5.1	5.6	14.6	5.0	15.8	4.9	10.9	12.1	5.5	3.5	8.8
Oct	5.7	5.8	5.9	17.2	5.3	5.6	15.5	5.0	16.4	5.0	10.6	11.8	5.5	3.6	8.5
Nov	5.9	6.0	6.1	17.4	5.5	5.8	15.9	5.1	16.7	5.1	11.1	12.3	5.8	3.8	8.8
Dec	6.0	6.1	6.3	17.7	5.7	5.9	15.6	5.2	16.8	5.3	11.1	12.3	5.9	3.8	8.8
1991: Jan	6.1	6.2	6.4	18.4	5.7	6.1	17.9	5.3	18.2	5.5	10.8	12.1	6.0	4.0	9.0
Feb	6.4	6.5	6.9	18.2	6.2	6.1	16.4	5.4	17.3	5.8	10.7	11.9	6.3	4.2	9.1
Mar	6.6	6.7	7.1	20.2	6.3	6.3	16.6	5.6	18.5	6.0	11.0	12.3	6.6	4.4	9.1
Apr	6.5	6.6	6.9	19.4	6.2	6.2	17.0	5.5	18.2	5.8	11.1	12.5	6.3	4.3	9.6
May	6.7	6.8	7.2	20.6	6.4	6.4	16.9	5.7	18.9	6.0	11.3	12.8	6.5	4.4	9.2
June	6.8	6.9	7.3	21.0	6.5	6.4	16.9	5.7	19.0	6.1	11.2	12.7	6.6	4.6	9.1
July	6.7	6.8	7.2	20.9	6.5	6.2	18.8	5.4	19.9	6.1	10.6	11.9	6.4	4.4	8.5
Aug	6.7	6.8	7.2	19.7	6.5	6.4	18.2	5.7	19.0	6.1	11.1	12.4	6.5	4.4	9.4
Sept	6.7	6.8	7.2	19.6	6.5	6.2	16.6	5.6	18.2	6.1	11.1	12.3	6.5	4.5	9.0
Oct	6.8	6.9	7.1	19.2	6.5	6.6	18.5	5.8	18.9	6.1	11.5	12.8	6.6	4.2	9.4
Nov	6.8	6.9	7.1	19.8	6.4	6.6	17.4	5.9	18.7	6.2	11.0	12.3	6.7	4.5	9.1
Dec	7.0	7.1	7.3	20.3	6.6	6.8	18.4	6.1	19.3	6.3	11.5	12.7	6.8	4.7	9.1

[1] Unemployed as percent of labor force including resident Armed Forces.
[2] Unemployed as percent of civilian labor force in group specified.
[3] Data for 1949 and 1951–54 are for April; 1950, for March.

Note.—Data relate to persons 16 years of age and over.
See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–38.—*Civilian unemployment rate by demographic characteristic, 1948–91*

[Percent;[1] monthly data seasonally adjusted]

Year or month	All civilian workers	White							Black and other or black						
		Total	Males			Females			Total	Males			Females		
			Total	16–19 years	20 years and over	Total	16–19 years	20 years and over		Total	16–19 years	20 years and over	Total	16–19 years	20 years and over
									Black and other						
1948	3.8	3.5	3.4			3.8			5.9	5.8			6.1		
1949	5.9	5.6	5.6			5.7			8.9	9.6			7.9		
1950	5.3	4.9	4.7			5.3			9.0	9.4			8.4		
1951	3.3	3.1	2.6			4.2			5.3	4.9			6.1		
1952	3.0	2.8	2.5			3.3			5.4	5.2			5.7		
1953	2.9	2.7	2.5			3.1			4.5	4.8			4.1		
1954	5.5	5.0	4.8	13.4	4.4	5.5	10.4	5.1	9.9	10.3	14.4	9.9	9.2	20.6	8.4
1955	4.4	3.9	3.7	11.3	3.3	4.3	9.1	3.9	8.7	8.8	13.4	8.4	8.5	19.2	7.7
1956	4.1	3.6	3.4	10.5	3.0	4.2	9.7	3.7	8.3	7.9	15.0	7.4	8.9	22.8	7.8
1957	4.3	3.8	3.6	11.5	3.2	4.3	9.5	3.8	7.9	8.3	18.4	7.6	7.3	20.2	6.4
1958	6.8	6.1	6.1	15.7	5.5	6.2	12.7	5.6	12.6	13.7	26.8	12.7	10.8	28.4	9.5
1959	5.5	4.8	4.6	14.0	4.1	5.3	12.0	4.7	10.7	11.5	25.2	10.5	9.4	27.7	8.3
1960	5.5	5.0	4.8	14.0	4.2	5.3	12.7	4.6	10.2	10.7	24.0	9.6	9.4	24.8	8.3
1961	6.7	6.0	5.7	15.7	5.1	6.5	14.8	5.7	12.4	12.8	26.8	11.7	11.9	29.2	10.6
1962	5.5	4.9	4.6	13.7	4.0	5.5	12.8	4.7	10.9	10.9	22.0	10.0	11.0	30.2	9.6
1963	5.7	5.0	4.7	15.9	3.9	5.8	15.1	4.8	10.8	10.5	27.3	9.2	11.2	34.7	9.4
1964	5.2	4.6	4.1	14.7	3.4	5.5	14.9	4.6	9.6	8.9	24.3	7.7	10.7	31.6	9.0
1965	4.5	4.1	3.6	12.9	2.9	5.0	14.0	4.0	8.1	7.4	23.3	6.0	9.2	31.7	7.5
1966	3.8	3.4	2.8	10.5	2.2	4.3	12.1	3.3	7.3	6.3	21.3	4.9	8.7	31.3	6.6
1967	3.8	3.4	2.7	10.7	2.1	4.6	11.5	3.8	7.4	6.0	23.9	4.3	9.1	29.6	7.1
1968	3.6	3.2	2.6	10.1	2.0	4.3	12.1	3.4	6.7	5.6	22.1	3.9	8.3	28.7	6.3
1969	3.5	3.1	2.5	10.0	1.9	4.2	11.5	3.4	6.4	5.3	21.4	3.7	7.8	27.6	5.8
1970	4.9	4.5	4.0	13.7	3.2	5.4	13.4	4.4	8.2	7.3	25.0	5.6	9.3	34.5	6.9
1971	5.9	5.4	4.9	15.1	4.0	6.3	15.1	5.3	9.9	9.1	28.8	7.3	10.9	35.4	8.7
1972	5.6	5.1	4.5	14.2	3.6	5.9	14.2	4.9	10.0	8.9	29.7	6.9	11.4	38.4	8.8
									Black						
1972	5.6	5.1	4.5	14.2	3.6	5.9	14.2	4.9	10.4	9.3	31.7	7.0	11.8	40.5	9.0
1973	4.9	4.3	3.8	12.3	3.0	5.3	13.0	4.3	9.4	8.0	27.8	6.0	11.1	36.1	8.6
1974	5.6	5.0	4.4	13.5	3.5	6.1	14.5	5.1	10.5	9.8	33.1	7.4	11.3	37.4	8.8
1975	8.5	7.8	7.2	18.3	6.2	8.6	17.4	7.5	14.8	14.8	38.1	12.5	14.8	41.0	12.2
1976	7.7	7.0	6.4	17.3	5.4	7.9	16.4	6.8	14.0	13.7	37.5	11.4	14.3	41.6	11.7
1977	7.1	6.2	5.5	15.0	4.7	7.3	15.9	6.2	14.0	13.3	39.2	10.7	14.9	43.4	12.3
1978	6.1	5.2	4.6	13.5	3.7	6.2	14.4	5.2	12.8	11.8	36.7	9.3	13.8	40.8	11.2
1979	5.8	5.1	4.5	13.9	3.6	5.9	14.0	5.0	12.3	11.4	34.2	9.3	13.3	39.1	10.9
1980	7.1	6.3	6.1	16.2	5.3	6.5	14.8	5.6	14.3	14.5	37.5	12.4	14.0	39.8	11.9
1981	7.6	6.7	6.5	17.9	5.6	6.9	16.6	5.9	15.6	15.7	40.7	13.5	15.6	42.2	13.4
1982	9.7	8.6	8.8	21.7	7.8	8.3	19.0	7.3	18.9	20.1	48.9	17.8	17.6	47.1	15.4
1983	9.6	8.4	8.8	20.2	7.9	7.9	18.3	6.9	19.5	20.3	48.8	18.1	18.6	48.2	16.5
1984	7.5	6.5	6.4	16.8	5.7	6.5	15.2	5.8	15.9	16.4	42.7	14.3	15.4	42.6	13.5
1985	7.2	6.2	6.1	16.5	5.4	6.4	14.8	5.7	15.1	15.3	41.0	13.2	14.9	39.2	13.1
1986	7.0	6.0	6.0	16.3	5.3	6.1	14.9	5.4	14.5	14.8	39.3	12.9	14.2	39.2	12.4
1987	6.2	5.3	5.4	15.5	4.8	5.2	13.4	4.6	13.0	12.7	34.4	11.1	13.2	34.9	11.6
1988	5.5	4.7	4.7	13.9	4.1	4.7	12.3	4.1	11.7	11.7	32.7	10.1	11.7	32.0	10.4
1989	5.3	4.5	4.5	13.7	3.9	4.5	11.5	4.0	11.4	11.5	31.9	10.0	11.4	33.0	9.8
1990	5.5	4.7	4.8	14.2	4.3	4.6	12.6	4.1	11.3	11.8	32.1	10.4	10.8	30.0	9.6
1991	6.7	6.0	6.4	17.5	5.7	5.5	15.2	4.9	12.4	12.9	36.5	11.5	11.9	36.1	10.5
1990: Jan	5.3	4.5	4.6	13.5	4.0	4.5	12.2	4.0	11.4	12.4	29.5	11.1	10.3	24.7	9.4
Feb	5.3	4.6	4.6	13.4	4.0	4.6	13.1	4.0	10.7	10.9	29.5	9.5	10.6	28.1	9.5
Mar	5.2	4.5	4.5	13.0	4.0	4.5	12.8	3.9	10.7	11.1	29.5	9.7	10.3	25.8	9.3
Apr	5.4	4.7	4.7	13.8	4.2	4.6	12.2	4.1	10.5	10.8	28.3	9.6	10.2	26.1	9.2
May	5.3	4.6	4.6	13.6	4.1	4.5	12.7	3.9	10.5	10.7	31.4	9.3	10.3	29.5	9.1
June	5.2	4.5	4.5	12.6	4.1	4.4	11.7	3.9	10.5	10.9	34.6	9.3	10.1	28.5	8.9
July	5.4	4.6	4.7	14.3	4.2	4.5	12.0	4.0	11.4	12.0	33.4	10.7	10.7	30.6	9.5
Aug	5.6	4.8	5.0	15.3	4.4	4.7	13.1	4.2	11.7	12.2	36.3	10.6	11.2	32.5	9.9
Sept	5.7	4.9	5.0	15.4	4.4	4.8	12.8	4.3	12.1	13.0	31.2	11.8	11.3	29.3	10.2
Oct	5.8	5.0	5.1	15.2	4.5	4.8	13.1	4.3	11.8	12.6	31.9	11.3	10.9	32.0	9.6
Nov	6.0	5.1	5.3	15.3	4.7	4.9	12.7	4.4	12.3	12.9	33.7	11.5	11.6	37.4	9.9
Dec	6.1	5.3	5.6	15.3	5.0	5.0	12.9	4.4	12.3	12.6	37.0	11.0	12.1	35.7	10.7
1991: Jan	6.2	5.5	5.7	16.1	5.1	5.3	15.6	4.6	12.1	12.7	35.3	11.3	11.5	35.4	10.0
Feb	6.5	5.8	6.2	15.9	5.6	5.3	13.6	4.8	11.9	12.7	35.8	11.3	11.1	35.0	9.6
Mar	6.7	6.0	6.5	18.2	5.8	5.5	13.8	5.0	12.3	13.0	37.5	11.4	11.7	37.5	10.1
Apr	6.6	5.8	6.1	16.8	5.6	5.3	14.5	4.7	12.5	13.4	37.7	11.8	11.6	35.4	10.3
May	6.8	6.0	6.4	18.7	5.7	5.6	15.2	5.0	12.8	13.7	36.5	12.3	11.9	31.7	10.8
June	6.9	6.1	6.5	19.0	5.8	5.7	15.1	5.1	12.7	13.7	36.5	12.2	11.8	30.9	10.8
July	6.8	6.1	6.6	19.4	5.9	5.5	16.5	4.9	11.9	12.8	32.5	11.7	11.0	37.0	9.6
Aug	6.8	6.1	6.4	16.9	5.9	5.6	15.5	5.0	12.4	13.0	36.7	11.6	11.8	41.4	10.5
Sept	6.8	6.1	6.6	16.9	6.1	5.4	14.3	4.9	12.3	12.9	40.7	11.1	11.7	35.9	10.4
Oct	6.9	6.1	6.5	16.9	5.9	5.6	15.8	5.0	12.8	12.4	36.1	11.0	13.1	42.1	11.6
Nov	6.9	6.2	6.5	17.4	5.9	5.8	15.9	5.1	12.3	12.1	36.4	10.7	12.4	33.8	11.3
Dec	7.1	6.3	6.6	18.0	6.0	6.1	16.6	5.4	12.7	12.9	35.7	11.5	12.5	36.3	11.3

[1] Unemployed as percent of civilian labor force in group specified.

Note.—See Note, Table B–37.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–39.—*Unemployment by duration and reason, 1947–91*

[Thousands of persons, except as noted; monthly data seasonally adjusted [1]]

Year or month	Unemployment	Duration of unemployment						Reason for unemployment			
		Less than 5 weeks	5–14 weeks	15–26 weeks	27 weeks and over	Average (mean) duration (weeks)	Median duration (weeks)	Job losers	Job leavers	Reentrants	New entrants
1947	2,311	1,210	704	234	164	.....	.....	.....	.....	.....	.....
1948	2,276	1,300	669	193	116	8.6	.....	.....	.....	.....	.....
1949	3,637	1,756	1,194	428	256	10.0	.....	.....	.....	.....	.....
1950	3,288	1,450	1,055	425	357	12.1	.....	.....	.....	.....	.....
1951	2,055	1,177	574	166	137	9.7	.....	.....	.....	.....	.....
1952	1,883	1,135	516	148	84	8.4	.....	.....	.....	.....	.....
1953	1,834	1,142	482	132	78	8.0	.....	.....	.....	.....	.....
1954	3,532	1,605	1,116	495	317	11.8	.....	.....	.....	.....	.....
1955	2,852	1,335	815	366	336	13.0	.....	.....	.....	.....	.....
1956	2,750	1,412	805	301	232	11.3	.....	.....	.....	.....	.....
1957	2,859	1,408	891	321	239	10.5	.....	.....	.....	.....	.....
1958	4,602	1,753	1,396	785	667	13.9	.....	.....	.....	.....	.....
1959	3,740	1,585	1,114	469	571	14.4	.....	.....	.....	.....	.....
1960	3,852	1,719	1,176	503	454	12.8	.....	.....	.....	.....	.....
1961	4,714	1,806	1,376	728	804	15.6	.....	.....	.....	.....	.....
1962	3,911	1,663	1,134	534	585	14.7	.....	.....	.....	.....	.....
1963	4,070	1,751	1,231	535	553	14.0	.....	.....	.....	.....	.....
1964	3,786	1,697	1,117	491	482	13.3	.....	.....	.....	.....	.....
1965	3,366	1,628	983	404	351	11.8	.....	.....	.....	.....	.....
1966	2,875	1,573	779	287	239	10.4	.....	.....	.....	.....	.....
1967 [2]	2,975	1,634	893	271	177	8.7	.....	1,229	438	945	396
1968	2,817	1,594	810	256	156	8.4	4.5	1,070	431	909	407
1969	2,832	1,629	827	242	133	7.8	4.4	1,017	436	965	413
1970	4,093	2,139	1,290	428	235	8.6	4.9	1,811	550	1,228	504
1971	5,016	2,245	1,585	668	519	11.3	6.3	2,323	590	1,472	630
1972	4,882	2,242	1,472	601	566	12.0	6.2	2,108	641	1,456	677
1973	4,365	2,224	1,314	483	343	10.0	5.2	1,694	683	1,340	649
1974	5,156	2,604	1,597	574	381	9.8	5.2	2,242	768	1,463	681
1975	7,929	2,940	2,484	1,303	1,203	14.2	8.4	4,386	827	1,892	823
1976	7,406	2,844	2,196	1,018	1,348	15.8	8.2	3,679	903	1,928	895
1977	6,991	2,919	2,132	913	1,028	14.3	7.0	3,166	909	1,963	953
1978	6,202	2,865	1,923	766	648	11.9	5.9	2,585	874	1,857	885
1979	6,137	2,950	1,946	706	535	10.8	5.4	2,635	880	1,806	817
1980	7,637	3,295	2,470	1,052	820	11.9	6.5	3,947	891	1,927	872
1981	8,273	3,449	2,539	1,122	1,162	13.7	6.9	4,267	923	2,102	981
1982	10,678	3,883	3,311	1,708	1,776	15.6	8.7	6,268	840	2,384	1,185
1983	10,717	3,570	2,937	1,652	2,559	20.0	10.1	6,258	830	2,412	1,216
1984	8,539	3,350	2,451	1,104	1,634	18.2	7.9	4,421	823	2,184	1,110
1985	8,312	3,498	2,509	1,025	1,280	15.6	6.8	4,139	877	2,256	1,039
1986	8,237	3,448	2,557	1,045	1,187	15.0	6.9	4,033	1,015	2,160	1,029
1987	7,425	3,246	2,196	943	1,040	14.5	6.5	3,566	965	1,974	920
1988	6,701	3,084	2,007	801	809	13.5	5.9	3,092	983	1,809	816
1989	6,528	3,174	1,978	730	646	11.9	4.8	2,983	1,024	1,843	677
1990	6,874	3,169	2,201	809	695	12.1	5.4	3,322	1,014	1,883	654
1991	8,426	3,380	2,724	1,225	1,098	13.8	6.9	4,608	979	2,087	753
1990: Jan	6,579	3,120	2,032	773	650	12.0	5.1	3,127	1,027	1,765	653
Feb	6,567	3,114	2,049	745	636	11.8	5.3	3,078	1,015	1,826	685
Mar	6,466	3,147	2,015	712	638	11.9	5.0	3,017	1,000	1,844	658
Apr	6,685	3,181	2,123	716	671	11.8	5.0	3,101	1,169	1,795	637
May	6,589	3,038	2,192	768	626	11.8	5.3	3,122	1,000	1,801	666
June	6,474	3,090	2,054	758	639	11.8	5.2	3,139	986	1,825	548
July	6,775	3,142	2,167	800	692	12.0	5.3	3,168	1,016	1,945	648
Aug	7,044	3,305	2,128	833	731	12.3	5.3	3,407	994	1,865	677
Sept	7,140	3,114	2,444	872	759	12.4	6.0	3,543	966	1,976	665
Oct	7,222	3,177	2,401	898	711	12.1	5.9	3,636	979	1,919	673
Nov	7,470	3,316	2,379	965	805	12.5	5.8	3,852	989	1,937	666
Dec	7,668	3,316	2,562	966	808	12.5	5.9	3,880	1,044	2,112	666
1991: Jan	7,763	3,392	2,527	1,007	862	12.5	5.9	4,080	914	2,036	681
Feb	8,130	3,417	2,694	1,066	919	12.9	6.3	4,474	993	2,010	649
Mar	8,416	3,458	2,803	1,199	945	13.0	6.5	4,587	1,055	2,076	708
Apr	8,256	3,285	2,708	1,185	995	13.4	6.9	4,456	993	2,059	741
May	8,529	3,596	2,711	1,188	1,025	13.1	6.6	4,571	1,029	2,159	763
June	8,615	3,413	2,816	1,372	1,116	14.0	6.9	4,748	1,072	2,120	742
July	8,475	3,370	2,737	1,234	1,121	13.9	6.8	4,659	987	2,065	800
Aug	8,520	3,386	2,686	1,258	1,159	14.1	7.2	4,690	892	2,107	773
Sept	8,501	3,344	2,798	1,260	1,162	14.2	7.4	4,805	946	2,036	783
Oct	8,641	3,300	2,774	1,415	1,155	14.6	7.4	4,782	986	2,100	813
Nov	8,602	3,289	2,721	1,300	1,323	14.9	7.7	4,696	987	2,108	774
Dec	8,891	3,307	2,764	1,372	1,471	15.3	7.8	4,990	913	2,164	811

[1] Because of independent seasonal adjustment of the various series, detail will not add to totals.
[2] Data for 1967 by reason for unemployment are not strictly comparable with those for later years and the total by reason is not equal to total unemployment.

Note.—Data relate to persons 16 years of age and over.
See footnote 6 and Note, Table B–30.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–40.—*Unemployment insurance programs, selected data, 1960–91*

Year or month	All programs			State programs					
	Covered employment[1]	Insured unemployment (weekly average)[2 3]	Total benefits paid (millions of dollars)[2 4]	Insured unemployment	Initial claims	Exhaustions[5]	Insured unemployment as percent of covered employment	Benefits paid: Total (millions of dollars)[4]	Benefits paid: Average weekly check (dollars)[6]
	Thousands			Weekly average; thousands					
1960	46,334	2,071	3,022.8	1,908	331	31	4.8	2,726.7	32.87
1961	46,266	2,994	4,358.1	2,290	350	46	5.6	3,422.7	33.80
1962	47,776	1,946	3,145.1	1,783	302	32	4.4	2,675.4	34.56
1963	48,434	[7]1,973	3,025.9	[7]1,806	[7]298	30	4.3	2,774.7	35.27
1964	49,637	1,753	2,749.2	1,605	268	26	3.8	2,522.1	35.92
1965	51,580	1,450	2,360.4	1,328	232	21	3.0	2,166.0	37.19
1966	54,739	1,129	1,890.9	1,061	203	15	2.3	1,771.3	39.75
1967	56,342	1,270	2,221.5	1,205	226	17	2.5	2,092.3	41.25
1968	57,977	1,187	2,191.0	1,111	201	16	2.2	2,031.6	43.43
1969	59,999	1,177	2,298.6	1,101	200	16	2.1	2,127.9	46.17
1970	59,526	2,070	4,209.3	1,805	296	25	3.4	3,848.5	50.34
1971	59,375	2,608	6,154.0	2,150	295	39	4.1	4,957.0	54.02
1972	66,458	2,192	5,491.1	1,848	261	35	3.5	4,471.0	56.76
1973	69,897	1,793	4,517.3	1,632	247	29	2.7	4,007.6	59.00
1974	72,451	2,558	6,933.9	2,262	363	37	3.5	5,974.9	64.25
1975	71,037	4,937	16,802.4	3,986	478	81	6.0	11,754.7	70.23
1976	73,459	3,846	12,344.8	2,991	386	63	4.6	8,974.5	75.16
1977	76,419	3,308	10,998.9	2,655	375	55	3.9	8,357.2	78.79
1978	88,804	2,645	9,006.9	2,359	346	39	3.3	7,717.2	83.67
1979	92,062	2,592	9,401.3	2,434	388	39	2.9	8,612.9	89.67
1980	92,659	3,837	16,175.4	3,350	488	59	3.9	13,761.1	98.95
1981	93,300	3,410	15,287.1	3,047	460	57	3.5	13,262.1	106.70
1982	91,628	4,594	23,774.8	4,061	583	80	4.6	20,649.5	119.37
1983	91,898	3,775	20,206.2	3,396	438	80	3.9	17,762.8	123.59
1984	96,474	2,561	13,109.6	2,476	377	50	2.8	12,594.7	123.47
1985	99,186	2,693	15,056.3	2,611	396	50	2.9	14,130.8	128.23
1986	101,099	2,746	16,292.5	2,650	378	52	2.8	15,329.3	135.72
1987	103,933	2,401	14,501.0	2,332	328	46	2.4	13,606.8	139.90
1988	107,157	2,135	13,694.4	2,081	310	38	2.0	12,564.7	144.97
1989	109,926	2,205	14,957.0	2,158	330	37	2.1	13,760.3	151.73
1990	[8]111,494	2,575	19,640.2	2,522	388	45	2.4	18,249.5	161.56
1991 *p*		3,408		3,344	449	67			170.08
				**	**		**		
1990: Jan		3,120	1,883.5	2,400	376	44	2.3	1,843.6	158.53
Feb		2,989	1,676.1	2,386	365	42	2.3	1,636.7	160.44
Mar		2,822	1,759.6	2,396	354	43	2.3	1,716.1	159.60
Apr		2,593	1,540.3	2,384	350	47	2.3	1,502.5	162.02
May		2,320	1,502.3	2,377	348	45	2.3	1,466.7	162.02
June		2,209	1,297.1	2,419	355	44	2.3	1,265.4	161.91
July		2,435	1,427.9	2,489	368	47	2.4	1,397.2	159.91
Aug		2,287	1,462.4	2,520	374	44	2.4	1,430.0	160.46
Sept		2,188	1,207.2	2,573	387	42	2.5	1,178.0	162.11
Oct		2,285	1,439.8	2,704	419	43	2.6	1,401.9	163.89
Nov		2,510	1,524.9	2,851	454	43	2.7	1,482.4	163.56
Dec		3,040	1,782.8	2,977	470	49	2.8	1,736.8	165.25
1991: Jan		4,015	2,585.9	3,136	460	58	3.0	2,529.5	166.83
Feb		4,090	2,430.7	3,303	498	57	3.1	2,382.2	169.51
Mar		4,060	2,575.3	3,467	511	62	3.3	2,525.6	170.45
Apr		3,864	2,586.3	3,490	460	70	3.3	2,485.7	170.01
May		3,262	2,329.1	3,475	433	68	3.3	2,242.0	170.47
June		3,177	1,939.2	3,406	421	69	3.2	1,867.4	170.49
July		3,270	2,196.7	3,336	418	76	3.1	2,134.6	169.16
Aug		2,999	1,959.7	3,283	415	72	3.1	1,911.0	169.02
Sept		2,795	1,727.0	3,267	415	66	3.1	1,681.4	170.70
Oct		2,795	1,884.5	3,273	418	66	3.1	1,831.1	171.27
Nov		2,846	1,729.5	3,313	448	62	3.1	1,681.0	170.79
Dec *p*		3,596	2,298.7	3,317	462	70	3.1	2,232.9	173.29

**Monthly data are seasonally adjusted.

[1] Includes persons under the State, UCFE (Federal employee, effective January 1955), and RRB (Railroad Retirement Board) programs. Beginning October 1958, also includes the UCX program (unemployment compensation for ex-servicemen).

[2] Includes State, UCFE, RR, UCX, UCV (unemployment compensation for veterans, October 1952–January 1960), and SRA (Servicemen's Readjustment Act, September 1944–September 1951) programs. Also includes Federal and State extended benefit programs. Does not include FSB (Federal supplemental benefits), SUA (special unemployment assistance), and Federal Supplemental Compensation programs.

[3] Covered workers who have completed at least 1 week of unemployment.

[4] Annual data are net amounts and monthly data are gross amounts.

[5] Individuals receiving final payments in benefit year.

[6] For total unemployment only.

[7] Programs include Puerto Rican sugarcane workers for initial claims and insured unemployment beginning July 1963.

[8] Latest data available for all programs combined. Workers covered by State programs account for about 97 percent of wage and salary earners.

Source: Department of Labor, Employment and Training Administration.

TABLE B–41.—*Employees on nonagricultural payrolls, by major industry, 1946–91*

[Thousands of persons; monthly data seasonally adjusted]

Year or month	Total	Goods-producing industries					
		Total	Mining	Construction	Manufacturing		
					Total	Durable goods	Nondurable goods
1946	41,652	17,248	862	1,683	14,703	7,785	6,918
1947	43,857	18,509	955	2,009	15,545	8,358	7,187
1948	44,866	18,774	994	2,198	15,582	8,298	7,285
1949	43,754	17,565	930	2,194	14,441	7,462	6,979
1950	45,197	18,506	901	2,364	15,241	8,066	7,175
1951	47,819	19,959	929	2,637	16,393	9,059	7,334
1952	48,793	20,198	898	2,668	16,632	9,320	7,313
1953	50,202	21,074	866	2,659	17,549	10,080	7,468
1954	48,990	19,751	791	2,646	16,314	9,101	7,213
1955	50,641	20,513	792	2,839	16,882	9,511	7,370
1956	52,369	21,104	822	3,039	17,243	9,802	7,442
1957	52,853	20,964	828	2,962	17,174	9,825	7,351
1958	51,324	19,513	751	2,817	15,945	8,801	7,144
1959	53,268	20,411	732	3,004	16,675	9,342	7,333
1960	54,189	20,434	712	2,926	16,796	9,429	7,367
1961	53,999	19,857	672	2,859	16,326	9,041	7,285
1962	55,549	20,451	650	2,948	16,853	9,450	7,403
1963	56,653	20,640	635	3,010	16,995	9,586	7,410
1964	58,283	21,005	634	3,097	17,274	9,785	7,489
1965	60,765	21,926	632	3,232	18,062	10,374	7,688
1966	63,901	23,158	627	3,317	19,214	11,250	7,963
1967	65,803	23,308	613	3,248	19,447	11,408	8,039
1968	67,897	23,737	606	3,350	19,781	11,594	8,187
1969	70,384	24,361	619	3,575	20,167	11,862	8,304
1970	70,880	23,578	623	3,588	19,367	11,176	8,190
1971	71,214	22,935	609	3,704	18,623	10,604	8,019
1972	73,675	23,668	628	3,889	19,151	11,022	8,129
1973	76,790	24,893	642	4,097	20,154	11,863	8,291
1974	78,265	24,794	697	4,020	20,077	11,897	8,181
1975	76,945	22,600	752	3,525	18,323	10,662	7,661
1976	79,382	23,352	779	3,576	18,997	11,051	7,946
1977	82,471	24,346	813	3,851	19,682	11,570	8,112
1978	86,697	25,585	851	4,229	20,505	12,245	8,259
1979	89,823	26,461	958	4,463	21,040	12,730	8,310
1980	90,406	25,658	1,027	4,346	20,285	12,159	8,127
1981	91,156	25,497	1,139	4,188	20,170	12,082	8,089
1982	89,566	23,813	1,128	3,905	18,781	11,014	7,767
1983	90,200	23,334	952	3,948	18,434	10,707	7,726
1984	94,496	24,727	966	4,383	19,378	11,479	7,899
1985	97,519	24,859	927	4,673	19,260	11,464	7,796
1986	99,525	24,558	777	4,816	18,965	11,203	7,761
1987	102,200	24,708	717	4,967	19,024	11,167	7,858
1988	105,536	25,173	713	5,110	19,350	11,381	7,969
1989	108,329	25,322	693	5,187	19,442	11,420	8,022
1990	109,971	24,958	711	5,136	19,111	11,115	7,995
1991 [p]	108,975	23,820	697	4,696	18,427	10,557	7,870
1990: Jan	109,416	25,190	704	5,271	19,215	11,185	8,030
Feb	109,792	25,339	706	5,322	19,311	11,289	8,022
Mar	109,933	25,255	706	5,262	19,287	11,270	8,017
Apr	109,934	25,165	709	5,202	19,254	11,230	8,024
May	110,304	25,141	713	5,203	19,225	11,212	8,013
June	110,435	25,093	718	5,182	19,193	11,189	8,004
July	110,269	25,027	717	5,145	19,165	11,160	8,005
Aug	110,160	24,937	713	5,111	19,113	11,111	8,002
Sept	110,113	24,842	711	5,088	19,043	11,049	7,994
Oct	109,982	24,705	710	5,022	18,973	11,000	7,973
Nov	109,761	24,481	712	4,962	18,807	10,867	7,940
Dec	109,621	24,375	715	4,911	18,749	10,828	7,921
1991: Jan	109,418	24,181	713	4,797	18,671	10,770	7,901
Feb	109,160	24,039	715	4,792	18,532	10,652	7,880
Mar	108,902	23,877	714	4,720	18,443	10,584	7,859
Apr	108,736	23,794	710	4,688	18,396	10,560	7,836
May	108,887	23,847	706	4,715	18,426	10,575	7,851
June	108,885	23,792	704	4,710	18,378	10,534	7,844
July	108,859	23,798	701	4,695	18,402	10,546	7,856
Aug	108,971	23,826	693	4,691	18,442	10,553	7,889
Sept	109,066	23,797	684	4,699	18,414	10,531	7,883
Oct	109,073	23,727	679	4,671	18,377	10,493	7,884
Nov [p]	108,808	23,595	674	4,583	18,338	10,459	7,879
Dec [p]	108,839	23,572	670	4,596	18,306	10,425	7,881

Note.—Data in Tables B–41 and B–42 are based on reports from employing establishments and relate to full- and part-time wage and salary workers in nonagricultural establishments who received pay for any part of the pay period which includes the 12th of the month. Not comparable with labor force data (Tables B–30 through B–39), which include proprietors, self-employed persons, domestic servants,

See next page for continuation of table.

TABLE B–41.—*Employees on nonagricultural payrolls, by major industry, 1946–91*—Continued

[Thousands of persons; monthly data seasonally adjusted]

Year or month	Service-producing industries								
	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government		
							Total	Federal	State and local
1946	24,404	4,061	2,298	6,077	1,675	4,697	5,595	2,254	3,341
1947	25,348	4,166	2,478	6,477	1,728	5,025	5,474	1,892	3,582
1948	26,092	4,189	2,612	6,659	1,800	5,181	5,650	1,863	3,787
1949	26,189	4,001	2,610	6,654	1,828	5,239	5,856	1,908	3,948
1950	26,691	4,034	2,643	6,743	1,888	5,356	6,026	1,928	4,098
1951	27,860	4,226	2,735	7,007	1,956	5,547	6,389	2,302	4,087
1952	28,595	4,248	2,821	7,184	2,035	5,699	6,609	2,420	4,188
1953	29,128	4,290	2,862	7,385	2,111	5,835	6,645	2,305	4,340
1954	29,239	4,084	2,875	7,360	2,200	5,969	6,751	2,188	4,563
1955	30,128	4,141	2,934	7,601	2,298	6,240	6,914	2,187	4,727
1956	31,266	4,244	3,027	7,831	2,389	6,497	7,278	2,209	5,069
1957	31,889	4,241	3,037	7,848	2,438	6,708	7,616	2,217	5,399
1958	31,811	3,976	2,989	7,761	2,481	6,765	7,839	2,191	5,648
1959	32,857	4,011	3,092	8,035	2,549	7,087	8,083	2,233	5,850
1960	33,755	4,004	3,153	8,238	2,628	7,378	8,353	2,270	6,083
1961	34,142	3,903	3,142	8,195	2,688	7,619	8,594	2,279	6,315
1962	35,098	3,906	3,207	8,359	2,754	7,982	8,890	2,340	6,550
1963	36,013	3,903	3,258	8,520	2,830	8,277	9,225	2,358	6,868
1964	37,278	3,951	3,347	8,812	2,911	8,660	9,596	2,348	7,248
1965	38,839	4,036	3,477	9,239	2,977	9,036	10,074	2,378	7,696
1966	40,743	4,158	3,608	9,637	3,058	9,498	10,784	2,564	8,220
1967	42,495	4,268	3,700	9,906	3,185	10,045	11,391	2,719	8,672
1968	44,160	4,318	3,791	10,308	3,337	10,567	11,839	2,737	9,102
1969	46,023	4,442	3,919	10,785	3,512	11,169	12,195	2,758	9,437
1970	47,302	4,515	4,006	11,034	3,645	11,548	12,554	2,731	9,823
1971	48,278	4,476	4,014	11,338	3,772	11,797	12,881	2,696	10,185
1972	50,007	4,541	4,127	11,822	3,908	12,276	13,334	2,684	10,649
1973	51,897	4,656	4,291	12,315	4,046	12,857	13,732	2,663	11,068
1974	53,471	4,725	4,447	12,539	4,148	13,441	14,170	2,724	11,446
1975	54,345	4,542	4,430	12,630	4,165	13,892	14,686	2,748	11,937
1976	56,030	4,582	4,562	13,193	4,271	14,551	14,871	2,733	12,138
1977	58,125	4,713	4,723	13,792	4,467	15,302	15,127	2,727	12,399
1978	61,113	4,923	4,985	14,556	4,724	16,252	15,672	2,753	12,919
1979	63,363	5,136	5,221	14,972	4,975	17,112	15,947	2,773	13,174
1980	64,748	5,146	5,292	15,018	5,160	17,890	16,241	2,866	13,375
1981	65,659	5,165	5,376	15,172	5,298	18,619	16,031	2,772	13,259
1982	65,753	5,082	5,296	15,161	5,341	19,036	15,837	2,739	13,098
1983	66,866	4,954	5,286	15,595	5,468	19,694	15,869	2,774	13,096
1984	69,769	5,159	5,574	16,526	5,689	20,797	16,024	2,807	13,216
1985	72,660	5,238	5,736	17,336	5,955	21,999	16,394	2,875	13,519
1986	74,967	5,255	5,774	17,909	6,283	23,053	16,693	2,899	13,794
1987	77,492	5,372	5,865	18,462	6,547	24,235	17,010	2,943	14,067
1988	80,363	5,527	6,055	19,077	6,649	25,669	17,386	2,971	14,415
1989	83,007	5,644	6,221	19,549	6,695	27,120	17,779	2,988	14,791
1990	85,014	5,826	6,205	19,683	6,739	28,240	18,322	3,085	15,237
1991 [P]	85,154	5,823	6,072	19,340	6,707	28,778	18,434	2,965	15,469
1990: Jan	84,226	5,776	6,227	19,691	6,717	27,778	18,037	3,002	15,035
Feb	84,453	5,790	6,215	19,718	6,732	27,916	18,082	3,007	15,075
Mar	84,678	5,794	6,210	19,702	6,730	28,036	18,206	3,092	15,114
Apr	84,769	5,798	6,206	19,689	6,732	28,045	18,299	3,153	15,146
May	85,163	5,820	6,212	19,701	6,739	28,151	18,540	3,347	15,193
June	85,342	5,831	6,220	19,714	6,746	28,254	18,577	3,337	15,240
July	85,242	5,832	6,215	19,710	6,745	28,310	18,430	3,162	15,268
Aug	85,223	5,839	6,211	19,714	6,750	28,388	18,321	3,038	15,283
Sept	85,271	5,854	6,204	19,698	6,750	28,437	18,328	2,994	15,334
Oct	85,277	5,855	6,190	19,663	6,746	28,479	18,344	2,980	15,364
Nov	85,280	5,852	6,180	19,628	6,740	28,525	18,355	2,964	15,391
Dec	85,246	5,867	6,166	19,579	6,733	28,548	18,353	2,948	15,405
1991: Jan	85,237	5,866	6,138	19,542	6,736	28,590	18,365	2,952	15,413
Feb	85,121	5,834	6,119	19,464	6,732	28,583	18,389	2,951	15,438
Mar	85,025	5,824	6,105	19,378	6,735	28,576	18,407	2,951	15,456
Apr	84,942	5,814	6,086	19,324	6,718	28,576	18,424	2,953	15,471
May	85,040	5,819	6,085	19,339	6,712	28,645	18,440	2,952	15,488
June	85,093	5,809	6,068	19,345	6,703	28,712	18,456	2,971	15,485
July	85,061	5,809	6,064	19,347	6,688	28,733	18,420	2,963	15,457
Aug	85,145	5,820	6,050	19,343	6,687	28,831	18,414	2,967	15,447
Sept	85,269	5,829	6,049	19,338	6,692	28,937	18,424	2,979	15,445
Oct	85,346	5,828	6,047	19,288	6,697	29,019	18,467	2,983	15,484
Nov [P]	85,213	5,819	6,032	19,196	6,692	29,009	18,465	2,979	15,486
Dec [P]	85,267	5,796	6,017	19,180	6,696	29,047	18,531	2,980	15,551

Note (cont'd).—and unpaid family workers; which count persons as employed when they are not at work because of industrial disputes, bad weather, etc., even if they are not paid for the time off; and which are based on a sample of the working-age population. For description and details of the various establishment data, see "Employment and Earnings."

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–42.—*Average weekly hours and hourly and weekly earnings in private nonagricultural industries, 1955–91*

[For production or nonsupervisory workers; monthly data seasonally adjusted, except as noted]

Year or month	Average weekly hours			Average hourly earnings			Average weekly earnings					Percent change from a year earlier, total private [3]	
		Manufacturing		Total private [1]			Total private [1]						
	Total private [1]	Total	Overtime	Current dollars	1982 dollars [2]	Manufacturing	Current dollars	1982 dollars [2]	Manufacturing (current dollars)	Construction (current dollars)	Retail trade (current dollars)	Current dollars	1982 dollars [2]
1955	39.6	40.7	.....	$1.71	$6.15	$1.85	$67.72	$243.60	$75.30	$90.90	$48.75	5.0	5.3
1956	39.3	40.4	2.8	1.80	6.38	1.95	70.74	250.85	78.78	96.38	50.18	4.5	3.0
1957	38.8	39.8	2.3	1.89	6.47	2.04	73.33	251.13	81.19	100.27	52.20	3.7	.1
1958	38.5	39.2	2.0	1.95	6.50	2.10	75.08	250.27	82.32	103.78	54.10	2.4	−.3
1959	39.0	40.3	2.7	2.02	6.69	2.19	78.78	260.86	88.26	108.41	56.15	4.9	4.2
1960	38.6	39.7	2.5	2.09	6.79	2.26	80.67	261.92	89.72	112.67	57.76	2.4	.4
1961	38.6	39.8	2.4	2.14	6.88	2.32	82.60	265.59	92.34	118.08	58.66	2.4	1.4
1962	38.7	40.4	2.8	2.22	7.07	2.39	85.91	273.60	96.56	122.47	60.96	4.0	3.0
1963	38.8	40.5	2.8	2.28	7.17	2.45	88.46	278.18	99.23	127.19	62.66	3.0	1.7
1964	38.7	40.7	3.1	2.36	7.33	2.53	91.33	283.63	102.97	132.06	64.81	3.2	2.0
1965	38.8	41.2	3.6	2.46	7.52	2.61	95.45	291.90	107.53	138.38	66.65	4.5	2.9
1966	38.6	41.4	3.9	2.56	7.62	2.71	98.82	294.11	112.19	146.26	68.50	3.5	.8
1967	38.0	40.6	3.4	2.68	7.72	2.82	101.84	293.49	114.49	154.95	70.86	3.1	−.2
1968	37.8	40.7	3.6	2.85	7.89	3.01	107.73	298.42	122.51	164.49	74.93	5.8	1.7
1969	37.7	40.6	3.6	3.04	7.98	3.19	114.61	300.81	129.51	181.54	78.67	6.4	.8
1970	37.1	39.8	3.0	3.23	8.03	3.35	119.83	298.08	133.33	195.45	82.31	4.6	−.9
1971	36.9	39.9	2.9	3.45	8.21	3.57	127.31	303.12	142.44	211.67	87.51	6.2	1.7
1972	37.0	40.5	3.5	3.70	8.53	3.82	136.90	315.44	154.71	221.19	92.03	7.5	4.1
1973	36.9	40.7	3.8	3.94	8.55	4.09	145.39	315.38	166.46	235.89	96.45	6.2	−.0
1974	36.5	40.0	3.3	4.24	8.28	4.42	154.76	302.27	176.80	249.25	102.55	6.4	−4.2
1975	36.1	39.5	2.6	4.53	8.12	4.83	163.53	293.06	190.79	266.08	108.63	5.7	−3.0
1976	36.1	40.1	3.1	4.86	8.24	5.22	175.45	297.37	209.32	283.73	114.56	7.3	1.5
1977	36.0	40.3	3.5	5.25	8.36	5.68	189.00	300.96	228.90	295.65	121.54	7.7	1.2
1978	35.8	40.4	3.6	5.69	8.40	6.17	203.70	300.89	249.27	318.69	130.14	7.8	−.0
1979	35.7	40.2	3.3	6.16	8.17	6.70	219.91	291.66	269.34	342.99	138.83	8.0	−3.1
1980	35.3	39.7	2.8	6.66	7.78	7.27	235.10	274.65	288.62	367.78	147.24	6.9	−5.8
1981	35.2	39.8	2.8	7.25	7.69	7.99	255.20	270.63	318.00	399.26	157.99	8.5	−1.5
1982	34.8	38.9	2.3	7.68	7.68	8.49	267.26	267.26	330.26	426.82	163.83	4.7	−1.2
1983	35.0	40.1	3.0	8.02	7.79	8.83	280.70	272.52	354.08	442.97	171.13	5.0	2.0
1984	35.2	40.7	3.4	8.32	7.80	9.19	292.86	274.73	374.03	458.51	174.47	4.3	.8
1985	34.9	40.5	3.3	8.57	7.77	9.54	299.09	271.16	386.37	464.46	174.81	2.1	−1.3
1986	34.8	40.7	3.4	8.76	7.81	9.73	304.85	271.94	396.01	466.75	175.80	1.9	.3
1987	34.8	41.0	3.7	8.98	7.73	9.91	312.50	269.16	406.31	480.44	178.80	2.5	−1.0
1988	34.7	41.1	3.9	9.28	7.69	10.19	322.02	266.79	418.81	495.73	183.62	3.0	−.9
1989	34.6	41.0	3.8	9.66	7.64	10.48	334.24	264.22	429.68	513.17	188.72	3.8	−1.0
1990	34.5	40.8	3.6	10.02	7.53	10.83	345.69	259.72	441.86	526.40	194.69	3.4	−1.7
1991 [p]	34.3	40.7	3.6	10.34	7.46	11.18	354.66	255.89	455.03	533.78	200.20	2.6	−1.5
1990: Jan	34.5	40.7	3.7	9.82	7.55	10.56	338.79	260.41	429.79	527.87	192.10	2.6	−2.5
Feb	34.5	40.8	3.6	9.88	7.56	10.67	340.86	260.80	435.34	526.30	192.38	3.8	−1.3
Mar	34.5	40.9	3.7	9.92	7.56	10.73	342.24	260.85	438.86	527.23	193.92	3.6	−1.6
Apr	34.5	40.7	3.5	9.95	7.57	10.75	343.28	261.25	437.53	511.63	194.21	2.4	−2.0
May	34.5	40.9	3.8	9.98	7.58	10.80	344.31	261.44	441.72	526.01	194.11	4.0	−.1
June	34.6	40.9	3.8	10.02	7.57	10.84	346.69	261.85	443.36	530.53	195.65	4.4	−.1
July	34.5	40.9	3.7	10.05	7.57	10.87	346.73	261.09	444.58	522.02	195.94	3.4	−1.0
Aug	34.5	40.9	3.8	10.07	7.51	10.89	347.42	259.27	445.40	528.31	195.16	3.6	−1.9
Sept	34.6	40.9	3.7	10.10	7.48	10.91	349.46	258.67	446.22	532.22	196.81	4.5	−1.5
Oct	34.2	40.7	3.6	10.10	7.43	10.96	345.42	254.17	446.07	515.59	193.69	2.2	−3.8
Nov	34.4	40.6	3.5	10.13	7.43	10.96	348.47	255.66	444.98	530.46	196.02	3.3	−2.8
Dec	34.6	40.7	3.5	10.17	7.44	10.99	351.88	257.41	447.29	536.77	196.31	4.0	−2.0
1991: Jan	34.1	40.4	3.4	10.18	7.42	11.02	347.14	253.02	445.21	523.13	194.14	2.4	−2.9
Feb	34.3	40.3	3.3	10.20	7.43	11.03	349.86	254.81	444.51	533.65	196.48	2.4	−2.5
Mar	34.2	40.3	3.3	10.24	7.46	11.05	350.21	255.07	445.32	526.67	197.34	2.3	−2.2
Apr	34.0	40.2	3.3	10.28	7.47	11.12	349.52	253.83	447.02	532.50	197.95	2.5	−2.1
May	34.3	40.4	3.4	10.32	7.47	11.15	353.98	256.32	450.46	533.40	200.33	2.9	−1.9
June	34.6	40.8	3.7	10.37	7.49	11.19	358.80	259.25	456.55	532.64	202.59	3.1	−1.4
July	34.1	40.7	3.7	10.36	7.47	11.22	353.28	254.89	456.65	532.38	199.65	1.9	−2.3
Aug	34.3	41.0	3.8	10.40	7.49	11.25	356.72	257.00	461.25	533.25	201.34	3.0	−.5
Sept	34.5	41.0	3.7	10.41	7.47	11.25	359.15	257.82	461.25	537.73	203.04	2.8	−.3
Oct	34.3	40.9	3.7	10.40	7.46	11.26	356.72	255.90	460.53	536.97	200.50	3.3	.6
Nov [p]	34.4	41.0	3.7	10.43	7.44	11.30	358.79	256.10	463.30	524.90	204.19	3.0	.2
Dec [p]	34.5	41.1	3.8	10.50	7.48	11.32	362.25	258.01	465.25	537.35	202.92	3.1	.3

[1] Also includes other private industry groups shown in Table B–41.
[2] Current dollars divided by the consumer price index for urban wage earners and clerical workers on a 1982=100 base.
[3] Monthly percent changes are based on data not seasonally adjusted.

Note.—See Note, Table B–41.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–43.—*Employment cost index, private industry, 1979–91*

Year and month	Total private			Goods-producing			Service-producing			Manufacturing			Nonmanufacturing		
	Total compensation	Wages and salaries	Benefits [1]	Total compensation	Wages and salaries	Benefits [1]	Total compensation	Wages and salaries	Benefits [1]	Total compensation	Wages and salaries	Benefits [1]	Total compensation	Wages and salaries	Benefits [1]
	Index, June 1989=100; not seasonally adjusted														
December:															
1979	59.1	61.5	53.2	60.7	63.7	54.6	57.7	60.0	51.9	60.1	63.0	54.2	58.5	60.8	52.5
1980	64.8	67.1	59.4	66.7	69.7	60.5	63.3	65.3	58.4	66.0	68.9	59.9	64.2	66.2	59.1
1981	71.2	73.0	66.6	73.3	75.7	68.2	69.5	71.1	65.1	72.5	74.9	67.5	70.4	72.1	66.1
1982	75.8	77.6	71.4	77.8	80.0	73.2	74.1	75.9	69.6	76.9	79.1	72.4	75.1	76.8	70.6
1983	80.1	81.4	76.7	81.6	83.2	78.3	78.9	80.2	75.2	80.8	82.5	77.5	79.6	81.0	76.2
1984	84.0	84.8	81.7	85.4	86.4	83.2	82.9	83.7	80.4	85.0	86.1	82.7	83.4	84.2	81.1
1985	87.3	88.3	84.6	88.2	89.4	85.7	86.6	87.7	83.6	87.8	89.2	85.0	87.0	88.0	84.4
1986	90.1	91.1	87.5	91.0	92.3	88.3	89.3	90.3	86.8	90.7	92.1	87.5	89.7	90.6	87.5
1987	93.1	94.1	90.5	93.8	95.2	90.9	92.6	93.4	90.2	93.4	95.2	89.8	92.9	93.7	91.0
1988	97.6	98.0	96.7	97.9	98.2	97.3	97.3	97.8	96.1	97.6	98.1	96.6	97.5	97.8	96.8
1989	102.3	102.0	102.6	102.1	102.0	102.6	102.3	102.2	102.6	102.0	101.9	102.3	102.3	102.2	102.8
1990	107.0	106.1	109.4	107.0	105.8	109.9	107.0	106.3	109.0	107.2	106.2	109.5	106.9	106.1	109.3
1991	111.7	110.0	116.2	111.9	109.7	116.7	111.6	110.2	115.7	112.2	110.3	116.1	111.5	109.8	116.2
1990: Mar	103.9	103.2	105.5	103.9	103.1	105.7	103.8	103.3	105.3	104.0	103.3	105.5	103.8	103.2	105.4
June	105.2	104.5	106.9	105.2	104.2	107.2	105.2	104.6	106.6	105.3	104.5	106.9	105.1	104.5	106.9
Sept	106.2	105.4	108.3	106.2	105.1	108.7	106.2	105.7	107.9	106.4	105.4	108.4	106.2	105.4	108.2
Dec	107.0	106.1	109.4	107.0	105.8	109.9	107.0	106.3	109.0	107.2	106.2	109.5	106.9	106.1	109.3
1991: Mar	108.5	107.3	111.6	108.5	107.0	111.9	108.5	107.5	111.4	108.6	107.4	111.2	108.5	107.3	111.9
June	109.8	108.4	113.5	109.8	108.0	113.9	109.8	108.7	113.0	110.0	108.4	113.3	109.7	108.4	113.5
Sept	111.0	109.3	115.2	111.0	108.7	115.8	111.0	109.7	114.6	111.2	109.3	115.3	110.9	109.3	115.1
Dec	111.7	110.0	116.2	111.9	109.7	116.7	111.6	110.2	115.7	112.2	110.3	116.1	111.5	109.8	116.2
	Index, June 1989=100; seasonally adjusted														
1990: Mar	103.8	103.3	105.2	103.8	103.1	105.4	103.8	103.4	105.0	103.9	103.3	105.1	103.8	103.2	105.1
June	105.0	104.4	106.7	105.1	104.2	107.0	105.0	104.5	106.4	105.2	104.5	106.7	105.0	104.5	106.7
Sept	106.2	105.4	108.3	106.2	105.1	108.7	106.1	105.5	107.9	106.4	105.4	108.4	106.1	105.3	108.2
Dec	107.2	106.2	109.9	107.2	105.8	110.3	107.2	106.5	109.5	107.5	106.2	110.1	107.1	106.2	109.8
1991: Mar	108.5	107.3	111.4	108.4	107.0	111.6	108.5	107.6	111.1	108.5	107.4	110.8	108.5	107.4	111.5
June	109.7	108.4	113.2	109.7	108.0	113.7	109.7	108.6	112.8	109.9	108.4	113.1	109.6	108.4	113.3
Sept	110.8	109.2	115.1	110.8	108.7	115.8	110.8	109.5	114.7	111.2	109.3	115.2	110.8	109.2	115.1
Dec	111.9	110.1	116.7	112.0	109.7	117.2	111.9	110.4	116.4	112.4	110.3	116.7	111.8	109.9	116.8
	Percent change from 12 months earlier, not seasonally adjusted														
December:															
1980	9.6	9.1	11.7	9.9	9.4	10.8	9.7	8.8	12.5	9.8	9.4	10.5	9.7	8.9	12.6
1981	9.9	8.8	12.1	9.9	8.6	12.7	9.8	8.9	11.5	9.8	8.7	12.7	9.7	8.9	11.8
1982	6.5	6.3	7.2	6.1	5.7	7.3	6.6	6.8	6.9	6.1	5.6	7.3	6.7	6.5	6.8
1983	5.7	4.9	7.4	4.9	4.0	7.0	6.5	5.7	8.0	5.1	4.3	7.0	6.0	5.5	7.9
1984	4.9	4.2	6.5	4.7	3.8	6.3	5.1	4.4	6.9	5.2	4.4	6.7	4.8	4.0	6.4
1985	3.9	4.1	3.5	3.3	3.5	3.0	4.5	4.8	4.0	3.3	3.6	2.8	4.3	4.5	4.1
1986	3.2	3.2	3.4	3.2	3.2	3.0	3.1	3.0	3.8	3.3	3.3	2.9	3.1	3.0	3.7
1987	3.3	3.3	3.4	3.1	3.1	2.9	3.7	3.4	3.9	3.0	3.4	2.6	3.6	3.4	4.0
1988	4.8	4.1	6.9	4.4	3.2	7.0	5.1	4.7	6.5	4.5	3.0	7.6	5.0	4.4	6.4
1989	4.8	4.1	6.1	4.3	3.9	5.4	5.1	4.5	6.8	4.5	3.9	5.9	4.9	4.5	6.2
1990	4.6	4.0	6.6	4.8	3.7	7.1	4.6	4.0	6.2	5.1	4.2	7.0	4.5	3.8	6.3
1991	4.4	3.7	6.2	4.6	3.7	6.2	4.3	3.7	6.1	4.7	3.9	6.0	4.3	3.5	6.3
1990: Mar	5.2	4.2	7.2	5.1	4.0	7.1	5.1	4.2	7.2	5.2	4.3	6.8	5.1	4.1	7.3
June	5.2	4.5	6.9	5.2	4.2	7.2	5.2	4.6	6.6	5.3	4.5	6.9	5.1	4.5	6.9
Sept	4.9	4.2	6.8	5.0	4.1	7.1	4.8	4.2	6.4	5.2	4.5	6.7	4.8	3.9	6.7
Dec	4.6	4.0	6.6	4.8	3.7	7.1	4.6	4.0	6.2	5.1	4.2	7.0	4.5	3.8	6.3
1991: Mar	4.4	4.0	5.8	4.4	3.8	5.9	4.5	4.1	5.8	4.4	4.0	5.4	4.5	4.0	6.2
June	4.4	3.7	6.2	4.4	3.6	6.3	4.4	3.9	6.0	4.5	3.7	6.0	4.4	3.7	6.2
Sept	4.5	3.7	6.4	4.5	3.4	6.5	4.5	3.8	6.2	4.5	3.7	6.4	4.4	3.7	6.4
Dec	4.4	3.7	6.2	4.6	3.7	6.2	4.3	3.7	6.1	4.7	3.9	6.0	4.3	3.5	6.3
	Percent change from 3 months earlier, seasonally adjusted														
1990: Mar	1.4	1.1	2.1	1.5	1.1	2.3	1.3	1.0	1.9	1.6	1.4	2.2	1.3	0.9	1.7
June	1.2	1.1	1.4	1.3	1.1	1.5	1.2	1.1	1.3	1.3	1.2	1.5	1.2	1.3	1.5
Sept	1.1	1.0	1.5	1.0	.9	1.6	1.0	1.0	1.4	1.1	.9	1.6	1.0	.8	1.4
Dec	.9	.8	1.5	.9	.7	1.5	1.0	.9	1.5	1.0	.8	1.6	.9	.9	1.5
1991: Mar	1.2	1.0	1.4	1.1	1.1	1.2	1.2	1.0	1.5	.9	1.1	.6	1.3	1.1	1.5
June	1.1	1.0	1.6	1.2	.9	1.9	1.1	.9	1.5	1.3	.9	2.1	1.0	.9	1.6
Sept	1.0	.7	1.7	1.0	.6	1.8	1.0	.8	1.7	1.2	.8	1.9	1.1	.7	1.6
Dec	1.0	.8	1.4	1.1	.9	1.2	1.0	.8	1.5	1.1	.9	1.3	.9	.6	1.5

[1] Employer costs for employee benefits.

Note.—The employment cost index is a measure of the change in the cost of labor, free from the influence of employment shifts among occupations and industries.

Data exclude farm and household workers.

Through December 1981, percent changes are based on unrounded data; thereafter changes are based on indexes as published.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–44.—*Productivity and related data, business sector, 1959–91*

[1982=100; quarterly data seasonally adjusted]

Year or quarter	Output per hour of all persons		Output [1]		Hours of all persons [2]		Compensation per hour [3]		Real compensation per hour [4]		Unit labor costs		Implicit price deflator [5]	
	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector
1959	64.6	69.2	51.5	51.1	79.6	73.8	20.2	21.3	67.0	70.5	31.3	30.7	32.1	31.7
1960	65.6	70.0	52.3	51.9	79.7	74.2	21.1	22.2	68.7	72.3	32.1	31.7	32.6	32.2
1961	68.1	72.2	53.4	53.0	78.5	73.4	21.9	22.9	70.7	74.0	32.2	31.7	32.8	32.4
1962	70.4	74.4	56.1	55.8	79.7	74.9	22.9	23.9	73.2	76.2	32.5	32.0	33.4	33.1
1963	73.3	77.1	58.8	58.4	80.1	75.8	23.8	24.7	75.0	77.9	32.4	32.0	33.7	33.4
1964	76.5	80.0	62.3	62.0	81.4	77.5	25.0	25.8	77.9	80.4	32.7	32.3	34.0	33.8
1965	78.6	81.9	66.0	65.8	83.9	80.4	26.0	26.7	79.6	81.8	33.1	32.6	34.9	34.6
1966	81.0	83.6	69.5	69.5	85.8	83.1	27.8	28.3	82.9	84.2	34.4	33.8	36.0	35.7
1967	83.0	85.4	71.0	70.9	85.6	83.1	29.4	29.9	84.9	86.5	35.4	35.1	37.1	36.9
1968	85.4	87.8	74.1	74.2	86.8	84.5	31.8	32.3	88.2	89.5	37.2	36.8	38.7	38.5
1969	85.9	87.8	76.3	76.3	88.9	87.0	34.1	34.5	89.7	90.7	39.7	39.3	40.5	40.3
1970	87.0	88.6	75.9	75.8	87.2	85.6	36.7	37.0	91.2	92.0	42.2	41.7	42.3	42.1
1971	90.2	91.6	78.3	78.3	86.9	85.4	39.0	39.4	93.0	93.8	43.3	42.9	44.3	44.1
1972	92.6	94.1	83.0	83.0	89.6	88.3	41.5	41.9	95.8	96.7	44.8	44.5	46.2	45.8
1973	95.0	96.4	88.2	88.4	92.8	91.7	45.1	45.4	98.0	98.6	47.5	47.1	49.0	47.9
1974	93.3	94.5	86.7	86.8	92.9	91.8	49.5	49.9	97.0	97.6	53.1	52.8	53.7	52.8
1975	95.5	96.7	85.0	85.0	89.1	88.0	54.5	54.8	97.7	98.3	57.1	56.7	59.0	58.3
1976	98.3	99.2	90.0	90.1	91.5	90.8	59.4	59.5	100.8	101.0	60.5	60.0	62.4	61.9
1977	99.8	100.6	94.9	95.0	95.1	94.5	64.2	64.3	102.3	102.4	64.3	63.9	66.5	66.1
1978	100.4	101.3	100.1	100.5	99.7	99.3	69.9	70.0	103.4	103.6	69.6	69.1	71.8	71.2
1979	99.3	99.9	102.1	102.5	102.8	102.7	76.7	76.7	102.0	101.9	77.2	76.8	78.3	77.5
1980	98.6	99.0	100.5	100.8	101.9	101.8	85.0	84.9	99.5	99.4	86.2	85.7	85.9	85.6
1981	99.9	99.9	102.4	102.4	102.5	102.5	93.0	93.0	98.7	98.8	93.1	93.1	94.5	94.2
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	102.2	102.4	104.1	104.4	101.8	102.0	103.7	103.9	100.5	100.7	101.5	101.5	103.4	104.0
1984	104.6	104.5	112.6	113.0	107.6	108.1	108.1	108.1	100.4	100.4	103.3	103.4	107.7	107.6
1985	106.1	105.4	116.7	116.8	109.9	110.8	113.0	112.6	101.3	101.0	106.5	106.8	111.2	111.6
1986	108.3	107.5	119.9	120.1	110.7	111.8	118.6	118.1	104.4	104.0	109.5	109.9	113.6	114.2
1987	109.4	108.3	124.8	125.0	114.1	115.4	122.7	122.1	104.3	103.7	112.2	112.8	116.6	117.2
1988	110.4	109.2	130.1	130.6	117.9	119.5	128.0	127.2	104.4	103.8	116.0	116.4	120.8	121.4
1989	109.5	108.2	132.4	132.8	120.9	122.7	132.5	131.5	103.1	102.3	121.0	121.5	126.0	126.4
1990	109.7	108.1	132.9	133.2	121.2	123.1	139.6	138.3	103.1	102.1	127.2	127.9	130.8	131.3
1982: IV	101.1	101.0	100.0	100.0	98.9	98.9	102.1	102.1	100.6	100.6	101.0	101.1	101.1	101.4
1983: IV	103.0	103.2	107.5	108.1	104.3	104.7	105.2	105.1	100.4	100.3	102.1	101.8	104.8	105.2
1984: IV	105.2	105.1	114.4	114.8	108.7	109.2	109.7	109.7	100.6	100.5	104.3	104.4	109.0	109.0
1985: IV	106.9	105.8	118.0	118.2	110.4	111.7	115.4	114.8	102.2	101.6	108.0	108.4	112.4	112.9
1986: IV	108.0	107.1	120.6	120.8	111.6	112.8	120.6	120.1	105.3	104.9	111.6	112.1	114.6	115.2
1987: IV	110.3	109.1	127.4	127.6	115.5	117.0	125.3	124.6	104.8	104.2	113.7	114.3	117.9	118.5
1988: IV	110.4	109.6	131.7	132.5	119.3	121.0	130.1	129.3	104.3	103.6	117.8	118.0	122.8	123.4
1989: I	110.0	108.8	132.6	133.0	120.5	122.2	131.3	130.4	103.9	103.2	119.3	119.8	124.2	124.5
II	109.7	108.2	132.5	132.8	120.7	122.7	131.9	130.7	102.9	102.0	120.2	120.8	125.6	126.0
III	109.2	107.9	132.4	132.8	121.3	123.1	132.6	131.5	102.7	101.8	121.5	121.9	126.4	126.9
IV	109.1	107.8	132.2	132.6	121.2	123.0	134.1	133.0	102.8	101.9	122.8	123.4	127.6	128.0
1990: I	109.6	108.1	133.2	133.5	121.6	123.5	136.2	134.9	102.6	101.6	124.3	124.9	128.8	129.2
II	110.3	108.6	133.9	134.1	121.4	123.4	139.0	137.6	103.6	102.6	126.1	126.7	130.2	130.6
III	109.6	107.9	132.9	133.1	121.2	123.3	140.9	139.5	103.3	102.3	128.5	129.2	131.6	132.2
IV	109.4	107.9	131.8	132.0	120.5	122.4	142.3	141.0	102.6	101.7	130.1	130.7	132.5	133.3
1991: I	109.4	107.9	130.2	130.4	119.1	120.9	143.2	142.0	102.4	101.5	131.0	131.6	134.0	134.9
II	109.9	108.4	130.7	130.9	119.0	120.8	144.8	143.6	103.0	102.1	131.8	132.5	135.0	135.7
III	110.2	108.6	131.3	131.4	119.2	121.0	145.8	144.5	103.0	102.1	132.4	133.1	135.6	136.4

[1] Output refers to gross domestic product originating in the sector in 1987 dollars.

[2] Hours at work of all persons engaged in the sector, including hours of proprietors and unpaid family workers. Estimates based primarily on establishment data.

[3] Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplemental payments for the self-employed.

[4] Hourly compensation divided by the consumer price index for all urban consumers.

[5] Current dollar gross domestic product divided by constant dollar gross domestic product.

Note.—Data reflect the recent comprehensive (benchmark) revision of the national income and product accounts by the Department of Commerce, Bureau of Economic Analysis (BEA). BEA data for output and compensation for the first three quarters of 1991 incorporate benchmarking to unemployment insurance (UI) records. However, the detailed UI information needed by the Bureau of Labor Statistics to measure employment and hours for 1990 and 1991 is not yet available. Therefore, movements in measures based on hours of labor input should be interpreted with caution for 1990 and 1991.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–45.—*Changes in productivity and related data, business sector, 1960–91*

[Percent change from preceding period; quarterly data at seasonally adjusted annual rates]

Year or quarter	Output per hour of all persons		Output [1]		Hours of all persons [2]		Compensation per hour [3]		Real compensation per hour [4]		Unit labor costs		Implicit price deflator [5]	
	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector	Business sector	Nonfarm business sector
1960	1.6	1.0	1.7	1.6	0.1	0.6	4.3	4.4	2.6	2.6	2.7	3.3	1.6	1.5
1961	3.7	3.2	2.1	2.1	−1.6	−1.1	3.9	3.3	2.8	2.2	.2	0	.6	.6
1962	3.5	3.1	5.1	5.3	1.6	2.1	4.7	4.1	3.6	3.0	1.2	1.0	2.0	2.1
1963	4.1	3.6	4.7	4.7	.5	1.1	3.8	3.5	2.4	2.2	−.3	−.1	.7	.9
1964	4.3	3.8	6.0	6.2	1.6	2.3	5.2	4.6	3.9	3.3	.9	.8	1.1	1.4
1965	2.7	2.3	6.0	6.1	3.2	3.8	3.8	3.3	2.2	1.7	1.1	1.0	2.5	2.2
1966	3.0	2.1	5.3	5.5	2.3	3.4	7.0	6.0	4.1	3.0	3.9	3.8	3.2	3.1
1967	2.5	2.1	2.2	2.1	−.3	−.0	5.7	5.8	2.5	2.6	3.1	3.6	2.9	3.3
1968	3.0	2.9	4.4	4.6	1.4	1.7	8.2	7.9	3.8	3.6	5.1	4.9	4.5	4.6
1969	.5	−.0	2.9	2.9	2.4	2.9	7.3	6.8	1.7	1.3	6.7	6.9	4.7	4.6
1970	1.3	.9	−.5	−.6	−1.9	−1.6	7.6	7.2	1.7	1.4	6.1	6.2	4.4	4.6
1971	3.6	3.5	3.2	3.2	−.4	−.3	6.4	6.4	1.9	2.0	2.7	2.9	4.6	4.6
1972	2.7	2.7	6.0	6.1	3.2	3.3	6.3	6.4	3.0	3.1	3.5	3.7	4.3	4.0
1973	2.6	2.5	6.2	6.5	3.6	3.9	8.7	8.3	2.3	1.9	5.9	5.7	6.1	4.5
1974	−1.8	−2.0	−1.8	−1.9	.1	.1	9.9	9.9	−1.0	−1.0	11.9	12.1	9.5	10.2
1975	2.3	2.3	−1.9	−2.0	−4.1	−4.2	10.0	9.9	.8	.7	7.4	7.5	10.0	10.4
1976	3.0	2.7	5.8	6.0	2.8	3.2	9.1	8.6	3.2	2.7	6.0	5.8	5.8	6.3
1977	1.6	1.4	5.5	5.5	3.8	4.1	8.0	8.0	1.4	1.4	6.4	6.5	6.5	6.8
1978	.6	.7	5.5	5.8	4.9	5.0	8.8	8.9	1.2	1.2	8.2	8.1	8.0	7.6
1979	−1.1	−1.4	2.0	2.0	3.1	3.4	9.8	9.5	−1.4	−1.6	11.0	11.1	9.1	8.9
1980	−.7	−.9	−1.6	−1.7	−.9	−.8	10.7	10.7	−2.4	−2.4	11.5	11.7	9.7	10.4
1981	1.3	.9	1.9	1.6	.6	.7	9.4	9.6	−.8	−.7	8.0	8.6	10.1	10.1
1982	.1	.1	−2.3	−2.4	−2.5	−2.4	7.6	7.5	1.3	1.2	7.4	7.4	5.8	6.1
1983	2.2	2.4	4.1	4.4	1.8	2.0	3.7	3.9	.5	.7	1.5	1.5	3.4	4.0
1984	2.3	2.1	8.2	8.2	5.7	6.0	4.2	4.0	−.1	−.3	1.9	1.9	4.1	3.5
1985	1.4	.8	3.6	3.4	2.1	2.5	4.5	4.2	.9	.6	3.0	3.3	3.3	3.7
1986	2.0	1.9	2.8	2.8	.7	.9	4.9	4.9	3.0	3.0	2.8	2.9	2.2	2.4
1987	1.0	.8	4.1	4.1	3.1	3.3	3.5	3.4	−.1	−.2	2.5	2.6	2.6	2.6
1988	.9	.9	4.3	4.4	3.3	3.5	4.3	4.1	.1	0	3.3	3.2	3.6	3.6
1989	−.7	−.9	1.8	1.7	2.6	2.7	3.5	3.4	−1.2	−1.4	4.3	4.3	4.3	4.1
1990	.2	−.1	.4	.3	.2	.3	5.4	5.2	−.0	−.2	5.2	5.3	3.8	3.9
1989: I	−1.5	−2.8	2.6	1.4	4.2	4.3	3.5	3.4	−1.3	−1.5	5.1	6.4	4.7	3.9
II	−1.0	−2.0	−.3	−.6	.7	1.4	2.0	1.1	−3.9	−4.7	3.1	3.2	4.4	4.7
III	−2.0	−1.3	−.1	.1	2.0	1.4	2.1	2.5	−1.0	−.7	4.2	3.8	2.7	3.0
IV	−.2	−.3	−.6	−.7	−.4	−.4	4.4	4.5	.4	.5	4.6	4.8	3.7	3.5
1990: I	1.7	1.0	3.0	2.7	1.2	1.8	6.6	6.0	−.7	−1.3	4.8	5.0	4.0	3.8
II	2.4	2.1	2.0	1.8	−.5	−.3	8.4	8.1	4.3	4.1	5.8	5.9	4.3	4.5
III	−2.2	−2.5	−3.0	−3.0	−.8	−.5	5.7	5.6	−1.1	−1.2	8.1	8.4	4.4	4.8
IV	−.9	−.3	−3.0	−3.1	−2.2	−2.8	4.1	4.4	−2.7	−2.4	5.0	4.7	2.8	3.4
1991: I	−.1	.1	−4.9	−4.9	−4.7	−4.9	2.6	2.7	−.9	−.8	2.7	2.7	4.5	4.8
II	1.9	1.9	1.7	1.6	−.3	−.3	4.6	4.6	2.4	2.5	2.6	2.6	2.9	2.5
III	1.1	.9	1.8	1.6	.7	.7	2.8	2.7	−.2	−.2	1.7	1.9	1.8	2.1

[1] Output refers to gross domestic product originating in the sector in 1987 dollars.

