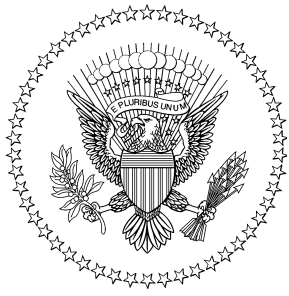
Economic Report of the President



Transmitted to the Congress
February 2000

together with

THE ANNUAL REPORT

of the

COUNCIL OF ECONOMIC ADVISERS

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ECONOMIC REPORT
OF THE PRESIDENT

ECONOMIC REPORT OF THE PRESIDENT

To the Congress of the United States:

Today, the American economy is stronger than ever. We are on the brink of marking the longest economic expansion in our Nation's history. More than 20 million new jobs have been created since Vice President Gore and I took office in January 1993. We now have the lowest unemployment rate in 30 years—even as core inflation has reached its lowest level since 1965.

This expansion has been both deep and broad, reaching Americans of all races, ethnicities, and income levels. African American unemployment and poverty are at their lowest levels on record. Hispanic unemployment is likewise the lowest on record, and poverty among Hispanics is at its lowest level since 1979. A long-running trend of rising income inequality has been halted in the last 7 years. From 1993 to 1998, families at the bottom of the income distribution have enjoyed the same strong income growth as workers at the top.

In 1999 we had the largest dollar surplus in the Federal budget on record and the largest in proportion to our economy since 1951. We are on course to achieve more budget surpluses for many years to come. We have used this unique opportunity to make the right choices for the future: over the past 2 years, America has paid down $140 billion in debt held by the public. With my plan to continue to pay down the debt, we are now on track to eliminate the Nation's publicly held debt by 2013. Our fiscal discipline has paid off in lower interest rates, higher private investment, and stronger productivity growth.

These economic successes have not been achieved by accident. They rest on the three pillars of the economic strategy that the Vice President and I laid out when we took office: fiscal discipline to help reduce interest rates and spur business investment; investing in education, health care, and science and technology to meet the challenges of the 21st century; and opening foreign markets so that American workers have a fair chance to compete abroad. As a result, the American economy is not only strong today; it is well positioned to continue to expand and to widen the circle of opportunity for more Americans.

The Administration's Economic Strategy

Our economic strategy was based on a commitment, first, to fiscal discipline. When the Vice President and I took office, the U.S. Government had

a budget deficit of $290 billion. Today we have a surplus of $124 billion. This fiscal discipline has helped us launch a virtuous circle of strong investment, increasing productivity, low inflation, and low unemployment.

Second, we have remained true to our commitment to invest in our people. Because success in the global economy depends more than ever on highly skilled workers, we have taken concerted steps to make sure all Americans have the education, skills, and opportunities they need to succeed. That is why, even as we maintained fiscal responsibility, we expanded our investments in education, technology, and training. We have opened the doors of college to all Americans, with tax credits, more affordable student loans, education IRAs, and the HOPE Scholarship tax credits. So that working families will have the means to support themselves, we have increased the minimum wage, expanded the Earned Income Tax Credit (EITC), provided access to health insurance for people with disabilities, and invested in making health insurance coverage available to millions of children.

Third, we have continued to pursue a policy of opening markets. We have achieved historic trade pacts such as the North American Free Trade Agreement and the Uruguay Round agreements, which led to the creation of the World Trade Organization. Negotiations in the wake of the Uruguay Round have yielded market access commitments covering information technology, basic telecommunications, and financial services. We have engaged in bilateral initiatives with Japan and in regional initiatives in Europe, Africa, Asia, the Western Hemisphere, and the Middle East. We have also actively protected our rights under existing trade agreements through the World Trade Organization and helped maintain the Internet as a tax-free zone.

Meeting the Challenges of the Future

Despite the economy's extraordinary performance, we must continue working to meet the challenges of the future. Those challenges include educating our children, improving the health and well-being of all our citizens, providing for our senior citizens, and extending the benefits of the economic expansion to all communities and all parts of this Nation.

We must help our children prepare for life in a global, information-driven economy. Success in this new environment requires that children have a high-quality education. That means safe, modern schools. It means making sure our children have well-trained teachers who demand high standards. It means making sure all schools are equipped with the best new technologies, so that children can harness the tools of the 21st century.

First and foremost, our children cannot continue trying to learn in schools that are so old they are falling apart. One-third of all public schools need extensive repair or replacement. By 2003 we will need an additional 2,400 schools nationwide to accommodate these rising enrollments. That is why, in

my State of the Union address, I proposed $24.8 billion in tax credit bonds over 2 years to modernize up to 6,000 schools, and a $1.3 billion school emergency loan and grant proposal to help renovate schools in high-poverty, high-need school districts.

Second, if our children are to succeed in the new digital economy, they must know how to use the tools of the 21st century. That is why the Vice President and I have fought for initiatives like the E-rate, which is providing $2 billion a year to help schools afford to network their classrooms and connect to the Internet. The E-rate and our other initiatives in education technology have gone a long way toward giving all children access to technology in their schools. But there is still a great "digital divide" when children go home. Children from wealthy families are far more likely to have access to a computer at home than children from poor or minority families. That is why, in my budget, I propose a new Digital Divide initiative that will expand support for community technology centers in low-income communities; a pilot project to expand home access to computers and the Internet for low-income families; and grants and loan guarantees to accelerate the deployment of high-speed networks in underserved rural and urban communities.

Third, we must continue to make college affordable and accessible for all Americans. I have proposed a college opportunity tax cut, which would invest $30 billion over 10 years in helping millions of families who now struggle to afford college for their children. When fully phased in, this initiative would give families the option to claim a tax deduction or a tax credit on up to $10,000 of tuition and fees for any postsecondary education in which their members enroll, whether college, graduate study, or training courses. I have proposed increases in Pell grants, Supplemental Educational Opportunity Grants, and Work Study. I have also proposed creating new College Completion Challenge Grants to encourage students to stay in college.

We have seen dramatic advances in health care over the course of the 20th century, which have led to an increase in life expectancy of almost 30 years. But much remains to be done to ensure that all have and maintain access to quality medical care. That is why my budget expands health care coverage, calls for passing a strong and enforceable Patients' Bill of Rights, strengthens and modernizes Medicare, addresses long-term care, and continues to promote life-saving research.

My budget invests over $110 billion over 10 years to improve the affordability, accessibility, and quality of health insurance. It will provide a new, affordable health insurance option for uninsured parents as well as accelerate enrollment of uninsured children who are eligible for Medicaid and the State Children's Health Insurance Program. The initiative will expand health insurance options for Americans facing unique barriers to coverage. For example, it will allow certain people aged 55-65 to buy into Medicare, and it

will give tax credits to workers who cannot afford the full costs of COBRA coverage after leaving a job. Finally, my initiative will provide funds to strengthen the public hospitals and clinics that provide health care directly to the uninsured. If enacted, this would be the largest investment in health coverage since Medicare was created in 1965, and one of the most significant steps we can take to help working families.

As our Nation ages and we live longer, we face new challenges in Medicare and long-term care. Despite improvements in Medicare in the past 7 years, the program begins this century with the disadvantages of insufficient funding, inadequate benefits, and outdated payment systems. To strengthen and modernize the program, I have proposed a comprehensive reform plan that would make Medicare more competitive and efficient and invest $400 billion over the next 10 years in extending solvency through 2025 and adding a long-overdue, voluntary prescription drug benefit.

The aging of America also underscores the need to build systems to provide long-term care. More than 5 million Americans require long-term care because of significant limitations due to illness or disability. About two-thirds of them are older Americans. That is why I have proposed a $27 billion investment over 10 years in long-term care. Its centerpiece is a $3,000 tax credit to defray the cost of long-term care. In addition, I propose to expand access to home-based care, to establish new support networks for caregivers, and to promote quality private long-term care insurance by offering it to Federal employees at group rates.

We must continue to make this economic expansion reach out to every corner of our country, leaving no town, city, or Native American reservation behind. That is why I am asking the Congress to authorize two additional components of our New Markets agenda. The first is the New Markets Venture Capital Firms program, geared toward helping small and first-time businesses. The second is America's Private Investment Companies, modeled on the Overseas Private Investment Corporation, to help larger businesses expand or relocate to distressed inner-city and rural areas. Overall the New Markets initiative could spur $22 billion of new equity investment in our underserved communities.

I am also proposing a new initiative called First Accounts, to expand access to financial services for low- and moderate-income Americans. We will work with private financial institutions to encourage the creation of low-cost bank accounts for low-income families. We will help bring more automated teller machines to safe places in low-income communities, such as the post office. And we will educate Americans about managing household finances and building assets over time.

To further increase opportunities for working families, I am proposing another expansion of the EITC to provide tax relief for 6.4 million

hard-pressed families—with additional benefits for families with three or more children. We have seen the dramatic effects that our 1993 expansion of the EITC had in reducing poverty and encouraging work: 4.3 million people were directly lifted out of poverty by the EITC in 1998 alone. More single mothers are working than ever before, and the child poverty rate is at its lowest since 1980.

Our initiatives to open overseas markets will continue. We have successfully concluded bilateral negotiations on China's accession to the World Trade Organization and now seek congressional action to provide China with permanent normal trade relations. The United States will also work to give the least developed countries greater access to global markets. We will participate in the scheduled multilateral talks to liberalize trade in services and agriculture and will continue to press our trading partners to launch a new round of negotiations within the World Trade Organization.

We have a historic opportunity to answer the challenges ahead: to increase economic opportunity for all American families; to provide quality, affordable child care, health care, and long-term care; and to give our children the best education in the world. Working together, we can meet these great challenges and make this new millennium one of ever-increasing promise, hope, and opportunity for all Americans.

THE WHITE HOUSE
FEBRUARY 10, 2000

THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS

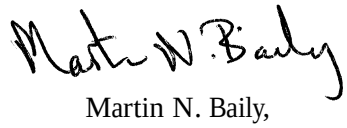
LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., February 10, 2000.

MR. PRESIDENT:

The Council of Economic Advisers herewith submits its 2000 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,



Martin N. Baily,
Chairman

Robert Z. Lawrence,
Member

Kathryn L. Shaw,
Member-Nominee

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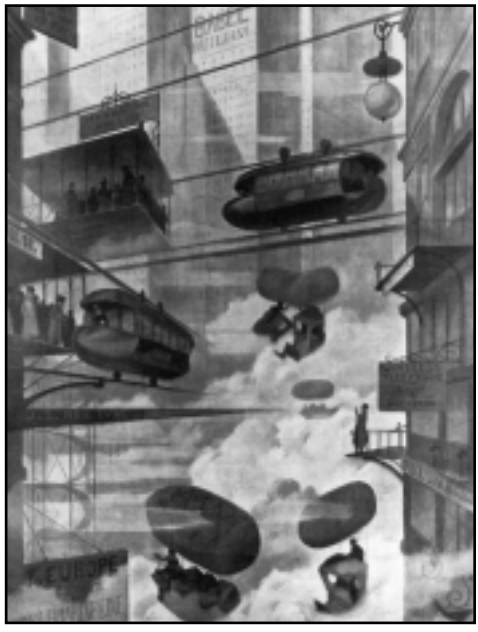

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In January 1901, Collier's Weekly Magazine *published this vision of what the future might look like. The editors envisioned that by the year 2001, Broadway in New York City would offer modern inventions "carried to the highest point of development," such as 6-hour trans-Atlantic submarine rides, a "Manhattan Air Line" used much like buses for local transportation, compressed food tablets for fast-food lunches, and wireless telephones that could even phone Europe.*

The 20th century was one of dramatic growth, change, and new opportunity for America. Technological innovation, globalization, and demographic shifts have led to fundamental changes in our economy, creating new industries, transforming how businesses operate, altering the nature of work, reshaping the typical family, and changing the scope of environmental problems. The American economy today is more prosperous and more diverse and offers Americans more possibilities and choices than ever before. But new challenges have accompanied those changes, and policymakers must continue to seek ways to harness and maximize the benefits for all Americans.

Rising to these policy challenges is particularly appropriate as we seek to sustain the phenomenal economic performance America currently enjoys. We are on the brink of achieving the longest economic expansion on record. Perhaps even more important, this expansion has been not just long but broad and deep as well. Unlike in the last long expansion, all income classes have shared in the benefits, capturing real, across-the-board income gains. The unemployment rate is lower than it has been in 30 years, even as core inflation has fallen to its lowest point in 34 years. The poverty rate is the lowest since 1979. In the past 7 years we have moved from a Federal budget deficit of $290 billion to a surplus of $124 billion. That has helped keep interest rates low and freed up capital for investment, which, in turn, has helped productivity rise over the course of this expansion. We are now seeing the payoffs of a concerted policy strategy of exercising fiscal discipline, of investing in education, training, and technology, and of opening markets abroad. Indeed, this expansion so far has defied the odds: it has achieved low unemployment, low inflation, strong growth, strong investment, rising productivity, and across-the-board income growth—all simultaneously.

In this *Economic Report of the President* for the year 2000, we have outlined some of the key economic changes of the past century and analyzed some of the principal factors driving those changes. We have discussed the new opportunities and the new challenges that have emerged as the United States has moved from an agrarian and industrial economy, anchored in the production of goods, to an increasingly information-driven economy, fueled by the exchange of services and ideas.

A Look Back

To appreciate how far we have come, it is instructive to look back on what American life was like in 1900. At the turn of the century, fewer than 10 percent of homes had electricity, and fewer than 2 percent of people had telephones. An automobile was a luxury that only the very wealthy could afford. Many women still sewed their own clothes and gave birth at home. Because chlorination had not yet been introduced and water filtration was rare, typhoid fever, spread by contaminated water, was a common affliction. One in 10 children died in infancy. Average life expectancy was a mere 47 years. Fewer than 14 percent of Americans graduated from high school.

The typical family was a two-parent family where the father was the breadwinner and the mother did not work for pay. Fully 80 percent of American children lived in this kind of family. Fewer than 10 percent lived in single-parent homes. Widowhood was far more common than divorce. The average household had close to five members, and a fifth of all households had seven or more.

More than 40 percent of the work force labored in agriculture. Average income per capita, in 1999 dollars, was about $4,200. Options for women and minorities in the work force were limited. The overwhelming majority of women worked at home or on the farm. Only about 20 percent of women were in the labor force, and those who did work were likely to be unmarried and in low-paying occupations. Over 90 percent of African American women worked as either farm laborers or domestic servants. The typical workweek in manufacturing was about 50 hours, 20 percent longer than the average today.

In 1900 only 5 percent of factories used electricity as a power source. The rest still used steam or water power to drive their machines through intricate arrangements of wheels, belts, and shafts. By far the greater part of the productive economy was involved in making goods. Only about 30 percent of workers were employed in service industries, and services made up just 2 percent of U.S. exports. Although international trade equaled about 15 percent of GNP, there was relatively little integration of national economies through investment and production arrangements.

The American Economy Today

The broad contrasts between America in 1900 and America today are striking. Some of the most dramatic improvements have been in the area of public health. Infant mortality dropped by more than 90 percent over the course of the century. Life expectancy has increased by about 30 years. Diseases such as typhoid, cholera, smallpox, and polio have been dramatically reduced or even eliminated through improved sanitation and the widespread use of vaccines.

Average income per capita is now $33,740, more than eight times what it was at the beginning of the 20th century. Just 3 percent of the labor force now work on farms. More than 40 percent of total employment is in industries that are intensive users of information technology. And studies project that the five fastest growing occupations between now and 2008 will be related to computers. The service sector accounts for 50 percent of the 20 million new jobs created over the last 7 years, and services are now about 29 percent of exports. More than 80 percent of Americans aged 25 and over have graduated from high school, and almost a quarter have graduated from college.

The long-standing gender gap in education has disappeared—women are in fact graduating from high school and college at slightly higher rates than men. Over 75 percent of women aged 25-44 are in the work force. Women and minorities are now employed in a broad range of industries and occupations that had previously been closed to them. And although the pay gaps

between men and women, and between whites and minorities, have not yet disappeared, they have shrunk significantly.

The "typical" family today is much more diverse. Some 28 percent of children now live in single-parent families, and another 44 percent live in families where both parents are in the paid labor force. Only 24 percent of children now live in what used to be the typical model of a breadwinner-father and homemaker-mother. Meanwhile many other types of family arrangements, including unmarried-partner households and same-sex-partner households, have become more commonplace.

Today, the vast majority of households have electricity, telephones, and automobiles. A number of appliances that did not exist 100 years ago are now considered common, if not essential, household fixtures: televisions, videocassette recorders, refrigerators, washing machines, wireless phones, and personal computers, to name a few.

America's international trade (exports plus imports) now amounts to nearly 25 percent of GNP. Both trade and cross-border investment have been spurred by a range of new technologies and products that have cut transport costs and allowed producers and investors continents apart to coordinate their activities with ever greater ease. A U.S. computer manufacturer can import components from foreign suppliers or its own overseas facilities. International mutual funds allow American families to diversify their savings across both industrial and emerging markets abroad. And with the advent of e-commerce, consumers around the world can order a wealth of goods that they might never find at their local shopping centers.

The Drivers of Change and the Challenges Ahead

These dramatic changes have been driven by a number of factors. As this Report has outlined, among the most important are technology, demographic change, and globalization. America now faces a number of unique challenges as we try to maximize the benefits to all Americans of the internationally integrated, technologically advanced economy in which we now live.

Technology

From electricity to mass production to telecommunications and e-commerce, technological innovation has been a constant in the American economy, and its effects have been far-reaching. Entire industries that only a few decades ago did not even exist, such as the computer industry, are now leading engines of growth. Between 1995 and 1998, information technology-producing industries contributed, on average, 35 percent of the Nation's real economic growth. Computers are cited as a principal factor in the recent increase in productivity

growth and are credited with helping keep inflation low. The computer industry itself has achieved dramatic productivity increases: prices of computers have fallen nearly 30 percent per year on average since 1995. And as companies integrate computers, information, communications technology, and, most recently, the Internet and e-commerce into their business practices, there is evidence that technological innovation is changing the very fabric and structure of industries. Many economists now posit that we are entering a new, digital economy that could inaugurate an unprecedented period of sustainable, rapid growth.

Among the challenges posed by the evolving digital economy is maintaining the economic conditions that will sustain the virtuous cycle of low interest rates, high investment, increasing productivity, low inflation, and strong growth that we currently enjoy. As this Report has noted, fiscal discipline is a key underpinning of these trends. In addition, government policies must foster the competitive dynamic that encourages firms both new and old to introduce innovative products and services, to lower prices through gains in productivity, and to expand customer choice and improve customer service. The greater competition promoted by the Telecommunications Act of 1996, among other developments, has led to explosive investment in communications infrastructure in recent years. This, in turn, has led to a proliferation of new and increasingly affordable information and data services. As both consumers and businesses make increasing use of the Internet and e-commerce, these new tools are beginning to have pervasive effects on how business is conducted—much as the advent of electricity or mass production did earlier in the century.

The American job market is adapting to change with much the same vigor. Workers who are well educated and technologically skilled command a substantial wage premium in today's information-driven economy. Information technology-producing industries have experienced faster than average job growth in recent years. In 1997 they added 350,000 jobs—a 7.7 percent increase from 1996—compared with average employment growth in the broader economy of about 3 percent. Those jobs, moreover, pay a significant premium: salaries average $53,000, compared with an economy-wide average of $30,000.

Now is the time to make the right strategic investments in education and training, so that the American work force will be well prepared to take advantage of these new opportunities. Government policies that address this task encompass initiatives to improve the quality and standards of schools, to encourage students to stay in school, and to help schools afford the technology necessary to teach students the skills needed in the 21st century job market. Programs such as the E-rate, together with other initiatives in education technology, play a valuable role in closing the digital divide by ensuring that all students, whatever their family's income and wherever they live, have access to computers, Internet connections, and teachers trained in the new technologies.

Demographic Change

Over the course of the century, a number of demographic changes altered the profile of the typical American family. The massive entry of women into the work force reflects new opportunities for women but also places new demands on families. More and more families today are dual-earner or single-parent families. Without a parent available full-time to care for the home and children, these families often face both a time crunch and a money crunch as they seek to balance the needs of work and family life. To enable families to reap the maximum benefit from the economic expansion while still meeting all their members' needs, the Administration has proposed a number of policies tailored to today's diverse families. These include increases in the minimum wage; expansions of the Earned Income Tax Credit and the child care tax credit; enactment of the Family Medical Leave Act; measures that promote more flexible working arrangements; and the New Market initiative to extend the benefits to areas that have been left behind. All these are playing critical roles in helping working families get or stay in the job market, raise their standards of living, continue to reduce poverty, and provide for their children.

At the same time, the combination of longer life spans and the aging of the baby boom has given new urgency to the issues surrounding care for older generations. The graying of the population poses a clear challenge to policymakers to strengthen Social Security and Medicare so that they continue to meet the changing needs of older Americans, including helping them afford the prescription drugs that are becoming increasingly important in medical care.

Globalization

America's increasing openness to the world, through trade, investment, and the integration of cross-border business operations, has been yet another driver of change that has made our economy more prosperous. The freedom of firms to choose from a wider range of inputs, and of consumers to choose from a wider range of products, improves efficiency, promotes innovation in technology and management, encourages the transfer of technology, and otherwise enhances productivity growth. These benefits in turn lead to higher real incomes and wages. Quite in contrast to the commonly expressed fear that globalization hurts American workers, our experience in the 20th century has shown that as we have grown more open to globalization, we have grown more prosperous, and both workers and consumers in the aggregate have realized the benefits. Only a small share of worker dislocation has been attributed to trade. Policies that help ease the transition and offer retraining to those workers play an important role in their adjustment. But we as a Nation

have much to gain from continuing to work for trade liberalization through the World Trade Organization. We should work, however, to bring more transparency to the WTO, to make sure that developing countries benefit from globalization, and to encourage greater consideration of labor and environmental concerns.

Finally, as our society has become increasingly global in its outlook, and increasingly scientific in its approach to problems, we have developed a greater understanding of the environmental challenges facing the planet. At the beginning of the 20th century, those environmental problems that were recognized tended to be local in nature, from the horse manure that fouled city streets to the contamination of drinking water. As the economy grew and changed, some existing environmental problems got worse while others appeared for the first time, but that same economic dynamism provided the resources and the innovation needed to address these problems. We realize now the need for local attention to certain environmental problems and for coordinated global attention to global environmental challenges.

We also have a better understanding of how to remedy environmental problems through market-based approaches to regulation. The experience with emissions permit trading and emissions charges illustrates how providing economic incentives can promote greater flexibility in how industries and other sources reduce their emissions. Such approaches have resulted in more cost-effective achievement of environmental goals. Market-based approaches can also stimulate the development and adoption of new, "cleaner" technologies. Based on our experience and the lessons we have learned in employing these market-based approaches, we are well positioned to explore how these approaches can provide the right incentives for countries around the world to address environmental problems, especially global ones such as climate change. The whole world can benefit from the exchange of experiences and ideas, just as it benefits from the exchange of goods and services through wider international trade.

Conclusion

America stands at a unique juncture in its history. We are more prosperous, more technologically sophisticated, and more integrated into the global economy than ever before. The policy framework that has been in place over the last 7 years has allowed the growth potential of the private sector to be realized, and we as a Nation have flourished. Yet great challenges still lie ahead to ensure that the benefits of this golden age are sustained and shared as broadly as possible, and that the right investments are made in the future.

Fiscal discipline, to keep interest rates low and fuel continued investment, will remain fundamental to our policy strategy. Investing in education, health care, science, and technology will prepare our families and our firms for the

challenges ahead. Opening foreign markets and continuing to lower barriers to trade will help deepen the global integration that has served us well thus far. Harnessing market forces for the betterment of the environment will help sustain the economy's robust growth. The 20th century ended on a note of great achievement for America, but the century just beginning promises to be brighter still, provided we undertake prudent policies and make strategic investments for the future.

Sustaining a Record-Breaking Expansion

Courtesy of the Max Morath Collection

We had the largest industrial economy, the largest agricultural economy, the highest per capita income, the highest level of education. It must have been a wonderful time to be alive for most Americans, not for everybody, but for most Americans....I don't think we can understand what it was like in 1900 unless you think of optimism, of hope, of buoyancy, for the United States everything seemed to be going right.

— John Milton Cooper, Jr., in an interview for America 1900, *a documentary in The American Experience series on PBS*

The policy strategy of maintaining fiscal discipline, investing in people and technologies, and opening international markets has borne rich fruit, allowing the Nation to exploit new opportunities and reap the benefits of major scientific and technical advances. The results have been a 20-million-job increase in payroll employment since January 1993, the lowest unemployment rate since 1969, the lowest core inflation rate since 1965, the lowest poverty rate since 1979, rising productivity, significant gains all across the income distribution, and a Federal budget in surplus for 2 years in a row after nearly three decades of deficits. The current economic expansion, already the longest peacetime expansion on record, is on the threshold of becoming the longest ever. The mood of optimism that prevailed at the dawn of the 20th century prevails today as well.

These successes notwithstanding, the challenges we face on the threshold of the 21st century leave no room for complacency. Change is a constant in the American economy and an essential part of its success, but that success must be earned. America's workers and businesses need to prepare for the arrival of ever-newer technologies and new ways of doing business. Economic policy must adapt as well. And even beneficial change, unfortunately, can leave some people and localities behind. Today amid the general prosperity, some groups and communities remain in poverty and lack adequate health care coverage. Some workers may be displaced and see their standards of living suffer. And many families, well off and not so well off, are facing a time crunch as the demands of work compete with the needs of their children.

Lengthening life spans reflect the improved health of Americans in general, but together with changing demographics they present a major challenge for Medicare and Social Security in the new century. Engagement in the world economy has been vital to our economic success, but we have important work ahead in opening up markets and spreading the benefits of trade and investment more widely in the world. We also face the challenge of keeping the economy growing while preserving our natural environment.

In this first *Economic Report of the President* of the 21st century,* each chapter starts with a look back at the economic history of the century just ended and contrasts where Americans stood economically at the beginning of the century with where we stand now. The report reviews those key developments that offer enlightening perspectives on the century's achievements and that will help us concentrate our energies on the challenges to come. We will celebrate the successes, try to understand their causes, and draw from them lessons for facing future challenges.

This chapter starts with a look at U.S. economic performance over the past century. That performance has been, in a word, astounding. But it has also been uneven: in the first half of the century the economy endured a series of recessions, which culminated in the Great Depression. Although less severe, the variations in the second half of the century have also been significant. In particular, the economy's momentum seemed to be lost during the 20 years after 1973. That momentum has been recovered in the 1990s. This chapter therefore also examines some of the distinctive features of the 1990s expansion and the policies that have put it on track to be the longest expansion in the Nation's history and will, we expect, sustain it well into the future.

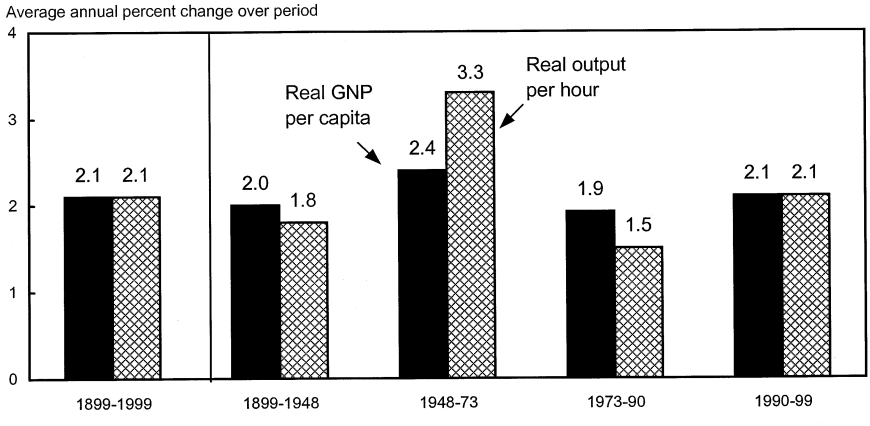
*This report follows popular convention in regarding the new century as having begun on January 1, 2000.

Growth and Inequality: A Century-Long Perspective

Over the past century the U.S. economy has recorded spectacular performance. It has found the 2 percent answer to the American dream: if living standards rise at 2 percent annually, they double every 35 years. This means that by the time they reach their mid-30s, parents can provide their children with a standard of living that is twice the level that they themselves enjoyed as children. By maintaining an annual average increase in gross national product (GNP) per capita of about 2.1 percent over the whole century, the U.S. economy exceeded this target (Chart 1-1). When incomes grow at this pace, each generation experiences a far more affluent lifestyle than the previous one, and over the course of a lifetime, Americans can expect, on average, a fourfold increase in living standards.

How much richer are Americans today than at the turn of the century? Despite the uncertainties in the data, it is clear that total growth of the economy has been remarkable. In 1999 the economy produced almost 30 times the volume of goods and services that it did in 1899, and it employed about 5 times as many workers in doing so. (That it took 5 rather than 30 times as many workers is tribute to another great accomplishment, namely, enormous increases in productivity.) Measured in 1999 dollars, average income per capita in 1899 was a little less than $4,200. With an average 1999 income of

Chart 1-1 **Growth in Income per Capita and Business Sector Output per Hour**
Over the last century, both income per capita and business sector output per hour grew about 2 percent per year on average, but that growth was not always smooth.



Note: Because of data availability, GNP per capita is used here instead of GDP per capita. Per capita figures use estimates of the resident population. Real private domestic product per hour proxies output per hour from 1899 to 1908. Figures for real GNP per capita and output per hour in 1999 are the average of the second and third quarters.
Sources: Department of Commerce (Bureau of the Census and Bureau of Economic Analysis); Department of Labor (Bureau of Labor Statistics); and Christina D. Romer, "The New Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy,* 1989.

$33,740, Americans today can acquire (and businesses can produce) more than eight times as many goods and services as could Americans living in 1899. But this simple comparison grossly understates the true improvement in living standards for three important reasons. First, it fails to fully account for the vast array of goods and services that were simply unavailable in the past: aircraft, antibiotics, air conditioners, radio and television, and computers, to name only a few. Second, it fails to account for a substantial increase in leisure, as the typical workweek has fallen to 35 hours. Third, it fails to account for the impact of the improved health of the population in raising life expectancy from 47.3 years in 1900 to about 77 years today, while also improving the quality of those added years. (However, the improvement in living standards may be overstated to the extent that workers, particularly women, have shifted from nonmarket work at home, which is not captured in the GNP measure, to market activity, which is.)

Through sustained economic growth, the United States has been able to accomplish much both at home and abroad. Although poverty rates still remain too high, growth has been the driving force lifting many of the poorest members of society out of poverty. Growth has created more opportunities and made it much easier to tackle the challenges of supporting a growing number of retirees. By maintaining solid growth, the United States moved to a position of global economic leadership sometime near the start of the century and remains in that position today. Recent World Bank data show that U.S. income per capita is 27 percent greater than income per capita in Japan, and 47 percent greater than that in Germany (based on purchasing power parities).

As Chapter 2 documents, progress over the century has not always been smooth. In the century's first half, growth was punctuated by several deep recessions and by the disaster of the Great Depression. Fewer workers were employed in 1939 than in 1929. Nonetheless, despite economic instability and two world wars, in the first 50 years of the century income per capita more than doubled, and income inequality declined.

The Golden Years of Equitable Growth

The quarter century after World War II was a period of rapid increase in productivity growth, and the resulting rise in living standards was remarkable. From the cyclical peak of 1948 to that of 1973, business sector output per hour rose by more than 3 percent per year, as innovative technologies, strong capital investment, and a more skilled and educated work force proved mutually reinforcing (Chart 1-1). Recessions interrupted this growth, but median family income rose by 3.0 percent per year on average, and the gains were widely shared. The average income of the poorest fifth of families rose 3.4 percent annually, whereas that of the top quintile grew at a 2.8

percent annual rate. On average, living standards in 1973 were 82 percent higher than in 1948. These were years when the American dream seemed achievable for all.

Growth Undermined: Stagflation, Rising Inequality, and Deficits

The two decades after 1973 were a rude awakening. It appeared as if the early postwar vision of continuously rising incomes for all had indeed been just a dream. The economy's performance deteriorated noticeably in several dimensions. First, there was much greater economic instability than in the early postwar period. Spurred by rising oil prices, inflation jumped to 11 percent in 1974, and a deep recession followed. After a few years of recovery, inflation then soared to new heights, hitting 13.5 percent in 1980. When, in response, monetary policy made a dedicated effort to bring inflation under control, the economy entered the deepest recession of the postwar period: unemployment rose to 10.8 percent in November 1982. Between 1973 and 1983 the U.S. economy recorded average yearly inflation and unemployment rates of 8.4 and 7.2 percent, respectively—this was the period of the infamous stagflation. The economy did grow strongly in the mid-1980s, but exploding Federal deficits, caused by a lack of fiscal discipline, together with the crisis in the savings and loan industry, undermined that success. Inflation again started to rise, and the economy was already teetering on the edge of recession in 1990 when declining consumer confidence following the Iraqi invasion of Kuwait pushed it over the edge.

Second, growth in productivity lost its momentum. Between 1973 and 1990, growth in business sector output per hour rose at 1½ percent per year—about half its rate from 1948 to 1973. Slower productivity growth in turn affected wages. Between 1973 and 1993, annual growth in real compensation per hour averaged 0.8 percent. Real earnings declined at the end of the 1980s expansion and continued to decline in the 1990-91 recession. The economy did sustain a 1.9 percent annual increase in income per capita over the 1973-90 period, but this was due primarily to rapid labor force growth as more women and baby-boomers went to work.

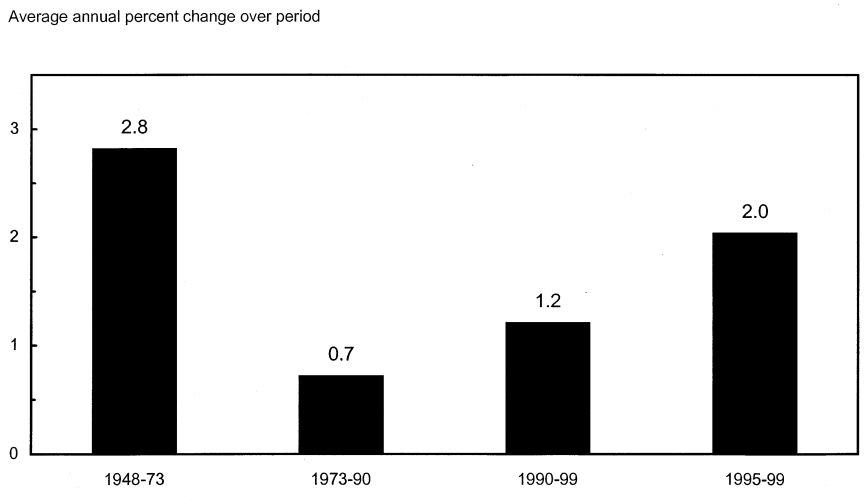
Third, the years between 1973 and 1993 also saw a marked increase in inequality: not only were real income gains meager, but they were also unevenly shared. Those at the top did far better than those at the bottom. After adjusting for consumer price inflation, income for the top quintile of families increased at a 1.3 percent annual pace, but growth was minimal for the middle class and markedly negative for the less well off. These income data were partly driven by developments in earnings: between 1979 and 1993, real earnings in the lowest decile declined by 0.6 percent, whereas

those in the highest decile rose 0.3 percent. The premium earned by college graduates over high school graduates increased from about 40 percent to 70 percent. Moreover, the dispersion of earnings increased even for workers with similar education and demographic characteristics. Finally, the poverty rate of 13.5 percent at the cyclical peak in 1990 was considerably higher than at the peak in 1973.

The Return to Broad-Based Growth in a Record-Breaking Expansion

The expansion that began hesitantly in 1991 found its stride and has been sustained. It will in all likelihood have become the longest expansion in U.S. history—107 months free of recession—in February 2000. Since the beginning of 1993, payroll employment has increased by more than 20 million jobs. Boosted by higher employment and faster productivity growth, output growth has been strong, with GNP per capita rising at an average rate of 2.7 percent per year between the first quarter of 1993 and the third quarter of 1999. Participation in the labor force has increased to a record 67 percent of the working-age population, yet the annual unemployment rate has declined to 4.2 percent—a level not seen in 30 years. After remaining sluggish in the early years of the expansion, output per hour has accelerated, to an average annual growth rate of 2.8 percent between the fourth quarter of 1995 and the third quarter of 1999. In response, solid real compensation gains have been recorded (Chart 1-2).

Chart 1-2 **Growth in Real Compensation per Hour (Nonfarm Business Sector)**
Real compensation gains have accelerated in the last few years.

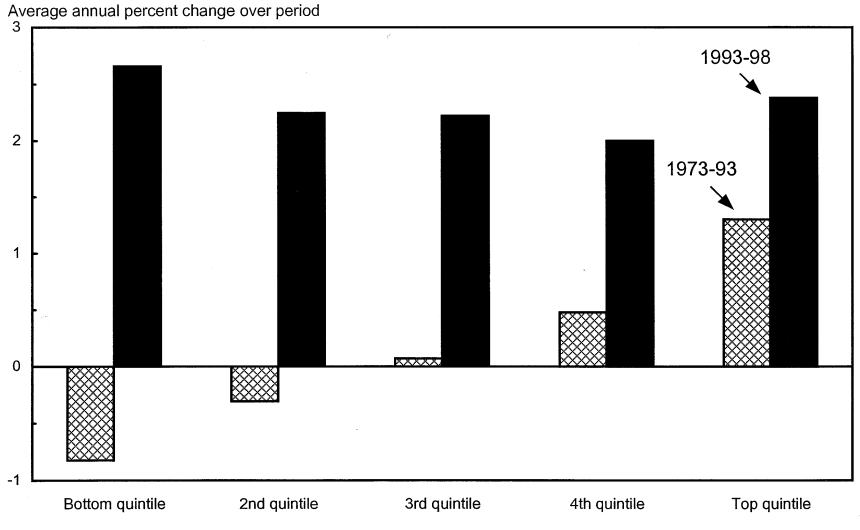


Note: Hourly compensation data are deflated by the CPI-U-RS. Data are spliced between series for 1948-58 and series for 1958-99. Figure for 1999 is the average of the second and third quarters.
Source: Department of Labor (Bureau of Labor Statistics).

The benefits of this growth have been widely shared as well. Some observers focus on changes over a decade or two and conclude that inequality is still rising, but they ignore the recent trends. Between 1993 and 1998, real average household incomes have grown by between 9.9 and 11.7 percent for every quintile of the income distribution, and the median African American household has seen a 15 percent increase in real income. Between 1993 and 1998, family incomes in the lowest quintile rose at a 2.7 percent annual rate, slightly faster than the 2.4 percent rate recorded by the top quintile (Chart 1-3). This recent experience contrasts sharply with the performance from 1973 to 1993. Similar breadth is evident in the growth of earnings. Although wage inequality continued to widen through 1994, for the past 5 years weekly earnings growth has been broad-based.

The economy is increasingly providing workers with good employment opportunities. A recent analysis by the Council of Economic Advisers and the Department of Labor found that 81 percent of new jobs created from 1993 to 1999 are located in industry and occupation categories that pay wages above the median. These good jobs have not gone only to the professional elite: even when professional occupations were excluded from the sample, the study found that 71 percent of new jobs were in categories paying above the median wage. Nor are workers with college degrees the only ones gaining ground. Among workers with only a high school education, an overwhelming proportion of job growth was found to occur in those industry and occupation categories in which these workers earn the highest wages.

Chart 1-3 **Growth in Mean Real Family Income by Quintile**
Incomes rose for the richest and fell for the poorest from 1973 to 1993, widening inequality. Since 1993, income growth has been solid across all income groups.



Source: Department of Commerce (Bureau of the Census).

Data on poverty also show progress. The proportion of Americans living in poverty fell from 15.1 percent in 1993 to 12.7 percent in 1998. The poverty rate for African Americans in 1998, although still high at 26.1 percent, was the lowest ever recorded, and that for Hispanics is the lowest it has been since 1979. Since 1993, African American unemployment has declined from 13.0 percent to 8.0 percent, and Hispanic unemployment has fallen from 10.7 percent to 6.4 percent. For both groups these represent the lowest rates on record. Meanwhile the unemployment rate for females aged 16 and over has dropped to 4.3 percent, the lowest in 46 years.

Data on the probability of job displacement, which showed a rise in the late 1980s and early 1990s, show a drop since then. The share of all workers with 3 or more years of job tenure who became displaced from their jobs was 3.9 percent in the 1991-92 period but declined to 2.9 percent in the 1995-96 period. And because the labor market has been so robust in the 1990s, the rate of reemployment following displacement has been higher in this decade, as have earnings after displacement, than at comparable levels of unemployment during the 1980s. Workers' fears of job loss have also eased in recent years: the share of workers who believe they are likely to lose their jobs declined from 12 percent in 1993 to 8 percent in 1998.

The Engines of the 1990s Expansion

The performance of the economy over this expansion has surprised most observers. Two decades of slow growth and rising inequality have ended. In their place is a record-breaking expansion that has brought strong and equitable growth. The gloomy view of long-term U.S. prospects so popular in the 1970s and 1980s has proved decidedly misguided. The record of the past 7 years suggests that it may be time to reappraise what one popular book at the turn of the last decade called the Nation's "diminished expectations." Before undertaking such a reappraisal, however, it is useful to identify the principal engines of this expansion, and to see how these have resulted in an expansion that is unusual in important respects from previous long expansions. In this section we look at the policy and private sector drivers of growth under four headings: technology; trade and competition; education and skills; and pro-investment policies.