[2] Hours at work of all persons engaged in the sector, including hours of proprietors and unpaid family workers. Estimates based primarily on establishment data.

[3] Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplemental payments for the self-employed.

[4] Hourly compensation divided by the consumer price index for all urban consumers.

[5] Current dollar gross domestic product divided by constant dollar gross domestic product.

Note.—Percent changes are based on original data and therefore may differ slightly from percent changes based on indexes in Table B–44.

See also Note, Table B–44.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–46.—*Industrial production indexes, major industry divisions, 1947–91*

[1987=100; monthly data seasonally adjusted]

Year or month	Total industrial production	Manufacturing			Mining	Utilities
		Total	Durable	Nondurable		
1980 proportion	*100.0*	*85.0*	*48.3*	*36.7*	*7.4*	*7.5*
1947	22.7	21.2	19.9	22.6	55.5	11.7
1948	23.6	22.0	20.8	23.4	58.3	13.0
1949	22.3	20.8	18.9	23.0	51.7	13.9
1950	25.8	24.2	23.0	25.6	57.7	15.8
1951	28.0	26.1	25.9	26.4	63.4	18.1
1952	29.1	27.2	27.5	26.9	62.8	19.6
1953	31.6	29.6	31.1	28.0	64.5	21.3
1954	29.9	27.7	27.4	28.2	63.2	22.9
1955	33.7	31.3	31.3	31.3	70.5	25.6
1956	35.1	32.5	32.4	32.9	74.2	28.1
1957	35.6	32.9	32.6	33.5	74.3	30.0
1958	33.3	30.6	28.5	33.7	68.1	31.4
1959	37.3	34.5	32.8	37.1	71.3	34.5
1960	38.1	35.2	33.3	38.0	72.7	36.9
1961	38.4	35.3	32.7	39.1	73.1	39.0
1962	41.6	38.4	36.3	41.5	75.2	41.9
1963	44.0	40.7	38.7	43.8	78.2	44.8
1964	47.0	43.5	41.4	46.6	81.4	48.7
1965	51.7	48.2	47.1	49.8	84.4	51.7
1966	56.3	52.6	52.3	52.9	88.9	55.6
1967	57.5	53.6	52.9	54.6	90.6	58.4
1968	60.7	56.6	55.5	58.1	94.1	63.1
1969	63.5	59.1	57.7	61.1	97.8	68.7
1970	61.4	56.4	53.3	61.1	100.4	72.9
1971	62.2	57.3	53.1	63.6	97.8	76.4
1972	68.3	63.3	59.3	69.3	99.9	81.3
1973	73.8	68.9	66.2	72.7	100.8	84.5
1974	72.7	67.9	64.8	72.3	100.3	83.5
1975	66.3	61.1	56.7	67.7	98.0	84.3
1976	72.4	67.4	62.6	74.6	98.9	87.6
1977	78.2	73.3	68.7	80.1	101.5	89.9
1978	82.6	77.8	73.9	83.5	104.6	92.7
1979	85.7	80.9	78.3	84.6	106.6	95.3
1980	84.1	78.8	75.7	83.1	110.0	95.9
1981	85.7	80.3	77.4	84.5	114.3	94.3
1982	81.9	76.6	72.7	82.5	109.3	91.8
1983	84.9	80.9	76.8	87.0	104.8	93.6
1984	92.8	89.3	88.4	90.8	111.9	97.0
1985	94.4	91.6	91.8	91.5	109.0	99.5
1986	95.3	94.3	93.9	94.9	101.0	96.3
1987	100.0	100.0	100.0	100.0	100.0	100.0
1988	105.4	105.8	107.6	103.6	101.8	104.4
1989	108.1	108.9	110.9	106.4	100.5	107.1
1990	109.2	109.9	111.6	107.8	102.6	108.0
1991 p	107.1	107.5	107.1	108.0	101.0	108.7
1990: Jan	107.5	108.1	108.6	107.5	101.7	106.8
Feb	108.5	109.6	110.7	108.3	101.0	104.0
Mar	108.9	109.8	111.9	107.2	101.1	106.2
Apr	108.8	109.5	111.1	107.5	102.9	106.7
May	109.4	110.3	112.6	107.4	102.2	107.1
June	110.1	110.8	113.4	107.6	102.2	109.7
July	110.4	111.1	113.4	108.1	104.0	109.7
Aug	110.5	111.1	113.5	108.1	102.4	111.4
Sept	110.6	111.2	113.8	108.0	103.9	110.3
Oct	109.9	110.7	112.5	108.4	102.6	109.2
Nov	108.3	108.9	109.9	107.7	103.3	106.9
Dec	107.2	107.5	107.5	107.4	103.4	108.8
1991: Jan	106.6	107.0	107.2	106.8	101.7	107.6
Feb	105.7	106.1	106.1	106.0	102.9	104.6
Mar	105.0	105.2	105.0	105.4	101.5	106.4
Apr	105.5	105.9	106.0	105.9	100.9	105.9
May	106.4	106.6	106.7	106.5	100.2	111.4
June	107.3	107.5	107.3	107.6	102.1	111.5
July	108.1	108.3	108.1	108.6	102.7	110.9
Aug	108.0	108.4	107.8	109.0	101.3	110.7
Sept	108.4	108.9	108.4	109.6	101.4	109.7
Oct	108.2	108.9	108.1	110.0	100.6	108.6
Nov p	108.0	108.6	107.7	109.8	99.2	110.0
Dec p	107.8	108.7	107.5	110.3	98.9	106.7

Source: Board of Governors of the Federal Reserve System.

TABLE B–47.—*Industrial production indexes, market groupings, 1947–91*

[1987=100; monthly data seasonally adjusted]

Year or month	Total industrial production	Final products								Intermediate products	Materials			
		Total	Consumer goods				Equipment				Total	Durable	Nondurable	Energy
			Total	Automotive products	Other durable goods	Nondurable goods	Total [1]	Business	Defense and space					
1990 proportion	*100.0*	*46.8*	*25.6*	*2.3*	*3.1*	*20.1*	*21.2*	*15.7*	*4.8*	*14.5*	*38.7*	*19.8*	*8.7*	*10.1*
1947	22.7	20.8	25.4	21.7	22.8	27.0	15.0	14.7	7.5	22.4	25.1	21.5	.....	.....
1948	23.6	21.5	26.2	22.6	23.8	27.7	15.8	15.3	8.8	23.6	26.2	22.1	.....	.....
1949	22.3	20.9	26.1	22.5	22.0	27.9	14.1	13.4	9.2	22.4	23.9	19.8	.....	.....
1950	25.8	23.5	29.7	28.3	30.4	30.3	15.3	14.3	10.8	26.1	28.6	24.9	.....	.....
1951	28.0	25.4	29.4	25.0	26.2	31.3	21.2	17.5	26.5	27.4	31.6	28.3	.....	.....
1952	29.1	27.3	30.1	22.5	26.2	32.6	25.5	19.8	37.2	27.2	32.1	28.9	.....	.....
1953	31.6	29.1	31.9	28.4	29.6	33.5	27.6	20.6	44.6	29.1	35.6	33.8	.....	.....
1954	29.9	27.6	31.7	26.5	27.3	33.9	24.2	18.1	39.3	29.0	32.9	29.2	25.2	52.7
1955	33.7	29.8	35.4	35.2	32.2	36.5	24.7	19.6	35.9	32.9	38.9	35.7	28.9	59.3
1956	35.1	31.6	36.7	28.9	33.9	38.8	27.1	22.7	35.1	34.4	39.9	35.8	30.2	62.7
1957	35.6	32.5	37.6	30.3	33.2	40.1	28.2	23.6	36.7	34.4	39.9	35.8	30.1	63.4
1958	33.3	31.0	37.2	24.1	31.3	41.3	25.2	19.9	36.8	33.6	35.9	30.1	29.9	58.8
1959	37.3	34.0	40.9	30.2	36.0	44.1	27.7	22.4	38.8	37.1	41.4	35.9	34.2	62.3
1960	38.1	35.1	42.4	34.6	36.2	45.5	28.5	23.0	39.9	37.4	42.0	36.3	34.8	63.1
1961	38.4	35.4	43.3	31.6	37.3	47.0	28.1	22.3	40.6	38.1	42.0	35.5	36.2	63.6
1962	41.6	38.4	46.2	38.3	40.5	49.2	31.3	24.3	46.9	40.4	45.8	39.4	39.2	65.8
1963	44.0	40.6	48.8	41.9	43.7	51.4	33.1	25.5	50.6	42.7	48.7	42.1	41.6	69.7
1964	47.0	42.9	51.5	43.9	47.7	54.0	35.0	28.5	49.0	45.5	52.6	45.9	45.2	72.5
1965	51.7	47.1	55.5	54.1	54.1	56.3	39.6	32.6	54.3	48.4	58.7	52.6	49.6	75.8
1966	56.3	51.6	58.4	53.9	59.6	59.0	46.1	37.8	63.7	51.4	63.9	57.9	53.6	80.6
1967	57.5	53.7	59.8	47.4	60.4	62.0	49.0	38.6	72.7	53.5	63.3	55.9	54.5	83.4
1968	60.7	56.3	63.4	56.4	64.7	64.5	50.4	40.3	72.9	56.6	67.5	59.2	59.9	87.2
1969	63.5	58.1	65.8	56.7	69.0	66.7	51.8	42.9	69.4	59.6	71.5	62.3	64.9	91.7
1970	61.4	56.0	65.0	47.7	66.9	67.8	48.1	41.3	58.7	58.7	69.0	56.5	65.2	96.2
1971	62.2	56.5	68.8	60.8	70.8	69.7	45.0	39.3	52.8	60.5	70.0	56.8	68.0	97.1
1972	68.3	61.3	74.3	65.6	81.0	74.2	49.3	44.8	51.3	67.6	77.2	64.2	74.9	100.8
1973	73.8	65.9	77.6	72.4	85.7	76.5	55.0	52.4	50.1	71.9	84.5	73.3	80.4	101.5
1974	72.7	65.7	75.2	62.6	79.3	76.5	56.8	54.7	49.4	69.4	82.8	71.2	80.8	98.8
1975	66.3	61.8	72.3	59.0	69.8	74.9	52.0	48.8	48.5	62.6	72.6	59.3	71.9	96.7
1976	72.4	66.2	79.4	73.2	78.2	80.4	53.8	50.6	49.2	69.0	81.2	68.4	81.4	99.0
1977	78.2	71.6	85.1	84.0	87.4	84.4	58.8	56.7	49.2	74.9	87.3	75.3	86.7	101.1
1978	82.6	76.1	88.4	86.3	91.2	87.8	64.2	63.1	49.5	79.1	91.8	81.4	89.7	102.2
1979	85.7	79.0	87.3	78.5	89.8	87.7	71.0	71.5	51.5	81.2	95.4	85.3	92.9	105.0
1980	84.1	80.0	85.3	59.5	85.1	89.1	74.6	73.5	57.4	77.0	91.3	79.3	88.7	106.2
1981	85.7	82.1	85.8	59.2	86.3	89.6	78.2	76.1	58.5	77.0	92.8	82.1	90.5	104.3
1982	81.9	80.8	84.5	57.5	78.1	89.7	77.0	72.9	65.7	75.1	85.1	73.4	82.1	100.7
1983	84.9	83.0	88.8	71.9	86.2	91.9	76.8	71.9	71.8	80.3	88.3	79.2	89.2	98.9
1984	92.8	91.0	92.8	86.6	94.6	93.4	89.2	85.4	78.9	86.2	96.6	92.1	93.0	103.8
1985	94.4	94.2	93.7	92.7	90.6	94.4	94.8	91.1	89.4	88.3	96.6	92.9	91.7	103.4
1986	95.3	95.7	96.8	95.2	93.9	97.6	94.5	93.2	96.0	92.0	95.9	93.7	94.4	99.4
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	105.4	105.6	104.0	105.9	104.1	103.7	107.6	111.8	98.0	104.4	105.6	109.0	103.0	101.8
1989	108.1	109.1	106.7	106.9	108.7	106.4	112.3	119.1	97.4	106.8	107.4	111.6	105.3	101.4
1990	109.2	110.9	107.3	102.3	109.4	107.6	115.5	123.1	97.3	107.7	107.8	111.8	106.0	102.1
1991 *p*	107.1	109.5	107.5	98.0	105.8	108.9	112.2	121.5	90.9	103.3	105.6	107.1	106.1	102.3
1990: Jan	107.5	108.5	106.0	85.2	110.6	107.8	111.8	118.0	97.5	108.0	106.2	109.4	105.4	101.2
Feb	108.5	109.7	107.0	99.3	111.6	107.2	113.3	120.1	97.6	108.4	107.1	110.8	105.8	101.7
Mar	108.9	110.7	107.5	109.3	112.0	106.6	114.9	122.2	97.5	108.2	107.1	110.9	105.2	102.0
Apr	108.8	110.4	107.2	102.4	111.2	107.1	114.7	121.6	97.3	108.0	107.3	110.9	106.1	101.8
May	109.4	111.2	107.4	107.0	111.1	106.9	116.2	123.5	97.6	108.3	107.7	112.5	105.2	101.1
June	110.1	111.7	107.8	112.2	112.0	106.6	116.8	124.4	97.6	108.3	108.8	113.8	106.1	102.1
July	110.4	111.7	107.5	106.7	109.5	107.3	117.2	125.0	97.8	108.4	109.6	114.0	107.8	103.3
Aug	110.5	111.9	107.8	104.6	109.6	107.9	117.2	125.4	97.7	107.9	109.7	114.9	106.8	103.0
Sept	110.6	112.6	108.7	111.8	109.3	108.2	117.8	126.4	97.3	107.4	109.4	114.1	106.9	103.0
Oct	109.9	112.3	108.6	107.1	106.8	109.1	117.0	125.4	97.3	107.0	108.3	112.5	106.5	102.3
Nov	108.3	110.2	106.5	93.5	104.1	108.5	115.1	122.9	96.2	106.2	106.8	110.4	105.6	101.6
Dec	107.2	109.2	105.7	86.7	103.4	108.4	113.6	121.2	95.8	106.0	105.3	107.5	104.9	102.0
1991: Jan	106.6	109.1	105.6	90.6	103.2	107.8	113.6	121.6	94.4	103.8	104.8	106.8	104.9	101.1
Feb	105.7	108.3	104.7	88.1	100.7	107.3	112.9	120.6	94.5	102.6	103.9	105.5	103.6	101.1
Mar	105.0	108.1	104.7	88.9	101.4	107.1	112.5	120.3	93.9	101.3	102.6	103.3	102.8	101.3
Apr	105.5	108.7	105.5	94.2	103.4	107.2	112.8	121.3	92.5	101.2	103.4	104.9	103.1	101.1
May	106.4	109.3	106.6	97.4	104.1	108.1	112.7	121.7	91.5	102.7	104.5	106.2	103.7	102.4
June	107.3	110.1	108.0	100.4	107.3	109.0	112.8	121.9	91.0	104.0	105.4	106.7	104.9	103.4
July	108.1	110.2	108.3	102.3	108.1	109.0	112.8	122.5	90.0	104.0	107.0	108.2	108.1	104.1
Aug	108.0	109.8	108.4	98.6	108.3	109.6	111.6	121.3	89.8	104.4	107.2	109.1	107.8	103.3
Sept	108.4	110.4	109.4	106.5	108.7	109.8	111.8	122.2	89.1	104.3	107.5	109.3	108.3	103.6
Oct	108.2	110.6	109.7	106.7	108.2	110.3	111.7	122.2	88.9	103.5	107.3	108.7	109.4	103.0
Nov *p*	108.0	110.4	109.8	104.1	108.2	110.7	111.3	121.8	88.4	103.8	106.6	108.4	108.1	102.4
Dec *p*	107.8	110.0	109.4	102.5	107.4	110.5	110.9	121.8	87.1	103.9	106.6	108.6	109.0	101.1

[1] Two components—oil and gas well drilling and manufactured homes—are included in total equipment, but not in detail shown.

Source: Board of Governors of the Federal Reserve System.

TABLE B–48.—*Industrial production indexes, selected manufactures, 1947–91*

[1987=100; monthly data seasonally adjusted]

Year or month	Durable manufactures								Nondurable manufactures				
	Primary metals		Fabricated metal products	Nonelectrical machinery	Electrical machinery	Transportation equipment		Lumber and products	Apparel products	Textile mill products	Printing and publishing	Chemicals and products	Foods
	Total	Iron and steel				Total	Motor vehicles and parts						
1990 proportion	*3.3*	*2.0*	*5.2*	*9.9*	*8.8*	*9.5*	*4.1*	*1.9*	*2.1*	*1.7*	*6.5*	*8.7*	*8.6*
1947	70.2	102.1	37.5	12.0	8.5	19.6	27.3	38.8	43.1	35.2	22.1	8.7	33.1
1948	73.0	106.8	38.2	12.1	8.8	21.4	29.6	40.4	45.0	37.7	23.2	9.4	32.8
1949	61.4	91.2	34.4	10.3	8.3	21.5	30.4	35.7	44.5	34.8	23.8	9.3	33.1
1950	77.3	112.4	42.2	11.6	11.3	25.7	39.0	43.4	47.9	39.6	24.9	11.6	34.3
1951	84.1	125.7	45.1	14.7	11.4	28.7	35.8	43.2	47.0	39.2	25.4	13.1	35.0
1952	76.8	110.6	44.0	16.0	13.0	33.3	30.7	42.7	49.5	38.9	25.3	13.7	35.7
1953	87.0	127.5	49.6	16.7	14.9	41.8	38.7	45.1	50.1	39.9	26.5	14.8	36.4
1954	70.4	99.1	44.7	14.2	13.3	36.4	33.3	44.8	49.5	37.3	27.6	15.0	37.2
1955	91.5	131.8	51.0	15.6	15.3	41.9	44.6	50.1	54.7	42.5	30.3	17.6	39.3
1956	90.9	129.3	51.8	17.9	16.5	40.6	36.2	49.5	56.0	43.7	32.3	18.9	41.5
1957	87.1	124.6	53.1	17.9	16.4	43.5	38.0	45.4	55.8	41.6	33.4	19.9	42.2
1958	69.0	93.9	47.6	15.0	15.0	34.3	28.0	46.1	54.3	41.1	32.6	20.6	43.2
1959	80.7	108.1	53.4	17.5	18.2	38.9	36.4	52.3	59.7	46.4	34.8	24.0	45.4
1960	80.4	109.9	53.4	17.6	19.8	40.3	41.1	49.3	60.9	45.6	36.2	24.9	46.6
1961	78.9	104.9	52.1	17.1	21.0	37.8	36.0	51.6	61.3	46.9	36.4	26.1	47.9
1962	84.6	109.3	56.7	19.2	24.1	43.7	43.9	54.4	63.8	50.1	37.7	29.0	49.5
1963	91.2	119.1	58.5	20.5	24.8	48.0	48.6	56.9	66.4	51.9	39.7	31.7	51.2
1964	102.9	135.5	62.1	23.3	26.2	49.2	49.9	61.1	68.7	56.0	42.1	34.8	53.6
1965	113.2	148.7	68.3	26.2	31.3	58.5	63.7	63.5	72.6	61.0	44.8	38.7	54.8
1966	120.2	153.1	73.1	30.5	37.5	62.7	62.6	65.9	74.5	64.7	48.3	42.2	56.9
1967	111.1	141.5	76.5	31.1	37.7	61.3	55.1	65.3	74.1	64.8	50.9	44.2	59.4
1968	115.1	146.1	80.6	31.3	39.8	66.6	66.0	67.2	76.0	72.3	51.7	49.6	61.0
1969	123.8	159.2	81.9	33.9	42.3	66.1	66.3	67.1	78.4	76.0	54.2	53.7	63.0
1970	115.2	148.2	75.9	32.8	40.5	55.5	53.3	66.7	75.3	74.4	52.7	55.9	64.0
1971	109.2	135.5	75.6	30.5	40.7	60.1	66.9	68.5	76.2	78.5	53.2	59.5	66.0
1972	122.4	150.6	82.9	35.4	46.5	64.1	73.0	78.4	80.9	86.0	56.7	66.9	69.5
1973	138.9	171.5	92.1	41.4	53.0	73.0	85.0	78.7	81.5	89.6	58.3	73.1	70.9
1974	134.5	166.1	88.4	44.1	52.4	66.4	73.4	71.4	77.9	81.5	57.4	75.8	71.9
1975	107.2	133.5	76.7	38.1	45.1	59.7	62.2	66.5	71.1	77.7	53.7	69.1	71.4
1976	119.9	147.1	84.9	40.0	50.7	68.0	81.9	75.6	83.9	86.3	58.7	77.3	75.5
1977	121.5	145.1	92.7	45.1	58.4	73.7	94.7	82.3	91.6	91.6	64.3	83.3	79.0
1978	130.7	155.3	96.2	50.2	64.0	79.5	99.2	83.6	93.9	92.0	68.1	88.0	81.8
1979	133.0	156.5	99.5	56.9	71.3	81.0	91.0	82.4	89.0	95.0	69.9	91.3	82.6
1980	110.8	126.0	92.5	60.6	73.3	72.3	67.0	76.9	89.2	92.1	70.3	87.8	84.6
1981	117.5	135.1	91.1	65.9	75.4	68.7	64.4	74.7	91.0	89.4	72.1	89.2	86.5
1982	83.2	86.2	83.2	63.9	75.9	64.8	58.8	67.3	90.1	83.0	75.2	81.8	87.7
1983	91.0	96.1	85.5	64.3	80.3	72.7	74.5	79.9	93.8	93.2	79.0	87.5	90.1
1984	102.4	105.9	93.3	80.8	94.1	83.1	90.6	86.0	95.7	93.7	84.5	91.4	92.1
1985	101.8	104.5	94.5	86.8	93.1	91.8	99.0	88.0	92.6	89.7	87.6	91.4	94.9
1986	93.8	90.8	93.8	90.4	94.3	96.9	98.5	95.1	96.3	93.9	90.7	94.6	97.4
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	110.3	113.8	106.2	113.8	106.5	105.0	105.5	104.6	102.2	99.8	103.6	105.4	102.8
1989	109.2	109.3	107.2	121.8	109.5	107.2	104.9	103.0	104.3	101.9	108.5	108.5	105.5
1990	108.4	109.9	105.9	126.5	111.4	105.5	96.8	101.6	98.8	100.8	111.9	110.3	107.6
1991 [P]	99.6	98.3	100.4	123.6	110.1	98.6	90.4	94.0	96.3	100.6	112.4	111.2	108.6
1990: Jan	105.0	104.6	105.1	123.7	110.1	94.7	76.8	106.0	102.4	100.6	110.7	109.9	106.8
Feb	107.9	110.6	105.6	124.2	111.0	103.5	94.1	104.3	102.1	103.0	112.1	110.5	107.4
Mar	105.4	106.1	105.5	125.2	112.3	107.9	103.5	105.0	99.8	99.8	111.4	109.5	107.1
Apr	106.4	106.7	105.0	125.7	111.3	105.1	95.8	103.3	98.7	100.9	112.0	110.3	107.0
May	106.2	105.5	107.1	126.9	112.4	109.0	104.0	101.7	99.2	102.7	112.8	109.2	106.8
June	109.5	110.3	106.7	127.5	112.8	111.0	108.0	102.0	99.3	103.6	112.0	110.3	106.1
July	110.3	110.6	107.7	128.3	112.2	109.3	102.7	103.6	99.2	102.9	111.4	110.4	107.1
Aug	114.6	118.3	107.9	128.8	112.5	107.9	101.0	100.5	98.8	100.4	110.9	111.1	107.7
Sept	111.6	113.9	106.8	128.5	112.5	111.1	107.5	100.3	98.4	100.7	111.6	110.9	107.6
Oct	108.6	110.3	106.4	128.1	110.8	109.2	103.8	98.2	97.2	101.2	112.9	110.7	108.8
Nov	109.1	112.6	104.3	126.3	110.4	100.1	85.8	95.5	95.5	97.4	112.4	110.0	109.6
Dec	104.2	107.3	101.9	124.7	108.7	96.6	78.5	93.5	94.9	96.1	112.8	109.9	109.1
1991: Jan	99.7	99.0	101.7	125.5	107.6	97.6	83.0	94.2	92.9	94.0	112.1	110.1	108.3
Feb	99.5	98.0	99.1	124.5	108.2	95.5	79.4	91.5	93.1	94.3	110.9	109.1	107.6
Mar	94.7	92.0	97.8	123.1	108.6	95.0	79.8	91.2	92.5	95.4	101.4	108.2	107.4
Apr	94.5	91.6	98.0	123.5	109.7	97.2	86.2	92.7	93.2	97.2	110.7	109.0	107.6
May	96.9	94.0	99.1	123.6	110.6	98.2	89.8	92.5	95.2	99.2	110.6	109.2	107.8
June	96.4	92.9	99.8	123.4	111.5	99.7	92.5	96.7	96.2	101.7	111.2	109.6	108.6
July	101.2	99.5	100.9	123.9	111.0	101.3	96.7	94.8	97.8	104.2	111.9	111.5	108.3
Aug	102.6	100.6	101.4	123.3	111.5	99.0	91.6	95.3	98.3	104.7	112.3	112.3	108.7
Sept	102.3	100.8	101.9	123.1	111.0	102.2	99.5	95.2	98.1	103.2	113.3	112.6	109.5
Oct	102.6	102.4	101.7	123.3	109.9	102.4	100.4	92.4	98.7	105.4	114.3	113.9	109.8
Nov [P]	103.5	105.6	101.5	122.6	110.9	99.7	95.8	94.9	99.2	104.0	114.8	114.1	110.0
Dec [P]	103.4	105.6	101.9	122.7	110.7	98.0	94.8	95.5	99.5	104.1	115.4	114.8	110.0

Source: Board of Governors of the Federal Reserve System.

TABLE B–49.—*Capacity utilization rates, 1948–91*

[Percent [1]; monthly data seasonally adjusted]

Year or month	Total industry	Manufacturing					Mining	Utilities
		Total	Durable goods	Non-durable goods	Primary processing	Advanced processing		
1948		82.5			87.3	80.0		
1949		74.2			76.2	73.2		
1950		82.8			88.5	79.8		
1951		85.8			90.2	83.4		
1952		85.4			84.9	85.9		
1953		89.3			89.4	89.3		
1954		80.1			80.6	80.0		
1955		87.0			92.0	84.2		
1956		86.1			89.4	84.4		
1957		83.6			84.7	83.1		
1958		75.0			75.4	74.9		
1959		81.6			83.0	81.1		
1960		80.1			79.8	80.5		
1961		77.3			77.9	77.2		
1962		81.4			81.5	81.6		
1963		83.5			83.8	83.4		
1964		85.6			87.8	84.6		
1965		89.5			91.0	88.8		
1966		91.1			91.4	91.1		
1967	86.4	87.2	87.1	86.3	85.4	88.0	81.2	93.4
1968	86.8	87.2	86.8	86.6	86.3	87.4	83.5	94.1
1969	86.9	86.8	86.3	86.6	86.9	86.5	86.6	95.8
1970	80.8	79.7	76.7	82.9	80.4	79.1	88.9	95.4
1971	79.2	78.2	74.3	82.8	79.3	77.4	87.4	93.9
1972	84.3	83.7	80.9	86.6	86.4	82.5	90.4	94.6
1973	88.4	88.1	87.5	87.5	91.5	86.5	92.5	92.9
1974	84.2	83.8	82.7	84.0	86.0	82.8	92.5	86.8
1975	74.6	73.2	70.2	76.4	72.9	73.5	89.9	84.0
1976	79.3	78.5	75.4	81.8	80.1	77.8	90.0	84.8
1977	83.3	82.8	80.3	85.2	84.0	81.9	90.9	84.6
1978	85.5	85.1	83.5	86.2	86.3	84.3	91.3	84.8
1979	86.2	85.4	84.9	85.1	86.4	84.8	91.9	85.9
1980	82.1	80.2	78.6	81.4	78.0	81.3	94.0	85.5
1981	80.9	78.8	76.6	81.0	78.0	79.1	94.6	82.8
1982	75.0	72.8	69.0	78.0	69.0	74.6	86.5	79.5
1983	75.8	74.9	70.5	81.1	74.8	74.9	79.9	80.3
1984	81.1	80.4	78.3	83.1	80.4	80.3	84.4	82.5
1985	80.3	79.5	77.8	81.9	79.8	79.4	82.9	83.5
1986	79.2	79.0	76.1	83.0	80.8	78.2	78.2	80.2
1987	81.4	81.4	78.6	85.4	84.9	79.9	80.0	82.5
1988	84.0	83.9	82.5	86.0	87.8	82.3	84.6	84.2
1989	84.2	83.9	82.8	85.5	87.0	82.7	85.9	85.4
1990	83.0	82.3	81.1	83.9	84.9	81.2	89.4	85.2
1991 [p]	79.4	78.2	75.8	81.6	80.1	77.4	88.4	84.5
1990: Jan	82.7	82.0	79.9	84.9	85.7	80.5	87.8	84.8
Feb	83.3	83.0	81.3	85.3	86.1	81.7	87.4	82.5
Mar	83.4	83.0	82.0	84.3	85.3	82.0	87.6	84.1
Apr	83.2	82.5	81.2	84.3	85.0	81.5	89.3	84.4
May	83.4	82.9	82.2	84.0	85.0	82.1	88.9	84.6
June	83.8	83.1	82.5	83.9	85.6	82.0	89.0	86.6
July	83.8	83.1	82.3	84.1	86.1	81.8	90.7	86.4
Aug	83.7	82.9	82.3	83.8	86.1	81.6	89.4	87.6
Sept	83.6	82.8	82.2	83.6	85.1	81.8	90.9	86.7
Oct	83.0	82.2	81.2	83.6	84.3	81.3	89.9	85.6
Nov	81.6	80.7	79.1	82.9	83.2	79.6	90.6	83.8
Dec	80.6	79.4	77.2	82.4	81.5	78.5	90.8	85.1
1991: Jan	80.0	78.9	76.8	81.8	80.6	78.2	89.5	84.1
Feb	79.1	78.0	75.8	81.0	79.5	77.4	90.4	81.6
Mar	78.4	77.2	74.9	80.3	77.9	76.8	89.0	83.0
Apr	78.6	77.5	75.4	80.5	78.2	77.3	88.3	82.6
May	79.1	77.8	75.7	80.7	79.0	77.3	87.6	86.7
June	79.6	78.3	76.0	81.4	79.9	77.6	89.2	86.7
July	80.0	78.7	76.4	82.0	81.1	77.8	89.6	86.2
Aug	79.8	78.6	76.0	82.1	81.2	77.5	88.5	85.9
Sept	79.9	78.8	76.2	82.3	81.3	77.7	88.5	85.1
Oct	79.6	78.6	75.8	82.4	81.2	77.6	87.8	84.1
Nov [p]	79.3	78.2	75.4	82.1	80.7	77.2	86.5	85.2
Dec [p]	79.0	78.1	75.1	82.2	80.9	77.0	86.2	82.5

[1] Output as percent of capacity.

Source: Board of Governors of the Federal Reserve System.

TABLE B–50.—*New construction activity, 1929–91*

[Value put in place, billions of dollars; monthly data at seasonally adjusted annual rates]

Year or month	Total new construction	Private construction							Public construction		
		Total	Residential buildings [1]		Nonresidential buildings and other construction [1]				Total	Federal	State and local [5]
			Total [2]	New housing units	Total	Commercial [3]	Industrial	Other [4]			
1929	10.8	8.3	3.6	3.0	4.7	1.1	0.9	2.6	2.5	0.2	2.3
1933	2.9	1.2	.5	.3	.8	.1	.2	.5	1.6	.5	1.1
1939	8.2	4.4	2.7	2.3	1.7	.3	.3	1.2	3.8	.8	3.1
1940	8.7	5.1	3.0	2.6	2.1	.3	.4	1.3	3.6	1.2	2.4
1941	12.0	6.2	3.5	3.0	2.7	.4	.8	1.5	5.8	3.8	2.0
1942	14.1	3.4	1.7	1.4	1.7	.2	.3	1.2	10.7	9.3	1.3
1943	8.3	2.0	.9	.7	1.1	.0	.2	.9	6.3	5.6	.7
1944	5.3	2.2	.8	.6	1.4	.1	.2	1.1	3.1	2.5	.6
1945	5.8	3.4	1.3	.7	2.1	.2	.6	1.3	2.4	1.7	.7
1946	14.3	12.1	6.2	4.8	5.8	1.2	1.7	3.0	2.2	.9	1.4
New series											
1947	20.0	16.7	9.9	7.8	6.9	1.0	1.7	4.2	3.3	.8	2.5
1948	26.1	21.4	13.1	10.5	8.2	1.4	1.4	5.5	4.7	1.2	3.5
1949	26.7	20.5	12.4	10.0	8.0	1.2	1.0	5.9	6.3	1.5	4.8
1950	33.6	26.7	18.1	15.6	8.6	1.4	1.1	6.1	6.9	1.6	5.2
1951	35.4	26.2	15.9	13.2	10.3	1.5	2.1	6.7	9.3	3.0	6.3
1952	36.8	26.0	15.8	12.9	10.2	1.1	2.3	6.8	10.8	4.2	6.6
1953	39.1	27.9	16.6	13.4	11.3	1.8	2.2	7.3	11.2	4.1	7.1
1954	41.4	29.7	18.2	14.9	11.5	2.2	2.0	7.2	11.7	3.4	8.3
1955	46.5	34.8	21.9	18.2	12.9	3.2	2.4	7.3	11.7	2.8	8.9
1956	47.6	34.9	20.2	16.1	14.7	3.6	3.1	8.0	12.7	2.7	10.0
1957	49.1	35.1	19.0	14.7	16.1	3.6	3.6	9.0	14.1	3.0	11.1
1958	50.0	34.6	19.8	15.4	14.8	3.6	2.4	8.8	15.5	3.4	12.1
1959	55.4	39.3	24.3	19.2	15.1	3.9	2.1	9.0	16.1	3.7	12.3
1960	54.7	38.9	23.0	17.3	15.9	4.2	2.9	8.9	15.9	3.6	12.2
1961	56.4	39.3	23.1	17.1	16.2	4.7	2.8	8.7	17.1	3.9	13.3
1962	60.2	42.3	25.2	19.4	17.2	5.1	2.8	9.2	17.9	3.9	14.0
1963	64.8	45.5	27.9	21.7	17.6	5.0	2.9	9.7	19.4	4.0	15.4
New series											
1964	72.1	51.9	30.5	24.1	21.4	6.8	3.6	11.0	20.2	3.7	16.5
1965	78.0	56.1	30.2	23.8	25.8	8.1	5.1	12.6	21.9	3.9	18.0
1966	81.2	57.4	28.6	21.8	28.8	8.1	6.6	14.1	23.8	3.8	20.0
1967	83.0	57.6	28.7	21.5	28.8	8.0	6.0	14.9	25.4	3.3	22.1
1968	92.4	65.0	34.2	26.7	30.8	9.0	6.0	15.8	27.4	3.2	24.2
1969	99.8	72.0	37.2	29.2	34.8	10.8	6.8	17.2	27.8	3.2	24.6
1970	100.7	72.8	35.9	27.1	37.0	11.2	6.6	19.2	27.9	3.1	24.8
1971	117.3	87.6	48.5	38.7	39.1	13.1	5.5	20.5	29.7	3.8	25.9
1972	133.3	103.3	60.7	50.1	42.6	15.7	4.8	22.1	30.0	4.2	25.8
1973	146.8	114.5	65.1	54.6	49.4	18.1	6.4	24.9	32.3	4.7	27.6
1974	147.5	109.3	56.0	43.4	53.4	18.1	8.1	27.2	38.1	5.1	33.0
1975	145.6	102.3	51.6	36.3	50.7	14.3	8.3	28.2	43.3	6.1	37.2
1976	165.4	121.5	68.3	50.8	53.2	14.1	7.4	31.6	44.0	6.8	37.2
1977	193.1	150.0	92.0	72.2	58.0	16.4	8.0	33.7	43.1	7.1	36.0
1978	230.2	180.0	109.8	85.6	70.2	20.6	11.5	38.2	50.1	8.1	42.0
1979	259.8	203.2	116.4	89.3	86.8	28.3	15.6	42.8	56.6	8.6	48.1
1980	259.7	196.1	100.4	69.6	95.7	34.6	14.6	46.6	63.6	9.6	54.0
1981	272.0	207.3	99.2	69.4	108.0	40.2	18.0	49.8	64.7	10.4	54.3
1982	260.6	197.5	84.7	57.0	112.9	44.1	18.5	50.2	63.1	10.0	53.1
1983	294.9	231.5	125.5	94.6	106.0	43.9	13.8	48.2	63.5	10.6	52.9
1984	348.8	278.6	153.8	113.8	124.8	59.1	14.8	50.8	70.2	11.2	59.0
1985	377.4	299.5	158.5	114.7	141.1	72.6	17.1	51.3	77.8	12.0	65.8
1986	407.7	323.1	187.1	133.2	136.0	69.5	14.9	51.6	84.6	12.4	72.2
1987	419.3	328.6	194.7	139.9	134.0	68.9	15.0	50.0	90.6	14.1	76.6
1988	432.2	337.4	198.1	138.9	139.3	71.5	16.5	51.4	94.8	12.3	82.5
1989	443.7	345.4	196.6	139.2	148.9	73.9	20.4	54.6	98.3	12.4	85.9
1990	446.4	337.8	182.9	128.0	154.9	72.5	23.8	58.5	108.7	12.4	96.3

See next page for continuation of table.

TABLE B–50.—*New construction activity, 1929–91*—Continued

[Value put in place, billions of dollars; monthly data at seasonally adjusted annual rates]

Year or month	Total new construction	Private construction							Public construction		
		Total	Residential buildings [1]		Nonresidential buildings and other construction [1]				Total	Federal	State and local [5]
			Total [2]	New housing units	Total	Commercial [3]	Industrial	Other [4]			
1990: Jan	457.3	349.8	195.2	137.7	154.6	74.5	23.1	57.0	107.5	12.3	95.2
Feb	466.1	356.3	197.8	141.6	158.5	76.6	25.3	56.6	109.8	12.0	97.8
Mar	464.4	356.8	198.6	142.0	158.2	75.7	24.7	57.8	107.6	13.1	94.5
Apr	454.7	350.3	193.9	137.4	156.4	74.6	24.2	57.7	104.3	13.0	91.3
May	451.1	344.4	188.8	133.1	155.6	73.8	24.4	57.5	106.7	12.0	94.7
June	450.4	342.0	185.2	129.7	156.9	74.2	24.1	58.5	108.4	13.0	95.4
July	453.1	345.2	183.1	127.8	162.2	75.4	27.3	59.5	107.9	13.4	94.5
Aug	449.7	336.9	180.6	125.8	156.3	73.5	22.9	59.9	112.8	13.4	99.4
Sept	437.2	330.3	175.4	121.6	154.9	72.3	22.5	60.0	106.8	12.1	94.7
Oct	434.6	324.1	172.1	119.0	151.9	69.1	22.8	59.9	110.5	10.7	99.8
Nov	431.4	317.2	168.0	115.1	149.2	66.8	22.5	59.9	114.2	12.4	101.8
Dec	421.3	311.3	165.0	113.0	146.3	65.6	23.0	57.7	110.0	11.7	98.3
1991: Jan	406.5	303.9	161.8	107.9	142.1	62.7	22.4	57.0	102.6	12.7	89.9
Feb	410.1	300.5	155.6	103.5	144.9	62.9	23.2	58.7	109.6	11.2	98.3
Mar	401.9	293.3	152.4	100.8	140.8	60.1	23.1	57.6	108.6	11.2	97.4
Apr	407.1	299.0	151.8	100.6	147.2	62.7	24.3	60.2	108.0	14.3	93.7
May	399.0	291.0	154.6	103.2	136.5	57.5	20.7	58.3	108.0	12.6	95.4
June	398.2	290.9	158.3	106.7	132.6	53.0	20.9	58.8	107.3	13.8	93.5
July	398.4	290.3	158.0	109.9	132.3	52.5	20.9	58.9	108.1	13.1	95.0
Aug	403.2	293.4	162.8	114.4	130.6	51.6	20.4	58.6	109.7	13.2	96.5
Sept	407.0	296.6	166.6	118.0	130.0	50.9	20.3	58.8	110.4	13.4	96.9
Oct	409.4	296.7	167.5	118.6	129.2	48.9	21.4	58.8	112.8	14.2	98.6
Nov [p]	406.3	293.6	167.3	119.0	126.2	45.7	21.6	58.9	112.8	15.3	97.5

[1] Beginning 1960, farm residential buildings included in residential buildings; prior to 1960, included in nonresidential buildings and other construction.

[2] Includes residential improvements, not shown separately. Prior to 1964, also includes nonhousekeeping units (hotels, motels, etc.).

[3] Office buildings, warehouses, stores, restaurants, garages, etc., and, beginning 1964, hotels and motels; prior to 1964 hotels and motels are included in total residential.

[4] Religious, educational, hospital and institutional, miscellaneous nonresidential, farm (see also footnote 1), public utilities, telecommunications, and all other private.

[5] Includes Federal grants-in-aid for State and local projects.

Source: Department of Commerce, Bureau of the Census.

TABLE B-51.—*New housing units started and authorized, 1959–91*

[Thousands of units]

Year or month	New housing units started						New private housing units authorized [2]			
	Private and public [1]		Private (farm and nonfarm) [1]				Total	Type of structure		
	Total (farm and nonfarm)	Nonfarm	Total	Type of structure				1 unit	2 to 4 units	5 units or more
				1 unit	2 to 4 units	5 units or more				
1959	1,553.7	1,531.3	1,517.0	1,234.0	283.0		1,208.3	938.3	77.1	192.9
1960	1,296.1	1,274.0	1,252.2	994.7	257.4		998.0	746.1	64.6	187.4
1961	1,365.0	1,336.8	1,313.0	974.3	338.7		1,064.2	722.8	67.6	273.8
1962	1,492.5	1,468.7	1,462.9	991.4	471.5		1,186.6	716.2	87.1	383.3
1963	1,634.9	1,614.8	1,603.2	1,012.4	590.8		1,334.7	750.2	118.9	465.6
1964	1,561.0	1,534.0	1,528.8	970.5	108.4	450.0	1,285.8	720.1	100.8	464.9
1965	1,509.7	1,487.5	1,472.8	963.7	86.6	422.5	1,239.8	709.9	84.8	445.1
1966	1,195.8	1,172.8	1,164.9	778.6	61.1	325.1	971.9	563.2	61.0	347.7
1967	1,321.9	1,298.8	1,291.6	843.9	71.6	376.1	1,141.0	650.6	73.0	417.5
1968	1,545.4	1,521.4	1,507.6	899.4	80.9	527.3	1,353.4	694.7	84.3	574.4
1969	1,499.5	1,482.3	1,466.8	810.6	85.0	571.2	1,323.7	625.9	85.2	612.7
1970	1,469.0	[3]	1,433.6	812.9	84.8	535.9	1,351.5	646.8	88.1	616.7
1971	2,084.5	[3]	2,052.2	1,151.0	120.3	780.9	1,924.6	906.1	132.9	885.7
1972	2,378.5	[3]	2,356.6	1,309.2	141.3	906.2	2,218.9	1,033.1	148.6	1,037.2
1973	2,057.5	[3]	2,045.3	1,132.0	118.3	795.0	1,819.5	882.1	117.0	820.5
1974	1,352.5	[3]	1,337.7	888.1	68.1	381.6	1,074.4	643.8	64.3	366.2
1975	1,171.4	[3]	1,160.4	892.2	64.0	204.3	939.2	675.5	63.9	199.8
1976	1,547.6	[3]	1,537.5	1,162.4	85.9	289.2	1,296.2	893.6	93.1	309.5
1977	2,001.7	[3]	1,987.1	1,450.9	121.7	414.4	1,690.0	1,126.1	121.3	442.7
1978	2,036.1	[3]	2,020.3	1,433.3	125.0	462.0	1,800.5	1,182.6	130.6	487.3
1979	1,760.0	[3]	1,745.1	1,194.1	122.0	429.0	1,551.8	981.5	125.4	444.8
1980	1,312.6	[3]	1,292.2	852.2	109.5	330.5	1,190.6	710.4	114.5	365.7
1981	1,100.3	[3]	1,084.2	705.4	91.1	287.7	985.5	564.3	101.8	319.4
1982	1,072.1	[3]	1,062.2	662.6	80.0	319.6	1,000.5	546.4	88.3	365.8
1983	1,712.5	[3]	1,703.0	1,067.6	113.5	522.0	1,605.2	901.5	133.6	570.1
1984	1,755.8	[3]	1,749.5	1,084.2	121.4	544.0	1,681.8	922.4	142.6	616.8
1985	1,745.0	[3]	1,741.8	1,072.4	93.4	576.1	1,733.3	956.6	120.1	656.6
1986	1,807.1	[3]	1,805.4	1,179.4	84.0	542.0	1,769.4	1,077.6	108.4	583.5
1987	1,622.7	[3]	1,620.5	1,146.4	65.3	408.7	1,534.8	1,024.4	89.3	421.1
1988	[4]	[3]	1,488.1	1,081.3	58.8	348.0	1,455.6	993.8	75.7	386.1
1989	[4]	[3]	1,376.1	1,003.3	55.2	317.6	1,338.4	931.7	67.0	339.8
1990	[4]	[3]	1,192.7	894.8	37.5	260.4	1,110.8	793.9	54.3	262.6
1991 [p]	[4]	[3]	1,014.7	841.6	36.3	136.8	960.8	758.5	45.7	156.6
			Seasonally adjusted annual rates							
1990: Jan	[4]	[3]	1,543	1,078	53	412	1,758	998	84	676
Feb	[4]	[3]	1,459	1,127	41	291	1,343	978	62	303
Mar	[4]	[3]	1,298	988	35	275	1,205	884	55	266
Apr	[4]	[3]	1,217	901	51	265	1,123	816	57	250
May	[4]	[3]	1,208	897	38	273	1,088	808	51	229
June	[4]	[3]	1,187	890	41	256	1,123	801	49	273
July	[4]	[3]	1,155	876	31	248	1,086	781	58	247
Aug	[4]	[3]	1,131	835	30	266	1,055	756	61	238
Sept	[4]	[3]	1,106	858	35	213	989	730	48	211
Oct	[4]	[3]	1,026	839	22	165	925	703	44	178
Nov	[4]	[3]	1,130	769	54	307	916	668	42	206
Dec	[4]	[3]	971	751	17	203	854	645	44	165
1991: Jan	[4]	[3]	847	648	29	170	802	611	40	151
Feb	[4]	[3]	992	788	37	167	876	695	44	137
Mar	[4]	[3]	907	742	28	137	892	689	45	158
Apr	[4]	[3]	977	801	32	144	913	742	45	126
May	[4]	[3]	983	831	36	116	966	760	41	165
June	[4]	[3]	1,034	869	24	141	999	780	54	165
July	[4]	[3]	1,049	879	46	124	1,005	794	42	169
Aug	[4]	[3]	1,056	883	42	131	953	769	46	138
Sept	[4]	[3]	1,017	861	28	128	982	782	48	152
Oct	[4]	[3]	1,090	889	51	150	1,028	796	50	182
Nov [p]	[4]	[3]	1,075	910	33	132	993	787	58	148
Dec [p]	[4]	[3]	1,103	948	56	99	1,055	851	43	161

[1] Units in structures built by private developers for sale upon completion to local public housing authorities under the Department of Housing and Urban Development "Turnkey" program are classified as private housing. Military housing starts, including those financed with mortgages insured by FHA under Section 803 of the National Housing Act, are included in publicly owned starts and excluded from total private starts.

[2] Authorized by issuance of local building permit: in 17,000 permit-issuing places beginning 1984; in 16,000 places for 1978–83; in 14,000 places for 1972–77; in 13,000 places for 1967–71; in 12,000 places for 1963–66; and in 10,000 places prior to 1963.

[3] Not available separately beginning January 1970.

[4] Series discontinued December 1988.

Source: Department of Commerce, Bureau of the Census.

TABLE B–52.—*Business expenditures for new plant and equipment, 1947–92*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Industries surveyed quarterly									Addenda				
	All industries	Manufacturing			Nonmanufacturing					Total nonfarm business [2]	Manufacturing	Nonmanufacturing		
		Total	Durable goods	Nondurable goods	Total [1]	Mining	Transportation	Public utilities	Commercial and other			Total	Surveyed quarterly	Surveyed annually [3]
1947	20.11	8.73	3.39	5.34	11.38	0.69	2.69	1.64	6.38	22.27	8.73	13.54	11.38	2.16
1948	22.78	9.25	3.54	5.71	13.53	.93	3.17	2.67	6.77	25.97	9.25	16.73	13.53	3.19
1949	20.28	7.32	2.67	4.64	12.96	.88	2.80	3.28	6.01	24.03	7.32	16.72	12.96	3.76
1950	21.56	7.73	3.22	4.51	13.83	.84	2.87	3.42	6.70	25.81	7.73	18.08	13.83	4.25
1951	26.81	11.07	5.12	5.95	15.74	1.11	3.60	3.75	7.29	31.38	11.07	20.31	15.74	4.57
1952	28.16	12.12	5.75	6.37	16.04	1.21	3.56	3.96	7.31	32.16	12.12	20.04	16.04	4.00
1953	29.96	12.43	5.71	6.72	17.53	1.25	3.58	4.61	8.09	34.20	12.43	21.77	17.53	4.23
1954	28.86	12.00	5.49	6.51	16.85	1.29	2.91	4.23	8.42	33.62	12.00	21.62	16.85	4.76
1955	30.94	12.50	5.87	6.62	18.44	1.31	3.10	4.26	9.77	37.08	12.50	24.58	18.44	6.14
1956	37.90	16.33	8.19	8.15	21.57	1.64	3.56	4.78	11.59	45.25	16.33	28.91	21.57	7.35
1957	40.54	17.50	8.59	8.91	23.04	1.69	3.84	5.95	11.56	48.62	17.50	31.11	23.04	8.08
1958	33.84	12.98	6.21	6.77	20.86	1.43	2.72	5.74	10.97	42.55	12.98	29.57	20.86	8.72
1959	35.88	13.76	6.72	7.04	22.12	1.35	3.47	5.46	11.84	45.17	13.76	31.41	22.12	9.29
1960	39.44	16.36	8.28	8.08	23.08	1.29	3.54	5.40	12.86	48.99	16.36	32.63	23.08	9.55
1961	38.34	15.53	7.43	8.10	22.80	1.26	3.14	5.20	13.21	48.14	15.53	32.60	22.80	9.80
1962	40.86	16.03	7.81	8.22	24.83	1.41	3.59	5.12	14.71	51.61	16.03	35.58	24.83	10.75
1963	43.67	17.27	8.64	8.63	26.40	1.26	3.64	5.33	16.17	53.59	17.27	36.33	26.40	9.93
1964	51.26	21.23	10.98	10.25	30.04	1.33	4.71	5.80	18.20	62.02	21.23	40.80	30.04	10.76
1965	59.52	25.41	13.49	11.92	34.12	1.36	5.66	6.49	20.60	70.79	25.41	45.39	34.12	11.27
1966	70.40	31.37	17.23	14.15	39.03	1.42	6.68	7.82	23.11	82.62	31.37	51.25	39.03	12.22
1967	72.75	32.25	17.83	14.42	40.50	1.38	6.57	9.33	23.22	83.82	32.25	51.57	40.50	11.07
1968	76.42	32.34	17.93	14.40	44.08	1.44	6.91	10.52	25.22	88.92	32.34	56.58	44.08	12.50
1969	85.74	36.27	19.97	16.31	49.47	1.77	7.23	11.70	28.77	100.02	36.27	63.74	49.47	14.27
1970	91.91	36.99	19.80	17.19	54.92	2.02	7.17	13.03	32.71	106.15	36.99	69.16	54.92	14.24
1971	92.91	33.60	16.78	16.82	59.31	2.67	6.42	14.70	35.52	109.18	33.60	75.58	59.31	16.26
1972	103.40	35.42	18.22	17.20	67.98	2.88	7.14	16.26	41.69	120.91	35.42	85.49	67.98	17.51
1973	120.03	42.35	22.63	19.72	77.67	3.30	8.00	17.99	48.39	139.26	42.35	96.91	77.67	19.24
1974	139.67	52.48	26.77	25.71	87.19	4.58	9.16	19.96	53.49	159.83	52.48	107.35	87.19	20.16
1975	142.42	53.66	25.37	28.28	88.76	6.12	9.95	20.23	52.47	162.60	53.66	108.95	88.76	20.19
1976	158.44	58.53	27.50	31.03	99.91	7.63	11.10	22.90	58.29	179.91	58.53	121.38	99.91	21.47
1977	184.82	67.48	32.77	34.71	117.34	9.81	12.20	27.83	67.51	208.15	67.48	140.67	117.34	23.33
1978	216.81	78.13	39.02	39.10	138.69	10.55	12.07	32.10	83.96	244.40	78.13	166.27	138.69	27.58
1979	255.26	95.13	47.72	47.41	160.13	11.05	13.91	37.53	97.64	285.24	95.13	190.11	160.13	29.98
1980	286.40	112.60	54.82	57.77	173.80	12.71	13.56	41.32	106.21	318.08	112.60	205.48	173.80	31.68
1981	324.73	128.68	58.93	69.75	196.06	15.81	12.67	47.17	120.41	358.77	128.68	230.09	196.06	34.04
1982	326.19	123.97	54.58	69.39	202.22	14.11	11.75	53.58	122.79	363.08	123.97	239.11	202.22	36.89
1983	321.16	117.35	51.61	65.74	203.82	10.64	10.81	52.95	129.41	359.73	117.35	242.38	203.82	38.56
1984	373.83	139.61	64.57	75.04	234.22	11.86	13.44	57.53	151.39	418.38	139.61	278.77	234.22	44.55
1985	410.12	152.88	70.87	82.01	257.24	12.00	14.57	59.58	171.09	454.93	152.88	302.05	257.24	44.81
1986	399.36	137.95	65.68	72.28	261.40	8.15	15.05	56.61	181.59	447.11	137.95	309.16	261.40	47.75
1987	410.52	141.06	68.03	73.03	269.46	8.28	15.07	56.26	189.84	461.51	141.06	320.45	269.46	50.99
1988	455.49	163.45	77.04	86.41	292.04	9.29	16.63	60.37	205.76	508.22	163.45	344.77	292.04	52.73
1989	507.40	183.80	82.56	101.24	323.60	9.21	18.84	66.28	229.28	563.93	183.80	380.13	323.60	56.53
1990	532.61	192.61	82.58	110.04	339.99	9.88	21.47	67.21	241.43	591.96	192.61	399.34	339.99	59.35
1991 [4]	529.97	184.31	77.04	107.27	345.66	10.06	22.18	65.98	247.44	.....	184.31	.....	345.66	.....
1992 [4]	558.60	184.06	79.38	104.68	374.54	9.50	26.24	71.44	267.35	.....	184.06	.....	374.54	.....
1990: I	532.50	192.16	86.03	106.14	340.33	9.62	21.84	65.41	243.46	.....	192.16	.....	340.33	.....
II	534.55	195.02	84.15	110.87	339.53	9.77	21.94	64.64	243.18	.....	195.02	.....	339.53	.....
III	534.11	194.05	82.48	111.57	340.06	9.97	21.08	67.68	241.32	.....	194.05	.....	340.06	.....
IV	530.13	189.72	79.03	110.69	340.41	10.12	21.18	70.24	238.87	.....	189.72	.....	340.41	.....
1991: I	535.50	191.13	81.24	109.90	344.37	9.89	23.25	67.04	244.19	.....	191.13	.....	344.37	.....
II	524.57	187.35	79.69	107.66	337.22	10.09	23.05	64.58	239.50	.....	187.35	.....	337.22	.....
III	527.86	177.05	74.51	102.54	350.81	10.09	22.83	66.47	251.42	.....	177.05	.....	350.81	.....
IV [4]	531.96	181.72	72.74	108.98	350.24	10.15	19.61	65.82	254.66	.....	181.72	.....	350.24	.....
1992: I [4]	563.31	188.11	80.58	107.52	375.20	10.58	24.82	71.52	268.28	.....	188.11	.....	375.20	.....
II [4]	580.52	197.49	84.87	112.61	383.03	10.01	27.68	74.47	270.88	.....	197.49	.....	383.03	.....

[1] Excludes forestry, fisheries, and agricultural services; professional services; social services and membership organizations; and real estate, which, effective with the April–May 1984 survey, are no longer surveyed quarterly. See last column ("nonmanufacturing surveyed annually") for data for these industries.

[2] "All industries" plus the part of nonmanufacturing that is surveyed annually.

[3] Consists of forestry, fisheries, and agricultural services; professional services; social services and membership organizations; and real estate.

[4] Planned capital expenditures as reported by business in October and November 1991, corrected for biases.

Source: Department of Commerce, Bureau of the Census.

TABLE B–53.—*Manufacturing and trade sales and inventories, 1950–91*

[Amounts in millions of dollars; monthly data seasonally adjusted]

Year or month	Total manufacturing and trade			Manufacturing			Merchant wholesalers			Retail trade		
	Sales[1]	Inventories[2]	Ratio[3]	Sales[1]	Inventories[2]	Ratio[3]	Sales[1]	Inventories[2]	Ratio[3]	Sales[1]	Inventories[2]	Ratio[3]
1950	38,596	59,822	1.36	18,634	31,078	1.48	7,695	9,284	1.07	12,268	19,460	1.38
1951	43,356	70,242	1.55	21,714	39,306	1.66	8,507	9,866	1.16	13,046	21,050	1.64
1952	44,840	72,377	1.58	22,529	41,136	1.78	8,782	10,210	1.12	13,529	21,031	1.52
1953	47,987	76,122	1.58	24,843	43,948	1.76	9,052	10,686	1.17	14,091	21,488	1.53
1954	46,443	73,175	1.60	23,355	41,612	1.81	8,993	10,637	1.18	14,095	20,926	1.51
1955	51,694	79,516	1.47	26,488	45,089	1.62	9,893	11,678	1.13	15,321	22,760	1.48
1956	54,063	87,304	1.55	27,748	50,642	1.73	10,513	13,260	1.19	15,811	23,492	1.47
1957	55,879	88,052	1.59	28,736	51,871	1.80	10,475	12,730	1.23	16,667	24,451	1.44
1958	54,201	87,885	1.61	27,248	50,203	1.84	10,257	12,739	1.24	16,696	24,113	1.44
1959	59,729	92,097	1.54	30,286	52,913	1.75	11,491	13,879	1.21	17,951	25,306	1.41
1960	60,827	94,719	1.56	30,878	53,706	1.74	11,656	14,120	1.21	18,294	26,813	1.47
1961	61,159	95,580	1.56	30,922	54,871	1.77	11,908	14,408	1.21	18,249	26,221	1.44
1962	65,662	101,049	1.54	33,358	58,172	1.74	12,674	14,936	1.18	19,630	27,941	1.42
1963	68,995	105,463	1.53	35,058	60,029	1.71	13,382	16,048	1.20	20,556	29,386	1.43
1964	73,682	111,504	1.51	37,331	63,410	1.70	14,529	17,000	1.17	21,823	31,094	1.42
1965	80,283	120,929	1.51	40,995	68,207	1.66	15,611	18,317	1.17	23,677	34,405	1.45
1966	87,187	136,824	1.57	44,870	77,986	1.74	16,987	20,765	1.22	25,330	38,073	1.50
1967	90,765	144,850	1.60	46,486	84,646	1.82	19,520	24,955	1.28	24,758	35,249	1.42
1968	98,607	155,713	1.58	50,229	90,560	1.80	20,926	26,268	1.26	27,453	38,885	1.42
1969	105,585	169,362	1.60	53,591	98,145	1.83	22,694	28,762	1.27	29,390	42,455	1.44
1970	108,100	177,439	1.64	52,885	101,589	1.92	24,031	32,199	1.34	31,264	43,641	1.40
1971	116,769	187,633	1.61	55,906	102,567	1.83	26,350	35,210	1.34	34,513	49,856	1.44
1972	130,931	201,746	1.54	63,027	108,121	1.72	29,695	38,816	1.31	38,209	54,809	1.43
1973	153,762	233,044	1.52	72,931	124,499	1.71	38,173	45,556	1.19	42,658	62,989	1.48
1974	177,946	285,716	1.61	84,790	157,625	1.86	47,989	57,239	1.19	45,167	70,852	1.57
1975	182,402	288,190	1.58	86,589	159,708	1.84	46,803	56,972	1.22	49,010	71,510	1.46
1976	204,381	318,088	1.56	98,797	174,636	1.77	50,885	64,365	1.26	54,699	79,087	1.45
1977	229,773	350,328	1.52	113,201	188,378	1.66	56,364	72,801	1.29	60,207	89,149	1.48
1978	260,592	400,397	1.54	126,905	211,686	1.67	66,669	86,405	1.30	67,018	102,306	1.53
1979	298,144	452,216	1.52	143,936	242,150	1.68	79,472	99,262	1.25	74,737	110,804	1.48
1980	327,874	509,256	1.55	154,391	265,210	1.72	93,704	122,979	1.31	79,779	121,067	1.52
1981	356,700	546,363	1.53	168,129	283,395	1.69	102,013	130,275	1.28	86,558	132,693	1.53
1982	348,755	574,518	1.67	163,351	311,829	1.95	96,290	128,196	1.35	89,114	134,493	1.49
1983	370,441	590,968	1.55	172,547	312,350	1.78	100,324	130,906	1.27	97,570	147,712	1.44
1984	411,391	650,789	1.53	198,682	339,484	1.73	113,393	143,557	1.22	107,316	167,748	1.49
1985	423,806	665,060	1.55	194,538	334,803	1.73	114,626	148,484	1.28	114,642	181,773	1.52
1986	431,668	664,031	1.55	194,657	322,731	1.68	116,151	154,713	1.31	120,860	186,587	1.56
1987	459,088	711,595	1.50	206,326	338,212	1.59	124,254	165,271	1.28	128,509	208,112	1.55
1988	496,330	767,706	1.49	223,541	367,596	1.58	135,176	180,313	1.30	137,613	219,791	1.55
1989	525,839	810,257	1.51	236,689	383,825	1.61	144,005	188,273	1.28	145,146	238,159	1.60
1990	542,917	826,941	1.51	243,122	388,811	1.60	149,193	195,567	1.29	150,602	242,563	1.59
1990: Jan	531,420	810,742	1.53	232,180	386,547	1.66	148,326	188,470	1.27	150,914	235,725	1.56
Feb	537,551	810,024	1.51	238,812	386,273	1.62	148,351	188,653	1.27	150,388	235,098	1.56
Mar	540,938	810,830	1.50	241,975	384,947	1.59	149,113	189,580	1.27	149,850	236,303	1.58
Apr	535,418	812,976	1.52	238,663	385,652	1.62	147,568	190,968	1.29	149,187	236,356	1.58
May	540,387	816,667	1.51	243,214	386,235	1.59	148,430	192,557	1.30	148,743	237,875	1.60
June	544,643	813,118	1.49	244,602	384,373	1.57	149,885	191,042	1.27	150,156	237,703	1.58
July	541,799	818,689	1.51	242,754	387,104	1.59	148,547	192.042	1.29	150,498	239,543	1.59
Aug	554,180	822,683	1.48	251,502	387,986	1.54	151,694	192,641	1.27	150,984	242,056	1.60
Sept	549,804	825,964	1.50	247,916	390,992	1.58	149,918	193,077	1.29	151,970	241,895	1.59
Oct	554,628	829,140	1.49	251,953	391,460	1.55	150,588	194,080	1.29	152,087	243,600	1.60
Nov	546,533	830,857	1.52	245,827	392,370	1.60	148,037	194,984	1.32	152,669	243,503	1.59
Dec	534,760	826,941	1.55	236,575	388,811	1.64	148,036	195,567	1.32	150,149	242,563	1.62
1991: Jan	527,074	831,445	1.58	234,548	388,381	1.66	144,723	198,993	1.37	147,803	244,071	1.65
Feb	527,915	828,201	1.57	233,215	388,459	1.67	143,608	198,563	1.38	151,092	241,179	1.60
Mar	523,117	819,615	1.57	228,715	385,982	1.69	142,935	196,733	1.38	151,467	236,900	1.56
Apr	530,872	816,893	1.54	234,886	385,145	1.64	145,019	195,052	1.35	150,967	236,696	1.57
May	535,926	811,713	1.51	238,289	381,877	1.60	144,927	193,632	1.34	152,710	236,204	1.55
June	536,977	807,105	1.50	239,118	379,968	1.59	145,217	192,039	1.32	152,642	235,098	1.54
July	541,023	806,802	1.49	240,193	378,002	1.57	147,635	192,806	1.31	153,195	235,994	1.54
Aug	539,578	806,648	1.49	241,894	377,388	1.56	145,524	192,503	1.32	152,160	236,757	1.56
Sept	540,898	809,793	1.50	242,240	378,837	1.56	146,000	191,211	1.31	152,658	239,745	1.57
Oct	542,982	813,024	1.50	245,134	378,064	1.54	145,365	193,005	1.33	152,483	241,955	1.59
Nov [p]	542,761	814,340	1.50	245,586	378,034	1.54	145,444	194,148	1.33	151,731	242,158	1.60

[1] Monthly average for year and total for month.

[2] Seasonally adjusted, end of period. Inventories beginning January 1982 for manufacturing and December 1980 for wholesale and retail trade are not comparable with earlier periods.

[3] Inventory/sales ratio. Annual data are: beginning 1982, averages of monthly ratios; for 1958–81, ratio of December inventories to monthly average sales for the year; and for earlier years, weighted averages. Monthly data are ratio of inventories at end of month to sales for month.

Note.—Earlier data are not strictly comparable with data beginning 1958 for manufacturing and beginning 1967 for wholesale and retail trade.

Source: Department of Commerce, Bureau of the Census.

TABLE B–54.—*Manufacturers' shipments and inventories, 1950–91*

[Millions of dollars; monthly data seasonally adjusted]

Year or month	Shipments[1]			Inventories[2]								
					Durable goods industries				Nondurable goods industries			
	Total	Durable goods industries	Nondurable goods industries	Total	Total	Materials and supplies	Work in process	Finished goods	Total	Materials and supplies	Work in process	Finished goods
1950	18,634	8,845	9,789	31,078	15,539				15,539			
1951	21,714	10,493	11,221	39,306	20,991				18,315			
1952	22,529	11,313	11,216	41,136	23,731				17,405			
1953	24,843	13,349	11,494	43,948	25,878	8,966	10,720	6,206	18,070	8,317	2,472	7,409
1954	23,355	11,828	11,527	41,612	23,710	7,894	9,721	6,040	17,902	8,167	2,440	7,415
1955	26,480	14,071	12,409	45,069	26,405	9,194	10,756	6,348	18,664	8,556	2,571	7,666
1956	27,740	14,715	13,025	50,642	30,447	10,417	12,317	7,565	20,195	8,971	2,721	8,622
1957	28,736	15,237	13,499	51,871	31,728	10,608	12,837	8,125	20,143	8,775	2,864	8,624
1958	27,248	13,553	13,695	50,203	30,194	9,970	12,408	7,816	20,009	8,676	2,827	8,506
1959	30,286	15,597	14,689	52,913	32,012	10,709	13,086	8,217	20,901	9,094	2,942	8,865
1960	30,878	15,870	15,008	53,786	32,337	10,306	12,809	9,222	21,449	9,097	2,947	9,405
1961	30,922	15,601	15,321	54,871	32,496	10,246	13,211	9,039	22,375	9,505	3,108	9,762
1962	33,358	17,247	16,111	58,172	34,565	10,794	14,124	9,647	23,607	9,836	3,304	10,467
1963	35,058	18,255	16,803	60,029	35,776	11,053	14,835	9,888	24,253	10,009	3,420	10,824
1964	37,331	19,611	17,720	63,410	38,421	11,946	16,158	10,317	24,989	10,167	3,531	11,291
1965	40,995	22,193	18,802	68,207	42,189	13,298	18,055	10,836	26,018	10,487	3,825	11,706
1966	44,870	24,617	20,253	77,986	49,852	15,464	21,908	12,480	28,134	11,197	4,226	12,711
1967	46,486	25,233	21,253	84,646	54,896	16,423	24,932	13,541	29,750	11,760	4,431	13,559
1968	50,229	27,624	22,605	90,560	58,732	17,344	27,213	14,175	31,828	12,328	4,852	14,648
1969	53,501	29,403	24,098	98,145	64,598	18,636	30,282	15,680	33,547	12,753	5,120	15,674
1970	52,805	28,156	24,649	101,599	66,651	19,149	29,745	17,757	34,948	13,168	5,271	16,509
1971	55,906	29,924	25,982	102,567	66,136	19,679	28,550	17,907	36,431	13,686	5,678	17,067
1972	63,027	33,987	29,040	108,121	70,067	20,807	30,713	18,547	38,054	14,677	5,998	17,379
1973	72,931	39,635	33,296	124,499	81,192	25,944	35,490	19,758	43,307	18,147	6,729	18,431
1974	84,790	44,173	40,617	157,625	101,493	35,070	42,530	23,893	56,132	23,744	8,189	24,199
1975	86,589	43,598	42,991	159,708	102,590	33,903	43,227	25,460	57,118	23,565	8,834	24,719
1976	98,797	50,623	48,174	174,636	111,988	37,457	46,074	28,457	62,648	25,647	9,929	26,872
1977	113,201	59,168	54,033	188,378	120,877	40,186	50,226	30,465	67,501	27,387	10,961	29,153
1978	126,905	67,731	59,174	211,686	138,174	45,202	58,841	34,131	73,512	29,606	12,083	31,823
1979	143,936	75,927	68,009	242,150	160,725	52,675	69,317	38,733	81,425	32,803	13,906	34,716
1980	154,391	77,419	76,972	265,210	174,779	55,179	76,937	42,663	90,431	36,593	15,882	37,956
1981	168,129	83,727	84,402	283,395	186,420	57,999	80,987	47,434	96,975	38,159	16,195	42,621
1982	163,351	79,212	84,139	311,829	200,409	59,131	86,693	54,585	111,420	44,035	18,609	48,776
1983	172,547	85,481	87,066	312,350	199,814	60,322	86,884	52,608	112,536	44,810	18,698	49,028
1984	190,682	97,940	92,742	339,484	221,284	66,027	98,234	57,023	118,200	45,689	19,344	53,167
1985	194,538	101,279	93,259	334,803	218,182	64,020	98,065	56,097	116,621	44,094	19,470	53,057
1986	194,657	103,238	91,419	322,731	212,010	61,445	96,923	53,642	110,721	42,334	18,153	50,234
1987	206,326	108,128	98,198	338,212	220,790	63,685	102,324	54,781	117,422	45,350	19,321	52,751
1988	223,541	117,993	105,549	367,596	241,389	69,488	112,360	59,541	126,207	49,158	20,489	56,560
1989	236,689	124,532	112,156	383,825	253,261	71,295	120,890	61,076	130,564	48,456	22,424	59,684
1990	243,122	125,388	117,735	388,811	252,836	71,191	119,169	62,476	135,975	49,710	22,906	63,359
1990: Jan	232,180	118,699	113,481	386,547	255,068	71,423	122,536	61,109	131,479	48,316	22,479	60,684
Feb	238,812	125,092	113,720	386,273	254,499	70,916	121,590	61,993	131,774	48,359	22,387	61,028
Mar	241,975	126,769	115,206	384,947	252,994	70,282	120,881	61,831	131,953	48,731	22,360	60,862
Apr	238,663	123,885	114,778	385,652	254,328	70,390	121,720	62,218	131,324	48,461	22,308	60,555
May	243,214	127,891	115,323	386,235	254,564	70,599	121,617	62,348	131,671	48,405	22,476	60,790
June	244,602	129,167	115,435	384,373	252,877	70,107	120,546	62,224	131,496	48,275	22,171	61,050
July	242,754	126,531	116,223	387,104	254,521	70,637	121,509	62,375	132,583	48,654	22,286	61,643
Aug	251,502	130,441	121,061	387,986	254,721	70,044	121,956	62,721	133,265	49,003	22,683	61,579
Sept	247,916	125,783	122,133	390,992	255,278	70,268	122,352	62,658	135,714	49,407	23,149	63,158
Oct	251,953	127,692	124,261	391,460	255,113	70,741	121,692	62,680	136,347	49,845	23,155	63,347
Nov	245,827	122,693	123,134	392,370	256,387	71,041	122,487	62,859	135,983	49,981	22,950	63,052
Dec	236,575	118,578	117,997	388,811	252,836	71,191	119,169	62,476	135,975	49,710	22,906	63,359
1991: Jan	234,548	117,648	116,900	388,381	252,170	71,208	119,015	61,947	136,211	50,034	22,426	63,751
Feb	233,215	117,432	115,783	388,459	252,256	70,980	119,010	62,266	136,203	49,706	22,369	64,128
Mar	228,715	114,487	114,228	385,982	250,405	70,101	118,646	61,658	135,577	49,661	21,998	63,918
Apr	234,886	119,721	115,165	385,145	249,546	69,274	118,041	62,231	135,599	49,523	22,296	63,780
May	238,289	121,024	117,265	381,877	246,964	68,425	117,308	61,231	134,913	49,342	22,224	63,347
June	239,118	122,240	116,878	379,968	245,642	67,387	117,748	60,507	134,326	49,305	22,395	62,626
July	240,193	122,994	117,199	378,002	244,467	66,936	117,350	60,181	133,535	49,409	22,228	61,898
Aug	241,894	124,459	117,435	377,388	243,616	66,951	116,308	60,357	133,772	49,237	22,339	62,196
Sept	242,240	124,965	117,275	378,837	244,310	67,027	116,762	60,521	134,527	49,284	22,786	62,457
Oct	245,134	126,404	118,730	378,064	242,816	66,823	115,452	60,501	135,248	49,556	22,820	62,872
Nov p	245,586	126,545	119,041	378,034	242,451	66,565	115,472	60,414	135,583	49,286	22,496	63,801

[1] Monthly average for year and total for month.
[2] Seasonally adjusted, end of period. Data beginning 1982 are not comparable with data for prior periods.

Note.—Data beginning 1958 are not strictly comparable with earlier data.

Source: Department of Commerce, Bureau of the Census.

TABLE B–55.—*Manufacturers' new and unfilled orders, 1950–91*

[Amounts in millions of dollars; monthly data seasonally adjusted]

Year or month	New orders [1]				Unfilled orders [2]			Unfilled orders—shipments ratio [3]		
	Total	Durable goods industries		Nondurable goods industries	Total	Durable goods industries	Nondurable goods industries	Total	Durable goods industries	Nondurable goods industries
		Total	Capital goods industries, nondefense							
1950	20,110	10,165	.....	9,945	41,456	35,435	6,021	.....	.....	.....
1951	23,907	12,841	.....	11,066	67,266	63,394	3,872	.....	.....	.....
1952	23,204	12,061	.....	11,143	75,857	72,680	3,177	.....	.....	.....
1953	23,586	12,147	.....	11,439	61,178	58,637	2,541	.....	.....	.....
1954	22,335	10,768	.....	11,566	48,266	45,250	3,016	3.42	4.12	0.96
1955	27,465	14,996	.....	12,469	60,004	56,241	3,763	3.63	4.27	1.12
1956	28,368	15,365	.....	13,003	67,375	63,880	3,495	3.87	4.55	1.04
1957	27,559	14,111	.....	13,448	53,183	50,352	2,831	3.35	4.00	.85
1958	27,193	13,387	.....	13,805	46,609	43,807	2,802	3.02	3.62	.85
1959	30,711	15,979	.....	14,732	51,717	48,369	3,348	2.94	3.47	.92
1960	30,232	15,288	.....	14,944	44,213	41,650	2,563	2.71	3.29	.71
1961	31,112	15,753	.....	15,359	46,624	43,582	3,042	2.58	3.08	.78
1962	33,440	17,363	.....	16,078	47,798	45,170	2,628	2.64	3.18	.68
1963	35,511	18,671	.....	16,840	53,417	50,346	3,071	2.74	3.31	.72
1964	38,240	20,507	.....	17,732	64,518	61,315	3,203	2.99	3.59	.71
1965	42,137	23,286	.....	18,851	78,249	74,459	3,790	3.25	3.86	.79
1966	46,420	26,163	.....	20,258	96,846	93,002	3,844	3.74	4.48	.75
1967	47,067	25,803	.....	21,265	103,711	99,735	3,976	3.66	4.37	.73
1968	50,657	28,051	6,314	22,606	108,377	104,393	3,984	3.83	4.64	.69
1969	53,990	29,876	7,046	24,114	114,341	110,161	4,180	3.74	4.50	.69
1970	52,022	27,340	6,072	24,682	105,008	100,412	4,596	3.64	4.40	.76
1971	55,921	29,905	6,682	26,016	105,247	100,225	5,022	3.36	4.06	.76
1972	64,182	35,038	7,745	29,144	119,349	113,034	6,315	3.27	3.88	.86
1973	76,003	42,627	9,926	33,376	156,561	149,204	7,357	3.83	4.55	.91
1974	87,327	46,862	11,594	40,465	187,043	181,519	5,524	4.12	4.97	.62
1975	85,139	41,957	9,886	43,181	169,546	161,664	7,882	3.72	4.50	.82
1976	99,513	51,307	11,490	48,206	178,128	169,857	8,271	3.26	3.90	.74
1977	115,109	61,035	13,681	54,073	202,022	193,321	8,701	3.25	3.87	.71
1978	131,629	72,278	17,588	59,351	259,168	248,282	10,886	3.57	4.20	.81
1979	147,604	79,483	21,154	68,121	303,595	291,324	12,271	3.89	4.62	.82
1980	156,359	79,392	21,135	76,967	327,421	315,209	12,212	3.85	4.58	.75
1981	168,025	83,654	21,806	84,371	326,553	314,718	11,835	3.87	4.68	.69
1982	162,140	78,064	19,213	84,077	311,893	300,810	11,083	3.84	4.74	.62
1983	175,451	88,140	19,624	87,311	347,310	333,159	14,151	3.53	4.29	.69
1984	192,879	100,164	23,669	92,715	373,607	359,734	13,873	3.60	4.37	.64
1985	195,706	102,356	24,545	93,351	387,241	372,175	15,066	3.67	4.47	.68
1986	195,204	103,647	23,983	91,557	393,629	376,839	16,790	3.59	4.40	.70
1987	209,389	110,809	26,096	98,579	430,589	408,894	21,695	3.64	4.44	.83
1988	227,025	121,444	30,727	105,581	472,223	450,258	21,965	3.62	4.42	.77
1989	240,758	128,651	34,816	112,107	520,837	499,494	21,343	3.95	4.80	.77
1990	243,643	125,958	34,032	117,685	527,195	506,375	20,820	4.04	4.97	.73
1990: Jan	234,819	121,419	34,784	113,400	523,476	502,214	21,262	4.03	4.96	.74
Feb	236,016	122,468	31,949	113,548	520,680	499,590	21,090	3.90	4.78	.73
Mar	246,422	131,030	36,385	115,392	525,127	503,851	21,276	3.89	4.77	.72
Apr	240,333	125,603	32,556	114,730	526,797	505,569	21,228	3.96	4.88	.72
May	245,318	129,936	31,890	115,382	528,901	507,614	21,287	3.90	4.78	.72
June	242,396	127,057	32,501	115,339	526,695	505,504	21,191	3.85	4.71	.72
July	245,039	129,387	35,274	115,652	528,980	508,360	20,620	3.91	4.80	.70
Aug	250,592	129,020	31,607	121,572	528,070	506,939	21,131	3.83	4.68	.71
Sept	248,987	126,893	34,419	122,094	529,141	508,049	21,092	3.93	4.83	.71
Oct	254,976	130,875	37,223	124,101	532,164	511,232	20,932	3.92	4.80	.71
Nov	239,237	116,193	30,884	123,044	525,574	504,732	20,842	3.94	4.86	.71
Dec	238,196	120,221	38,560	117,975	527,195	506,375	20,820	4.04	4.97	.73
1991: Jan	234,462	117,789	33,957	116,673	527,109	506,516	20,593	4.08	5.03	.72
Feb	233,132	117,547	33,756	115,585	527,026	506,631	20,395	4.08	5.04	.71
Mar	226,431	112,116	31,940	114,315	524,742	504,260	20,482	4.14	5.13	.72
Apr	231,229	116,139	28,748	115,090	521,085	500,678	20,407	4.03	4.94	.73
May	236,540	118,434	28,038	118,106	519,336	498,088	21,248	3.99	4.89	.75
June	233,725	117,128	29,282	116,597	513,943	492,976	20,967	3.91	4.77	.74
July	248,090	130,827	36,689	117,263	521,840	500,809	21,031	3.96	4.86	.73
Aug	243,160	125,482	30,993	117,678	523,106	501,832	21,274	3.92	4.80	.74
Sept	237,624	120,092	30,078	117,532	518,490	496,959	21,531	3.88	4.74	.75
Oct	242,230	123,325	31,098	118,905	515,586	493,880	21,706	3.82	4.67	.75
Nov [p]	242,991	123,859	34,884	119,132	512,990	491,193	21,797	3.79	4.62	.75

[1] Monthly average for year and total for month.
[2] Seasonally adjusted, end of period.
[3] Ratio of unfilled orders at end of period to shipments for period; excludes industries with no unfilled orders. Annual figures relate to seasonally adjusted data for December.

Note.—Data beginning 1958 are not strictly comparable with earlier data.

Source: Department of Commerce, Bureau of the Census.

TABLE B–56.—*Consumer price indexes, major expenditure classes, 1950–91*

[1982–84=100]

Year or month	All items	Food and beverages		Housing				Apparel and upkeep	Transportation [2]	Medical care [2]	Entertainment	Other goods and services	Energy [3]
		Total [1]	Food [2]	Total	Shelter [2]	Fuel and other utilities [3]	Household furnishings and operation						
1950	24.1		25.4					40.3	22.7	15.1			
1951	26.0		28.2					43.9	24.1	15.9			
1952	26.5		28.7					43.5	25.7	16.7			
1953	26.7		28.3		22.0	22.5		43.1	26.5	17.3			
1954	26.9		28.2		22.5	22.6		43.1	26.1	17.8			
1955	26.8		27.8		22.7	23.0		42.9	25.8	18.2			
1956	27.2		28.0		23.1	23.6		43.7	26.2	18.9			
1957	28.1		28.9		24.0	24.3		44.5	27.7	19.7			21.5
1958	28.9		30.2		24.5	24.8		44.6	28.6	20.6			21.5
1959	29.1		29.7		24.7	25.4		45.0	29.8	21.5			21.9
1960	29.6		30.0		25.2	26.0		45.7	29.8	22.3			22.4
1961	29.9		30.4		25.4	26.3		46.1	30.1	22.9			22.5
1962	30.2		30.6		25.8	26.3		46.3	30.8	23.5			22.6
1963	30.6		31.1		26.1	26.6		46.9	30.9	24.1			22.6
1964	31.0		31.5		26.5	26.6		47.3	31.4	24.6			22.5
1965	31.5		32.2		27.0	26.6		47.8	31.9	25.2			22.9
1966	32.4		33.8		27.8	26.7		49.0	32.3	26.3			23.3
1967	33.4	35.0	34.1	30.8	28.8	27.1	42.0	51.0	33.3	28.2	40.7	35.1	23.8
1968	34.8	36.2	35.3	32.0	30.1	27.4	43.6	53.7	34.3	29.9	43.0	36.9	24.2
1969	36.7	38.1	37.1	34.0	32.6	28.0	45.2	56.8	35.7	31.9	45.2	38.7	24.8
1970	38.8	40.1	39.2	36.4	35.5	29.1	46.8	59.2	37.5	34.0	47.5	40.9	25.5
1971	40.5	41.4	40.4	38.0	37.0	31.1	48.6	61.1	39.5	36.1	50.0	42.9	26.5
1972	41.8	43.1	42.1	39.4	38.7	32.5	49.7	62.3	39.9	37.3	51.5	44.7	27.2
1973	44.4	48.8	48.2	41.2	40.5	34.3	51.1	64.6	41.2	38.8	52.9	46.4	29.4
1974	49.3	55.5	55.1	45.8	44.4	40.7	56.8	69.4	45.8	42.4	56.9	49.8	38.1
1975	53.8	60.2	59.8	50.7	48.8	45.4	63.4	72.5	50.1	47.5	62.0	53.9	42.1
1976	56.9	62.1	61.6	53.8	51.5	49.4	67.3	75.2	55.1	52.0	65.1	57.0	45.1
1977	60.6	65.8	65.5	57.4	54.9	54.7	70.4	78.6	59.0	57.0	68.3	60.4	49.4
1978	65.2	72.2	72.0	62.4	60.5	58.5	74.7	81.4	61.7	61.8	71.9	64.3	52.5
1979	72.6	79.9	79.9	70.1	68.9	64.8	79.9	84.9	70.5	67.5	76.7	68.9	65.7
1980	82.4	86.7	86.8	81.1	81.0	75.4	86.3	90.9	83.1	74.9	83.6	75.2	86.0
1981	90.9	93.5	93.6	90.4	90.5	86.4	93.0	95.3	93.2	82.9	90.1	82.6	97.7
1982	96.5	97.3	97.4	96.9	96.9	94.9	98.0	97.8	97.0	92.5	96.0	91.1	99.2
1983	99.6	99.5	99.4	99.5	99.1	100.2	100.2	100.2	99.3	100.6	100.1	101.1	99.9
1984	103.9	103.2	103.2	103.6	104.0	104.8	101.9	102.1	103.7	106.8	103.8	107.9	100.9
1985	107.6	105.6	105.6	107.7	109.8	106.5	103.8	105.0	106.4	113.5	107.9	114.5	101.6
1986	109.6	109.1	109.0	110.9	115.8	104.1	105.2	105.9	102.3	122.0	111.6	121.4	88.2
1987	113.6	113.5	113.5	114.2	121.3	103.0	107.1	110.6	105.4	130.1	115.3	128.5	88.6
1988	118.3	118.2	118.2	118.5	127.1	104.4	109.4	115.4	108.7	138.6	120.3	137.0	89.3
1989	124.0	124.9	125.1	123.0	132.8	107.8	111.2	118.6	114.1	149.3	126.5	147.7	94.3
1990	130.7	132.1	132.4	128.5	140.0	111.6	113.3	124.1	120.5	162.8	132.4	159.0	102.1
1991	136.2	136.8	136.3	133.6	146.3	115.3	116.0	128.7	123.8	177.0	138.4	171.6	102.5
1990: Jan	127.4	130.0	130.4	125.9	136.3	110.8	112.1	116.7	117.2	155.9	129.9	154.0	97.6
Feb	128.0	130.9	131.3	126.1	136.6	110.2	112.8	120.4	117.1	157.5	130.4	154.7	96.4
Mar	128.7	131.2	131.5	126.8	137.8	109.9	112.8	125.4	116.8	158.7	130.9	155.2	95.5
Apr	128.9	131.0	131.3	126.8	138.0	109.4	112.8	126.7	117.3	159.8	131.4	155.8	95.7
May	129.2	131.1	131.3	127.1	138.3	109.9	113.2	125.5	117.7	160.8	131.7	156.6	96.7
June	129.9	131.7	132.0	128.3	139.5	112.2	113.1	123.3	118.2	161.9	131.9	157.8	99.5
July	130.4	132.4	132.7	129.2	141.1	111.3	113.6	120.8	118.4	163.5	132.7	159.2	98.9
Aug	131.6	132.7	132.9	130.2	142.4	112.7	113.3	122.2	120.6	165.0	133.0	160.4	103.6
Sept	132.7	133.0	133.2	130.5	142.3	114.0	113.8	126.8	123.0	165.8	134.1	162.6	108.8
Oct	133.5	133.4	133.6	130.6	142.4	113.4	114.2	128.4	125.8	167.1	134.3	163.2	111.4
Nov	133.8	133.7	134.0	130.4	142.4	112.9	113.8	127.5	126.9	168.4	134.4	163.6	110.9
Dec	133.8	133.9	134.2	130.5	142.7	112.7	113.7	125.3	127.2	169.2	134.6	164.5	110.1
1991: Jan	134.6	135.9	135.8	131.8	144.0	114.8	114.1	123.8	125.5	171.0	135.5	166.5	107.1
Feb	134.8	136.0	135.5	132.4	144.6	114.7	115.6	126.2	123.7	172.5	136.2	167.4	102.8
Mar	135.0	136.3	135.8	132.6	145.2	114.1	115.7	128.8	122.3	173.7	136.7	167.9	99.7
Apr	135.2	137.2	136.7	132.5	145.2	113.1	115.9	130.1	122.2	174.4	137.7	168.8	99.5
May	135.6	137.3	136.8	132.8	145.2	114.2	116.3	129.4	123.3	175.2	137.8	169.1	102.1
June	136.0	137.7	137.2	133.4	145.8	115.8	115.9	126.9	123.7	176.2	138.1	170.0	103.5
July	136.2	137.1	136.5	134.2	146.8	116.4	116.3	125.2	123.4	177.5	138.6	170.8	102.7
Aug	136.6	136.6	136.0	134.5	147.3	116.2	116.2	127.6	123.8	178.9	139.2	172.2	102.9
Sept	137.2	136.7	136.0	134.7	147.4	116.8	116.4	131.3	123.8	179.7	140.2	175.8	103.6
Oct	137.4	136.5	135.8	134.7	147.7	115.7	116.4	132.7	124.0	180.7	140.5	176.2	101.8
Nov	137.8	136.9	136.2	134.7	147.9	115.3	116.5	132.9	125.0	181.8	140.4	176.9	101.8
Dec	137.9	137.3	136.7	135.0	148.2	116.0	116.3	129.6	125.3	182.6	139.9	177.6	101.9

[1] Includes alcoholic beverages, not shown separately.
[2] See table B–57 for components.
[3] See tables B–58 for definition and B–57 for components.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers. Data beginning 1983 incorporate a rental equivalence measure for homeowners' costs and therefore are not strictly comparable with earlier figures.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–57.—*Consumer price indexes, selected expenditure classes, 1950–91*

[1982–84=100, except as noted]

Year or month	Food and beverages				Shelter					Fuel and other utilities				
		Food				Renters' costs					Fuels			
	Total [1]	Total	At home	Away from home	Total	Total [2]	Rent, residential	Homeowners' costs [2]	Maintenance and repairs	Total	Total	Fuel oil and other household fuel commodities	Gas (piped) and electricity (energy services)	Other utilities and public services
1950		25.4	27.3				29.7					11.3	19.2	
1951		28.2	30.3				30.9					11.8	19.3	
1952		28.7	30.8				32.2					12.1	19.5	
1953		28.3	30.3	21.5	22.0		33.9		20.5	22.5		12.6	19.9	
1954		28.2	30.1	21.9	22.5		35.1		20.9	22.6		12.6	20.2	
1955		27.8	29.5	22.1	22.7		35.6		21.4	23.0		12.7	20.7	
1956		28.0	29.6	22.6	23.1		36.3		22.3	23.6		13.3	20.9	
1957		28.9	30.6	23.4	24.0		37.0		23.2	24.3		14.0	21.1	
1958		30.2	32.0	24.1	24.5		37.6		23.6	24.8		13.7	21.9	
1959		29.7	31.2	24.8	24.7		38.2		24.0	25.4		13.9	22.4	
1960		30.0	31.5	25.4	25.2		38.7		24.4	26.0		13.8	23.3	
1961		30.4	31.8	26.0	25.4		39.2		24.8	26.3		14.1	23.5	
1962		30.6	32.0	26.7	25.8		39.7		25.0	26.3		14.2	23.5	
1963		31.1	32.4	27.3	26.1		40.1		25.3	26.6		14.4	23.5	
1964		31.5	32.7	27.8	26.5		40.5		25.8	26.6		14.4	23.5	
1965		32.2	33.5	28.4	27.0		40.9		26.3	26.6		14.6	23.5	
1966		33.8	35.2	29.7	27.8		41.5		27.5	26.7		15.0	23.6	
1967	35.0	34.1	35.1	31.3	28.8		42.2		28.9	27.1	21.4	15.5	23.7	46.6
1968	36.2	35.3	36.3	32.9	30.1		43.3		30.6	27.4	21.7	16.0	23.9	47.1
1969	38.1	37.1	38.0	34.9	32.6		44.7		33.2	28.0	22.1	16.3	24.3	48.4
1970	40.1	39.2	39.9	37.5	35.5		46.5		35.8	29.1	23.1	17.0	25.4	50.0
1971	41.4	40.4	40.9	39.4	37.0		48.7		38.6	31.1	24.7	18.2	27.1	53.4
1972	43.1	42.1	42.7	41.0	38.7		50.4		40.6	32.5	25.7	18.3	28.5	56.2
1973	48.8	48.2	49.7	44.2	40.5		52.5		43.6	34.3	27.5	21.1	29.9	57.8
1974	55.5	55.1	57.1	49.8	44.4		55.2		49.5	40.7	34.4	33.2	34.5	60.7
1975	60.2	59.8	61.8	54.5	48.8		58.0		54.1	45.4	39.4	36.4	40.1	63.9
1976	62.1	61.6	63.1	58.2	51.5		61.1		57.6	49.4	43.3	38.8	44.7	67.7
1977	65.8	65.5	66.8	62.6	54.9		64.8		62.0	54.7	49.0	43.9	50.5	70.8
1978	72.2	72.0	73.8	68.3	60.5		69.3		67.2	58.5	53.0	46.2	55.0	73.7
1979	79.9	79.9	81.8	75.9	68.9		74.3		74.0	64.8	61.3	62.4	61.0	74.3
1980	86.7	86.8	88.4	83.4	81.0		80.9		82.4	75.4	74.8	86.1	71.4	77.0
1981	93.5	93.6	94.8	90.9	90.5		87.9		90.7	86.4	87.2	104.6	81.9	84.3
1982	97.3	97.4	98.1	95.8	96.9		94.6		96.4	94.9	95.6	103.4	93.2	93.3
1983	99.5	99.4	99.1	100.0	99.1	103.0	100.1	102.5	99.9	100.2	100.5	97.2	101.5	99.5
1984	103.2	103.2	102.8	104.2	104.0	108.6	105.3	107.3	103.7	104.8	104.0	99.4	105.4	107.2
1985	105.6	105.6	104.3	108.3	109.8	115.4	111.8	113.1	106.5	106.5	104.5	95.9	107.1	112.1
1986	109.1	109.0	107.3	112.5	115.8	121.9	118.3	119.4	107.9	104.1	99.2	77.6	105.7	117.9
1987	113.5	113.5	111.9	117.0	121.3	128.1	123.1	124.8	111.8	103.0	97.3	77.9	103.8	120.1
1988	118.2	118.2	116.6	121.8	127.1	133.6	127.8	131.1	114.7	104.4	98.0	78.1	104.6	122.9
1989	124.9	125.1	124.2	127.4	132.8	138.9	132.8	137.3	118.0	107.8	100.9	81.7	107.5	127.1
1990	132.1	132.4	132.3	133.4	140.0	146.7	138.4	144.6	122.2	111.6	104.5	99.3	109.3	131.7
1991	136.8	136.3	135.8	137.9	146.3	155.6	143.3	150.2	126.3	115.3	106.7	94.6	112.6	137.9
1990: Jan	130.0	130.4	131.0	130.3	136.3	142.0	135.8	141.1	120.4	110.8	104.5	113.1	107.5	129.3
Feb	130.9	131.3	132.1	131.0	136.6	143.5	136.0	141.0	120.8	110.2	103.1	95.4	108.3	130.0
Mar	131.2	131.5	131.9	131.8	137.8	144.8	136.5	142.2	121.2	109.9	102.3	91.5	107.9	130.7
Apr	131.0	131.3	131.1	132.5	138.0	144.7	137.0	142.5	121.2	109.4	101.2	89.6	106.8	130.9
May	131.1	131.3	130.9	133.0	138.3	144.4	137.3	143.1	122.2	109.9	101.9	88.0	107.8	131.2
June	131.7	132.0	131.7	133.4	139.5	145.3	137.9	144.4	121.8	112.2	105.4	84.9	112.4	131.8
July	132.4	132.7	132.5	133.9	141.1	148.7	138.7	145.4	122.1	111.3	104.5	82.7	111.7	130.8
Aug	132.7	132.9	132.7	134.3	142.4	150.7	139.4	146.5	121.2	112.7	105.6	91.8	111.6	132.8
Sept	133.0	133.2	132.9	134.6	142.3	148.9	140.0	147.0	124.6	114.0	107.6	104.4	112.4	132.9
Oct	133.4	133.6	133.4	135.0	142.4	148.9	140.5	147.2	123.4	113.4	106.4	118.5	109.0	133.4
Nov	133.7	134.0	133.8	135.4	142.4	149.0	140.7	147.3	123.9	112.9	105.4	117.0	108.0	133.7
Dec	133.9	134.2	133.8	135.7	142.7	149.5	141.1	147.5	123.8	112.7	105.6	114.1	108.6	132.7
1991: Jan	135.9	135.8	136.4	135.8	144.0	153.2	141.2	147.9	124.1	114.8	107.7	111.2	111.5	135.0
Feb	136.0	135.5	135.7	136.2	144.6	154.4	141.5	148.2	125.1	114.7	107.1	105.7	111.5	135.7
Mar	136.3	135.8	136.0	136.5	145.2	156.1	142.0	148.4	124.2	114.1	105.7	99.3	110.8	136.3
Apr	137.2	136.7	137.0	137.1	145.2	155.1	142.5	148.8	126.1	113.1	104.0	94.4	109.4	136.5
May	137.3	136.8	136.9	137.5	145.2	154.2	142.8	149.2	126.9	114.2	105.4	90.9	111.5	137.3
June	137.7	137.2	137.4	137.9	145.8	155.1	143.0	149.7	126.2	115.8	107.6	89.3	114.4	137.9
July	137.1	136.5	136.0	138.4	146.8	157.4	143.7	150.2	126.9	116.4	108.2	87.8	115.4	138.5
Aug	136.6	136.0	134.9	138.7	147.3	158.1	143.7	150.7	127.2	116.2	107.7	87.8	114.7	138.9
Sept	136.7	136.0	134.9	138.9	147.4	156.2	144.6	151.6	126.8	116.8	108.5	88.9	115.5	139.2
Oct	136.5	135.8	134.4	139.1	147.7	156.1	144.6	152.1	126.6	115.7	106.5	90.9	112.9	139.6
Nov	136.9	136.2	135.0	139.3	147.9	155.4	145.0	152.6	127.6	115.3	105.5	94.8	111.2	140.1
Dec	137.3	136.7	135.5	139.6	148.2	155.8	145.2	153.0	128.1	116.0	106.5	94.7	112.4	140.2

[1] Includes alcoholic beverages, not shown separately.
[2] December 1982=100.

See next page for continuation of table.

TABLE B–57.—*Consumer price indexes, selected expenditure classes, 1950–91*—Continued

[1982–84 = 100, except as noted]

Year or month	Transportation								Medical care		
	Total	Private transportation						Public transportation	Total	Medical care commodities	Medical care services
		Total [3]	New cars	Used cars	Motor fuel [4]	Automobile maintenance and repair	Other				
1950	22.7	24.5	41.1	.....	19.0	18.9	.....	13.4	15.1	39.7	12.8
1951	24.1	25.6	43.1	.....	19.5	20.4	.....	14.8	15.9	40.8	13.4
1952	25.7	27.3	46.8	.....	20.0	20.8	.....	15.8	16.7	41.2	14.3
1953	26.5	27.8	47.2	26.7	21.2	22.0	.....	16.8	17.3	41.5	14.8
1954	26.1	27.1	46.5	22.7	21.8	22.7	.....	18.0	17.8	42.0	15.3
1955	25.8	26.7	44.8	21.5	22.1	23.2	.....	18.5	18.2	42.5	15.7
1956	26.2	27.1	46.1	20.7	22.8	24.2	.....	19.2	18.9	43.4	16.3
1957	27.7	28.6	48.5	23.2	23.8	25.0	.....	19.9	19.7	44.6	17.0
1958	28.6	29.5	50.0	24.0	23.4	25.4	.....	20.9	20.6	46.1	17.9
1959	29.8	30.8	52.2	26.8	23.7	26.0	.....	21.5	21.5	46.8	18.7
1960	29.8	30.6	51.5	25.0	24.4	26.5	.....	22.2	22.3	46.9	19.5
1961	30.1	30.8	51.5	26.0	24.1	27.1	.....	23.2	22.9	46.3	20.2
1962	30.8	31.4	51.3	28.4	24.3	27.5	.....	24.0	23.5	45.6	20.9
1963	30.9	31.6	51.0	28.7	24.2	27.8	.....	24.3	24.1	45.2	21.5
1964	31.4	32.0	50.9	30.0	24.1	28.2	.....	24.7	24.6	45.1	22.0
1965	31.9	32.5	49.7	29.8	25.1	28.7	.....	25.2	25.2	45.0	22.7
1966	32.3	32.9	48.8	29.0	25.6	29.2	.....	26.1	26.3	45.1	23.9
1967	33.3	33.8	49.3	29.9	26.4	30.4	37.9	27.4	28.2	44.9	26.0
1968	34.3	34.8	50.7	[5]	26.8	32.1	39.2	28.7	29.9	45.0	27.9
1969	35.7	36.0	51.5	30.9	27.6	34.1	41.6	30.9	31.9	45.4	30.2
1970	37.5	37.5	53.0	31.2	27.9	36.6	45.2	35.2	34.0	46.5	32.3
1971	39.5	39.4	55.2	33.0	28.1	39.3	48.6	37.8	36.1	47.3	34.7
1972	39.9	39.7	54.7	33.1	28.4	41.1	48.9	39.3	37.3	47.4	35.9
1973	41.2	41.0	54.8	35.2	31.2	43.2	48.4	39.7	38.8	47.5	37.5
1974	45.8	46.2	57.9	36.7	42.2	47.6	50.2	40.6	42.4	49.2	41.4
1975	50.1	50.6	62.9	43.8	45.1	53.7	53.5	43.5	47.5	53.3	46.6
1976	55.1	55.6	66.9	50.3	47.0	57.6	61.8	47.8	52.0	56.5	51.3
1977	59.0	59.7	70.4	54.7	49.7	61.9	67.2	50.0	57.0	60.2	56.4
1978	61.7	62.5	75.8	55.8	51.8	67.0	69.9	51.5	61.8	64.4	61.2
1979	70.5	71.7	81.8	60.2	70.1	73.7	75.2	54.9	67.5	69.0	67.2
1980	83.1	84.2	88.4	62.3	97.4	81.5	84.3	69.0	74.9	75.4	74.8
1981	93.2	93.8	93.7	76.9	108.5	89.2	91.4	85.6	82.9	83.7	82.8
1982	97.0	97.1	97.4	88.8	102.8	96.0	97.7	94.9	92.5	92.3	92.6
1983	99.3	99.3	99.9	98.7	99.4	100.3	98.8	99.5	100.6	100.2	100.7
1984	103.7	103.6	102.8	112.5	97.9	103.8	103.5	105.7	106.8	107.5	106.7
1985	106.4	106.2	106.1	113.7	98.7	106.8	109.0	110.5	113.5	115.2	113.2
1986	102.3	101.2	110.6	108.8	77.1	110.3	115.1	117.0	122.0	122.8	121.9
1987	105.4	104.2	114.6	113.1	80.2	114.8	120.8	121.1	130.1	131.0	130.0
1988	108.7	107.6	116.9	118.0	80.9	119.7	127.9	123.3	138.6	139.9	138.3
1989	114.1	112.9	119.2	120.4	88.5	124.9	135.8	129.5	149.3	150.8	148.9
1990	120.5	118.8	121.0	117.6	101.2	130.1	142.5	142.6	162.8	163.4	162.7
1991	123.8	121.9	125.3	118.1	99.4	136.0	149.1	148.9	177.0	176.8	177.1
1990: Jan	117.2	115.9	122.3	118.9	91.4	127.3	140.3	134.2	155.9	156.9	155.7
Feb	117.1	115.6	121.9	117.4	90.6	127.6	140.8	136.7	157.5	158.6	157.2
Mar	116.8	115.1	121.3	116.6	89.3	128.8	140.7	139.1	158.7	159.9	158.5
Apr	117.3	115.5	120.7	116.2	91.2	129.4	140.8	140.3	159.8	161.3	159.4
May	117.7	115.9	120.7	116.9	92.5	129.4	140.8	140.9	160.8	162.2	160.5
June	118.2	116.4	120.3	117.6	94.6	129.6	141.0	141.5	161.9	163.3	161.5
July	118.4	116.6	119.8	118.2	94.3	130.2	142.1	141.6	163.5	164.1	163.4
Aug	120.6	119.0	119.5	118.3	103.2	130.4	142.4	141.9	165.0	164.8	165.0
Sept	123.0	121.4	119.0	118.3	112.0	131.5	143.0	144.0	165.8	166.0	165.8
Oct	125.8	124.2	120.5	118.1	118.9	132.1	144.3	146.6	167.1	166.8	167.2
Nov	126.9	125.1	122.1	117.2	119.0	132.5	146.2	150.3	168.4	167.8	168.5
Dec	127.2	125.1	123.5	117.1	117.1	132.5	146.7	154.4	169.2	169.1	169.3
1991: Jan	125.5	123.2	124.6	116.1	108.3	133.1	147.3	155.4	171.0	170.4	171.1
Feb	123.7	121.2	125.3	115.1	99.7	133.5	147.8	156.2	172.5	171.6	172.8
Mar	122.3	119.9	125.4	114.4	94.6	134.1	147.7	153.3	173.7	173.2	173.8
Apr	122.2	120.2	125.3	115.0	96.1	134.4	147.5	147.1	174.4	174.3	174.5
May	123.3	121.5	125.4	117.0	100.2	134.7	147.7	146.0	175.2	175.4	175.1
June	123.7	121.9	125.3	118.8	100.5	135.6	148.0	146.6	176.2	176.5	176.1
July	123.4	121.7	124.9	120.4	98.2	136.4	149.0	146.7	177.5	177.7	177.5
Aug	123.8	122.0	124.4	120.9	99.3	136.9	149.7	147.6	178.9	178.9	178.9
Sept	123.8	122.1	124.1	119.8	99.8	137.8	149.7	146.6	179.7	180.0	179.7
Oct	124.0	122.4	125.0	120.2	98.3	138.4	150.9	144.9	180.7	180.3	180.8
Nov	125.0	123.4	126.6	120.6	99.4	138.5	151.8	147.0	181.8	181.1	181.9
Dec	125.3	123.4	127.6	120.1	98.4	138.4	152.0	149.8	182.6	181.7	182.8

[3] Includes other new vehicles, not shown separately. Includes direct pricing of new trucks and motorcycles beginning September 1982.

[4] Includes direct pricing of diesel fuel and gasohol beginning September 1981.

[5] Not available.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers. See also Note, Table B–56.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–58.—*Consumer price indexes, commodities, services, and special groups, 1950–91*

[1982–84=100]

Year or month	All items	Commodities					Services			Special indexes			
		All commodities	Food	Commodities less food			All services	Medical care services	Services less medical care services	All items less food	All items less energy	All items less food and energy	Energy [1]
				All	Durable	Nondurable							
1950	24.1	29.0	25.4	31.4	34.9	28.6	16.9	12.8	.....	23.8	.....	.....	.....
1951	26.0	31.6	28.2	33.8	37.5	30.8	17.8	13.4	.....	25.3	.....	.....	.....
1952	26.5	32.0	28.7	34.1	38.0	31.0	18.6	14.3	.....	25.9	.....	.....	.....
1953	26.7	31.9	28.3	34.2	37.7	31.2	19.4	14.8	.....	26.4	.....	.....	.....
1954	26.9	31.6	28.2	33.8	36.8	31.4	20.0	15.3	.....	26.6	.....	.....	.....
1955	26.8	31.3	27.8	33.6	36.1	31.4	20.4	15.7	.....	26.6	.....	.....	.....
1956	27.2	31.6	28.0	33.9	36.1	32.0	20.9	16.3	.....	27.1	.....	.....	.....
1957	28.1	32.6	28.9	34.9	37.2	32.9	21.8	17.0	22.8	28.0	28.9	28.9	21.5
1958	28.9	33.3	30.2	35.3	37.8	33.1	22.6	17.9	23.6	28.6	29.7	29.6	21.5
1959	29.1	33.3	29.7	35.8	38.4	33.5	23.3	18.7	24.2	29.2	29.9	30.2	21.9
1960	29.6	33.6	30.0	36.0	38.1	34.1	24.1	19.5	25.0	29.7	30.4	30.6	22.4
1961	29.9	33.8	30.4	36.1	38.1	34.3	24.5	20.2	25.4	30.0	30.7	31.0	22.5
1962	30.2	34.1	30.6	36.3	38.5	34.5	25.0	20.9	25.9	30.3	31.1	31.4	22.6
1963	30.6	34.4	31.1	36.6	38.6	34.8	25.5	21.5	26.3	30.7	31.5	31.8	22.6
1964	31.0	34.8	31.5	36.9	39.0	35.1	26.0	22.0	26.8	31.1	32.0	32.3	22.5
1965	31.5	35.2	32.2	37.2	38.8	35.6	26.6	22.7	27.4	31.6	32.5	32.7	22.9
1966	32.4	36.1	33.8	37.7	38.9	36.4	27.6	23.9	28.3	32.3	33.5	33.5	23.3
1967	33.4	36.8	34.1	38.6	39.4	37.6	28.8	26.0	29.3	33.4	34.4	34.7	23.8
1968	34.8	38.1	35.3	40.0	40.7	39.1	30.3	27.9	30.8	34.9	35.9	36.3	24.2
1969	36.7	39.9	37.1	41.7	42.2	40.9	32.4	30.2	32.9	36.8	38.0	38.4	24.8
1970	38.8	41.7	39.2	43.4	44.1	42.5	35.0	32.3	35.6	39.0	40.3	40.8	25.5
1971	40.5	43.2	40.4	45.1	46.0	44.0	37.0	34.7	37.5	40.8	42.0	42.7	26.5
1972	41.8	44.5	42.1	46.1	46.9	45.0	38.4	35.9	38.9	42.0	43.4	44.0	27.2
1973	44.4	47.8	48.2	47.7	48.1	46.9	40.1	37.5	40.6	43.7	46.1	45.6	29.4
1974	49.3	53.5	55.1	52.8	51.5	52.9	43.8	41.4	44.3	48.0	50.6	49.4	38.1
1975	53.8	58.2	59.8	57.6	57.4	57.0	48.0	46.6	48.3	52.5	55.1	53.9	42.1
1976	56.9	60.7	61.6	60.5	60.9	59.5	52.0	51.3	52.2	56.0	58.2	57.4	45.1
1977	60.6	64.2	65.5	63.8	64.4	62.5	56.0	56.4	55.9	59.6	61.9	61.0	49.4
1978	65.2	68.8	72.0	67.5	68.6	65.5	60.8	61.2	60.7	63.9	66.7	65.5	52.5
1979	72.6	76.6	79.9	75.3	75.4	74.6	67.5	67.2	67.5	71.2	73.4	71.9	65.7
1980	82.4	86.0	86.8	85.7	83.0	88.4	77.9	74.8	78.2	81.5	81.9	80.8	86.0
1981	90.9	93.2	93.6	93.1	89.6	96.7	88.1	82.8	88.7	90.4	90.1	89.2	97.7
1982	96.5	97.0	97.4	96.9	95.1	98.3	96.0	92.6	96.4	96.3	96.1	95.8	99.2
1983	99.6	99.8	99.4	100.0	99.8	100.0	99.4	100.7	99.2	99.7	99.6	99.6	99.9
1984	103.9	103.2	103.2	103.1	105.1	101.7	104.6	106.7	104.4	104.0	104.3	104.6	100.9
1985	107.6	105.4	105.6	105.2	106.8	104.1	109.9	113.2	109.6	108.0	108.4	109.1	101.6
1986	109.6	104.4	109.0	101.7	106.6	98.5	115.4	121.9	114.6	109.8	112.6	113.5	88.2
1987	113.6	107.7	113.5	104.3	108.2	101.8	120.2	130.0	119.1	113.6	117.2	118.2	88.6
1988	118.3	111.5	118.2	107.7	110.4	105.8	125.7	138.3	124.3	118.3	122.3	123.4	89.3
1989	124.0	116.7	125.1	112.0	112.2	111.7	131.9	148.9	130.1	123.7	128.1	129.0	94.3
1990	130.7	122.8	132.4	117.4	113.4	119.9	139.2	162.7	136.8	130.3	134.7	135.5	102.1
1991	136.2	126.6	136.3	121.3	116.0	124.5	146.3	177.1	143.3	136.1	140.9	142.1	102.5
1990: Jan	127.4	119.9	130.4	114.1	113.8	114.2	135.4	155.7	133.4	126.7	131.5	132.0	97.6
Feb	128.0	120.6	131.3	114.6	113.7	115.0	136.0	157.2	133.9	127.3	132.3	132.8	96.4
Mar	128.7	121.1	131.5	115.4	113.4	116.5	136.9	158.5	134.7	128.1	133.3	133.9	95.5
Apr	128.9	121.4	131.3	115.9	113.1	117.4	137.1	159.4	134.9	128.4	133.5	134.2	95.7
May	129.2	121.4	131.3	115.9	113.2	117.5	137.6	160.5	135.3	128.7	133.7	134.4	96.7
June	129.9	121.6	132.0	115.8	112.9	117.6	138.8	161.5	136.5	129.4	134.2	134.8	99.5
July	130.4	121.6	132.7	115.5	113.0	117.0	139.9	163.4	137.5	130.0	134.8	135.5	98.9
Aug	131.6	122.8	132.9	117.2	112.9	119.9	140.9	165.0	138.5	131.3	135.6	136.4	103.6
Sept	132.7	124.6	133.2	119.8	112.8	124.1	141.4	165.8	139.0	132.6	136.3	137.2	108.8
Oct	133.5	126.1	133.6	121.8	113.6	126.8	141.7	167.2	139.1	133.5	136.9	137.8	111.4
Nov	133.8	126.3	134.0	121.8	114.1	126.6	142.0	168.6	139.4	133.7	137.2	138.2	110.9
Dec	133.8	126.0	134.2	121.4	114.5	125.7	142.3	169.3	139.7	133.7	137.4	138.3	110.1
1991: Jan	134.6	126.0	135.8	120.6	115.0	124.0	143.8	171.1	141.1	134.3	138.6	139.4	107.1
Feb	134.8	125.7	135.5	120.3	115.5	123.2	144.5	172.8	141.7	134.6	139.3	140.3	102.8
Mar	135.0	125.7	135.8	120.1	115.5	122.9	144.8	173.8	142.0	134.8	139.8	140.9	99.7
Apr	135.2	126.4	136.7	120.7	115.5	123.9	144.7	174.5	141.8	134.9	140.2	141.1	99.5
May	135.6	126.8	136.8	121.3	115.9	124.6	145.0	175.1	142.1	135.4	140.3	141.3	102.1
June	136.0	126.7	137.2	120.9	116.0	123.9	145.8	176.1	142.9	135.7	140.5	141.5	103.5
July	136.2	126.2	136.5	120.5	116.3	123.0	146.8	177.5	143.8	136.1	140.9	142.0	102.7
Aug	136.6	126.4	136.0	121.1	115.9	124.3	147.3	178.9	144.3	136.7	141.3	142.7	102.9
Sept	137.2	127.1	136.0	122.1	115.9	125.9	147.9	179.7	144.8	137.4	141.9	143.4	103.6
Oct	137.4	127.2	135.8	122.4	116.3	126.1	148.1	180.8	145.0	137.7	142.3	143.9	101.8
Nov	137.8	127.8	136.2	123.0	117.0	126.7	148.3	181.9	145.1	138.0	142.7	144.4	101.8
Dec	137.9	127.5	136.7	122.4	117.2	125.5	148.8	182.8	145.5	138.1	142.8	144.4	101.9

[1] Household fuels—gas (piped), electricity, fuel oil, etc.—and motor fuel. Motor oil, coolant, etc. also included through 1982.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers. See also Note, Table B–56.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–59.—*Changes in special consumer price indexes, 1958–91*

[Percent change]

Year or month	All items		All items less food		All items less energy		All items less food and energy		All items less food, shelter, and energy	
	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year
1958	1.8	2.8	1.8	2.1	2.1	2.8	1.7	2.4		
1959	1.7	.7	2.1	2.1	1.3	.7	2.0	2.0		
1960	1.4	1.7	1.0	1.7	1.3	1.7	1.0	1.3		
1961	.7	1.0	1.3	1.0	.7	1.0	1.3	1.3		
1962	1.3	1.0	1.0	1.0	1.3	1.3	1.3	1.3		
1963	1.6	1.3	1.6	1.3	1.9	1.3	1.6	1.3		
1964	1.0	1.3	1.0	1.3	1.3	1.6	1.2	1.6		
1965	1.9	1.6	1.6	1.6	1.9	1.6	1.5	1.2		
1966	3.5	2.9	3.5	2.2	3.4	3.1	3.3	2.4		
1967	3.0	3.1	3.3	3.4	3.2	2.7	3.8	3.6		
1968	4.7	4.2	5.0	4.5	4.9	4.4	5.1	4.6	4.6	4.7
1969	6.2	5.5	5.6	5.4	6.5	5.8	6.2	5.8	5.1	4.7
1970	5.6	5.7	6.6	6.0	5.4	6.1	6.6	6.3	5.8	5.2
1971	3.3	4.4	3.0	4.6	3.4	4.2	3.1	4.7	3.1	4.9
1972	3.4	3.2	2.9	2.9	3.5	3.3	3.0	3.0	2.7	2.4
1973	8.7	6.2	5.6	4.0	8.2	6.2	4.7	3.6	3.5	2.9
1974	12.3	11.0	12.2	9.8	11.7	9.8	11.1	8.3	11.3	7.7
1975	6.9	9.1	7.3	9.4	6.6	8.9	6.7	9.1	6.4	8.9
1976	4.9	5.8	6.1	6.7	4.8	5.6	6.1	6.5	6.9	7.1
1977	6.7	6.5	6.4	6.4	6.7	6.4	6.5	6.3	5.3	6.0
1978	9.0	7.6	8.3	7.2	9.1	7.8	8.5	7.4	6.4	5.6
1979	13.3	11.3	14.0	11.4	11.1	10.0	11.3	9.8	7.3	6.9
1980	12.5	13.5	13.0	14.5	11.7	11.6	12.2	12.4	9.8	8.8
1981	8.9	10.3	9.8	10.9	8.5	10.0	9.5	10.4	9.4	9.6
1982	3.8	6.2	4.1	6.5	4.2	6.7	4.5	7.4	6.1	7.7
1983	3.8	3.2	4.1	3.5	4.5	3.6	4.8	4.0	5.0	5.2
1984	3.9	4.3	3.9	4.3	4.4	4.7	4.7	5.0	4.3	5.0
1985	3.8	3.6	4.1	3.8	4.0	3.9	4.3	4.3	3.7	3.8
1986	1.1	1.9	.5	1.7	3.8	3.9	3.8	4.0	3.3	3.4
1987	4.4	3.6	4.6	3.5	4.1	4.1	4.2	4.1	3.8	3.8
1988	4.4	4.1	4.2	4.1	4.7	4.4	4.7	4.4	4.7	4.2
1989	4.6	4.8	4.5	4.6	4.6	4.7	4.4	4.5	4.1	4.4
1990	6.1	5.4	6.3	5.3	5.2	5.2	5.2	5.0	5.2	4.9
1991	3.1	4.2	3.3	4.5	3.9	4.6	4.4	4.9	4.6	5.2
	Change from preceding period									
	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted
1990: Jan	1.0	0.9	0.7	0.8	0.7	0.6	0.4	0.5	0.3	0.5
Feb	.5	.5	.5	.6	.6	.7	.6	.6	.8	.8
Mar	.5	.4	.6	.4	.8	.5	.8	.5	.8	.5
Apr	.2	.2	.2	.3	.2	.2	.2	.4	.3	.3
May	.2	.2	.2	.2	.1	.2	.1	.2	.2	.3
June	.5	.6	.5	.5	.4	.5	.3	.5	0	.3
July	.4	.4	.5	.5	.4	.5	.5	.5	.2	.5
Aug	.9	.8	1.0	.8	.6	.5	.7	.5	.5	.4
Sept	.8	.8	1.0	.8	.5	.4	.6	.4	1.0	.4
Oct	.6	.6	.7	.7	.4	.3	.4	.3	.7	.4
Nov	.2	.3	.1	.3	.2	.4	.3	.3	.3	.4
Dec	0	.3	0	.3	.1	.3	.1	.4	.1	.4
1991: Jan	.6	.4	.4	.4	.9	.8	.8	.8	.6	.8
Feb	.1	.2	.2	.3	.5	.5	.6	.7	.9	.9
Mar	.1	−.1	.1	−.1	.4	.2	.4	.1	.5	.1
Apr	.1	.2	.1	.1	.3	.3	.1	.2	.1	.1
May	.3	.3	.4	.4	.1	.1	.1	.2	.2	.4
June	.3	.2	.2	.1	.1	.4	.1	.4	−.1	.3
July	.1	.2	.3	.4	.3	.2	.4	.4	.2	.5
Aug	.3	.2	.4	.3	.3	.3	.5	.4	.6	.6
Sept	.4	.4	.5	.4	.4	.3	.5	.4	.8	.3
Oct	.1	.1	.2	.1	.3	.1	.3	.1	.4	.1
Nov	.3	.4	.2	.4	.3	.4	.3	.3	.4	.4
Dec	.1	.3	.1	.3	.1	.3	0	.3	−.1	.2

[1] Changes from December to December are based on unadjusted indexes.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers. See also Note, Table B–56.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–60.—*Changes in consumer price indexes, commodities and services, 1929–91*

[Percent change]

Year	All items		Commodities						Services				Energy[2]	
			Total		Food		Commodities less food		Total		Medical care services			
	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year	Dec. to Dec.[1]	Year to year
1929	0.6	0			2.5	1.2								
1933	.8	−5.1			6.9	−2.8								
1939	0	−1.4	−0.7	−2.0	−2.5	−2.5	0.5	−1.6	0	0	1.2	1.2		
1940	.7	.7	1.4	.7	2.5	1.7	.5	.5	.8	.8	0	0		
1941	9.9	5.0	13.3	6.7	15.7	9.2	10.7	5.4	2.4	.8	1.2	0		
1942	9.0	10.9	12.9	14.5	17.9	17.6	6.3	10.8	2.3	3.1	3.5	3.5		
1943	3.0	6.1	4.2	9.3	3.0	11.0	5.5	4.6	2.3	2.3	5.6	4.5		
1944	2.3	1.7	2.0	1.0	0	−1.2	4.7	5.3	2.2	2.2	3.2	4.3		
1945	2.2	2.3	2.9	3.0	3.5	2.4	3.3	4.2	.7	1.5	3.1	3.1		
1946	18.1	8.3	24.8	10.6	31.3	14.5	12.7	6.0	3.6	1.4	9.0	5.1		
1947	8.8	14.4	10.3	20.5	11.3	21.7	9.2	12.9	5.6	4.3	6.4	8.7		
1948	3.0	8.1	1.7	7.2	−.8	8.3	5.2	7.4	5.9	6.1	6.9	7.1		
1949	−2.1	−1.2	−4.1	−2.7	−3.9	−4.2	−4.6	−1.3	3.7	5.1	1.6	3.3		
1950	5.9	1.3	7.8	.7	9.8	1.6	5.5	−.3	3.6	3.0	4.0	2.4		
1951	6.0	7.9	5.9	9.0	7.1	11.0	4.9	7.6	5.2	5.3	5.3	4.7		
1952	.8	1.9	−.9	1.3	−1.0	1.8	−.6	.9	4.4	4.5	5.8	6.7		
1953	.7	.8	−.3	−.3	−1.1	−1.4	.3	.3	4.2	4.3	3.4	3.5		
1954	−.7	.7	−1.6	−.9	−1.8	−.4	−1.5	−1.2	2.0	3.1	2.6	3.4		
1955	.4	−.4	−.3	−.9	−.7	−1.4	0	−.6	2.0	2.0	3.2	2.6		
1956	3.0	1.5	2.6	1.0	2.9	.7	2.7	.9	3.4	2.5	3.8	3.8		
1957	2.9	3.3	2.8	3.2	2.8	3.2	2.0	2.9	4.2	4.3	4.8	4.3		
1958	1.8	2.8	1.2	2.1	2.4	4.5	.8	1.1	2.7	3.7	4.6	5.3	−0.9	0
1959	1.7	.7	.6	0	−1.0	−1.7	1.4	1.4	3.9	3.1	4.9	4.5	4.7	1.9
1960	1.4	1.7	1.2	.9	3.1	1.0	−.3	.6	2.5	3.4	3.7	4.3	1.3	2.3
1961	.7	1.0	0	.6	−.7	1.3	.8	.3	2.1	1.7	3.5	3.6	−1.3	.4
1962	1.3	1.0	.9	.9	1.3	.7	.6	.6	1.6	2.0	2.9	3.5	2.2	.4
1963	1.6	1.3	1.5	.9	2.0	1.6	1.4	.8	2.4	2.0	2.8	2.9	−.9	0
1964	1.0	1.3	.9	1.2	1.3	1.3	.3	.8	1.6	2.0	2.3	2.3	0	−.4
1965	1.9	1.6	1.4	1.1	3.5	2.2	.8	.8	2.7	2.3	3.6	3.2	1.8	1.8
1966	3.5	2.9	2.5	2.6	4.0	5.0	1.9	1.3	4.8	3.8	8.3	5.3	1.7	1.7
1967	3.0	3.1	2.5	1.9	1.2	.9	3.1	2.4	4.3	4.3	8.0	8.8	1.7	2.1
1968	4.7	4.2	4.0	3.5	4.4	3.5	3.6	3.6	5.8	5.2	7.1	7.3	1.7	1.7
1969	6.2	5.5	5.4	4.7	7.0	5.1	4.7	4.3	7.7	6.9	7.3	8.2	2.9	2.5
1970	5.6	5.7	3.9	4.5	2.3	5.7	4.7	4.1	8.1	8.0	8.1	7.0	4.8	2.8
1971	3.3	4.4	2.8	3.6	4.3	3.1	2.2	3.9	4.1	5.7	5.4	7.4	3.1	3.9
1972	3.4	3.2	3.4	3.0	4.6	4.2	2.6	2.2	3.4	3.8	3.7	3.5	2.6	2.6
1973	8.7	6.2	10.4	7.4	20.3	14.5	4.9	3.5	6.2	4.4	6.0	4.5	17.0	8.1
1974	12.3	11.0	12.8	11.9	12.0	14.3	13.2	10.7	11.4	9.2	13.2	10.4	21.6	29.6
1975	6.9	9.1	6.2	8.8	6.6	8.5	6.1	9.1	8.2	9.6	10.3	12.6	11.4	10.5
1976	4.9	5.8	3.3	4.3	.5	3.0	5.1	5.0	7.2	8.3	10.8	10.1	7.1	7.1
1977	6.7	6.5	6.1	5.8	8.1	6.3	4.8	5.5	8.0	7.7	9.0	9.9	7.2	9.5
1978	9.0	7.6	8.8	7.2	11.8	9.9	7.7	5.8	9.3	8.6	9.3	8.5	7.9	6.3
1979	13.3	11.3	13.0	11.3	10.2	11.0	14.3	11.6	13.6	11.0	10.5	9.8	37.5	25.1
1980	12.5	13.5	11.0	12.3	10.2	8.6	11.5	13.8	14.2	15.4	10.1	11.3	18.0	30.9
1981	8.9	10.3	6.0	8.4	4.3	7.8	6.7	8.6	13.0	13.1	12.6	10.7	11.9	13.6
1982	3.8	6.2	3.6	4.1	3.1	4.1	3.8	4.1	4.3	9.0	11.2	11.8	1.3	1.5
1983	3.8	3.2	2.9	2.9	2.7	2.1	3.1	3.2	4.8	3.5	6.2	8.7	−.5	.7
1984	3.9	4.3	2.7	3.4	3.8	3.8	2.1	3.1	5.4	5.2	5.8	6.0	.2	1.9
1985	3.8	3.6	2.5	2.1	2.6	2.3	2.4	2.0	5.1	5.1	6.8	6.1	1.8	.7
1986	1.1	1.9	−2.0	−.9	3.8	3.2	−5.3	−3.3	4.5	5.0	7.9	7.7	−19.7	−13.2
1987	4.4	3.6	4.6	3.2	3.5	4.1	5.1	2.6	4.3	4.2	5.6	6.6	8.2	.5
1988	4.4	4.1	3.8	3.5	5.2	4.1	3.2	3.3	4.8	4.6	6.9	6.4	.5	.8
1989	4.6	4.8	4.1	4.7	5.5	5.8	3.3	4.0	5.1	4.9	8.6	7.7	5.1	5.6
1990	6.1	5.4	6.6	5.2	5.3	5.8	7.4	4.8	5.7	5.5	9.9	9.3	18.1	8.3
1991	3.1	4.2	1.2	3.1	1.9	2.9	.8	3.3	4.6	5.1	8.0	8.9	−7.4	.4

[1] Changes from December to December are based on unadjusted indexes.
[2] Household fuels—gas (piped) electricity, fuel oil, etc.—and motor fuel. Motor oil, coolant, etc. also included through 1982.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers. See also Note, Table B–56.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–61.—*Producer price indexes by stage of processing, 1947–91*

[1982=100]

Year or month	Finished goods									
	Total finished goods	Consumer foods			Finished goods excluding consumer foods					Total finished consumer goods
		Total	Crude	Processed	Total	Consumer goods			Capital equipment	
						Total	Durable	Nondurable		
1947	26.4	31.9	39.3	31.1		27.4	32.9	24.2	19.8	28.6
1948	28.5	34.9	42.4	34.0		29.2	35.2	25.7	21.6	30.8
1949	27.7	32.1	40.1	31.1		28.6	36.1	24.7	22.7	29.4
1950	28.2	32.7	36.5	32.4		29.0	36.5	25.1	23.2	29.9
1951	30.8	36.7	41.9	36.2		31.1	38.9	27.0	25.5	32.7
1952	30.6	36.4	44.6	35.4		30.7	39.2	26.3	25.9	32.3
1953	30.3	34.5	41.6	33.6		31.0	39.5	26.6	26.3	31.7
1954	30.4	34.2	37.5	34.0		31.1	39.8	26.7	26.7	31.7
1955	30.5	33.4	39.1	32.7		31.3	40.2	26.8	27.4	31.5
1956	31.3	33.3	39.1	32.7		32.1	41.6	27.3	29.5	32.0
1957	32.5	34.4	38.5	34.1		32.9	42.8	27.9	31.3	32.9
1958	33.2	36.5	41.0	36.1		32.9	43.4	27.8	32.1	33.6
1959	33.1	34.8	37.3	34.7		33.3	43.9	28.2	32.7	33.3
1960	33.4	35.5	39.8	35.2		33.5	43.8	28.4	32.8	33.6
1961	33.4	35.4	38.0	35.3		33.4	43.6	28.4	32.9	33.6
1962	33.5	35.7	38.4	35.6		33.4	43.4	28.4	33.0	33.7
1963	33.4	35.3	37.8	35.2		33.4	43.1	28.5	33.1	33.5
1964	33.5	35.4	38.9	35.2		33.3	43.3	28.4	33.4	33.6
1965	34.1	36.8	39.0	36.8		33.6	43.2	28.8	33.8	34.2
1966	35.2	39.2	41.5	39.2		34.1	43.4	29.3	34.6	35.4
1967	35.6	38.5	39.6	38.8	35.0	34.7	44.1	30.0	35.8	35.6
1968	36.6	40.0	42.5	40.0	35.9	35.5	45.1	30.6	37.0	36.5
1969	38.0	42.4	45.9	42.3	36.9	36.3	45.9	31.5	38.3	37.9
1970	39.3	43.8	46.0	43.9	38.2	37.4	47.2	32.5	40.1	39.1
1971	40.5	44.5	45.8	44.7	39.6	38.7	48.9	33.5	41.7	40.2
1972	41.8	46.9	48.0	47.2	40.4	39.4	50.0	34.1	42.8	41.5
1973	45.6	56.5	63.6	55.8	42.0	41.2	50.9	36.1	44.2	46.0
1974	52.6	64.4	71.6	63.9	48.8	48.2	55.5	44.0	50.5	53.1
1975	58.2	69.8	71.7	70.3	54.7	53.2	61.0	48.9	58.2	58.2
1976	60.8	69.6	76.7	69.0	58.1	56.5	63.7	52.4	62.1	60.4
1977	64.7	73.3	79.5	72.7	62.2	60.6	67.4	56.8	66.1	64.3
1978	69.8	79.9	85.8	79.4	66.7	64.9	73.6	60.0	71.3	69.4
1979	77.6	87.3	92.3	86.8	74.6	73.5	80.8	69.3	77.5	77.5
1980	88.0	92.4	93.9	92.3	86.7	87.1	91.0	85.1	85.8	88.6
1981	96.1	97.8	104.4	97.2	95.6	96.1	96.4	95.8	94.6	96.6
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	101.6	101.0	102.4	100.9	101.8	101.2	102.8	100.5	102.8	101.3
1984	103.7	105.4	111.4	104.9	103.2	102.2	104.5	101.1	105.2	103.3
1985	104.7	104.6	102.9	104.8	104.6	103.3	106.5	101.7	107.5	103.8
1986	103.2	107.3	105.6	107.4	101.9	98.5	108.9	93.3	109.7	101.4
1987	105.4	109.5	107.1	109.6	104.0	100.7	111.5	94.9	111.7	103.6
1988	108.0	112.6	109.8	112.7	106.5	103.1	113.8	97.3	114.3	106.2
1989	113.6	118.7	119.6	118.6	111.8	108.9	117.6	103.8	118.8	112.1
1990	119.2	124.4	123.0	124.4	117.4	115.3	120.4	111.5	122.9	118.2
1991 [1]	121.7	124.2	119.7	124.4	120.9	118.7	123.9	115.0	126.7	120.4
1990: Jan	117.6	123.9	148.8	122.0	115.5	113.2	119.1	109.2	121.2	116.7
Feb	117.4	124.6	152.7	122.5	115.1	112.4	119.4	107.9	121.6	116.4
Mar	117.2	124.4	138.6	123.3	114.8	111.8	119.2	107.1	121.9	115.9
Apr	117.2	123.2	118.7	123.5	115.2	112.2	119.3	107.7	122.2	115.8
May	117.7	124.5	112.9	125.3	115.5	112.7	119.4	108.3	122.2	116.5
June	117.8	124.2	108.6	125.3	115.7	112.9	120.3	108.3	122.5	116.6
July	118.2	124.9	113.4	125.7	116.0	113.2	120.4	108.6	122.8	117.0
Aug	119.3	124.9	112.1	125.8	117.4	115.1	119.9	111.5	123.1	118.3
Sept	120.4	124.2	109.1	125.2	119.1	117.7	119.9	115.1	122.9	119.8
Oct	122.3	124.6	117.4	125.1	121.5	120.6	122.7	118.0	124.5	121.9
Nov	122.9	125.0	126.3	124.8	122.1	121.4	122.8	119.0	124.7	122.6
Dec	122.0	124.2	117.9	124.6	121.3	120.0	122.9	117.2	124.9	121.4
1991: Jan	122.3	124.8	124.3	124.7	121.4	119.8	123.5	116.7	125.9	121.4
Feb	121.4	124.6	118.8	124.9	120.4	118.2	123.9	114.4	126.1	120.3
Mar	120.9	125.2	125.0	125.1	119.5	117.0	124.0	112.8	126.2	119.6
Apr	121.1	125.3	128.2	125.1	119.7	117.2	123.7	113.2	126.2	119.8
May	121.8	125.8	137.8	124.9	120.5	118.2	123.2	114.6	126.5	120.6
June	121.9	125.3	130.3	124.8	120.8	118.6	123.1	115.2	126.5	120.7
July	121.6	124.5	121.8	124.7	120.7	118.4	123.1	115.0	126.6	120.4
Aug [1]	121.7	123.3	112.1	124.1	121.1	119.0	122.9	115.8	126.5	120.4
Sept	121.3	122.7	110.1	123.5	120.8	118.8	121.8	115.9	126.1	120.1
Oct	122.3	123.0	105.7	124.2	122.0	119.7	126.0	115.7	127.9	120.8
Nov	122.3	123.1	116.0	123.5	122.0	119.7	126.0	115.7	127.9	120.9
Dec	121.9	122.2	106.1	123.4	121.7	119.3	125.6	115.2	128.0	120.3

[1] Data have been revised through August 1991 to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

See next page for continuation of table.