Information and Other Technology

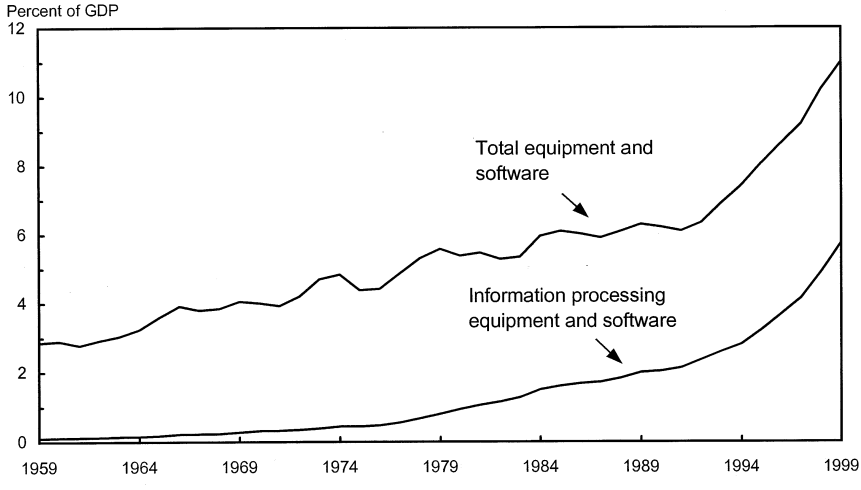
The economy is clearly in the ferment of rapid technological change (a story documented in Chapter 3). One powerful contributor to the strength of this expansion has been investment in plant and equipment, particularly

computers and information technology. Prices of computers and semiconductors, adjusted for quality improvements, have been falling particularly rapidly. Investment in information processing equipment and software took off in the 1990s, growing at a rate of 19 percent per year from 1993 to 1999 (Chart 1-4). More broadly, the share of real investment in GDP has risen dramatically, as has the share of high-technology investment in total investment. Real spending on research and development (R&D) increased at an estimated annual rate of 5 percent between 1993 and 1999.

For many years it seemed that the information technology revolution was not paying off in higher productivity, but that now seems to be changing. Companies have learned to use the new technology to operate more efficiently. New ways of producing and delivering goods and services have been developed. Venture capitalists provide both funds and expertise to new companies with bold ideas. And of course, the improvements in communications technologies have been as dramatic as those in computers. The diffusion and development of the Internet promise continued productivity payoffs still to come.

The revolution in information technology is the most visible and probably the most important technological trend, but it is far from the only one. Materials science, biotechnology, and medical technology have all advanced rapidly and are generating their own economic benefits. America hosts many of the preeminent scientific research institutions in the world, which have pioneered numerous advances and trained the people who are now leading these technological revolutions.

Chart 1-4 **Real Private Investment in Equipment as a Share of Real GDP**
Growth in equipment investment surged in the 1990s, largely because of exceptional growth in investment in information technology equipment and software.



Note: Based on chained 1996 dollars.
Source: Department of Commerce (Bureau of Economic Analysis).

Over the years, government support of scientific research and education has been a vital element in the success of U.S. technology. Going forward, the increased funding proposed in the President's science and technology initiative is important to sustaining growth in the years to come.

Competition and Trade

Industries in which companies compete vigorously tend to be more productive. Conventional economic logic argues that companies operate efficiently and innovate whenever there is the chance of a profit payoff. In practice, however, companies can become complacent and keep doing things the old way even when new, more profitable methods are available. The pressures of competition encourage change and force companies to adopt the more productive methods. And even as it keeps the pressure on businesses to improve and innovate, competition exposes them to best-practice technologies that will help them to do so.

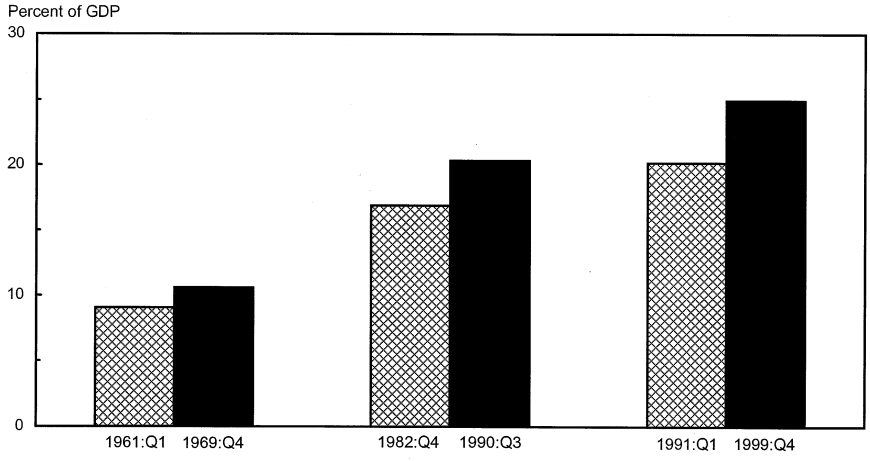
Competition in the global economy adds benefits beyond those from domestic competition. The economy benefits from trade as firms face new incentives, and resources shift to the most productive industries. In addition, companies that face global competition are exposed to best practices worldwide, challenging them to reach for the highest possible performance themselves. The U.S. economy has become increasingly open to overseas trade in the course of this expansion. Indeed, its importance in GDP has grown even more than in previous long expansions. Between 1991 and 1999, trade (measured as the sum of exports and imports) in goods and services as a share of GDP rose by 4.8 percentage points, compared with increases of 1.5 and 3.5 percentage points during the expansions of the 1960s and the 1980s, respectively (Chart 1-5).

The Administration's antitrust and regulatory policies have fostered competition at home. At the same time, its trade policies have worked to expand trade and open markets through major regional and multilateral agreements.

Education, Skills, and Work Incentives

Dazzling new technologies, redesigned business systems, new services—the promise of these sources of economic growth can be realized only if people have the skills and the knowledge to use them. To take advantage of the benefits of trade in expanding those industries where the United States has comparative advantage, workers must acquire the necessary skills. Workers who lose their jobs when industries contract, whether because of foreign competition or because of technological advance, must often be retrained in order to reenter the productive economy at a comparable living standard.

Chart 1-5 **Trade as a Share of GDP During Expansions**
Trade is a larger share of GDP and has grown more during the current expansion than in the two previous long expansions.



Note: Trade is the sum of nominal exports and imports of goods and services, on a national income and product accounts basis. Each pair of columns shows the beginning and ending of three long expansions, except for the current expansion, which has not yet peaked.
Source: Department of Commerce (Bureau of Economic Analysis).

Strong job growth and low unemployment have been possible in this expansion only because people have found that work has paid off. Providing work incentives is an essential element in strong economic growth. With one of the most highly educated, skilled, and motivated work forces in the world, the United States has also been able to take advantage of growth opportunities worldwide.

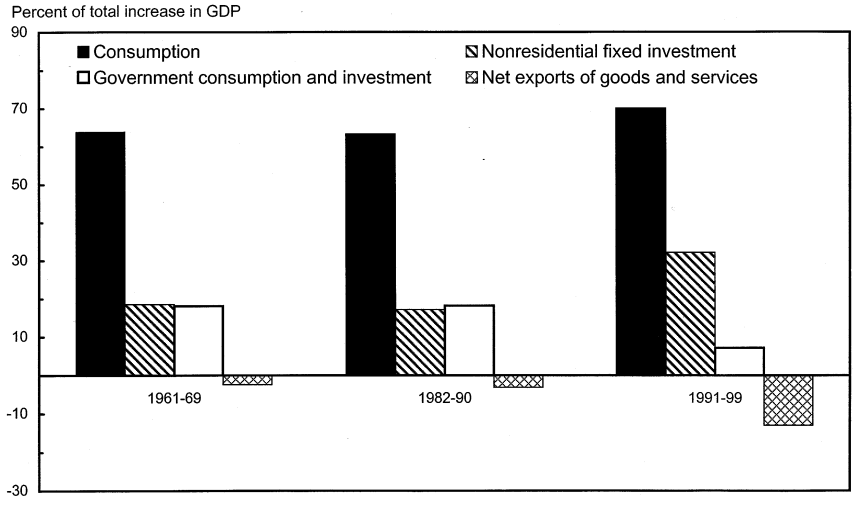
Policies to increase access to education and training and make work pay have been a central theme of economic policy in this expansion.

Pro-Investment Policies

Output growth in this expansion has gone predominantly to households and businesses rather than for government purchases. One can measure how the growth of GDP over time has been allocated among the components of GDP: consumption, investment, government purchases (Federal, State, and local), and net exports (Chart 1-6). When this is done, the current expansion stands out for the strong contribution of private investment spending. The contribution of government purchases of goods and services to growth has been only 7 percent, about a third of what it was in the two previous long expansions.

Government purchases of goods and services reflect the direct use of economic resources. But Federal spending also includes Social Security payments and other transfers to households and businesses. On this broader

Chart 1-6 **Contributions to Economic Growth During Expansions**
The current expansion has been driven more by growth in investment spending, and less by growth in government spending, than the two previous long expansions.



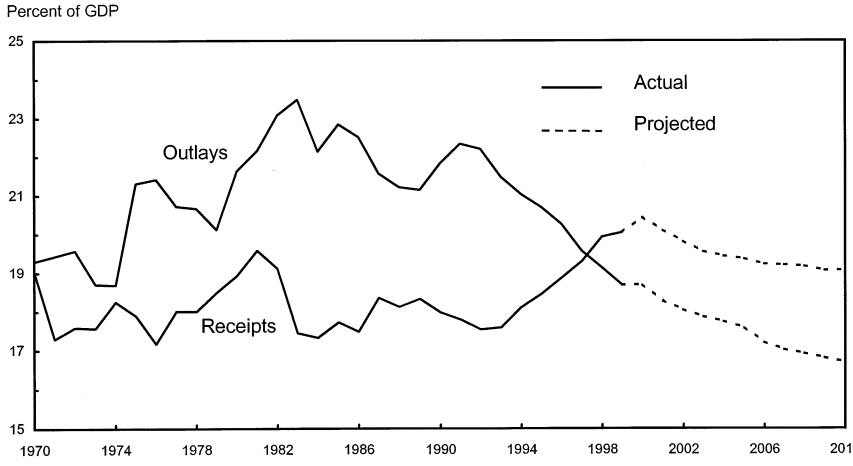
Source: Department of Commerce (Bureau of Economic Analysis) and Council of Economic Advisers.

basis, the current expansion also shows evidence of fiscal restraint. Federal outlays in 1991 were 22.3 percent of GDP. By fiscal 1999 this ratio had fallen to 18.7 percent, as efforts to restrain spending combined with strong economic growth. This decline in spending of 3.6 percentage points of GDP is much greater than the 1.3-percentage-point decline during the 1982-90 expansion. Since this measure typically declines as the economy moves out of recession—and the deeper the recession, the greater the decline—the comparison between the two expansions is striking given that the current expansion was launched from a much shallower recession. Moreover, this decline in spending occurred even as revenues were rising (Chart 1-7).

According to the Administration forecast, assuming implementation of policy as proposed by the President, Federal outlays are forecast to fall to 16.7 percent of GDP by 2010. This reduction results in part from a decline in interest costs as debt is paid off.

But perhaps the most dramatic illustration of how unusual budget policy has been in this expansion comes from estimates of the structural budget deficit by the Congressional Budget Office (CBO). The structural budget deficit adjusts the actual deficit to take out the effect of fluctuations in the business cycle. It estimates what the budget deficit would have been if GDP had been at its potential. According to the CBO's estimates, structural deficits were pervasive during the long expansion of the 1960s, except at the very beginning (Chart 1-8). And those deficits increased sharply until the tax increase of 1968. Throughout its duration, the expansion of the 1980s was

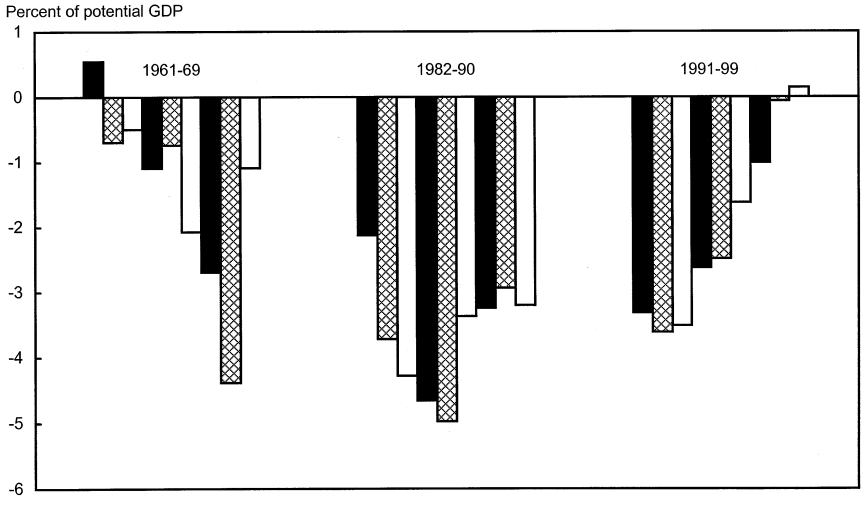
Chart 1-7 **Federal Budget Receipts and Outlays**
The fiscal surplus that emerged in 1998 reflects restraints in spending as revenues rose with the expansion.



Note: Outlays and receipts are on a unified basis for fiscal years.
Sources: Department of Commerce, Department of the Treasury, and Office of Management and Budget.

also associated with large structural deficits—and large actual deficits as well. This expansionary fiscal policy was accompanied by a tight monetary policy, and this combination of policies contributed to relatively high real interest rates and declining net national saving and domestic investment.

Chart 1-8 **Structural Federal Budget Balances During Expansions**
In contrast to previous long expansions, structural budget deficits have steadily declined since 1992 and eventually moved to surplus.



Note: Years are fiscal years.
Source: Congressional Budget Office, Standardized-Employment Budget.

The current expansion, by contrast, started with a large structural deficit and turned it around, to the point that there is now a structural surplus, as Federal spending has been kept in check while revenues have risen. Monetary policy, meanwhile, has been given the freedom to encourage real growth while keeping inflation low. Interest rates, as a result, have been lower than they would have been. Indeed, real interest rates in this expansion have been considerably lower than in the 1980s expansion. Using survey data to measure inflation expectations suggests that real short-term interest rates have been about half what they were in the 1980s expansion, and real long-term rates are about a third lower. Lower interest rates have stimulated investment spending, and this investment has, in turn, boosted capacity growth and raised productivity—two key factors that have helped keep inflation in check.

Although the current account (the balance of trade in goods and services plus net factor income and net transfers) moved into deficit in both the 1980s and the 1990s, the forces behind these shifts were different. In the 1980s both net national saving and net domestic investment declined as a percentage of GDP, so that foreign borrowing was used, directly or indirectly, to finance consumption and Federal budget deficits rather than investment. In the 1990s, by contrast, net national saving increased, and the capital inflow has helped finance an investment boom.

Key Features of the Expansion

Driven by technological advance, more open markets, and investment in physical capital and human skills—all with the ongoing support of Federal policy—this expansion is on track to become the longest ever. In 1999, the ninth year of the expansion, GDP grew by 4.0 percent, and 2.7 million payroll jobs were created. The expansion remained youthful-looking and vigorous despite its chronological age. How did the engines of this expansion, just described, translate their energy into such a sustained performance?

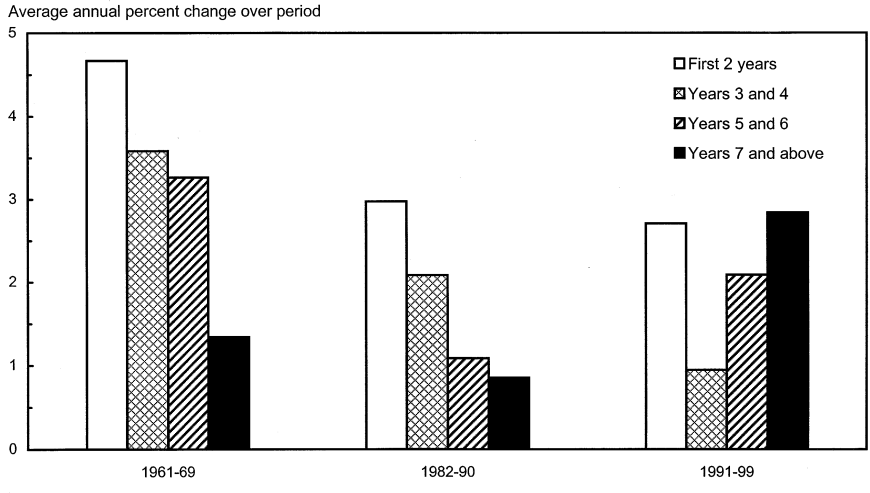
Productivity Growth

The start of an expansion is usually a period of rapid productivity growth. Companies set up factories and offices that are designed to produce a certain target level of output. In a recession, output falls below this target, plants operate less efficiently, and productivity falls. Companies may also retain valued workers that are not needed today but will be needed when the upturn comes, and this, too, lowers average productivity. The surge of productivity growth at the start of an expansion occurs as businesses are again able to make better use of their workers and their physical capital.

The magnitude of this surge varies from expansion to expansion and tends to be greater, the deeper the recession that preceded it. After a deep recession, there is more ground that can be made up before the economy returns to its long-term potential. After a while, however, this productivity surge ends, and the economy moves closer to its normal or trend rate of productivity growth, which is determined by the rates of capital accumulation, technological change, and enhancement of skills. Finally, in the last year or so of an expansion, productivity growth often slows again in what has been called an end-of-expansion effect. This likely results from diminishing returns, as capacity becomes strained and a shortage of experienced and skilled workers develops.

Chart 1-9 shows that the expansions of the 1960s and the 1980s very much followed this pattern. Productivity growth was rapid in the first 2-year period of the expansion but then started to fall off. It had dropped off sharply by the seventh year of expansion in both cases. But the pattern for the current expansion looks very different. After the initial productivity surge, growth fell for a couple of years, but since then it has actually been accelerating. Instead of looking like an old expansion suffering from diminishing returns, this one has been getting stronger. This pattern of strong productivity growth at a mature stage of the cycle is a key reason why this expansion is set to become the longest on record. And that is exactly the result one would expect from policies that have stimulated investment, technology development, and skill enhancement.

Chart 1-9 **Growth in Nonfarm Business Sector Output per Hour During Expansions**
Productivity growth has fallen over time during previous long expansions but has risen during the current one.



Note: The final column shows growth from 1997 through the third quarter of 1999.
Source: Department of Labor (Bureau of Labor Statistics).

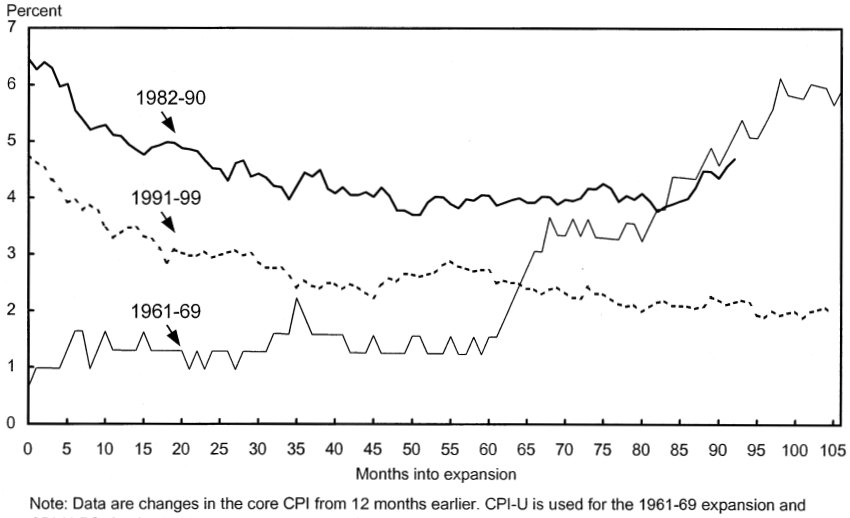
Inflation

Accelerating inflation poses a threat to expansions and, unless kept under control, eventually brings them to a halt. Chart 1-10 shows the pattern of core inflation, as measured by the consumer price index excluding food and energy, in the three long expansions since 1960. The 1960s expansion was marked by 5 years of strong economic growth with low inflation. Administration policies in those years restored prosperity and full employment after bouts with recession between 1957 and 1961. But during the mid-1960s, the pressures of expenditure at the time of the Vietnam War stretched industrial capacity too much, causing inflation to accelerate rapidly, until rising interest rates and monetary restraint brought the expansion to an end.

The 1980s expansion started with very high unemployment and slack resources, which helped restrain inflation in the early years of the expansion, as did the collapse of oil prices and a strong dollar. But eventually the inflation path flattened out and started to turn up as the economy reached lower levels of unemployment.

The pattern of inflation over the current expansion is surprising: core inflation has been low and stable, when not actually declining, even as unemployment has approached 4 percent. Chapter 2 describes several factors that have contributed to this combination of low inflation and low unemployment. Certainly the pattern of productivity described earlier and the rapid expansion of capacity have been important. The importance of investment for productivity growth was noted above, but rapid investment growth

Chart 1-10 **Core Inflation Rates During Expansions**
Unlike in prior long expansions, the core inflation rate, which excludes food and energy price changes, has declined throughout most of the current expansion.



Note: Data are changes in the core CPI from 12 months earlier. CPI-U is used for the 1961-69 expansion and CPI-U-RS for the 1982-90 and 1991- expansions.
Source: Department of Labor (Bureau of Labor Statistics).

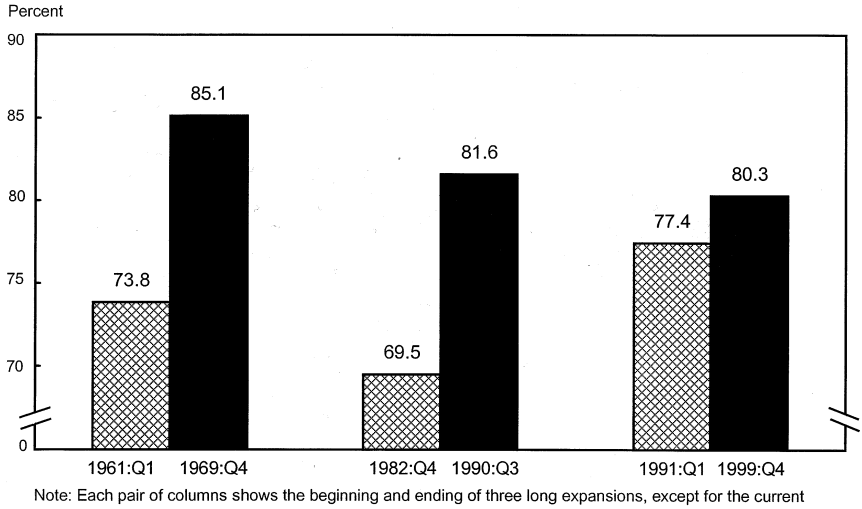
has also been the driver of capacity expansion. Chart 1-11 shows that capacity utilization has remained at a moderate level and has grown more slowly than in previous long expansions.

Questioning the Causes of Inequality

Three of the major driving forces behind the economy's recent success—rapid technological change, increased trade, and tight fiscal policy—have all in the past been viewed by some as sources of greater inequality of income. It is remarkable, therefore, that even though these forces have been particularly powerful in the current expansion, the trend toward greater inequality that began in the 1970s has been arrested, and income gains are now being shared equally across income groups.

Economists are sometimes said to agree on very little, but there is a broad consensus among them that the most important cause of rising earnings inequality in the 1970s and 1980s was technological change. It was simply a matter of supply and demand. The supply of highly skilled and well-educated workers was growing relatively rapidly during these years. Between 1973 and 1992, for example, the share of the civilian labor force with some college education increased from 29.4 percent to 51.6 percent—or 3 percent a year on average. But the relative earnings of these workers were rising even as their supply was expanding, because demand was growing even faster. Something,

Chart 1-11 **Capacity Utilization in Manufacturing During Long Expansions**
The capacity utilization rate is lower and has grown more slowly in this expansion than at comparable junctures in past long expansions.



Note: Each pair of columns shows the beginning and ending of three long expansions, except for the current expansion, which has not yet peaked.
Source: Board of Governors of the Federal Reserve System.

it was argued, must be shifting the relative demand for skilled and unskilled workers, raising demand for the former and lowering it for the latter. Some attributed this skill bias to the impact of new capital investment in general and computers in particular; others saw changes in management approaches and the adoption of new, more flexible production methods as the cause. In either case, technological change was seen as at the root of the wage disparity.

A second cause of inequality has been said to be international trade, although most economists believed its contribution was far smaller than that of technological change. Expanded trade benefits all countries that take part, but within each country some people and industries may be hurt. Those who maintain that trade had increased inequality made the following argument. As developing countries with many low-skilled workers increasingly participate in trade, they put downward pressure on world prices of products intensive in low-skilled labor. If the United States then opens up to trade with these countries, low-skilled workers here become less scarce in the world market, and their relative wages fall. Some claimed that globalization imposes painful consequences on relatively underskilled workers: accept lower wages, as in the United States, or suffer higher unemployment, as in many European countries. In addition, the threat of foreign outsourcing by firms and of increased international competition was said to have reduced labor's bargaining power—a factor also sometimes held responsible for the slow rise in real wages.

Still other institutional and structural changes in the economy have been implicated in increasing inequality. The decline in union membership, for example, is seen as a factor reducing the bargaining power of U.S. workers. A second source has been changes in the mix of industries, in particular the relative decline in manufacturing employment for reasons other than international trade. A third element was the decline in the real minimum wage.

To be sure, some of these proposed explanations are not mutually exclusive. Indeed, they may be interrelated. International competition may have stimulated technological change. It has also been invoked to help explain the declining share of manufacturing employment. Some also blame technology and trade for higher structural unemployment: both may bring about structural change in the economy, as employment rises in some industries but falls in others. Workers who have developed skills in one field are forced to make a difficult transition into another.

Finally, there is a view that the rise in inequality could be attributed to cuts in government social expenditure. The reductions in poverty in the 1960s, in this view, were not simply the result of faster economic growth. The expansion of social programs, particularly Social Security for the elderly, played an important role. By contrast, cutbacks in social spending were seen as hurting the poor in the 1980s.

In light of these explanations, the recent direction of trends in inequality is surprising. As reflected in the data on investment and productivity growth, technological change appears to have accelerated over the past 5 years. Trade and international investment have expanded at rapid rates, the price pressures from this increased trade have been considerable, and the trade deficit has grown. Yet over this same period, real average hourly earnings have increased, and income gains have been widely shared, in contrast to the 1980s. Moreover, research shows that the hourly wages of lower wage groups have increased about as much as or more than the wages of upper wage groups.

This remarkable turnaround shows that *rapid growth in an open economy can occur without worsening inequality.* There always was a nagging doubt associated with blaming technological change for rising inequality. Why, during the 1980s, was technological change apparently contributing little or nothing to productivity growth, yet at the same time causing major shifts in relative wages? Likewise, the explanation that ascribes a role to trade was always controversial, because the evidence in support of these claims either was weak or suggested that any impacts were small. This is not surprising, because most U.S. workers are in domestic industries where there is little or no international trade. Moreover, a large proportion of U.S. trade is with countries such as Canada, Germany, and Japan, where wages are not very different from those in the United States. Only a small fraction of U.S. workers compete directly against very low wage workers overseas. To be sure, in some economic models, international competition in even a few industries is the sole determinant of relative wages across the economy, but the evidence is that many domestic factors have an important influence on relative wages.

Whatever the explanation for the growth in inequality during the 1980s, the recent experience suggests that it is time to reappraise the inevitability of the allegedly adverse impacts of technology and trade. It is time to look at the ways in which they may actually help foster growth with equity, and to recognize that a flexible economy can adjust to these changes.

Rapid productivity growth and openness to trade—and the policies that have supported them—have allowed the U.S. economy to operate *and sustain* a high-employment economy. And in this high-employment economy, employers have been recruiting workers at all skill levels and training many who lack the necessary skills. Moreover, faster productivity growth may allow firms to pay higher wages without raising prices, thus dampening the inflationary impact of higher levels of employment. Similarly, falling import prices will increase purchasing power, enabling real wages to rise without accelerating inflation; surplus global capacity can also help reduce inflationary pressures.

It is also quite possible that the shocks due to technology and trade have been dissipated over time by responses in the economy itself. One possibility

is that the direction of technological change responds to economic incentives. As the relative cost of workers who are less well educated falls, firms have an increased incentive to employ them. Similarly, as international competitive pressures increase, firms either figure out new strategies (improved technology, new products, or higher quality of existing products) that allow them to compete, or they exit. Those firms that survive can compete successfully with low-wage countries and thus are less affected by pressures to reduce wages. The result is a far more resilient economy.

Finally, the connection between aggregate government spending and poverty reduction is too simplistic. Determined deficit reduction in the 1990s has not hurt efforts to reduce poverty, because spending has been more carefully targeted. Increased funding for the Earned Income Tax Credit and for education and training programs has played an important role. Also important have been increases in the minimum wage. Certainly a higher minimum wage has raised wages at the bottom of the income distribution, and it has not had a noticeably negative impact on employment of the lowest paid workers.

Taken as a whole, the evidence on inequality suggests that policy has been doing the right things. In addition, it provides an optimistic message. We remain masters of our fate. We are not, as some suggest, condemned to be buffeted by hostile global or technological forces, in the face of which we are helpless. To be sure, two qualifications to this proposition are in order. First, the final verdict on the impact of these forces is not yet in. The strongest test will be whether these more recent trends are sustained if there is slower growth at home and a global economic environment with less excess capacity. And second, we must not become complacent. Although the trend of rising inequality has been stopped, it has not been reversed. Similarly, although progress has been made in reducing poverty, poverty rates remain far too high. There remains much for policy to do, but the turnaround so far is heartening.

Is the Dream Restored?

Chapter 2 discusses reasons to believe that the level of unemployment at which the economy will experience strong inflationary pressures has declined. But far more important over the long run is the question of whether productivity growth has increased. Certainly a great deal of anecdotal evidence suggests that technological change has been particularly rapid and widespread, but until recently the official data offered scant proof that these changes had boosted productivity. Over the past few years, as this chapter has noted, productivity growth has clearly increased, but the full

implications of the economy's recent performance remain difficult to interpret because we have not seen the end of the current expansion.

One favorable interpretation of the unusual behavior of productivity growth in this cycle is that is not part of a typical cycle at all, but rather reflects a shift to a new wave of innovation. Typically, when a technology is first introduced, inexperience prevents users from extracting its full potential. Over time, however, users learn by doing and productivity accelerates. Similarly, it is possible that the innovations in the current technological wave are interrelated, so that breakthroughs in some areas yield benefits in many others. But we cannot be certain how long the current growth spurt can be sustained.

A conservative approach is to measure the change in productivity not from 1995 but from the previous cyclical peak in 1990, so that the last recession, the initial sluggish recovery, and the subsequent acceleration are all included. On that basis, it is striking that growth in GNP per capita at 2.1 percent per year, and that of GNP per worker at 1.8 percent per year, have matched the pace recorded for the century as a whole (Table 1-1). One cannot say for certain, therefore, that the past decade has witnessed the emergence of a new economy that will generate historically unprecedented growth. But we can be more confident that we have at least returned to the pace of growth sustained over most of the 20th century, which gave us the 2 percent answer to the American dream and the more than eightfold increase in output per worker over the 20th century. This, moreover, is a conservative view. There is certainly support, if not yet overwhelming evidence, for the view that the future could be even more prosperous.

TABLE 1-1.—*Growth in GNP, Business Sector Output per Hour, and Number of Employees for Selected Periods*

[Average annual percent change over period]

Year	Real GNP (1999 dollars)	Real GNP per capita (1999 dollars)	Real GNP per employee (1999 dollars)	Business sector output per hour (1996 dollars)	Employees
1899-1999	3.4	2.1	1.8	2.1	1.6
1990-99	3.1	2.1	1.8	2.1	1.3
1995-99	4.0	3.0	2.2	2.7	1.7

Note.—Because of data availability, GNP per capita is used here instead of GDP per capita. Per capita figures use estimates of the resident population. Real private domestic product per hour proxies output per hour for 1899-1908. Employment data are for 1900-99 and are for civilians aged 14 and over for 1900-47 and 16 and over for 1948-99. Real GNP and output per hour in 1999 are the average of the second and third quarters.

Sources: Department of Commerce (Bureau of the Census and Bureau of Economic Analysis); Department of Labor (Bureau of Labor Statistics); Stanley Lebergott, *Manpower in Economic Growth*, 1964; and Christina D. Romer, "The New Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy*, 1989.

Challenges for the Future

This chapter concludes with a brief summary of each of the remaining chapters and the principal challenges that they identify for policy. Sustaining the outstanding performance of the past several years means meeting the challenges that still confront us as well as the new ones that lie ahead.

Stabilizing the Macroeconomy

Chapter 2 recounts in greater depth the story summarized in this chapter of a strong expansion that shows no signs of losing its vitality. Following a long tradition of the *Economic Report of the President*, the chapter focuses on the performance of the past year. For stabilization policy the key future challenge is to sustain this performance: to maintain high levels of employment while keeping inflation low and stable—a goal the Administration shares with the independent Federal Reserve.

Given the current strength of the economy, prudence indicates that fiscal policy should be directed at paying down the Nation's debt and preparing for predictable needs such as those of Social Security and Medicare as well as unexpected ones. Fiscal discipline also frees capital for productive investments in education, businesses, and technology. Tax cuts should be modest and targeted. Discipline over spending should continue. Policies should stay directed toward such critical areas as saving, work incentives, education and training, families and children, the environment, health care, and research and development.

The chapter also examines the recent acceleration of labor productivity and the role that computers have played in it. We find that from 1990 to 1999 the acceleration in productivity is associated strongly with the production and use of computers. But over the shorter period from 1995 to 1999, there was a substantial increase in total factor productivity growth outside the computer-producing industry.

Enhancing Productivity

Chapter 3 looks at the microeconomic, or industry-level, side of the technological change that has driven growth in this expansion and in this century. Technological change has created new industries and altered the competitive landscape of the American economy. The chapter describes the dynamic process by which innovative products and services allow competitors to enter and compete with established firms, lowering prices and improving service for consumers. Two examples of these trends are evident in the telecommunications and information technology industries; here many firms are exploring

the economic opportunities made possible by innovations in computers, communications technology, and the Internet and e-commerce.

In telecommunications, technological and regulatory changes have led to a surge in demand for communications equipment and services. Many of these new products, in turn, are critical inputs into the information technology industry. Firms are adopting information technology to lower costs, create new products, and improve their productivity. By improving information flows within the firm and between the firm and its customers, information technology has the potential to revolutionize how businesses conduct business in this century. E-commerce could fundamentally reshape the nature of relationships between businesses and their customers, and between businesses and businesses.

The Administration has acted as a catalyst for this growth by supporting the basic and applied research necessary for creating new technologies. It has also supported regulatory reforms, like the 1996 Telecommunications Act, that encourage competition and entry from new providers and new technologies. The future challenge is to sustain and increase this stimulus by increasing investment in R&D and encouraging competition and innovation.

Promoting Skills, Education, and Development

Chapter 4 examines the implications for the labor market of an increasingly technology-driven economy. The chapter focuses on two key transformations of the labor market: the increasing value of education and the improved opportunities for women, minorities, and persons with disabilities. The last several decades have seen a substantial gap emerge between the earnings of those with a college education and of those with less education, even though the average level of educational attainment has risen over the century. The economy has clearly put a high premium on a new set of skills, and despite the progress that has been made, there remains for some workers a mismatch between the skills they possess and the skills that firms demand.

Chapter 4 also examines the role of government and the policies put forth by this Administration to help workers adjust to the rapidly changing economy. The chapter includes a discussion of education policies from preschool to postsecondary, and of private and government training programs. The chapter presents evidence on the effectiveness of these training programs in improving the achievement levels of students as well as the labor market outcomes of various groups of workers. The evidence suggests which types of programs might be most successful and cost-effective at improving the skills of workers in the future.

The challenge in this area is to develop a comprehensive set of education and training policies that create a framework of lifetime learning within which workers can acquire and maintain the skills they need to be successful

in the new labor market. The chapter discusses a number of recent initiatives. These include efforts to reduce class size and improve teacher quality, policies that have been shown to be effective at the elementary and the secondary level; initiatives, such as the Technology Literacy Challenge and the E-rate, that are attempting to provide students access to the technologies they will need to master in order to succeed in today's labor market; the HOPE Scholarship program, a tax credit that will ideally make the first 2 years of college as universal as high school; and the Workforce Investment Act, a new training initiative being phased in during 2000, which will help workers acquire the skills they need in the 21st-century economy.

Supporting the Diverse American Family

The importance of skills and the shift from backwork to brainwork have changed the employment prospects for women and, together with other changes, have altered the character of the American family. Chapter 5 discusses how the decline in the importance of the traditional one-breadwinner, one-homemaker family and the increase in the prevalence of two-earner and single-parent families have changed the opportunities and challenges that American families face at the beginning of the new century. In particular, the chapter looks at the balance between the rewards of work and the needs and rewards of family time. It notes three key trends that have shaped the American family. One is the rise in female labor force participation over the century, as more opportunities have opened up for women to work and more women have taken advantage of those opportunities. Another is the changing patterns of family formation and dissolution, which have contributed to the growing prevalence of single-parent families. A third is the improvements in health and life expectancy that have added new responsibilities to those that most families can expect to face, namely, care of elderly parents in addition to preparation for their own retirement.

The chapter then considers differences among family types with respect to income and time available outside of work. It looks at Administration policies that address the "money crunch" faced by families who feel their resources are stretched to the limit. These policies include expansion of the Earned Income Tax Credit, increases in the minimum wage, welfare reform, the $500-per-child tax credit, and policies to help families invest in skills, such as the HOPE Scholarship program, already mentioned. The Administration has also pursued policies like those embodied in the Family and Medical Leave Act to help families deal with the "time crunch" they face while trying to balance work and family time.

Policies like the child tax credit and the Family and Medical Leave Act have addressed important challenges facing the American family. But the Administration recognizes that it will be a continuing challenge to ensure

that the economy provides workers both the opportunity to work and the ability to spend quality time with their families.

Exploiting the Potential of Globalization

Chapter 6 analyzes the effects of globalization on the U.S. economy. Trade and, to a much lesser extent, investment links were well established a century ago, but both deteriorated during the interwar period. Over the past 50 years, however, international trade and investment have risen sharply. Today, global ties—through goods and services trade, through capital flows, and through integrated production relationships among firms and their affiliates—are generally broader and deeper than ever before.

The forces driving globalization include technology and policy. Technological improvements—in transportation, communications, information management, and elsewhere—have reduced the costs of doing business internationally, thus lowering significant barriers to trade and capital flows. These improvements have also increased the range of possible commercial transactions, particularly in financial markets, and have created venues for new kinds of transactions, such as electronic commerce. Policy has also played an active role in reducing barriers to trade and investment. For example, in the latter half of the 20th century, policy measures have sought to reduce tariff and nontariff trade barriers. More recently, and especially since the 1970s, many countries have decided to remove restrictions on capital flows.

Our openness to the world makes us more prosperous. The freedom of consumers and businesses to choose from a wider range of products and services improves efficiency, promotes innovation, encourages the transfer of technology, and otherwise enhances productivity growth. Trade allows us to specialize in what we do best. All these benefits, in turn, lead to higher real incomes and wages.

The United States has long sought to extend the benefits of international trade and investment as widely as possible, but significant challenges remain. Although trade liberalization lies at the heart of the World Trade Organization (WTO) and continues as a central objective of U.S. policy, a number of institutional issues have come to the fore. The United States is seeking greater consideration of labor and environmental concerns in the WTO and more openness in its proceedings. Moreover, despite the substantial benefits of trade, the transition to more open markets may be difficult for some U.S. industries and their workers. Those who are dislocated suffer real costs, and therefore the Administration supports domestic policies that help ease the transition for those affected. The recent financial crises in Asia have been particularly disruptive. Such crises in emerging markets draw attention to yet another challenge: the risk that sudden reversals in capital flows can be

disruptive in some cases. Finally, the growing U.S. trade deficit raises the challenge of ensuring not only that the United States remains an attractive location for investment, but also that Americans are saving enough for the future.

Maintaining the Environment Efficiently

Chapter 7 notes that although economic growth and structural and technological change have altered the U.S. economy substantially for the better over the past century, they have brought in their wake an array of environmental problems, including air, water, and soil pollution. However, economic growth has also provided the innovation and the resources to address these environmental problems.

The chapter describes how traditional regulatory approaches designed to address environmental problems have delivered substantial benefits but have carried significant economic costs. It then discusses how experiences with market-based approaches to pollution abatement, such as permit trading and emissions charges, have shown ways to achieve environmental goals at lower cost while providing the proper incentives for innovation. It suggests that applying these lessons about the design of environmental markets to future environmental problems is critical if environmental goals are to be achieved most efficiently.

The most significant environmental problem of the 21st century is probably global climate change. Chapter 7 argues that this problem is best addressed through market-based approaches. The challenge is to design policies appropriate to the problem. Emissions trading could serve as a powerful tool to reduce greenhouse gases, because these come from a very large number of sources with a wide range of abatement costs and have the same environmental effect regardless of the source location.

In negotiations of the Kyoto Protocol to the Framework Convention on Climate Change, the Administration has advocated international emissions trading and project-oriented mechanisms that effectively allow for flexibility across sources and countries in meeting climate goals. A broad international trading system can significantly lower the costs of achieving emissions targets set in the Kyoto Protocol while also delivering substantial revenue to low-cost-abating countries, which would be sellers in an international emissions market. Future international climate negotiations can resolve many of the implementation issues regarding these market-based approaches. Appropriate design of these approaches can ensure that the first steps taken to address climate change will deliver environmental benefits at the lowest possible cost.

Conclusion

As we enter the 21st century, the principal challenges we face are to sustain the extraordinary progress that America has made in this record-breaking expansion, and to make sure that all Americans share in the strong economy. The goal should be to make the accomplishments of this new century even better than those of the last. New policy issues will surely emerge, but the policy framework that has worked so well—maintaining fiscal discipline, investing in people, and opening international markets—is the right one to take us forward.