TABLE B–61.—*Producer price indexes by stage of processing, 1947–91*—Continued

[1982=100]

Year or month	Intermediate materials, supplies, and components								Crude materials for further processing				
	Total	Foods and feeds[2]	Other	Materials and components		Processed fuels and lubricants	Containers	Supplies	Total	Foodstuffs and feedstuffs	Other		
				For manufacturing	For construction						Total	Fuel	Other
1947	23.3	.....	22.2	24.9	22.5	14.4	23.4	28.5	31.7	45.1	.....	7.5	24.0
1948	25.2	.....	24.1	26.8	24.9	16.4	24.4	29.8	34.7	48.8	.....	8.9	26.7
1949	24.2	.....	23.5	25.7	24.9	14.9	24.5	28.0	30.1	40.5	.....	8.8	24.3
1950	25.3	.....	24.6	26.9	26.2	15.2	25.2	29.0	32.7	43.4	.....	8.8	27.8
1951	28.4	.....	27.6	30.5	28.7	15.9	29.6	32.6	37.6	50.2	.....	9.0	32.0
1952	27.5	.....	26.7	29.3	28.5	15.7	28.0	32.6	34.5	47.3	.....	9.0	27.8
1953	27.7	.....	27.0	29.7	29.0	15.8	28.0	31.0	31.9	42.3	.....	9.3	26.6
1954	27.9	.....	27.2	29.8	29.1	15.8	28.5	31.7	31.6	42.3	.....	8.9	26.1
1955	28.4	.....	28.0	30.5	30.3	15.8	28.9	31.2	30.4	38.4	.....	8.9	27.5
1956	29.6	.....	29.3	32.0	31.8	16.3	31.0	32.0	30.6	37.6	.....	9.5	28.6
1957	30.3	.....	30.1	32.7	32.0	17.2	32.4	32.3	31.2	39.2	.....	10.1	28.2
1958	30.4	.....	30.1	32.8	32.0	16.2	33.2	33.1	31.9	41.6	.....	10.2	27.1
1959	30.8	.....	30.5	33.3	32.9	16.2	33.0	33.5	31.1	38.8	.....	10.4	28.1
1960	30.8	.....	30.7	33.3	32.7	16.6	33.4	33.3	30.4	38.4	.....	10.5	26.9
1961	30.6	.....	30.3	32.9	32.2	16.8	33.2	33.7	30.2	37.9	.....	10.5	27.2
1962	30.6	.....	30.2	32.7	32.1	16.7	33.6	34.5	30.5	38.6	.....	10.4	27.1
1963	30.7	.....	30.1	32.7	32.2	16.6	33.2	35.0	29.9	37.5	.....	10.5	26.7
1964	30.8	.....	30.3	33.1	32.5	16.2	32.9	34.7	29.6	36.6	.....	10.5	27.2
1965	31.2	.....	30.7	33.6	32.8	16.5	33.5	35.0	31.1	39.2	.....	10.6	27.7
1966	32.0	.....	31.3	34.3	33.6	16.8	34.5	36.5	33.1	42.7	.....	10.9	28.3
1967	32.2	41.8	31.7	34.5	34.0	16.9	35.0	36.8	31.3	40.3	21.1	11.3	26.5
1968	33.0	41.5	32.5	35.3	35.7	16.5	35.9	37.1	31.8	40.9	21.6	11.5	27.1
1969	34.1	42.9	33.6	36.5	37.7	16.6	37.2	37.8	33.9	44.1	22.5	12.0	28.4
1970	35.4	45.6	34.8	38.0	38.3	17.7	39.0	39.7	35.2	45.2	23.8	13.8	29.1
1971	36.8	46.7	36.2	38.9	40.8	19.5	40.8	40.8	36.0	46.1	24.7	15.7	29.4
1972	38.2	49.5	37.7	40.4	43.0	20.1	42.7	42.5	39.9	51.5	27.0	16.8	32.3
1973	42.4	70.3	40.6	44.1	46.5	22.2	45.2	51.7	54.5	72.6	34.3	18.6	42.9
1974	52.5	83.6	50.5	56.0	55.0	33.6	53.3	56.8	61.4	76.4	44.1	24.8	54.5
1975	58.0	81.6	56.6	61.7	60.1	39.4	60.0	61.8	61.6	77.4	43.7	30.6	50.0
1976	60.9	77.4	60.0	64.0	64.1	42.3	63.1	65.8	63.4	76.8	48.2	34.5	54.9
1977	64.9	79.6	64.1	67.4	69.3	47.7	65.9	69.3	65.5	77.5	51.7	42.0	56.3
1978	69.5	84.8	68.6	72.0	76.5	49.9	71.0	72.9	73.4	87.3	57.5	48.2	61.9
1979	78.4	94.5	77.4	80.9	84.2	61.6	79.4	80.2	85.9	100.0	69.6	57.3	75.5
1980	90.3	105.5	89.4	91.7	91.3	85.0	89.1	89.9	95.3	104.6	84.6	69.4	91.8
1981	98.6	104.6	98.2	98.7	97.9	100.6	96.7	96.9	103.0	103.9	101.8	84.8	109.8
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	100.6	103.6	100.5	101.2	102.8	95.4	100.4	101.8	101.3	101.8	100.7	105.1	98.8
1984	103.1	105.7	103.0	104.1	105.6	95.7	105.9	104.1	103.5	104.7	102.2	105.1	101.0
1985	102.7	97.3	103.0	103.3	107.3	92.8	109.0	104.4	95.8	94.8	96.9	102.7	94.3
1986	99.1	96.2	99.3	102.2	108.1	72.7	110.3	105.6	87.7	93.2	81.6	92.2	76.0
1987	101.5	99.2	101.7	105.3	109.8	73.3	114.5	107.7	93.7	96.2	87.9	84.1	88.5
1988	107.1	109.5	106.9	113.2	116.1	71.2	120.1	113.7	96.0	106.1	85.5	82.1	85.9
1989	112.0	113.8	111.9	118.1	121.3	76.4	125.4	118.1	103.1	111.2	93.4	85.3	95.8
1990	114.5	113.3	114.5	118.7	122.9	85.9	127.7	119.4	108.9	113.1	101.5	84.8	107.3
1991 [1]	114.4	111.1	114.6	118.1	124.5	85.2	128.2	121.4	101.2	105.5	94.6	82.8	97.5
1990: Jan	113.4	113.2	113.4	117.6	121.8	84.2	127.3	118.8	106.5	113.5	97.5	86.8	101.0
Feb	112.5	111.0	112.5	117.5	121.9	79.4	127.4	118.5	106.8	113.9	97.6	87.3	100.8
Mar	112.4	111.4	112.5	117.9	122.5	77.8	127.4	118.7	105.6	115.3	94.9	86.0	97.6
Apr	112.8	112.5	112.8	118.2	123.0	78.0	127.8	118.9	103.0	115.1	91.0	84.7	92.7
May	113.1	115.9	112.9	118.4	123.2	78.4	127.7	119.4	104.7	117.0	92.5	84.8	94.6
June	113.1	115.5	113.0	118.3	122.8	79.4	127.6	119.2	101.2	115.6	88.0	83.0	89.0
July	113.1	116.0	113.0	118.5	123.0	78.7	127.5	119.5	101.4	115.4	88.3	86.8	87.8
Aug	114.4	114.9	114.4	118.7	123.0	85.7	127.5	119.4	110.2	113.2	103.4	80.4	112.0
Sept	116.3	113.9	116.4	119.3	123.3	94.1	127.5	119.7	115.3	110.8	112.9	81.7	124.8
Oct	117.9	113.0	118.1	120.0	123.4	100.6	127.8	120.1	124.8	110.5	127.8	81.2	146.3
Nov	117.9	111.2	118.2	120.1	123.4	100.0	128.3	120.2	116.7	108.5	116.4	85.2	128.3
Dec	116.7	111.5	117.0	119.8	123.5	94.0	128.2	120.4	110.5	107.9	107.1	89.8	113.2
1991: Jan	116.4	110.4	116.8	119.9	124.0	91.7	129.0	120.9	112.8	107.2	110.8	88.5	120.4
Feb	115.5	110.7	115.7	119.6	123.9	87.5	128.9	121.1	104.1	107.3	97.9	85.6	101.0
Mar	114.2	111.6	114.4	118.9	124.0	82.8	128.7	121.3	101.2	109.9	92.3	84.8	92.2
Apr	113.9	111.5	114.1	118.5	124.3	81.8	128.3	121.4	100.8	109.0	92.2	81.7	94.2
May	114.0	110.8	114.2	118.1	124.5	83.4	128.1	121.3	102.1	108.7	94.2	84.0	95.9
June	114.3	110.8	114.5	117.8	125.2	85.0	127.7	121.4	99.8	107.4	91.5	82.5	92.4
July	114.0	110.0	114.2	117.4	125.3	84.6	127.9	121.1	99.5	105.1	92.3	81.4	94.8
Aug [1]	114.2	111.5	114.4	117.3	124.7	86.0	127.4	121.5	99.1	102.7	93.0	81.8	95.6
Sept	114.5	111.4	114.7	117.4	124.7	86.9	127.9	121.6	98.0	102.9	91.3	78.0	95.4
Oct	114.1	111.8	114.2	117.5	124.5	84.8	127.9	121.7	99.6	102.5	93.8	77.7	99.8
Nov	114.1	111.4	114.3	117.4	124.4	84.9	128.3	121.8	99.7	101.6	94.3	82.0	97.6
Dec	113.7	111.4	113.8	117.3	124.5	83.2	128.1	121.8	97.7	101.9	91.3	85.4	90.1

[2] Intermediate materials for food manufacturing and feeds.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–62.—*Producer price indexes by stage of processing, special groups, 1974–91*

[1982=100]

Year or month	Finished goods						Intermediate materials, supplies, and components				Crude materials for further processing			
				Excluding foods and energy										
	Total	Foods	Energy	Total	Capital equipment	Consumer goods excluding foods and energy	Total	Foods and feeds[1]	Energy	Other	Total	Foodstuffs and feedstuffs	Energy	Other
1974	52.6	64.4	26.2	53.6	50.5	55.5	52.5	83.6	33.1	54.0	61.4	76.4	27.8	83.3
1975	58.2	69.8	30.7	59.7	58.2	60.6	58.0	81.6	38.7	60.2	61.6	77.4	33.3	69.3
1976	60.8	69.6	34.3	63.1	62.1	63.7	60.9	77.4	41.5	63.8	63.4	76.8	35.3	80.2
1977	64.7	73.3	39.7	66.9	66.1	67.3	64.9	79.6	46.8	67.6	65.5	77.5	40.4	79.8
1978	69.8	79.9	42.3	71.9	71.3	72.2	69.5	84.8	49.1	72.5	73.4	87.3	45.2	87.8
1979	77.6	87.3	57.1	78.3	77.5	78.8	78.4	94.5	61.1	80.7	85.9	100.0	54.9	106.2
1980	88.0	92.4	85.2	87.1	85.8	87.8	90.3	105.5	84.9	90.3	95.3	104.6	73.1	113.1
1981	96.1	97.8	101.5	94.6	94.6	94.6	98.6	104.6	100.5	97.7	103.0	103.9	97.7	111.7
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	101.6	101.0	95.2	103.0	102.8	103.1	100.6	103.6	95.3	101.6	101.3	101.8	98.7	105.3
1984	103.7	105.4	91.2	105.5	105.2	105.7	103.1	105.7	95.5	104.7	103.5	104.7	98.0	111.7
1985	104.7	104.6	87.6	108.1	107.5	108.4	102.7	97.3	92.6	105.2	95.8	94.8	93.3	104.9
1986	103.2	107.3	63.0	110.6	109.7	111.1	99.1	96.2	72.6	104.9	87.7	93.2	71.8	103.1
1987	105.4	109.5	61.8	113.3	111.7	114.2	101.5	99.2	73.0	107.8	93.7	96.2	75.0	115.7
1988	108.0	112.6	59.8	117.0	114.3	118.5	107.1	109.5	70.9	115.2	96.0	106.1	67.7	133.0
1989	113.6	118.7	65.7	122.1	118.8	124.0	112.0	113.8	76.1	120.2	103.1	111.2	75.9	137.9
1990	119.2	124.4	75.0	126.6	122.9	128.8	114.5	113.3	85.5	120.9	108.9	113.1	85.9	136.3
1991[2]	121.7	124.2	78.1	131.0	126.7	133.7	114.4	111.1	85.0	121.4	101.2	105.5	80.4	128.1
1990: Jan	117.6	123.9	72.7	124.8	121.2	127.0	113.4	113.2	83.7	120.0	106.5	113.5	82.3	132.1
Feb	117.4	124.6	69.2	125.2	121.6	127.4	112.5	111.0	79.0	120.0	106.8	113.9	82.6	131.3
Mar	117.2	124.4	67.0	125.4	121.9	127.5	112.4	111.4	77.4	120.3	105.6	115.3	78.6	134.2
Apr	117.2	123.2	68.0	125.6	122.2	127.7	112.8	112.5	77.7	120.6	103.0	115.1	73.1	137.8
May	117.7	124.5	68.5	125.9	122.2	128.1	113.1	115.9	78.0	120.7	104.7	117.0	74.5	138.8
June	117.8	124.2	67.6	126.4	122.5	128.8	113.1	115.5	79.0	120.5	101.2	115.6	69.4	137.8
July	118.2	124.9	68.1	126.7	122.8	129.0	113.1	116.0	78.4	120.6	101.4	115.4	69.7	138.2
Aug	119.3	124.9	74.2	126.7	123.1	128.9	114.4	114.9	85.3	120.8	110.2	113.2	87.2	140.4
Sept	120.4	124.2	82.0	126.7	122.9	129.0	116.3	113.9	93.6	121.4	115.3	110.8	98.5	140.1
Oct	122.3	124.6	88.1	128.2	124.5	130.3	117.9	113.0	100.1	122.0	124.8	110.5	117.0	137.8
Nov	122.9	125.0	89.5	128.5	124.7	130.8	117.9	111.2	99.7	122.2	116.7	108.5	104.1	134.6
Dec	122.0	124.2	84.7	128.8	124.9	131.2	116.7	111.5	93.7	122.08	110.5	107.9	93.5	132.8
1991: Jan	122.3	124.8	82.6	129.9	125.9	132.3	116.4	110.4	91.5	122.4	112.8	107.2	97.6	133.5
Feb	121.4	124.6	78.4	130.2	126.1	132.7	115.5	110.7	87.4	122.2	104.1	107.3	83.1	133.4
Mar	120.9	125.2	75.5	130.3	126.2	132.8	114.2	111.6	82.7	121.8	101.2	109.9	77.0	132.2
Apr	121.1	125.3	75.7	130.5	126.2	133.1	113.9	111.5	81.7	121.6	100.8	109.0	76.7	132.7
May	121.8	125.8	78.0	130.5	126.5	132.9	114.0	110.8	83.2	121.4	102.1	108.7	79.2	131.4
June	121.9	125.3	78.4	130.8	126.5	133.3	114.3	110.8	84.8	121.4	99.8	107.4	77.1	126.8
July	121.6	124.5	77.5	131.0	126.6	133.7	114.0	110.0	84.4	121.1	99.5	105.1	78.3	125.9
Aug[2]	121.7	123.3	78.8	131.0	126.5	133.7	114.2	111.5	85.7	120.9	99.1	102.7	79.0	126.0
Sept	121.3	122.7	79.1	130.5	126.1	133.2	114.5	111.4	86.6	121.0	98.0	102.9	77.1	125.8
Oct	122.3	123.0	78.3	132.4	127.9	135.2	114.1	111.8	84.6	121.1	99.6	102.5	80.1	125.0
Nov	122.3	123.1	78.2	132.5	127.9	135.3	114.1	111.4	84.6	121.1	99.7	101.6	81.1	122.8
Dec	121.9	122.2	76.6	132.8	128.0	135.7	113.7	111.4	82.8	121.0	97.7	101.9	77.9	122.2

[1] Intermediate materials for food manufacturing and feeds.

[2] Data have been revised through August 1991 to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–63.—*Producer price indexes for major commodity groups, 1950–91*

[1982=100]

Year or month	Farm products and processed foods and feeds			Industrial commodities				
	Total	Farm products	Processed foods and feeds	Total	Textile products and apparel	Hides, skins, leather, and related products	Fuels and related products, and power [1]	Chemicals and allied products [1]
1950	37.7	44.0	33.2	25.0	50.2	32.9	12.6	30.4
1951	43.0	51.2	36.9	27.6	56.0	37.7	13.0	34.8
1952	41.3	48.4	36.4	26.9	50.5	30.5	13.0	33.0
1953	38.6	43.8	34.8	27.2	49.3	31.0	13.4	33.4
1954	38.5	43.2	35.4	27.2	48.2	29.5	13.2	33.8
1955	36.6	40.5	33.8	27.8	48.2	29.4	13.2	33.7
1956	36.4	40.9	33.8	29.1	48.2	31.2	13.6	33.9
1957	37.7	41.1	34.8	29.9	48.3	31.2	14.3	34.6
1958	39.4	42.9	36.5	30.0	47.4	31.6	13.7	34.9
1959	37.6	40.2	35.6	30.5	48.1	35.9	13.7	34.8
1960	37.7	40.1	35.6	30.5	48.6	34.6	13.9	34.8
1961	37.7	39.7	36.2	30.4	47.8	34.9	14.0	34.5
1962	38.1	40.4	36.5	30.4	48.2	35.3	14.0	33.9
1963	37.7	39.6	36.8	30.3	48.2	34.3	13.9	33.5
1964	37.5	39.0	36.7	30.5	48.5	34.4	13.5	33.6
1965	39.0	40.7	38.0	30.9	48.8	35.9	13.8	33.9
1966	41.6	43.7	40.2	31.5	48.9	39.4	14.1	34.0
1967	40.2	41.3	39.8	32.0	48.9	38.1	14.4	34.2
1968	41.1	42.3	40.6	32.8	50.7	39.3	14.3	34.1
1969	43.4	45.0	42.7	33.9	51.8	41.5	14.6	34.2
1970	44.9	45.8	44.6	35.2	52.4	42.0	15.3	35.0
1971	45.8	46.6	45.5	36.5	53.3	43.4	16.6	35.6
1972	49.2	51.6	48.0	37.8	55.5	50.0	17.1	35.6
1973	63.9	72.7	58.9	40.3	60.5	54.5	19.4	37.6
1974	71.3	77.4	68.0	49.2	68.0	55.2	30.1	50.2
1975	74.0	77.0	72.6	54.9	67.4	56.5	35.4	62.0
1976	73.6	78.8	70.8	58.4	72.4	63.9	38.3	64.0
1977	75.9	79.4	74.0	62.5	75.3	68.3	43.6	65.9
1978	83.0	87.7	80.6	67.0	78.1	76.1	46.5	68.0
1979	92.3	99.6	88.5	75.7	82.5	96.1	58.9	76.0
1980	98.3	102.9	95.9	88.0	89.7	94.7	82.8	89.0
1981	101.1	105.2	98.9	97.4	97.6	99.3	100.2	98.4
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	102.0	102.4	101.8	101.1	100.3	103.2	95.9	100.3
1984	105.5	105.5	105.4	103.3	102.7	109.0	94.8	102.9
1985	100.7	95.1	103.5	103.7	102.9	108.9	91.4	103.7
1986	101.2	92.9	105.4	100.0	103.2	113.0	69.8	102.6
1987	103.7	95.5	107.9	102.6	105.1	120.4	70.2	106.4
1988	110.0	104.9	112.7	106.3	109.2	131.4	66.7	116.3
1989	115.4	110.9	117.8	111.6	112.3	136.3	72.9	123.0
1990	118.6	112.2	121.9	115.8	115.0	141.7	82.3	123.6
1991 [2]	116.4	105.6	121.9	116.5	116.3	138.9	81.2	125.6
1990: Jan	118.3	114.9	120.2	114.1	114.6	138.9	79.8	121.2
Feb	118.4	115.7	120.0	113.6	114.6	141.7	77.0	121.7
Mar	118.9	115.3	120.9	113.2	114.7	141.6	74.6	121.8
Apr	118.5	113.3	121.2	113.2	114.9	142.9	73.4	121.9
May	120.1	113.7	123.5	113.5	114.8	143.7	74.1	122.3
June	119.6	113.6	122.8	113.2	115.0	143.0	72.8	122.2
July	120.0	113.8	123.2	113.4	115.1	142.6	72.7	122.4
Aug	119.1	111.4	123.0	115.9	115.1	142.2	82.4	122.5
Sept	117.9	109.2	122.4	118.4	115.1	141.4	91.3	124.5
Oct	117.9	109.5	122.2	121.4	115.1	140.9	101.0	126.5
Nov	117.3	108.5	121.7	120.7	115.3	140.5	97.4	128.2
Dec	116.8	107.2	121.7	119.0	115.2	140.6	90.5	127.9
1991: Jan	117.0	106.9	122.1	119.3	115.7	140.2	90.1	128.3
Feb	117.1	106.9	122.3	117.2	115.8	140.0	83.0	128.1
Mar	118.3	109.7	122.6	115.7	115.9	140.4	78.5	126.0
Apr	118.1	109.6	122.5	115.6	116.0	141.1	78.1	126.0
May	118.3	110.4	122.3	116.1	116.0	140.4	80.2	125.3
June	117.6	109.1	121.9	116.1	116.2	140.0	80.3	125.0
July	116.3	105.6	121.6	116.0	116.3	138.3	80.1	124.4
Aug [2]	115.2	102.9	121.4	116.3	116.5	138.1	81.3	124.5
Sept	115.0	102.8	121.1	116.2	116.5	137.1	81.2	124.3
Oct	115.0	101.2	122.0	116.6	116.6	136.5	81.0	124.9
Nov	114.8	101.4	121.5	116.7	116.8	137.0	81.3	125.0
Dec	114.5	100.7	121.4	116.1	116.9	137.6	79.1	124.9

[1] Prices for some items in this grouping are lagged and refer to 1 month earlier than the index month.

[2] Data have been revised through August 1991 to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

See next page for continuation of table.

TABLE B–63.—*Producer price indexes for major commodity groups, 1950–91*—Continued

[1982=100]

Year or month	Industrial commodities—Continued									
	Rubber and plastic products	Lumber and wood products	Pulp, paper, and allied products	Metals and metal products	Machinery and equipment	Furniture and household durables	Non-metallic mineral products	Transportation equipment		Miscellaneous products
								Total	Motor vehicles and equipment	
1950	35.6	31.4	25.7	22.0	22.6	40.9	23.5	.....	30.0	28.6
1951	43.7	34.1	30.5	24.5	25.3	44.4	25.0	.....	31.6	30.3
1952	39.6	33.2	29.7	24.5	25.3	43.5	25.0	.....	33.4	30.2
1953	36.9	33.1	29.6	25.3	25.9	44.4	26.0	.....	33.3	31.0
1954	37.5	32.5	29.6	25.5	26.3	44.9	26.6	.....	33.4	31.3
1955	42.4	34.1	30.4	27.2	27.2	45.1	27.3	.....	34.3	31.3
1956	43.0	34.6	32.4	29.6	29.3	46.3	28.5	.....	36.3	31.7
1957	42.8	32.8	33.0	30.2	31.4	47.5	29.6	.....	37.9	32.6
1958	42.8	32.5	33.4	30.0	32.1	47.9	29.9	.....	39.0	33.3
1959	42.6	34.7	33.7	30.6	32.8	48.0	30.3	.....	39.9	33.4
1960	42.7	33.5	34.0	30.6	33.0	47.8	30.4	.....	39.3	33.6
1961	41.1	32.0	33.0	30.5	33.0	47.5	30.5	.....	39.2	33.7
1962	39.9	32.2	33.4	30.2	33.0	47.2	30.5	.....	39.2	33.9
1963	40.1	32.8	33.1	30.3	33.1	46.9	30.3	.....	38.9	34.2
1964	39.6	33.5	33.0	31.1	33.3	47.1	30.4	.....	39.1	34.4
1965	39.7	33.7	33.3	32.0	33.7	46.8	30.4	.....	39.2	34.7
1966	40.5	35.2	34.2	32.8	34.7	47.4	30.7	.....	39.2	35.3
1967	41.4	35.1	34.6	33.2	35.9	48.3	31.2	.....	39.8	36.2
1968	42.8	39.8	35.0	34.0	37.0	49.7	32.4	.....	40.9	37.0
1969	43.6	44.0	36.0	36.0	38.2	50.7	33.6	40.4	41.7	38.1
1970	44.9	39.9	37.5	38.7	40.0	51.9	35.3	41.9	43.3	39.8
1971	45.2	44.7	38.1	39.4	41.4	53.1	36.2	44.2	45.7	40.8
1972	45.3	50.7	39.3	40.9	42.3	53.8	39.4	45.5	47.0	41.5
1973	46.6	62.2	42.3	44.0	43.7	55.7	40.7	46.1	47.4	43.3
1974	56.4	64.5	52.5	57.0	50.0	61.8	47.8	50.3	51.4	48.1
1975	62.2	62.1	59.0	61.5	57.9	67.5	54.4	56.7	57.6	53.4
1976	66.0	72.2	62.1	65.0	61.3	70.3	58.2	60.5	61.2	55.6
1977	69.4	83.0	64.6	69.3	65.2	73.2	62.6	64.6	65.2	59.4
1978	72.4	96.9	67.7	75.3	70.3	77.5	69.6	69.5	70.0	66.7
1979	80.5	105.5	75.9	86.0	76.7	82.8	77.6	75.3	75.8	75.5
1980	90.1	101.5	86.3	95.0	86.0	90.7	88.4	82.9	83.1	93.6
1981	96.4	102.8	94.8	99.6	94.4	95.9	96.7	94.3	94.6	96.1
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	100.8	107.9	103.3	101.8	102.7	103.4	101.6	102.8	102.2	104.8
1984	102.3	108.0	110.3	104.8	105.1	105.7	105.4	105.2	104.1	107.0
1985	101.9	106.6	113.3	104.4	107.2	107.1	108.6	107.9	106.4	109.4
1986	101.9	107.2	116.1	103.2	108.8	108.2	110.0	110.5	109.1	111.6
1987	103.0	112.8	121.8	107.1	110.4	109.9	110.0	112.5	111.7	114.9
1988	109.3	118.9	130.4	118.7	113.2	113.1	111.2	114.3	113.1	120.2
1989	112.6	126.7	137.8	124.1	117.4	116.9	112.6	117.7	116.2	126.5
1990	113.6	129.7	141.2	122.9	120.7	119.2	114.7	121.5	118.2	134.2
1991 [2]	115.2	132.0	143.0	120.3	123.0	121.2	117.2	126.4	122.1	140.9
1990: Jan	113.2	129.0	140.3	121.7	119.6	118.4	113.8	119.7	117.2	131.2
Feb	112.9	129.7	140.5	120.9	119.7	118.7	113.9	120.2	117.3	131.9
Mar	113.3	130.5	140.7	122.0	120.0	118.7	114.2	120.3	117.0	132.0
Apr	113.3	132.4	140.9	122.9	120.2	119.0	114.3	120.5	116.9	132.3
May	113.5	132.0	141.1	123.1	120.4	119.0	114.5	120.4	116.6	133.2
June	113.2	130.7	141.0	122.6	120.5	119.2	114.6	121.0	117.6	134.4
July	113.1	131.3	141.1	122.9	120.8	119.1	114.6	121.2	117.8	134.6
Aug	113.2	130.2	141.1	124.2	120.9	119.2	114.7	121.1	117.2	134.9
Sept	113.4	129.3	141.3	124.6	121.2	119.3	115.0	121.0	116.7	135.3
Oct	114.2	127.5	142.0	124.5	121.4	119.5	115.3	124.0	121.6	135.9
Nov	115.0	126.9	142.3	123.3	121.7	119.8	115.8	124.2	121.5	136.9
Dec	115.4	126.8	142.3	122.4	122.0	120.0	115.8	124.2	121.5	138.2
1991: Jan	116.0	127.6	143.6	122.4	122.6	120.6	116.9	125.2	121.9	139.1
Feb	116.0	127.2	143.8	121.9	122.9	120.9	117.2	125.7	122.4	138.9
Mar	115.8	127.8	143.7	121.5	123.0	121.0	117.4	125.7	122.2	139.4
Apr	115.5	129.2	143.2	121.3	123.1	121.2	117.3	125.5	121.5	140.0
May	115.2	132.3	143.0	120.5	123.1	121.2	117.3	125.6	120.7	140.1
June	115.0	136.2	142.7	119.7	123.1	121.2	117.3	125.6	120.6	140.9
July	114.8	136.9	142.3	119.6	123.0	121.2	117.2	125.7	120.5	141.8
Aug [2]	114.7	133.3	142.2	119.5	123.0	121.2	117.1	126.0	120.6	141.7
Sept	114.9	133.0	142.6	119.6	123.0	121.3	117.3	124.8	118.6	141.4
Oct	114.7	133.3	142.9	119.5	123.0	121.4	117.3	128.9	125.6	141.7
Nov	114.6	133.3	143.0	119.1	123.1	121.4	117.4	128.9	125.5	141.7
Dec	114.7	134.3	142.7	118.7	123.1	121.4	117.2	128.9	125.0	143.5

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–64.—*Changes in producer price indexes for finished goods, 1955–91*

[Percent change]

Year or month	Total finished goods		Finished consumer foods		Finished goods excluding consumer foods						Finished energy goods		Finished goods excluding foods and energy	
					Total		Consumer goods		Capital equipment					
	Dec. to Dec. [1]	Year to year	Dec. to Dec. [1]	Year to year	Dec. to Dec. [1]	Year to year	Dec. to Dec. [1]	Year to year	Dec. to Dec. [1]	Year to year	Dec. to Dec. [1]	Year to year	Dec. to Dec. [1]	Year to year
1955	1.0	0.3	−3.0	−2.3			1.6	0.6	5.6	2.6				
1956	4.2	2.6	3.7	−.3			2.5	2.6	8.1	7.7				
1957	3.4	3.8	5.1	3.3			1.5	2.5	4.6	6.1				
1958	.3	2.2	.6	6.1			.3	0	1.2	2.6				
1959	−.3	−.3	−3.7	−4.7			.9	1.2	.9	1.9				
1960	1.8	.9	5.3	2.0			.3	.6	.3	.3				
1961	−.6	0	−1.9	−.3			−.3	−.3	0	.3				
1962	.3	.3	.6	.8			0	0	.3	.3				
1963	−.3	−.3	−1.4	−1.1			0	0	.6	.3				
1964	.6	.3	.6	.3			.3	−.3	.9	.9				
1965	3.3	1.8	9.1	4.0			.9	.9	1.5	1.2				
1966	2.0	3.2	1.3	6.5			1.8	1.5	3.8	2.4				
1967	1.7	1.1	−.3	−1.8			2.0	1.8	3.1	3.5				
1968	3.1	2.8	4.6	3.9	2.5	2.6	2.0	2.3	3.0	3.4				
1969	4.9	3.8	8.1	6.0	3.3	2.8	2.8	2.3	4.8	3.5				
1970	2.1	3.4	−2.3	3.3	4.3	3.5	3.8	3.0	4.8	4.7				
1971	3.3	3.1	5.8	1.6	2.0	3.7	2.1	3.5	2.4	4.0				
1972	3.9	3.2	7.9	5.4	2.3	2.0	2.1	1.8	2.1	2.6				
1973	11.7	9.1	22.7	20.5	6.6	4.0	7.5	4.6	5.1	3.3				
1974	18.3	15.4	12.8	14.0	21.1	16.2	20.3	17.0	22.7	14.3			17.7	11.4
1975	6.6	10.6	5.6	8.4	7.2	12.1	6.8	10.4	8.1	15.2	16.3	17.2	6.0	11.4
1976	3.8	4.5	−2.5	−.3	6.2	6.2	6.0	6.2	6.5	6.7	11.6	11.7	5.7	5.7
1977	6.7	6.4	6.9	5.3	6.8	7.1	6.7	7.3	7.2	6.4	12.0	15.7	6.2	6.0
1978	9.3	7.9	11.7	9.0	8.3	7.2	8.5	7.1	8.0	7.9	8.5	6.5	8.4	7.5
1979	12.8	11.2	7.4	9.3	14.8	11.8	17.6	13.3	8.8	8.7	58.1	35.0	9.4	8.9
1980	11.8	13.4	7.5	5.8	13.4	16.2	14.1	18.5	11.4	10.7	27.9	49.2	10.8	11.2
1981	7.1	9.2	1.5	5.8	8.7	10.3	8.6	10.3	9.2	10.3	14.1	19.1	7.7	8.6
1982	3.6	4.1	2.0	2.2	4.2	4.6	4.2	4.1	3.9	5.7	−.1	−1.5	4.9	5.7
1983	.6	1.6	2.3	1.0	0	1.8	−.9	1.2	2.0	2.8	−9.2	−4.8	1.9	3.0
1984	1.7	2.1	3.5	4.4	1.1	1.4	.8	1.0	1.8	2.3	−4.2	−4.2	2.0	2.4
1985	1.8	1.0	.6	−.8	2.2	1.4	2.1	1.1	2.7	2.2	−.2	−3.9	2.7	2.5
1986	−2.3	−1.4	2.8	2.6	−4.0	−2.6	−6.6	−4.6	2.1	2.0	−38.1	−28.1	2.7	2.3
1987	2.2	2.1	−.2	2.1	3.2	2.1	4.1	2.2	1.3	1.8	11.2	−1.9	2.1	2.4
1988	4.0	2.5	5.7	2.8	3.2	2.4	3.1	2.4	3.6	2.3	−3.6	−3.2	4.3	3.3
1989	4.9	5.2	5.2	5.4	4.8	5.0	5.3	5.6	3.8	3.9	9.5	9.9	4.2	4.4
1990	5.7	4.9	2.6	4.8	6.9	5.0	8.7	5.9	3.4	3.5	30.7	14.2	3.5	3.7
1991 [2]	−.1	2.1	−1.6	−.2	.3	3.0	−.6	2.9	2.5	3.1	−9.6	4.1	3.1	3.5
	Percent change from preceding month													
	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted
1990: Jan	1.9	1.7	2.3	1.6	1.8	1.8	2.5	2.5	0.3	0.3	12.2	12.3	0.3	0.2
Feb	−.2	−.1	.6	1.0	−.3	−.3	−.7	−.8	.3	.3	−4.8	−4.8	.3	.3
Mar	−.2	−.1	−.2	−.5	−.3	−.1	−.5	−.3	.2	.4	−3.2	−2.7	.2	.4
Apr	0	−.1	−1.0	−.6	.3	.2	.4	.2	.2	.2	1.5	.1	.2	.2
May	.4	.3	1.1	.4	.3	.3	.4	.5	0	.1	.7	−.6	.2	.5
June	.1	0	−.2	−.2	.2	.1	.2	−.2	.2	.4	−1.3	−.7	.4	.2
July	.3	.3	.6	.5	.3	.3	.3	.3	.2	.2	.7	.1	.2	.3
Aug	.9	1.1	0	.6	1.2	1.4	1.7	1.9	.2	.3	9.0	9.1	0	.2
Sept	.9	1.3	−.6	−.5	1.4	1.8	2.3	2.7	−.2	.3	10.5	11.3	0	.3
Oct	1.6	1.2	.3	.6	2.0	1.5	2.5	2.1	1.3	.2	7.4	9.1	1.2	.2
Nov	.5	.4	.3	.1	.5	.5	.7	.6	.2	.2	1.6	.2	.2	.5
Dec	−.7	−.4	−.6	−.3	−.7	−.5	−1.2	−.9	.2	.3	−5.4	−4.0	.2	.2
1991: Jan	.2	.1	.5	−.2	.1	.2	−.2	−.1	.8	.7	−2.5	−2.2	.9	.8
Feb	−.7	−.7	−.2	.2	−.8	−1.0	−1.3	−1.4	.2	.2	−5.1	−5.3	.2	.2
Mar	−.4	−.2	.5	.2	−.7	−.4	−1.0	−.8	.1	.2	−3.7	−3.3	.1	.3
Apr	.2	.1	.1	.3	.2	.1	.2	.2	0	−.1	.3	−.1	.2	.1
May	.6	.5	.4	0	.7	.6	.9	.7	.2	.3	3.0	1.7	0	.4
June	.1	−.4	−.4	−.5	.2	−.4	.3	−.7	0	.2	.5	−1.5	.2	−.1
July	−.2	−.2	−.6	−.7	−.1	0	−.2	−.1	.1	.1	−1.1	−1.3	.2	.2
Aug [2]	.1	.2	−1.0	−.5	.3	.5	.5	.7	−.1	.1	1.7	1.8	0	.2
Sept	−.3	.1	−.5	−.4	−.2	.2	−.2	.3	−.3	.1	.4	.8	−.4	0
Oct	.8	.7	.2	.4	1.0	.7	.8	.9	1.4	.4	−1.0	1.7	1.5	.5
Nov	0	.2	.1	−.1	0	.2	0	.3	0	.2	−.1	0	.1	.3
Dec	−.3	−.2	−.7	−.4	−.2	−.2	−.3	−.3	.1	.2	−2.0	−1.4	.2	.2

[1] Changes from December to December are based on unadjusted indexes.

[2] Data have been revised through August 1991 to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–65.—*Money stock, liquid assets, and debt measures, 1959–91*

[Averages of daily figures; billions of dollars, seasonally adjusted]

Year and month	M1	M2	M3	L	Debt [1]	Percent change from year or 6 months earlier [2]			
	Sum of currency, demand deposits, travelers checks, and other checkable deposits (OCDs)	M1 plus overnight RPs and Eurodollars, MMMF balances (general purpose and broker/dealer), MMDAs, and savings and small time deposits	M2 plus large time deposits, term RPs, term Eurodollars, and institution-only MMMF balances	M3 plus other liquid assets	Debt of domestic nonfinancial sectors (monthly average)	M1	M2	M3	Debt
December:									
1959	140.0	297.8	299.8	388.7	888.7				5.8
1960	140.7	312.4	315.3	403.7	923.9	0.5	4.9	5.2	4.0
1961	145.2	335.5	341.1	430.8	966.5	3.2	7.4	8.2	4.6
1962	147.9	362.7	371.5	466.1	1,018.8	1.9	8.1	8.9	5.4
1963	153.4	393.3	406.1	503.8	1,073.6	3.7	8.4	9.3	5.4
1964	160.4	424.8	442.5	540.4	1,136.6	4.6	8.0	9.0	5.9
1965	167.9	459.4	482.3	584.5	1,204.7	4.7	8.1	9.0	6.0
1966	172.1	480.0	505.1	614.8	1,272.1	2.5	4.5	4.7	5.6
1967	183.3	524.4	557.1	666.6	1,347.5	6.5	9.3	10.3	5.9
1968	197.5	566.4	606.3	729.0	1,439.9	7.7	8.0	8.8	6.9
1969	204.0	589.6	615.1	763.6	1,530.4	3.3	4.1	1.5	6.3
1970	214.5	628.1	677.4	816.3	1,620.6	5.1	6.5	10.1	5.9
1971	228.4	712.7	776.2	903.0	1,752.0	6.5	13.5	14.6	8.1
1972	249.3	805.2	886.0	1,023.0	1,906.9	9.2	13.0	14.1	8.8
1973	262.9	861.0	985.0	1,142.6	2,093.5	5.5	6.9	11.2	9.8
1974	274.4	908.6	1,070.4	1,250.3	2,265.4	4.4	5.5	8.7	8.2
1975	287.6	1,023.3	1,172.3	1,367.0	2,446.3	4.8	12.6	9.5	8.0
1976	306.4	1,163.7	1,311.8	1,516.6	2,689.3	6.5	13.7	11.9	9.9
1977	331.3	1,286.7	1,472.7	1,705.3	3,010.9	8.1	10.6	12.3	12.0
1978	358.4	1,389.0	1,646.7	1,910.8	3,392.8	8.2	8.0	11.8	12.7
1979	382.8	1,497.1	1,803.3	2,116.3	3,772.1	6.8	7.8	9.5	11.2
1980	408.8	1,629.8	1,987.5	2,324.2	4,104.5	6.8	8.9	10.2	8.8
1981	436.4	1,793.3	2,234.1	2,596.7	4,489.2	6.8	10.0	12.4	9.4
1982	474.4	1,952.9	2,441.7	2,851.4	4,886.1	8.7	8.9	9.3	8.8
1983	521.2	2,186.3	2,693.3	3,154.6	5,422.7	9.9	12.0	10.3	11.0
1984	552.2	2,374.7	2,986.2	3,527.5	6,176.5	5.9	8.6	10.9	13.9
1985	619.9	2,569.7	3,201.6	3,828.9	7,033.1	12.3	8.2	7.2	13.9
1986	724.3	2,811.6	3,492.6	4,133.2	7,921.5	16.8	9.4	9.1	12.6
1987	749.7	2,910.1	3,677.4	4,337.0	8,668.5	3.5	3.5	5.3	9.4
1988	786.4	3,069.9	3,919.1	4,676.0	9,437.5	4.9	5.5	6.6	8.9
1989	793.6	3,223.1	4,055.2	4,889.9	10,152.6	.9	5.0	3.5	7.6
1990	825.4	3,327.8	4,111.2	4,966.6	10,792.4	4.0	3.2	1.4	6.3
1991 [p]	896.7	3,425.4	4,172.0			8.6	2.9	1.5	
1990: Jan	795.4	3,233.6	4,061.4	4,895.3	10,198.5	4.1	6.7	2.8	7.1
Feb	801.1	3,255.0	4,073.1	4,903.0	10,258.2	5.4	6.8	3.0	6.9
Mar	804.7	3,269.6	4,077.2	4,914.8	10,328.9	5.9	6.8	2.9	7.1
Apr	807.7	3,279.9	4,082.7	4,920.8	10,386.5	5.0	6.1	2.7	7.0
May	807.5	3,282.8	4,082.7	4,903.5	10,435.1	4.7	5.0	2.1	6.5
June	811.5	3,290.6	4,085.8	4,923.1	10,499.0	4.5	4.2	1.5	6.8
July	810.7	3,295.4	4,089.0	4,926.7	10,558.3	3.8	3.8	1.4	7.1
Aug	816.5	3,309.6	4,103.1	4,934.4	10,620.1	3.8	3.4	1.5	7.1
Sept	821.8	3,321.6	4,108.8	4,955.6	10,669.4	4.3	3.2	1.6	6.6
Oct	821.2	3,324.5	4,109.0	4,955.1	10,704.1	3.3	2.7	1.3	6.1
Nov	823.3	3,323.7	4,108.4	4,960.4	10,755.2	3.9	2.5	1.3	6.1
Dec	825.4	3,327.8	4,111.2	4,966.6	10,792.4	3.4	2.3	1.2	5.6
1991: Jan	826.7	3,331.4	4,124.0	4,983.1	10,818.0	3.9	2.2	1.7	4.9
Feb	836.4	3,354.7	4,159.7	5,010.0	10,868.3	4.9	2.7	2.8	4.7
Mar	843.0	3,375.4	4,168.2	5,010.3	10,905.4	5.2	3.2	2.9	4.4
Apr	842.1	3,383.7	4,170.4	4,977.4	10,922.8	5.1	3.6	3.0	4.1
May	851.6	3,395.5	4,171.9	4,955.4	10,969.7	6.9	4.3	3.1	4.0
June	858.4	3,400.9	4,165.3	4,979.7	11,019.8	8.0	4.4	2.6	4.2
July	859.5	3,392.0	4,150.2	4,986.0	11,058.0	7.9	3.6	1.3	4.4
Aug	866.1	3,393.7	4,149.4	4,979.5	11,104.9	7.1	2.3	−.5	4.4
Sept	870.0	3,395.5	4,144.7	4,970.6	11,154.9	6.4	1.2	−1.1	4.6
Oct	879.1	3,404.0	4,151.3	4,980.7	11,207.0	8.8	1.2	−.9	5.2
Nov	890.3	3,418.4	4,163.3	5,008.7	11,256.6	9.1	1.3	−.4	5.2
Dec [p]	896.7	3,425.4	4,172.0			8.9	1.4	.3	

[1] Consists of outstanding credit market debt of the U.S. Government, State and local governments, and private nonfinancial sectors; data derived from flow of funds accounts.

[2] Annual changes are from December to December; monthly changes are from 6 months earlier at a simple annual rate.

Note.—See Table B–66 for components.

Source: Board of Governors of the Federal Reserve System.

TABLE B–66.—*Components of money stock measures and liquid assets, 1959–91*

[Averages of daily figures; billions of dollars, seasonally adjusted, except as noted]

Year and month	Currency	Travelers checks	Demand deposits	Other checkable deposits (OCDs)	Overnight repurchase agreements (RPs) net, plus overnight Eurodollars [1] NSA	Money market mutual fund (MMMF) balances		Savings deposits, including money market deposit accounts (MMDAs) [3]
						General purpose and broker/dealer [2]	Institution only [2]	
December:								
1959	28.8	0.4	110.8	0.0	0.0	0.0	0.0	146.5
1960	28.7	.4	111.6	.0	.0	.0	.0	159.1
1961	29.3	.4	115.5	.0	.0	.0	.0	175.5
1962	30.3	.4	117.1	.0	.0	.0	.0	194.7
1963	32.2	.5	120.6	.1	.0	.0	.0	214.4
1964	33.9	.5	125.8	.1	.0	.0	.0	235.3
1965	36.0	.6	131.3	.1	.0	.0	.0	256.9
1966	38.0	.6	133.4	.1	.0	.0	.0	253.2
1967	40.0	.7	142.5	.1	.0	.0	.0	263.7
1968	43.0	.8	153.6	.1	.0	.0	.0	268.9
1969	45.7	.8	157.3	.2	2.2	.0	.0	263.6
1970	48.6	1.0	164.7	.1	1.3	.0	.0	260.9
1971	52.0	1.1	175.1	.2	2.3	.0	.0	292.2
1972	56.2	1.3	191.6	.2	2.8	.0	.0	321.4
1973	60.8	1.5	200.3	.3	5.3	.0	.0	326.8
1974	67.0	1.8	205.1	.4	5.7	1.7	.2	338.4
1975	72.8	2.3	211.6	.9	5.9	2.7	.4	388.7
1976	79.5	2.8	221.5	2.7	10.7	2.4	.6	453.0
1977	87.4	3.1	236.7	4.2	14.9	2.4	.9	492.0
1978	96.0	3.5	250.5	8.4	20.7	6.4	3.1	481.8
1979	104.8	3.8	257.5	16.8	21.7	33.4	9.5	423.7
1980	115.3	4.2	261.3	28.0	28.8	61.6	15.2	400.1
1981	122.6	4.4	231.3	78.2	36.6	150.6	38.0	343.9
1982	132.5	4.3	234.0	103.5	39.9	185.2	51.1	400.0
1983	146.2	4.9	238.5	131.6	55.6	138.8	42.8	684.7
1984	156.0	5.2	243.9	147.1	60.6	167.9	62.1	704.7
1985	167.8	5.9	266.6	179.5	73.5	176.7	63.9	814.9
1986	180.7	6.5	301.9	235.3	82.3	208.3	83.8	940.6
1987	196.9	7.0	285.5	259.3	83.2	221.7	88.9	936.9
1988	212.0	7.5	286.3	280.7	83.4	241.1	86.9	925.8
1989	222.2	7.4	278.7	285.2	77.4	313.6	101.9	890.2
1990	246.4	8.4	276.9	293.8	74.3	345.4	125.7	916.7
1991 [p]	266.7	8.3	289.1	332.6	75.8	352.3	167.1	1,037.2
1990: Jan	224.5	7.5	277.6	285.8	81.5	318.4	102.5	894.2
Feb	226.6	7.6	279.4	287.5	82.4	324.2	103.4	900.5
Mar	228.4	7.6	278.9	289.8	81.9	325.9	105.2	905.9
Apr	230.3	7.7	278.1	291.7	79.4	327.0	106.9	910.7
May	231.9	7.8	275.8	292.0	83.2	325.3	107.6	911.3
June	233.7	7.8	276.3	293.7	82.4	327.5	108.1	914.1
July	235.7	7.8	275.6	291.7	84.0	329.2	109.8	916.1
Aug	238.4	8.0	278.0	292.1	82.8	335.8	114.0	918.6
Sept	241.5	8.2	279.1	293.0	81.6	339.3	116.2	919.6
Oct	243.9	8.3	277.1	291.8	83.7	341.6	119.6	918.2
Nov	245.0	8.4	277.2	292.8	77.8	341.9	120.5	917.8
Dec	246.4	8.4	276.9	293.8	74.3	345.4	125.7	916.7
1991: Jan	251.6	8.4	272.9	293.9	71.5	354.0	130.1	917.1
Feb	255.1	8.2	275.1	296.9	70.5	358.4	139.3	926.9
Mar	256.7	8.1	277.1	301.0	69.5	364.0	142.0	939.7
Apr	256.6	7.9	275.8	301.9	70.1	365.1	145.6	953.8
May	256.8	8.0	278.7	308.1	68.9	365.8	146.2	969.2
June	257.6	7.8	281.0	311.9	68.5	366.5	143.3	981.0
July	258.9	7.7	278.9	314.1	65.3	363.7	141.8	990.0
Aug	260.8	7.7	279.8	317.8	67.9	358.0	144.8	996.2
Sept	262.4	7.8	279.3	320.6	67.1	355.1	149.3	1,002.7
Oct	264.4	7.9	282.6	324.1	70.1	354.0	155.4	1,013.2
Nov [p]	265.3	8.1	287.4	329.5	73.6	352.3	161.0	1,025.2
Dec [p]	266.7	8.3	289.1	332.6	75.8	352.3	167.1	1,037.2

[1] Includes continuing contract RPs.
[2] Data prior to 1983 are not seasonally adjusted.
[3] Data prior to 1982 are savings deposits only; MMDA data begin December 1982.

See next page for continuation of table.

TABLE B–66.—*Components of money stock measures and liquid assets, 1959–91*—Continued

[Averages of daily figures; billions of dollars, seasonally adjusted, except as noted]

Year and month	Small denomination time deposits[4]	Large denomination time deposits[4]	Term repurchase agreements (RPs) NSA	Term Eurodollars NSA	Savings bonds	Short-term Treasury securities	Bankers acceptances	Commercial paper
December:								
1959	11.4	1.2	0.0	0.7	46.1	38.6	0.6	3.6
1960	12.5	2.0	.0	.8	45.7	36.7	.9	5.1
1961	14.8	3.9	.0	1.5	46.5	37.0	1.1	5.2
1962	20.1	7.0	.0	1.6	46.9	39.8	1.1	6.8
1963	25.6	10.8	.0	1.9	48.1	40.7	1.2	7.7
1964	29.2	15.2	.0	2.4	49.0	38.5	1.3	9.1
1965	34.5	21.2	.0	1.8	49.6	40.7	1.6	10.2
1966	55.0	23.1	.0	2.2	50.2	43.2	1.8	14.4
1967	77.8	30.9	.0	2.2	51.2	38.7	1.8	17.8
1968	100.6	37.4	.0	2.9	51.8	46.1	2.3	22.5
1969	120.4	20.4	2.7	2.7	51.7	59.5	3.3	34.0
1970	151.1	45.2	1.6	2.2	52.0	48.8	3.5	34.5
1971	189.7	57.7	2.7	2.7	54.3	36.0	3.8	32.7
1972	231.6	73.4	3.5	3.6	57.6	40.7	3.5	35.2
1973	265.8	111.1	6.7	5.5	60.4	49.3	5.0	42.8
1974	287.9	144.8	7.8	8.1	63.3	52.8	12.6	51.2
1975	337.9	129.8	8.1	9.8	67.2	68.4	10.7	48.5
1976	390.7	118.1	13.9	14.8	71.8	69.8	10.8	52.5
1977	445.5	145.2	18.9	20.2	76.4	78.1	14.1	64.1
1978	520.9	195.7	26.2	31.8	80.3	81.1	22.0	80.7
1979	634.4	223.3	29.1	44.7	79.6	107.8	27.2	98.4
1980	728.6	260.5	33.5	50.3	72.3	133.5	32.1	98.8
1981	823.2	303.0	35.3	67.5	67.8	149.4	40.0	105.3
1982	850.9	327.3	33.4	81.7	68.0	183.6	44.5	113.7
1983	784.1	327.7	49.9	91.5	71.1	212.0	45.0	133.2
1984	887.7	417.7	57.6	82.9	74.2	260.8	45.4	160.8
1985	883.4	437.3	62.4	76.5	79.5	298.2	42.0	207.6
1986	855.5	439.9	80.5	83.8	91.8	280.2	37.1	231.4
1987	917.7	489.2	106.1	91.0	100.6	253.5	44.5	261.0
1988	1,031.8	542.3	121.8	106.0	109.3	270.6	40.1	336.8
1989	1,145.9	563.5	98.8	81.0	117.5	327.4	40.7	349.2
1990	1,164.2	507.1	89.4	71.4	126.0	335.4	34.7	359.4
1991 [p]	1,061.0	457.1	72.5	61.4				
1990: Jan	1,146.5	560.0	97.5	74.2	117.9	330.7	40.3	345.0
Feb	1,146.8	554.9	100.5	68.4	118.4	327.3	38.5	345.6
Mar	1,149.9	549.3	98.4	66.7	119.2	336.9	37.2	344.1
Apr	1,152.2	543.7	98.2	65.3	119.9	329.9	36.0	351.9
May	1,153.5	540.5	99.3	67.1	120.7	315.7	35.4	349.1
June	1,154.6	538.0	102.2	64.4	121.4	332.0	34.7	349.1
July	1,156.8	535.0	100.2	65.1	122.2	334.3	33.0	348.2
Aug	1,158.3	529.2	101.7	68.3	123.0	329.0	32.3	347.0
Sept	1,160.1	521.9	97.9	70.0	123.8	332.2	31.8	359.0
Oct	1,161.4	515.1	95.1	70.2	124.5	330.3	32.6	358.8
Nov	1,161.8	512.5	95.1	70.0	125.2	333.8	34.0	359.0
Dec	1,164.2	507.1	89.4	71.4	126.0	335.4	34.7	359.4
1991: Jan	1,163.8	511.9	87.3	71.9	126.7	333.2	36.0	363.2
Feb	1,162.5	516.0	85.8	72.6	127.8	331.4	35.2	355.9
Mar	1,158.0	511.5	82.0	71.1	128.9	327.8	32.4	353.0
Apr	1,149.4	507.2	80.8	68.2	130.1	307.6	30.7	338.6
May	1,138.9	503.8	79.5	65.5	131.4	299.6	28.8	323.7
June	1,126.6	498.7	77.0	64.8	132.5	326.8	27.7	327.4
July	1,115.9	491.2	78.2	65.9	133.5	337.6	27.8	336.8
Aug	1,108.2	484.8	78.2	66.9	134.4	335.1	27.1	333.5
Sept	1,101.3	476.8	77.1	64.7	135.3	328.9	25.1	336.6
Oct	1,089.0	467.3	76.0	63.6	136.2	332.5	24.9	335.7
Nov	1,075.2	460.5	75.4	62.4	137.1	342.8	24.8	340.7
Dec [p]	1,061.0	457.1	72.5	61.4				

[4] Small denomination and large denomination deposits are those issued in amounts of less than $100,000 and more than $100,000, respectively.

Note.—NSA indicates data are not seasonally adjusted.
See also Table B–65.

Source: Board of Governors of the Federal Reserve System.

TABLE B–67.—*Aggregate reserves of depository institutions and monetary base, 1959–91*

[Averages of daily figures [1]; millions of dollars; seasonally adjusted, except as noted]

Year and month	Adjusted for changes in reserve requirements [2]					Borrowings of depository institutions from the Federal Reserve, NSA		
	Reserves of depository institutions				Monetary base			
	Total	Nonborrowed	Nonborrowed plus extended credit	Required		Total	Seasonal	Extended credit
December:								
1959	13,091	12,150	12,150	12,585	42,866	941	.....	.....
1960	13,209	13,135	13,135	12,466	42,931	74	.....	.....
1961	13,539	13,405	13,405	12,955	43,877	133	.....	.....
1962	13,665	13,404	13,404	13,093	44,994	260	.....	.....
1963	13,828	13,495	13,495	13,337	47,071	332	.....	.....
1964	14,177	13,913	13,913	13,771	49,298	264	.....	.....
1965	14,534	14,090	14,090	14,110	51,815	444	.....	.....
1966	14,438	13,906	13,906	14,099	53,764	532	.....	.....
1967	15,566	15,338	15,338	15,190	56,944	228	.....	.....
1968	16,251	15,506	15,506	15,826	60,789	746	.....	.....
1969	16,756	15,637	15,637	16,470	64,123	1,119	.....	.....
1970	17,222	16,890	16,890	16,973	67,633	332	.....	.....
1971	18,031	17,905	17,905	17,849	71,845	126	.....	.....
1972	19,688	18,638	18,638	19,404	78,174	1,050	.....	.....
1973	20,123	18,825	18,825	19,819	84,143	1,298	41	.....
1974	20,754	20,027	20,174	20,496	90,683	727	32	147
1975	21,076	20,946	20,957	20,809	97,083	130	14	12
1976	21,746	21,693	21,693	21,473	104,832	53	13	.....
1977	22,473	21,903	21,903	22,283	113,774	569	55	.....
1978	23,366	22,498	22,498	23,134	124,026	868	135	.....
1979	24,475	23,002	23,002	24,033	134,866	1,473	82	.....
1980	25,994	24,304	24,307	25,480	145,931	1,690	116	3
1981	26,495	25,859	26,008	26,176	153,001	636	54	148
1982	27,835	27,201	27,387	27,335	164,276	634	33	186
1983	29,901	29,127	29,129	29,340	179,921	774	96	2
1984	31,662	28,476	31,080	30,807	191,374	3,186	113	2,604
1985	37,061	35,743	36,242	36,024	208,619	1,318	56	499
1986	45,863	45,037	45,340	44,494	230,039	827	38	303
1987	45,812	45,035	45,518	44,766	246,281	777	93	483
1988	47,596	45,880	47,124	46,549	263,459	1,716	130	1,244
1989	47,729	47,464	47,483	46,807	274,168	265	84	20
1990	49,104	48,778	48,801	47,440	299,785	326	76	23
1991 [p]	53,752	53,560	53,561	52,773	324,780	192	38	1
1990: Jan	47,829	47,389	47,414	46,813	276,508	440	47	26
Feb	48,048	46,600	47,134	47,059	278,653	1,448	51	535
Mar	48,112	45,988	47,938	47,251	280,613	2,124	78	1,950
Apr	48,202	46,574	47,978	47,306	282,627	1,628	122	1,403
May	47,962	46,627	47,503	46,999	283,970	1,335	244	875
June	47,896	47,014	47,360	47,122	285,758	881	311	346
July	47,636	46,879	47,159	46,774	287,418	757	389	280
Aug	47,973	47,046	47,174	47,106	290,458	927	430	127
Sept	48,262	47,637	47,644	47,353	293,804	624	418	6
Oct	47,942	47,532	47,550	47,096	295,941	410	335	18
Nov	48,245	48,014	48,039	47,297	297,553	230	162	24
Dec	49,104	48,778	48,801	47,440	299,785	326	76	23
1991: Jan	49,459	48,925	48,952	47,290	305,147	534	33	27
Feb	49,590	49,338	49,372	47,782	309,422	252	37	34
Mar	49,530	49,289	49,342	48,351	310,956	241	55	53
Apr	49,344	49,112	49,198	48,313	310,568	231	79	86
May	50,000	49,697	49,785	48,970	311,430	303	151	88
June	50,345	50,005	50,013	49,337	312,409	340	222	8
July	50,410	49,804	49,849	49,505	313,838	607	317	46
Aug	50,886	50,121	50,422	49,800	316,229	764	331	300
Sept	51,147	50,502	50,804	50,219	317,926	645	287	302
Oct	51,816	51,556	51,567	50,734	320,551	261	211	12
Nov	52,695	52,587	52,588	51,802	322,286	108	86	1
Dec [p]	53,752	53,560	53,561	52,773	324,780	192	38	1

[1] Data are prorated averages of biweekly (maintenance period) averages of daily figures.

[2] Aggregate reserves incorporate adjustments for discontinuities associated with regulatory changes to reserve requirements. For details on aggregate reserves series see *Federal Reserve Bulletin.*

Note.—NSA indicates data are not seasonally adjusted.

Source: Board of Governors of the Federal Reserve System.

TABLE B–68.—*Commercial bank loans and securities, 1972–91*

[Monthly average; billions of dollars, seasonally adjusted [1]]

Year and month	Total loans and securities [2]	U.S. Government securities	Other securities	Loans and leases											
				Total [2]	Commercial and industrial	Real estate	Individual	Security	Nonbank financial institutions	Agricultural	State and political subdivisions	Foreign banks	Foreign official institutions	Lease financing receivables	Other
December:															
1972	572.5	89.0	93.4	390.1	137.1	98.1	86.3	15.6	21.7	14.3	.....	3.9	1.6	1.4	10.1
1973	647.9	88.2	99.4	460.3	165.0	117.3	98.6	12.9	28.5	17.2	.....	6.2	2.1	2.1	10.3
1974	713.9	86.3	107.5	520.0	196.6	130.1	102.4	12.7	34.5	18.3	.....	8.3	2.2	3.2	11.6
1975	745.3	116.7	111.2	517.4	189.3	134.4	104.9	13.5	28.9	20.1	.....	9.0	2.4	4.0	10.9
1976	804.9	136.3	113.5	555.1	190.9	148.8	116.3	17.7	26.4	23.2	.....	11.7	2.8	5.1	12.2
1977	891.9	136.6	122.7	632.7	211.0	175.2	138.3	21.0	25.8	25.8	.....	13.7	2.7	5.7	13.3
1978	1,014.4	137.6	129.2	747.6	246.2	210.5	164.7	19.7	26.2	28.2	.....	21.5	4.9	7.4	18.2
1979	1,136.1	144.3	141.9	849.9	291.4	241.9	184.5	18.7	29.3	31.1	.....	18.6	6.9	9.3	18.2
1980	1,238.9	170.6	154.4	913.9	325.7	262.6	179.2	18.0	29.3	31.6	0.0	23.8	11.5	10.9	21.5
1981	1,307.2	179.3	160.5	967.5	355.4	284.1	182.5	21.4	29.9	33.1	.0	18.1	7.2	12.7	23.1
1982	1,400.5	201.7	164.8	1,034.0	392.5	299.9	188.2	25.3	31.2	36.2	.0	14.6	5.9	13.3	26.9
1983	1,552.1	259.2	169.1	1,123.8	414.2	331.0	212.9	28.0	30.4	39.2	.0	13.4	9.4	13.7	31.8
1984	1,722.2	260.2	140.9	1,321.1	473.2	376.5	253.8	34.5	31.3	40.1	46.1	11.6	8.4	16.0	29.9
1985	1,909.6	270.9	179.0	1,459.8	500.3	426.0	294.6	43.1	32.4	36.1	56.8	9.9	6.3	19.0	35.3
1986	2,093.5	310.1	193.9	1,589.5	537.2	494.2	315.2	40.4	34.9	31.5	58.5	10.3	6.3	22.3	38.6
1987	2,238.9	335.9	193.5	1,709.5	567.6	587.2	328.2	34.8	31.8	29.4	52.6	7.9	5.8	24.5	39.8
1988	2,421.7	363.8	192.1	1,865.8	606.6	671.5	354.7	39.9	29.9	29.8	45.5	7.9	5.1	29.2	45.7
1989	2,589.0	399.3	180.8	2,008.9	641.3	760.6	375.5	38.3	32.7	30.7	40.0	8.6	3.7	31.8	45.8
1990	2,723.6	454.2	175.6	2,093.8	648.1	836.5	378.9	40.6	34.8	33.0	34.3	7.2	3.2	32.7	44.7
1991	2,810.6	560.3	173.3	2,077.0	616.8	857.0	361.8	47.2	39.3	32.4	28.5	6.9	3.3	30.9	52.7
1990:															
Jan	2,600.0	404.9	180.6	2,014.5	639.4	766.1	377.6	39.4	32.7	31.0	38.7	8.2	3.4	32.1	45.9
Feb	2,615.1	413.8	180.6	2,020.7	640.3	744.9	379.2	38.3	32.9	30.8	39.1	7.9	3.3	32.1	41.8
Mar	2,633.2	420.3	180.4	2,032.5	643.5	782.7	379.4	37.0	33.7	30.8	38.6	8.3	3.2	32.4	43.0
Apr	2,648.1	426.4	180.2	2,041.5	645.9	790.8	377.8	36.8	34.0	30.8	38.2	8.6	3.3	32.4	42.8
May	2,655.4	430.3	178.2	2,046.9	644.3	798.9	378.4	35.5	34.1	31.0	37.9	8.7	3.3	32.6	42.3
June	2,670.1	438.4	177.5	2,054.2	645.3	805.9	377.6	35.0	34.4	31.1	37.3	7.4	3.2	32.4	44.5
July	2,683.0	442.8	177.3	2,062.9	644.4	814.5	376.4	38.7	34.7	31.3	36.4	7.0	3.2	32.6	43.6
Aug	2,704.9	445.7	178.8	2,080.4	645.1	818.0	378.2	44.6	35.0	31.5	35.8	7.9	3.2	32.7	48.2
Sept	2,708.0	450.1	178.8	2,079.0	644.7	822.5	378.6	41.3	35.2	31.8	35.2	8.1	3.3	32.8	45.5
Oct	2,713.6	453.1	177.8	2,082.7	643.7	827.7	379.7	40.5	34.8	32.2	35.1	9.0	3.2	33.3	43.6
Nov	2,716.6	454.0	175.9	2,086.7	646.5	832.0	378.7	39.6	34.6	32.5	34.8	8.1	3.2	32.9	43.7
Dec	2,723.6	454.2	175.6	2,093.8	648.1	836.5	378.9	40.6	34.8	33.0	34.3	7.2	3.2	32.7	44.7
1991:															
Jan	2,721.2	454.1	177.7	2,089.4	644.3	837.3	375.9	43.1	34.8	33.5	33.2	6.0	3.0	32.4	45.8
Feb	2,735.1	458.0	177.6	2,099.5	643.9	842.6	377.7	43.2	36.0	33.5	33.1	6.1	3.1	32.8	47.5
Mar	2,751.0	471.4	177.6	2,102.0	646.0	846.3	375.5	38.9	36.7	34.0	32.7	7.2	3.2	33.0	48.5
Apr	2,751.8	479.2	175.7	2,096.9	640.0	850.9	374.1	39.8	35.9	33.9	32.1	6.8	3.0	32.7	47.6
May	2,750.5	485.1	173.9	2,091.5	633.2	855.1	373.5	39.8	36.9	33.6	31.7	6.4	3.0	32.7	45.6
June	2,763.2	495.2	173.1	2,094.8	630.4	859.5	372.0	38.3	37.2	33.0	31.0	6.0	3.0	32.8	51.8
July	2,763.3	505.3	172.0	2,086.0	626.7	857.0	369.6	41.6	37.2	32.5	30.5	6.2	3.1	32.0	49.6
Aug	2,761.6	512.6	169.9	2,079.1	620.5	853.9	368.9	42.6	36.3	32.3	30.0	6.3	3.1	31.4	53.8
Sept	2,768.9	522.1	170.8	2,076.0	623.8	853.4	365.3	43.9	36.1	32.2	29.5	6.5	3.2	31.2	50.9
Oct	2,784.5	538.2	172.2	2,074.1	623.8	854.2	362.7	43.8	36.6	32.1	29.3	6.1	3.3	31.1	51.0
Nov	2,799.3	549.3	172.3	2,077.6	620.2	856.3	361.7	46.4	38.9	32.2	28.8	6.7	3.5	30.9	52.0
Dec	2,810.6	560.3	173.3	2,077.0	616.8	857.0	361.8	47.2	39.3	32.4	28.5	6.9	3.3	30.9	52.7

[1] Data are prorated averages of Wednesday figures for domestically chartered banks and averages of weekly data for foreign-related institutions beginning July 1981. Prior to July 1981, data for foreign-related institutions are averages of current and previous month-end data.

[2] Excludes loans to commercial banks in the United States.

Note.—Data are not strictly comparable because of breaks in the series.

Source: Board of Governors of the Federal Reserve System.

TABLE B–69.—*Bond yields and interest rates, 1929–91*

[Percent per annum]

Year and month	U.S. Treasury securities				Corporate bonds (Moody's)		High-grade municipal bonds (Standard & Poor's)	New-home mortgage yields[3]	Commercial paper, 6 months[4]	Prime rate charged by banks[5]	Discount rate, Federal Reserve Bank of New York[5]	Federal funds rate[6]
	Bills (new issues)[1]		Constant maturities[2]									
	3-month	6-month	3-year	10-year	Aaa	Baa						
1929					4.73	5.90	4.27		5.85	5.50–6.00	5.16	
1933	0.515				4.49	7.76	4.71		1.73	1.50–4.00	2.56	
1939	.023				3.01	4.96	2.76		.59	1.50	1.00	
1940	.014				2.84	4.75	2.50		.56	1.50	1.00	
1941	.103				2.77	4.33	2.10		.53	1.50	1.00	
1942	.326				2.83	4.28	2.36		.66	1.50	[7] 1.00	
1943	.373				2.73	3.91	2.06		.69	1.50	[7] 1.00	
1944	.375				2.72	3.61	1.86		.73	1.50	[7] 1.00	
1945	.375				2.62	3.29	1.67		.75	1.50	[7] 1.00	
1946	.375				2.53	3.05	1.64		.81	1.50	[7] 1.00	
1947	.594				2.61	3.24	2.01		1.03	1.50–1.75	1.00	
1948	1.040				2.82	3.47	2.40		1.44	1.75–2.00	1.34	
1949	1.102				2.66	3.42	2.21		1.49	2.00	1.50	
1950	1.218				2.62	3.24	1.98		1.45	2.07	1.59	
1951	1.552				2.86	3.41	2.00		2.16	2.56	1.75	
1952	1.766				2.96	3.52	2.19		2.33	3.00	1.75	
1953	1.931		2.47	2.85	3.20	3.74	2.72		2.52	3.17	1.99	
1954	.953		1.63	2.40	2.90	3.51	2.37		1.58	3.05	1.60	
1955	1.753		2.47	2.82	3.06	3.53	2.53		2.18	3.16	1.89	1.78
1956	2.658		3.19	3.18	3.36	3.88	2.93		3.31	3.77	2.77	2.73
1957	3.267		3.98	3.65	3.89	4.71	3.60		3.81	4.20	3.12	3.11
1958	1.839		2.84	3.32	3.79	4.73	3.56		2.46	3.83	2.15	1.57
1959	3.405	3.832	4.46	4.33	4.38	5.05	3.95		3.97	4.48	3.36	3.30
1960	2.928	3.247	3.98	4.12	4.41	5.19	3.73		3.85	4.82	3.53	3.22
1961	2.378	2.605	3.54	3.88	4.35	5.08	3.46		2.97	4.50	3.00	1.96
1962	2.778	2.908	3.47	3.95	4.33	5.02	3.18		3.26	4.50	3.00	2.68
1963	3.157	3.253	3.67	4.00	4.26	4.86	3.23	5.89	3.55	4.50	3.23	3.18
1964	3.549	3.686	4.03	4.19	4.40	4.83	3.22	5.83	3.97	4.50	3.55	3.50
1965	3.954	4.055	4.22	4.28	4.49	4.87	3.27	5.81	4.38	4.54	4.04	4.07
1966	4.881	5.082	5.23	4.92	5.13	5.67	3.82	6.25	5.55	5.63	4.50	5.11
1967	4.321	4.630	5.03	5.07	5.51	6.23	3.98	6.46	5.10	5.61	4.19	4.22
1968	5.339	5.470	5.68	5.65	6.18	6.94	4.51	6.97	5.90	6.30	5.16	5.66
1969	6.677	6.853	7.02	6.67	7.03	7.81	5.81	7.81	7.83	7.96	5.87	8.20
1970	6.458	6.562	7.29	7.35	8.04	9.11	6.51	8.45	7.71	7.91	5.95	7.18
1971	4.348	4.511	5.65	6.16	7.39	8.56	5.70	7.74	5.11	5.72	4.88	4.66
1972	4.071	4.466	5.72	6.21	7.21	8.16	5.27	7.60	4.73	5.25	4.50	4.43
1973	7.041	7.178	6.95	6.84	7.44	8.24	5.18	7.96	8.15	8.03	6.44	8.73
1974	7.886	7.926	7.82	7.56	8.57	9.50	6.09	8.92	9.84	10.81	7.83	10.50
1975	5.838	6.122	7.49	7.99	8.83	10.61	6.89	9.00	6.32	7.86	6.25	5.82
1976	4.989	5.266	6.77	7.61	8.43	9.75	6.49	9.00	5.34	6.84	5.50	5.04
1977	5.265	5.510	6.69	7.42	8.02	8.97	5.56	9.02	5.61	6.83	5.46	5.54
1978	7.221	7.572	8.29	8.41	8.73	9.49	5.90	9.56	7.99	9.06	7.46	7.93
1979	10.041	10.017	9.71	9.44	9.63	10.69	6.39	10.78	10.91	12.67	10.28	11.19
1980	11.506	11.374	11.55	11.46	11.94	13.67	8.51	12.66	12.29	15.27	11.77	13.36
1981	14.029	13.776	14.44	13.91	14.17	16.04	11.23	14.70	14.76	18.87	13.42	16.38
1982	10.686	11.084	12.92	13.00	13.79	16.11	11.57	15.14	11.89	14.86	11.02	12.26
1983	8.63	8.75	10.45	11.10	12.04	13.55	9.47	12.57	8.89	10.79	8.50	9.09
1984	9.58	9.80	11.89	12.44	12.71	14.19	10.15	12.38	10.16	12.04	8.80	10.23
1985	7.48	7.66	9.64	10.62	11.37	12.72	9.18	11.55	8.01	9.93	7.69	8.10
1986	5.98	6.03	7.06	7.68	9.02	10.39	7.38	10.17	6.39	8.33	6.33	6.81
1987	5.82	6.05	7.68	8.39	9.38	10.58	7.73	9.31	6.85	8.21	5.66	6.66
1988	6.69	6.92	8.26	8.85	9.71	10.83	7.76	9.19	7.68	9.32	6.20	7.57
1989	8.12	8.04	8.55	8.49	9.26	10.18	7.24	10.13	8.80	10.87	6.93	9.21
1990	7.51	7.47	8.26	8.55	9.32	10.36	7.25	10.05	7.95	10.01	6.98	8.10
1991	5.42	5.49	6.82	7.86	8.77	9.80	6.89	9.32	5.85	8.46	5.45	5.69
										High-low	High-low	
1986:												
Jan	7.04	7.13	8.41	9.19	10.05	11.44	8.06	10.89	7.62	9.50–9.50	7.50–7.50	8.14
Feb	7.03	7.08	8.10	8.70	9.67	11.11	7.44	10.68	7.54	9.50–9.50	7.50–7.50	7.86
Mar	6.59	6.60	7.30	7.78	9.00	10.49	7.07	10.50	7.08	9.50–9.00	7.50–7.00	7.48
Apr	6.06	6.07	6.86	7.30	8.79	10.19	7.32	10.27	6.47	9.00–8.50	7.00–6.50	6.99
May	6.12	6.16	7.27	7.71	9.09	10.29	7.67	10.22	6.53	8.50–8.50	6.50–6.50	6.85
June	6.21	6.28	7.41	7.80	9.13	10.34	7.98	10.15	6.63	8.50–8.50	6.50–6.50	6.92
July	5.84	5.85	6.86	7.30	8.88	10.16	7.62	10.30	6.24	8.50–8.00	6.50–6.00	6.56
Aug	5.57	5.58	6.49	7.17	8.72	10.18	7.31	10.26	5.83	8.00–7.50	6.00–5.50	6.17
Sept	5.19	5.31	6.62	7.45	8.89	10.21	7.14	10.17	5.61	7.50–7.50	5.50–5.50	5.89
Oct	5.18	5.26	6.56	7.43	8.86	10.24	7.12	10.02	5.61	7.50–7.50	5.50–5.50	5.85
Nov	5.35	5.42	6.46	7.25	8.68	10.07	6.86	9.91	5.69	7.50–7.50	5.50–5.50	6.04
Dec	5.49	5.53	6.43	7.11	8.49	9.97	6.93	9.69	5.88	7.50–7.50	5.50–5.50	6.91

[1] Rate on new issues within period; bank-discount basis.
[2] Yields on the more actively traded issues adjusted to constant maturities by the Treasury Department.
[3] Effective rate (in the primary market) on conventional mortgages, reflecting fees and charges as well as contract rate and assuming, on the average, repayment at end of 10 years. Rates beginning January 1973 not strictly comparable with prior rates.
See next page for continuation of table.