CHAPTER 2

Macroeconomic Policy and Performance

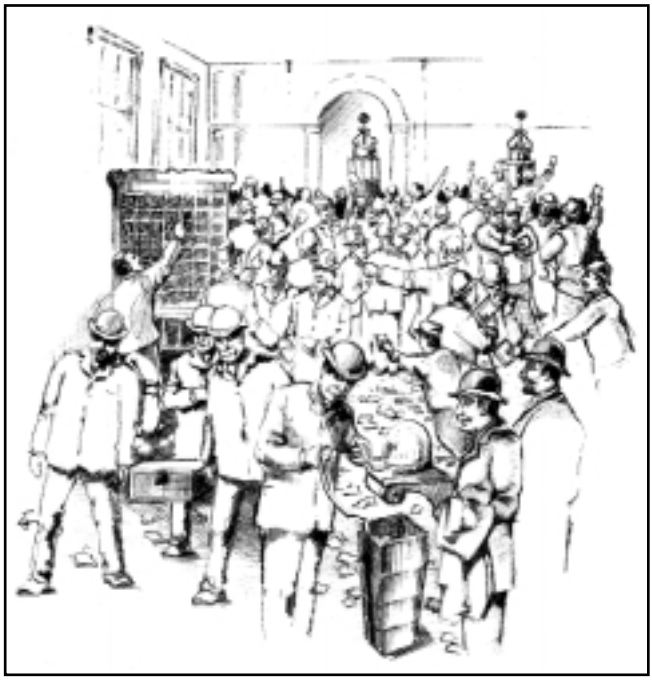


Illustration by Paul Sutton

The evolution of the stock market illustrates how dramatically technology has changed the way we do things and the things we are able to do. At the start of the 20th century, the purchase of stock was a lengthy and labor-intensive process. After a trade, messengers would hand-deliver the stock certificates, which were then carried to a vault for safekeeping. Today, computers and instant global communications have made the trading of stocks anywhere in the world just a mouse click away.

THE U.S. ECONOMY PERFORMED very well in 1999. The economic expansion is on the verge of shattering the all-time endurance record, set during the 1960s, of 106 months. Real (inflation-adjusted) output increased a robust 4.2 percent over the four quarters of 1999, on a par with the energetic pace set over the preceding 6 years of this Administration. An additional 2.7 million nonagricultural jobs were created during the year, bringing the total created during this expansion to nearly 22 million (20.6 million during the 7 years of this Administration). The unemployment rate dropped to 4.2 percent for the year as a whole, its lowest level in 30 years (Chart 2-1). The consumer price index rose by 2.7 percent over the 12

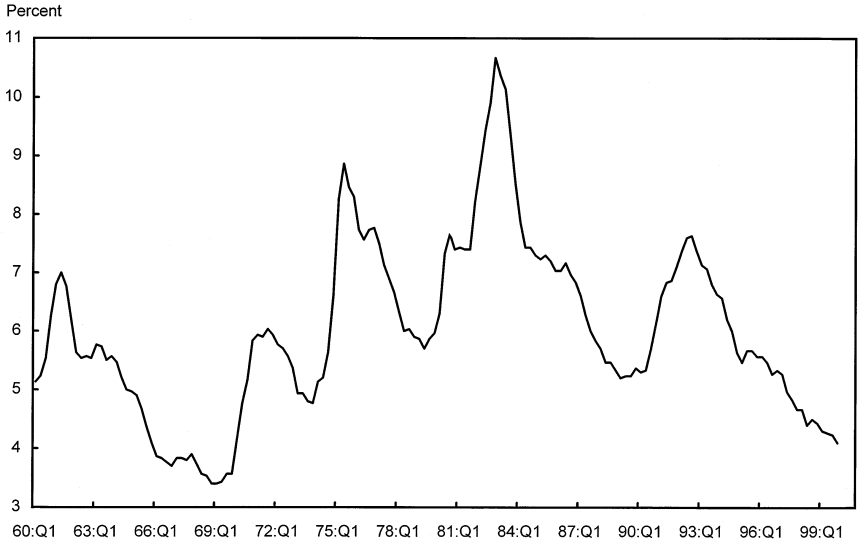
months of 1999, a pickup from the previous year's 1.6 percent rate (Chart 2-2). A sharp rise in energy prices, following 2 years of declines, accounted for more than the entire acceleration in consumer prices in 1999. Consumer prices excluding energy and food prices were up only 1.9 percent over all of 1999, the smallest December-to-December percentage increase since 1965. Over the first three quarters of 1999, productivity (output per hour) in the nonfarm business sector increased at an annual rate of 2.8 percent, marking the fourth straight year of strong productivity growth.

These statistics portray a vibrant economy ending the 20th century on a strong note, with robust growth, high employment, and low and stable inflation. A key factor in the recent remarkable performance of the economy has been an acceleration in productivity. In the long run, productivity growth sets the pace for improvements in the quality of life. Rising productivity over most of the last 100 years has dramatically changed the face of the American economy in terms of living standards, the affordability of life's basic goods, and the range of goods and services Americans can buy.

As American workers became more productive, average nominal wages rose from 15 cents an hour at the turn of the century to about $14 by 1999. Of course, in general prices have also risen over that time. But the gains in wages have far outpaced the rise in prices for the goods and services we buy. For instance, a candy bar that cost a nickel in 1900 might cost about 50 cents today, but today it takes the average worker just 2 minutes to earn that 50 cents, whereas in 1900 it took nearly 20 minutes of work to earn a nickel. Other goods are not only cheaper but of better quality as well. For example, in 1916 a refrigerator with 9 cubic feet of storage cost $800, the equivalent of over 3,000 hours of wages for the average worker. Today a refrigerator with more than twice the capacity, and with features not available 80 years ago such as an icemaker or an automatic defroster, costs about $900, or about 65 hours of work at the average wage. But the computer industry offers the most dramatic example of our increased buying power. In 1970 a state-of-the-art computer cost about $4.7 million, an amount equal to 15 times the lifetime wages of the average worker. In 1999 a personal computer with more than 10 times as much computing power cost only $1,000, or less than 2 weeks of the average worker's pay, and this figure is likely to fall to just 1 day's pay in the next decade or so.

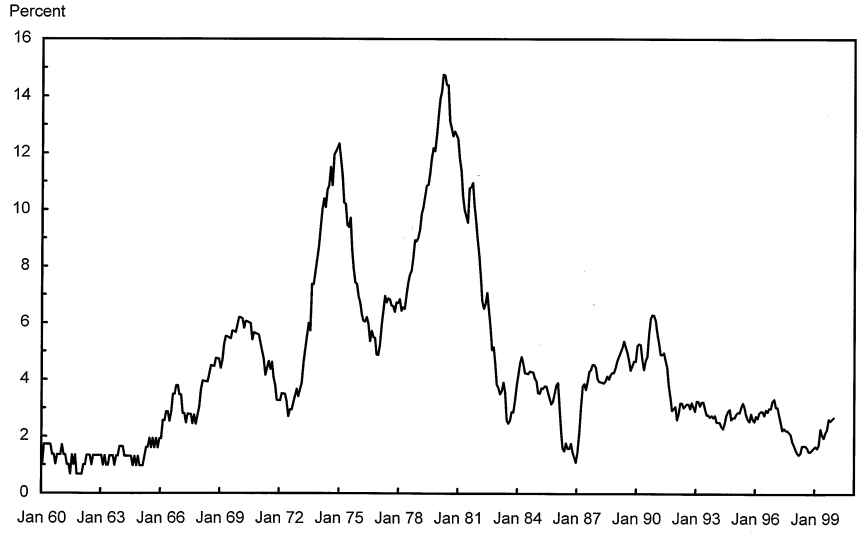
This record of long-term productivity growth and the resulting dramatic changes in the quality of life are the result of investments, both public and private, in education, science and technology, business capital, and infrastructure. These and other causes and consequences of economic growth in the past, and the outlook for continued growth in the future, are a recurring theme of this chapter. Of course, the transformation and expansion of the U.S. economy have not always been smooth: periods of growth were often

Chart 2-1 **Unemployment Rate**
In 1999 the unemployment rate fell to its lowest level in nearly 30 years.



Source: Department of Labor (Bureau of Labor Statistics).

Chart 2-2 **Inflation Rate**
Consumer price inflation remained low in 1999.



Note: Data are 12-month percent changes in the CPI.
Source: Department of Labor (Bureau of Labor Statistics).

interrupted by recession, and in the 1930s by the Great Depression. Thus a second theme of this chapter is how changes in the economy and in government policy have contributed to the macroeconomic performance we now enjoy: solid growth, high employment, and stable low inflation.

As discussed in the other chapters of this Report, public policy has provided a strong foundation for the robust health of today's economy. One key to the outstanding macroeconomic performance of the last 7 years has been the reemergence of fiscal discipline, starting with the Omnibus Budget Reconciliation Act of 1993 (OBRA 93), continuing with the Balanced Budget Act of 1997, and including the President's veto of proposed massive tax cuts in 1999. The Federal Government is once again a net saver. That is, the Federal Government is now a source of funds for private investments in education, housing, and business; this is in contrast to the preceding 28 years, when it was a net borrower, competing with households and businesses seeking funds for investment. In fiscal 1999 alone this return to fiscal discipline freed over $120 billion that can be used for private investment—investment that provides jobs and will improve future productivity and real wages. This contrasts sharply with the record $290 billion deficit of fiscal 1992. Although the strong economy accounts for some of the improvement, the Congressional Budget Office's standardized-employment budget (which attempts to control for cyclical and special factors) shows the same pattern of a large deficit in fiscal 1992 and a surplus in 1999. Monetary policy likewise has contributed to supporting long-term growth: by keeping inflation low and stable, it has reduced the distortions to investment decisions associated with high and variable inflation.

With the economy running strong, it is vital that fiscal policy continue to be disciplined and directed at paying down the national debt. By adding to national saving, Federal surpluses lower interest rates, lowering the cost of consumer debt and home mortgages to households as well as the cost of investment in technology and capital to businesses. Such investments boost productivity and raise living standards. Federal spending needs to be targeted at top national priorities such as encouraging saving and investments in people and technology, health care, families, and the environment. Likewise, tax cuts should be moderate and targeted to areas where they can do the most good. Looking ahead, paying down the debt now is the best way to prepare for the looming retirement of the baby-boom generation and the consequent demands on Social Security and Medicare, as well as for other needs we cannot today anticipate.

The first section of this chapter reviews the course of the U.S. economy during 1999. The second examines patterns of national saving and investment in recent decades and how government deficits and surpluses have affected national saving. The third section examines how the nature of the

business cycle has changed over the past century. The fourth and final section takes up the near-term outlook and the Administration's long-run forecast, paying particular attention to the effects of changes in productivity trends on growth and inflation.

The Year in Review

Real gross domestic product (GDP) increased 4.2 percent between the fourth quarter of 1998 and the fourth quarter of 1999 (Table 2-1). Even in the ninth year of the expansion, real output growth remained strikingly robust. The breakdown of the contributions to growth by major category in 1999 was similar to that over the whole expansion to date. Household spending and business investment in equipment once again provided the main contributions to growth. Government spending provided somewhat more impetus to growth than in previous years of the expansion, owing to increased spending by the Federal Government and by State and local governments. The drag exerted by the fact that imports grew faster than exports weighed in heavier than in the previous year.

TABLE 2-1.—*Growth of Real GDP and its Components During 1998 and 1999*

Item	Growth rate (percent)		Contribution to GDP growth (percentage points)	
	1998	1999[1]	1998	1999[1]
Gross domestic product	4.6	4.2	4.6	4.2
Final sales	4.7	4.3	4.6	4.3
Consumer expenditures	5.1	5.4	3.4	3.6
Housing	11.3	3.2	.5	.1
Business fixed investment	13.1	7.0	1.5	.9
Exports of goods and services	1.9	4.0	.2	.4
Imports of goods and services	10.8	13.1	-1.3	-1.7
Government consumption and gross investment	2.2	4.8	.4	.8
Change in inventories	—	—	-.0	-.0

[1] Preliminary.

Note.—Data are for fourth quarter to fourth quarter.
Contributions are approximate.
Detail may not add to totals because of rounding.

Source: Department of Commerce (Bureau of Economic Analysis).

Components of Spending

Real GDP growth was strong in each quarter except the second, when it dipped to a 1.9 percent annual rate. The quarter-to-quarter movements in

GDP were exaggerated by swings in inventory investment (discussed further below), which slumped in the second quarter before rebounding in the third quarter and then surging in the fourth. In contrast, growth in real final sales, which excludes inventory accumulation, fell only modestly in the second quarter. Real final sales increased 4.3 percent over the four quarters of 1999.

Household Spending

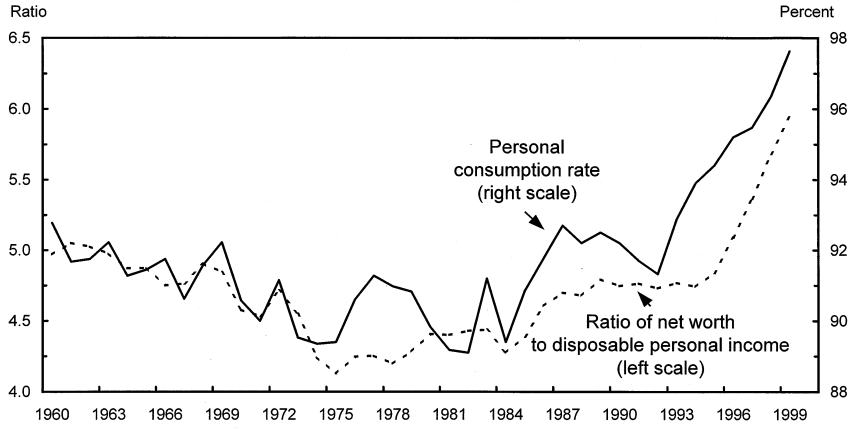
Real personal consumption expenditures (PCE) raced ahead at a 5.4 percent annual rate over the four quarters of 1999, besting the 5.1 percent pace set in 1998. Consumption growth contributed 3.6 percentage points to overall growth over the year as a whole. Real purchases of new motor vehicles increased about 5 percent over the four quarters of 1999; this was off the 14 percent pace of 1998. Total sales of automobiles and light trucks reached a record 16.8 million vehicles in 1999. Demand for housing also continued strong in 1999. Single-family housing starts topped 1998's record figure, as did sales of new and existing single-family homes. The share of American households who own their own homes was 67 percent in 1999. This figure surpassed the record high annual level set in 1998. Growth in several housing indicators stalled in the second half of the year, however, as the effects of higher mortgage rates began to take hold. Still, housing markets remained strong, and measures of construction activity were at historically high levels.

Favorable economic performance continued to drive this robust growth in household spending, and consumer confidence continued to run strong, according to household surveys. Real disposable personal income (deflated by the PCE chain-weighted price index) recorded impressive growth of about 3.7 percent at an annual rate over the four quarters of 1999. The strong stock market and a pickup in the value of homes further boosted household wealth, on top of sizable gains in each of the preceding 4 years. As a result, household net worth nearly reached the level of six times annual personal income (Chart 2-3). With wealth continuing to grow faster than income, households have been willing to spend a larger share of their disposable income (which, in the measurement concept used in the national income and product accounts, does not include capital gains). Hence the personal consumption rate rose for the seventh straight year, and the personal saving rate correspondingly fell.

Business Investment

Real business fixed investment continued to boom last year. Real business investment in equipment and software increased 11 percent at an annual rate during 1999. Spending on information processing equipment and software was the main contributor to the expansion in business investment. Adjusted for quality improvements, prices for many of these goods declined sharply in 1999. Real outlays on computers and peripheral equipment were up 39 per-

Chart 2-3 **Net Worth and the Personal Consumption Rate**
Personal consumption as a share of disposable income rose for the seventh straight year as the continued surge in household wealth encouraged spending.



Note: Personal consumption rate is the ratio of personal outlays to disposable personal income. Household net worth for each year is constructed as the average of net worth at the beginning and the end of the year; data for 1999 are approximate.
Sources: Department of Commerce (Bureau of Economic Analysis) and Board of Governors of the Federal Reserve System.

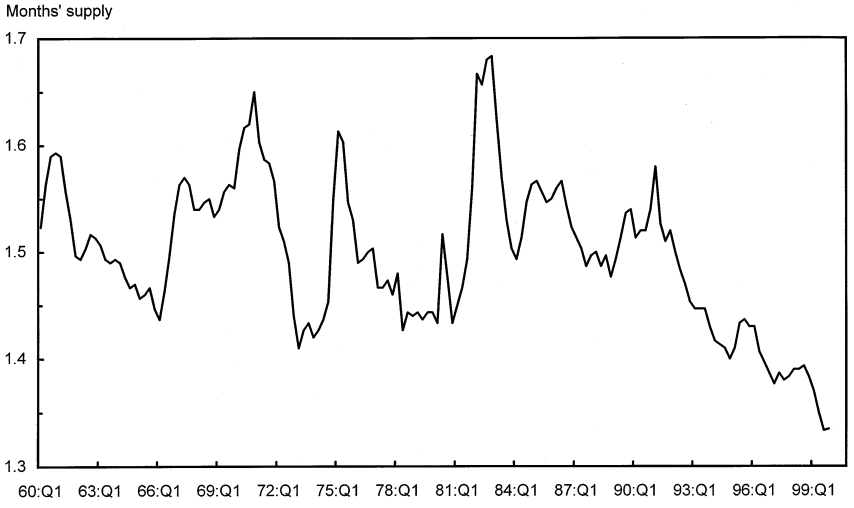
cent over the four quarters of 1999, while real business spending on software increased about 13 percent, and real spending on other information processing equipment (which includes communications equipment) increased 18 percent. As in the previous year, the brisk pace of computer-related investment resulted in part from the updating and replacement of older systems in preparation for the century date change (better known as the year-2000 or Y2K problem). Investment in transportation equipment also showed solid gains; however, other categories of equipment investment were nearly flat.

Real spending on nonresidential structures declined about 5 percent over the four quarters of 1999, as growth in earlier years (4.8 percent in 1997 and 2.9 percent in 1998) appears to have satisfied demand for new space for a while.

Business inventories increased modestly through the first half of 1999. The pace of inventory accumulation strengthened in the third quarter. However, brisk sales brought inventory stocks down to lean levels relative to sales through the first three quarters of 1999 (Chart 2-4). Toward the end of the year, businesses apparently built up inventory stocks in anticipation of potential Y2K disruptions, but sales continued to keep pace.

For the decade of the 1990s as a whole, the overall inventory-to-sales ratio showed a downward trend. This ratio for the manufacturing sector was falling for most of the decade, and more recently the retail inventory-to-sales ratio also has fallen. This downward trend in inventories is likely related to the adoption of just-in-time inventory management as well as to the use of new

Chart 2-4 **Inventory-to-Sales Ratio (Manufacturing and Trade)**
The inventory-to-sales ratio declined throughout most of 1999, reaching its lowest level in nearly 50 years.



Note: Based on data in current dollars. Data for 1999:Q4 based on October and November monthly data.
Source: Department of Commerce (Bureau of the Census).

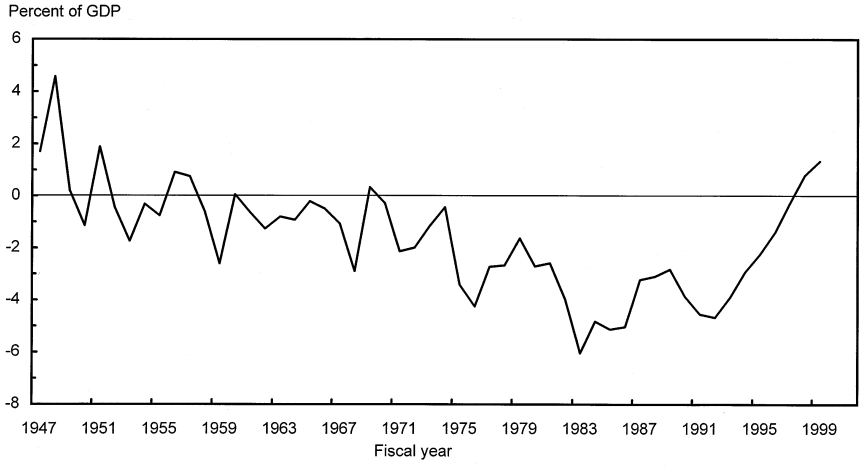
information technologies that enable businesses to manage with leaner inventories (as discussed in Chapter 3).

Government

Real Federal Government consumption expenditures and gross investment increased 5.3 percent on a national income and product accounts (NIPA) basis over the four quarters of 1999. Real defense spending rose 5.4 percent during that period, reversing a downward trend that saw this spending category fall nearly 2.6 percent per year on average over the preceding decade. Real nondefense spending was up 5.0 percent over 1999 as a whole. Federal purchases of equipment and software were an important contributor to the pickup in real Federal purchases.