TABLE B–69.—*Bond yields and interest rates, 1929–91*—Continued

[Percent per annum]

Year and month	U.S. Treasury securities				Corporate bonds (Moody's)		High-grade municipal bonds (Standard & Poor's)	New-home mortgage yields [3]	Commercial paper, 6 months [4]	Prime rate charged by banks [5]	Discount rate, Federal Reserve Bank of New York [5]	Federal funds rate [6]
	Bills (new issues) [1]		Constant maturities [2]									
	3-month	6-month	3-year	10-year	Aaa	Baa				High-low	High-low	
1987:												
Jan	5.45	5.47	6.41	7.08	8.36	9.72	6.63	9.51	5.76	7.50– 7.50	5.50–5.50	6.43
Feb	5.59	5.60	6.56	7.25	8.38	9.65	6.66	9.23	5.90	7.50– 7.50	5.50–5.50	6.10
Mar	5.56	5.56	6.58	7.25	8.36	9.61	6.71	9.14	6.10	7.50– 7.50	5.50–5.50	6.13
Apr	5.76	5.93	7.32	8.02	8.85	10.04	7.62	9.21	6.50	7.75– 7.50	5.50–5.50	6.37
May	5.75	6.11	8.02	8.61	9.33	10.51	8.10	9.37	7.04	8.25– 7.75	5.50–5.50	6.85
June	5.80	5.99	7.82	8.40	9.32	10.52	7.89	9.45	7.00	8.25– 8.25	5.50–5.50	6.73
July	5.78	5.86	7.74	8.45	9.42	10.61	7.83	9.41	6.72	8.25– 8.25	5.50–5.50	6.56
Aug	6.00	6.14	8.03	8.76	9.67	10.88	7.90	9.38	6.81	8.25– 8.25	5.50–5.50	6.73
Sept	6.32	6.57	8.67	9.42	10.18	11.31	8.36	9.37	7.55	8.75– 8.25	6.00–5.50	7.22
Oct	6.40	6.86	8.75	9.52	10.52	11.62	8.84	9.25	7.96	9.25– 8.75	6.00–6.00	7.29
Nov	5.81	6.23	7.99	8.86	10.01	11.23	8.09	9.30	7.17	9.00– 8.75	6.00–6.00	6.69
Dec	5.80	6.36	8.13	8.99	10.11	11.29	8.07	9.15	7.49	8.75– 8.75	6.00–6.00	6.77
1988:												
Jan	5.90	6.31	7.87	8.67	9.88	11.07	7.81	9.10	6.92	8.75– 8.75	6.00–6.00	6.83
Feb	5.69	5.96	7.38	8.21	9.40	10.62	7.55	9.12	6.58	8.75– 8.50	6.00–6.00	6.58
Mar	5.69	5.91	7.50	8.37	9.39	10.57	7.80	9.15	6.64	8.50– 8.50	6.00–6.00	6.58
Apr	5.92	6.21	7.83	8.72	9.67	10.90	7.91	9.13	6.92	8.50– 8.50	6.00–6.00	6.87
May	6.27	6.53	8.24	9.09	9.90	11.04	8.01	8.95	7.31	9.00– 8.50	6.00–6.00	7.09
June	6.50	6.76	8.22	8.92	9.86	11.00	7.86	9.26	7.53	9.00– 9.00	6.00–6.00	7.51
July	6.73	6.97	8.44	9.06	9.96	11.11	7.87	9.17	7.90	9.50– 9.00	6.00–6.00	7.75
Aug	7.02	7.36	8.77	9.26	10.11	11.21	7.86	9.06	8.36	10.00– 9.50	6.50–6.00	8.01
Sept	7.23	7.43	8.57	8.98	9.82	10.90	7.71	9.26	8.23	10.00–10.00	6.50–6.50	8.19
Oct	7.34	7.50	8.43	8.80	9.51	10.41	7.54	9.10	8.24	10.00–10.00	6.50–6.50	8.30
Nov	7.68	7.76	8.72	8.96	9.45	10.48	7.58	9.43	8.55	10.50–10.00	6.50–6.50	8.35
Dec	8.09	8.24	9.11	9.11	9.57	10.65	7.66	9.39	8.97	10.50–10.50	6.50–6.50	8.76
1989:												
Jan	8.29	8.38	9.20	9.09	9.62	10.65	7.41	9.52	9.02	10.50–10.50	6.50–6.50	9.12
Feb	8.48	8.49	9.32	9.17	9.64	10.61	7.47	9.82	9.35	11.50–10.50	7.00–6.50	9.36
Mar	8.83	8.87	9.61	9.36	9.80	10.67	7.61	9.99	9.97	11.50–11.50	7.00–7.00	9.85
Apr	8.70	8.73	9.40	9.18	9.79	10.61	7.49	10.17	9.78	11.50–11.50	7.00–7.00	9.84
May	8.46	8.39	8.98	8.86	9.57	10.46	7.25	10.18	9.29	11.50–11.50	7.00–7.00	9.81
June	8.22	8.00	8.37	8.28	9.10	10.03	6.97	10.42	8.80	11.50–11.00	7.00–7.00	9.53
July	7.92	7.63	7.83	8.02	8.93	9.87	6.97	10.48	8.35	11.00–10.50	7.00–7.00	9.24
Aug	7.91	7.72	8.13	8.11	8.96	9.88	7.08	10.22	8.32	10.50–10.50	7.00–7.00	8.99
Sept	7.72	7.74	8.26	8.19	9.01	9.91	7.27	10.24	8.50	10.50–10.50	7.00–7.00	9.02
Oct	7.63	7.61	8.02	8.01	8.92	9.81	7.22	10.11	8.24	10.50–10.50	7.00–7.00	8.84
Nov	7.65	7.46	7.80	7.87	8.89	9.81	7.13	10.09	8.00	10.50–10.50	7.00–7.00	8.55
Dec	7.64	7.45	7.77	7.84	8.86	9.82	7.01	10.07	7.93	10.50–10.50	7.00–7.00	8.45
1990:												
Jan	7.64	7.52	8.13	8.21	8.99	9.94	7.13	9.91	7.96	10.50–10.00	7.00–7.00	8.23
Feb	7.76	7.72	8.39	8.47	9.22	10.14	7.21	9.88	8.04	10.00–10.00	7.00–7.00	8.24
Mar	7.87	7.83	8.63	8.59	9.37	10.21	7.29	10.03	8.23	10.00–10.00	7.00–7.00	8.28
Apr	7.78	7.82	8.78	8.79	9.46	10.30	7.36	10.17	8.29	10.00–10.00	7.00–7.00	8.26
May	7.78	7.82	8.69	8.76	9.47	10.41	7.34	10.28	8.23	10.00–10.00	7.00–7.00	8.18
June	7.74	7.64	8.40	8.48	9.26	10.22	7.22	10.13	8.06	10.00–10.00	7.00–7.00	8.29
July	7.66	7.57	8.26	8.47	9.24	10.20	7.15	10.08	7.90	10.00–10.00	7.00–7.00	8.15
Aug	7.44	7.36	8.22	8.75	9.41	10.41	7.31	10.11	7.77	10.00–10.00	7.00–7.00	8.13
Sept	7.38	7.33	8.27	8.89	9.56	10.64	7.40	9.90	7.83	10.00–10.00	7.00–7.00	8.20
Oct	7.19	7.20	8.07	8.72	9.53	10.74	7.40	9.98	7.81	10.00–10.00	7.00–7.00	8.11
Nov	7.07	7.04	7.74	8.39	9.30	10.62	7.10	9.90	7.74	10.00–10.00	7.00–7.00	7.81
Dec	6.81	6.76	7.47	8.08	9.05	10.43	7.04	9.76	7.49	10.00–10.00	7.00–6.50	7.31
1991:												
Jan	6.30	6.34	7.38	8.09	9.04	10.45	7.05	9.65	7.02	10.00– 9.50	6.50–6.50	6.91
Feb	5.95	5.93	7.08	7.85	8.83	10.07	6.90	9.57	6.41	9.50– 9.00	6.50–6.00	6.25
Mar	5.91	5.91	7.35	8.11	8.93	10.09	7.07	9.43	6.36	9.00– 9.00	6.00–6.00	6.12
Apr	5.67	5.73	7.23	8.04	8.86	9.94	7.05	9.60	6.07	9.00– 9.00	6.00–5.50	5.91
May	5.51	5.65	7.12	8.07	8.86	9.86	6.95	9.52	5.94	9.00– 8.50	5.50–5.50	5.78
June	5.60	5.76	7.39	8.28	9.01	9.96	7.09	9.46	6.16	8.50– 8.50	5.50–5.50	5.90
July	5.58	5.71	7.38	8.27	9.00	9.89	7.03	9.43	6.14	8.50– 8.50	5.50–5.50	5.82
Aug	5.39	5.47	6.80	7.90	8.75	9.65	6.89	9.48	5.76	8.50– 8.50	5.50–5.50	5.66
Sept	5.25	5.29	6.50	7.65	8.61	9.51	6.80	9.30	5.59	8.50– 8.00	5.50–5.00	5.45
Oct	5.03	5.08	6.23	7.53	8.55	9.49	6.59	9.04	5.33	8.00– 8.00	5.00–5.00	5.21
Nov	4.60	4.66	5.90	7.42	8.48	9.45	6.64	8.64	4.93	8.00– 7.50	5.00–4.50	4.81
Dec	4.12	4.16	5.39	7.09	8.31	9.26	6.63	8.53	4.49	7.50– 6.50	4.50–3.50	4.43

[4] Bank-discount basis; prior to November 1979, data are for 4–6 months paper.

[5] For monthly data, high and low for the period. Prime rate for 1929–33 and 1947–48 are ranges of the rate in effect during the period.

[6] Since July 19, 1975, the daily effective rate is an average of the rates on a given day weighted by the volume of transactions at these rates. Prior to that date, the daily effective rate was the rate considered most representative of the day's transactions, usually the one at which most transactions occurred.

[7] From October 30, 1942, to April 24, 1946, a preferential rate of 0.50 percent was in effect for advances secured by Government securities maturing in 1 year or less.

Sources: Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Housing Finance Board, Moody's Investors Service, and Standard & Poor's Corporation.

TABLE B–70.—*Total funds raised in credit markets by nonfinancial sectors, 1982–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990
	Net credit market borrowing by nonfinancial sectors								
Total net borrowing by domestic nonfinancial sectors	401.0	547.7	758.2	895.3	861.6	722.8	767.2	714.7	630.0
U.S. Government	161.2	185.1	197.1	225.6	215.9	143.9	155.1	146.3	246.9
Treasury issues	162.1	185.2	197.3	225.7	215.6	142.4	137.7	144.7	238.7
Agency issues and mortgages	−.9	−.1	−.2	−.1	.4	1.5	17.4	1.6	8.2
Private domestic nonfinancial sectors	239.8	362.6	561.1	669.7	645.7	578.9	612.1	568.4	383.2
Debt capital instruments	159.9	258.2	327.6	494.5	489.3	487.1	463.5	414.9	314.0
Tax-exempt obligations	53.1	54.4	58.7	178.6	45.7	83.5	53.7	65.0	45.5
Corporate bonds	18.7	16.0	46.1	73.8	127.3	79.1	103.4	74.3	47.5
Mortgages	88.2	187.9	222.8	242.2	316.3	324.5	306.5	275.7	221.0
Home mortgages	53.4	120.4	136.7	156.8	218.7	234.9	231.0	218.0	204.6
Multi-family residential	5.4	14.1	25.2	29.8	33.5	24.4	16.7	16.4	5.9
Commercial	25.2	51.0	62.2	62.2	73.6	71.6	60.8	42.7	10.6
Farm	4.1	2.4	−1.2	−6.6	−9.5	−6.4	−2.1	−1.5	−.1
Other debt instruments	79.9	104.4	233.5	175.1	156.4	91.8	148.6	153.5	69.2
Consumer credit	16.4	48.9	81.7	82.5	58.0	33.5	50.4	43.1	14.3
Bank loans n.e.c.	53.9	25.0	67.9	40.6	63.6	9.9	40.5	39.9	1.5
Open-market paper	−6.1	−.8	21.7	14.6	−9.3	1.6	11.9	21.4	9.7
Other	15.8	31.3	62.2	37.4	44.1	46.8	45.8	49.1	43.7
By borrowing sector:	239.8	362.6	561.1	669.7	645.7	578.9	612.1	568.4	383.2
State and local governments	30.4	34.6	35.7	134.0	59.2	83.0	48.9	63.2	42.6
Households	84.1	179.2	231.1	283.1	289.7	302.2	315.8	287.3	247.2
Nonfinancial business	125.3	148.7	294.2	252.6	296.7	193.7	247.4	217.9	93.4
Farm	6.7	3.9	−.4	−14.5	−16.3	−10.6	−7.5	1.6	2.5
Nonfarm noncorporate	69.8	83.9	123.2	130.2	101.3	65.9	62.4	50.0	15.3
Corporate	48.8	61.0	171.5	136.9	211.7	138.5	192.5	166.3	75.5
Foreign net borrowing in United States	16.0	17.3	8.4	1.2	9.7	6.2	6.4	10.6	23.5
Bonds	6.6	3.1	3.8	3.8	3.1	7.4	6.9	5.3	21.6
Bank loans n.e.c.	−5.5	3.6	−6.6	−2.8	−1.0	−3.6	−1.8	−.1	−2.9
Open-market paper	1.9	6.5	6.2	6.2	11.5	3.8	8.7	13.1	12.3
U.S. Government and other loans	13.0	4.1	5.0	−6.0	−3.9	−1.4	−7.5	−7.7	−7.5
Total domestic plus foreign	417.0	565.0	766.6	896.5	871.3	729.0	773.6	725.3	653.5
	Direct and indirect supply of funds to credit markets								
Total funds supplied to domestic nonfinancial sectors	401.0	547.7	758.2	895.3	861.6	722.8	767.2	714.7	630.0
Private domestic nonfinancial sectors	310.7	410.5	476.9	516.3	408.5	432.2	472.6	422.8	249.9
Deposits and currency	208.9	240.2	312.9	221.3	282.8	190.3	232.2	224.2	88.7
Checkable deposits and currency	27.1	44.2	36.7	55.3	112.6	18.7	27.2	12.3	23.0
Time and savings deposits	137.7	208.7	222.6	142.8	100.9	123.7	163.0	107.3	17.4
Money market fund shares	33.5	−39.0	49.0	7.2	43.2	28.9	20.2	85.2	61.8
Security repurchase agreements	11.1	23.1	9.8	17.7	20.2	21.6	32.9	14.9	−20.5
Foreign deposits	−.4	3.1	−5.1	−1.7	5.9	−2.5	−11.2	4.4	7.0
Credit market instruments	101.8	170.3	164.0	295.0	125.7	241.9	240.4	198.6	161.2
Foreign funds	−8.6	38.2	66.7	82.0	110.7	106.4	106.9	61.7	77.2
At banks	−32.3	14.6	8.8	19.7	12.9	43.7	9.3	−9.9	24.0
Credit market instruments	23.7	23.7	57.9	62.3	97.8	62.7	97.6	71.6	53.2
U.S. Government and related loans, net	8.3	9.0	16.5	37.0	18.6	8.1	−13.1	−46.2	17.6
U.S. Government cash balances	6.1	−5.3	4.0	10.3	1.7	−5.8	7.3	−3.4	5.3
Private insurance and pension reserves	119.7	96.7	143.0	155.8	171.3	100.0	172.5	190.2	169.5
Other sources	−35.2	−1.4	51.0	93.9	150.8	81.9	21.0	89.7	110.4

See next page for continuation of table.

TABLE B-70.—*Total funds raised in credit markets by nonfinancial sectors, 1982–91*—Continued

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Item	1989				1990				1991		
	I	II	III	IV	I	II	III	IV	I	II	III
	Net credit market borrowing by nonfinancial sectors										
Total net borrowing by domestic nonfinancial sectors	740.4	720.7	701.4	696.4	780.6	669.3	588.3	482.0	427.1	515.7	565.6
U.S. Government	154.7	117.5	149.2	164.0	234.2	239.6	242.3	271.5	199.3	269.1	365.5
Treasury issues	155.9	112.4	142.1	168.6	204.7	234.2	243.6	272.5	223.2	275.3	394.3
Agency issues and mortgages	−1.2	5.1	7.1	−4.6	29.6	5.4	−1.3	−1.0	−24.0	−6.2	−28.8
Private domestic nonfinancial sectors	585.7	603.2	552.2	532.4	546.3	429.7	346.0	210.6	227.9	246.5	200.1
Debt capital instruments	410.8	403.4	410.4	435.1	396.0	335.2	272.5	252.2	263.0	307.0	243.0
Tax-exempt obligations	56.1	48.6	76.8	78.3	70.7	56.2	36.5	18.3	25.3	38.4	52.6
Corporate bonds	58.8	86.2	63.9	88.2	27.9	66.8	30.4	64.9	73.7	89.6	80.0
Mortgages	295.9	268.6	269.6	268.7	297.4	212.2	205.6	169.0	164.1	179.0	110.3
Home mortgages	213.6	207.3	223.7	227.5	258.1	218.4	183.0	159.0	140.3	161.9	146.0
Multi-family residential	20.4	20.8	11.6	13.0	8.7	−7.5	16.8	5.5	8.6	8.6	−9.6
Commercial	65.2	39.0	36.1	30.5	31.1	2.5	4.5	4.3	15.1	10.9	−26.1
Farm	−3.3	1.5	−1.8	−2.3	−.6	−1.2	1.3	.2	.1	−2.3	.0
Other debt instruments	174.9	199.8	141.8	97.3	150.3	94.5	73.6	−41.7	−35.1	−60.5	−42.9
Consumer credit	46.9	39.9	45.8	39.7	33.6	14.2	13.4	−4.2	−21.2	−7.0	−26.3
Bank loans n.e.c.	45.4	53.4	46.0	14.7	6.8	26.7	−6.9	−20.6	2.0	−43.7	−6.6
Open-market paper	23.1	43.7	18.7	.1	54.9	−.7	19.3	−34.4	−6.9	−16.1	−42.4
Other	59.5	62.7	31.2	42.8	55.1	54.4	47.7	17.6	−9.1	6.4	32.5
By borrowing sector:	585.7	603.2	552.2	532.4	546.3	429.7	346.0	210.6	227.9	246.5	200.1
State and local governments	62.3	50.8	73.0	66.6	74.3	48.9	34.6	12.4	25.6	25.7	27.5
Households	281.3	267.9	291.4	308.7	328.9	274.5	219.3	166.3	166.4	187.8	169.0
Nonfinancial business	242.1	284.5	187.7	157.1	143.1	106.3	92.2	31.9	35.9	33.0	3.5
Farm	4.6	−.1	−4.4	6.5	5.9	−5.5	8.7	1.1	24.8	2.5	2.1
Nonfarm noncorporate	71.5	56.7	39.2	32.5	31.0	14.1	11.2	4.8	−7.7	−1.2	−40.6
Corporate	166.0	227.9	152.9	118.2	106.2	97.8	72.3	25.9	18.7	31.8	42.0
Foreign net borrowing in United States	11.5	−11.7	26.9	15.6	12.5	36.3	26.2	19.0	62.0	−59.2	22.5
Bonds	5.2	6.8	8.1	1.1	35.0	20.7	1.9	28.6	11.5	14.7	15.9
Bank loans n.e.c.	.5	−.4	4.2	−4.8	−9.7	1.3	2.0	−5.2	7.4	−3.1	1.7
Open-market paper	17.8	−6.6	19.1	22.1	−14.9	23.1	25.6	15.6	46.7	−51.9	16.0
U.S. Government and other loans	−12.0	−11.4	−4.4	−2.8	2.1	−8.8	−3.3	−20.0	−3.5	−18.8	−11.0
Total domestic plus foreign	751.9	709.1	728.3	712.0	793.1	705.6	614.5	501.0	489.2	456.5	588.2
	Direct and indirect supply of funds to credit markets										
Total funds supplied to domestic nonfinancial sectors	740.4	720.7	701.4	696.4	780.6	669.3	588.3	482.0	427.1	515.7	565.6
Private domestic nonfinancial sectors	425.8	430.9	490.4	344.0	499.3	336.8	129.8	33.8	209.9	33.2	−70.5
Deposits and currency	225.9	241.2	217.8	211.9	216.6	32.1	81.7	24.6	232.7	−93.7	−77.7
Checkable deposits and currency	.3	−14.7	13.6	50.1	51.1	18.0	29.1	−6.1	101.9	10.1	98.1
Time and savings deposits	88.4	129.2	108.4	103.1	93.6	13.4	−32.2	−5.4	36.8	−59.6	−155.1
Money market fund shares	76.3	93.7	117.4	53.6	112.5	−25.3	113.5	46.4	172.5	−64.4	−3.3
Security repurchase agreements	32.6	26.5	12.0	−11.4	−37.1	18.2	−26.5	−36.6	−56.4	2.7	−16.5
Foreign deposits	28.3	6.5	−33.7	16.5	−3.6	7.8	−2.2	26.2	−22.1	17.5	−.9
Credit market instruments	200.0	189.7	272.6	132.0	282.7	304.7	48.1	9.3	−22.9	126.9	7.2
Foreign funds	80.6	−29.2	156.1	39.1	14.9	83.1	162.6	48.3	39.8	−40.1	82.1
At banks	−35.1	−24.9	21.2	−.8	13.5	23.5	87.5	−28.5	9.2	−99.3	30.5
Credit market instruments	115.7	−4.2	134.9	40.0	1.4	59.6	75.1	76.8	30.6	59.1	51.7
U.S. Government and related loans, net	−2.9	−95.2	−52.9	−33.9	39.8	21.5	99.8	90.6	60.8	93.5	60.8
U.S. Government cash balances	−17.9	18.8	−20.9	6.4	5.2	−1.0	13.7	3.4	20.6	−22.3	5.7
Private insurance and pension reserves	183.8	290.0	134.3	152.8	99.4	222.4	131.7	224.6	269.2	192.0	321.7
Other sources	71.0	105.4	−5.6	188.0	122.0	6.4	50.7	262.6	−173.1	259.3	165.7

Source: Board of Governors of the Federal Reserve System.

TABLE B–71.—*Mortgage debt outstanding by type of property and of financing, 1940–91*

[Billions of dollars]

End of year or quarter	All properties	Farm properties	Nonfarm properties				Nonfarm properties by type of mortgage					
							Government underwritten				Conventional [2]	
			Total	1- to 4-family houses	Multifamily properties	Commercial properties	Total [1]	1- to 4-family houses			Total	1- to 4-family houses
								Total	FHA insured	VA guaranteed		
1940	36.5	6.5	30.0	17.4	5.7	6.9	2.3	2.3	2.3	.....	27.7	15.1
1941	37.6	6.4	31.2	18.4	5.9	7.0	3.0	3.0	3.0	.....	28.2	15.4
1942	36.7	6.0	30.8	18.2	5.8	6.7	3.7	3.7	3.7	.....	27.1	14.5
1943	35.3	5.4	29.9	17.8	5.8	6.3	4.1	4.1	4.1	.....	25.8	13.7
1944	34.7	4.9	29.7	17.9	5.6	6.2	4.2	4.2	4.2	.....	25.5	13.7
1945	35.5	4.8	30.8	18.6	5.7	6.4	4.3	4.3	4.1	0.2	26.5	14.3
1946	41.8	4.9	36.9	23.0	6.1	7.7	6.3	6.1	3.7	2.4	30.6	16.9
1947	48.9	5.1	43.9	28.2	6.6	9.1	9.8	9.3	3.8	5.5	34.1	18.9
1948	56.2	5.3	50.9	33.3	7.5	10.2	13.6	12.5	5.3	7.2	37.3	20.8
1949	62.7	5.6	57.1	37.6	8.6	10.8	17.1	15.0	6.9	8.1	40.0	22.6
1950	72.8	6.1	66.7	45.2	10.1	11.5	22.1	18.8	8.5	10.3	44.7	26.3
1951	82.3	6.7	75.6	51.7	11.5	12.5	26.6	22.9	9.7	13.2	49.1	28.9
1952	91.4	7.2	84.2	58.5	12.3	13.4	29.3	25.4	10.8	14.6	54.9	33.2
1953	101.3	7.7	93.6	66.1	12.9	14.5	32.1	28.1	12.0	16.1	61.5	38.0
1954	113.7	8.2	105.4	75.7	13.5	16.3	36.2	32.1	12.8	19.3	69.3	43.6
1955	129.9	9.0	120.9	88.2	14.3	18.3	42.9	38.9	14.3	24.6	78.0	49.3
1956	144.5	9.8	134.6	99.0	14.9	20.7	47.8	43.9	15.5	28.4	86.8	55.1
1957	156.5	10.4	146.1	107.6	15.3	23.2	51.6	47.2	16.5	30.7	94.6	60.4
1958	171.8	11.1	160.7	117.7	16.8	26.1	55.2	50.1	19.7	30.4	105.5	67.6
1959	190.8	12.1	178.7	130.9	18.7	29.2	59.3	53.8	23.8	30.0	119.4	77.0
1960	207.5	12.8	194.7	141.9	20.3	32.4	62.3	56.4	26.7	29.7	132.3	85.5
1961	228.0	13.9	214.1	154.6	23.0	36.5	65.6	59.1	29.5	29.6	148.5	95.5
1962	251.4	15.2	236.2	169.3	25.8	41.1	69.4	62.2	32.3	29.9	166.9	107.1
1963	278.5	16.8	261.7	186.4	29.0	46.2	73.4	65.9	35.0	30.9	188.2	120.5
1964	305.9	18.9	287.0	203.4	33.6	50.0	77.2	69.2	38.3	30.9	209.8	134.1
1965	333.3	21.2	312.1	220.5	37.2	54.5	81.2	73.1	42.0	31.1	231.0	147.4
1966	356.5	23.1	333.4	232.9	40.3	60.1	84.1	76.1	44.8	31.3	249.3	156.9
1967	381.2	25.1	356.1	247.3	43.9	64.8	88.2	79.9	47.4	32.5	267.9	167.4
1968	411.1	27.5	383.5	264.8	47.3	71.4	93.4	84.4	50.6	33.8	290.1	180.4
1969	441.6	29.4	412.2	283.2	52.2	76.9	100.2	90.2	54.5	35.7	312.0	193.0
1970	473.7	30.5	443.2	297.4	60.1	85.6	109.2	97.3	59.9	37.3	333.9	200.2
1971	524.2	32.4	491.8	325.9	70.1	95.9	120.7	105.2	65.7	39.5	371.1	220.7
1972	597.4	35.4	562.0	366.5	82.8	112.7	131.1	113.0	68.2	44.7	430.9	253.5
1973	672.6	39.8	632.8	407.9	93.1	131.7	135.0	116.2	66.2	50.0	497.7	291.7
1974	732.5	44.9	687.5	440.7	100.0	146.9	140.2	121.3	65.1	56.2	547.3	319.4
1975	791.9	49.9	742.0	482.1	100.6	159.3	147.0	127.7	66.1	61.6	595.0	354.3
1976	878.6	55.4	823.2	546.3	105.7	171.2	154.1	133.5	66.5	67.0	669.0	412.8
1977	1,010.3	63.9	946.4	642.7	114.0	189.7	161.7	141.6	68.0	73.6	784.6	501.0
1978	1,163.0	72.8	1,090.2	753.5	124.9	211.8	176.4	153.4	71.4	82.0	913.9	600.2
1979	1,328.4	86.8	1,241.7	870.5	134.9	236.3	199.0	172.9	81.0	92.0	1,042.7	697.6
1980	1,460.4	97.5	1,362.9	965.1	142.3	255.5	225.1	195.2	93.6	101.6	1,137.8	769.9
1981	1,566.7	107.2	1,459.5	1,039.8	142.1	277.5	238.9	207.6	101.3	106.2	1,220.6	832.2
1982	1,637.9	111.3	1,526.6	1,080.0	145.7	300.9	248.9	217.9	108.0	109.9	1,277.8	862.2
1983	1,825.4	113.7	1,711.7	1,198.5	160.7	352.4	279.8	248.8	127.4	121.4	1,431.9	949.6
1984	2,051.4	112.4	1,939.0	1,334.3	185.4	419.3	294.8	265.9	136.7	129.1	1,644.2	1,068.5
1985	2,303.3	105.9	2,197.4	1,501.4	214.5	481.5	328.3	288.8	153.0	135.8	1,869.1	1,212.6
1986	2,633.6	96.5	2,537.2	1,723.7	257.2	556.3	370.5	328.6	185.5	143.1	2,166.7	1,395.1
1987	2,986.4	87.5	2,898.9	1,963.0	278.9	657.0	431.4	387.9	235.5	152.4	2,467.5	1,575.1
1988	3,270.1	85.2	3,184.9	2,201.2	291.4	692.2	459.7	414.2	258.8	155.4	2,725.2	1,787.1
1989	3,556.4	84.0	3,472.3	2,429.7	303.4	739.2	486.8	440.1	282.8	157.3	2,985.5	1,989.6
1990	3,912.2	84.0	3,828.2	2,765.1	307.0	756.1	517.9	470.9	310.9	160.0	3,310.3	2,294.2
1989: I	3,334.9	84.6	3,250.3	2,247.2	296.8	706.3	466.0	420.8	264.7	156.1	2,784.4	1,826.4
II	3,414.3	85.4	3,328.9	2,309.1	301.8	718.1	472.5	426.9	270.3	156.6	2,856.5	1,882.2
III	3,493.0	85.3	3,407.6	2,371.9	300.9	734.8	478.3	432.9	276.3	156.6	2,929.4	1,939.0
IV	3,556.4	84.0	3,472.3	2,429.7	303.4	739.2	486.8	440.1	282.8	157.3	2,985.5	1,989.6
1990: I	3,754.7	83.9	3,670.8	2,614.0	303.7	753.1	495.1	448.2	289.8	158.4	3,175.7	2,165.8
II	3,815.3	84.0	3,731.3	2,675.7	301.9	753.8	502.3	455.0	296.2	158.8	3,229.0	2,220.7
III	3,870.2	84.3	3,785.9	2,724.9	306.1	754.9	510.9	464.1	304.8	159.3	3,275.0	2,260.8
IV	3,912.2	84.0	3,828.2	2,765.1	307.0	756.1	517.9	470.9	310.9	160.0	3,310.3	2,294.2
1991: I	3,943.1	83.9	3,859.2	2,789.7	309.6	759.9	525.3	478.0	317.0	161.0	3,333.8	2,311.7
II	3,995.2	83.8	3,911.4	2,837.1	311.8	762.5	532.6	484.2	323.1	161.1	3,378.8	2,352.9
III	4,026.1	83.8	3,942.4	2,877.0	309.4	756.0	540.3	491.4	329.2	162.2	3,402.1	2,385.5

[1] Includes FHA insured multifamily properties, not shown separately.
[2] Derived figures. Total includes multifamily and commercial properties, not shown separately.

Source: Board of Governors of the Federal Reserve System, based on data from various Government and private organizations.

TABLE B–72.—*Mortgage debt outstanding by holder, 1940–91*

[Billions of dollars]

End of year or quarter	Total	Major financial institutions				Other holders	
		Total	Savings institutions [1]	Commercial banks [2]	Life insurance companies	Federal and related agencies [3]	Individuals and others [4]
1940	36.5	19.5	9.0	4.6	6.0	4.9	12.0
1941	37.6	20.7	9.4	4.9	6.4	4.7	12.2
1942	36.7	20.7	9.2	4.7	6.7	4.3	11.7
1943	35.3	20.2	9.0	4.5	6.7	3.6	11.5
1944	34.7	20.2	9.1	4.4	6.7	3.0	11.5
1945	35.5	21.0	9.6	4.8	6.6	2.4	12.1
1946	41.8	26.0	11.5	7.2	7.2	2.0	13.8
1947	48.9	31.8	13.8	9.4	8.7	1.8	15.3
1948	56.2	37.8	16.1	10.9	10.8	1.8	16.6
1949	62.7	42.9	18.3	11.6	12.9	2.3	17.5
1950	72.8	51.7	21.9	13.7	16.1	2.8	18.4
1951	82.3	59.5	25.5	14.7	19.3	3.5	19.3
1952	91.4	66.9	29.8	15.9	21.3	4.1	20.4
1953	101.3	75.1	34.9	16.9	23.3	4.6	21.7
1954	113.7	85.7	41.1	18.6	26.0	4.8	23.2
1955	129.9	99.3	48.9	21.0	29.4	5.3	25.3
1956	144.5	111.2	55.5	22.7	33.0	6.2	27.1
1957	156.5	119.7	61.2	23.3	35.2	7.7	29.1
1958	171.8	131.5	68.9	25.5	37.1	8.0	32.3
1959	190.8	145.5	78.1	28.1	39.2	10.2	35.1
1960	207.5	157.6	87.0	28.8	41.8	11.5	38.4
1961	228.0	172.6	98.0	30.4	44.2	12.2	43.1
1962	251.4	192.5	111.1	34.5	46.9	12.6	46.3
1963	278.5	217.1	127.2	39.4	50.5	11.8	49.5
1964	305.9	241.0	141.9	44.0	55.2	12.2	52.7
1965	333.3	264.6	154.9	49.7	60.0	13.5	55.2
1966	356.5	280.8	161.8	54.4	64.6	17.5	58.2
1967	381.2	298.8	172.3	59.0	67.5	20.9	61.4
1968	411.1	319.9	184.3	65.7	70.0	25.1	66.1
1969	441.6	339.1	196.4	70.7	72.0	31.1	71.4
1970	473.7	355.9	208.3	73.3	74.4	38.3	79.4
1971	524.2	394.2	236.2	82.5	75.5	46.4	83.6
1972	597.4	450.0	273.7	99.3	76.9	54.6	92.8
1973	672.6	505.4	305.0	119.1	81.4	64.8	102.4
1974	732.5	542.6	324.2	132.1	86.2	82.2	107.7
1975	791.9	581.2	355.8	136.2	89.2	101.1	109.6
1976	878.6	647.5	404.6	151.3	91.6	116.7	114.4
1977	1,010.3	745.2	469.4	179.0	96.8	140.5	124.6
1978	1,163.0	848.2	528.0	214.0	106.2	170.6	144.3
1979	1,328.4	938.2	574.6	245.2	118.4	216.0	174.3
1980	1,460.4	996.8	603.1	262.7	131.1	256.8	206.8
1981	1,566.7	1,040.5	618.5	284.2	137.7	289.4	236.8
1982	1,637.9	1,021.3	578.1	301.3	142.0	355.4	261.2
1983	1,825.4	1,108.2	626.7	330.5	151.0	433.4	283.7
1984	2,051.4	1,245.9	709.7	379.5	156.7	491.1	314.5
1985	2,303.3	1,361.5	760.5	429.2	171.8	582.0	359.8
1986	2,633.6	1,474.3	778.0	502.5	193.8	735.4	423.9
1987	2,986.4	1,665.3	860.5	592.4	212.4	863.1	458.0
1988	3,270.1	1,831.5	924.6	674.0	232.9	945.9	492.8
1989	3,556.4	1,931.5	910.3	767.1	254.2	1,079.0	545.8
1990	3,912.2	1,913.9	801.6	844.5	267.9	1,270.6	727.6
1989: I	3,334.9	1,864.9	934.4	693.8	236.8	970.4	499.6
II	3,414.3	1,900.0	938.7	719.5	241.8	996.5	517.7
III	3,493.0	1,925.4	932.4	746.0	247.0	1,032.8	534.8
IV	3,556.4	1,931.5	910.3	767.1	254.2	1,079.0	545.8
1990: I	3,754.7	1,939.0	891.9	786.8	260.3	1,125.1	690.6
II	3,815.3	1,940.4	860.9	814.6	264.9	1,172.0	702.9
III	3,870.2	1,933.3	836.0	831.2	266.1	1,221.2	715.6
IV	3,912.2	1,913.9	801.6	844.5	267.9	1,270.6	727.6
1991: I	3,943.1	1,902.1	776.6	856.5	269.0	1,314.5	726.6
II	3,995.2	1,898.1	755.2	871.2	271.7	1,362.7	734.3
III	4,026.1	1,868.6	722.8	870.7	275.1	1,406.7	750.9

[1] Includes savings banks and savings and loan associations. Data reported by Federal Savings and Loan Insurance Corporation-insured institutions include loans in process for 1987 and exclude loans in process beginning 1988.

[2] Includes loans held by nondeposit trust companies, but not by bank trust departments.

[3] Includes Government National Mortgage Association (GNMA), Federal Housing Administration, Veterans Administration, Farmers Home Administration (FmHA), and in earlier years Reconstruction Finance Corporation, Homeowners Loan Corporation, Federal Farm Mortgage Corporation, and Public Housing Administration. Also includes U.S.-sponsored agencies such as Federal National Mortgage Association (FNMA), Federal Land Banks, Federal Home Loan Mortgage Corporation (FHLMC), and mortgage pass-through securities issued or guaranteed by GNMA, FHLMC, FNMA or FmHA. Other U.S. agencies (amounts small or current separate data not readily available) included with "individuals and others."

[4] Includes private mortgage pools.

Source: Board of Governors of the Federal Reserve System, based on data from various Government and private organizations.

TABLE B–73.—*Consumer credit outstanding, 1950–91*

[Amount outstanding (end of month); millions of dollars, seasonally adjusted]

Year and month	Total consumer credit	Installment credit [1]					Noninstallment credit [4]
		Total	Automobile	Revolving [2]	Mobile home [3]	Other	
December:							
1950	23,295	15,166	6,035			9,131	8,129
1951	24,624	15,859	5,981			9,878	8,765
1952	29,766	20,121	7,651			12,470	9,645
1953	33,769	23,870	9,702			14,168	9,899
1954	35,027	24,470	9,755			14,715	10,557
1955	41,885	29,809	13,485			16,324	12,076
1956	45,503	32,660	14,499			18,161	12,843
1957	48,132	34,914	15,493			19,421	13,218
1958	48,356	34,736	14,267			20,469	13,620
1959	55,878	40,421	16,641			23,780	15,457
1960	60,035	44,335	18,108			26,227	15,700
1961	62,340	45,438	17,656			27,782	16,902
1962	68,231	50,375	20,001			30,374	17,856
1963	76,606	57,056	22,891			34,165	19,550
1964	85,989	64,674	25,865			38,809	21,315
1965	95,948	72,814	29,378			43,436	23,134
1966	101,839	78,162	31,024			47,138	23,677
1967	106,716	81,783	31,136			50,647	24,933
1968	117,231	90,112	34,352	2,022		53,738	27,119
1969	126,928	99,381	36,946	3,563		58,872	27,547
1970	131,600	103,905	36,348	4,900	2,433	60,224	27,695
1971	147,058	116,434	40,522	8,252	7,171	60,489	30,624
1972	166,009	131,258	47,835	9,391	9,468	64,564	34,751
1973	190,601	152,910	53,740	11,318	13,505	74,347	37,691
1974	199,365	162,203	54,241	13,232	14,582	80,148	37,162
1975	204,963	167,043	56,989	14,507	15,388	80,159	37,920
1976	228,162	187,782	66,821	16,595	15,738	88,628	40,380
1977	263,808	221,475	80,948	36,689	16,362	87,476	42,333
1978	308,272	261,976	98,739	45,202	16,921	101,114	46,296
1979	347,507	296,483	112,475	53,357	18,207	112,444	51,024
1980	350,269	298,154	111,991	55,111	18,736	112,317	52,115
1981	366,869	311,259	119,008	61,070	20,058	111,124	55,610
1982	383,132	325,805	125,945	66,454	22,604	110,802	57,327
1983	431,170	368,966	143,560	79,088	23,562	122,756	62,204
1984	511,315	442,602	173,564	100,280	25,861	142,897	68,713
1985	592,129	518,252	210,187	121,816	26,850	159,400	73,877
1986	649,112	573,017	247,428	135,851	27,096	162,642	76,095
1987	681,893	610,468	265,851	153,078	25,920	165,620	71,424
1988 [5]	731,176	664,049	284,214	174,104	25,348	180,383	67,127
1989	781,190	718,863	290,676	199,082	22,471	206,633	62,327
1990	794,403	735,102	284,585	220,110	20,919	209,487	59,301
1990: Jan	784,601	721,563	291,100	201,760	22,406	206,350	63,039
Feb	788,573	725,519	291,270	204,251	22,444	207,553	63,053
Mar	789,740	726,676	290,755	205,783	22,672	207,466	63,064
Apr	790,434	727,798	290,000	207,673	22,359	207,766	62,636
May	790,962	729,528	289,416	210,618	22,073	207,421	61,434
June	792,505	730,355	288,797	212,043	21,761	207,754	62,150
July	794,231	732,750	288,136	215,119	21,211	208,284	61,481
Aug	794,755	733,844	286,818	217,024	21,191	208,811	60,911
Sept	795,746	735,547	285,627	219,090	21,073	209,758	60,199
Oct	795,428	735,433	285,024	220,031	20,680	209,698	59,995
Nov	795,952	736,411	284,412	221,690	20,492	209,817	59,541
Dec	794,403	735,102	284,585	220,110	20,919	209,487	59,301
1991: Jan	792,438	732,962	283,746	219,588	20,459	209,170	59,476
Feb	792,021	732,762	282,626	221,556	20,200	208,379	59,259
Mar	789,639	732,442	280,689	224,817	20,123	206,813	57,197
Apr	790,828	733,621	279,746	225,994	20,098	207,782	57,207
May	790,252	732,289	276,494	227,301	19,796	208,697	57,963
June	787,317	730,591	274,496	227,737	19,907	208,451	56,726
July	785,267	729,962	273,565	228,199	19,615	208,582	55,305
Aug	782,785	729,108	271,906	229,453	19,495	208,253	53,677
Sept	781,059	729,151	270,223	232,070	18,892	207,966	51,908
Oct	779,963	730,817	270,013	233,661	18,943	208,200	49,146
Nov [p]	778,911	730,844	269,061	234,675	19,068	208,040	48,067

[1] Installment credit covers most short- and intermediate-term credit extended to individuals through regular business channels, usually to finance the purchase of consumer goods and services or to refinance debts incurred for such purposes, and scheduled to be repaid (or with the option of repayment) in two or more installments. Credit secured by real estate is generally excluded.

[2] Consists of credit cards at retailers, gasoline companies, and commercial banks, and check credit at commercial banks. Excludes 30-day charge credit held by travel and entertainment companies. Prior to 1968, included in "other," except gasoline companies included in noninstallment credit prior to 1971. Beginning 1977, includes open-end credit at retailers, previously included in "other." Also beginning 1977, some retail credit was reclassified from commercial into consumer credit.

[3] Not reported separately prior to July 1970.

[4] Noninstallment credit is credit scheduled to be repaid in a lump sum, including single-payment loans, charge accounts, and service credit. Because of inconsistencies in the data and infrequent benchmarking, series is no longer published by the Federal Reserve Board on a regular basis. Data are shown here as a general indication of trends.

[5] Data newly available in January 1989 result in breaks in many series between December 1988 and subsequent months.

Source: Board of Governors of the Federal Reserve System.

TABLE B–74.—*Federal receipts, outlays, surplus or deficit, and debt, selected fiscal years, 1929–93*

[Billions of dollars; fiscal years]

Fiscal year or period	Total			On-budget			Off-budget			Gross Federal debt (end of period)		Addendum: Gross domestic product
	Receipts	Outlays	Surplus or deficit (–)	Receipts	Outlays	Surplus or deficit (–)	Receipts	Outlays	Surplus or deficit (–)	Total	Held by the public	
1929	3.9	3.1	0.7							[1] 16.9		
1933	2.0	4.6	–2.6							[1] 22.5		
1939	6.3	9.1	–2.8	5.8	9.2	–3.4	0.5	–0.0	0.5	48.2	41.4	87.9
1940	6.5	9.5	–2.9	6.0	9.5	–3.5	.6	–.0	.6	50.7	42.8	95.5
1941	8.7	13.7	–4.9	8.0	13.6	–5.6	.7	.0	.7	57.5	48.2	112.5
1942	14.6	35.1	–20.5	13.7	35.1	–21.3	.9	.1	.8	79.2	67.8	141.7
1943	24.0	78.6	–54.6	22.9	78.5	–55.6	1.1	.1	1.0	142.6	127.8	175.4
1944	43.7	91.3	–47.6	42.5	91.2	–48.7	1.3	.1	1.2	204.1	184.8	201.6
1945	45.2	92.7	–47.6	43.8	92.6	–48.7	1.3	.1	1.2	260.1	235.2	211.9
1946	39.3	55.2	–15.9	38.1	55.0	–17.0	1.2	.2	1.0	271.0	241.9	212.3
1947	38.5	34.5	4.0	37.1	34.2	2.9	1.5	.3	1.2	257.1	224.3	222.6
1948	41.6	29.8	11.8	39.9	29.4	10.5	1.6	.4	1.2	252.0	216.3	246.5
1949	39.4	38.8	.6	37.7	38.4	–.7	1.7	.4	1.3	252.6	214.3	262.4
1950	39.4	42.6	–3.1	37.3	42.0	–4.7	2.1	.5	1.6	256.9	219.0	265.5
1951	51.6	45.5	6.1	48.5	44.2	4.3	3.1	1.3	1.8	255.3	214.3	313.2
1952	66.2	67.7	–1.5	62.6	66.0	–3.4	3.6	1.7	1.9	259.1	214.8	340.3
1953	69.6	76.1	–6.5	65.5	73.8	–8.3	4.1	2.3	1.8	266.0	218.4	363.4
1954	69.7	70.9	–1.2	65.1	67.9	–2.8	4.6	2.9	1.7	270.8	224.5	367.4
1955	65.5	68.4	–3.0	60.4	64.5	–4.1	5.1	4.0	1.1	274.4	226.6	383.9
1956	74.6	70.6	3.9	68.2	65.7	2.5	6.4	5.0	1.5	272.7	222.2	415.2
1957	80.0	76.6	3.4	73.2	70.6	2.6	6.8	6.0	.8	272.3	219.3	437.2
1958	79.6	82.4	–2.8	71.6	74.9	–3.3	8.0	7.5	.5	279.7	226.3	447.1
1959	79.2	92.1	–12.8	71.0	83.1	–12.1	8.3	9.0	–.7	287.5	234.7	478.7
1960	92.5	92.2	.3	81.9	81.3	.5	10.6	10.9	–.2	290.5	236.8	505.9
1961	94.4	97.7	–3.3	82.3	86.0	–3.8	12.1	11.7	.4	292.6	238.4	516.9
1962	99.7	106.8	–7.1	87.4	93.3	–5.9	12.3	13.5	–1.3	302.9	248.0	554.3
1963	106.6	111.3	–4.8	92.4	96.4	–4.0	14.2	15.0	–.8	310.3	254.0	585.0
1964	112.6	118.5	–5.9	96.2	102.8	–6.5	16.4	15.7	.6	316.1	256.8	626.5
1965	116.8	118.2	–1.4	100.1	101.7	–1.6	16.7	16.5	.2	322.3	260.8	671.4
1966	130.8	134.5	–3.7	111.7	114.8	–3.1	19.1	19.7	–.6	328.5	263.7	738.6
1967	148.8	157.5	–8.6	124.4	137.0	–12.6	24.4	20.4	4.0	340.4	266.6	791.3
1968	153.0	178.1	–25.2	128.1	155.8	–27.7	24.9	22.3	2.6	368.7	289.5	849.8
1969	186.9	183.6	3.2	157.9	158.4	–.5	29.0	25.2	3.7	365.8	278.1	925.6
1970	192.8	195.6	–2.8	159.3	168.0	–8.7	33.5	27.6	5.9	380.9	283.2	985.6
1971	187.1	210.2	–23.0	151.3	177.3	–26.1	35.8	32.8	3.0	408.2	303.0	1,051.6
1972	207.3	230.7	–23.4	167.4	193.8	–26.4	39.9	36.9	3.1	435.9	322.4	1,145.8
1973	230.8	245.7	–14.9	184.7	200.1	–15.4	46.1	45.6	.5	466.3	340.9	1,278.0
1974	263.2	269.4	–6.1	209.3	217.3	–8.0	53.9	52.1	1.8	483.9	343.7	1,403.3
1975	279.1	332.3	–53.2	216.6	271.9	–55.3	62.5	60.4	2.0	541.9	394.7	1,511.0
1976	298.1	371.8	–73.7	231.7	302.2	–70.5	66.4	69.6	–3.2	629.0	477.4	1,685.1
Transition quarter	81.2	96.0	–14.7	63.2	76.6	–13.3	18.0	19.4	–1.4	643.6	495.5	444.9
1977	355.6	409.2	–53.7	278.7	328.5	–49.8	76.8	80.7	–3.9	706.4	549.1	1,919.7
1978	399.6	458.7	–59.2	314.2	369.1	–54.9	85.4	89.7	–4.3	776.6	607.1	2,156.4
1979	463.3	503.5	–40.2	365.3	403.5	–38.2	98.0	100.0	–2.0	828.9	639.8	2,431.9
1980	517.1	590.9	–73.8	403.9	476.6	–72.7	113.2	114.3	–1.1	908.5	709.3	2,644.5
1981	599.3	678.2	–79.0	469.1	543.1	–74.0	130.2	135.2	–5.0	994.3	784.8	2,964.7
1982	617.8	745.8	–128.0	474.3	594.4	–120.1	143.5	151.4	–7.9	1,136.8	919.2	3,124.9
1983	600.6	808.4	–207.8	453.2	661.3	–208.0	147.3	147.1	.2	1,371.2	1,131.0	3,317.0
1984	666.5	851.8	–185.4	500.4	686.0	–185.7	166.1	165.8	.3	1,564.1	1,300.0	3,696.7
1985	734.1	946.4	–212.3	547.9	769.6	–221.7	186.2	176.8	9.4	1,817.0	1,499.4	3,970.9
1986	769.1	990.3	–221.2	568.9	806.8	–238.0	200.2	183.5	16.7	2,120.1	1,736.2	4,219.6
1987	854.1	1,003.9	–149.8	640.7	810.1	–169.3	213.4	193.8	19.6	2,345.6	1,888.1	4,453.3
1988	909.0	1,064.1	–155.2	667.5	861.4	–194.0	241.5	202.7	38.8	2,600.8	2,050.3	4,810.0
1989	990.7	1,144.2	–153.5	727.0	933.3	–206.2	263.7	210.9	52.8	2,867.5	2,190.3	5,170.1
1990	1,031.3	1,251.8	–220.5	749.7	1,026.7	–277.1	281.7	225.1	56.6	3,206.3	2,410.4	5,459.5
1991	1,054.3	1,323.0	–268.7	760.4	1,081.3	–320.9	293.9	241.7	52.2	3,599.0	2,687.2	5,626.6
1992 [2]	1,075.7	1,441.0	–365.2	774.8	1,189.4	–414.6	300.9	251.5	49.4	4,078.8	3,078.3	5,865.0
1993 [2]	1,164.8	1,497.5	–332.7	839.0	1,233.5	–394.5	325.8	264.0	61.8	4,544.3	3,430.9	6,231.6

[1] Not strictly comparable with later data.
[2] Estimates.

Note.—Through fiscal year 1976, the fiscal year was on a July 1–June 30 basis; beginning October 1976 (fiscal year 1977), the fiscal year is on an October 1–September 30 basis. The 3-month period from July 1, 1976 through September 30, 1976 is a separate fiscal period known as the transition quarter.

Refunds of receipts are excluded from receipts and outlays.

See *"Budget of the United States Government, Fiscal Year 1993"* for additional information.

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

TABLE B–75.—*Federal receipts, outlays, and debt, fiscal years 1981–93*

[Millions of dollars; fiscal years]

Description	Actual					
	1981	1982	1983	1984	1985	1986
RECEIPTS AND OUTLAYS:						
Total receipts	599,272	617,766	600,562	666,457	734,057	769,091
Total outlays	678,249	745,755	808,380	851,846	946,391	990,336
Total surplus or deficit (–)	–78,976	–127,989	–207,818	–185,388	–212,334	–221,245
On-budget receipts	469,097	474,299	453,242	500,382	547,886	568,862
On-budget outlays	543,053	594,351	661,272	686,032	769,584	806,838
On-budget surplus or deficit (–)	–73,956	–120,052	–208,030	–185,650	–221,698	–237,976
Off-budget receipts	130,176	143,467	147,320	166,075	186,171	200,228
Off-budget outlays	135,196	151,404	147,108	165,813	176,807	183,498
Off-budget surplus or deficit (–)	–5,020	–7,937	212	262	9,363	16,731
OUTSTANDING DEBT, END OF PERIOD:						
Gross Federal debt	994,298	1,136,798	1,371,164	1,564,110	1,816,974	2,120,082
Held by Government accounts	209,507	217,560	240,114	264,159	317,612	383,919
Held by the public	784,791	919,238	1,131,049	1,299,951	1,499,362	1,736,163
Federal Reserve System	124,466	134,497	155,527	155,122	169,806	190,855
Other	660,325	784,741	975,522	1,144,829	1,329,556	1,545,308
RECEIPTS: ON-BUDGET AND OFF-BUDGET	599,272	617,766	600,562	666,457	734,057	769,091
Individual income taxes	285,917	297,744	288,938	298,415	334,531	348,959
Corporation income taxes	61,137	49,207	37,022	56,893	61,331	63,143
Social insurance taxes and contributions	182,720	201,498	208,994	239,376	265,163	283,901
On-budget	52,545	58,031	61,674	73,301	78,992	83,673
Off-budget	130,176	143,467	147,320	166,075	186,171	200,228
Excise taxes	40,839	36,311	35,300	37,361	35,992	32,919
Estate and gift taxes	6,787	7,991	6,053	6,010	6,422	6,958
Customs duties and fees	8,083	8,854	8,655	11,370	12,079	13,327
Miscellaneous receipts:						
Deposits of earnings by Federal Reserve System	12,834	15,186	14,492	15,684	17,059	18,374
All other	956	975	1,108	1,347	1,480	1,510
OUTLAYS: ON-BUDGET AND OFF-BUDGET	678,249	745,755	808,380	851,846	946,391	990,336
National defense	157,513	185,309	209,903	227,413	252,748	273,375
International affairs	13,104	12,300	11,848	15,876	16,176	14,152
General science, space, and technology	6,469	7,200	7,935	8,317	8,627	8,976
Energy	15,166	13,527	9,353	7,086	5,685	4,735
Natural resources and environment	13,568	12,998	12,672	12,593	13,357	13,639
Agriculture	11,323	15,944	22,901	13,613	25,565	31,449
Commerce and housing credit	8,206	6,256	6,681	6,917	4,229	4,890
On-budget	8,206	6,256	6,681	6,917	4,229	4,890
Off-budget						
Transportation	23,379	20,625	21,334	23,669	25,838	28,117
Community and regional development	10,568	8,347	7,560	7,673	7,680	7,233
Education, training, employment, and social services	33,709	27,029	26,606	27,579	29,342	30,585
Health	26,866	27,445	28,641	30,417	33,542	35,936
Medicare	39,149	46,567	52,588	57,540	65,822	70,164
Income security	99,723	107,717	122,598	112,668	128,200	119,796
Social security	139,584	155,964	170,724	178,223	188,623	198,757
On-budget	670	844	19,993	7,056	5,189	8,072
Off-budget	138,914	155,120	150,731	171,167	183,434	190,684
Veterans benefits and services	22,991	23,958	24,846	25,614	26,292	26,356
Administration of justice	4,769	4,712	5,105	5,663	6,270	6,572
General government	11,429	10,914	11,235	11,817	11,588	12,564
Net interest	68,774	85,044	89,828	111,123	129,504	136,047
On-budget	71,062	87,114	91,673	114,432	133,622	140,377
Off-budget	–2,288	–2,071	–1,845	–3,310	–4,118	–4,329
Allowances						
Undistributed offsetting receipts	–28,041	–26,099	–33,976	–31,957	–32,698	–33,007
On-budget	–26,611	–24,453	–32,198	–29,913	–30,189	–30,150
Off-budget	–1,430	–1,646	–1,778	–2,044	–2,509	–2,857

Note.—Through fiscal year 1976, the fiscal year was on a July 1–June 30 basis; beginning October 1976 (fiscal year 1977), the fiscal year is on an October 1–September 30 basis. The 3-month period from July 1, 1976 through September 30, 1976 is a separate fiscal period known as the transition quarter.

Refunds of receipts are excluded from receipts and outlays.

See next page for continuation of table.

TABLE B–75.—*Federal receipts, outlays, and debt, fiscal years 1981–93*—Continued

[Millions of dollars; fiscal years]

Description	Actual					Estimates	
	1987	1988	1989	1990	1991	1992	1993
RECEIPTS AND OUTLAYS:							
Total receipts	854,143	908,954	990,691	1,031,308	1,054,264	1,075,738	1,164,780
Total outlays	1,003,911	1,064,140	1,144,169	1,251,778	1,323,011	1,440,977	1,497,472
Total surplus or deficit (–)	–149,769	–155,187	–153,477	–220,470	–268,746	–365,239	–332,692
On-budget receipts	640,741	667,463	727,026	749,652	760,380	774,816	839,004
On-budget outlays	810,079	861,449	933,258	1,026,713	1,081,324	1,189,447	1,233,489
On-budget surplus or deficit (–)	–169,339	–193,986	–206,232	–277,061	–320,944	–414,631	–394,485
Off-budget receipts	213,402	241,491	263,666	281,656	293,885	300,922	325,776
Off-budget outlays	193,832	202,691	210,911	225,065	241,687	251,530	263,983
Off-budget surplus or deficit (–)	19,570	38,800	52,754	56,590	52,198	49,392	61,793
OUTSTANDING DEBT, END OF PERIOD:							
Gross Federal debt	2,345,578	2,600,760	2,867,537	3,206,347	3,598,993	4,078,803	4,544,283
Held by Government accounts	457,444	550,507	677,214	795,906	911,751	1,000,524	1,113,422
Held by the public	1,888,134	2,050,252	2,190,323	2,410,441	2,687,242	3,078,279	3,430,861
Federal Reserve System	212,040	229,218	220,088	234,410	258,591	.....	.....
Other	1,676,094	1,821,034	1,970,236	2,176,031	2,428,651	.....	.....
RECEIPTS: ON-BUDGET AND OFF-BUDGET	854,143	908,954	990,691	1,031,308	1,054,264	1,075,738	1,164,780
Individual income taxes	392,557	401,181	445,690	466,884	467,827	478,781	515,215
Corporation income taxes	83,926	94,508	103,291	93,507	98,086	89,031	103,216
Social insurance taxes and contributions	303,318	334,335	359,416	380,047	396,016	410,863	446,691
On-budget	89,916	92,845	95,751	98,392	102,131	109,941	120,915
Off-budget	213,402	241,491	263,666	281,656	293,885	300,922	325,776
Excise taxes	32,457	35,227	34,386	35,345	42,402	46,098	48,091
Estate and gift taxes	7,493	7,594	8,745	11,500	11,138	12,063	12,872
Customs duties and fees	15,085	16,198	16,334	16,707	15,949	17,260	17,961
Miscellaneous receipts:							
Deposits of earnings by Federal Reserve System	16,817	17,163	19,604	24,319	19,158	18,507	17,420
All other	2,490	2,747	3,225	2,997	3,688	3,136	3,314
OUTLAYS: ON-BUDGET AND OFF-BUDGET	1,003,911	1,064,140	1,144,169	1,251,778	1,323,011	1,440,977	1,497,472
National defense	281,999	290,361	303,559	299,331	273,292	307,306	291,014
International affairs	11,649	10,471	9,573	13,764	15,851	17,811	17,981
General science, space, and technology	9,216	10,841	12,838	14,444	16,111	16,373	17,033
Energy	4,115	2,297	3,702	2,428	1,662	4,026	4,560
Natural resources and environment	13,363	14,606	16,182	17,067	18,552	20,231	20,464
Agriculture	26,606	17,210	16,919	11,958	15,183	17,219	15,735
Commerce and housing credit	6,182	18,815	29,211	67,142	75,639	54,741	63,623
On-budget	6,182	18,815	29,520	65,516	74,321	53,917	61,975
Off-budget	.....	.....	–310	1,626	1,317	825	1,647
Transportation	26,222	27,272	27,608	29,485	31,099	34,035	35,138
Community and regional development	5,051	5,294	5,362	8,498	6,811	7,537	7,615
Education, training, employment, and social services	29,724	31,938	36,674	38,497	42,809	45,028	49,563
Health	39,967	44,487	48,390	57,716	71,183	94,605	108,179
Medicare	75,120	78,878	84,964	98,102	104,489	118,638	129,342
Income security	123,250	129,332	136,031	147,277	170,846	196,020	199,532
Social security	207,353	219,341	232,542	248,623	269,015	286,732	302,251
On-budget	4,930	4,852	5,069	3,625	2,619	6,078	6,434
Off-budget	202,422	214,489	227,473	244,998	266,395	280,654	295,817
Veterans benefits and services	26,782	29,428	30,066	29,112	31,349	33,819	34,297
Administration of justice	7,553	9,236	9,474	9,995	12,276	14,061	15,394
General government	7,565	9,464	9,017	10,734	11,661	12,838	14,022
Net interest	138,652	151,838	169,266	184,221	194,541	198,813	213,782
On-budget	143,942	159,253	180,661	200,212	214,763	222,666	240,780
Off-budget	–5,290	–7,416	–11,395	–15,991	–20,222	–23,853	–26,998
Allowances	.....	.....	.....	.....	.....	–96	–426
Undistributed offsetting receipts	–36,455	–36,967	–37,212	–36,615	–39,356	–38,761	–41,628
On-budget	–33,155	–32,585	–32,354	–31,048	–33,553	–32,665	–35,144
Off-budget	–3,300	–4,382	–4,858	–5,567	–5,804	–6,095	–6,484

See *"Budget of the United States Government, Fiscal Year 1993"* for additional information.

Sources: Department of the Treasury and Office of Management and Budget.

TABLE B–76.—*Relation of Federal Government receipts and expenditures in the national income and product accounts to the budget, fiscal years 1989–91*

[Billions of dollars; fiscal years]

Receipts and expenditures	1989	1990	1991
RECEIPTS			
Total on-budget and off-budget receipts	990.7	1,031.3	1,054.3
Government contributions for employee retirement (grossing)	41.2	44.2	47.2
Other netting and grossing	14.7	17.8	21.3
Timing adjustments	1.5	−3.9	−5.0
Geographic exclusions	−1.5	−1.6	−1.7
Other	.6	.1	.1
Federal sector, national income and product accounts, receipts	1,047.1	1,087.9	1,116.2
EXPENDITURES			
Total on-budget and off-budget outlays	1,144.2	1,251.8	1,323.0
Government contributions for employee retirement (grossing)	41.2	44.2	47.2
Other netting and grossing	14.7	17.8	21.3
Lending transactions	−2.1	−14.2	−14.0
Deposit insurance and other financial transactions	−22.8	−56.7	−66.7
Defense timing adjustments	−7.3	4.4	3.1
Other timing adjustments	.5	3.8	−2.0
Geographic exclusions	−6.0	−6.5	−6.8
Bonuses on Outer Continental Shelf land leases	.9	1.1	.9
Other	−1.1	−.2	−.6
Federal sector, national income and product accounts, expenditures	1,162.1	1,245.6	1,305.4

Note.—See Note, Table B–74.

See *"Budget of the United States Government, Fiscal Year 1993"* for additional information.