The Federal Government surplus on a unified budget basis for fiscal 1999 (which ended in September) was $124 billion, compared with $69 billion in fiscal 1998. The last time the Federal Government recorded two consecutive budget surpluses was over 40 years ago. And at 1.4 percent of GDP, the fiscal 1999 surplus was the largest relative to the size of the economy in nearly 50 years (Chart 2-5). The challenge for the future is to maintain the hard-earned fiscal discipline of recent years, so that the economy continues to reap the rewards of greater investment and growth. In support of this goal, the President rejected a congressional proposal for large-scale tax cuts that threatened the prospects for continued fiscal discipline; instead he has proposed a budget

Chart 2-5 **Federal Budget Surplus**
The Federal Government surplus reached 1.4 percent of GDP in fiscal 1999, its highest level by this measure since 1951.



Note: In October 1999, the Bureau of Economic Analysis (BEA) revised official GDP data beginning in 1959. Post-1959 GDP figures are the official BEA data; earlier GDP figures have been adjusted for consistency with the revised data.
Sources: Department of the Treasury, Office of Management and Budget, and Council of Economic Advisers.

framework that continues to pay down the national debt while providing for critical needs and moderate tax cuts.

State and local governments increased real spending on consumption and gross investment by 4.5 percent over the four quarters of the year. This pace of spending represents a pickup from the average 3.2 percent annual increase recorded over the previous 3 years. The strong economy has boosted State tax revenues, so that most State governments today appear to be in excellent financial condition. At the end of fiscal 1999, over two-thirds of the States surveyed had surpluses equal to 5 percent or more of general fund expenditures (Wall Street's benchmark for financial solidity), and one in three had balances equaling 10 percent of expenditures.

International Influences

International developments in 1999 posed a challenge to the continued strong performance of the U.S. economy. Foreign growth rebounded in 1999, but its past weakness kept demand for U.S. exports subdued during the first half of the year. Export growth picked up in the second half of the year. Real purchases of U.S. exports increased 4.0 percent over the four quarters of 1999. Meanwhile, strong income growth in the United States and low relative prices for imported goods fueled increased U.S. purchases of imported goods and services for another year: real spending on imports increased 13 percent dur-

ing 1999. In tandem, anemic export growth and the surge in imports caused the trade deficit to widen markedly in 1999, to about 2.8 percent of GDP.

Labor Markets and Inflation

The U.S. work force enjoyed another year of solid job growth and rising real wages in 1999. The unemployment rate in each of the final 3 months of the year was 4.1 percent, the lowest since January 1970. Real wages increased for the fifth straight year. Despite the tight labor market, core consumer prices, which exclude food and energy prices, increased by 1.9 percent, their slowest pace in nearly 35 years, although a sharp rise in the price of oil sent energy prices up and caused overall consumer price inflation to move upward. At the aggregate level, these statistics paint a rosy picture indeed. Chapters 4 and 5, however, discuss the ongoing challenge of making sure that the gains from this prosperity are shared as widely as possible.

Employment

Nonfarm payroll employment expanded by about 2.7 million jobs during 1999. Employment in the service sector grew rapidly in 1999, and employment in the government sector posted its strongest gain in 9 years, which was entirely due to growth at the State and local levels. Since January 1993, Federal employment (excluding the postal service) has declined by 18 percent, while private nonfarm employment has increased by 21 percent. The number of manufacturing jobs, however, fell by 248,000 last year; this marked the second straight year of declines for this sector, which was particularly hard hit by the slowdown in export demand. Manufacturing employment had been increasing by 154,000 per year on average over 1993-97. But trends in this sector appeared to improve over the year. Manufacturing production increased more than 5 percent in 1999, and the pace of job reductions in the sector slowed in the latter part of the year.

The unemployment rate averaged 4.2 percent in 1999, down from 4.5 percent in 1998. The average annual unemployment rate has fallen for 7 straight years now, and in 1999 unemployment stood at its lowest annual rate since 1969. The benefits of the decline in unemployment have been widely spread. The unemployment rate for nonwhites, for example, fell to 7.0 percent, its lowest annual rate in 30 years. This excellent performance also extends to other labor market measures. The official definition of unemployment counts as unemployed only those who are looking for work. If one adds to the standard definition those who currently want a job but have not been looking (so-called marginally attached workers), the jobless rate of this combined group was 5.0 percent in 1999, down from 5.4 percent in 1998. Indeed, the number of persons desiring a job but not looking has declined in each of the 5 years since these statistics were first collected.

The labor force participation rate—the percentage of the population over age 16 that is either employed or looking for work—remained at 67.1 percent in 1999 for a third straight year. In the early 1990s the participation rate appeared to have plateaued, ending an upward trend from the mid-1960s through 1990 that saw this rate rise from about 59 percent to 66.5 percent. This long-term trend was driven by an increase in the participation rate of women that more than offset a small decline in that of men. In the second half of the 1990s the overall participation rate rose again, reflecting the expansion of the Earned Income Tax Credit and welfare reform. Today participation stands at its highest annual rate ever recorded. With the participation rate stable and the unemployment rate down, the employment-to-population ratio—the proportion of the civilian population aged 16 and older with jobs—rose to 64.3 percent last year, topping the record set in 1998.

Productivity and Compensation

Labor productivity in the nonfarm business sector increased by 2.8 percent on an annual basis during the first three quarters of 1999. This marks the fourth consecutive year of strong productivity growth. The recent surge in productivity follows on the heels of more than two decades of relatively slow productivity growth (1.4 percent on average over 1973-95). For comparison, the average annual rate of productivity growth over this century has been about 2 percent. We examine in detail the causes and consequences of shifts in productivity trends below.

Compensation per hour in the nonfarm business sector increased 4.6 percent at an annual rate during the first three quarters of 1999. The strong housing market helped boost compensation in the construction industry, while a slowdown in mortgage refinancing likely was behind the dropoff in compensation growth in the finance, insurance, and real estate sector, relative to the rate in 1998. Not only has compensation growth been strong, but a larger share of it is going into the pocketbooks of workers in the form of higher wages and salaries. According to the employment cost index, growth in benefit costs has been remarkably subdued on average over the last 5 years, in large part because of a sharp slowing in the growth of medical insurance costs. Previously, growth in benefits, especially health insurance, had caused the benefit share of employment costs to rise. Medical insurance costs began to rise again in 1999, however: the 12-month change was 5.8 percent compared with 2.5 percent in 1998.

The real consumption wage—compensation per hour deflated by the CPI-U-RS, an index published by the Bureau of Labor Statistics that provides a more consistent measure of inflation than the standard consumer price index (Box 2-1)—increased 2.0 percent at an annual rate over the first three quarters of 1999. This gain in real wages is below the brisk rates of the last 2 years but well above the 1.4 percent annual average increase over 1960-98 (Chart 2-6).

Box 2-1. The CPI-U-RS, a Consumer Price Index with More Consistent Methodology

As noted in previous editions of the *Economic Report of the President*, some of the recent deceleration in measured consumer prices is attributable to a series of changes in the methods used to compute the CPI. When making changes to its methods of computing the CPI, the Bureau of Labor Statistics does not revise past official CPI data using the newer method. In 1999, however, the agency produced a research version of the CPI, called the CPI-U-RS (the RS stands for "research series"), in which 14 methodological revisions adopted since 1978 and still in use today are applied back to that year. Throughout this edition we use the CPI-U-RS rather than the CPI-U as a deflator when appropriate. (The text and chart footnotes indicate which series is being used.)

The new measure shows CPI inflation to have been lower than the official estimate over 1977-98 by an average 0.45 percentage point (see table). The difference is a percentage point over the 1977-82 period; revised methods of measuring the cost of home ownership account for most of the difference. In 1983 the BLS replaced a measure of home ownership costs based on purchase price and mortgage interest rates with a measure based on rental equivalence—roughly, what the homeowner would pay to rent the same house.

Estimated Effect of Specific Methodological Changes on the CPI-U

[Average annual percentage-point effect on December-to-December percent changes]

Type of change incorporated	1977 to 1982	1982 to 1986	1986 to 1997	1997 to 1998	1977 to 1998
Rental equivalence	-0.86	0.00	0.00	0.00	-0.21
Revised formulas	-.28	-.26	-.41	-.23	-.34
Other changes	.14	.13	.06	.00	.09
Total changes	-1.00	-.13	-.35	-.23	-.45

Note.—Detail may not add to totals because of rounding.

Source: Department of Labor (Bureau of Labor Statistics).

A second important change, in 1999, was the switch to geometric rather than arithmetic (fixed-weight) aggregation of price measurements within the lowest-level subcategories in the market basket. This revision, which applies to low-level categories comprising 61 percent of consumer expenditures, resolved two problems: the "functional form bias" in rotating new stores into the sample, and the assumption

continued on next page...

Box 2-1.—*continued*
of no substitution between competing products within most categories. The effect of applying this geometric aggregation is largest before 1995, when both problems affected the official series. The functional form bias was eliminated in 1995 for food and in 1996 for other products, and so the effect of geometric aggregation on the discrepancy between the series diminishes. The effect of this formula change is lumped together with a few other formula changes in the second line of the table.

The BLS has omitted a few hard-to-measure methodological changes from the CPI-U-RS, albeit with small effects. Among these are the new procedures for hospital prices (implemented in 1997) and the switch to a new method of sampling (which began to be implemented in 1999) that may allow new products to enter the CPI earlier in their life cycle.

The CPI-U-RS includes methodological improvements but not the periodic updates of the CPI market basket designed to take account of changing spending habits. In 1998, for example, the 1982-84 market basket was replaced with the 1993-95 basket. This change lowered CPI inflation by roughly 0.2 percentage point relative to a CPI weighted by the earlier market basket. Beginning in 2002, the BLS plans to update the market basket every 2 years rather than approximately once every decade.

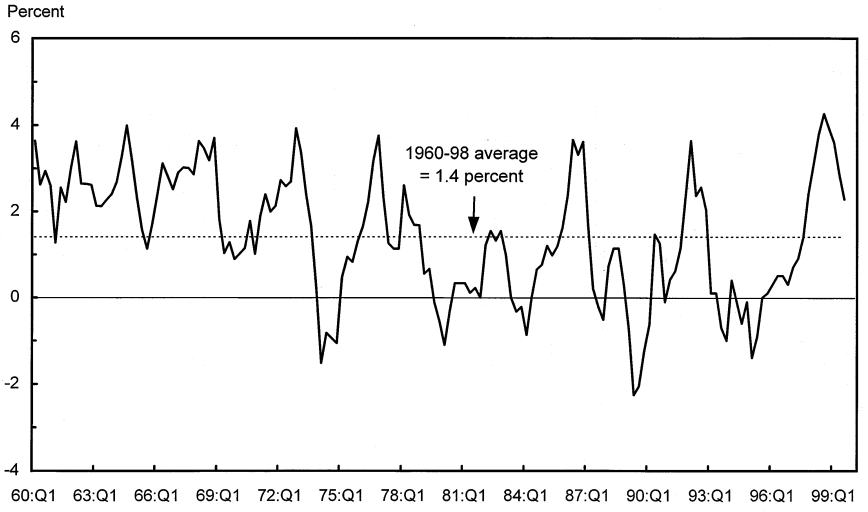
Taken together, the methodological improvements instituted beginning in 1995, combined with the recent update of the market basket, are estimated to result in roughly a 0.6-percentage-point slower annual increase in the CPI in 1999 compared with the methodologies and market basket used in 1994.

But the growth in real wages in 1997 and 1998 was boosted by the effect of declining energy prices on CPI inflation. Arguably, deflating compensation by the core CPI provides a clearer picture of underlying real consumption wage trends. If energy and food prices are removed from the equation, the real consumption wage increased 2.7 percent at an annual rate over the first three quarters of 1999, slightly surpassing the 2.6 percent annual average increase over 1996-98.

Prices

Inflation picked up in 1999 from its very low 1998 pace. The CPI increased 2.7 percent over the 12 months of 1999, after rising 1.6 percent during 1998. The chain-weighted price indexes for GDP and PCE increased 1.6 and 2.0 percent, respectively, over the four quarters of the year. These inflation rates were also up from their 1998 levels. More than the total increase in consumer price inflation can be attributed to energy prices, which

Chart 2-6 **Growth of Real Compensation per Hour (Nonfarm Business Sector)**
Real hourly compensation posted another strong gain in 1999, but with energy prices pushing up CPI inflation, the increase was smaller than in the 2 preceding years.



Note: Compensation per hour is deflated by the CPI-U-RS. Data are changes from four quarters earlier.
Source: Department of Labor (Bureau of Labor Statistics).

started to rise in March and continued to do so over the course of the year, reversing a 2-year slide. Oil prices were a main factor in the down-and-up pattern of energy prices. The price of West Texas Intermediate (WTI), a standard benchmark for oil prices, stood at year's end at about $26 per barrel, a bit above its level at the end of 1996, but well above that of a year ago, when WTI cost about $11 per barrel.

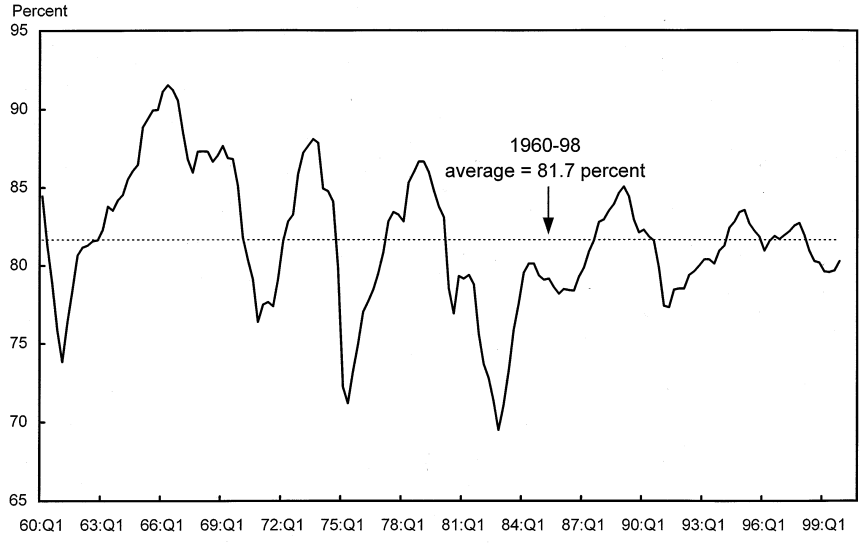
Core inflation, in contrast, has remained subdued. On a consistently measured basis, the core CPI-U-RS increased only 1.9 percent over the 12 months of 1999, slightly below the previous year's 2.2 percent increase. By comparison, core CPI-U-RS inflation has averaged 2.3 percent over the last 7 years. Core PCE prices, which also exclude the food and energy components, increased by only 1.5 percent over 1999 as a whole, after rising 1.4 percent in 1998. Since the fourth quarter of 1992, core PCE prices have risen only 1.9 percent per year on average. The CPI and the PCE price index differ in the goods and services they cover and in their method of computation, but by either measure core inflation has remained remarkably stable and low throughout this expansion.

A number of factors have helped keep core inflation in check despite another year of strong output growth and tight labor markets. First, prices for nonpetroleum imported goods were little changed over the year, after declining more than 3 percent over 1998. The market basket on which the CPI is based includes imported goods, so that changes in the prices of these goods

feed directly into the index. Moreover, falling prices of imported goods discourage domestic producers from raising their prices as much as they otherwise might. A second factor that restrained inflation is the existence of spare capacity in the manufacturing sector (Chart 2-7). Although labor markets have been tight, capacity utilization in manufacturing remained below its historical average, reflecting weak manufacturing growth in 1998 and rapid increases in capacity. Purchasing managers' lead times have been stable for most of the past 2 years, suggesting an absence of production bottlenecks, but lead times began to lengthen in 1999.

A third reason for the moderation seen in price increases is that gains in labor productivity have partly offset increases in compensation. As noted,

Chart 2-7 **Capacity Utilization (Manufacturing)**
Capacity utilization rose in 1999 but remains below its historical average.



Source: Board of Governors of the Federal Reserve System.

compensation per hour increased 4.6 percent at an annual rate over the first three quarters of 1999. Over the same period, output per hour increased 2.8 percent at an annual rate. The growth rate of unit labor costs—the difference between the growth rates of compensation per hour and of output per hour—was 1.8 percent at an annual rate over the first three quarters, slightly below the 2.1 percent rate recorded in both 1997 and 1998. Even with labor markets tight, large increases in productivity have played an important role in counteracting the wage part of the wage-price spiral typically associated with a high-employment economy. A more extensive discussion of the relationships among import prices, productivity, and inflation is provided below.

Inflation expectations remained low and stable throughout the year, supporting restraint in wage and price setting. According to the Michigan Survey of Consumers, the median expectation over the next 5 to 10 years is for inflation under 3 percent; that figure changed little over the year. Similarly, professional forecasters' expectations of long-term inflation continue to be low and stable, according to a survey conducted by the Federal Reserve Bank of Philadelphia.

Financial Markets

By comparison with the tumultuous events of the preceding year, 1999 was a relatively tranquil year for financial markets. Even the looming century date change and the potential it posed for Y2K-related disruptions did not seem to unsettle the markets (Box 2-2). The Federal Reserve raised the target Federal

Box 2-2. Economic Impact of Y2K Preparations

One of the most anticipated events of the past year was the rollover from the year 1999 to 2000. The public and the private sectors in the United States and abroad devoted enormous resources to ensure that the Y2K bug did not spoil the new year. Moreover, anecdotal evidence suggests that businesses and households stocked up near the end of the year as a precaution against supply shortages. In the end these preparations paid off, and only minor Y2K-related glitches were reported.

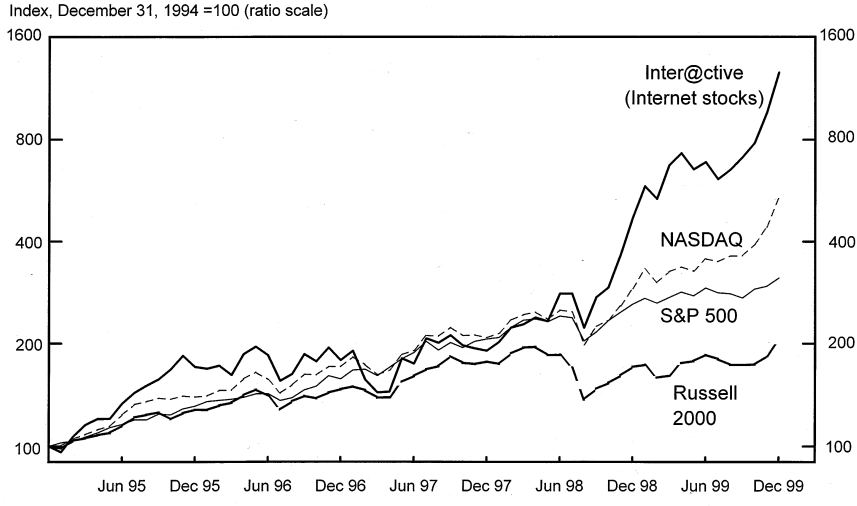
Potential Y2K disruptions involving information systems in the financial sector both in the United States and abroad had been a central concern well before the century date change. The smooth and efficient operation of financial markets and the banking sector relies on the extensive use of computers for record keeping, data exchange, and electronic transactions. The Federal Reserve and the President's Council on Year 2000 Conversion tracked efforts by financial institutions to ensure that records would be accurately maintained and that operations would continue running smoothly over the transition to the new millennium.

To allay concerns about a year-end shortage of liquid assets, the Federal Reserve took steps to assure markets that adequate liquidity would be available. The Fed also acted to ensure that sufficient quantities of cash would be available to the public at year's end. It was widely believed that many people intended to withdraw abnormally large amounts of cash near the end of the year, as a precaution against Y2K-related glitches at banks and automatic tellers. In anticipation of this rise in demand for cash, the Federal Reserve increased its order for currency through September by over 50 percent from the previous year. The Fed also implemented measures making it easier for banks to order and take delivery of cash. Public cash holdings rose by about 5 percent in December, an amount easily accommodated.

funds rate (the interest rate that banks charge one another for overnight borrowing) by 75 basis points in three steps, fully reversing the rate cuts it had instituted in the second half of 1998 during the global financial crisis. The yield on 30-year Treasury bonds rose more than 1¼ percentage points over the course of the year, reflecting a number of factors in addition to the Fed rate hikes. These included a rebalancing of international portfolios as the financial crisis receded, and concerns that continued strength in the U.S. economy would cause the Federal Reserve to further increase the Federal funds rate.

The stock market recorded another year of strong gains, with the S&P 500 index of stock prices rising 20 percent in 1999 (Chart 2-8). But the overall strength of the stock market in 1999 masks a sizable disparity in performance among stocks. In 1999 fewer than half of the stocks in the S&P 500 index rose in value. In contrast, despite similar overall growth, during the first 4 years of the bull market over 70 percent of those stocks rose in any one year. Stock gains were concentrated in a few sectors, mostly those associated with high technology. In the mid-1990s the technology-heavy NASDAQ index grew at about the same rate as the broader S&P 500, but its growth rate has been about triple that of the S&P 500 in the last 2 years. Even more impressive is a popular average of Internet-related stocks, which increased about 160 percent per year over the past 2 years.

Chart 2-8 **Equity Prices**
Led by the technology-heavy NASDAQ, stock markets continued to record large gains in 1999. Internet stocks skyrocketed.



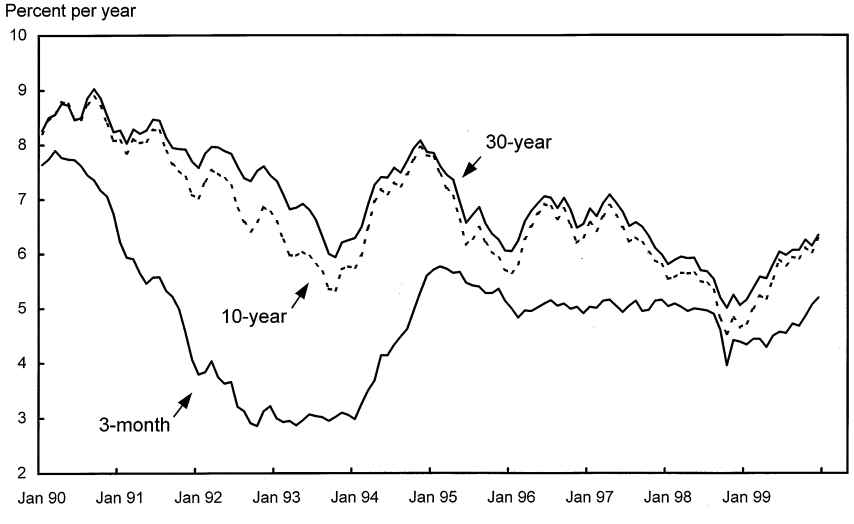
Sources: Frank Russell Company, Inter@ctive Week Online, National Association of Securities Dealers Automated Quotations, Standard & Poor's.

The Calm Following the Storm

The year 1998 had been an especially stormy one for financial markets. The Asian crisis in 1997 and the Russian debt default in August 1998 had precipitated a series of dramatic events in U.S. financial markets. Investors, including foreigners, had sought to reduce exposure to risk by selling high-risk investments and buying Treasury securities. This "flight to quality" had in turn bid up prices of Treasury securities, driving Treasury yields down (Chart 2-9). Corporate bond premiums (the spread between the yield on corporate bonds and Treasury securities), especially those on high-yield bonds, had risen sharply. New issuance of private debt had dried up, and debt markets became less liquid. For a time in the late summer of 1998, even the previously imperturbable bull market in stocks had turned bearish. Owing in part to concerns that financial markets were freezing up and that a credit crunch might follow, the Federal Reserve had cut the Fed funds rate three times, in September, October, and November 1998, from 5.5 percent to 4.75 percent.

With the economy continuing to surge ahead and the unemployment rate dropping to nearly 4 percent, the 30-year Treasury yield ended the year about 125 basis points above its level at the end of 1998. Premiums on investment-grade corporate bonds fell back to levels somewhat above those prevailing before the Russian crisis. Premiums on high-yield bonds stayed elevated relative to early-1998 levels, reflecting in part the high default rate among busi-

Chart 2-9 **Yields on Treasury Securities**
Treasury yields on short-, medium-, and long-term securities rose in 1999, more than reversing their declines of the previous year.



Source: Department of the Treasury.

nesses with below-investment-grade bond ratings. Liquidity flowed freely again, with new debt issuance rebounding. Overall, markets appear to have returned to a state of relative normalcy, but with a renewed appreciation of the risks associated with investments of all kinds.

Financial Modernization

Last year witnessed a watershed event that will change the way financial institutions meet the needs of the American people. The Gramm-Leach-Bliley Act (GLB), which the President signed into law in November 1999, updates the rules that have governed the financial services industry since the Great Depression. Prior to GLB, the Glass-Steagall Act of 1933 and the Bank Holding Company Act of 1956 had largely prohibited banks from being affiliated with firms involved in underwriting securities or insurance. The financial services industry had been undergoing rapid change for several decades; affiliations among banks, security firms, and insurance companies have already occurred in the marketplace. By repealing those prohibitions and allowing banks to merge with other financial institutions, the new law will stimulate competition, increase consumer choice, and reduce costs for consumers, communities, and businesses while still providing an appropriate statutory framework for community reinvestment and privacy protection.

GLB preserves the important role of the Community Reinvestment Act, guaranteeing that banking institutions will continue to meet the needs of potentially underserved communities. No bank may take advantage of the new opportunities that GLB provides unless it shows that it is satisfactorily meeting the credit needs of its community in general, and low- and moderate-income neighborhoods in particular. GLB also provides some protection for the privacy of consumers by giving them the right to know whether their financial institution intends to share their financial data with others, and the right to stop that release of private information to unaffiliated third parties.

The Stock Market Boom

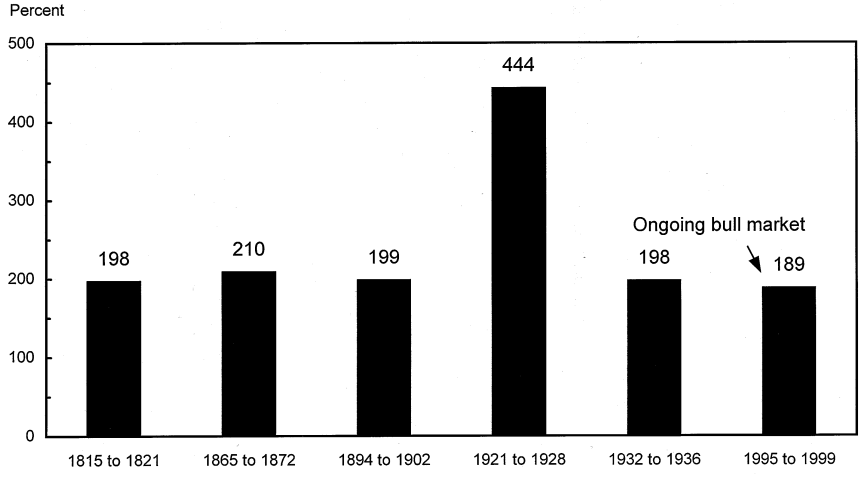
Stock market performance in the 1990s was truly exceptional. An investment of $100 in December 1989, with all dividends reinvested, would have been worth nearly $500 at the end of 1999, for a total return of close to 400 percent. Adjusted for inflation, the real return would still have been well over 250 percent. The bull market of the last 5 years has been particularly impressive, with a total real return of nearly 200 percent, or 24 percent per year on average. This total return makes the current bull market already the strongest since that of the 1930s and the sixth best ever (Chart 2-10). (We define a bull market as persisting in a given year so long as the real return to stocks is positive over the year.) Interestingly, whereas the bull market of the 1930s represented a recovery from the 1929 market crash, the gains of the last 5 years

have built on top of strong stock market performance in the 1980s and early 1990s. Many economists profess surprise at the remarkable bull market of the 1990s; others offer explanations for the sustained run, including a decline in the risk premium that investors demand in return for holding stocks, and a rise in expected corporate productivity and profits.

The first step in evaluating the performance of the stock market is to consider what determines the price of an asset (such as a share in a corporation) that yields a risky return. A share of common stock provides the owner with a claim on a portion of the issuing corporation's future profits. Hence the share price should equal the present discounted value of the corporation's net profits (that is, after payments to employees, suppliers, bondholders, and other creditors) divided by the number of outstanding shares. The discounting of future profits reflects two factors: the opportunity cost associated with waiting for those future profits, and a premium related to the uncertainty about whether those profits will materialize. The opportunity cost of receiving a dollar next year equals the interest an investor would receive by buying a risk-free bond instead of the share of stock. Because a stock can be a risky investment, investors demand a rate of return on stocks that is above that on a relatively safe bond.

Changes in fundamentals such as corporate profits and interest rates appear to explain some but not all of the dramatic runup in stock prices. Corporate profits grew impressively over the 1990s, but not by as much as stock prices.

Chart 2-10 **Cumulative Real Returns in the Top Six Bull Markets Since 1802**
Only five previous bull markets in stocks have accumulated higher returns than the one that began in 1995.



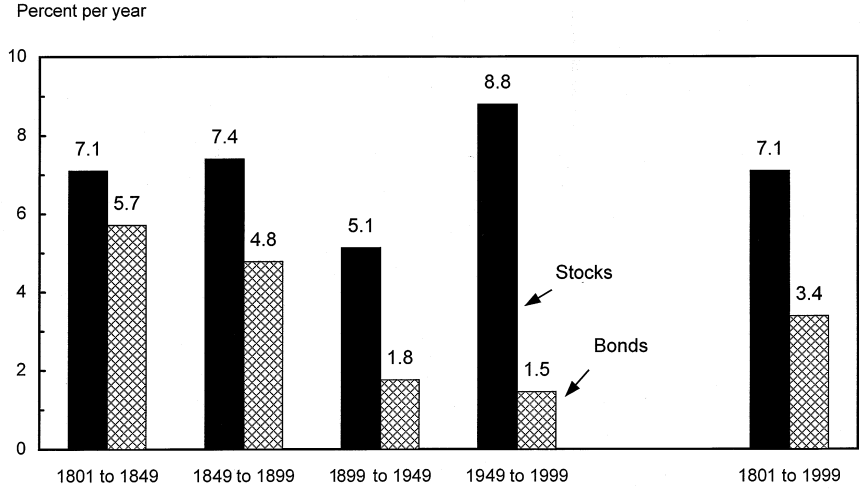
Note: Returns include reinvested dividends. A bull market is defined to persist in a given year so long as the real return to stocks is positive over the year.
Source: Jeremy Siegel, University of Pennsylvania.

From 1989 to 1999, corporate earnings more than doubled, and forecasts of future earnings were strong, on average, at the end of 1999. The inflation-adjusted yield on Treasury bonds, meanwhile, is little changed from its level of 10 years ago and thus has provided only a slight impetus to stock prices over the decade as a whole. The extraordinary rise in stock prices relative to actual profits has therefore led economists to hypothesize that changes have occurred beyond those measured by these fundamentals. One proposed explanation is that investors have reduced the premium that they demand for holding stocks. A second is that the outlook for future profits is brighter than commonly thought and that stock prices today more accurately reflect the true productivity and profitability of American businesses. We consider each hypothesis in turn.

The Equity Premium

From 1989 to 1999 the average annual real stock market return was over 14 percent, about 8½ percentage points higher than the average annual real return on long-term government securities. Although this level of return on stocks has been extraordinary, the fact that it has far exceeded the return on government bonds is nothing new. In fact, the excess return of stocks over bonds—the equity premium—has averaged about 4 percentage points over the last two centuries. The equity premium has also varied considerably over time, and over the second half of this century it has averaged about 7.3 percentage points (Chart 2-11).

Chart 2-11 **Real Stock and Bond Returns Since 1801**
Over the past two centuries, stock returns have exceeded returns on bonds over long periods.



Note: Returns include reinvested interest and dividends. The bond data are based on long-term government bonds when available; if not, similar highly-rated securities were used.
Source: Jeremy Siegel, University of Pennsylvania.

The additional riskiness of stock returns over that of bond returns does not appear large enough to justify an equity premium of over 7 percentage points, unless investors are extraordinarily risk-averse or their investment horizon is very short. For this reason, economists have long been puzzled by the large excess returns that the stock market has historically offered.

One explanation for the recent runup in stock prices is that investors may have been responding to the fact that stocks have historically yielded much higher returns than bonds over the long haul. In this view, the stock market was simply undervalued in the past, and the recent runup in prices was necessary to bring valuations in line with the fundamentals. Two developments may have spurred this behavior. First, the cost of owning a diversified portfolio of stocks has fallen with the creation of a growing number of low-cost mutual funds. Diversification reduces the risks associated with holding stocks and therefore should reduce the equity premium that investors demand as compensation for risk.

A second development is that a new generation of investors is now in the market, and the aversion of older investors to the risks of equity investing may have diminished. Investors may have had lingering memories of the bear market of the late 1960s and early 1970s, when the Dow Jones Industrial Average (adjusted for inflation) fell by more than 60 percent over 6 years. Some perhaps even remembered the Great Crash of 1929, when the Dow fell 64 percent in real terms over 3 years. Investors' attitudes toward the stock market, and their tolerance for risk, may have only recently recovered from these painful episodes. Meanwhile many from the baby-boom generation and later, who know bear markets only from history books, have become stock investors. Indeed, the older generation's recoil from stock investing may have been more emotional than rational. Even an unlucky investor who had invested in the stock market on the eve of the 1929 crash still would have realized a real return of nearly 6 percent a year, on average, over the next 30 years. In sum, both the low cost of diversification and changing attitudes toward the riskiness of stocks suggest reasons that may have led investors to bid up stock prices in the 1990s.

Intangible Capital

A second explanation for the bull market may be that investors have higher expectations for future corporate profits than they used to. In theory, the stock market value of a company should be closely related to the replacement value of its assets. For example, if a company owns only one asset, a factory that cost $10 million to build, the market value of that company should be $10 million (abstracting from other factors that affect its profitability).

One possible explanation for the rise in the stock market over the last decade is that U.S. businesses have accumulated large quantities of intangible capital in addition to physical capital (plant and equipment). Intangible cap-

ital includes the value of intellectual property (including patents from research and development investments), organizational structure, management expertise, and past investments in job training. These assets are not included in the national accounts' measure of physical capital but do raise the productive capacity of firms. In this view, stock market values—which should incorporate information about investments in tangible and intangible capital—should provide a better yardstick for capital than standard measures based on past investments in plant and equipment alone, which may understate the true productive potential of firms.

According to this explanation, the dramatic rise in the stock market value of corporate businesses during the 1990s derives from a large increase in their intangible capital stock, in addition to the increase implied by investments in plant and equipment. The implied surge in investment in intangible capital could have resulted from businesses' intensified efforts to increase efficiency and productivity. In addition, the explosion in information technologies and the Internet may have led to a surge in intangible capital investment, including the creation of new products and services and the redesign of production processes and management.

One implication of this hypothesis is that labor productivity growth should have increased sharply over the last few years, because workers now have more productive capital—both tangible and intangible—at their disposal. Although productivity growth has in fact increased, there is still too little evidence to support or reject the notion that the true productive capital stock has grown as rapidly as current stock market valuations imply.

It is inherently difficult to measure and evaluate the different variables, including perceptions of risk and profitability, that factor into stock market prices. The proper valuation of technology stocks—the group that has driven much of the market's growth in the last 2 years—is particularly tricky. Some of these stocks currently have low or even negative earnings but hold the potential for strong profits in the future. Because these companies lack the proven track record of long-term growth that more established firms usually have, their stock prices may in principle be more prone to volatility as investors revise their forecasts of future profits. Experts have a mixed record of perceiving the underlying determinants of stock values. As already noted, some were puzzled by the strength of the bull market in the late 1990s, yet the market continued to soar. On the other hand, Irving Fisher, one of the founders of financial economics, famously claimed just 2 weeks before the 1929 crash that "Stock prices have reached what looks like a permanently high plateau." In the final analysis, it is likely that neither of the two hypotheses described here will prove completely correct, and that several factors, perhaps including an overoptimistic view of future corporate profitability, have combined to propel the stock market upward.

Saving and Investment

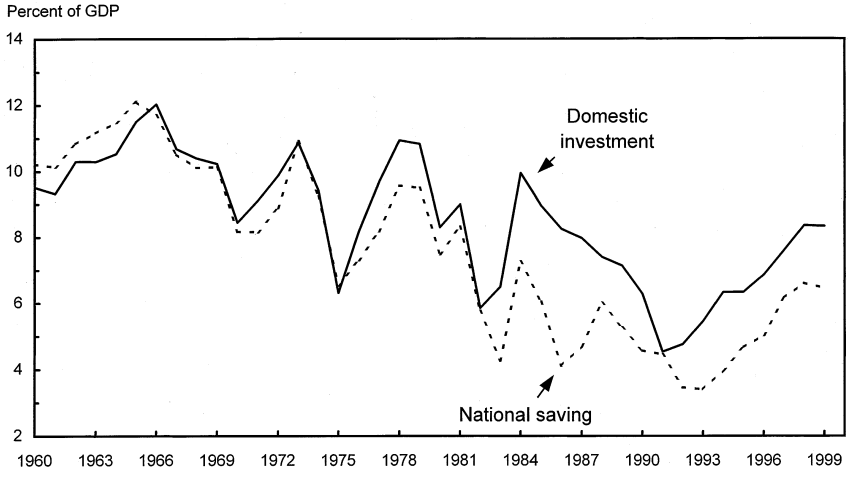
Investment is the economic bridge linking the present to the future. By deferring consumption today, we make available resources for investment, which increases our ability to produce and consume in the future. Over the last two decades, net domestic investment (gross investment minus capital consumption) has generally exceeded net national saving, and the difference has been made up by foreigners (Chart 2-12). Moreover, the share of GDP that was saved had been very low through much of the 1980s and early 1990s. This low rate of saving and its shortfall relative to domestic investment have led some to conclude that the United States is not "saving enough," especially in light of the upcoming retirement of the baby-boomers. The picture is not quite as clear, however, as these simple figures would suggest.

Trends in Saving

The ratio of net national saving to GDP has risen about 3 percentage points over the last 7 years. Despite this sizable improvement, this ratio remains low relative to its levels of the 1960s and 1970s. Indeed, if the national saving-GDP ratio were equal today to its levels in those decades, it would suffice to cover domestic investment.

The recent upward trend in net national saving is the net result of changes in the saving patterns of households, businesses, and governments. The ratio

Chart 2-12 **Net National Saving and Net Domestic Investment**
Net domestic investment has exceeded net national saving in most years since the 1960s. In 1999 the difference reached 2 percent of GDP.



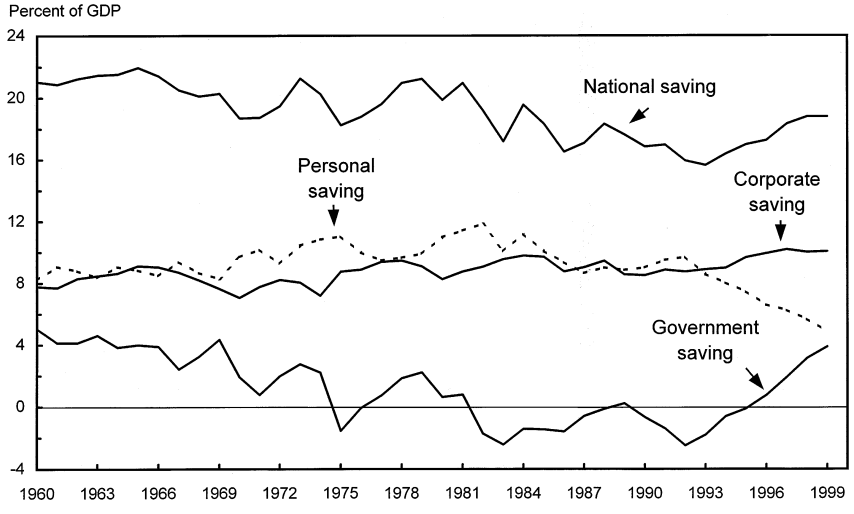
Note: Net national saving minus net domestic investment is equal to net foreign investment minus the statistical discrepancy. Data for 1999 are averages of first three quarters.
Source: Department of Commerce (Bureau of Economic Analysis).

of gross personal saving to GDP has declined nearly 5 percentage points over the last 7 years. However, over the same period, the gross national saving rate—the sum of personal, business, and government saving—has increased by 3 percentage points (Chart 2-13). The source of this difference lies in the reversal of the role played by the Federal Government, which has transformed itself from a major borrower into a major saver. In addition, State and local governments have increased their saving as a share of GDP. Corporate saving has also been on a gradual upward trend through the 1990s. Yet as already noted, despite these positive developments in government and business saving, the national saving rate remains low relative to its 1960s and 1970s levels. There are, however, reasons to believe that the measured national saving rate does not accurately portray the accumulation of assets capable of supporting future consumption.

Saving and Asset Accumulation

Although national saving is not as high today as in past periods, Americans have nevertheless been accumulating vast quantities of assets. The ultimate purpose of saving and investing is to provide resources for future consumption. To paraphrase Adam Smith, consumption is the sole end and purpose of all saving. In considering the ability to consume in the future, it makes sense

Chart 2-13 **Gross National Saving**
Relative to GDP, gross national saving held steady in 1999 as an increase in government saving offset a decline in personal saving, which fell to its lowest level in at least 40 years.



Note: Data for 1999 are averages of first three quarters.
Source: Department of Commerce (Bureau of Economic Analysis).

to look at not only how much we save, but also at how that saving is invested and how productive that investment is.

Much saving goes ultimately into business investment, where it raises future productivity and thus output. The reported nominal national saving and investment rates conceal an important development, namely, a sharp decline in the relative price of business equipment, owing in large part to quality improvements in capital goods. One dollar of saving buys more business equipment, on a quality-adjusted basis, today than before. As a result, the increase in productive business assets corresponding to the average dollar saved by Americans has risen over time.

The recent runup in the stock market, already discussed, allows an even more optimistic view on asset accumulation. Real household stock market wealth has more than doubled since 1995. To the extent that this runup in stock prices reflects an increase in the productive capacity of U.S. corporations—say, owing to investments in intangible capital or especially high returns to investments in information technologies—this increase in wealth augurs a real increase in future sustainable consumption. On the other hand, rises in share prices resulting from changes in U.S. investors' willingness to hold stocks or from overly optimistic views of future earnings do not imply additional resources available for national consumption.