In previous years a NIPA translation of the President's proposed budget was published in the *"Budget."* This year, these estimates will be published in a forthcoming issue of the *Survey of Current Business.*

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

TABLE B–77.—*Federal and State and local government receipts and expenditures, national income and product accounts, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Total government			Federal Government			State and local government		
	Receipts	Expenditures	Surplus or deficit (−), national income and product accounts	Receipts	Expenditures	Surplus or deficit (−), national income and product accounts	Receipts	Expenditures	Surplus or deficit (−), national income and product accounts
1959	128.8	131.9	−3.1	90.6	93.2	−2.6	45.0	45.5	−0.5
1960	138.8	135.2	3.6	97.0	93.4	3.5	48.3	48.3	.0
1961	144.1	147.1	−3.0	99.0	101.7	−2.6	52.4	52.7	−.4
1962	155.8	158.7	−2.9	107.2	110.6	−3.4	56.6	56.1	.5
1963	167.5	165.9	1.6	115.5	114.4	1.1	61.1	60.6	.4
1964	172.9	174.5	−1.6	116.2	118.8	−2.6	67.1	66.1	1.0
1965	187.0	185.8	1.2	125.8	124.6	1.3	72.3	72.3	.0
1966	210.7	211.6	−1.0	143.5	144.9	−1.4	81.5	81.1	.5
1967	226.4	240.2	−13.7	152.6	165.2	−12.7	89.8	90.9	−1.1
1968	260.9	265.5	−4.6	176.8	181.5	−4.7	102.7	102.6	.1
1969	294.0	284.0	10.0	199.6	191.0	8.5	114.8	113.3	1.5
1970	299.8	311.2	−11.5	195.2	208.5	−13.3	129.0	127.2	1.8
1971	318.9	338.1	−19.2	202.6	224.3	−21.7	145.3	142.8	2.5
1972	364.2	368.1	−3.9	232.0	249.3	−17.3	169.7	156.3	13.4
1973	408.5	401.6	6.9	263.7	270.3	−6.6	185.3	171.9	13.4
1974	450.7	455.2	−4.5	294.0	305.6	−11.6	200.6	193.5	7.1
1975	465.8	530.6	−64.8	294.8	364.2	−69.4	225.6	221.0	4.6
1976	532.6	570.9	−38.3	339.9	392.7	−52.9	253.9	239.3	14.6
1977	598.4	615.2	−16.8	384.0	426.4	−42.4	281.9	256.3	25.6
1978	673.2	670.3	2.9	441.2	469.3	−28.1	309.3	278.2	31.1
1979	754.7	745.3	9.4	504.7	520.3	−15.7	330.6	305.4	25.1
1980	825.7	861.0	−35.3	553.0	613.1	−60.1	361.4	336.6	24.8
1981	941.9	972.3	−30.3	639.0	697.8	−58.8	390.8	362.3	28.5
1982	960.5	1,069.1	−108.6	635.4	770.9	−135.5	409.0	382.1	26.9
1983	1,016.4	1,156.2	−139.8	660.0	840.0	−180.1	443.4	403.2	40.3
1984	1,123.6	1,232.4	−108.8	725.8	892.7	−166.9	492.2	434.1	58.1
1985	1,217.0	1,342.2	−125.3	788.6	969.9	−181.4	528.7	472.6	56.1
1986	1,290.8	1,437.5	−146.8	827.2	1,028.2	−201.0	571.2	517.0	54.3
1987	1,405.2	1,516.9	−111.7	913.8	1,065.6	−151.8	594.3	554.2	40.1
1988	1,492.4	1,590.7	−98.3	972.3	1,109.0	−136.6	631.3	593.0	38.4
1989	1,614.0	1,697.1	−83.0	1,055.2	1,179.4	−124.2	677.0	635.9	41.1
1990	1,697.1	1,836.7	−139.5	1,104.8	1,270.1	−165.3	724.5	698.8	25.7
1991 [p]	1,737.5	1,908.6	−171.2	1,119.1	1,319.8	−200.7	770.6	741.1	29.6
1982: IV	965.9	1,122.8	−156.9	632.3	815.7	−183.4	417.9	391.4	26.5
1983: IV	1,043.7	1,180.0	−136.3	671.1	855.7	−184.6	459.5	411.1	48.3
1984: IV	1,147.1	1,274.9	−127.8	739.8	926.6	−186.8	505.1	446.1	59.0
1985: IV	1,243.8	1,374.7	−130.9	803.6	990.8	−187.2	544.8	488.4	56.3
1986: IV	1,335.4	1,461.6	−126.2	856.8	1,034.3	−177.5	582.4	531.1	51.2
1987: IV	1,445.7	1,561.5	−115.8	943.5	1,096.3	−152.7	605.1	568.1	37.0
1988: I	1,445.6	1,568.0	−122.4	940.5	1,098.0	−157.5	613.5	578.4	35.1
II	1,486.8	1,582.3	−95.5	970.4	1,105.0	−134.6	627.9	588.8	39.1
III	1,501.3	1,581.8	−80.5	977.8	1,097.3	−119.5	635.7	596.7	39.0
IV	1,535.8	1,630.5	−94.7	1,000.6	1,135.5	−134.9	648.2	607.9	40.2
1989: I	1,590.2	1,662.3	−72.1	1,045.7	1,160.2	−114.5	660.2	617.8	42.4
II	1,618.7	1,684.1	−65.4	1,061.8	1,172.3	−110.5	674.0	628.9	45.1
III	1,615.1	1,700.8	−85.7	1,050.8	1,179.2	−128.4	682.5	639.8	42.6
IV	1,632.1	1,741.1	−108.9	1,062.7	1,206.0	−143.3	691.4	657.0	34.4
1990: I	1,667.9	1,798.4	−130.5	1,086.8	1,247.6	−160.8	709.2	678.9	30.3
II	1,691.4	1,819.8	−128.4	1,106.3	1,263.2	−156.9	717.3	688.8	28.5
III	1,714.5	1,838.1	−123.6	1,115.4	1,265.1	−149.7	730.3	704.2	26.1
IV	1,714.7	1,890.3	−175.6	1,110.7	1,304.4	−193.6	741.3	723.3	18.0
1991: I	1,720.9	1,846.9	−126.1	1,115.2	1,261.6	−146.4	749.4	729.0	20.4
II	1,727.3	1,906.4	−179.1	1,114.3	1,321.0	−206.7	764.1	736.5	27.6
III	1,748.8	1,927.2	−178.4	1,124.6	1,334.8	−210.2	777.4	745.6	31.8
IV [p]		1,954.0			1,362.0			753.2	

Note.—Federal grants-in-aid to State and local governments are reflected in Federal expenditures and State and local receipts. Total government receipts and expenditures have been adjusted to eliminate this duplication.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–78.—*Federal and State and local government receipts and expenditures, national income and product accounts, by major type, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Receipts					Expenditures								Surplus or deficit (–), national income and product accounts	Addendum: Grants-in-aid to State and local governments
									Net interest paid						
	Total	Personal tax and nontax receipts	Corporate profits tax accruals	Indirect business tax and nontax accruals	Contributions for social insurance	Total [1]	Purchases	Transfer payments	Total	Interest paid	Less: Interest received by government [2]	Less: Dividends received by government [2]	Subsidies less current surplus of government enterprises		
1959	128.8	44.5	23.6	41.9	18.8	131.9	99.0	27.5	6.3				−0.9	−3.1	6.8
1960	138.8	48.7	22.7	45.5	21.9	135.2	99.8	29.3	6.9	10.1	3.3		−.8	3.6	6.5
1961	144.1	50.3	22.8	48.1	22.9	147.1	107.0	33.6	6.4	9.9	3.5		.2	−3.0	7.2
1962	155.8	54.8	24.0	51.7	25.4	158.7	116.8	34.7	6.9	10.8	3.9		.3	−2.9	8.0
1963	167.5	58.0	26.2	54.7	28.5	165.9	122.3	36.6	7.4	11.6	4.2		−.3	1.6	9.1
1964	172.9	56.0	28.0	58.8	30.1	174.5	128.3	38.1	7.9	12.5	4.6		.1	−1.6	10.4
1965	187.0	61.9	30.9	62.7	31.6	185.8	136.3	41.1	8.1	13.2	5.1		.3	1.2	11.1
1966	210.7	71.0	33.7	65.4	40.6	211.6	155.9	45.8	8.5	14.5	6.0		1.4	−1.0	14.4
1967	226.4	77.9	32.7	70.4	45.5	240.2	175.6	54.5	8.9	15.7	6.8		1.2	−13.7	15.9
1968	260.9	92.1	39.4	79.0	50.4	265.5	191.5	62.6	10.3	18.1	7.7	0.1	1.2	−4.6	18.6
1969	294.0	109.9	39.7	86.6	57.9	284.0	201.8	69.3	11.5	19.8	8.3	.2	1.5	10.0	20.3
1970	299.8	109.0	34.4	94.3	62.2	311.2	212.7	83.8	12.4	22.3	9.9	.2	2.6	−11.5	24.4
1971	318.9	108.7	37.7	103.6	68.9	338.1	224.3	99.4	12.5	23.1	10.6	.3	2.4	−19.2	29.0
1972	364.2	132.0	41.9	111.4	79.0	368.1	241.5	110.9	12.9	24.8	11.9	.3	3.4	−3.9	37.5
1973	408.5	140.6	49.3	121.0	97.6	401.6	257.7	126.6	15.2	29.6	14.4	.5	2.6	6.9	40.6
1974	450.7	159.1	51.8	129.3	110.5	455.2	288.3	150.5	16.3	33.6	17.3	.9	.4	−4.5	43.9
1975	465.8	156.4	50.9	140.0	118.5	530.6	321.4	189.2	18.5	37.7	19.2	.9	2.6	−64.8	54.6
1976	532.6	182.3	64.2	151.6	134.5	570.9	341.3	206.5	22.8	43.6	20.9	.9	1.4	−38.3	61.1
1977	598.4	210.0	73.0	165.5	149.8	615.2	368.0	220.9	24.4	47.9	23.5	1.3	3.3	−16.8	67.5
1978	673.2	240.1	83.5	177.8	171.8	670.3	403.6	238.6	26.5	56.8	30.3	1.7	3.6	2.9	77.3
1979	754.7	280.2	88.0	188.7	197.8	745.3	448.5	266.9	28.7	68.6	39.9	2.0	2.9	9.4	80.5
1980	825.7	312.4	84.8	212.0	216.6	861.0	507.1	317.6	33.4	83.9	50.5	1.9	4.8	−35.3	88.7
1981	941.9	360.2	81.1	249.3	251.3	972.3	561.1	360.7	48.1	110.2	62.1	2.3	4.7	−30.3	87.9
1982	960.5	371.4	63.1	256.4	269.6	1,069.1	607.6	402.7	55.5	130.6	75.0	2.9	6.2	−108.6	83.9
1983	1,016.4	368.8	77.2	280.1	290.2	1,156.2	652.3	433.4	61.8	146.6	84.8	3.4	11.7	−139.8	87.0
1984	1,123.6	395.1	94.0	309.5	325.0	1,232.4	700.8	447.2	79.1	174.6	95.6	3.9	9.5	−108.8	94.4
1985	1,217.0	436.8	96.5	329.9	353.8	1,342.2	772.3	479.5	88.3	195.9	107.6	4.5	6.4	−125.3	100.3
1986	1,290.8	459.0	106.5	345.5	379.8	1,437.5	833.0	509.4	90.6	207.9	117.3	5.1	9.7	−146.8	107.6
1987	1,405.2	512.5	127.1	365.0	400.7	1,516.9	881.5	531.8	95.4	215.9	120.5	5.9	14.1	−111.7	102.8
1988	1,492.4	527.7	137.0	385.3	442.3	1,590.7	918.7	566.2	101.8	229.9	128.1	6.9	10.9	−98.3	111.3
1989	1,614.0	591.7	138.0	411.0	473.4	1,697.1	971.4	612.8	114.8	251.0	136.2	8.1	6.1	−83.0	118.2
1990	1,697.1	621.0	135.3	439.2	501.7	1,836.7	1,042.9	674.3	123.7	270.4	146.7	9.0	4.8	−139.5	132.2
1991 [p]	1,737.5	616.0	123.4	470.7	527.3	1,908.6	1,086.9	699.0	131.3	284.6	153.2	9.2	.6	−171.2	152.3
1982: IV	965.9	372.1	58.7	262.3	272.8	1,122.8	631.6	428.1	56.6	135.6	79.0	3.1	9.6	−156.9	84.3
1983: IV	1,043.7	371.6	82.2	291.7	298.3	1,180.0	657.6	439.1	67.7	156.1	88.4	3.5	19.2	−136.3	86.9
1984: IV	1,147.1	413.4	83.8	317.7	332.2	1,274.9	727.0	456.2	86.7	186.5	99.8	4.1	9.7	−127.8	97.7
1985: IV	1,243.8	448.8	97.6	335.1	362.3	1,374.7	799.2	488.3	89.2	201.6	112.3	4.7	2.6	−130.9	104.5
1986: IV	1,335.4	478.5	116.6	351.6	388.7	1,461.6	849.7	518.6	90.5	208.7	118.2	5.4	8.2	−126.2	103.8
1987: IV	1,445.7	528.6	135.2	372.3	409.6	1,561.5	901.4	542.6	101.3	222.9	121.6	6.1	22.0	−115.8	102.9
1988: I	1,445.6	510.8	126.6	376.8	431.3	1,568.0	904.7	558.0	97.1	226.1	129.0	6.4	14.6	−122.4	108.5
II	1,486.8	530.4	135.7	382.0	438.7	1,582.3	913.8	561.0	101.5	226.7	125.2	6.9	12.8	−95.5	111.5
III	1,501.3	527.7	139.6	388.3	445.6	1,581.8	918.5	567.3	103.4	230.7	127.3	7.1	−.3	−80.5	112.1
IV	1,535.8	542.0	146.2	394.2	453.5	1,630.5	937.6	578.6	105.0	236.0	131.0	7.2	16.5	−94.7	113.0
1989: I	1,590.2	574.3	149.2	399.9	466.8	1,662.3	947.5	594.9	112.0	244.4	132.4	7.6	15.4	−72.1	115.7
II	1,618.7	597.6	141.7	408.1	471.3	1,684.1	966.6	602.4	116.6	250.9	134.3	8.0	6.5	−65.4	117.1
III	1,615.1	591.8	131.2	416.7	475.4	1,700.8	980.9	617.5	113.6	252.6	139.0	8.2	−3.0	−85.7	118.2
IV	1,632.1	602.9	129.8	419.2	480.2	1,741.1	990.7	636.6	117.0	256.2	139.3	8.5	5.3	−108.9	121.9
1990: I	1,667.9	606.6	137.6	430.8	493.0	1,798.4	1,021.2	657.5	118.2	260.6	142.4	8.7	10.2	−130.5	128.1
II	1,691.4	622.7	137.9	432.3	498.6	1,819.8	1,033.2	668.2	124.1	267.0	142.9	9.0	3.3	−128.4	132.2
III	1,714.5	627.5	138.8	442.3	505.8	1,838.1	1,046.0	676.7	129.6	275.0	145.4	9.0	−5.2	−123.6	131.2
IV	1,714.7	627.2	127.1	451.2	509.3	1,890.3	1,071.2	694.8	122.9	278.9	156.0	9.2	10.8	−175.6	137.3
1991: I	1,720.9	617.1	119.4	461.6	522.9	1,846.9	1,088.8	634.7	130.0	280.6	150.6	9.1	2.7	−126.1	143.7
II	1,727.3	613.6	123.5	464.5	525.7	1,906.4	1,092.5	687.8	133.0	284.3	151.3	9.2	1.9	−179.1	151.0
III	1,748.8	615.1	128.6	475.6	529.5	1,927.2	1,089.1	724.3	130.3	285.3	155.0	9.4	−7.1	−178.4	153.3
IV [p]		618.3		481.0	531.3	1,954.0	1,077.0	749.1	132.1	288.1	156.0	9.1	4.8		161.2

[1] Includes an item for the difference between wage accruals and disbursements, not shown separately.
[2] Prior to 1968, dividends received is included in interest received.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–79.—*Federal Government receipts and expenditures, national income and product accounts, 1975–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Receipts					Expenditures								Surplus or deficit (–), national income and product accounts
							Purchases		Transfer payments		Grants-in-aid to State and local governments	Net interest paid	Subsidies less current surplus of government enterprises	
	Total	Personal tax and nontax receipts	Corporate profits tax accruals	Indirect business tax and nontax accruals	Contributions for social insurance	Total[1]	Total	National defense	To persons	To rest of the world (net)				
Fiscal:[2]														
1975	290.7	127.1	42.3	22.5	98.8	336.0	124.4	86.3	131.9	3.3	48.4	21.7	6.0	–45.2
1976	322.0	136.5	51.7	24.6	109.2	379.0	132.6	91.5	154.3	3.1	57.5	25.1	6.5	–57.0
1977	375.4	165.2	59.8	25.0	125.4	417.1	144.7	99.2	167.1	3.4	66.3	28.5	7.2	–41.7
1978	423.8	185.5	67.4	27.9	143.0	458.0	158.1	106.3	179.3	3.5	74.7	33.1	9.4	–34.1
1979	490.5	221.6	75.3	29.9	163.7	505.4	174.5	117.7	198.5	4.0	79.1	40.2	9.1	–14.9
1980	538.1	249.1	70.4	36.2	182.3	587.1	201.0	136.9	235.4	4.3	86.7	50.1	9.6	–49.0
1981	623.0	287.9	69.3	54.3	211.5	679.9	232.9	160.9	274.6	5.2	90.1	66.1	11.0	–56.9
1982	642.7	308.4	51.6	51.5	231.2	747.6	259.5	187.3	305.6	5.8	83.4	81.8	11.5	–105.0
1983	646.4	290.7	56.4	52.0	247.3	829.2	289.8	210.2	339.8	6.5	86.2	89.6	16.8	–182.8
1984	711.7	300.4	75.1	57.0	279.3	875.3	302.2	228.2	342.4	8.7	91.5	107.5	23.0	–163.6
1985	777.0	337.0	75.0	59.1	305.9	952.9	335.2	251.7	360.7	11.5	98.6	125.2	21.6	–175.9
1986	813.8	353.1	80.4	53.8	326.5	1,017.6	363.7	274.3	380.6	12.5	108.3	130.5	22.1	–203.9
1987	899.1	396.3	99.4	57.9	345.5	1,051.0	379.9	287.6	399.4	9.9	103.4	133.6	24.9	–151.9
1988	955.1	403.8	107.6	59.6	384.1	1,098.5	386.3	295.1	420.7	10.2	108.4	143.8	28.9	–143.3
1989	1,047.1	455.7	116.7	62.2	412.5	1,162.1	399.0	299.2	448.5	10.9	115.8	160.3	27.6	–115.0
1990	1,087.9	472.2	113.1	63.7	438.9	1,245.6	416.4	308.4	488.9	13.0	128.3	175.3	23.7	–157.8
1991	1,116.2	474.5	103.2	75.6	462.9	1,305.4	445.8	325.9	534.2	–28.9	146.3	185.2	22.8	–189.2
Calendar:														
1975	294.8	125.4	43.6	24.2	101.7	364.2	129.4	89.6	146.8	3.5	54.6	23.0	7.1	–69.4
1976	339.9	146.6	54.6	23.8	115.0	392.7	135.8	93.4	159.3	3.7	61.1	26.8	6.2	–52.9
1977	384.0	169.1	61.6	25.6	127.7	426.4	147.9	100.9	170.1	3.4	67.5	29.1	8.4	–42.4
1978	441.2	193.8	71.4	28.9	147.1	469.3	162.2	108.9	182.4	3.8	77.3	34.6	9.2	–28.1
1979	504.7	229.7	74.4	30.1	170.4	520.3	179.3	121.9	205.7	4.1	80.5	42.1	8.7	–15.7
1980	553.0	256.2	70.3	39.6	186.8	613.1	209.1	142.7	247.0	5.0	88.7	52.7	10.6	–60.1
1981	639.0	297.2	65.7	57.3	218.8	697.8	240.8	167.5	282.1	5.0	87.9	71.7	10.3	–58.8
1982	635.4	302.9	49.0	49.7	233.8	770.9	266.6	193.8	316.4	6.4	83.9	84.4	13.3	–135.5
1983	660.0	292.6	61.3	53.5	252.6	840.0	292.0	214.4	340.2	7.3	87.0	92.7	20.4	–180.1
1984	725.8	308.0	75.2	57.8	284.8	892.7	310.9	233.1	344.3	9.4	94.4	113.1	20.8	–166.9
1985	788.6	342.8	76.3	58.6	310.9	969.9	344.3	258.6	366.8	11.4	100.3	127.0	19.9	–181.4
1986	827.2	357.4	83.8	53.5	332.5	1,028.2	367.8	276.7	386.2	12.3	107.6	131.0	23.4	–201.0
1987	913.8	400.6	103.2	58.4	351.5	1,065.6	384.9	292.1	401.8	10.4	102.8	136.6	29.1	–151.8
1988	972.3	410.1	111.0	60.9	390.4	1,109.0	387.0	295.6	425.9	10.4	111.3	146.0	28.4	–136.6
1989	1,055.2	460.2	113.9	61.9	419.4	1,179.4	401.4	300.0	458.7	10.8	118.2	164.7	25.5	–124.2
1990	1,104.8	482.2	112.1	65.8	444.7	1,270.1	424.9	313.4	498.2	12.6	132.2	177.5	24.7	–165.3
1991[p]	1,119.1	470.3	102.0	78.8	467.9	1,319.8	445.1	323.4	546.3	–33.8	152.3	188.4	21.5	–200.7
1982: IV	632.3	301.6	45.5	49.2	235.9	815.7	281.4	205.5	337.8	8.2	84.3	86.8	17.3	–183.4
1983: IV	671.1	290.5	65.4	55.4	259.8	855.7	289.7	222.8	340.0	11.0	86.9	99.2	28.8	–184.6
1984: IV	739.8	323,5	67.0	58.2	291.1	926.6	324.7	242.9	346.2	13.9	97.7	122.3	22.2	–186.8
1985: IV	803.6	351.8	77.0	56.8	318.0	990.8	356.9	268.6	370.3	13.5	104.5	129.2	16.4	–187.2
1986: IV	856.8	371.7	91.4	54.8	338.8	1,034.3	373.1	278.6	391.4	12.8	103.8	131.1	22.1	–177.5
1987: IV	943.5	414.8	109.7	59.5	359.4	1,096.3	392.5	295.8	405.1	14.6	102.9	143.1	37.8	–152.7
1988: I	940.5	397.6	102.6	60.0	380.4	1,098.0	386.6	296.7	423.0	9.1	108.5	139.7	31.1	–157.5
II	970.4	413.5	109.8	60.1	387.1	1,105.0	386.0	294.8	424.7	7.8	111.5	145.0	30.0	–134.6
III	977.8	409.4	113.1	61.9	393.4	1,097.3	383.5	294.0	426.6	9.4	112.1	148.1	17.6	–119.5
IV	1,000.6	420.0	118.5	61.4	400.7	1,135.5	392.0	296.8	429.4	15.1	113.0	151.2	34.9	–134.9
1989: I	1,045.7	448.5	122.7	61.0	413.6	1,160.2	392.6	293.9	447.9	9.8	115.7	159.8	34.4	–114.5
II	1,061.8	465.7	116.9	61.6	417.6	1,172.3	401.9	298.5	453.8	7.8	117.1	165.8	25.9	–110.5
III	1,050.8	458.5	108.4	62.7	421.1	1,179.2	407.6	305.8	461.7	10.7	118.2	164.2	16.7	–128.4
IV	1,062.7	467.9	107.4	62.1	425.2	1,206.0	403.7	301.6	471.6	14.8	121.9	168.8	25.1	–143.3
1990: I	1,086.8	471.2	113.7	64.6	437.2	1,247.6	417.2	309.3	490.7	10.9	128.1	170.9	29.8	–160.8
II	1,106.3	485.4	114.1	64.8	442.0	1,263.2	423.3	312.7	492.7	14.5	132.2	177.5	23.0	–156.9
III	1,115.4	486.6	115.1	65.2	448.5	1,265.1	424.7	311.1	498.4	12.3	131.2	183.7	14.8	–149.7
IV	1,110.7	485.5	105.7	68.5	451.1	1,304.4	434.5	320.6	511.1	12.7	137.3	177.7	31.2	–193.6
1991: I	1,115.2	473.9	99.0	78.2	464.1	1,261.6	451.5	332.3	535.3	–77.8	143.7	185.7	23.4	–146.4
II	1,114.3	468.8	102.0	77.1	466.3	1,321.0	452.1	328.4	543.0	–37.9	151.0	189.7	22.7	–206.7
III	1,124.6	469.9	106.2	78.7	469.9	1,334.8	444.9	322.3	547.4	–12.5	153.3	187.9	13.9	–210.2
IV[p]		468.9		81.2	471.4	1,362.0	431.9	310.7	559.5	–7.1	161.2	190.5	25.9	

[1] Includes an item for the difference between wage accruals and disbursements, not shown separately.

[2] Through fiscal year 1976, the fiscal year was on a July 1–June 30 basis; beginning October 1976 (fiscal year 1977), the fiscal year is on an October 1–September 30 basis. The 3-month period from July 1, 1976 through September 30, 1976 is a separate fiscal period known as the transition quarter.

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

TABLE B–80.—*State and local government receipts and expenditures, national income and product accounts, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Receipts						Expenditures					Surplus or deficit (–), national income and product accounts
	Total	Personal tax and nontax receipts	Corporate profits tax accruals	Indirect business tax and nontax accruals	Contributions for social insurance	Federal grants-in-aid	Total [1]	Purchases	Transfer payments to persons	Net interest paid less dividends received	Subsidies less current surplus of government enterprises	
1959	45.0	4.6	1.2	29.3	3.1	6.8	45.5	41.8	5.6	0.1	−2.0	−0.5
1960	48.3	5.2	1.2	32.0	3.4	6.5	48.3	44.5	5.9	.1	−.2.2	.0
1961	52.4	5.7	1.3	34.4	3.7	7.2	52.7	48.4	6.5	.1	−2.3	−.4
1962	56.6	6.3	1.5	37.0	3.9	8.0	56.1	51.4	7.0	.2	−2.5	.5
1963	61.1	6.7	1.7	39.4	4.2	9.1	60.6	55.8	7.5	.1	−2.8	.4
1964	67.1	7.5	1.8	42.6	4.7	10.4	66.1	60.9	8.2	−.1	−2.8	1.0
1965	72.3	8.1	2.0	46.1	5.0	11.1	72.3	66.8	8.8	−.3	−3.0	.0
1966	81.5	9.5	2.2	49.7	5.7	14.4	81.1	74.6	10.1	−.6	−3.0	.5
1967	89.8	10.6	2.6	53.9	6.7	15.9	90.9	82.7	12.1	−.9	−3.1	−1.1
1968	102.7	12.7	3.3	60.8	7.2	18.6	102.6	92.3	14.5	−1.1	−3.2	.1
1969	114.8	15.2	3.6	67.4	8.3	20.3	113.3	101.3	16.7	−1.3	−3.3	1.5
1970	129.0	16.7	3.7	74.8	9.2	24.4	127.2	112.6	20.1	−2.0	−3.6	1.8
1971	145.3	18.7	4.3	83.1	10.2	29.0	142.8	124.3	24.0	−1.6	−3.7	2.5
1972	169.7	24.2	5.3	91.2	11.5	37.5	156.3	134.7	27.5	−1.8	−4.2	13.4
1973	185.3	26.3	6.0	99.5	13.0	40.6	171.9	149.2	30.4	−3.3	−4.3	13.4
1974	200.6	28.2	6.7	107.2	14.6	43.9	193.5	170.7	32.3	−5.2	−4.4	7.1
1975	225.6	31.0	7.3	115.8	16.8	54.6	221.0	192.0	38.9	−5.4	−4.5	4.6
1976	253.9	35.8	9.6	127.8	19.5	61.1	239.3	205.5	43.6	−5.0	−4.8	14.6
1977	281.9	41.0	11.4	139.9	22.1	67.5	256.3	220.1	47.4	−6.0	−5.1	25.6
1978	309.3	46.3	12.1	148.9	24.7	77.3	278.2	241.4	52.4	−9.8	−5.6	31.1
1979	330.6	50.5	13.6	158.6	27.4	80.5	305.4	269.2	57.2	−15.3	−5.7	25.1
1980	361.4	56.2	14.5	172.3	29.7	88.7	336.6	298.0	65.7	−21.2	−5.8	24.8
1981	390.8	63.0	15.4	192.0	32.5	87.9	362.3	320.3	73.6	−25.9	−5.6	28.5
1982	409.0	68.5	14.0	206.8	35.8	83.9	382.1	341.1	79.9	−31.8	−7.1	26.9
1983	443.4	76.2	15.9	226.6	37.7	87.0	403.2	360.3	85.9	−34.3	−8.7	40.3
1984	492.2	87.1	18.8	251.7	40.2	94.4	434.1	389.9	93.5	−37.9	−11.4	58.1
1985	528.7	94.0	20.2	271.4	42.8	100.3	472.6	428.1	101.2	−43.2	−13.5	56.1
1986	571.2	101.6	22.7	292.0	47.3	107.6	517.0	465.3	110.9	−45.6	−13.7	54.3
1987	594.3	111.8	23.9	306.5	49.2	102.8	554.2	496.6	119.6	−47.0	−14.9	40.1
1988	631.3	117.6	26.0	324.5	51.9	111.3	593.0	531.7	130.0	−51.1	−17.5	38.4
1989	677.0	131.5	24.1	349.1	54.1	118.2	635.9	570.0	143.3	−57.9	−19.5	41.1
1990	724.5	138.8	23.2	373.4	57.0	132.2	698.8	618.0	163.5	−62.7	−20.0	25.7
1991 [p]	770.6	145.7	21.4	391.9	59.4	152.3	741.1	641.8	186.5	−66.3	−20.9	29.6
1982: IV	417.9	70.5	13.1	213.1	36.8	84.3	391.4	350.3	82.1	−33.2	−7.7	26.5
1983: IV	459.5	81.1	16.8	236.3	38.4	86.9	411.1	367.9	88.0	−35.1	−9.6	48.3
1984: IV	505.1	89.9	16.8	259.6	41.1	97.7	446.1	402.2	96.1	−39.7	−12.5	59.0
1985: IV	544.8	97.0	20.6	278.3	44.3	104.5	488.4	442.4	104.5	−44.7	−13.8	56.3
1986: IV	582.4	106.8	25.2	296.8	49.8	103.8	531.1	476.6	114.4	−45.9	−13.9	51.2
1987: IV	605.1	113.8	25.5	312.8	50.2	102.9	568.1	509.0	122.9	−48.0	−15.8	37.0
1988: I	613.5	113.3	24.0	316.8	50.9	108.5	578.4	518.1	125.8	−49.0	−16.5	35.1
II	627.9	116.9	25.9	322.0	51.7	111.5	588.8	527.8	128.5	−50.3	−17.2	39.1
III	635.7	118.3	26.5	326.4	52.3	112.1	596.7	535.1	131.3	−51.8	−17.9	39.0
IV	648.2	122.0	27.7	332.7	52.8	113.0	607.9	545.7	134.2	−53.4	−18.5	40.2
1989: I	660.2	125.8	26.5	338.9	53.2	115.7	617.8	554.9	137.2	−55.4	−19.0	42.4
II	674.0	131.9	24.8	346.5	53.7	117.1	628.9	564.7	140.8	−57.2	−19.4	45.1
III	682.5	133.3	22.8	353.9	54.3	118.2	639.8	573.3	145.1	−58.9	−19.7	42.6
IV	691.4	135.0	22.4	357.1	55.0	121.9	657.0	587.0	150.2	−60.3	−19.8	34.4
1990: I	709.2	135.4	23.8	366.2	55.7	128.1	678.9	604.0	155.9	−61.4	−19.6	30.3
II	717.3	137.3	23.8	367.5	56.6	132.2	688.8	609.9	161.0	−62.4	−19.7	28.5
III	730.3	140.9	23.7	377.1	57.4	131.2	704.2	621.4	166.0	−63.1	−20.0	26.1
IV	741.3	141.8	21.4	382.6	58.2	137.3	723.3	636.7	171.0	−64.0	−20.4	18.0
1991: I	749.4	143.2	20.4	383.4	58.8	143.7	729.0	637.3	177.2	−64.8	−20.8	20.4
II	764.1	144.9	21.4	387.3	59.4	151.0	736.5	640.4	182.7	−65.9	−20.8	27.6
III	777.4	145.2	22.4	397.0	59.6	153.3	745.6	644.2	189.4	−67.0	−21.0	31.8
IV [p]		149.4		399.8	59.9	161.2	753.2	645.1	196.7	−67.5	−21.1	

[1] Includes an item for the difference between wage accruals and disbursements, not shown separately.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–81.—*State and local government revenues and expenditures, selected fiscal years, 1927–90*

[Millions of dollars]

Fiscal year[1]	General revenues by source[2]							General expenditures by function[2]				
	Total	Property taxes	Sales and gross receipts taxes	Individual income taxes	Corporation net income taxes	Revenue from Federal Government	All other[3]	Total	Education	Highways	Public welfare	All other[4]
1927	7,271	4,730	470	70	92	116	1,793	7,210	2,235	1,809	151	3,015
1932	7,267	4,487	752	74	79	232	1,643	7,765	2,311	1,741	444	3,269
1934	7,678	4,076	1,008	80	49	1,016	1,449	7,181	1,831	1,509	889	2,952
1936	8,395	4,093	1,484	153	113	948	1,604	7,644	2,177	1,425	827	3,215
1938	9,228	4,440	1,794	218	165	800	1,811	8,757	2,491	1,650	1,069	3,547
1940	9,609	4,430	1,982	224	156	945	1,872	9,229	2,638	1,573	1,156	3,862
1942	10,418	4,537	2,351	276	272	858	2,123	9,190	2,586	1,490	1,225	3,889
1944	10,908	4,604	2,289	342	451	954	2,269	8,863	2,793	1,200	1,133	3,737
1946	12,356	4,986	2,986	422	447	855	2,661	11,028	3,356	1,672	1,409	4,591
1948	17,250	6,126	4,442	543	592	1,861	3,685	17,684	5,379	3,036	2,099	7,170
1950	20,911	7,349	5,154	788	593	2,486	4,541	22,787	7,177	3,803	2,940	8,867
1952	25,181	8,652	6,357	998	846	2,566	5,763	26,098	8,318	4,650	2,788	10,342
1953	27,307	9,375	6,927	1,065	817	2,870	6,252	27,910	9,390	4,987	2,914	10,619
1954	29,012	9,967	7,276	1,127	778	2,966	6,897	30,701	10,557	5,527	3,060	11,557
1955	31,073	10,735	7,643	1,237	744	3,131	7,584	33,724	11,907	6,452	3,168	12,197
1956	34,667	11,749	8,691	1,538	890	3,335	8,465	36,711	13,220	6,953	3,139	13,399
1957	38,164	12,864	9,467	1,754	984	3,843	9,252	40,375	14,134	7,816	3,485	14,940
1958	41,219	14,047	9,829	1,759	1,018	4,865	9,699	44,851	15,919	8,567	3,818	16,547
1959	45,306	14,983	10,437	1,994	1,001	6,377	10,516	48,887	17,283	9,592	4,136	17,876
1960	50,505	16,405	11,849	2,463	1,180	6,974	11,634	51,876	18,719	9,428	4,404	19,325
1961	54,037	18,002	12,463	2,613	1,266	7,131	12,563	56,201	20,574	9,844	4,720	21,063
1962	58,252	19,054	13,494	3,037	1,308	7,871	13,489	60,206	22,216	10,357	5,084	22,549
1963	62,890	20,089	14,456	3,269	1,505	8,722	14,850	64,816	23,776	11,136	5,481	24,423
1962–63	62,269	19,833	14,446	3,267	1,505	8,663	14,556	63,977	23,729	11,150	5,420	23,678
1963–64	68,443	21,241	15,762	3,791	1,695	10,002	15,951	69,302	26,286	11,664	5,766	25,586
1964–65	74,000	22,583	17,118	4,090	1,929	11,029	17,250	74,678	28,563	12,221	6,315	27,579
1965–66	83,036	24,670	19,085	4,760	2,038	13,214	19,269	82,843	33,287	12,770	6,757	30,029
1966–67	91,197	26,047	20,530	5,825	2,227	15,370	21,197	93,350	37,919	13,932	8,218	33,281
1967–68	101,264	27,747	22,911	7,308	2,518	17,181	23,598	102,411	41,158	14,481	9,857	36,915
1968–69	114,550	30,673	26,519	8,908	3,180	19,153	26,118	116,728	47,238	15,417	12,110	41,963
1969–70	130,756	34,054	30,322	10,812	3,738	21,857	29,971	131,332	52,718	16,427	14,679	47,508
1970–71	144,927	37,852	33,233	11,900	3,424	26,146	32,374	150,674	59,413	18,095	18,226	54,940
1971–72	167,541	42,877	37,518	15,227	4,416	31,342	36,162	168,549	65,814	19,021	21,117	62,597
1972–73	190,222	45,283	42,047	17,994	5,425	39,264	40,210	181,357	69,714	18,615	23,582	69,446
1973–74	207,670	47,705	46,098	19,491	6,015	41,820	46,541	198,959	75,833	19,946	25,085	78,096
1974–75	228,171	51,491	49,815	21,454	6,642	47,034	51,735	230,721	87,858	22,528	28,155	92,180
1975–76	256,176	57,001	54,547	24,575	7,273	55,589	57,191	256,731	97,216	23,907	32,604	103,004
1976–77	285,157	62,527	60,641	29,246	9,174	62,444	61,124	274,215	102,780	23,058	35,906	112,472
1977–78	315,960	66,422	67,596	33,176	10,738	69,592	68,436	296,984	110,758	24,609	39,140	122,477
1978–79	343,279	64,944	74,247	36,932	12,128	75,164	79,864	327,517	119,448	28,440	41,898	137,731
1979–80	382,322	68,499	79,927	42,080	13,321	83,029	95,466	369,086	133,211	33,311	47,288	155,277
1980–81	423,404	74,969	85,971	46,426	14,143	90,294	111,599	407,449	145,784	34,603	54,105	172,957
1981–82	457,654	82,067	93,613	50,738	15,028	87,282	128,926	436,733	154,282	34,520	57,996	189,935
1982–83	486,753	89,105	100,247	55,129	14,258	90,007	138,008	466,516	163,876	36,655	60,906	205,079
1983–84	542,730	96,457	114,097	64,529	17,141	96,935	153,570	505,008	176,108	39,419	66,414	223,068
1984–85	598,121	103,757	126,376	70,361	19,152	106,158	172,317	553,899	192,686	44,989	71,479	244,745
1985–86	641,486	111,709	135,005	74,365	19,994	113,099	187,314	605,623	210,819	49,368	75,868	269,568
1986–87	686,860	121,203	144,091	83,935	22,425	114,857	200,350	657,134	226,619	52,355	82,650	295,510
1987–88	726,762	132,212	156,452	88,350	23,663	117,602	208,482	704,921	242,683	55,621	89,090	317,528
1988–89	786,129	142,400	166,336	97,806	25,926	125,824	227,838	762,360	263,898	58,105	97,879	342,479
1989–90	849,502	155,613	177,885	105,640	23,566	136,802	249,996	834,786	288,148	61,057	110,518	375,062

[1] Fiscal years not the same for all governments. See Note.

[2] Excludes revenues or expenditures of publicly owned utilities and liquor stores, and of insurance-trust activities. Intergovernmental receipts and payments between State and local governments are also excluded.

[3] Includes other taxes and charges and miscellaneous revenues.

[4] Includes expenditures for libraries, hospitals, health, employment security administration, veterans' services, air transportation, water transport and terminals, parking facilities, and transit subsidies, police protection, fire protection, correction, protective inspection and regulation, sewerage, natural resources, parks and recreation, housing and community development, solid waste management, financial administration, judicial and legal, general public buildings, other governmental administration, interest on general debt, and general expenditures, n.e.c.

Note.—Data for fiscal years listed from 1962–63 to 1989–90 are the aggregations of data for government fiscal years that ended in the 12-month period from July 1 to June 30 of those years. Data for 1963 and earlier years include data for government fiscal years ending during that particular calendar year.

Data are not available for intervening years.

Source: Department of Commerce, Bureau of the Census.

TABLE B–82.—*Interest-bearing public debt securities by kind of obligation, 1967–91*

[Millions of dollars]

End of year or month	Total interest-bearing public debt securities	Marketable				Nonmarketable				
		Total [1]	Treasury bills	Treasury notes	Treasury bonds	Total	U.S. savings bonds	Foreign government and public series [2]	Government account series	Other [3]
Fiscal year:										
1967	322,286	[4]210,672	58,535	49,108	97,418	111,614	51,213	1,514	56,155	2,731
1968	344,401	226,592	64,440	71,073	91,079	117,808	51,712	3,741	59,526	2,828
1969	351,729	226,107	68,356	78,946	78,805	125,623	51,711	4,070	66,790	3,051
1970	369,026	232,599	76,154	93,489	62,956	136,426	51,281	4,755	76,323	4,068
1971	396,289	245,473	86,677	104,807	53,989	150,816	53,003	9,270	82,784	5,759
1972	425,360	257,202	94,648	113,419	49,135	168,158	55,921	18,985	89,598	3,654
1973	456,353	262,971	100,061	117,840	45,071	193,382	59,418	28,524	101,738	3,701
1974	473,238	266,575	105,019	128,419	33,137	206,663	61,921	25,011	115,442	4,289
1975	532,122	315,606	128,569	150,257	36,779	216,516	65,482	23,216	124,173	3,644
1976	619,254	392,581	161,198	191,758	39,626	226,673	69,733	21,500	130,557	4,883
1977	697,629	443,508	156,091	241,692	45,724	254,121	75,411	21,799	140,113	16,797
1978	766,971	485,155	160,936	267,865	56,355	281,816	79,798	21,680	153,271	27,067
1979	819,007	506,693	161,378	274,242	71,073	312,314	80,440	28,115	176,360	27,400
1980	906,402	594,506	199,832	310,903	83,772	311,896	72,727	25,158	189,848	24,164
1981	996,495	683,209	223,388	363,643	96,178	313,286	68,017	20,499	201,052	23,718
1982	1,140,883	824,422	277,900	442,890	103,631	316,461	67,274	14,641	210,462	24,085
1983	1,375,751	1,024,000	340,733	557,525	125,742	351,751	70,024	11,450	234,684	35,593
1984	1,559,570	1,176,556	356,798	661,687	158,070	383,015	72,832	8,806	259,534	41,843
1985	1,821,010	1,360,179	384,220	776,449	199,510	460,831	77,011	6,638	313,928	63,255
1986	2,122,684	[1] 1,564,329	410,730	896,884	241,716	558,355	85,551	4,128	365,872	102,804
1987	2,347,750	[1] 1,675,980	378,263	1,005,127	277,590	671,769	97,004	4,350	440,658	129,758
1988	2,599,877	[1] 1,802,905	398,451	1,089,578	299,875	796,972	106,176	6,320	536,455	148,023
1989	2,836,309	[1] 1,892,763	406,597	1,133,193	337,974	943,546	114,025	6,818	663,677	159,025
1990	3,210,943	[1] 2,092,759	482,454	1,218,081	377,224	1,118,184	122,152	36,041	779,412	180,581
1991	3,662,759	[1] 2,390,660	564,589	1,387,717	423,354	1,272,099	133,512	41,639	908,406	188,541
1990: Jan	2,971,841	[1] 1,974,637	435,337	1,176,097	348,203	997,204	116,169	6,997	701,834	172,205
Feb	2,991,017	[1] 1,990,999	437,755	1,180,381	357,862	1,000,019	116,265	6,398	704,621	172,735
Mar	3,029,537	[1] 1,995,299	453,077	1,169,364	357,858	1,034,238	117,979	37,062	705,145	174,052
Apr	3,058,404	[1] 2,001,494	433,089	1,195,550	357,855	1,056,910	118,645	37,102	722,887	178,275
May	3,092,558	[1] 2,024,738	439,922	1,203,012	366,804	1,067,820	119,455	36,814	733,612	177,938
June	3,121,498	[1] 2,028,041	453,505	1,192,739	366,797	1,093,457	120,058	36,382	758,697	178,321
July	3,166,272	[1] 2,068,322	464,851	1,221,694	366,776	1,097,950	120,760	36,284	759,702	181,203
Aug	3,209,186	[1] 2,114,041	493,789	1,228,021	377,230	1,095,146	121,371	36,046	756,055	181,672
Sept	3,210,943	[1] 2,092,759	482,454	1,218,081	377,224	1,118,184	122,152	36,041	779,412	180,581
Oct	3,272,492	[1] 2,139,486	500,649	1,246,618	377,220	1,133,006	122,828	35,845	789,922	184,411
Nov	3,328,193	[1] 2,183,585	528,765	1,251,647	388,174	1,144,608	123,630	37,143	799,190	184,644
Dec	3,362,026	[1] 2,195,800	527,415	1,265,215	388,170	1,166,226	124,118	43,455	813,842	184,811
1991: Jan	3,408,637	[1] 2,221,746	537,383	1,281,200	388,164	1,186,891	125,294	43,211	828,789	189,598
Feb	3,455,910	[1] 2,257,098	541,742	1,301,087	399,270	1,198,811	126,524	42,665	839,760	189,862
Mar	3,441,367	[1] 2,227,914	533,262	1,280,385	399,268	1,213,453	127,726	42,788	853,086	189,853
Apr	3,442,402	[1] 2,237,682	504,404	1,319,015	399,263	1,204,719	129,145	42,680	842,527	190,368
May	3,494,576	[1] 2,278,545	512,912	1,339,419	411,214	1,216,031	130,246	42,621	852,749	190,415
June	3,516,066	[1] 2,268,060	521,544	1,320,313	411,203	1,248,006	131,268	42,101	883,188	191,450
July	3,574,226	[1] 2,327,812	538,211	1,363,403	411,199	1,246,414	132,062	42,118	886,229	186,004
Aug	3,600,603	[1] 2,347,629	551,555	1,357,715	423,359	1,252,974	132,744	42,024	889,893	188,315
Sept	3,662,759	[1] 2,390,660	564,589	1,387,717	423,354	1,272,099	133,512	41,639	908,406	188,541
Oct	3,714,592	[1] 2,429,226	585,908	1,404,975	423,343	1,285,367	134,545	41,472	920,079	189,269
Nov	3,732,281	[1] 2,439,406	589,735	1,399,195	435,476	1,292,875	135,402	41,736	926,101	189,636
Dec	3,798,859	[1] 2,471,646	590,389	1,430,784	435,473	1,327,213	135,924	41,940	959,185	190,164

[1] Includes Federal Financing Bank securities, not shown separately, in the amount of 15,000 million dollars.

[2] Nonmarketable certificates of indebtedness, notes, bonds, and bills in the Treasury foreign series of dollar-denominated and foreign-currency denominated issues.

[3] Includes depository bonds, retirement plan bonds, Rural Electrification Administration bonds, State and local bonds, and special issues held only by U.S. Government agencies and trust funds and the Federal home loan banks.

[4] Includes $5,610 million in certificates not shown separately.

Note.—Through fiscal year 1976, the fiscal year was on a July 1–June 30 basis; beginning October 1976 (fiscal year 1977), the fiscal year is on an October 1–September 30 basis.

Source: Department of the Treasury.

TABLE B–83.—*Maturity distribution and average length of marketable interest-bearing public debt securities held by private investors, 1967–91*

End of year or month	Amount outstanding, privately held	Maturity class					Average length	
		Within 1 year	1 to 5 years	5 to 10 years	10 to 20 years	20 years and over		
	Millions of dollars						Years	Months
Fiscal year:								
1967	150,321	56,561	53,584	21,057	6,153	12,968	5	1
1968	159,671	66,746	52,295	21,850	6,110	12,670	4	5
1969	156,008	69,311	50,182	18,078	6,097	12,337	4	2
1970	157,910	76,443	57,035	8,286	7,876	8,272	3	8
1971	161,863	74,803	58,557	14,503	6,357	7,645	3	6
1972	165,978	79,509	57,157	16,033	6,358	6,922	3	3
1973	167,869	84,041	54,139	16,385	8,741	4,564	3	1
1974	164,862	87,150	50,103	14,197	9,930	3,481	2	11
1975	210,382	115,677	65,852	15,385	8,857	4,611	2	8
1976	279,782	150,296	90,578	24,169	8,087	6,652	2	7
1977	326,674	161,329	113,319	33,067	8,428	10,531	2	11
1978	356,501	163,819	132,993	33,500	11,383	14,805	3	3
1979	380,530	181,883	127,574	32,279	18,489	20,304	3	7
1980	463,717	220,084	156,244	38,809	25,901	22,679	3	9
1981	549,863	256,187	182,237	48,743	32,569	30,127	4	0
1982	682,043	314,436	221,783	75,749	33,017	37,058	3	11
1983	862,631	379,579	294,955	99,174	40,826	48,097	4	1
1984	1,017,488	437,941	332,808	130,417	49,664	66,658	4	6
1985	1,185,675	472,661	402,766	159,383	62,853	88,012	4	11
1986	1,354,275	506,903	467,348	189,995	70,664	119,365	5	3
1987	1,445,366	483,582	526,746	209,160	72,862	153,016	5	9
1988	1,555,208	524,201	552,993	232,453	74,186	171,375	5	9
1989	1,654,660	546,751	578,333	247,428	80,616	201,532	6	0
1990	1,841,903	626,297	630,144	267,573	82,713	235,176	6	1
1991	2,113,799	713,778	761,243	280,574	84,900	273,304	6	0
1990: Jan	1,737,737	585,754	607,706	252,068	83,792	208,417	5	11
Feb	1,753,579	587,028	617,778	248,620	83,423	216,730	6	1
Mar	1,760,337	605,415	598,143	256,703	83,402	216,674	6	0
Apr	1,758,737	580,464	620,335	257,785	83,423	216,730	6	0
May	1,778,984	586,720	631,287	250,813	85,246	224,918	6	2
June	1,780,188	596,897	613,441	259,688	85,246	224,916	6	1
July	1,817,691	607,047	639,408	261,075	85,246	224,916	6	0
Aug	1,859,288	636,667	647,175	258,038	82,587	234,821	6	0
Sept	1,841,903	626,297	630,144	267,573	82,713	235,176	6	1
Oct	1,880,412	639,338	653,904	269,281	82,713	235,176	5	11
Nov	1,920,292	663,157	666,527	262,195	86,476	241,937	6	0
Dec	1,925,391	666,891	660,908	270,082	86,105	241,405	5	11
1991: Jan	1,954,246	677,365	679,371	270,662	86,129	240,719	5	11
Feb	1,987,388	686,639	699,981	265,683	84,446	250,639	6	0
Mar	1,970,519	678,000	685,842	268,356	85,136	253,185	6	0
Apr	1,974,883	647,282	720,023	269,257	85,136	253,185	6	0
May	2,012,127	662,538	736,577	264,523	87,198	261,291	6	2
June	2,003,121	673,231	717,100	264,344	87,198	261,248	6	1
July	2,054,782	688,269	752,002	266,064	87,198	261,248	6	0
Aug	2,075,255	702,752	733,723	280,576	84,900	273,304	6	1
Sept	2,113,799	713,778	761,243	280,574	84,900	273,304	6	0
Oct	2,143,244	736,169	769,530	280,645	84,394	272,506	5	11
Nov	2,157,159	743,407	769,070	276,457	87,461	280,764	6	1
Dec	2,171,507	742,609	788,493	274,222	87,203	278,980	6	0

Note.—All issues classified to final maturity.

Through fiscal year 1976, the fiscal year was on a July 1–June 30 basis; beginning October 1976 (fiscal year 1977), the fiscal year is on an October 1–September 30 basis.

Source: Department of the Treasury.

TABLE B–84.—*Estimated ownership of public debt securities by private investors, 1976–91*

[Par values;[1] billions of dollars]

End of month	Held by private investors												
	Total	Commercial banks[2]	Nonbank investors										
			Total	Individuals[3]			Insurance companies	Money market funds	Corporations[5]	State and local governments[6]	Foreign and international[7]	Other investors[8]
				Total	Savings bonds[4]	Other securities						
1976:													
June	376.4	91.4	285.0	96.1	69.6	26.5	14.4	0.8	23.3	34.2	69.8	46.4
Dec	409.5	103.5	306.0	101.6	72.0	29.6	16.2	1.1	23.5	40.9	78.1	44.6
1977:													
June	421.0	102.7	318.3	104.9	74.4	30.5	18.1	.8	22.1	50.3	87.9	34.2
Dec	461.3	98.9	362.4	107.8	76.7	31.1	19.9	.9	18.2	58.1	109.6	47.9
1978:													
June	477.8	97.8	380.0	109.0	79.1	29.9	19.7	1.3	17.3	70.0	119.5	43.2
Dec	508.6	95.0	413.6	114.0	80.7	33.3	20.0	1.5	17.3	76.1	133.1	51.6
1979:													
June	516.6	86.1	430.5	115.5	80.6	34.9	20.9	3.8	18.6	78.7	114.9	78.1
Dec	540.5	88.1	452.4	118.0	79.9	38.1	21.4	5.6	17.0	81.7	119.0	89.7
1980:													
June	558.2	97.4	460.8	116.5	73.4	43.1	22.3	5.3	14.0	83.3	118.2	101.2
Dec	616.4	112.1	504.3	117.1	72.5	44.6	24.0	3.5	19.3	87.9	129.7	122.8
1981:													
June	651.2	119.7	531.5	107.4	69.2	38.2	26.4	9.0	19.9	94.2	136.6	138.0
Dec	694.5	111.4	583.1	110.8	68.1	42.7	29.0	21.5	17.9	96.8	136.6	170.5
1982:													
June	740.9	116.1	624.8	114.1	67.4	46.7	35.8	22.4	17.6	103.3	137.2	194.4
Dec	848.4	131.4	717.0	116.5	68.3	48.2	44.1	42.6	24.5	115.0	149.5	224.8
1983:													
June	948.6	171.6	777.0	121.3	69.7	51.6	54.0	28.3	32.8	127.4	160.1	253.1
Dec	1,022.6	188.8	833.8	133.4	71.5	61.9	65.3	22.8	39.7	149.0	166.3	257.3
1984:													
June	1,102.2	185.4	916.8	142.2	72.9	69.3	64.2	14.9	45.3	162.9	171.6	315.7
Dec	1,212.5	186.0	1,026.5	143.8	74.5	69.3	64.5	25.9	50.1	173.0	205.9	363.3
1985:													
Mar	1,254.1	197.8	1,056.3	145.1	75.4	69.7	66.5	26.7	50.8	177.0	199.6	390.6
June	1,292.0	201.6	1,090.4	148.7	76.7	72.0	69.1	24.8	54.9	190.3	213.8	388.8
Sept	1,338.2	203.6	1,134.6	151.4	78.2	73.2	71.4	22.7	59.0	203.0	222.9	404.2
Dec	1,417.2	198.2	1,219.0	154.8	79.8	75.0	78.5	25.1	59.0	226.7	224.8	450.1
1986:													
Mar	1,473.1	201.7	1,271.4	157.8	81.4	76.4	84.0	29.9	59.6	225.6	232.6	481.9
June	1,502.7	200.6	1,302.1	159.5	83.8	75.7	88.6	22.8	61.2	227.1	250.9	492.0
Sept	1,553.3	200.9	1,352.4	158.0	87.1	70.9	96.4	24.9	65.7	251.2	265.5	490.7
Dec	1,602.0	203.5	1,398.5	162.7	92.3	70.4	105.6	28.6	68.8	262.8	263.4	506.6
1987:													
Mar	1,641.4	199.9	1,441.5	163.0	94.7	68.3	107.8	18.8	73.5	264.6	272.8	541.0
June	1,658.1	199.4	1,458.7	165.6	96.8	68.8	104.0	20.6	79.7	268.7	281.1	539.0
Sept	1,680.7	205.2	1,475.5	167.7	98.5	69.2	104.6	15.5	81.8	273.0	279.5	553.4
Dec	1,731.4	201.5	1,529.9	172.4	101.1	71.3	104.9	14.6	84.6	284.6	299.7	569.1
1988:													
Mar	1,779.6	203.3	1,576.3	178.1	104.0	74.1	103.6	15.2	86.3	291.4	332.5	569.2
June	1,786.7	198.3	1,588.4	182.0	106.2	75.8	103.8	13.4	87.6	297.2	345.4	559.0
Sept	1,821.2	199.2	1,622.0	186.8	107.8	79.0	105.1	11.1	85.9	305.7	345.9	581.5
Dec	1,858.5	193.8	1,664.7	190.4	109.6	80.8	107.3	11.8	86.0	313.6	362.2	593.4
1989:													
Mar	1,903.4	200.7	1,702.7	204.2	112.2	92.0	120.4	13.0	89.4	326.0	376.6	573.1
June	1,909.1	186.6	1,722.5	211.7	114.0	97.7	121.7	11.3	91.0	332.0	369.1	585.7
Sept	1,958.3	174.8	1,783.5	213.5	115.7	97.8	124.1	12.9	90.9	338.0	394.9	609.2
Dec	2,015.8	174.8	1,841.0	216.4	117.7	98.7	130.1	14.9	93.4	338.7	392.9	654.6
1990:													
Mar	2,115.1	189.2	1,925.9	222.8	119.9	102.9	135.9	31.3	94.9	330.3	385.8	724.9
June	2,141.8	185.5	1,956.3	229.7	121.9	107.8	138.0	28.0	96.9	330.3	392.3	741.1
Sept	2,207.3	188.0	2,019.3	232.5	123.9	108.6	142.7	34.0	102.0	330.8	404.9	772.4
Dec	2,288.3	179.5	2,108.8	233.8	126.2	107.6	145.4	45.5	108.9	329.6	423.2	822.4
1991:													
Mar	2,360.6	194.8	2,165.8	238.3	129.7	108.6	149.3	65.7	114.9	329.5	430.7	837.4
June	2,397.9	204.2	2,193.7	243.5	133.2	110.3	155.1	55.2	130.8	327.0	441.2	840.9
Sept	2,489.4	214.0	2,275.4	257.5	135.4	122.1	157.0	64.5	142.0	326.0	444.8	883.6

[1] U.S. savings bonds, series A–F and J, are included at current redemption value.
[2] Includes domestically chartered banks, U.S. branches and agencies of foreign banks, New York investment companies majority owned by foreign banks, and Edge Act corporations owned by domestically chartered and foreign banks.
[3] Includes partnerships and personal trust accounts.
[4] Includes U.S. savings notes. Sales began May 1, 1967, and were discontinued June 30, 1970.
[5] Exclusive of banks and insurance companies.
[6] Includes State and local pension funds.
[7] Consists of the investment of foreign balances and international accounts in the United States.
[8] Includes savings and loan associations, credit unions, nonprofit institutions, mutual savings banks, corporate pension trust funds, dealers and brokers, certain Government deposit accounts, and Government-sponsored agencies.

Source: Department of the Treasury.

TABLE B–85.—*Corporate profits with inventory valuation and capital consumption adjustments, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Corporate profits with inventory valuation and capital consumption adjustments	Corporate profits tax liability	Corporate profits after tax with inventory valuation and capital consumption adjustments		
			Total	Dividends	Undistributed profits with inventory valuation and capital consumption adjustments
1959	52.3	23.6	28.6	12.7	15.9
1960	50.7	22.7	28.0	13.4	14.6
1961	51.6	22.8	28.8	14.0	14.8
1962	59.6	24.0	35.6	15.0	20.6
1963	65.1	26.2	38.9	16.1	22.8
1964	72.1	28.0	44.1	18.0	26.1
1965	82.9	30.9	52.0	20.2	31.8
1966	88.6	33.7	54.9	20.9	34.0
1967	86.0	32.7	53.3	22.1	31.2
1968	92.6	39.4	53.2	24.6	28.6
1969	89.6	39.7	49.9	25.2	24.7
1970	77.5	34.4	43.1	23.7	19.4
1971	90.3	37.7	52.6	23.7	28.8
1972	103.2	41.9	61.3	25.8	35.5
1973	116.4	49.3	67.1	28.1	39.0
1974	104.5	51.8	52.7	30.4	22.3
1975	121.9	50.9	71.0	30.1	40.9
1976	147.1	64.2	82.8	35.6	47.2
1977	175.7	73.0	102.6	40.7	61.9
1978	199.7	83.5	116.2	45.9	70.3
1979	202.5	88.0	114.5	52.4	62.1
1980	177.7	84.8	92.9	59.0	33.9
1981	182.0	81.1	100.9	69.2	31.7
1982	151.5	63.1	88.4	70.0	18.4
1983	212.7	77.2	135.4	81.2	54.2
1984	264.2	94.0	170.2	82.7	87.5
1985	280.8	96.5	184.2	92.4	91.9
1986	271.6	106.5	165.1	109.8	55.4
1987	319.8	127.1	192.8	106.2	86.5
1988	365.0	137.0	228.0	115.3	112.6
1989	351.7	138.0	213.7	127.9	85.8
1990	319.0	135.3	183.6	133.7	49.9
1982: IV	150.3	58.7	91.7	72.5	19.2
1983: IV	229.1	82.2	146.9	84.2	62.7
1984: IV	261.3	83.8	177.5	83.4	94.1
1985: IV	284.9	97.6	187.2	97.4	89.9
1986: IV	264.6	116.6	148.1	111.0	37.1
1987: IV	343.3	135.2	208.1	106.3	101.8
1988: I	352.1	126.6	225.6	109.6	116.0
II	364.2	135.7	228.5	113.3	115.2
III	365.3	139.6	225.6	117.5	108.1
IV	378.3	146.2	232.2	121.0	111.2
1989: I	366.2	149.2	216.9	124.6	92.3
II	361.0	141.7	219.3	127.1	92.2
III	345.0	131.2	213.8	129.1	84.7
IV	334.7	129.8	204.9	130.7	74.2
1990: I	340.2	137.6	202.7	132.3	70.4
II	339.8	137.9	201.9	132.5	69.4
III	299.8	138.8	161.0	133.8	27.2
IV	296.1	127.1	169.0	136.2	32.8
1991: I	302.1	119.4	182.7	137.8	45.0
II	303.5	123.5	180.0	136.7	43.4
III	306.1	128.6	177.5	138.1	39.4
IV[p]				138.5	

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–86.—*Corporate profits by industry, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Corporate profits with inventory valuation adjustment and without capital consumption adjustment										
	Total	Domestic industries									Rest of the world
		Total	Financial [1]			Nonfinancial					
			Total	Federal Reserve banks	Other	Total	Manufacturing [2]	Transportation and public utilities	Wholesale and retail trade	Other	
1959	53.1	50.4	7.0	0.7	6.3	43.4	26.5	7.1	6.2	3.6	2.7
1960	51.0	47.8	7.7	.9	6.7	40.2	23.8	7.5	5.2	3.6	3.1
1961	51.3	48.0	7.5	.8	6.8	40.4	23.4	7.9	5.5	3.6	3.3
1962	56.4	52.6	7.6	.9	6.8	45.0	26.3	8.5	6.3	3.9	3.8
1963	61.2	57.1	7.3	1.0	6.4	49.8	29.6	9.5	6.4	4.4	4.1
1964	67.5	63.0	7.5	1.1	6.4	55.5	32.4	10.2	7.9	5.1	4.5
1965	77.6	72.9	7.9	1.3	6.5	65.0	39.7	11.0	8.6	5.6	4.7
1966	83.0	78.5	9.2	1.7	7.5	69.3	42.4	11.9	8.8	6.2	4.5
1967	80.3	75.5	9.5	2.0	7.6	66.0	39.0	10.9	9.7	6.4	4.8
1968	86.9	81.3	10.9	2.5	8.4	70.4	41.7	11.0	10.9	6.8	5.6
1969	83.2	76.6	11.6	3.1	8.5	65.0	37.0	10.6	11.2	6.2	6.6
1970	71.8	64.7	13.1	3.5	9.6	51.6	27.1	8.2	10.3	5.9	7.1
1971	85.5	77.7	15.2	3.3	11.9	62.5	34.8	8.9	12.3	6.6	7.9
1972	97.9	88.4	16.4	3.3	13.1	72.0	41.4	9.4	14.1	7.1	9.5
1973	110.9	96.0	17.5	4.5	13.0	78.5	46.7	9.0	14.6	8.2	14.9
1974	103.4	85.9	16.2	5.7	10.5	69.7	40.7	7.6	13.7	7.7	17.5
1975	129.4	114.8	15.9	5.6	10.3	98.9	54.5	10.9	21.9	11.6	14.6
1976	158.8	142.3	19.9	5.9	14.0	122.4	70.7	15.3	23.1	13.3	16.5
1977	186.7	167.7	25.7	6.1	19.6	142.0	78.5	18.5	27.8	17.1	18.9
1978	212.8	190.2	31.8	7.6	24.1	158.4	89.6	21.7	27.7	19.4	22.6
1979	219.8	185.6	31.6	9.4	22.2	153.9	88.3	16.9	28.3	20.5	34.3
1980	197.8	162.9	24.3	11.8	12.6	138.5	75.8	18.3	22.8	21.6	35.0
1981	203.2	174.0	18.7	14.4	4.3	155.3	87.4	20.1	31.6	16.2	29.2
1982	166.4	138.6	15.6	15.2	.4	123.0	63.1	20.8	31.9	7.2	27.8
1983	202.2	171.9	24.5	14.6	9.9	147.4	71.4	28.9	38.7	8.4	30.4
1984	236.4	205.2	20.3	16.4	3.9	185.0	86.7	39.9	49.7	8.7	31.2
1985	225.3	194.5	28.7	16.3	12.4	165.8	80.1	34.1	43.1	8.5	30.8
1986	227.6	194.6	35.8	15.5	20.3	158.9	59.0	36.5	46.3	17.1	32.9
1987	273.4	233.9	36.4	15.7	20.7	197.5	87.0	43.4	39.9	27.2	39.5
1988	320.3	271.2	41.8	17.6	24.2	229.4	117.5	47.5	37.1	27.3	49.1
1989	327.0	273.1	39.2	20.2	19.0	233.9	113.6	45.0	42.8	32.6	53.9
1990	318.2	258.0	39.6	21.3	18.3	218.3	95.7	44.5	39.8	38.4	60.2
1991 [p]		248.4	42.2	20.6	21.6	206.2	82.0	45.6	44.9	33.7	
1982: IV	160.0	130.8	23.0	14.6	8.3	107.8	50.1	18.2	33.8	5.7	29.2
1983: IV	216.2	182.6	22.1	15.2	6.9	160.5	90.5	19.1	40.7	10.2	33.6
1984: IV	223.6	192.9	20.3	17.2	3.2	172.6	79.2	33.5	50.8	9.0	30.7
1985: IV	228.0	193.5	29.0	16.0	13.0	164.5	83.3	31.3	39.0	11.0	34.5
1986: IV	225.0	192.5	34.7	15.2	19.5	157.8	63.9	34.2	43.1	16.6	32.6
1987: IV	293.4	246.3	39.4	16.1	23.3	207.0	98.7	43.1	39.3	25.8	47.0
1988: I	303.3	257.0	32.5	16.9	15.6	224.5	110.4	44.5	40.4	29.2	46.3
II	316.8	270.3	42.1	16.9	25.1	228.3	114.2	47.7	36.7	29.6	46.5
III	320.4	271.5	46.6	17.8	28.8	224.9	115.9	50.1	32.1	26.8	48.9
IV	340.5	285.9	46.1	18.9	27.2	239.7	129.3	47.6	39.3	23.5	54.6
1989: I	332.9	279.3	46.4	19.6	26.8	232.9	122.2	44.1	39.0	27.5	53.6
II	332.2	283.0	43.9	20.6	23.3	239.1	117.0	48.6	41.1	32.4	49.3
III	323.6	271.9	34.0	19.9	14.1	237.9	114.1	45.9	46.0	31.9	51.7
IV	319.2	258.3	32.4	20.5	11.9	225.9	101.0	41.3	45.1	38.5	60.9
1990: I	330.0	271.9	41.4	20.4	21.0	230.5	102.1	49.2	41.6	37.7	58.1
II	335.4	282.1	41.5	21.0	20.5	240.7	107.1	49.7	45.1	38.7	53.2
III	302.4	245.8	39.3	22.3	17.0	206.5	94.8	41.5	34.4	35.9	56.6
IV	304.9	232.1	36.4	21.7	14.7	195.7	78.9	37.5	38.2	41.1	72.8
1991: I	315.7	241.2	40.1	21.0	19.1	201.0	75.0	45.7	45.3	35.1	74.6
II	316.1	254.4	42.1	20.4	21.7	212.3	82.9	49.2	46.9	33.3	61.7
III	313.4	250.4	43.5	20.8	22.7	206.9	84.1	44.3	44.6	33.9	63.0

[1] Consists of the following industries: Depository institutions; nondepository credit institutions; security and commodity brokers; insurance carriers; regulated investment companies; small business investment companies; and real estate investment trusts.
[2] See Table B–87 for industry detail.

Note.—The industry classification is on a company basis and is based on the 1987 Standard Industrial Classification (SIC) beginning 1987, and on the 1972 SIC for earlier years shown.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–87.—*Corporate profits of manufacturing industries, 1959–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Corporate profits with inventory valuation adjustment and without capital consumption adjustment												
	Total manufacturing	Durable goods							Nondurable goods				
		Total	Primary metal industries	Fabricated metal products	Industrial machinery and equipment	Electronic and other electric equipment	Motor vehicles and equipment	Other	Total	Food and kindred products	Chemicals and allied products	Petroleum and coal products	Other
1959	26.5	13.7	2.3	1.1	2.2	1.7	3.0	3.5	12.8	2.5	3.5	2.6	4.3
1960	23.8	11.7	2.0	.8	1.8	1.3	3.0	2.8	12.1	2.2	3.1	2.6	4.2
1961	23.4	11.4	1.6	1.0	1.9	1.3	2.5	3.1	12.0	2.4	3.3	2.2	4.2
1962	26.3	14.1	1.6	1.2	2.4	1.5	4.0	3.5	12.2	2.4	3.2	2.2	4.4
1963	29.6	16.4	2.0	1.3	2.5	1.6	4.9	4.0	13.2	2.7	3.7	2.2	4.7
1964	32.4	18.0	2.5	1.4	3.3	1.7	4.6	4.5	14.4	2.7	4.1	2.3	5.3
1965	39.7	23.2	3.1	2.1	4.0	2.7	6.2	5.2	16.4	2.8	4.6	2.9	6.1
1966	42.4	23.9	3.6	2.4	4.5	3.0	5.1	5.3	18.4	3.3	4.9	3.4	6.8
1967	39.0	21.2	2.7	2.5	4.1	3.0	4.0	5.0	17.8	3.2	4.3	3.9	6.4
1968	41.7	22.4	1.9	2.3	4.1	2.9	5.5	5.7	19.2	3.2	5.2	3.7	7.0
1969	37.0	19.0	1.4	2.0	3.7	2.3	4.8	4.9	18.0	3.0	4.6	3.3	7.0
1970	27.1	10.4	.8	1.1	3.0	1.3	1.3	3.0	16.8	3.2	3.9	3.6	6.1
1971	34.8	16.6	.8	1.5	3.0	1.9	5.1	4.2	18.2	3.5	4.5	3.7	6.5
1972	41.4	22.6	1.6	2.2	4.3	2.8	5.9	5.7	18.8	2.9	5.2	3.2	7.5
1973	46.7	25.0	2.3	2.6	4.7	3.2	5.9	6.3	21.7	2.5	6.1	5.2	7.9
1974	40.7	15.1	5.0	1.8	3.1	.5	.7	4.1	25.7	2.6	5.2	10.7	7.2
1975	54.5	20.3	2.7	3.2	4.8	2.6	2.2	4.8	34.1	8.6	6.3	9.8	9.4
1976	70.7	31.2	2.1	3.9	6.7	3.8	7.4	7.4	39.5	7.1	8.2	13.3	11.0
1977	78.5	37.6	1.0	4.5	8.3	5.8	9.3	8.6	41.0	6.8	7.7	12.9	13.6
1978	89.6	45.0	3.6	5.0	10.4	6.6	8.9	10.5	44.6	6.1	8.2	15.5	14.8
1979	88.3	36.5	3.5	5.2	9.1	5.4	4.6	8.6	51.8	5.8	7.1	24.5	14.6
1980	75.8	17.9	2.6	4.3	7.5	5.0	−4.3	2.8	57.8	6.0	5.5	33.6	12.9
1981	87.4	18.1	3.0	4.4	8.2	4.9	.2	−2.7	69.3	9.0	7.6	38.6	14.2
1982	63.1	4.8	−4.7	2.6	3.4	1.3	−.4	2.6	58.3	7.2	4.7	31.6	14.8
1983	71.4	18.4	−4.9	3.1	4.4	3.4	5.2	7.2	53.0	5.8	6.8	22.1	18.3
1984	86.7	37.2	−.4	4.5	6.3	4.8	8.9	13.1	49.5	7.3	7.3	15.9	19.1
1985	80.1	29.0	−.9	4.7	5.3	2.4	7.3	10.1	51.1	8.4	6.0	17.1	19.7
1986	59.0	30.0	.9	5.3	3.2	2.6	4.4	13.7	29.0	7.5	8.0	−8.5	21.9
1987	87.0	42.2	2.6	5.2	7.3	6.2	3.7	17.3	44.8	11.4	15.1	−3.6	21.9
1988	117.5	52.2	5.9	6.4	10.5	7.6	5.7	16.1	65.3	11.8	19.3	10.4	23.8
1989	113.6	50.2	6.4	6.9	10.3	8.7	1.7	16.2	63.4	11.8	19.9	7.2	24.5
1990	95.7	37.2	4.6	5.6	10.2	7.9	−7.1	16.0	58.5	12.6	20.3	6.5	19.2
1991 *p*	82.0	23.9	1.9	4.5	8.2	6.2	−10.7	13.8	58.0	16.4	19.3	3.5	18.8
1982: IV	50.1	−5.3	−5.2	1.1	1.0	−1.0	−2.9	1.7	55.5	6.7	3.1	29.0	16.6
1983: IV	90.5	33.4	−3.7	4.9	6.5	6.6	9.4	9.7	57.1	6.1	7.7	24.1	19.2
1984: IV	79.2	34.2	−1.0	5.2	5.0	4.1	8.5	12.4	45.0	7.3	6.0	13.0	18.6
1985: IV	83.3	28.8	−1.3	4.0	7.0	2.0	7.3	9.7	54.5	7.8	3.5	24.1	19.2
1986: IV	63.9	34.2	1.7	4.7	2.6	3.3	4.5	17.4	29.7	8.2	9.5	−13.3	25.3
1987: IV	98.7	35.2	3.3	6.0	6.3	2.9	.6	16.2	63.4	13.4	18.5	7.4	24.1
1988: I	110.4	42.7	4.6	7.5	10.3	3.7	1.3	15.3	67.7	13.4	20.2	9.1	25.1
II	114.2	55.5	5.9	6.6	12.2	7.7	4.2	19.0	58.7	11.8	16.8	6.2	24.0
III	115.9	54.2	6.4	5.1	11.4	9.4	7.8	14.0	61.7	9.6	16.3	12.3	23.5
IV	129.3	56.4	6.5	6.4	8.0	9.7	9.6	16.2	72.9	12.3	24.0	14.2	22.4
1989: I	122.2	54.5	6.2	8.0	9.1	8.3	7.0	15.9	67.7	14.5	20.0	8.1	25.1
II	117.0	52.0	7.2	7.1	10.6	8.8	3.4	15.0	65.1	11.2	20.9	7.3	25.6
III	114.1	49.0	7.2	7.5	8.9	7.3	−.1	18.3	65.1	11.1	20.4	8.9	24.6
IV	101.0	45.4	5.3	5.0	12.6	10.3	−3.6	15.7	55.6	10.4	18.1	4.6	22.5
1990: I	102.1	45.7	5.7	7.5	11.4	9.9	−6.8	18.0	56.3	8.0	21.2	6.5	20.5
II	107.1	42.7	4.8	6.3	10.2	8.9	−4.4	17.0	64.4	13.7	22.6	7.3	20.9
III	94.8	35.6	3.5	4.9	9.8	7.2	−5.0	15.1	59.2	14.7	20.3	4.3	19.9
IV	78.9	24.6	4.3	3.7	9.3	5.7	−12.3	14.0	54.2	13.9	17.0	8.0	15.4
1991: I	75.0	20.4	2.9	3.0	9.5	7.2	−14.9	12.7	54.5	15.0	16.6	8.7	14.2
II	82.9	26.5	1.7	4.9	9.4	7.0	−11.4	14.9	56.4	15.8	18.7	2.9	19.1
III	84.1	24.0	1.1	4.9	6.8	5.3	−8.3	14.2	60.0	17.1	21.5	.8	20.6

Note.—The industry classification is on a company basis and is based on the 1987 Standard Industrial Classification (SIC) beginning 1987 and on the 1972 SIC for earlier years shown.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–88.—*Sales, profits, and stockholders' equity, all manufacturing corporations, 1950–91*

[Billions of dollars]

Year or quarter	All manufacturing corporations				Durable goods industries				Nondurable goods industries			
	Sales (net)	Profits		Stockholders' equity[2]	Sales (net)	Profits		Stockholders' equity[2]	Sales (net)	Profits		Stockholders' equity[2]
		Before income taxes[1]	After income taxes			Before income taxes[1]	After income taxes			Before income taxes[1]	After income taxes	
1950	181.9	23.2	12.9	83.3	86.8	12.9	6.7	39.9	95.1	10.3	6.1	43.5
1951	245.0	27.4	11.9	98.3	116.8	15.4	6.1	47.2	128.1	12.1	5.7	51.1
1952	250.2	22.9	10.7	103.7	122.0	12.9	5.5	49.8	128.0	10.0	5.2	53.9
1953	265.9	24.4	11.3	108.2	137.9	14.0	5.8	52.4	128.0	10.4	5.5	55.7
1954	248.5	20.9	11.2	113.1	122.8	11.4	5.6	54.9	125.7	9.6	5.6	58.2
1955	278.4	28.6	15.1	120.1	142.1	16.5	8.1	58.8	136.3	12.1	7.0	61.3
1956	307.3	29.8	16.2	131.6	159.5	16.5	8.3	65.2	147.8	13.2	7.8	66.4
1957	320.0	28.2	15.4	141.1	166.0	15.8	7.9	70.5	154.1	12.4	7.5	70.6
1958	305.3	22.7	12.7	147.4	148.6	11.4	5.8	72.8	156.7	11.3	6.9	74.6
1959	338.0	29.7	16.3	157.1	169.4	15.8	8.1	77.9	168.5	13.9	8.3	79.2
1960	345.7	27.5	15.2	165.4	173.9	14.0	7.0	82.3	171.8	13.5	8.2	83.1
1961	356.4	27.5	15.3	172.6	175.2	13.6	6.9	84.9	181.2	13.9	8.5	87.7
1962	389.4	31.9	17.7	181.4	195.3	16.8	8.6	89.1	194.1	15.1	9.2	92.3
1963	412.7	34.9	19.5	189.7	209.0	18.5	9.5	93.3	203.6	16.4	10.0	96.3
1964	443.1	39.6	23.2	199.8	226.3	21.2	11.6	98.5	216.8	18.3	11.6	101.3
1965	492.2	46.5	27.5	211.7	257.0	26.2	14.5	105.4	235.2	20.3	13.0	106.3
1966	554.2	51.8	30.9	230.3	291.7	29.2	16.4	115.2	262.4	22.6	14.6	115.1
1967	575.4	47.8	29.0	247.6	300.6	25.7	14.6	125.0	274.8	22.0	14.4	122.6
1968	631.9	55.4	32.1	265.9	335.5	30.6	16.5	135.6	296.4	24.8	15.5	130.3
1969	694.6	58.1	33.2	289.9	366.5	31.5	16.9	147.6	328.1	26.6	16.4	142.3
1970	708.8	48.1	28.6	306.8	363.1	23.0	12.9	155.1	345.7	25.2	15.7	151.7
1971	751.1	52.9	31.0	320.8	381.8	26.5	14.5	160.4	369.3	26.5	16.5	160.5
1972	849.5	63.2	36.5	343.4	435.8	33.6	18.4	171.4	413.7	29.6	18.0	172.0
1973	1,017.2	81.4	48.1	374.1	527.3	43.6	24.8	188.7	489.9	37.8	23.3	185.4
1973: IV	275.1	21.4	13.0	386.4	140.1	10.8	6.3	194.7	135.0	10.6	6.7	191.7
New series:												
1973: IV	236.6	20.6	13.2	368.0	122.7	10.1	6.2	185.8	113.9	10.5	7.0	182.1
1974	1,060.6	92.1	58.7	395.0	529.0	41.1	24.7	196.0	531.6	51.0	34.1	199.0
1975	1,065.2	79.9	49.1	423.4	521.1	35.3	21.4	208.1	544.1	44.6	27.7	215.3
1976	1,203.2	104.9	64.5	462.7	589.6	50.7	30.8	224.3	613.7	54.3	33.7	238.4
1977	1,328.1	115.1	70.4	496.7	657.3	57.9	34.8	239.9	670.8	57.2	35.5	256.8
1978	1,496.4	132.5	81.1	540.5	760.7	69.6	41.8	262.6	735.7	62.9	39.3	277.9
1979	1,741.8	154.2	98.7	600.5	865.7	72.4	45.2	292.5	876.1	81.8	53.5	308.0
1980	1,912.8	145.8	92.6	668.1	889.1	57.4	35.6	317.7	1,023.7	88.4	56.9	350.4
1981	2,144.7	158.6	101.3	743.4	979.5	67.2	41.6	350.4	1,165.2	91.3	59.6	393.0
1982	2,039.4	108.2	70.9	770.2	913.1	34.7	21.7	355.5	1,126.4	73.6	49.3	414.7
1983	2,114.3	133.1	85.8	812.8	973.5	48.7	30.0	372.4	1,140.8	84.4	55.8	440.4
1984	2,335.0	165.6	107.6	864.2	1,107.6	75.5	48.9	395.6	1,227.5	90.0	58.8	468.5
1985	2,331.4	137.0	87.6	866.2	1,142.6	61.5	38.6	420.9	1,188.8	75.6	49.1	445.3
1986	2,220.9	129.3	83.1	874.7	1,125.5	52.1	32.6	436.3	1,095.4	77.2	50.5	438.4
1987	2,378.2	173.0	115.6	900.9	1,178.0	78.0	53.0	444.3	1,200.3	95.1	62.6	456.6
1988	2,596.2	216.1	154.6	957.6	1,284.7	91.7	67.1	468.7	1,311.5	124.4	87.5	488.9
1989	2,745.1	188.8	136.3	999.0	1,356.6	75.2	55.7	501.3	1,388.5	113.5	80.6	497.7
1990	2,810.9	159.6	111.6	1,043.9	1,357.3	57.6	40.9	515.0	1,453.6	102.0	70.6	528.9
1989: I	666.0	53.3	37.9	988.6	331.7	22.0	15.9	495.8	334.3	31.4	21.9	492.8
II	707.5	53.3	36.6	991.8	352.8	23.7	16.7	500.2	354.7	29.6	19.9	491.6
III	681.3	46.7	33.4	1,001.4	332.3	18.9	13.8	502.6	348.9	27.8	19.6	498.8
IV	690.3	35.4	28.4	1,014.1	339.8	10.7	9.3	506.6	350.5	24.7	19.2	507.6
1990: I	671.4	40.1	28.1	1,026.6	325.8	16.3	11.8	506.4	345.6	23.8	16.3	520.2
II	706.9	50.0	35.1	1,039.8	354.0	22.0	15.7	517.0	352.9	28.0	19.5	522.7
III	705.1	42.1	29.6	1,054.6	337.7	12.8	9.4	519.0	367.5	29.2	20.2	535.6
IV	727.4	27.4	18.8	1,054.5	339.9	6.4	4.1	517.5	387.5	21.0	14.7	537.0
1991: I	652.9	27.0	18.3	1,054.8	305.3	3.5	1.4	510.0	347.6	23.5	16.9	544.8
II	696.9	32.7	23.0	1,061.9	337.2	10.6	7.5	514.1	359.7	22.1	15.5	547.8
III	696.9	28.3	18.5	1,072.0	330.4	3.8	1.6	512.7	366.5	24.5	16.9	559.3

[1] In the old series, "income taxes" refers to Federal income taxes only, as State and local income taxes had already been deducted. In the new series, no income taxes have been deducted.

[2] Annual data are average equity for the year (using four end-of-quarter figures).

Note.—Data are not necessarily comparable from one period to another due to changes in accounting procedures, industry classifications, sampling procedures, etc. For explanatory notes concerning compilation of the series, see "Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations," Department of Commerce, Bureau of the Census.

Source: Department of Commerce, Bureau of the Census.

TABLE B–89.—*Relation of profits after taxes to stockholders' equity and to sales, all manufacturing corporations, 1947–91*

Year or quarter	Ratio of profits after income taxes (annual rate) to stockholders' equity—percent [1]			Profits after income taxes per dollar of sales—cents		
	All manufacturing corporations	Durable goods industries	Nondurable goods industries	All manufacturing corporations	Durable goods industries	Nondurable goods industries
1947	15.6	14.4	16.6	6.7	6.7	6.7
1948	16.0	15.7	16.2	7.0	7.1	6.8
1949	11.6	12.1	11.2	5.8	6.4	5.4
1950	15.4	16.9	14.1	7.1	7.7	6.5
1951	12.1	13.0	11.2	4.9	5.3	4.5
1952	10.3	11.1	9.7	4.3	4.5	4.1
1953	10.5	11.1	9.9	4.3	4.2	4.3
1954	9.9	10.3	9.6	4.5	4.6	4.4
1955	12.6	13.8	11.4	5.4	5.7	5.1
1956	12.3	12.8	11.8	5.3	5.2	5.3
1957	10.9	11.3	10.6	4.8	4.8	4.9
1958	8.6	8.0	9.2	4.2	3.9	4.4
1959	10.4	10.4	10.4	4.8	4.8	4.9
1960	9.2	8.5	9.8	4.4	4.0	4.8
1961	8.9	8.1	9.6	4.3	3.9	4.7
1962	9.8	9.6	9.9	4.5	4.4	4.7
1963	10.3	10.1	10.4	4.7	4.5	4.9
1964	11.6	11.7	11.5	5.2	5.1	5.4
1965	13.0	13.8	12.2	5.6	5.7	5.5
1966	13.4	14.2	12.7	5.6	5.6	5.6
1967	11.7	11.7	11.8	5.0	4.8	5.3
1968	12.1	12.2	11.9	5.1	4.9	5.2
1969	11.5	11.4	11.5	4.8	4.6	5.0
1970	9.3	8.3	10.3	4.0	3.5	4.5
1971	9.7	9.0	10.3	4.1	3.8	4.5
1972	10.6	10.8	10.5	4.3	4.2	4.4
1973	12.8	13.1	12.6	4.7	4.7	4.8
1973: IV	13.4	12.9	14.0	4.7	4.5	5.0
New series:						
1973: IV	14.3	13.3	15.3	5.6	5.0	6.1
1974	14.9	12.6	17.1	5.5	4.7	6.4
1975	11.6	10.3	12.9	4.6	4.1	5.1
1976	13.9	13.7	14.2	5.4	5.2	5.5
1977	14.2	14.5	13.8	5.3	5.3	5.3
1978	15.0	16.0	14.2	5.4	5.5	5.3
1979	16.4	15.4	17.4	5.7	5.2	6.1
1980	13.9	11.2	16.3	4.8	4.0	5.6
1981	13.6	11.9	15.2	4.7	4.2	5.1
1982	9.2	6.1	11.9	3.5	2.4	4.4
1983	10.6	8.1	12.7	4.1	3.1	4.9
1984	12.5	12.4	12.5	4.6	4.4	4.8
1985	10.1	9.2	11.0	3.8	3.4	4.1
1986	9.5	7.5	11.5	3.7	2.9	4.6
1987	12.8	11.9	13.7	4.9	4.5	5.2
1988	16.1	14.3	17.9	6.0	5.2	6.7
1989	13.6	11.1	16.2	5.0	4.1	5.8
1990	10.7	8.0	13.4	4.0	3.0	4.9
1989: I	15.3	12.9	17.8	5.7	4.8	6.6
II	14.8	13.4	16.2	5.2	4.7	5.6
III	13.4	11.0	15.7	4.9	4.2	5.6
IV	11.2	7.3	15.1	4.1	2.7	5.5
1990: I	10.9	9.3	12.5	4.2	3.6	4.7
II	13.5	12.1	14.9	5.0	4.4	5.5
III	11.2	7.2	15.1	4.2	2.8	5.5
IV	7.1	3.2	10.9	2.6	1.2	3.8
1991: I	6.9	1.1	12.4	2.8	.5	4.9
II	8.7	5.9	11.3	3.3	2.2	4.3
III	6.9	1.3	12.1	2.7	.5	4.6

[1] Annual ratios based on average equity for the year (using four end-of-quarter figures). Quarterly ratios based on equity at end of quarter only.

Note.—Based on data in millions of dollars.
See Note, Table B–88.

Source: Department of Commerce, Bureau of the Census.

TABLE B–90.—*Sources and uses of funds, nonfarm nonfinancial corporate business, 1947–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Sources											Uses			Discrepancy (sources less uses)
	Total	Internal					External					Total	Capital expenditures [3]	Increase in financial assets	
		Total	U.S. undistributed profits	Inventory valuation and capital consumption adjustments	Capital consumption allowances	Foreign earnings [1]	Total	Credit market funds			Other [2]				
								Total	Securities and mortgages	Loans and short-term paper					
1947	27.5	13.3	12.7	−8.7	9.0	0.3	14.1	8.4	5.4	3.0	5.7	20.4	12.1	8.4	7.0
1948	29.5	19.7	14.0	−5.2	10.4	.4	9.9	7.4	6.7	.7	2.5	25.6	20.7	5.0	3.9
1949	20.5	20.0	9.6	−1.0	11.2	.3	.4	3.0	4.9	−1.9	−2.6	13.1	9.6	3.5	7.4
1950	42.6	18.5	14.1	−7.9	12.0	.3	24.0	8.1	4.2	3.9	16.0	40.4	24.0	16.4	2.2
1951	36.9	20.8	10.8	−4.4	13.8	.6	16.2	10.9	6.4	4.4	5.3	37.9	30.5	7.4	−1.0
1952	30.2	22.5	8.9	−2.0	14.8	.8	7.8	9.2	8.1	1.1	−1.4	30.0	25.5	4.6	.2
1953	28.6	22.3	9.2	−3.3	15.9	.7	6.2	5.8	6.2	−.4	.4	28.2	25.9	2.3	.4
1954	29.8	24.4	9.0	−1.9	16.8	.5	5.4	6.3	6.7	−.5	−.9	28.0	23.1	4.9	1.8
1955	53.4	29.9	13.4	−2.0	17.8	.8	23.4	10.3	6.6	3.7	13.2	48.8	32.3	16.5	4.6
1956	45.1	30.1	12.7	−3.7	20.0	1.0	15.1	12.6	7.4	5.3	2.4	41.0	37.1	4.0	4.1
1957	43.5	32.0	11.5	−2.7	22.0	1.2	11.5	12.0	10.1	1.9	−.5	39.8	35.5	4.2	3.8
1958	42.2	30.7	8.3	−1.5	23.0	.8	11.6	10.4	10.5	−.1	1.2	38.4	27.6	10.8	3.8
1959	57.2	37.0	13.0	−1.0	24.1	.9	20.2	12.2	8.3	4.0	8.0	51.7	37.5	14.2	5.5
1960	48.9	36.5	10.6	−.4	25.1	1.2	12.4	11.3	7.4	3.9	1.0	41.3	37.4	3.9	7.5
1961	56.4	37.5	10.2	.6	25.8	1.0	18.9	12.0	10.5	1.5	6.9	51.0	36.7	14.2	5.4
1962	61.1	44.0	13.0	3.2	26.8	1.1	17.1	12.6	8.7	3.9	4.5	54.8	42.4	12.5	6.2
1963	69.7	47.8	14.5	4.0	27.9	1.4	21.9	12.3	8.5	3.8	9.6	60.5	44.8	15.7	9.3
1964	75.2	53.0	18.4	4.0	29.3	1.3	22.2	14.2	8.2	6.0	8.1	64.9	50.1	14.9	10.3
1965	93.7	60.1	23.4	4.0	31.3	1.4	33.6	18.9	7.0	11.9	14.7	82.9	61.1	21.8	10.8
1966	99.9	64.3	25.0	3.5	34.1	1.7	35.6	24.6	14.2	10.4	11.0	90.8	74.0	16.7	9.1
1967	96.1	65.3	22.2	4.2	37.3	1.6	30.7	27.4	19.2	8.2	3.4	88.4	71.9	16.4	7.7
1968	114.9	66.7	21.3	1.9	41.1	2.3	48.2	27.5	14.9	12.6	20.7	107.6	76.8	30.8	7.2
1969	117.4	66.5	18.4	.4	45.0	2.8	50.9	32.5	14.6	17.8	18.4	116.7	85.0	31.7	.6
1970	102.9	64.0	12.6	−1.1	49.4	3.2	38.9	34.1	26.2	7.8	4.9	100.3	81.5	18.7	2.6
1971	128.9	76.1	18.7	.0	54.2	3.2	52.8	37.5	32.9	4.6	15.3	124.7	88.0	36.7	4.2
1972	155.2	88.1	24.6	−1.6	60.5	4.7	67.1	42.5	26.5	16.0	24.6	149.7	99.6	50.1	5.5
1973	217.0	95.5	36.9	−15.2	65.6	8.1	121.5	76.5	44.6	31.9	45.0	194.9	124.2	70.7	22.1
1974	180.5	91.0	45.3	−38.8	76.8	7.7	89.4	54.6	21.2	33.5	34.8	194.9	142.4	52.5	−14.4
1975	155.6	125.0	43.4	−18.6	92.2	8.1	30.6	23.0	39.3	−16.3	7.7	158.1	117.0	41.1	−2.5
1976	211.2	140.5	56.5	−26.1	102.5	7.6	70.7	50.9	42.6	8.3	19.9	212.6	159.1	53.5	−1.4
1977	256.5	162.7	66.9	−27.0	114.8	8.1	93.8	69.6	44.8	24.8	24.2	250.0	187.4	62.6	6.5
1978	313.5	183.7	78.7	−37.8	131.1	11.7	129.8	71.0	37.8	33.2	58.8	331.9	224.2	107.7	−18.4
1979	324.4	198.5	86.4	−58.0	151.6	18.6	125.9	60.1	8.8	51.3	65.8	374.6	244.8	129.8	−50.2
1980	320.6	199.7	69.2	−61.4	173.3	18.7	120.8	68.4	27.8	40.6	52.5	352.6	254.2	98.4	−32.1
1981	375.4	238.9	64.2	−44.8	205.3	14.2	136.5	90.4	23.2	67.2	46.0	407.9	310.9	97.0	−32.6
1982	313.7	247.6	30.6	−22.4	227.6	11.8	66.1	50.7	−4.0	54.7	15.4	333.1	286.1	47.0	−19.5
1983	431.2	292.3	30.5	2.9	240.2	18.8	138.9	81.0	45.5	35.5	57.9	425.9	303.8	122.1	5.3
1984	491.4	336.4	46.4	24.1	246.2	19.7	155.0	92.5	−13.0	105.5	62.5	504.3	399.1	105.2	−12.9
1985	464.3	351.9	21.7	54.4	256.1	19.8	112.3	52.4	−4.5	56.9	59.9	459.2	375.3	83.9	5.1
1986	521.5	336.8	−2.1	53.4	269.3	16.2	184.7	126.7	60.9	65.8	58.0	504.7	353.9	150.8	16.8
1987	545.0	376.1	41.3	30.6	279.3	24.8	168.9	63.0	27.5	35.4	106.0	478.3	365.8	112.5	66.7
1988	586.7	404.4	73.6	15.7	295.2	19.9	182.3	63.0	−13.0	76.0	119.3	563.5	394.5	169.0	23.2
1989	548.4	405.0	48.5	7.0	313.9	35.5	143.5	42.1	−41.8	83.9	101.4	529.2	421.4	107.9	19.2
1990	466.7	381.5	24.6	−10.8	324.5	43.2	85.2	12.5	−17.4	30.0	72.6	484.7	403.1	81.6	−18.0
1989:															
I	538.3	401.4	54.8	−5.2	305.9	45.9	136.9	−6.3	−101.8	95.5	143.2	509.3	420.7	88.6	29.0
II	629.4	404.3	51.7	12.7	309.6	30.3	225.0	129.2	−.6	129.8	95.8	567.3	419.2	148.0	62.1
III	473.2	410.5	42.4	18.2	317.6	32.3	62.7	6.6	−85.5	92.1	56.0	489.1	416.4	72.7	−15.9
IV	553.0	403.7	45.2	2.5	322.5	33.5	149.3	38.9	20.7	18.2	110.5	551.3	429.1	122.2	1.7
1990:															
I	525.3	393.8	27.8	4.8	319.2	41.9	131.5	37.2	−30.4	67.6	94.3	505.6	402.4	103.3	19.6
II	518.2	395.2	31.7	9.9	322.2	31.4	122.9	49.8	8.4	41.3	73.2	516.4	415.9	100.5	1.8
III	443.7	361.2	31.0	−32.7	326.7	36.1	82.6	−1.7	−48.8	47.0	84.3	522.0	418.1	103.9	−78.3
IV	379.5	375.9	7.8	−25.2	329.9	63.4	3.6	−35.1	.9	−36.0	38.6	394.7	376.2	18.6	−15.2
1991:															
I	474.7	390.5	.2	−1.8	334.6	57.4	84.3	6.7	57.6	−50.8	77.5	445.2	354.8	90.4	29.5
II	465.3	390.3	3.7	2.4	337.2	47.0	75.0	42.8	102.9	−60.1	32.2	440.2	359.5	80.7	25.1
III	469.9	386.7	7.3	−7.8	338.3	48.9	83.2	59.0	94.9	−35.9	24.2	482.0	389.8	92.2	−12.2

[1] Foreign branch profits, dividends, and subsidiaries' earnings retained abroad.
[2] Consists of tax liabilities, trade debt, and direct foreign investment in the United States.
[3] Plant and equipment, residential structures, inventory investment, and mineral rights from U.S. Government.

Source: Board of Governors of the Federal Reserve System.

TABLE B–91.—*Common stock prices and yields, 1952–91*

Year or month	Common stock prices [1]							Common stock yields (percent) [5]	
	New York Stock Exchange indexes (Dec. 31, 1965=50) [2]					Dow Jones industrial average [3]	Standard & Poor's composite index (1941–43=10) [4]	Dividend-price ratio [6]	Earnings-price ratio [7]
	Composite	Industrial	Transportation	Utility	Finance				
1952	13.81					270.76	24.50	5.80	9.47
1953	13.67					275.97	24.73	5.80	10.26
1954	16.19					333.94	29.69	4.95	8.57
1955	21.54					442.72	40.49	4.08	7.95
1956	24.40					493.01	46.62	4.09	7.55
1957	23.67					475.71	44.38	4.35	7.89
1958	24.56					491.66	46.24	3.97	6.23
1959	30.73					632.12	57.38	3.23	5.78
1960	30.01					618.04	55.85	3.47	5.90
1961	35.37					691.55	66.27	2.98	4.62
1962	33.49					639.76	62.38	3.37	5.82
1963	37.51					714.81	69.87	3.17	5.50
1964	43.76					834.05	81.37	3.01	5.32
1965	47.39					910.88	88.17	3.00	5.59
1966	46.15	46.18	50.26	45.41	44.45	873.60	85.26	3.40	6.63
1967	50.77	51.97	53.51	45.43	49.82	879.12	91.93	3.20	5.73
1968	55.37	58.00	50.58	44.19	65.85	906.00	98.70	3.07	5.67
1969	54.67	57.44	46.96	42.80	70.49	876.72	97.84	3.24	6.08
1970	45.72	48.03	32.14	37.24	60.00	753.19	83.22	3.83	6.45
1971	54.22	57.92	44.35	39.53	70.38	884.76	98.29	3.14	5.41
1972	60.29	65.73	50.17	38.48	78.35	950.71	109.20	2.84	5.50
1973	57.42	63.08	37.74	37.69	70.12	923.88	107.43	3.06	7.12
1974	43.84	48.08	31.89	29.79	49.67	759.37	82.85	4.47	11.59
1975	45.73	50.52	31.10	31.50	47.14	802.49	86.16	4.31	9.15
1976	54.46	60.44	39.57	36.97	52.94	974.92	102.01	3.77	8.90
1977	53.69	57.86	41.09	40.92	55.25	894.63	98.20	4.62	10.79
1978	53.70	58.23	43.50	39.22	56.65	820.23	96.02	5.28	12.03
1979	58.32	64.76	47.34	38.20	61.42	844.40	103.01	5.47	13.46
1980	68.10	78.70	60.61	37.35	64.25	891.41	118.78	5.26	12.66
1981	74.02	85.44	72.61	38.91	73.52	932.92	128.05	5.20	11.96
1982	68.93	78.18	60.41	39.75	71.99	884.36	119.71	5.81	11.60
1983	92.63	107.45	89.36	47.00	95.34	1,190.34	160.41	4.40	8.03
1984	92.46	108.01	85.63	46.44	89.28	1,178.48	160.46	4.64	10.02
1985	108.09	123.79	104.11	56.75	114.21	1,328.23	186.84	4.25	8.12
1986	136.00	155.85	119.87	71.36	147.20	1,792.76	236.34	3.49	6.09
1987	161.70	195.31	140.39	74.30	146.48	2,275.99	286.83	3.08	5.48
1988	149.91	180.95	134.12	71.77	127.26	2,060.82	265.79	3.64	8.01
1989	180.02	216.23	175.28	87.43	151.88	2,508.91	322.84	3.45	7.41
1990	183.46	225.78	158.62	90.60	133.26	2,678.94	334.59	3.61	6.47
1991	206.33	258.14	173.99	92.66	150.82	2,929.33	376.18	3.24	
1990: Jan.	187.96	225.79	173.67	95.69	150.11	2,679.24	339.97	3.41	
Feb.	182.55	220.60	166.58	92.15	142.68	2,614.18	330.45	3.54	
Mar.	186.26	226.14	175.08	93.00	143.13	2,700.13	338.47	3.49	6.37
Apr.	185.61	226.86	173.55	91.92	138.57	2,708.26	338.18	3.51	
May	191.35	234.85	173.53	93.29	142.94	2,793.81	350.25	3.44	
June	196.68	242.42	177.37	93.65	147.93	2,894.82	360.39	3.36	5.94
July	196.61	245.86	173.18	89.85	143.11	2,934.23	360.03	3.37	
Aug.	181.45	226.73	147.41	85.81	128.14	2,681.89	330.75	3.65	
Sept.	173.22	216.81	136.95	83.30	118.59	2,550.69	315.41	3.85	7.10
Oct.	168.05	208.58	131.90	87.27	108.01	2,460.54	307.12	4.01	
Nov.	172.21	212.81	132.96	89.69	113.76	2,518.56	315.29	3.91	
Dec.	179.57	221.88	141.31	91.56	122.18	2,610.92	328.75	3.74	6.46
1991: Jan.	177.95	220.69	145.89	88.59	121.39	2,587.60	325.49	3.82	
Feb.	197.75	246.74	166.06	92.08	141.03	2,863.04	362.26	3.35	
Mar.	203.57	255.36	166.26	92.29	145.42	2,920.11	372.28	3.26	5.58
Apr.	207.71	260.15	166.90	92.92	152.64	2,925.54	379.68	3.19	
May	206.93	260.13	170.77	90.76	151.32	2,928.42	377.99	3.23	
June	207.32	261.16	177.05	89.01	152.31	2,968.14	378.29	3.23	5.23
July	208.29	262.48	177.15	90.05	151.60	2,978.19	380.23	3.20	
Aug.	213.33	268.22	178.52	92.38	157.70	3,006.09	389.40	3.10	
Sept.	212.55	266.21	177.99	93.72	157.69	3,010.35	387.20	3.15	4.60
Oct.	213.10	265.68	187.31	95.25	158.94	3,019.74	386.88	3.14	
Nov.	213.25	264.89	188.52	96.78	159.78	2,986.12	385.92	3.15	
Dec.	214.26	266.01	185.47	98.08	159.96	2,958.64	388.51	3.11	

[1] Averages of daily closing prices, except New York Stock Exchange data through May 1964 are averages of weekly closing prices.
[2] Includes all the stocks (more than 1,500) listed on the New York Stock Exchange.
[3] Includes 30 stocks.
[4] Includes 500 stocks.
[5] Standard & Poor's series, based on 500 stocks in the composite index.
[6] Aggregate cash dividends (based on latest known annual rate) divided by aggregate market value based on Wednesday closing prices. Monthly data are averages of weekly figures; annual data are averages of monthly figures.
[7] Quarterly data are ratio of earnings (after taxes) for 4 quarters ending with particular quarter to price index for last day of that quarter. Annual data are averages of quarterly ratios.

Note.—All data relate to stocks listed on the New York Stock Exchange.

Sources: New York Stock Exchange, Dow Jones & Co., Inc., and Standard & Poor's Corporation.

TABLE B–92.—*Business formation and business failures, 1950–91*

Year or month	Index of net business formation (1967=100)	New business incorporations (number)	Business failures[1]						
			Business failure rate[2]	Number of failures			Amount of current liabilities (millions of dollars)		
				Total	Liability size class		Total	Liability size class	
					Under $100,000	$100,000 and over		Under $100,000	$100,000 and over
1950	87.7	93,092	34.3	9,162	8,746	416	248.3	151.2	97.1
1951	86.7	83,778	30.7	8,058	7,626	432	259.5	131.6	128.0
1952	90.8	92,946	28.7	7,611	7,081	530	283.3	131.9	151.4
1953	89.7	102,706	33.2	8,862	8,075	787	394.2	167.5	226.6
1954	88.8	117,411	42.0	11,086	10,226	860	462.6	211.4	251.2
1955	96.6	139,915	41.6	10,969	10,113	856	449.4	206.4	243.0
1956	94.6	141,163	48.0	12,686	11,615	1,071	562.7	239.8	322.9
1957	90.3	137,112	51.7	13,739	12,547	1,192	615.3	267.1	348.2
1958	90.2	150,781	55.9	14,964	13,499	1,465	728.3	297.6	430.7
1959	97.9	193,067	51.8	14,053	12,707	1,346	692.8	278.9	413.9
1960	94.5	182,713	57.0	15,445	13,650	1,795	938.6	327.2	611.4
1961	90.8	181,535	64.4	17,075	15,006	2,069	1,090.1	370.1	720.0
1962	92.6	182,057	60.8	15,782	13,772	2,010	1,213.6	346.5	867.1
1963	94.4	186,404	56.3	14,374	12,192	2,182	1,352.6	321.0	1,031.6
1964	98.2	197,724	53.2	13,501	11,346	2,155	1,329.2	313.6	1,015.6
1965	99.8	203,897	53.3	13,514	11,340	2,174	1,321.7	321.7	1,000.0
1966	99.3	200,010	51.6	13,061	10,833	2,228	1,385.7	321.5	1,064.1
1967	100.0	206,569	49.0	12,364	10,144	2,220	1,265.2	297.9	967.3
1968	108.3	233,635	38.6	9,636	7,829	1,807	941.0	241.1	699.9
1969	115.8	274,267	37.3	9,154	7,192	1,962	1,142.1	231.3	910.8
1970	108.8	264,209	43.8	10,748	8,019	2,729	1,887.8	269.3	1,618.4
1971	111.1	287,577	41.7	10,326	7,611	2,715	1,916.9	271.3	1,645.6
1972	119.3	316,601	38.3	9,566	7,040	2,526	2,000.2	258.8	1,741.5
1973	119.1	329,358	36.4	9,345	6,627	2,718	2,298.6	235.6	2,063.0
1974	113.2	319,149	38.4	9,915	6,733	3,182	3,053.1	256.9	2,796.3
1975	109.9	326,345	42.6	11,432	7,504	3,928	4,380.2	298.6	4,081.6
1976	120.4	375,766	34.8	9,628	6,176	3,452	3,011.3	257.8	2,753.4
1977	130.8	436,170	28.4	7,919	4,861	3,058	3,095.3	208.3	2,887.0
1978	138.1	478,019	23.9	6,619	3,712	2,907	2,656.0	164.7	2,491.3
1979	138.3	524,565	27.8	7,564	3,930	3,634	2,667.4	179.9	2,487.5
1980	129.9	533,520	42.1	11,742	5,682	6,060	4,635.1	272.5	4,362.6
1981	124.8	581,242	61.3	16,794	8,233	8,561	6,955.2	405.8	6,549.3
1982	116.4	566,942	89.0	24,908	11,509	13,399	15,610.8	541.7	15,069.1
1983	117.5	600,400	110.0	31,334	15,509	15,825	16,072.9	635.1	15,437.8
1984	121.3	634,991	107.0	52,078	19,618	32,460	29,268.6	409.8	28,858.8
1985	120.9	662,047	115.0	57,253	36,539	20,714	36,937.4	423.9	36,513.5
1986	120.4	702,738	120.0	61,616	38,908	22,708	44,724.0	838.3	43,885.7
1987	121.2	685,572	102.0	61,111	38,949	22,162	34,723.8	746.0	33,977.8
1988	124.1	685,095	98.0	57,097	38,300	18,797	39,573.0	686.9	38,886.1
1989	124.8	676,565	65.0	50,361	33,312	17,049	42,328.8	670.5	41,658.2
1990	120.7	646,107	75.0	60,508	40,530	19,978	59,836.5	730.0	59,106.5
1991 [p]			98.0	87,592	60,306	27,286	110,934.0	940.7	109,993.3
	Seasonally adjusted								
1990: Jan	125.9	58,813		4,644	3,038	1,606	6,167.9	56.9	6,111.1
Feb	125.1	56,058		4,165	2,757	1,408	7,247.4	50.2	7,197.2
Mar	124.7	56,172		4,768	3,110	1,658	3,579.7	57.5	3,522.1
Apr	123.3	55,000		4,709	3,086	1,623	6,365.2	58.9	6,306.3
May	121.6	53,616		5,128	3,469	1,659	4,688.1	61.9	4,626.2
June	121.1	53,784		5,255	3,473	1,782	6,911.8	61.3	6,850.5
July	120.0	52,142		4,756	3,261	1,495	2,143.7	56.2	2,087.5
Aug	119.7	52,958		5,637	3,826	1,811	5,973.9	66.3	5,907.6
Sept	118.6	52,176		4,865	3,331	1,534	4,017.2	56.4	3,960.8
Oct	117.2	51,899		6,079	4,109	1,970	4,473.0	73.9	4,399.0
Nov	116.1	51,429		5,354	3,612	1,742	3,591.9	70.3	3,521.5
Dec	115.2	52,060		5,148	3,458	1,690	4,676.5	60.1	4,616.4
1991: Jan	115.5	51,991		6,792	4,522	2,270	12,555.7	74.8	12,480.9
Feb	114.9	50,384		6,980	4,586	2,394	17,763.8	75.1	17,688.7
Mar	114.2	51,536		7,433	5,012	2,421	7,928.8	79.2	7,849.6
Apr	115.0	52,235		7,568	5,167	2,401	8,280.3	80.9	8,199.4
May	115.7	52,327		7,803	5,391	2,412	11,805.7	86.9	11,718.8
June	116.1	52,071		6,956	4,870	2,086	15,816.7	80.9	15,735.8
July	115.5	52,803		7,660	5,279	2,381	6,184.5	86.9	6,097.6
Aug	115.9	53,315		7,423	5,220	2,203	3,187.5	73.7	3,113.8
Sept	115.2	52,234		6,835	4,786	2,049	5,952.2	68.5	5,883.7
Oct	113.2			8,486	6,022	2,464	10,337.7	87.3	10,250.4
Nov	113.3			7,087	4,911	2,176	4,568.9	74.8	4,494.1
Dec [p]				6,569	4,540	2,029	6,552.2	71.7	6,480.5

[1] Commercial and industrial failures only through 1983, excluding failures of banks, railroads, real estate, insurance, holding, and financial companies, steamship lines, travel agencies, etc.

Data beginning 1984 are based on expanded coverage and new methodology and are therefore not generally comparable with earlier data. Data for 1990 and 1991 are subject to revision due to amended court filings.

[2] Failure rate per 10,000 listed enterprises.

Sources: Department of Commerce (Bureau of Economic Analysis) and The Dun & Bradstreet Corporation.

TABLE B–93.—*Farm income, 1940–91*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Income of farm operators from farming							
	Gross farm income					Production expenses	Net farm income	
	Total [1]	Cash marketing receipts			Value of inventory changes [2]		Current dollars	1987 dollars [3]
		Total	Livestock and products	Crops				
1940	11.3	8.4	4.9	3.5	0.3	6.9	4.5	
1941	14.3	11.1	6.5	4.6	.4	7.8	6.5	
1942	19.9	15.6	9.0	6.5	1.1	10.0	9.9	
1943	23.3	19.6	11.5	8.1	−.1	11.6	11.7	
1944	24.0	20.5	11.4	9.2	−.4	12.3	11.7	
1945	25.4	21.7	12.0	9.7	−.4	13.1	12.3	
1946	29.6	24.8	13.8	11.0	.0	14.5	15.1	
1947	32.4	29.6	16.5	13.1	−1.8	17.0	15.4	
1948	36.5	30.2	17.1	13.1	1.7	18.8	17.7	
1949	30.8	27.8	15.4	12.4	−.9	18.0	12.8	
1950	33.1	28.5	16.1	12.4	.8	19.5	13.6	
1951	38.3	32.9	19.6	13.2	1.2	22.3	15.9	
1952	37.8	32.5	18.2	14.3	.9	22.8	15.0	
1953	34.4	31.0	16.9	14.1	−.6	21.5	13.0	
1954	34.2	29.8	16.3	13.6	.5	21.8	12.4	
1955	33.5	29.5	16.0	13.5	.2	22.2	11.3	
1956	34.0	30.4	16.4	14.0	−.5	22.7	11.3	
1957	34.8	29.7	17.4	12.3	.6	23.7	11.1	
1958	39.0	33.5	19.2	14.2	.8	25.8	13.2	
1959	37.9	33.6	18.9	14.7	.0	27.2	10.7	41.9
1960	38.6	34.0	19.0	15.0	.4	27.4	11.2	43.1
1961	40.5	35.2	19.5	15.7	.3	28.6	12.0	45.5
1962	42.3	36.5	20.2	16.3	.6	30.3	12.1	45.0
1963	43.4	37.5	20.0	17.4	.6	31.6	11.8	43.3
1964	42.3	37.3	19.9	17.4	−.8	31.8	10.5	37.9
1965	46.5	39.4	21.9	17.5	1.0	33.6	12.9	45.4
1966	50.5	43.4	25.0	18.4	−.1	36.5	14.0	47.5
1967	50.5	42.8	24.4	18.4	.7	38.2	12.3	40.7
1968	51.8	44.2	25.5	18.7	.1	39.5	12.3	38.9
1969	56.4	48.2	28.6	19.6	.1	42.1	14.3	42.9
1970	58.8	50.5	29.5	21.0	.0	44.5	14.4	40.9
1971	62.1	52.7	30.5	22.3	1.4	47.1	15.0	40.6
1972	71.1	61.1	35.6	25.5	.9	51.7	19.5	50.1
1973	98.9	86.9	45.8	41.1	3.4	64.6	34.4	83.2
1974	98.2	92.4	41.3	51.1	−1.6	71.0	27.3	60.7
1975	100.6	88.9	43.1	45.8	3.4	75.0	25.5	51.9
1976	102.9	95.4	46.3	49.0	−1.5	82.7	20.2	38.6
1977	108.8	96.2	47.6	48.6	1.1	88.9	19.9	35.6
1978	128.4	112.4	59.2	53.2	1.9	103.3	25.2	41.8
1979	150.7	131.5	69.2	62.3	5.0	123.3	27.4	41.9
1980	149.3	139.7	68.0	71.7	−6.3	133.1	16.1	22.5
1981	166.3	141.6	69.2	72.5	6.5	139.4	26.9	34.1
1982	164.1	142.6	70.3	72.3	−1.4	140.3	23.8	28.4
1983	153.9	136.8	69.6	67.2	−10.9	139.6	14.2	16.3
1984	168.0	142.8	72.9	69.9	6.0	141.9	26.1	28.7
1985	161.2	144.1	69.8	74.3	−2.3	132.4	28.8	30.5
1986	156.1	135.3	71.6	63.7	−2.2	125.1	31.0	32.0
1987	168.4	141.8	76.0	65.8	−2.3	128.7	39.7	39.7
1988	174.5	151.1	79.4	71.6	−3.5	133.9	40.6	39.1
1989	190.3	160.9	84.1	76.8	4.3	140.2	50.1	46.2
1990	195.1	170.0	89.6	80.4	2.9	144.3	50.8	45.0
1989: I	191.7	155.4	82.0	73.4	3.4	140.6	51.1	47.8
II	190.4	159.1	81.2	77.9	4.5	141.3	49.1	45.5
III	186.8	165.6	84.0	81.6	4.6	140.9	45.9	42.1
IV	192.4	163.4	89.3	74.1	4.6	138.1	54.3	49.4
1990: I	199.7	166.0	89.4	76.6	4.6	142.0	57.7	51.9
II	191.4	166.8	87.9	78.9	3.5	143.4	48.0	42.7
III	188.0	173.7	90.7	83.0	2.3	143.8	44.2	38.9
IV	201.4	173.4	90.3	83.1	1.4	148.0	53.4	46.6
1991: I	186.9	162.4	86.5	75.9	1.1	147.4	39.4	34.1
II	197.6	173.7	83.9	89.8	.6	148.4	49.2	42.1
III [p]	186.7	172.2	85.9	86.3	.2	144.8	41.9	35.8

[1] Cash marketing receipts and inventory changes plus Government payments, other farm cash income, and nonmoney income furnished by farms.

[2] Physical changes in end-of-period inventory of crop and livestock commodities valued at average prices during the period.

[3] Income in current dollars divided by the GDP implicit price deflator (Department of Commerce); the deflator is not yet available prior to 1959.

Note.—Data include net Commodity Credit Corporation loans and operator households.

Source: Department of Agriculture, except as noted.

TABLE B–94.—*Farm output and productivity indexes, 1947–91*

[1977=100]

Year	Farm output						Productivity indicators		
		Crops[2]				Livestock and products[2]	Farm output		Crop production per acre[5]
	Total[1]	Total[3]	Feed grains	Food grains	Oil crops		Per unit of total input	Per hour of farm work[4]	
1947	58	56	39	64	22	65	55	18	57
1948	63	64	57	62	27	64	60	21	64
1949	62	61	50	53	26	67	57	20	60
1950	61	59	51	49	26	70	58	22	59
1951	63	60	47	49	26	73	60	24	59
1952	66	62	50	63	26	74	62	26	62
1953	66	62	49	57	26	74	64	28	62
1954	66	61	51	51	28	77	65	29	61
1955	69	63	54	48	30	79	66	30	63
1956	69	63	54	50	34	79	67	31	64
1957	67	62	58	47	33	78	67	33	65
1958	73	69	64	69	39	79	74	39	73
1959	74	68	66	55	36	83	73	39	72
1960	76	72	69	66	38	82	76	42	77
1961	76	70	62	60	43	86	78	44	78
1962	77	71	62	56	44	86	78	46	81
1963	80	74	68	59	46	89	82	51	83
1964	79	72	59	65	46	91	81	52	81
1965	82	76	70	67	53	89	84	56	85
1966	79	73	70	67	55	91	83	59	83
1967	83	77	79	76	56	94	85	64	86
1968	85	79	75	80	64	94	87	68	89
1969	85	80	78	74	65	95	88	72	91
1970	84	77	71	69	66	99	87	74	88
1971	92	86	92	81	68	100	95	85	96
1972	91	87	88	77	74	101	94	83	99
1973	93	92	91	86	87	99	95	86	99
1974	88	84	74	91	71	100	90	81	88
1975	95	93	91	108	86	95	99	90	96
1976	97	92	96	107	74	99	98	97	94
1977	100	100	100	100	100	100	100	100	100
1978	104	102	108	93	105	101	101	104	105
1979	111	113	116	108	129	104	105	113	113
1980	104	101	97	121	99	108	101	109	100
1981	118	117	121	144	114	109	116	123	115
1982	116	117	122	138	121	107	119	125	116
1983	96	88	67	117	91	109	100	100	100
1984	112	111	116	129	106	107	118	121	112
1985	118	118	134	121	117	110	129	139	120
1986	111	109	123	107	110	110	124	139	116
1987	110	108	106	107	108	113	124	142	123
1988	102	92	73	98	89	116	116	135	106
1989	114	107	108	107	106	116	130	147	119
1990	119	114	112	136	107	118	135	142	127
1991 [p]	120	111	107	105	113	119	.....	.....	.....

[1] Farm output measures the annual volume of net farm production available for eventual human use through sales from farms or consumption in farm households.

[2] Gross production.

[3] Includes items not included in groups shown.

[4] Survey-based labor productivity time series; not comparable with data published in the issues of the *Economic Report of the President* prior to January 1989.

[5] Computed from variable weights for individual crops produced each year.

Source: Department of Agriculture.

TABLE B–95.—*Farm input use, selected inputs, 1947–90*

Year	Farm population, April [1]		Farm employment (thousands) [3]			Crops harvested (millions of acres) [4]	Selected indexes of input use (1977=100)					
	Number (thousands)	As percent of total population [2]	Total	Family workers	Hired workers		Total	Farm labor	Farm real estate	Mechanical power and machinery	Agricultural chemicals [5]	Feed, seed, and livestock purchases [6]
1947	25,829	17.9	10,382	8,115	2,267	355	104	297	106	54	15	51
1948	24,383	16.6	10,363	8,026	2,337	356	104	285	107	62	16	52
1949	24,194	16.2	9,964	7,712	2,252	360	108	285	108	68	18	56
1950	23,048	15.2	9,926	7,597	2,329	345	106	265	109	72	19	58
1951	21,890	14.2	9,546	7,310	2,236	344	106	251	109	77	21	62
1952	21,748	13.9	9,149	7,005	2,144	349	105	237	108	81	23	63
1953	19,874	12.5	8,864	6,775	2,089	348	103	220	108	82	24	63
1954	19,019	11.7	8,651	6,570	2,081	346	102	214	108	82	24	65
1955	19,078	11.5	8,381	6,345	2,036	340	104	220	108	83	26	66
1956	18,712	11.1	7,852	5,900	1,952	324	103	212	106	84	27	69
1957	17,656	10.3	7,600	5,660	1,940	324	100	196	105	83	27	68
1958	17,128	9.8	7,503	5,521	1,982	324	98	182	104	83	28	73
1959	16,592	9.3	7,342	5,390	1,952	324	101	183	105	84	32	77
1960	15,635	8.7	7,057	5,172	1,885	324	99	177	103	83	32	77
1961	14,803	8.1	6,919	5,029	1,890	302	98	167	103	80	35	81
1962	14,313	7.7	6,700	4,873	1,827	295	98	163	104	80	38	83
1963	13,367	7.1	6,518	4,738	1,780	298	98	155	104	79	43	83
1964	12,954	6.7	6,110	4,506	1,604	298	98	148	104	80	46	85
1965	12,363	6.4	5,610	4,128	1,482	298	97	144	103	80	49	86
1966	11,595	5.9	5,214	3,854	1,360	294	96	132	102	82	56	89
1967	10,875	5.5	4,903	3,650	1,253	306	98	128	104	85	66	92
1968	10,454	5.2	4,749	3,535	1,213	300	97	124	102	86	69	89
1969	10,307	5.1	4,596	3,419	1,176	290	96	118	102	86	73	93
1970	9,712	4.7	4,523	3,348	1,175	293	96	112	105	85	75	96
1971	9,425	4.5	4,436	3,275	1,161	305	97	108	103	87	81	102
1972	9,610	4.6	4,373	3,228	1,146	294	97	110	102	86	86	104
1973	9,472	4.5	4,337	3,169	1,168	321	98	109	100	90	90	107
1974	9,264	4.3	4,389	3,075	1,314	328	98	109	99	92	92	99
1975	8,864	4.1	4,342	3,026	1,317	336	97	106	97	96	83	93
1976	8,253	3.8	4,374	2,997	1,377	337	98	100	98	98	96	101
1977	[7] 6,194	[7] 2.8	4,155	2,859	1,296	345	100	100	100	100	100	100
1978	[7] 6,501	[7] 2.9	3,957	2,689	1,268	338	102	100	100	104	107	108
1979	[7] 6,241	[7] 2.8	3,774	2,501	1,273	348	105	99	103	104	123	115
1980	[7] 6,051	[7] 2.7	3,705	2,402	1,303	352	103	96	103	101	123	114
1981	[7] 5,850	[7] 2.5	[8] 3,552	[8] 2,267	[8] 1,285	366	102	96	104	98	129	108
1982	[7] 5,628	[7] 2.4	[8] 3,400	[8] 2,136	[8] 1,264	362	98	93	102	89	118	107
1983	[7] 5,787	[7] 2.5	[8] 3,247	[8] 2,007	[8] 1,240	306	96	97	101	86	102	103
1984	5,754	2.4	[8] 3,094	[8] 1,976	[8] 1,118	348	95	92	99	85	120	103
1985	5,355	2.2	2,941	1,904	1,037	342	91	85	97	80	115	102
1986	5,226	2.2	2,749	1,768	981	325	89	80	96	77	109	109
1987	4,986	2.1	2,734	1,743	992	302	89	78	95	74	111	116
1988	4,951	2.0	2,789	1,810	979	297	87	75	94	74	112	111
1989	4,801	1.9	2,873	1,926	947	318	87	76	93	73	119	113
1990	4,591	1.8	2,869	1,965	904	322	88	80	93	71	122	113

[1] Farm population as defined by Department of Agriculture and Department of Commerce, i.e., civilian population living on farms in rural areas, regardless of occupation. See also footnote 7.

[2] Total population of United States including Armed Forces overseas, as of July 1.

[3] Includes persons doing farmwork on all farms. These data, published by the Department of Agriculture, differ from those on agricultural employment by the Department of Labor (see Table B–30) because of differences in the method of approach, in concepts of employment, and in time of month for which the data are collected.

[4] Acreage harvested plus acreages in fruits, tree nuts, and farm gardens.

[5] Fertilizer, lime, and pesticides.

[6] Nonfarm constant dollar value of feed, seed, and livestock purchases.

[7] Based on new definition of a farm. Under old definition of a farm, farm population (in thousands and as percent of total population) for 1977, 1978, 1979, 1980, 1981, 1982, and 1983 is 7,806 and 3.6; 8,005 and 3.6; 7,553 and 3.4; 7,241 and 3.2; 7,014 and 3.1; 6,880 and 3.0; 7,029 and 3.0, respectively.

[8] Basis for farm employment series was discontinued for 1981 through 1984. Employment is estimated for these years.

Note.—Population includes Alaska and Hawaii beginning 1960.

Sources: Department of Agriculture and Department of Commerce (Bureau of the Census).

TABLE B–96.—*Indexes of prices received and prices paid by farmers, 1950–91*

[1977=100]

Year or month	Prices received by farmers			Prices paid by farmers						Addendum: Average farm real estate value per acre[3]
				All commodities, services, interest, taxes, and wage rates[1]	Production items				Wage rates	
	All farm products	Crops	Livestock and products		Total[2]	Tractors and self-propelled machinery	Fertilizer	Fuels and energy		
1950	56	54	58	37	42		54		22	14
1951	66	61	70	41	47		57		25	16
1952	63	62	64	42	47		59		26	18
1953	56	55	56	40	44		59		27	18
1954	54	56	52	40	44		59		27	18
1955	51	53	49	40	43		58		27	19
1956	50	54	47	40	43		57		28	19
1957	51	52	51	42	44		58		29	21
1958	55	52	57	43	46		58		30	22
1959	53	51	53	43	46		57		32	23
1960	52	51	53	44	46		57		33	24
1961	53	52	52	44	46		58		33	25
1962	53	54	53	45	47		58		34	26
1963	53	55	51	45	47		57		35	27
1964	52	55	49	45	47		57		36	29
1965	54	53	54	47	48	39	57	49	38	31
1966	58	55	60	49	50	40	56	49	41	33
1967	55	52	57	49	50	42	55	50	44	35
1968	56	52	60	51	50	44	52	50	48	38
1969	59	50	67	53	52	47	48	51	53	40
1970	60	52	67	55	54	49	48	52	57	42
1971	62	56	67	58	57	51	50	53	59	43
1972	69	60	77	62	61	54	52	54	63	47
1973	98	91	104	71	73	58	56	57	69	53
1974	105	117	94	81	83	68	92	79	79	66
1975	101	105	98	89	91	82	120	88	85	75
1976	102	102	101	95	97	91	102	93	93	86
1977	100	100	100	100	100	100	100	100	100	100
1978	115	105	124	108	108	109	100	105	107	109
1979	132	116	147	123	125	122	108	137	117	125
1980	134	125	144	138	138	136	134	188	127	145
1981	139	134	143	150	148	152	144	213	138	158
1982	133	121	145	159	153	165	144	210	144	157
1983	135	128	141	161	152	174	137	202	148	148
1984	142	138	146	164	155	181	143	201	151	146
1985	128	120	136	162	151	178	135	201	154	128
1986	123	107	138	159	144	174	124	162	159	112
1987	127	106	146	162	148	174	118	164	166	103
1988	138	126	150	170	157	181	130	167	171	106
1989	148	134	160	178	165	193	137	180	185	111
1990	149	127	170	184	171	202	131	204	191	112
1991	146	130	162	189	173	211	134	203	201	115
1990: Jan	152	132	171	181	169	199	131	201	192	112
Feb	151	131	169							
Mar	150	128	171							
Apr	151	130	170	183	170	201	130	188	193	
May	153	132	173							
June	152	129	173							
July	151	128	172	184	170	201	130	187	192	
Aug	149	123	174							
Sept	147	121	171							
Oct	146	121	170	187	174	208	132	239	185	
Nov	145	123	166							
Dec	142	121	163							
1991: Jan	144	121	166	188	173	208	132	219	202	115
Feb	144	122	166							
Mar	148	127	169							
Apr	148	130	166	189	175	210	136	198	203	
May	151	137	165							
June	153	142	163							
July	149	136	162	189	173	210	136	196	203	
Aug	146	133	158							
Sept	147	137	157							
Oct	142	126	158	189	172	216	132	200	193	
Nov	139	124	154							
Dec	137	120	154							

[1] Includes items used for family living, not shown separately.
[2] Includes other items not shown separately.
[3] Average for 48 States. Annual data are for March 1 of each year through 1975, February 1 for 1976–81, April 1 for 1982–85, February 1 for 1986–89, and January 1 for 1990 and 1991.

Source: Department of Agriculture.

TABLE B–97.—*U.S. exports and imports of agricultural commodities, 1940–91*

[Billions of dollars]

Year	Exports							Imports					Agricultural trade balance
	Total[1]	Feed grains	Food grains[2]	Oilseeds and products	Cotton	Tobacco	Animals and products	Total[1]	Crops, fruits, and vegetables[3]	Animals and products	Coffee	Cocoa beans and products	
1940	0.5	(4)	(4)	(4)	0.2	(4)	0.1	1.3	(4)	0.2	0.1	(4)	−0.8
1941	.7	(4)	0.1	(4)	.1	0.1	.3	1.7	0.1	.3	.2	(4)	−1.0
1942	1.2	(4)	(4)	(4)	.1	.1	.8	1.3	(4)	.5	.2	(4)	−.1
1943	2.1	(4)	.1	0.1	.2	.2	1.2	1.5	.1	.4	.3	(4)	.6
1944	2.1	(4)	.1	.1	.1	.1	1.3	1.8	.1	.3	.3	(4)	.3
1945	2.3	(4)	.4	(4)	.3	.2	.9	1.7	.1	.4	.3	(4)	.5
1946	3.1	0.1	.7	(4)	.5	.4	.9	2.3	.2	.4	.5	0.1	.8
1947	4.0	.4	1.4	.1	.4	.3	.7	2.8	.1	.4	.6	.2	1.2
1948	3.5	.1	1.5	.2	.5	.2	.5	3.1	.2	.6	.7	.2	.3
1949	3.6	.3	1.1	.3	.9	.3	.4	2.9	.2	.4	.8	.1	.7
1950	2.9	.2	.6	.2	1.0	.3	.3	4.0	.2	.7	1.1	.2	−1.1
1951	4.0	.3	1.1	.3	1.1	.3	.5	5.2	.2	1.1	1.4	.2	−1.1
1952	3.4	.3	1.1	.2	.9	.2	.3	4.5	.2	.7	1.4	.2	−1.1
1953	2.8	.3	.7	.2	.5	.3	.4	4.2	.2	.6	1.5	.2	−1.3
1954	3.1	.2	.5	.3	.8	.3	.5	4.0	.2	.5	1.5	.3	−.9
1955	3.2	.3	.6	.4	.5	.4	.6	4.0	.2	.5	1.4	.2	−.8
1956	4.2	.4	1.0	.5	.7	.3	.7	4.0	.2	.4	1.4	.2	.2
1957	4.5	.3	1.0	.5	1.0	.4	.7	4.0	.2	.5	1.4	.2	.6
1958	3.9	.5	.8	.4	.7	.4	.5	3.9	.2	.7	1.2	.2	(4)
1959	4.0	.6	.9	.6	.4	.3	.6	4.1	.2	.8	1.1	.2	−.1
1960	4.8	.5	1.2	.6	1.0	.4	.6	3.8	.2	.6	1.0	.2	1.0
1961	5.0	.5	1.4	.6	.9	.4	.6	3.7	.2	.7	1.0	.2	1.3
1962	5.0	.8	1.3	.7	.5	.4	.6	3.9	.2	.9	1.0	.2	1.2
1963	5.6	.8	1.5	.8	.6	.4	.7	4.0	.3	.9	1.0	.2	1.6
1964	6.3	.9	1.7	1.0	.7	.4	.8	4.1	.3	.8	1.2	.2	2.3
1965	6.2	1.1	1.4	1.2	.5	.4	.8	4.1	.3	.9	1.1	.1	2.1
1966	6.9	1.3	1.8	1.2	.4	.5	.7	4.5	.4	1.2	1.1	.1	2.4
1967	6.4	1.1	1.5	1.3	.5	.5	.7	4.5	.4	1.1	1.0	.2	1.9
1968	6.3	.9	1.4	1.3	.5	.5	.7	5.0	.5	1.3	1.2	.2	1.3
1969	6.0	.9	1.2	1.3	.3	.6	.8	5.0	.5	1.4	.9	.2	1.1
1970	7.3	1.1	1.4	1.9	.4	.5	.9	5.8	.5	1.6	1.2	.3	1.5
1971	7.7	1.0	1.3	2.2	.6	.5	1.0	5.8	.6	1.5	1.2	.2	1.9
1972	9.4	1.5	1.8	2.4	.5	.7	1.1	6.5	.7	1.8	1.3	.2	2.9
1973	17.7	3.5	4.7	4.3	.9	.7	1.6	8.4	.8	2.6	1.7	.3	9.3
1974	21.9	4.6	5.4	5.7	1.3	.8	1.8	10.2	.8	2.2	1.6	.5	11.7
1975	21.9	5.2	6.2	4.5	1.0	.9	1.7	9.3	.8	1.8	1.7	.5	12.6
1976	23.0	6.0	4.7	5.1	1.0	.9	2.4	11.0	.9	2.3	2.9	.6	12.0
1977	23.6	4.9	3.6	6.6	1.5	1.1	2.7	13.4	1.2	2.3	4.2	1.0	10.2
1978	29.4	5.9	5.5	8.2	1.7	1.4	3.0	14.8	1.5	3.1	4.0	1.4	14.6
1979	34.7	7.7	6.3	8.9	2.2	1.2	3.8	16.7	1.7	3.9	4.2	1.2	18.0
1980	41.2	9.8	7.9	9.4	2.9	1.3	3.8	17.4	1.6	3.8	4.2	.9	23.9
1981	43.3	9.4	9.6	9.6	2.3	1.5	4.2	16.8	2.0	3.5	2.9	.9	26.6
1982	36.6	6.4	7.9	9.1	2.0	1.5	3.9	15.4	2.3	3.7	2.9	.7	21.2
1983	36.1	7.3	7.4	8.7	1.8	1.5	3.8	16.6	2.3	3.8	2.8	.8	19.5
1984	37.8	8.1	7.5	8.4	2.4	1.5	4.2	19.3	3.1	4.1	3.3	1.1	18.5
1985	29.0	6.0	4.5	5.8	1.6	1.5	4.1	20.0	3.5	4.2	3.3	1.4	9.1
1986	26.2	3.1	3.8	6.5	.8	1.2	4.5	21.5	3.6	4.5	4.6	1.1	4.7
1987	28.7	3.8	3.8	6.4	1.6	1.1	5.2	20.4	3.6	4.9	2.9	1.2	8.3
1988	37.1	5.9	5.9	7.7	2.0	1.3	6.4	21.0	3.8	5.2	2.5	1.0	16.1
1989	39.9	7.7	7.1	6.3	2.3	1.3	6.4	21.7	4.2	5.1	2.4	1.0	18.2
1990	39.3	7.0	4.8	5.7	2.8	1.4	6.7	22.8	4.9	5.6	1.9	1.1	16.5
Jan–Nov:													
1990	36.2	6.6	4.5	5.2	2.5	1.2	6.2	21.0	4.5	5.2	1.8	1.0	15.2
1991	35.3	5.3	3.8	5.5	2.2	1.3	6.3	20.8	4.3	5.1	1.7	1.0	14.5

[1] Total includes items not shown separately.
[2] Rice, wheat, and wheat flour.
[3] Includes nuts, fruits, and vegetable preparations.
[4] Less than $50 million.

Note.—Data derived from official estimates released by the Bureau of the Census, Department of Commerce. Agricultural commodities are defined as (1) nonmarine food products and (2) other products of agriculture which have not passed through complex processes of manufacture. Export value, at U.S. port of exportation, is based on the selling price and includes inland freight, insurance, and other charges to the port. Import value, defined generally as the market value in the foreign country, excludes import duties, ocean freight, and marine insurance.

Source: Department of Agriculture.

TABLE B–98.—*Balance sheet of the farm sector, 1939–91*

[Billions of dollars]

End of year	Assets									Claims			
		Physical assets						Financial assets					
			Nonreal estate										
	Total assets	Real estate	Livestock and poultry [1]	Machinery and motor vehicles	Crops [2]	Purchased inputs [3]	Household equipment and furnishings	Investments in cooperatives	Other [4]	Total claims	Real estate debt [5]	Nonreal estate debt [6]	Proprietors' equity
1939	52.6	33.6	5.1	3.1	2.2		4.2	0.8	3.5	52.6	6.6	3.0	43.0
1940	53.7	34.0	5.3	3.3	2.3		4.1	.9	3.9	53.7	6.5	3.3	43.8
1941	61.4	36.6	7.1	4.0	3.2		4.8	.9	4.7	61.4	6.4	3.5	51.5
1942	72.9	41.5	9.6	4.9	4.3		4.8	1.0	6.5	72.9	6.0	3.2	63.7
1943	82.9	47.7	9.7	5.4	5.5		4.7	1.1	8.8	82.9	5.4	2.9	74.5
1944	92.1	52.9	9.0	6.5	6.0		5.2	1.2	11.3	92.1	4.9	2.7	84.4
1945	102.4	60.5	9.7	5.4	6.0		5.6	1.7	13.5	102.4	4.8	2.9	94.8
1946	116.4	68.7	11.9	5.3	7.0		7.2	1.9	14.4	116.4	4.9	3.5	108.1
1947	127.4	73.5	13.3	7.4	8.9		8.1	2.0	14.3	127.4	5.1	4.1	118.3
1948	133.2	76.0	14.4	10.1	7.4		8.9	2.2	14.2	133.2	5.3	4.9	123.0
1949	130.7	75.1	12.9	12.2	5.9		8.4	2.4	13.8	130.7	5.6	5.2	119.9
1950	153.3	88.9	17.1	14.1	7.1		9.6	2.7	13.8	153.3	6.1	6.1	141.1
1951	170.1	98.7	19.5	16.7	8.2		10.0	2.9	14.1	170.1	6.7	7.4	156.0
1952	166.8	100.0	14.8	17.4	7.9		9.6	3.2	14.1	166.8	7.3	7.7	151.9
1953	162.8	98.9	11.7	18.4	6.8		9.5	3.3	14.2	162.8	7.8	6.8	148.2
1954	167.5	102.5	11.2	18.7	7.5		9.7	3.5	14.4	167.5	8.3	7.2	152.0
1955	173.0	108.2	10.6	19.3	6.5		10.0	3.7	14.6	173.0	9.0	7.9	156.0
1956	182.2	116.1	11.0	20.2	6.8		9.6	4.0	14.4	182.2	9.9	8.0	164.4
1957	191.5	122.7	13.9	20.1	6.4		9.6	4.2	14.6	191.5	10.4	8.8	172.3
1958	207.0	131.5	17.7	21.8	6.9		9.4	4.5	15.1	207.0	11.1	10.1	185.8
1959	210.8	138.4	15.2	22.7	6.6		9.2	4.8	13.8	210.8	12.1	11.5	187.2
1960	210.0	139.7	15.6	22.2	6.2		8.7	4.2	13.3	210.0	12.9	12.0	185.1
1961	217.8	145.8	16.4	22.5	6.3		8.9	4.5	13.3	217.8	14.0	12.7	191.1
1962	225.7	151.5	17.3	23.5	6.4		8.8	4.6	13.6	225.7	15.2	14.2	196.3
1963	233.9	159.7	15.9	23.9	7.2		8.8	5.0	13.5	233.9	16.9	15.7	201.4
1964	242.1	168.7	14.4	24.8	6.8		8.4	5.2	13.8	242.1	18.9	16.4	206.8
1965	259.9	180.8	17.6	26.0	7.7		8.4	5.4	14.1	259.9	21.2	18.1	220.6
1966	273.2	190.7	19.0	27.4	7.8		8.3	5.7	14.2	273.2	23.1	19.8	230.3
1967	287.1	201.4	18.8	29.8	7.7		8.8	5.8	14.7	287.1	25.2	20.8	241.1
1968	300.4	211.0	20.2	31.3	7.2		9.4	6.1	15.2	300.4	27.5	20.4	252.5
1969	311.5	217.1	22.5	32.3	8.1		9.6	6.4	15.6	311.5	29.4	21.2	261.0
1970	324.3	224.5	23.7	34.4	8.5		10.0	7.2	16.0	324.3	30.5	22.3	271.5
1971	350.1	240.9	27.3	36.7	9.7		10.8	7.9	16.8	350.1	32.4	25.1	292.6
1972	393.0	268.7	33.7	39.3	12.7		11.9	8.7	18.0	393.0	35.4	28.0	329.7
1973	477.8	329.2	42.4	44.2	21.1		12.3	9.7	19.0	477.8	39.8	33.1	404.9
1974 [7]	513.2	369.5	24.6	53.6	22.4		14.0	11.2	17.8	513.2	44.9	36.7	431.5
1975	579.4	421.0	29.4	63.1	20.5		14.2	13.0	18.4	579.4	49.9	41.6	488.0
1976	667.8	499.8	29.0	70.1	20.6		15.2	14.3	18.7	667.8	55.4	47.8	564.6
1977	735.2	556.5	31.9	76.4	20.6		17.2	13.5	19.0	735.2	63.9	55.0	616.2
1978	862.1	656.0	50.1	76.4	23.9		20.0	16.1	19.7	862.1	72.8	63.8	725.5
1979	1,001.6	767.8	61.4	82.9	30.0		21.5	18.1	19.9	1,001.6	86.8	75.7	839.2
1980	1,089.2	850.1	60.6	86.9	32.8		19.4	19.3	20.0	1,089.2	97.5	81.2	910.5
1981	1,089.4	851.7	53.5	92.5	30.0		20.8	20.6	20.3	1,089.4	107.2	88.2	894.0
1982	1,056.8	819.1	53.0	92.6	26.4		23.0	21.9	20.9	1,056.8	111.3	91.8	853.7
1983	1,064.3	829.3	49.5	92.1	24.4		24.4	22.8	21.8	1,064.3	113.7	92.7	857.9
1984	975.9	735.0	49.5	91.1	26.3	2.0	24.3	24.3	23.4	975.9	112.3	92.0	771.5
1985	892.8	657.0	46.3	88.3	22.9	1.2	27.8	24.3	25.0	892.8	105.7	82.2	704.9
1986	848.0	613.0	47.8	86.1	16.6	2.1	28.7	24.4	29.4	848.0	95.9	70.8	681.3
1987	911.4	658.6	58.0	84.5	17.8	3.0	32.9	25.3	31.4	911.4	87.7	66.0	757.7
1988	956.8	687.0	62.2	86.7	22.7	3.3	37.0	25.1	32.9	956.8	83.0	65.6	808.3
1989	976.0	692.7	66.2	90.2	23.3	2.7	42.2	26.1	32.5	976.0	80.5	65.5	830.0
1990	996.2	702.6	69.1	91.7	22.4	2.8	46.3	27.7	33.5	996.2	78.4	66.7	851.1
1991 [p]	1,010.0	713.0	66.0	93.0	23.0	3.0	49.0	29.0	34.0	1,010.0	79.0	67.0	864.0

[1] Excludes commercial broilers, and beginning 1959 horses and mules.
[2] Non-Commodity Credit Corporation (CCC) crops held on farms plus value above loan rate for crops held under CCC.
[3] Includes fertilizer, chemicals, fuels, parts, feed, seed, and other supplies.
[4] Sum of currency, demand deposits, time deposits, and U.S. savings bonds.
[5] Includes CCC storage and drying facilities loans.
[6] Does not include CCC crop loans.
[7] Beginning 1974, data are for farms included in the new farm definition, that is, places with sales of $1,000 or more annually.

Note.—Data include operator households.
Beginning 1959, data include Alaska and Hawaii.

Source: Department of Agriculture.

TABLE B–99.—*International investment position of the United States at year-end, 1982–90*

[Billions of dollars]

Type of investment	1982	1983	1984	1985	1986	1987	1988	1989	1990
NET INTERNATIONAL INVESTMENT POSITION OF THE UNITED STATES:									
With direct investment at current cost	364.0	285.0	164.0	64.3	−74.1	−135.0	−306.0	−439.7	−412.2
With direct investment at market value	258.5	224.1	111.0	64.5	14.6	−42.2	−150.6	−267.7	−360.6
U.S. ASSETS ABROAD:									
With direct investment at current cost	1,100.6	1,113.7	1,104.6	1,173.9	1,319.1	1,463.4	1,533.7	1,672.5	1,764.1
With direct investment at market value	954.9	1,029.1	1,022.3	1,174.8	1,424.4	1,555.8	1,707.5	1,944.2	1,880.1
U.S. official reserve assets	143.4	123.1	105.0	117.9	139.9	162.4	144.2	168.7	174.7
Gold [1]	120.6	100.5	81.2	85.8	102.4	127.6	107.4	105.2	102.4
Special drawing rights	5.3	5.0	5.6	7.3	8.4	10.3	9.6	10.0	11.0
Reserve position in the International Monetary Fund	7.3	11.3	11.5	11.9	11.7	11.3	9.7	9.0	9.1
Foreign currencies	10.2	6.3	6.7	12.9	17.3	13.1	17.4	44.6	52.2
U.S. Government assets other than official reserves	74.7	79.6	85.0	87.8	89.6	88.6	85.6	84.2	81.2
U.S. credits and other long-term assets	72.9	77.8	82.9	85.8	88.7	87.6	84.9	83.7	80.7
Repayable in dollars	70.9	76.0	81.1	84.1	87.1	86.0	83.4	82.2	79.3
Other	1.9	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.3
U.S. foreign currency holdings and U.S. short-term assets	1.8	1.8	2.1	1.9	.9	1.0	.7	.5	.5
U.S. private assets:									
With direct investment at current cost	882.5	910.9	914.6	968.2	1,089.6	1,212.4	1,303.9	1,419.6	1,508.2
With direct investment at market value	736.8	826.3	832.2	969.1	1,194.9	1,304.9	1,477.8	1,691.3	1,624.2
Direct investment abroad:									
At current cost	374.0	357.9	350.0	379.6	414.1	485.2	505.0	536.1	598.1
At market value	228.3	273.3	267.6	380.5	519.4	577.6	678.8	807.7	714.1
Foreign securities	75.3	83.4	88.9	112.2	131.7	146.7	156.8	190.3	222.3
Bonds	56.7	57.5	61.9	72.9	81.7	92.0	94.0	98.5	129.1
Corporate stocks	18.6	25.9	27.0	39.3	50.0	54.7	62.7	91.7	93.3
U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	28.6	35.1	30.1	29.0	36.4	31.1	34.2	31.6	33.5
U.S. claims reported by U.S. banks, not included elsewhere	404.6	434.5	445.6	447.4	507.3	549.5	608.0	661.7	654.3
FOREIGN ASSETS IN THE UNITED STATES:									
With direct investment at current cost	736.6	828.7	940.7	1,109.5	1,393.2	1,598.4	1,839.7	2,112.2	2,176.2
With direct investment at market value	696.4	804.9	911.2	1,110.3	1,409.8	1,598.1	1,858.1	2,211.9	2,240.7
Foreign official assets in the United States	189.1	194.5	199.7	202.5	241.2	283.0	321.9	337.3	369.6
U.S. Government securities	132.6	137.0	144.7	145.1	178.9	220.5	260.9	265.7	296.0
U.S. Treasury securities	124.9	129.7	138.2	138.4	173.3	213.7	253.0	256.1	285.8
Other	7.7	7.3	6.5	6.6	5.6	6.8	8.0	9.6	10.3
Other U.S. Government liabilities	13.6	14.2	15.0	15.9	18.0	15.6	15.1	15.3	17.1
U.S. liabilities reported by U.S. banks, not included elsewhere	25.0	25.5	26.1	26.7	27.9	31.8	31.5	36.5	39.5
Other foreign official assets	17.9	17.7	14.0	14.9	16.4	15.0	14.4	19.7	17.0
Other foreign assets in the United States:									
With direct investment at current cost	547.5	634.2	741.0	907.0	1,152.0	1,315.3	1,517.8	1,774.9	1,806.6
With direct investment at market value	507.3	610.5	711.5	907.7	1,168.6	1,315.0	1,536.2	1,874.7	1,871.1
Direct investment in the United States:									
At current cost	173.2	181.3	207.2	227.2	266.5	316.0	372.6	433.7	465.9
At market value	133.0	157.5	177.7	227.9	283.2	315.7	391.0	533.5	530.4
U.S. Treasury securities	25.8	33.8	62.1	88.0	96.1	82.6	100.9	134.5	134.4
U.S. securities other than U.S. Treasury securities	93.0	113.8	128.5	207.9	310.9	346.2	395.6	489.1	475.1
Corporate and other bonds	16.7	17.5	32.4	82.3	141.9	170.5	194.6	228.5	244.0
Corporate stocks	76.3	96.4	96.1	125.6	168.9	175.6	201.0	260.6	231.2
U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	27.5	26.9	31.0	29.5	26.9	29.8	35.0	40.4	44.1
U.S. liabilities reported by U.S. banks, not included elsewhere	228.0	278.3	312.2	354.5	451.6	540.7	613.7	677.1	687.0

[1] Valued at market price.

Note.—For details regarding these data, see *Survey of Current Business*, June 1991.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–100.—*U.S. international transactions, 1946–91*

[Millions of dollars; quarterly data seasonally adjusted, except as noted. Credits (+), debits (−)]

Year or quarter	Merchandise[1,2]			Services			Investment income			Balance on goods, services, and income	Unilateral transfers, net[4]	Balance on current account
	Exports	Imports	Net	Net military transactions[3,4]	Net travel and transportation receipts	Other services, net	Receipts on U.S. assets abroad	Payments on foreign assets in U.S.[3]	Net			
1946	11,764	−5,067	6,697	−424	733	310	772	−212	560	7,876	−2,991	4,885
1947	16,097	−5,973	10,124	−358	946	145	1,102	−245	857	11,714	−2,722	8,992
1948	13,265	−7,557	5,708	−351	374	175	1,921	−437	1,484	7,390	−4,973	2,417
1949	12,213	−6,874	5,339	−410	230	208	1,831	−476	1,355	6,722	−5,849	873
1950	10,203	−9,081	1,122	−56	−120	242	2,068	−559	1,509	2,697	−4,537	−1,840
1951	14,243	−11,176	3,067	169	298	254	2,633	−583	2,050	5,838	−4,954	884
1952	13,449	−10,838	2,611	528	83	309	2,751	−555	2,196	5,727	−5,113	614
1953	12,412	−10,975	1,437	1,753	−238	307	2,736	−624	2,112	5,371	−6,657	−1,286
1954	12,929	−10,353	2,576	902	−269	305	2,929	−582	2,347	5,861	−5,642	219
1955	14,424	−11,527	2,897	−113	−297	299	3,406	−676	2,730	5,516	−5,086	430
1956	17,556	−12,803	4,753	−221	−361	447	3,837	−735	3,102	7,720	−4,990	2,730
1957	19,562	−13,291	6,271	−423	−189	482	4,180	−796	3,384	9,525	−4,763	4,762
1958	16,414	−12,952	3,462	−849	−633	486	3,790	−825	2,965	5,431	−4,647	784
1959	16,458	−15,310	1,148	−831	−821	573	4,132	−1,061	3,071	3,140	−4,422	−1,282
1960	19,650	−14,758	4,892	−1,057	−964	639	4,616	−1,238	3,379	6,886	−4,062	2,824
1961	20,108	−14,537	5,571	−1,131	−978	732	4,999	−1,245	3,755	7,949	−4,127	3,822
1962	20,781	−16,260	4,521	−912	−1,152	912	5,618	−1,324	4,294	7,664	−4,277	3,387
1963	22,272	−17,048	5,224	−742	−1,309	1,036	6,157	−1,560	4,596	8,806	−4,392	4,414
1964	25,501	−18,700	6,801	−794	−1,146	1,161	6,824	−1,783	5,041	11,063	−4,240	6,823
1965	26,461	−21,510	4,951	−487	−1,280	1,480	7,437	−2,088	5,350	10,014	−4,583	5,431
1966	29,310	−25,493	3,817	−1,043	−1,331	1,497	7,528	−2,481	5,047	7,987	−4,955	3,031
1967	30,666	−26,866	3,800	−1,187	−1,750	1,742	8,021	−2,747	5,274	7,878	−5,294	2,583
1968	33,626	−32,991	635	−596	−1,548	1,759	9,367	−3,378	5,990	6,240	−5,629	611
1969	36,414	−35,807	607	−718	−1,763	1,964	10,913	−4,869	6,044	6,135	−5,735	399
1970	42,469	−39,866	2,603	−641	−2,038	2,330	11,748	−5,515	6,233	8,486	−6,156	2,331
1971	43,319	−45,579	−2,260	653	−2,345	2,649	12,707	−5,435	7,272	5,969	−7,402	−1,433
1972	49,381	−55,797	−6,416	1,072	−3,063	2,965	14,765	−6,572	8,192	2,749	−8,544	−5,795
1973	71,410	−70,499	911	740	−3,158	3,406	21,808	−9,655	12,153	14,053	−6,913	7,140
1974	98,306	−103,811	−5,505	165	−3,184	4,231	27,587	−12,084	15,503	11,210	[5] −9,249	1,962
1975	107,088	−98,185	8,903	1,461	−2,812	4,854	25,351	−12,564	12,787	25,191	−7,075	18,116
1976	114,745	−124,228	−9,483	931	−2,558	5,027	29,286	−13,311	15,975	9,894	−5,686	4,207
1977	120,816	−151,907	−31,091	1,731	−3,565	5,680	32,178	−14,217	17,961	−9,285	−5,226	−14,511
1978	142,054	−176,001	−33,947	857	−3,573	6,879	41,824	−21,680	20,144	−9,639	−5,788	−15,427
1979	184,473	−212,009	−27,536	−1,313	−2,935	7,251	63,096	−32,961	30,136	5,603	−6,593	−991
1980	224,269	−249,750	−25,481	−1,822	−997	8,912	71,388	−42,532	28,856	9,467	−8,349	1,119
1981	237,085	−265,063	−27,978	−844	144	12,552	84,975	−53,626	31,349	15,223	−8,331	6,892
1982	211,198	−247,642	−36,444	112	−992	12,981	85,346	−57,097	28,250	3,907	−9,775	−5,868
1983	201,820	−268,900	−67,080	−163	−4,227	13,859	81,972	−54,549	27,423	−30,188	−9,956	−40,143
1984	219,900	−332,422	−112,522	−2,147	−9,153	14,042	92,935	−69,542	23,394	−86,385	−12,621	−99,006
1985	215,935	−338,083	−122,148	−4,096	−10,788	14,008	82,282	−66,115	16,166	−106,859	−15,473	−122,332
1986	223,367	−368,425	−145,058	−4,907	−8,939	18,551	80,982	−70,013	10,969	−129,384	−16,009	−145,393
1987	250,266	−409,766	−159,500	−3,662	−8,006	18,012	90,536	−82,908	7,629	−145,527	−14,674	−160,201
1988	320,337	−447,323	−126,986	−5,743	−3,844	19,925	110,669	−105,317	5,353	−111,294	−14,943	−126,236
1989	361,451	−477,368	−115,917	−6,204	2,621	25,998	128,651	−125,963	2,688	−90,814	−15,491	−106,305
1990	389,550	−497,665	−108,115	−7,220	4,140	29,456	130,091	−118,146	11,945	−69,794	−22,329	−92,123
1989:												
I	87,207	−116,625	−29,418	−1,715	261	5,940	30,974	−30,074	900	−24,032	−3,547	−27,579
II	91,609	−120,309	−28,700	−1,634	443	6,374	32,300	−33,484	−1,184	−24,701	−3,107	−27,808
III	90,142	−119,330	−29,188	−1,161	652	6,772	32,217	−31,718	499	−22,426	−3,794	−26,220
IV	92,493	−121,104	−28,611	−1,693	1,265	6,911	33,159	−30,687	2,472	−19,656	−5,044	−24,700
1990:												
I	95,244	−122,781	−27,537	−1,737	941	6,695	31,959	−28,957	3,002	−18,635	−4,032	−22,667
II	97,088	−121,178	−24,090	−1,558	834	7,322	31,314	−31,307	7	−17,485	−4,693	−22,178
III	96,638	−125,398	−28,760	−1,683	479	7,607	32,012	−29,210	2,802	−19,555	−4,326	−23,881
IV	100,580	−128,308	−27,728	−2,243	1,885	7,832	34,805	−28,672	6,133	−14,122	−9,280	−23,402
1991:												
I	100,900	−119,294	−18,394	−2,329	2,056	7,345	32,729	−27,846	4,883	−6,438	16,939	10,501
II	104,245	−119,636	−15,391	−1,484	2,521	7,909	28,287	−25,942	2,345	−4,101	7,129	3,028
III [p]	104,532	−125,018	−20,486	−1,168	2,607	8,023	28,805	−26,303	2,502	−8,522	−1,937	−10,459

[1] Excludes military.
[2] Adjusted from Census data for differences in valuation, coverage, and timing.
[3] Quarterly data are not seasonally adjusted.
[4] Includes transfers of goods and services under U.S. military grant programs.

See next page for continuation of table.

TABLE B–100.—*U.S. international transactions, 1946–91*—Continued

[Millions of dollars; quarterly data seasonally adjusted, except as noted]

Year or quarter	U.S. assets abroad, net [increase/capital outflow (–)]				Foreign assets in the U.S., net [increase/capital inflow (+)] [3]			Allocations of special drawing rights (SDRs)	Statistical discrepancy	
	Total	U.S. official reserve assets [5] [6]	Other U.S. Government assets	U.S. private assets	Total	Foreign official assets	Other foreign assets		Total (sum of the items with sign reversed)	Of which: Seasonal adjustment discrepancy
1946		–623								
1947		–3,315								
1948		–1,736								
1949		–266								
1950		1,758								
1951		–33								
1952		–415								
1953		1,256								
1954		480								
1955		182								
1956		–869								
1957		–1,165								
1958		2,292								
1959		1,035								
1960	–4,099	2,145	–1,100	–5,144	2,294	1,473	821		–1,019	
1961	–5,538	607	–910	–5,235	2,705	765	1,939		–989	
1962	–4,174	1,535	–1,085	–4,623	1,911	1,270	641		–1,124	
1963	–7,270	378	–1,662	–5,986	3,217	1,986	1,231		–360	
1964	–9,560	171	–1,680	–8,050	3,643	1,660	1,983		–907	
1965	–5,716	1,225	–1,605	–5,336	742	134	607		–457	
1966	–7,321	570	–1,543	–6,347	3,661	–672	4,333		629	
1967	–9,757	53	–2,423	–7,386	7,379	3,451	3,928		–205	
1968	–10,977	–870	–2,274	–7,833	9,928	–774	10,703		438	
1969	–11,585	–1,179	–2,200	–8,206	12,702	–1,301	14,002		–1,516	
1970	–9,337	2,481	–1,589	–10,229	6,359	6,908	–550	867	–219	
1971	–12,475	2,349	–1,884	–12,940	22,970	26,879	–3,909	717	–9,779	
1972	–14,497	–4	–1,568	–12,925	21,461	10,475	10,986	710	–1,879	
1973	–22,874	158	–2,644	–20,388	18,388	6,026	12,362		–2,654	
1974	–34,745	–1,467	[5] 366	–33,643	34,241	10,546	23,696		–1,458	
1975	–39,703	–849	–3,474	–35,380	15,670	7,027	8,643		5,917	
1976	–51,269	–2,558	–4,214	–44,498	36,518	17,693	18,826		10,544	
1977	–34,785	–375	–3,693	–30,717	51,319	36,816	14,503		–2,023	
1978	–61,130	732	–4,660	–57,202	64,036	33,678	30,358		12,521	
1979	–64,331	–1,133	–3,746	–59,453	38,752	–13,665	52,416	1,139	25,431	
1980	–86,118	–8,155	–5,162	–72,802	58,112	15,497	42,615	1,152	25,736	
1981	–110,951	–5,175	–5,097	–100,679	83,032	4,960	78,072	1,093	19,934	
1982	–124,490	–4,965	–6,131	–113,394	93,746	3,593	90,154		36,612	
1983	–56,100	–1,196	–5,006	–49,898	84,869	5,845	79,023		11,374	
1984	–31,070	–3,131	–5,489	–22,451	102,621	3,140	99,481		27,456	
1985	–27,721	–3,858	–2,821	–21,043	130,012	–1,083	131,096		20,041	
1986	–92,030	312	–2,022	–90,321	221,599	35,588	186,011		15,824	
1987	–62,937	9,149	1,006	–73,091	229,828	45,343	184,485		–6,690	
1988	–86,057	–3,912	2,966	–85,111	221,534	39,657	181,877		–9,240	
1989	–128,610	–25,293	1,320	–104,637	216,549	8,624	207,925		18,366	
1990	–57,706	–2,158	2,976	–58,524	86,303	32,425	53,879		63,526	
1989: I	–37,576	–4,000	928	–34,504	69,557	7,766	61,791		–4,402	4,066
II	–4,270	–12,095	–292	8,117	2,498	–5,038	7,536		29,580	–780
III	–45,743	–5,996	564	–40,311	74,255	13,053	61,202		–2,292	–6,379
IV	–41,021	–3,202	119	–37,938	70,238	–7,158	77,396		–4,517	3,096
1990: I	37,147	–3,177	–669	40,993	–33,082	–7,022	–26,059		18,601	4,367
II	–33,462	371	–800	–33,033	31,257	5,805	25,452		24,383	105
III	–26,689	1,739	–314	–28,114	49,096	13,341	35,754		1,475	–6,473
IV	–34,703	–1,091	4,759	–38,370	39,033	20,301	18,732		19,072	2,007
1991: I	–923	–353	1,422	–1,992	–729	6,631	–7,361		–8,849	3,995
II	–14,982	1,014	–493	–15,503	3,503	–3,105	6,608		8,451	166
III [p]	–11,971	3,877	2,715	–18,564	22,816	4,309	18,507		–386	–6,059

[5] Includes extraordinary U.S. Government transactions with India.

[6] Consists of gold, special drawing rights, foreign currencies, and the U.S. reserve position in the International Monetary Fund (IMF).

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–101.—*U.S. merchandise exports and imports by principal end-use category, 1965–91*

[Billions of dollars; quarterly data seasonally adjusted]

Year or quarter	Exports							Imports						
	Total	Agricultural products	Nonagricultural products					Total	Petroleum and products	Nonpetroleum products				
			Total	Industrial supplies and materials	Capital goods except automotive	Automotive	Other			Total	Industrial supplies and materials	Capital goods except automotive	Automotive	Other
1965	26.5	6.3	20.2	7.6	8.1	1.9	2.6	21.5	2.0	19.5	9.1	1.5	0.9	8.0
1966	29.3	6.9	22.4	8.2	8.9	2.4	2.9	25.5	2.1	23.4	10.2	2.2	1.8	9.2
1967	30.7	6.5	24.2	8.5	9.9	2.8	3.0	26.9	2.1	24.8	10.0	2.5	2.4	9.9
1968	33.6	6.3	27.3	9.6	11.1	3.5	3.2	33.0	2.4	30.6	12.0	2.8	4.0	11.8
1969	36.4	6.1	30.3	10.3	12.4	3.9	3.7	35.8	2.6	33.2	11.8	3.4	4.9	13.0
1970	42.5	7.4	35.1	12.3	14.7	3.9	4.3	39.9	2.9	36.9	12.4	4.0	5.5	15.0
1971	43.3	7.8	35.5	10.9	15.4	4.7	4.5	45.6	3.7	41.9	13.8	4.3	7.4	16.4
1972	49.4	9.5	39.9	11.9	16.9	5.5	5.6	55.8	4.7	51.1	16.3	5.9	8.7	20.2
1973	71.4	18.0	53.4	17.0	22.0	6.9	7.6	70.5	8.4	62.1	19.6	8.3	10.3	23.9
1974	98.3	22.4	75.9	26.3	30.9	8.6	10.0	103.8	26.6	77.2	27.8	9.8	12.0	27.5
1975	107.1	22.2	84.8	26.8	36.6	10.6	10.8	98.2	27.0	71.2	24.0	10.2	11.7	25.3
1976	114.7	23.4	91.4	28.4	39.1	12.1	11.7	124.2	34.6	89.7	29.8	12.3	16.2	31.4
1977	120.8	24.3	96.5	29.8	39.8	13.4	13.5	151.9	45.0	106.9	35.7	14.0	18.6	38.6
1978 [1]	142.1	29.9	112.2	34.0	47.3	15.7	15.2	176.0	42.6	133.4	40.6	19.4	25.0	48.4
1979	184.5	35.6	148.9	52.1	60.0	18.3	18.5	212.0	61.0	151.1	47.5	24.5	26.5	52.6
1980	224.3	42.2	182.1	65.3	76.3	17.4	23.2	249.8	79.4	170.4	52.9	31.4	28.1	58.0
1981	237.1	44.0	193.0	63.8	83.9	19.7	25.6	265.1	78.6	186.5	56.4	36.9	30.9	62.3
1982	211.2	37.2	174.0	58.0	76.0	17.4	22.5	247.6	62.0	185.6	48.9	38.4	34.0	64.3
1983	201.8	37.1	164.7	52.9	71.3	18.6	21.8	268.9	55.3	213.6	53.9	43.2	43.2	73.3
1984	219.9	38.4	181.5	56.8	77.0	22.6	25.1	332.4	58.0	274.4	66.0	60.5	56.6	91.4
1985	215.9	29.6	186.4	54.8	79.6	25.1	26.8	338.1	51.3	286.8	62.4	61.4	65.1	97.9
1986	223.4	27.4	196.0	59.4	82.9	25.3	28.3	368.4	34.4	334.0	69.9	72.1	78.1	113.9
1987	250.3	29.5	220.7	63.6	92.4	28.1	36.6	409.8	42.9	366.8	70.8	85.1	85.2	125.7
1988	320.3	38.2	282.1	82.6	119.0	33.9	46.6	447.3	39.6	407.7	83.1	102.2	87.9	134.5
1989	361.5	42.2	319.3	91.9	139.3	34.9	53.1	477.4	50.9	426.4	84.2	112.5	87.4	142.4
1990	389.6	40.2	349.3	96.7	153.8	37.4	61.4	497.7	62.1	435.6	82.5	116.4	87.3	149.3
1989: I	87.2	10.7	76.5	22.3	32.7	8.8	12.8	116.6	11.0	105.6	21.4	26.8	23.3	34.1
II	91.6	10.8	80.8	23.8	35.0	8.8	13.2	120.3	13.6	106.8	21.3	28.4	21.8	35.3
III	90.1	10.1	80.0	23.2	35.9	8.4	12.5	119.3	13.1	106.3	20.6	28.2	21.3	36.1
IV	92.5	10.5	82.0	22.7	35.8	9.0	14.5	121.1	13.3	107.8	20.9	29.0	21.0	36.9
1990: I	95.2	10.7	84.5	23.1	37.8	8.9	14.8	122.8	15.8	107.0	20.2	28.4	21.4	37.0
II	97.1	10.2	86.9	23.2	38.8	9.7	15.2	121.2	12.8	108.4	20.5	28.9	21.8	37.1
III	96.6	9.8	86.8	23.9	38.3	9.6	15.1	125.4	15.5	109.9	20.8	29.1	22.6	37.5
IV	100.6	9.5	91.1	26.5	39.0	9.3	16.4	128.3	18.0	110.3	21.0	30.0	21.5	37.8
1991: I	100.9	9.9	91.0	26.3	39.0	8.5	17.2	119.3	13.2	106.1	20.1	29.8	20.5	35.7
II	104.2	9.6	94.7	25.4	42.6	10.1	16.5	119.6	12.9	106.7	20.2	30.3	19.7	36.6
III [p]	104.5	10.2	94.4	25.1	41.6	11.2	16.5	125.0	13.0	112.0	20.1	30.5	23.0	38.4

[1] End-use categories beginning 1978 are not strictly comparable with data for earlier periods. See *Survey of Current Business*, June 1988.

Note.—Data are on an international transactions basis and exclude military.

In June 1990, end-use categories for merchandise exports were redefined to include reexports; beginning with data for 1978 reexports (exports of foreign merchandise) are assigned to detailed end-use categories in the same manner as exports of domestic merchandise.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–102.—*U.S. merchandise exports and imports by area, 1982–91*

[Billions of dollars]

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991 first 3 quarters at annual rate[1]
Exports	211.2	201.8	219.9	215.9	223.4	250.3	320.3	361.5	389.6	412.9
Industrial countries	127.3	128.4	141.0	140.5	150.3	165.6	207.3	233.8	254.1	260.0
Canada	39.2	44.5	53.0	55.4	56.5	62.0	74.3	80.7	83.6	84.8
Japan	20.7	21.8	23.2	22.1	26.4	27.6	37.2	43.9	48.0	47.7
Western Europe	59.7	55.4	56.9	56.0	60.4	68.6	86.4	98.4	111.4	116.3
Australia, New Zealand, and South Africa	7.7	6.6	7.8	7.0	7.1	7.4	9.4	10.9	11.2	11.2
Australia	4.4	3.9	4.8	5.1	5.1	5.3	6.8	8.1	8.3	8.0
Other countries, except Eastern Europe	80.1	70.4	74.6	72.0	71.0	82.4	109.1	121.9	130.6	147.9
OPEC[2]	20.7	15.3	13.8	11.4	10.4	10.7	13.8	13.1	13.4	17.8
Other[3]	59.5	55.2	60.8	60.6	60.6	71.7	95.3	108.9	117.2	130.2
Eastern Europe	3.7	3.0	4.3	3.3	2.1	2.3	3.8	5.5	4.3	4.5
International organizations and unallocated	.1	.1	.0	.2			.1	.2	.6	.4
Imports	247.6	268.9	332.4	338.1	368.4	409.8	447.3	477.4	497.7	485.3
Industrial countries	144.1	159.9	205.5	219.1	245.4	259.7	283.4	292.5	299.3	291.8
Canada	48.5	56.0	67.6	70.4	69.7	73.6	84.7	89.9	93.0	92.9
Japan	37.7	42.8	60.2	65.7	80.8	84.6	89.8	93.5	89.7	90.2
Western Europe	52.9	55.6	72.1	77.5	89.0	96.1	102.6	102.4	109.3	101.4
Australia, New Zealand, and South Africa	5.0	5.4	5.6	5.6	5.9	5.4	6.2	6.6	7.3	7.3
Australia	2.3	2.3	2.7	2.7	2.6	3.0	3.5	3.9	4.4	4.2
Other countries, except Eastern Europe	102.4	107.6	124.7	117.1	121.1	148.2	161.8	182.8	196.1	191.7
OPEC[2]	31.5	25.3	26.9	22.7	18.9	24.4	23.0	30.7	38.0	33.3
Other[3]	70.9	82.3	97.8	94.5	102.2	123.8	138.8	152.1	158.1	158.4
Eastern Europe	1.1	1.4	2.2	1.8	2.0	1.9	2.2	2.1	2.3	1.8
International organizations and unallocated	.0	.0								
Balance (excess of exports +)	−36.4	−67.1	−112.5	−122.1	−145.1	−159.5	−127.0	−115.9	−108.1	−72.4
Industrial countries	−16.9	−31.5	−64.5	−78.6	−95.0	−94.0	−76.0	−58.7	−45.2	−31.8
Canada	−9.3	−11.5	−14.6	−15.0	−13.2	−11.6	−10.4	−9.3	−9.5	−8.0
Japan	−17.0	−21.1	−37.0	−43.5	−54.4	−57.0	−52.6	−49.7	−41.7	−42.6
Western Europe	6.8	−.2	−15.2	−21.4	−28.6	−27.5	−16.2	−4.0	2.1	14.9
Australia, New Zealand, and South Africa	2.6	1.2	2.2	1.4	1.1	2.0	3.2	4.2	3.8	3.9
Australia	2.1	1.6	2.1	2.4	2.5	2.3	3.3	4.2	3.9	3.8
Other countries, except Eastern Europe	−22.3	−37.2	−50.1	−45.2	−50.1	−65.8	−52.7	−60.9	−65.6	−43.7
OPEC[2]	−10.9	−10.0	−13.1	−11.3	−8.5	−13.7	−9.3	−17.6	−24.6	−15.5
Other[3]	−11.4	−27.1	−37.0	−33.9	−41.6	−52.1	−43.4	−43.2	−40.9	−28.2
Eastern Europe	2.7	1.6	2.1	1.4	.1	.3	1.7	3.5	2.1	2.7
International organizations and unallocated	.0	.1	.0	.2			.1	.2	.6	.4

[1] Preliminary; seasonally adjusted.

[2] Organization of Petroleum Exporting Countries, consisting of Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

[3] Latin America, other Western Hemisphere, and other countries in Asia and Africa, less members of OPEC.

Note.—Data are on an international transactions basis and exclude military.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–103.—*U.S. merchandise exports, imports, and trade balance, 1972–91*

[Billions of dollars; monthly data seasonally adjusted]

Year or month	Merchandise exports (f.a.s. value) [1]							General merchandise imports (customs value) [3]							General merchandise imports (c.i.f. value) [4]	Trade balance	
		Principal end-use commodity category							Principal end-use commodity category								
	Total [2]	Foods, feeds, and beverages	Industrial supplies and materials	Capital goods except automotive	Automotive vehicles, parts, and engines	Consumer goods (nonfood) except automotive	Other [2]	Total	Foods, feeds, and beverages	Industrial supplies and materials	Capital goods except automotive	Automotive vehicles, parts, and engines	Consumer goods (nonfood) except automotive	Other		Exports (f.a.s.) less imports (customs value)	Exports (f.a.s.) less imports (c.i.f.)
	F.a.s. value [5]							Customs value									
1972	49.9							55.6							58.9	−5.7	−9.0
1973	71.9							69.5							73.2	2.4	−1.3
1974	99.4							103.3							110.9	−3.9	−11.4
								F.a.s. value [5]									
1974	99.4							102.6							110.9	−3.1	−11.4
1975	108.9							98.5							105.9	10.4	3.0
1976	116.8							123.5							132.5	−6.7	−15.7
1977	123.2							150.4							160.4	−27.2	−37.2
1978	145.8							174.8							186.0	−28.9	−40.2
1979	186.4							209.5							222.2	−23.1	−35.9
1980	225.6							244.9							257.0	−19.3	−31.4
								Customs value									
1981	238.7							261.0							273.4	−22.3	−34.6
1982	216.4	31.3	61.7	72.7	15.7	14.3	20.7	244.0	17.1	112.0	35.4	33.3	39.7	6.5	254.9	−27.5	−38.4
1983	205.6	30.9	56.7	67.2	16.8	13.4	20.5	258.0	18.2	107.0	40.9	40.8	44.9	6.3	269.9	−52.4	−64.2
1984	224.0	31.5	61.7	72.0	20.6	13.3	24.0	[6] 330.7	21.0	123.7	59.8	53.5	60.0	7.8	346.4	−106.7	−122.4
1985	[7] 218.8	24.0	58.5	73.9	22.9	12.6	27.3	[6] 336.5	21.9	113.9	65.1	66.8	68.3	9.4	352.5	−117.7	−133.6
1986	[7] 227.2	22.3	57.3	75.8	21.7	14.2	35.9	365.4	24.4	101.3	71.8	78.2	79.4	10.4	382.3	−138.3	−155.1
1987	254.1	24.3	66.7	86.2	24.6	17.7	34.6	406.2	24.8	111.0	84.5	85.2	88.7	12.1	424.4	−152.1	−170.3
1988	322.4	32.3	85.1	109.2	29.3	23.1	43.4	441.0	24.8	118.3	101.4	87.7	95.9	12.8	459.5	−118.5	−137.1
1989	363.8	37.2	99.3	138.8	34.8	36.4	17.2	473.2	25.1	132.3	113.3	86.1	102.9	13.6	493.2	−109.4	−129.4
1990	393.6	35.1	104.4	152.7	37.4	43.3	20.7	495.3	26.6	143.2	116.4	87.3	105.7	16.1	517.0	−101.7	−123.4
1990:																	
Jan	31.5	3.2	8.6	11.9	2.6	3.4	1.8	41.6	2.3	12.8	9.7	6.6	9.0	1.2	43.5	−10.1	−12.0
Feb	31.7	3.0	8.0	12.9	3.0	3.3	1.5	39.2	2.2	11.5	9.0	6.9	8.3	1.2	40.9	−7.5	−9.2
Mar	33.1	3.2	8.6	12.7	3.4	3.5	1.8	41.7	2.4	11.7	9.6	8.0	8.8	1.3	43.6	−8.6	−10.5
Apr	32.1	3.0	8.4	12.5	3.1	3.5	1.6	39.7	2.3	10.6	9.7	7.2	8.7	1.2	41.5	−7.6	−9.4
May	32.6	3.0	8.3	12.7	3.4	3.6	1.7	40.8	2.3	11.5	9.6	7.3	8.8	1.3	42.6	−8.1	−10.0
June	33.8	3.3	8.4	13.4	3.3	3.9	1.6	40.2	2.2	10.9	9.6	7.4	8.6	1.4	41.9	−6.3	−8.1
July	32.2	2.8	8.1	12.7	3.1	3.7	1.8	41.4	2.2	11.1	10.0	7.6	9.1	1.3	43.3	−9.2	−11.1
Aug	32.5	2.9	8.7	12.6	3.1	3.5	1.6	41.9	2.1	12.2	9.7	7.7	8.9	1.3	43.7	−9.4	−11.2
Sept	32.2	2.7	8.8	12.6	2.9	3.5	1.7	41.3	2.2	12.4	9.4	7.2	8.6	1.6	43.1	−9.1	−10.8
Oct	34.6	2.6	9.9	13.1	3.4	3.9	1.8	44.5	2.2	13.5	10.3	7.7	9.4	1.4	46.4	−9.9	−11.7
Nov	33.6	2.9	9.5	12.4	3.2	3.7	1.9	43.1	2.1	13.4	10.0	7.1	9.0	1.5	45.0	−9.5	−11.4
Dec	33.6	2.6	9.2	13.2	2.8	3.8	1.9	39.9	2.2	11.6	9.8	6.6	8.3	1.3	41.6	−6.3	−8.0
1991:																	
Jan	34.1	2.7	9.5	13.0	3.1	3.9	1.9	41.5	2.2	12.2	9.9	7.3	8.6	1.3	43.4	−7.4	−9.2
Feb	33.6	3.1	9.7	12.4	2.6	3.9	1.9	39.1	2.1	10.8	9.9	6.7	8.5	1.2	40.9	−5.5	−7.3
Mar	34.0	3.0	8.9	13.5	2.9	3.8	1.9	38.1	2.1	10.1	9.9	6.6	8.0	1.3	39.8	−4.1	−5.8
Apr	35.6	2.9	9.2	14.4	3.4	3.8	1.9	40.1	2.4	11.0	10.4	6.7	8.5	1.3	42.0	−4.5	−6.4
May	35.3	3.0	9.4	13.7	3.5	3.8	2.0	40.1	2.3	11.3	10.1	6.5	8.4	1.5	41.8	−4.8	−6.6
June	35.0	2.9	8.7	14.4	3.5	3.7	1.9	38.8	2.3	10.5	9.8	6.6	8.1	1.4	40.4	−3.8	−5.5
July	35.2	3.1	9.1	13.7	3.6	3.7	2.1	41.2	2.3	10.8	10.4	7.2	9.3	1.3	43.0	−5.9	−7.8
Aug	34.4	2.9	9.1	13.4	3.2	3.7	2.0	40.9	2.1	10.9	9.9	8.0	8.7	1.3	42.7	−6.5	−8.3
Sept	35.3	3.0	8.5	14.3	3.6	3.8	2.1	42.3	2.2	11.2	10.3	7.6	9.6	1.3	44.1	−6.9	−8.8
Oct	37.1	3.2	9.3	14.4	3.8	4.2	2.2	43.4	2.2	11.2	10.6	7.9	10.3	1.4	45.2	−6.3	−8.1
Nov	37.5	3.4	8.9	15.3	3.7	4.1	2.1	41.0	2.2	10.7	9.7	7.1	9.9	1.4	42.7	−3.6	−5.3

[1] Department of Defense shipments of grant-aid military supplies and equipment under the Military Assistance Program are excluded from total exports through 1985 and included beginning 1986.

[2] Includes undocumented exports to Canada through 1988. Beginning 1989, undocumented exports to Canada are included in the appropriate end-use category.

[3] Total arrivals of imported goods other than intransit shipments.

[4] C.i.f. (cost, insurance, and freight) import value at first port of entry into United States. Data for 1967–73 are estimates.

[5] F.a.s. (free alongside ship) value basis at U.S. port of exportation for exports and at foreign port of exportation for imports.

[6] Total includes revisions not reflected in detail.

[7] Total exports are on a revised statistical month basis; end-use categories are on a statistical month basis.

Note.—Data are as reported by the Bureau of the Census adjusted to include silver ore and bullion reported separately prior to 1969. Trade in gold is included beginning 1974. Export statistics cover all merchandise shipped from the U.S. customs area, except supplies for the U.S. Armed Forces. Exports include shipments under Agency for International Development and Food for Peace programs as well as other private relief shipments.

Data beginning 1974 include trade of the U.S. Virgin Islands.

Source: Department of Commerce, Bureau of the Census.

TABLE B–104.—*International reserves, selected years, 1952–91*

[Millions of SDRs; end of period]

Area and country	1952	1962	1972	1982	1988	1989	1990	1991	
								Nov	Dec
All countries	49,388	62,851	146,658	361,253	576,103	624,146	670,780	695,275	.....
Industrial countries [1]	39,280	53,502	113,362	214,014	381,104	410,113	441,924	428,867	.....
United States	24,714	17,220	12,112	29,918	36,471	57,525	59,958	55,225	55,770
Canada	1,944	2,561	5,572	3,428	12,037	12,781	13,060	13,017	11,816
Australia	920	1,168	5,656	6,053	10,383	10,763	11,710	12,250	11,837
Japan	1,101	2,021	16,916	22,001	72,727	64,735	56,027	52,179	51,224
New Zealand	183	251	767	577	2,108	2,303	2,902	2,391	.....
Austria	116	1,081	2,505	5,544	6,215	7,266	7,305	7,944	7,924
Belgium	1,133	1,753	3,564	4,757	8,113	9,250	9,599	.....	.....
Denmark	150	256	787	2,111	8,057	4,925	7,502	5,372	5,234
Finland	132	237	664	1,420	4,801	3,959	6,849	3,690	.....
France	686	4,049	9,224	17,850	21,713	21,592	28,716	24,969	.....
Germany	960	6,958	21,908	43,909	46,824	49,527	51,060	47,879	46,996
Greece	94	287	950	916	2,808	2,572	2,517	3,910	3,857
Iceland	8	32	78	133	218	258	308	248	316
Ireland	318	359	1,038	2,390	3,793	3,100	3,684	3,913	4,017
Italy	722	4,068	5,605	15,108	28,131	37,884	46,565	40,044	36,365
Netherlands	953	1,943	4,407	10,723	13,483	14,100	13,827	13,874	13,980
Norway	164	304	1,220	6,272	9,901	10,531	10,819	9,193	9,292
Portugal	603	680	2,129	1,179	4,372	8,135	10,736	14,701	.....
Spain	134	1,045	4,618	7,450	28,041	32,104	36,555	46,336	46,562
Sweden	504	802	1,453	3,397	6,523	7,487	12,856	10,643	.....
Switzerland	1,667	2,919	6,961	16,930	20,900	22,148	23,456	21,987	23,191
United Kingdom	1,956	3,308	5,201	11,904	33,438	27,121	25,864	29,963	29,948
Developing countries: Total [2]	9,648	9,349	33,295	147,239	195,000	214,033	228,856	266,407	.....
By area:									
Africa	1,786	2,110	3,962	7,734	7,815	9,460	11,935	13,337	.....
Asia [2]	3,793	2,772	8,129	44,490	112,162	121,690	128,826	153,279	.....
Europe [3]	269	381	2,680	5,359	10,013	14,931	15,641	15,316	.....
Middle East	1,183	1,805	9,436	64,094	41,644	42,288	38,011	42,327	.....
Western Hemisphere	2,616	2,282	9,089	25,563	23,366	25,664	34,443	42,148	.....
Memo:									
Oil-exporting countries	1,699	2,030	9,956	67,163	42,993	44,363	43,930	48,446	.....
Non-oil developing countries [2]	7,949	7,319	23,339	80,076	152,006	169,670	184,926	217,961	.....

[1] Includes data for Luxembourg.
[2] Includes data for Taiwan Province of China.
[3] As of this *Report,* data include Czechoslovakia.

Note.—International reserves is comprised of monetary authorities' holdings of gold (at SDR 35 per ounce), special drawing rights (SDRs), reserve positions in the International Monetary Fund, and foreign exchange. Data exclude U.S.S.R., other Eastern European countries, and Cuba (after 1960).

U.S. dollars per SDR (end of period) are: 1952 and 1962—1.00000; 1972—1.08571; 1982—1.10311; 1988—1.34570; 1989—1.31416; 1990—1.42266; November 1991—1.38072; and December 1991—1.43043.

Source: International Monetary Fund, *International Financial Statistics.*

TABLE B–105.—*Industrial production and consumer prices, major industrial countries, 1967–91*

Year or quarter	United States	Canada	Japan	European Community [1]	France	Germany [2]	Italy	United Kingdom
	Industrial production (1987=100) [3]							
1967	57.5	51.1	36.2	59.3	61	57.6	58.5	70.5
1968	60.7	54.3	41.7	63.7	62	62.9	61.9	75.9
1969	63.5	58.1	48.3	69.6	69	70.9	64.2	78.5
1970	61.4	58.8	55.0	73.1	72	75.5	68.3	78.9
1971	62.2	62.0	56.5	74.7	77	77.0	68.0	78.5
1972	68.3	66.7	59.6	78.0	81	79.9	70.8	79.9
1973	73.8	73.8	67.9	83.7	87	85.0	77.7	87.0
1974	72.7	76.1	66.4	84.3	90	84.8	81.2	85.4
1975	66.3	71.6	59.4	78.7	83	79.6	73.7	80.8
1976	72.4	76.0	66.0	84.5	90	86.8	82.9	83.4
1977	78.2	79.3	68.6	86.6	92	88.0	83.8	87.6
1978	82.6	82.1	73.0	95.4	94	90.4	85.4	90.1
1979	85.7	86.1	78.1	93.1	99	94.7	91.1	93.6
1980	84.1	83.1	81.7	92.8	98.9	95.0	96.2	87.5
1981	85.7	84.8	82.6	91.1	98.3	93.2	94.8	84.8
1982	81.9	76.5	82.9	89.9	97.3	90.3	91.8	86.4
1983	84.9	81.5	85.5	90.8	96.5	90.9	88.8	89.6
1984	92.8	91.4	93.4	92.8	97.1	93.5	91.8	89.7
1985	94.4	96.5	96.8	95.8	97.2	97.7	92.9	94.6
1986	95.3	95.4	96.6	98.0	98.0	99.6	96.2	96.9
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	105.4	105.5	109.3	104.3	104.7	103.9	105.9	103.6
1989	108.1	105.3	115.7	108.2	108.9	108.7	109.2	104.0
1990	109.2	100.8	121.3	110.2	110.2	114.6	109.2	103.3
1991 [p]	107.1							
1990: I	108.3	102.3	117.5	109.3	109.4	112.4	110.3	103.9
II	109.4	101.9	120.0	109.3	110.3	112.6	108.5	105.9
III	110.5	101.1	123.1	110.1	112.1	116.2	110.1	102.8
IV	108.5	97.7	124.5	110.0	109.8	116.6	108.0	101.0
1991: I	105.8	95.5	124.5	110.0	110.2	118.6	108.4	100.8
II	106.4	96.8	124.1	109.7	110.8	118.7	106.2	99.5
III	108.1	97.9	124.3			117.7	105.9	100.6
IV [p]	108.0							
	Consumer prices (1982–84=100)							
1967	33.4	31.3	32.2	23.2	24.6	49.3	16.0	18.5
1968	34.8	32.5	34.0	24.0	25.7	50.1	16.2	19.4
1969	36.7	34.0	35.8	25.0	27.4	51.0	16.6	20.4
1970	38.8	35.1	38.5	26.3	28.7	52.9	16.8	21.8
1971	40.5	36.1	40.9	28.0	30.3	55.6	17.6	23.8
1972	41.8	37.9	42.9	29.8	32.2	58.7	18.7	25.5
1973	44.4	40.7	47.9	32.4	34.5	62.8	20.6	27.9
1974	49.3	45.2	59.0	37.0	39.3	67.2	24.6	32.3
1975	53.8	50.1	66.0	42.4	43.9	71.2	28.8	40.2
1976	56.9	53.8	72.1	47.6	48.1	74.2	33.6	46.8
1977	60.6	58.1	78.0	53.5	52.7	76.9	40.1	54.2
1978	65.2	63.3	81.3	58.6	57.5	79.0	45.1	58.7
1979	72.6	69.1	84.3	65.0	63.6	82.3	52.1	66.6
1980	82.4	76.1	90.9	74.0	72.2	86.8	63.2	78.5
1981	90.9	85.6	95.4	83.1	81.8	92.2	75.4	87.9
1982	96.5	94.9	98.0	92.2	91.7	97.0	87.7	95.4
1983	99.6	100.4	99.9	100.2	100.3	100.3	100.8	99.8
1984	103.9	104.8	102.1	107.5	108.0	102.7	111.5	104.8
1985	107.6	108.9	104.2	114.2	114.3	104.9	121.1	111.1
1986	109.6	113.4	104.9	118.5	117.2	104.7	128.5	114.9
1987	113.6	118.4	105.0	122.5	121.1	104.9	134.4	119.7
1988	118.3	123.2	105.7	126.9	124.4	106.3	141.1	125.6
1989	124.0	129.3	108.1	133.7	128.9	109.2	150.4	135.4
1990	130.7	135.5	111.4	141.3	133.2	112.1	159.6	148.2
1991	136.2	143.1			137.2	116.0	169.8	156.9
1990: I	128.0	133.3	109.6	138.0	131.2	111.2	156.3	141.4
II	129.3	134.6	111.1	140.5	132.3	111.8	158.1	148.0
III	131.6	136.0	111.6	142.2	133.7	112.3	160.3	150.5
IV	133.7	137.9	113,5	144.4	135.0	113.3	163.5	152.8
1991: I	134.8	141.9	114.1	145.9	135.7	114.2	166.6	153.7
II	135.6	143.0	115.0	147.7	136.6	115.2	168.9	156.9
III	136.7	143.8	115.0	149.4	137.7	116.9	170.5	157.6
IV	137.7	143.6			138.9	117.7	173.5	159.2

[1] Consists of Belgium-Luxembourg, Denmark, France, Greece, Ireland, Italy, Netherlands, United Kingdom, Germany, Portugal, and Spain. Industrial production prior to July 1981 excludes data for Greece, which joined the EC in 1981. Data for Portugal and Spain, which became members on January 1, 1986 are excluded prior to 1982.

[2] Former West Germany.

[3] All data exclude construction. Quarterly data are seasonally adjusted.

Sources: National sources as reported by Department of Commerce (International Trade Administration, Office of Finance, Industry and Trade Information, Industry and Trade Statistics Division), Department of Labor (Bureau of Labor Statistics), and Board of Governors of the Federal Reserve System.

TABLE B–106.—*Civilian unemployment rate, and hourly compensation, major industrial countries, 1965–91*

[Quarterly data seasonally adjusted]

Year or quarter	United States	Canada	Japan	France	Germany [1]	Italy	United Kingdom
	Civilian unemployment rate (percent) [2]						
1965	4.5	3.6	1.2	1.6	0.3	3.5	2.1
1966	3.8	3.4	1.4	1.6	.3	3.7	2.3
1967	3.8	3.8	1.3	2.1	1.3	3.4	3.3
1968	3.6	4.5	1.2	2.7	1.1	3.5	3.2
1969	3.5	4.4	1.1	2.3	.6	3.5	3.1
1970	4.9	5.7	1.2	2.5	.5	3.2	3.1
1971	5.9	6.2	1.3	2.8	.6	3.3	3.9
1972	5.6	6.2	1.4	2.9	.7	3.8	4.2
1973	4.9	5.5	1.3	2.8	.7	3.7	3.2
1974	5.6	5.3	1.4	2.9	1.6	3.1	3.1
1975	8.5	6.9	1.9	4.1	3.4	3.4	4.6
1976	7.7	7.1	2.0	4.5	3.4	3.9	5.9
1977	7.1	8.1	2.0	5.1	3.4	4.1	6.4
1978	6.1	8.3	2.3	5.3	3.3	4.1	6.3
1979	5.8	7.4	2.1	6.0	2.9	4.4	5.4
1980	7.1	7.5	2.0	6.4	2.8	4.4	7.0
1981	7.6	7.5	2.2	7.6	4.0	4.9	10.5
1982	9.7	11.0	2.4	8.3	5.6	5.4	11.3
1983	9.6	11.8	2.7	8.5	[3] 6.9	5.9	11.8
1984	7.5	11.2	2.8	10.0	7.1	5.9	11.8
1985	7.2	10.5	2.6	10.4	7.2	6.0	11.2
1986	7.0	9.5	2.8	10.6	6.6	[3] 7.5	11.2
1987	6.2	8.8	2.9	10.7	6.3	7.9	10.3
1988	5.5	7.8	2.5	10.2	p6.3	7.9	8.6
1989	5.3	7.5	2.3	9.6	p5.7	7.8	p7.1
1990	5.5	8.1	2.1	9.2	p5.2	p7.0	p6.9
1991	6.7	p10.3			p4.6		p9.4
1990: I	5.2	7.5	2.1	9.2	5.4	7.4	6.7
II	5.3	7.5	2.1	9.1	5.3	6.8	6.8
III	5.6	8.3	2.1	9.1	5.1	6.9	6.9
IV	6.0	9.1	2.2	9.2	4.8	6.9	7.3
1991: I	6.5	10.1	2.1	9.4	4.6	6.9	8.2
II	6.7	10.3	2.1	9.8	4.6	7.0	9.2
III	6.8	10.4	2.2	10.0	4.6	6.7	10.0
IV	6.9	10.3			4.5		10.3
	Manufacturing hourly compensation in U.S. dollars (1982=100) [4]						
1965	26.2	22.8	8.5	15.5	13.2	15.1	15.8
1966	27.4	24.7	9.3	16.4	14.3	16.0	17.1
1967	28.9	26.1	10.5	17.6	15.2	17.7	17.3
1968	31.0	28.2	12.2	19.8	16.3	18.9	16.2
1969	33.4	30.4	14.6	20.1	18.1	20.6	17.6
1970	35.8	33.9	17.4	21.2	22.9	25.1	20.4
1971	37.9	37.7	20.7	24.0	27.0	29.4	24.0
1972	39.8	41.3	27.3	28.9	32.5	34.9	28.4
1973	42.9	44.3	37.4	37.8	44.2	41.2	31.7
1974	47.7	52.2	45.6	41.4	51.6	48.1	36.3
1975	53.4	57.3	52.1	57.3	59.7	60.5	45.9
1976	57.9	67.7	56.2	59.3	62.9	59.0	43.1
1977	62.9	69.5	68.6	65.6	74.5	65.7	47.1
1978	68.2	69.8	94.0	81.0	92.8	78.8	60.5
1979	74.8	74.8	95.5	97.3	109.1	97.4	79.7
1980	83.7	83.0	98.3	113.5	119.3	111.1	106.1
1981	91.8	93.1	107.6	102.0	102.2	100.9	105.9
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	102.6	106.2	107.7	95.3	99.9	104.3	92.7
1984	105.9	105.9	111.0	90.4	93.9	103.5	87.4
1985	111.1	105.6	115.0	95.6	96.0	107.0	91.0
1986	116.2	107.8	171.2	129.3	135.6	142.7	111.5
1987	118.9	116.3	204.0	154.7	171.4	173.3	133.0
1988	122.9	130.5	234.5	159.7	182.1	179.9	152.4
1989	127.7	144.3	230.8	155.3	178.3	186.9	153.5
1990	131.8	156.7	231.1	189.1	221.8	237.3	186.6

[1] Former West Germany.

[2] Civilian unemployment rates, approximating U.S. concepts. Quarterly data for France, Germany, and United Kingdom should be viewed as less precise indicators of unemployment under U.S. concepts than the annual data. Many Italians reported as unemployed did not actively seek work in the past 30 days, and they have been excluded for comparability with U.S. concepts. Inclusion of such persons would about double the unemployment rate for Italy through 1985, and increase it to 11–12 percent for 1986 forward.

[3] There are breaks in the series for Germany (1983) and Italy (1986). Based on the prior series, the rate for Germany was 7.4 percent in 1983 and the rate for Italy was 6.3 percent in 1986.

[4] Hourly compensation in manufacturing, U.S. dollar basis. Data relate to all employed persons (wage and salary earners and the self-employed) in the United States and Canada, and to all employees (wage and salary earners) in the other countries. For France and United Kingdom, compensation adjusted to include changes in employment taxes that are not compensation to employees, but are labor costs to employers.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–107.—*Foreign exchange rates, 1967–91*

[Currency units per U.S. dollar, except as noted]

Period	Belgium (franc)	Canada (dollar)	France (franc)	Germany (mark)	Italy (lira)	Japan (yen)
March 1973	39.408	0.9967	4.5156	2.8132	568.17	261.90
1967	49.689	1.0789	4.9206	3.9865	624.09	362.13
1968	49.936	1.0776	4.9529	3.9920	623.38	360.55
1969	50.142	1.0769	5.1999	3.9251	627.32	358.36
1970	49.656	1.0444	5.5288	3.6465	627.12	358.16
1971	48.598	1.0099	5.5100	3.4830	618.34	347.79
1972	44.020	.9907	5.0444	3.1886	583.70	303.13
1973	38.955	1.0002	4.4535	2.6715	582.41	271.31
1974	38.959	.9780	4.8107	2.5868	650.81	291.84
1975	36.800	1.0175	4.2877	2.4614	653.10	296.78
1976	38.609	.9863	4.7825	2.5185	833.58	296.45
1977	35.849	1.0633	4.9161	2.3236	882.78	268.62
1978	31.495	1.1405	4.5091	2.0097	849.13	210.39
1979	29.342	1.1713	4.2567	1.8343	831.11	219.02
1980	29.238	1.1693	4.2251	1.8175	856.21	226.63
1981	37.195	1.1990	5.4397	2.2632	1138.58	220.63
1982	45.781	1.2344	6.5794	2.4281	1354.00	249.06
1983	51.123	1.2325	7.6204	2.5539	1519.32	237.55
1984	57.752	1.2952	8.7356	2.8455	1756.11	237.46
1985	59.337	1.3659	8.9800	2.9420	1908.88	238.47
1986	44.664	1.3896	6.9257	2.1705	1491.16	168.35
1987	37.358	1.3259	6.0122	1.7981	1297.03	144.60
1988	36.785	1.2306	5.9595	1.7570	1302.39	128.17
1989	39.409	1.1842	6.3802	1.8808	1372.28	138.07
1990	33.424	1.1668	5.4467	1.6166	1198.27	145.00
1991	34.195	1.1460	5.6468	1.6610	1241.28	134.59
1990: I	35.294	1.1823	5.7358	1.6916	1254.81	148.15
II	34.594	1.1707	5.6406	1.6773	1231.81	155.38
III	32.759	1.1530	5.3396	1.5926	1176.03	145.27
IV	31.023	1.1612	5.0661	1.5033	1129.71	130.86
1991: I	31.626	1.1561	5.2229	1.5357	1150.42	133.98
II	35.658	1.1493	5.8715	1.7336	1286.27	138.32
III	35.870	1.1440	5.9202	1.7421	1300.75	136.38
IV	33.482	1.1350	5.5497	1.6256	1222.85	129.50

Period	Netherlands (guilder)	Sweden (krona)	Switzerland (franc)	United Kingdom (pound) [1]	Multilateral trade-weighted value of the U.S. dollar (March 1973=100)	
					Nominal	Real [2]
March 1973	2.8714	4.4294	3.2171	247.24	100.0	100.0
1967	3.6024	5.1621	4.3283	275.04	120.0	.....
1968	3.6198	5.1683	4.3163	239.35	122.1	.....
1969	3.6240	5.1701	4.3131	239.01	122.4	.....
1970	3.6166	5.1862	4.3106	239.59	121.1	.....
1971	3.4953	5.1051	4.1171	244.42	117.8	.....
1972	3.2098	4.7571	3.8186	250.34	109.1	.....
1973	2.7946	4.3619	3.1688	245.25	99.1	98.9
1974	2.6879	4.4387	2.9805	234.03	101.4	99.4
1975	2.5293	4.1531	2.5839	222.17	98.5	94.1
1976	2.6449	4.3580	2.5002	180.48	105.7	97.6
1977	2.4548	4.4802	2.4065	174.49	103.4	93.3
1978	2.1643	4.5207	1.7907	191.84	92.4	84.4
1979	2.0073	4.2893	1.6644	212.24	88.1	83.2
1980	1.9875	4.2310	1.6772	232.46	87.4	84.9
1981	2.4999	5.0660	1.9675	202.43	103.4	100.9
1982	2.6719	6.2839	2.0327	174.80	116.6	111.8
1983	2.8544	7.6718	2.1007	151.59	125.3	117.3
1984	3.2085	8.2708	2.3500	133.68	138.2	128.8
1985	3.3185	8.6032	2.4552	129.74	143.0	132.4
1986	2.4485	7.1273	1.7979	146.77	112.2	103.6
1987	2.0264	6.3469	1.4918	163.98	96.9	90.9
1988	1.9778	6.1370	1.4643	178.13	92.7	88.2
1989	2.1219	6.4559	1.6369	163.82	98.6	94.4
1990	1.8215	5.9231	1.3901	178.41	89.1	86.0
1991	1.8720	6.0521	1.4356	176.74	89.8	86.5
1990: I	1.9064	6.1582	1.5070	165.55	93.2	89.8
II	1.8875	6.0867	1.4435	167.50	92.6	89.0
III	1.7947	5.8299	1.3356	186.42	87.5	84.6
IV	1.6955	5.6136	1.2736	194.39	83.0	80.6
1991: I	1.7312	5.7029	1.3119	190.48	84.7	81.9
II	1.9533	6.2260	1.4740	170.95	92.9	89.6
III	1.9633	6.3239	1.5173	168.61	93.3	89.7
IV	1.8322	5.9357	1.4335	177.57	88.2	84.7

[1] Cents per unit of foreign currency.

[2] Adjusted by changes in consumer prices.

Source: Board of Governors of the Federal Reserve System.

TABLE B–108.—*Growth rates in real gross national product/gross domestic product, 1971–91*

[Percent change]

Area and country	1971–75 annual average	1976–80 annual average	1981–85 annual average	1986	1987	1988	1989	1990	1991 [1]
OECD countries [2]	3.1	3.5	2.4	2.7	3.4	4.5	3.3	2.6	1.1
United States	2.3	3.2	2.5	2.9	3.1	3.9	2.5	1.0	−.7
Canada	5.2	4.0	2.9	3.3	4.2	4.7	2.5	.5	−1.1
Japan	4.5	4.6	3.8	2.6	4.3	6.2	4.7	5.6	4.5
European Community [3]	2.9	3.2	1.5	2.7	2.7	4.0	3.5	2.9	1.4
France	3.5	3.1	1.5	2.5	2.3	4.2	3.9	2.8	1.4
Germany [4]	2.2	3.3	1.2	2.2	1.5	3.7	3.8	4.5	3.2
Italy	2.8	4.8	1.6	2.5	3.0	4.2	3.0	2.0	1.0
United Kingdom	2.1	1.9	1.9	3.9	4.8	4.3	2.3	.8	−1.9
U.S.S.R.	3.0	1.8	1.7	4.1	1.3	2.1	1.5	−3.7	−13.0
Eastern Europe	4.9	2.1	1.2	3.0	−.4	1.5	−1.2	−8.0	−10.0
China	7.4	4.2	9.2	7.8	9.4	11.2	4.0	5.0	6.5

[1] Estimates.

[2] OECD (Organization for Economic Cooperation and Development) includes Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and United Kingdom, not shown separately.

[3] Includes Belgium, Denmark, Greece, Ireland, Luxembourg, Netherlands, Portugal, and Spain, not shown separately.

[4] Former West Germany.

Sources: Department of Commerce, Organization for Economic Cooperation and Development, and Council of Economic Advisers.

NATIONAL WEALTH

TABLE B–109.—*National wealth, 1945–90*

[Billions of dollars]

End of year	Total net worth [1]	Private net worth [2]							Government net financial assets		
		Total	Tangible wealth [3]			Financial wealth			Total [7]	Federal	State and local
			Total [4]	Owner-occupied real estate	Consumer durables	Total [5]	Corporate equity [6]	Noncorporate equity			
1945	439.1	663.0	140.3	82.8	46.2	522.7	111.5	188.9	−223.8	−223.3	−0.8
1946	500.0	721.9	167.4	100.4	53.2	554.5	103.4	217.9	−221.9	−221.6	−.6
1947	574.8	782.4	205.0	123.3	65.1	577.5	101.2	242.0	−207.6	−207.4	−.5
1948	622.9	822.0	235.2	141.1	76.3	586.8	100.1	253.1	−199.1	−198.8	−.7
1949	651.6	854.6	258.4	153.4	86.6	596.1	109.4	253.8	−202.9	−202.4	−.9
1950	759.1	957.7	306.0	177.0	108.2	651.7	133.7	285.1	−198.7	−195.1	−3.9
1951	856.0	1,050.3	346.8	199.1	124.4	703.4	156.3	306.7	−194.3	−189.7	−5.0
1952	903.3	1,107.9	373.7	215.1	134.0	734.2	170.4	309.6	−204.6	−194.5	−10.5
1953	921.4	1,135.9	397.8	229.1	143.0	738.1	162.4	311.7	−214.5	−201.0	−14.0
1954	1,022.0	1,245.9	422.1	247.4	147.1	823.8	235.0	317.1	−223.8	−206.4	−17.9
1955	1,131.6	1,355.0	460.4	272.6	157.3	894.6	286.3	328.0	−223.4	−202.8	−21.1
1956	1,224.8	1,446.9	504.1	297.9	171.9	942.8	305.1	345.6	−222.1	−198.5	−24.1
1957	1,233.8	1,459.1	526.7	313.6	176.2	932.3	267.4	358.8	−225.2	−197.0	−28.7
1958	1,381.6	1,623.4	552.0	330.5	182.0	1,071.4	373.3	374.2	−241.8	−208.2	−34.2
1959	1,455.1	1,704.2	581.1	349.8	189.0	1,123.0	402.0	382.0	−249.1	−211.3	−38.4
1960	1,498.7	1,749.3	611.8	372.9	193.7	1,137.5	395.5	387.4	−250.6	−209.6	−41.7
1961	1,646.3	1,906.4	634.0	388.0	196.8	1,272.5	500.8	397.2	−260.1	−215.3	−45.5
1962	1,629.1	1,896.9	659.5	403.8	202.3	1,237.4	437.1	408.7	−267.7	−220.2	−48.3
1963	1,759.7	2,031.6	684.9	414.7	212.8	1,346.7	513.5	419.7	−271.9	−221.9	−50.8
1964	1,890.3	2,169.0	727.1	441.1	223.7	1,441.9	564.1	434.8	−278.6	−225.8	−53.7
1965	2,051.9	2,333.5	766.3	462.2	236.1	1,567.2	634.9	456.5	−281.6	−226.3	−56.2
1966	2,122.4	2,410.2	844.3	510.5	258.5	1,565.9	574.8	483.8	−287.8	−228.8	−60.0
1967	2,376.1	2,682.3	899.9	537.0	283.2	1,782.4	719.3	500.4	−306.2	−242.3	−64.9
1968	2,680.5	3,000.1	1,002.4	600.4	314.2	1,997.7	856.5	530.0	−319.6	−251.7	−68.9
1969	2,716.6	3,037.2	1,096.4	655.6	343.7	1,940.8	744.7	554.0	−320.7	−245.5	−76.3
1970	2,827.0	3,168.3	1,167.5	689.8	372.4	2,000.8	727.2	573.2	−341.3	−257.4	−85.2
1971	3,121.5	3,494.5	1,278.1	767.9	393.7	2,216.4	831.0	616.5	−373.1	−280.6	−93.9
1972	3,470.9	3,860.0	1,411.8	859.3	424.7	2,448.2	918.4	680.9	−389.1	−298.6	−92.0
1973	3,634.7	4,025.4	1,610.1	997.5	470.5	2,415.2	707.3	817.1	−390.6	−305.7	−86.9
1974	3,799.2	4,204.1	1,846.3	1,137.7	544.2	2,357.8	491.7	908.4	−404.9	−317.8	−89.9
1975	4,264.9	4,751.4	1,999.7	1,233.1	595.7	2,751.7	637.4	991.2	−486.5	−394.5	−95.3
1976	4,824.5	5,371.4	2,253.4	1,415.9	652.8	3,118.0	754.3	1,120.3	−546.9	−455.0	−95.7
1977	5,337.9	5,927.3	2,614.3	1,685.0	725.5	3,313.0	708.8	1,276.1	−589.4	−511.7	−82.0
1978	6,137.6	6,762.4	3,077.1	2,015.8	820.5	3,685.3	705.0	1,522.5	−624.8	−553.4	−76.7
1979	7,127.6	7,772.1	3,505.6	2,323.6	925.3	4,266.4	857.0	1,784.5	−644.5	−580.9	−69.7
1980	8,237.5	8,936.1	3,874.9	2,568.9	1,020.0	5,061.3	1,164.5	2,037.2	−698.6	−633.6	−72.0
1981	8,901.5	9,685.8	4,258.0	2,845.6	1,096.5	5,427.8	1,105.0	2,261.2	−784.3	−711.0	−81.3
1982	9,205.3	10,142.5	4,268.7	2,804.3	1,141.7	5,873.8	1,241.1	2,232.8	−937.2	−860.6	−86.0
1983	9,966.7	11,089.1	4,614.5	3,062.6	1,206.9	6,474.5	1,422.0	2,301.6	−1,122.4	−1,050.1	−82.1
1984	10,371.1	11,669.9	4,894.6	3,242.8	1,286.0	6,775.3	1,440.1	2,272.3	−1,298.8	−1,234.7	−74.8
1985	11,228.9	12,726.5	5,187.4	3,411.0	1,397.7	7,539.1	1,888.3	2,245.8	−1,497.7	−1,446.0	−60.4
1986	12,069.3	13,796.4	5,624.8	3,696.4	1,534.1	8,171.6	2,202.5	2,298.4	−1,727.1	−1,683.1	−52.4
1987	12,725.4	14,636.9	6,169.3	4,086.5	1,663.7	8,467.6	2,098.2	2,415.0	−1,911.5	−1,860.1	−60.2
1988	13,590.7	15,715.6	6,559.4	4,319.4	1,805.6	9,156.2	2,233.3	2,492.8	−2,124.9	−2,056.2	−78.8
1989	14,967.6	17,291.1	7,057.3	4,661.1	1,933.8	10,233.8	2,615.4	2,633.5	−2,323.5	−2,234.7	−99.9
1990	14,503.5	17,110.5	7,076.0	4,586.6	2,023.7	10,034.5	2,330.0	2,634.7	−2,606.9	−2,492.1	−125.9

[1] Sum of private net worth and government net financial assets.
[2] Referred to as household net worth in the *Balance Sheets.*
[3] Held by households and nonprofit institutions.
[4] Also includes nonprofit institutions' real estate.
[5] Also includes credit market instruments, life insurance and pension reserves, security credit, and miscellaneous assets, and is net of liabilities.
[6] Includes households and nonprofit institutions' direct (or through mutual funds) holdings of corporate equity. Equity held through pension and life insurance reserves is not included.
[7] Also includes sponsored credit agencies and the Federal Reserve. Some tangible wealth is included for these agencies.

Note.—Data are from *Balance Sheets for the U.S. Economy, 1945–90,* September 1991.
Data are measured at market value where available. For example, corporate equity and land are measured at market value, but bonds are measured at par value.

Source: Board of Governors of the Federal Reserve System.

TABLE B–110.—*National wealth in 1982 dollars, 1945–90*

[Billions of 1982 dollars]

End of year	Total net worth [1]	Private net worth [2]							Government net financial assets		
		Total	Tangible wealth [3]			Financial wealth			Total [7]	Federal	State and local
			Total [4]	Owner-occupied real estate	Consumer durables	Total [5]	Corporate equity [6]	Noncorporate equity			
1945	2,502.1	3,777.6	799.2	471.8	263.3	2,978.4	635.5	1,076.6	−1,275.5	−1,272.5	−4.6
1946	2,409.4	3,478.9	806.6	483.8	256.2	2,672.3	498.3	1,049.9	−1,069.5	−1,068.1	−2.7
1947	2,515.7	3,424.3	897.1	539.8	285.0	2,527.1	443.1	1,059.0	−908.6	−907.8	−2.2
1948	2,628.3	3,468.4	992.4	595.5	321.7	2,476.1	422.5	1,067.9	−840.1	−838.7	−2.8
1949	2,778.9	3,644.2	1,102.0	654.1	369.2	2,542.1	466.7	1,082.4	−865.3	−862.9	−3.8
1950	3,060.8	3,861.8	1,233.8	713.8	436.2	2,628.0	539.0	1,149.8	−801.1	−786.8	−15.8
1951	3,396.7	4,167.7	1,376.4	790.2	493.7	2,791.3	620.2	1,217.1	−771.0	−752.6	−20.0
1952	3,487.5	4,277.7	1,442.8	830.3	517.3	2,834.8	658.0	1,195.4	−790.1	−751.1	−40.7
1953	3,543.8	4,369.0	1,530.1	881.1	549.9	2,838.9	624.7	1,198.9	−825.2	−772.9	−53.9
1954	3,835.0	4,674.9	1,583.8	928.2	551.9	3,091.1	881.9	1,189.7	−839.9	−774.6	−67.0
1955	4,107.6	4,918.5	1,671.3	989.4	571.0	3,247.1	1,039.2	1,190.4	−810.9	−736.1	−76.6
1956	4,275.1	5,050.2	1,759.4	1,039.9	599.9	3,290.9	1,064.9	1,206.2	−775.1	−692.8	−84.0
1957	4,196.7	4,962.8	1,791.7	1,066.7	599.2	3,171.1	909.5	1,220.5	−766.0	−670.2	−97.7
1958	4,597.6	5,402.4	1,836.9	1,099.8	605.5	3,565.5	1,242.3	1,245.3	−804.8	−692.8	−114.0
1959	4,732.0	5,542.0	1,889.8	1,137.5	614.7	3,652.1	1,307.3	1,242.3	−810.0	−687.1	−124.9
1960	4,834.5	5,643.0	1,973.6	1,202.9	624.7	3,669.4	1,275.7	1,249.8	−808.5	−676.0	−134.6
1961	5,218.2	6,042.6	2,009.4	1,229.7	623.8	4,033.2	1,587.3	1,258.9	−824.4	−682.3	−144.3
1962	5,051.5	5,881.7	2,044.9	1,252.1	627.3	3,836.8	1,355.3	1,267.2	−830.2	−682.8	−149.7
1963	5,389.5	6,222.3	2,097.7	1,270.0	651.8	4,124.6	1,572.8	1,285.4	−832.8	−679.6	−155.7
1964	5,676.7	6,513.5	2,183.4	1,324.8	671.8	4,330.0	1,694.1	1,305.7	−836.8	−678.1	−161.3
1965	5,982.2	6,803.1	2,234.0	1,347.4	688.2	4,569.1	1,851.0	1,330.8	−820.9	−659.8	−163.7
1966	5,961.8	6,770.3	2,371.6	1,434.0	726.1	4,398.6	1,614.5	1,359.1	−808.4	−642.6	−168.5
1967	6,465.5	7,298.7	2,448.7	1,461.2	770.6	4,850.0	1,957.3	1,361.6	−833.2	−659.3	−176.6
1968	6,917.5	7,742.3	2,586.9	1,549.5	810.9	5,155.4	2,210.2	1,367.6	−824.8	−649.6	−177.9
1969	6,633.9	7,416.9	2,677.5	1,600.9	839.4	4,739.4	1,818.5	1,353.0	−783.1	−599.6	−186.2
1970	6,566.8	7,359.6	2,712.1	1,602.4	865.1	4,647.5	1,689.1	1,331.5	−792.8	−597.8	−197.8
1971	6,852.8	7,671.8	2,805.9	1,685.9	864.4	4,865.9	1,824.3	1,353.5	−819.0	−616.0	−206.0
1972	7,284.1	8,100.6	2,962.8	1,803.3	891.3	5,137.9	1,927.3	1,429.0	−816.5	−626.6	−193.2
1973	7,050.9	7,808.6	3,123.4	1,935.0	912.7	4,685.2	1,372.0	1,585.1	−757.8	−593.0	−168.5
1974	6,665.2	7,375.6	3,239.1	1,996.0	954.7	4,136.5	862.6	1,593.7	−710.4	−557.6	−157.8
1975	6,951.7	7,744.7	3,259.5	2,009.9	971.0	4,485.2	1,038.9	1,615.7	−793.0	−643.1	−155.3
1976	7,416.6	8,257.4	3,464.1	2,176.6	1,003.5	4,793.3	1,159.6	1,722.2	−840.8	−699.4	−147.1
1977	7,691.5	8,540.8	3,767.0	2,427.9	1,045.4	4,773.8	1,021.4	1,838.8	−849.3	−737.3	−118.1
1978	8,156.3	8,986.6	4,089.1	2,678.8	1,090.3	4,897.4	936.8	2,023.3	−830.3	−735.4	−101.9
1979	8,708.1	9,495.5	4,283.0	2,838.8	1,130.5	5,212.5	1,047.0	2,180.2	−787.4	−709.7	−85.2
1980	9,137.6	9,912.5	4,298.3	2,849.5	1,131.4	5,614.3	1,291.7	2,259.8	−775.0	−702.9	−79.9
1981	9,134.4	9,939.2	4,369.4	2,920.1	1,125.2	5,569.8	1,133.9	2,320.4	−804.8	−729.6	−83.4
1982	9,015.9	9,933.9	4,180.9	2,746.6	1,118.2	5,753.0	1,215.5	2,186.9	−918.0	−842.9	−84.3
1983	9,407.0	10,466.3	4,355.4	2,890.6	1,139.1	6,110.9	1,342.1	2,172.4	−1,059.3	−991.2	−77.5
1984	9,484.3	10,672.1	4,476.0	2,965.5	1,176.0	6,196.0	1,317.0	2,078.0	−1,187.8	−1,129.1	−68.4
1985	9,999.0	11,332.6	4,619.3	3,037.4	1,244.6	6,713.4	1,681.5	1,999.8	−1,333.6	−1,287.6	−53.8
1986	10,440.6	11,934.6	4,865.8	3,197.6	1,327.1	7,068.9	1,905.2	1,988.2	−1,494.0	−1,455.9	−45.4
1987	10,702.6	12,310.3	5,188.7	3,437.0	1,399.3	7,121.6	1,764.7	2,031.1	−1,607.7	−1,564.4	−50.6
1988	10,960.3	12,673.9	5,289.8	3,483.3	1,456.1	7,384.0	1,801.0	2,010.3	−1,713.6	−1,658.2	−63.5
1989	11,625.4	13,430.0	5,481.4	3,620.3	1,502.0	7,948.6	2,031.4	2,045.5	−1,804.6	−1,735.7	−77.6
1990	10,827.6	12,773.8	5,282.6	3,424.1	1,510.8	7,491.2	1,739.4	1,967.0	−1,946.2	−1,860.5	−94.0

[1] Sum of private net worth and government net financial assets.
[2] Referred to as household net worth in the *Balance Sheets.*
[3] Held by households and nonprofit institutions.
[4] Also includes nonprofit institutions' real estate.
[5] Also includes credit market instruments, life insurance and pension reserves, security credit, and miscellaneous assets, and is net of liabilities.
[6] Includes households and nonprofit institutions' direct (or through mutual funds) holdings of corporate equity. Equity held through pension and life insurance reserves is not included.
[7] Also includes sponsored credit agencies and the Federal Reserve. Some tangible wealth is included for these agencies.

Note.—Data are from *Balance Sheets for the U.S. Economy, 1945–90,* September 1991; deflated by the GNP implicit deflator, as published prior to the benchmark revision of the national income and product accounts in December 1991 (deflator averaged for fourth quarter of year shown and first quarter of following year, except for 1945 and 1946, where annual deflators are averaged.)

Data are measured at market value where available. For example, corporate equity and land are measured at market value, but bonds are measured at par value.

Sources: Board of Governers of the Federal Reserve System and Department of Commerce, Bureau of Economic Analysis.

ISBN 0-16-036052-8