The upswing in the national saving rate over the last several years provides an encouraging sign regarding the Nation's preparations for the future. To the extent that recent saving is more productive than past saving, so much the better. In any case, the Federal Government can further advance this favorable trend in national saving by maintaining fiscal discipline, paying down the debt, and thereby raising government saving.

The End of the Business Cycle?

Growth has been a defining characteristic of the U.S. economic experience over the last century, but only when viewed from a long perspective: employment and income have often deviated, sometimes sharply, from their rising long-run trends. Time and again the economy has risen over a period of years to a temporary peak of activity, only to fall back downward, bottom out at a trough, and from there once again begin to rise. These peaks and troughs represent turning points of the business cycle; an expansion is defined as the period that starts from a trough and ends when a new peak is reached. Although the business cycle has been a recurring feature of the U.S. economy for as far back as we have reliable data, some observers have argued that the economy in the 1990s has fundamentally changed and that the concept of the traditional business cycle is outdated.

The beginnings and ends of U.S. business cycles are determined well after the fact by the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER), a private, nonprofit organization of professional economists. For instance, the March 1991 trough that marked the beginning of the present expansion was not announced by the committee until December 1992. In identifying the monthly dates for peaks and troughs, the committee looks for across-the-board movements in a large array of economic indicators such as output, income, and employment. Using this methodology, the NBER has determined that since 1854 there have been 31 expansions and 31 recessions, representing 30 peak-to-peak business cycles, not including today's ongoing expansion. Although they are called "cycles," these economic fluctuations are neither regular nor predictable. The longest expansion to date was that of the 1960s, which lasted 106 months. (The current expansion is expected to pass that mark in February 2000.) The longest contraction on record lasted over 5 years, from the October 1873 peak to the March 1879 trough, whereas the shortest lasted only 6 months, from January to July 1980.

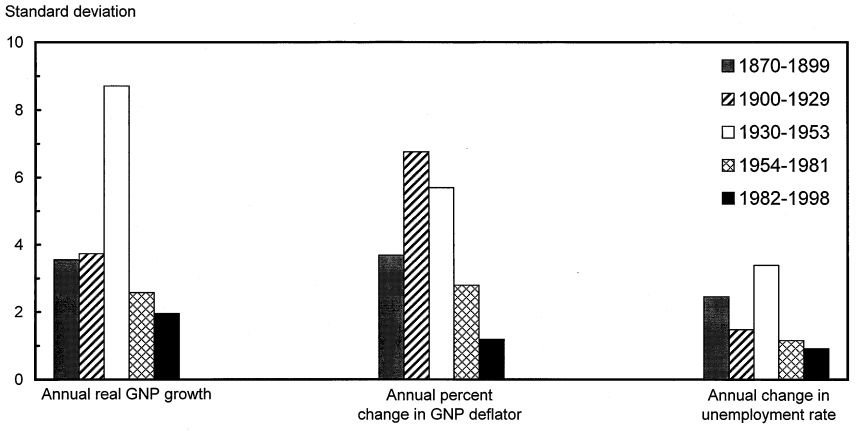
The Changing Nature of Business Cycles in the United States

Forty-one years ago a former chairman of the Council of Economic Advisers predicted that "The business cycle is unlikely to be as disturbing or troublesome to our children as it once was to our fathers." Research quantifying the degree to which business cycles have moderated over time confirms this view. If the severity of economic fluctuations is measured in terms of the output lost during a recession, the 14 recessions between 1900 and 1953 cost on average about three times as much as the 7 recessions since then. Even if the Great Depression of the 1930s is excluded, recessions in the earlier period still were on average more than one and a half times as severe as those in the 1954-99 period.

Other evidence supports the notion that business cycle fluctuations have diminished over time. From 1982 to 1998, fluctuations in GNP and unemployment were on average about 20 percent smaller than they were from 1954 to 1981, and fluctuations in inflation were less than half as large on average (Chart 2-14). With the caveat that data from the 19th century and the early 20th century are less reliable than and not directly comparable to recent data, business cycle fluctuations appear to have become less severe in the second half of the 20th century than in earlier periods.

One other way to think about the postwar moderation of the business cycle is in terms of the length of time that the economy has spent in recession and the amount of time it has spent in expansion. The average length of expansions nearly doubled in the second half of the century, from about 2½ years during 1900-53 to about 5 years since then, and the average length of economic contractions has fallen from about 17 months to less than 11 months.

Chart 2-14 **Fluctuations in Output, Inflation, and Unemployment**
Business cycle fluctuations have been less severe on average in the second half of the 20th century than in earlier periods.



Note: Unemployment data begin in 1891.
Sources: Department of Commerce (Bureau of the Census and Bureau of Economic Analysis); Department of Labor (Bureau of Labor Statistics); Christina D. Romer, "The New Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy*, 1989, and "Spurious Volatility in Historical Unemployment Data," *Journal of Political Economy*, 1986.

Sources of Business Cycle Moderation

One source of moderation in the business cycle is the changing nature of the U.S. economy. Historically, inventories have been one of the most volatile components of spending. Businesses now tend to operate with much leaner inventory stocks than before, and they appear to be better able to adjust these stocks to changing economic conditions. The composition of output has also tended to move from more volatile toward less volatile sectors. Spending on services, which tends to be relatively insensitive to cyclical fluctuations, made up over half of GDP in 1999, compared with less than a third in 1950. Conversely, the cyclically sensitive manufacturing sector makes up a smaller share of aggregate output and employment than in the past.

The growing role of stabilization policies—fiscal and monetary policies, which buffer the effects of destabilizing influences on the economy—may also have contributed to this moderation of the business cycle. Over the last century, the role of fiscal policy in affecting the business cycle not only has grown but has indeed changed fundamentally. At the beginning of the 20th century, the Federal Government's role in the economy was tiny. In 1900 there was no Federal income tax and no Social Security, and total Federal receipts equaled a mere 3 percent of GNP. The Nation's monetary policy was generally one of simple adherence to the gold standard, which limited the use of monetary policy as a stabilizing tool.

The Federal Government's role in macroeconomic stabilization grew in importance following World War II. Although the income tax had been

introduced in 1913 and Social Security in 1937, by 1940 income and payroll taxes equaled only 3 percent of GNP. Income and payroll tax revenue rose thereafter as a share of GNP and has averaged around 14 percent over the last 30 years. It amounted to over 16 percent of GNP in 1999. The role and character of monetary policy likewise underwent a fundamental transformation during the late 20th century. Recent experience supports the view that modern monetary policy can achieve the long-run goal of price stability while aiding in the cause of short-run macroeconomic stabilization by "leaning against the wind" when macroeconomic imbalances develop.

Do Expansions Die of Old Age?

One question that has intrigued economists is whether each expansion contains the seeds of its own destruction. Is it true that the longer an expansion lasts, the more likely it is to end in the next quarter or the next year? Studies find no compelling evidence that postwar expansions possess an inherent tendency to die of old age. Instead, they appear to fall victim to specific events related to economic disturbances or government policies. For instance, the Iraqi invasion of Kuwait, which led to a doubling of oil prices in the fall of 1990, contributed to the decline in economic activity during the recession of 1990-91. American consumers, having suffered through the tripling of oil prices in 1973-74 and their subsequent doubling in 1979, anticipated negative repercussions on the U.S. economy, and consumer confidence declined sharply and consumption fell.

An example of policy affecting the end of an expansion is the Federal Reserve's successful disinflation at the end of the 1970s and in the early 1980s. In 1979 the CPI inflation rate reached 11 percent. Under a new chairman, the Federal Reserve dedicated itself to a renewed effort to reduce inflation, which fell 8 percentage points over 4 years, to about 3 percent by the end of 1983. As a result, the short expansion that started in July 1980 came to a halt one year later. With the Federal funds rate peaking at just over 19 percent in June 1981, the economy fell into a 16-month recession, during which the unemployment rate rose above 10 percent.

An Expansion Is Only as Old as It Feels, and This One Still Feels Young

Although the current expansion entered its 105th month in December 1999—what might be considered old age, based on the history of U.S. business cycles—it still appears young and vibrant when compared to the later stages of past long expansions. What is noteworthy in today's economy is the absence of developments that are frequently identified with the twilight of an expansion. In particular, productivity has accelerated during the last several

years, rather than stagnated as in other mature expansions, and price inflation has been on a falling, not a rising, trend.

In the later stages of the two previous long expansions, productivity growth slowed to just above a 1 percent annual rate (Table 2-2). In contrast, over the last 2 years, productivity has been growing nearly 3 percent a year, in part owing to rapid business investment. Strong productivity growth has enabled the economy to grow rapidly and helped restrain the cost pressures typically associated with a strong economy.

Inflation trends provide a second sign of an expansion's age and health. Late in the expansions of the 1960s and the 1980s, high rates of utilization and decelerating productivity contributed to an acceleration in prices, that is, a rising inflation rate. In the current expansion, even with unemployment well below 5 percent, the acceleration in productivity has helped keep inflation stable. In fact, inflation has fallen relative to the previous 2-year period. Surveys of inflation expectations provide a further encouraging sign that inflation remains in check: these surveys show that both consumers and professional forecasters expect inflation to stay low over the next several years. Some have argued that the U.S. economy is now nearly immune to the business cycle, because of the effects of increased international competition, rapid innovation and productivity growth, and improved flexibility of the production and distribution systems.

TABLE 2-2.— *The Late-Expansion Economy and the Current Expansion*
[Average annual percent change, except as noted]

Item	Last 2 years of earlier expansions		Most recent 2 years of current expansion
	1967 Q4 to 1969 Q4	1988 Q3 to 1990 Q3	1997 Q4 to 1999 Q4
Real GDP per capita	2.5	1.6	[1] 3.4
Unemployment rate [2]	3.5	5.3	4.4
Productivity [3]	1.3	1.1	[4] 3.0
Real business fixed investment	6.0	3.1	[1] 10.0
CPI-U-RS [5]	5.3	4.7	2.0
CPI-U-RS acceleration [6]	2.1	.9	-.4

[1] Preliminary.
[2] Percent; annual average for 1968-69, 1988 Q4-1990 Q3, and 1998-99.
[3] Output per hour worked in the nonfarm business sector.
[4] Change through 1999 Q3.
[5] For pre-1978 data, CPI-U used.
[6] Percentage-point difference in 2-year average annual inflation rate from that of preceding 2 years.

Sources: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

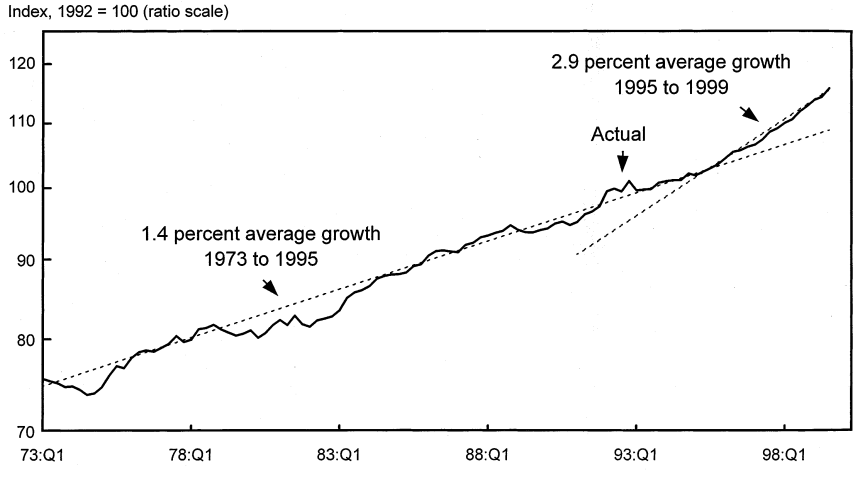
Of course, it is premature to declare the business cycle dead. But there are reasons to believe that the economy will continue to perform as well as, if not better than, it has in the recent past, with less of the roller-coaster ride that characterized the 1970s and early 1980s (not to mention earlier decades). Unlike in the 1980s and early 1990s, fiscal discipline is now the order of the day. Projected surpluses can now be used to pay down the debt and free up capital for investment in education, business, and technology, spurring faster growth. Likewise, the Federal Reserve no longer follows the stop-and-go policies of the 1970s, but instead practices a systematic policy that fosters price stability and long-term growth.

The Economic Outlook

As always, the growth of the supply-side components of GDP underlies the projection of long-term growth. In particular, the prospect for continued productivity growth is the key issue in the economic outlook and the source of many of the upside and downside risks to the Administration's projection.

Labor productivity trended upward at an average annual rate of 1.4 percent from 1973 to 1995 but then accelerated to a 2.9 percent clip over the past 4 years (Chart 2-15). The unexpected surge in productivity growth has led to several positive developments: it has restrained inflation, allowing the unemployment rate to fall lower than it otherwise might; it has increased econom-

Chart 2-15 **Labor Productivity (Nonfarm Business Sector)**
Labor productivity trended upward at an average annual rate of 1.4 percent from 1973 to 1995. It then accelerated to a 2.9 percent clip over the past 4 years.



Note: Productivity is the average of income- and product-side measures. Productivity for 1999 is inferred from the first three quarters.
Sources: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

ic growth, with positive effects on the Federal budget balance; and it has boosted stock market valuations.

Over the past 4 years, the income-side measure of output, gross domestic income, has grown half a percentage point per year faster than the product-side measure, gross domestic product. Because measurement error enters into both, the Council of Economic Advisers believes that we learn something from each, and therefore the following discussion focuses on an average of the two measures in discussing trend productivity and potential output.

What Has Caused Productivity Growth to Rise?

Because the apparent acceleration in productivity is less than 4 years old, its cause and future continuation remain controversial. A year ago, available data showed productivity growth to be within the range of normal cyclical variation. But more recent data, especially the October benchmark revision to the national accounts (Box 2-3), place the acceleration on more solid footing. National accounts revisions result from changes in price measurement and new definitions as well as the arrival of new data. Abstracting from the first two, the data-based revision over 1995-98 allows us to advance the start of the acceleration at least to 1997 and perhaps as early as 1995. And insofar as the revised data are more accurate, they make the identification of the acceleration more credible. The Council's analysis finds that two developments account for half of this acceleration: an increase in capital—especially computer and software capital—and productivity growth in the computer-producing sector.

Labor productivity increases when workers have more capital to work with. Capital deepening has been a persistent feature of the U.S. economy since World War II, as capital services per hour has increased in almost every year. Yet in 1995, business investment as a share of GDP climbed above its long-term average, and it has continued upward since. As a result, capital services per hour grew faster after 1995 than before. Estimation using preliminary data and established methods of growth accounting (that is, weighting the growth rate of capital services per hour by capital's cost share) finds that capital deepening accounts for 1.53 percentage points of annual labor productivity growth during the 1995-99 period. This is up from 1.06 percentage points during the 1973-95 period (second line in Table 2-3). The difference between these growth rates shows that capital deepening accounts for 0.47 percentage point of the 1.47-percentage-point acceleration in productivity after 1995 (Table 2-3, column 3). Investment in computers and software accounts for all of this gain from capital deepening. (Official data on capital services will not be released until mid-2000, and so these calculations remain tentative.)

This contribution from capital deepening is important, but it is not the whole story. Although capital deepening contributes to labor productivity growth in the long run, it has not been a reliable guide to year-to-year fluctu-

Box 2-3. What Did We Learn from the GDP Benchmark Revision?

The Commerce Department's benchmark revision of the GDP statistics, released by the Bureau of Economic Analysis last October, incorporated new data from the last full economic census (conducted every 5 years) and from the benchmark input-output accounts from 1992, as well as from the revised annual sources that are usually incorporated in the annual July GDP revision. The benchmark revision also provided an opportunity to change accounting definitions and to make the pre-1995 accounts consistent with current methods of deflation.

Spending. Over the 11-year period from 1987 to 1998, revisions raised the annual rate of growth of real GDP by an average of 0.4 percentage point. The revisions fall into three main categories (Chart 2-16): revisions to source data, revisions to the methods used in adjusting for inflation, and new definitions of spending categories and subcategories.

Incorporating new source data from the economic censuses and other sources added about 0.2 percentage point per year to growth since 1994 but had little impact on earlier years.

Changes in deflation methodology accounted for the largest component of the benchmark revision for the 1987-94 period. This change reflects the retrospective application of current CPI methods to the years 1978-94. (These methods were already in use for the post-1994 period.)

Among several new definitions introduced, the most significant is the inclusion of computer software purchases in investment, which raises the growth rate of real GDP by an average of 0.18 percentage point per year over 1987-98. By 1998 the cumulative impact of these definitional changes was to raise the measured level of nominal GDP by 2.0 percent and the growth of real GDP since 1959 by 3.5 percent.

Income and saving. In the GDP accounts, pension plans for government employees were moved from the government to the household sector, so that employer contributions to (and interest and dividends earned by) these pension plans are now classified as personal income. On the other hand, pension benefit payments were removed from the transfer income component of personal income. This reclassification boosted personal saving but reduced government saving by an offsetting amount. The personal saving rate still shows a marked decline over the 1990s but was no longer negative in 1999 as it was under the old GDP accounts. New source data boosted measured wages and salaries substantially in 1998, adding to income and saving.

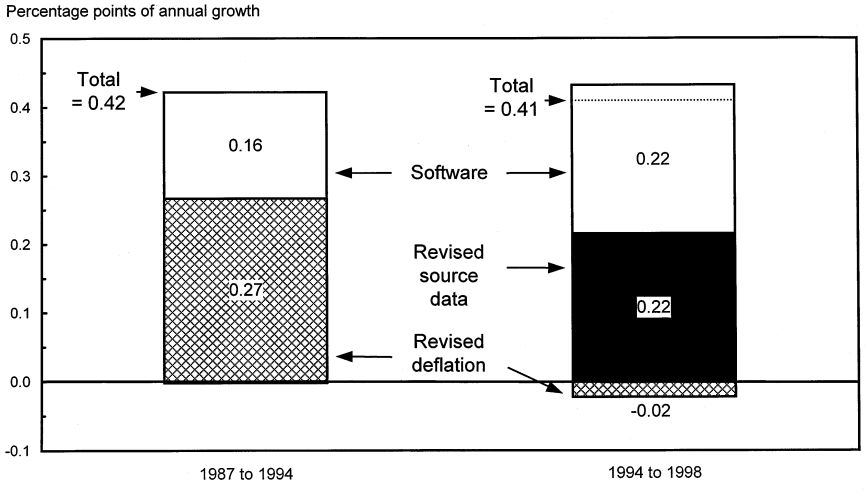
With software now classified as investment, software depreciation is added to the income side of the accounts. Although the new definition boosted gross national saving, net saving is changed little.

Productivity. The reclassification of software as investment and the improvements in deflation methodology boosted measured productivity

continued on next page...

Box 2-3.—*continued*
growth over most of the historical period affected by these revisions and had been anticipated. In contrast, the changes brought about by the new source data were unexpected and revealed that productivity (on a consistently measured basis) had been growing faster than had been previously believed.

Chart 2-16 **Sources of Revisions to Real GDP Growth**
Revised deflation methods explain most of the upward revision to real GDP growth for the 1987 to 1994 period, but half of the post-1994 revision is due to new source data.



Note: Revised deflation is a residual category that may include other factors. The partition of the real GDP revision into three parts is approximate. Detail may not add to totals because of rounding.
Sources: Department of Commerce (Bureau of Economic Analysis) and Council of Economic Advisers.

ations in productivity. In addition, the power of capital deepening to explain even long-run changes can be overstated. For example, capital shallowing accounts for very little of the post-1973 productivity slowdown.

Increasing quality of the work force has been another persistent feature of U.S. economic growth. The American work force has become better educated, and since about 1980 the average worker is more experienced. Nothing dramatically new happened to the index of labor composition (which measures the effect of education and work experience on productivity) after 1995, but it may have added an additional 0.05 percentage point to labor productivity growth after 1995 (third line in Table 2-3).

Besides their role in capital deepening, computers enter GDP directly as part of consumer durables and business investment. Hence, productivity growth in the production of computers contributes directly to overall pro-

TABLE 2-3.—*Accounting for the Productivity Acceleration in the 1990s*

[Average annual percent change, except as noted]

Item	1973 to 1995	1995 to 1999	Acceleration[1]
Labor productivity	1.43	2.90	1.47
LESS: Contribution of			
Capital services	1.06	1.53	.47
Labor quality	.26	.31	.05
Computer sector total factor productivity	.16	.39	.23
EQUALS: Total factor productivity excluding computers	-.06	.65	.70

[1] Percentage points.

Note.—Labor productivity is the average of income-and product-side measures of nonfarm business output per hour worked.
Data for 1999 estimated by Council of Economic Advisers.
Detail may not add to totals because of rounding.

Sources: Department of Commerce (Bureau of Economic Analysis) for output and computer prices; Department of Labor (Bureau of Labor Statistics) for hours and labor quality; Macroeconomic Advisers, LLC for capital services; and Council of Economic Advisers.

ductivity growth. Productivity growth has been particularly rapid in the computer-producing sector. A measure of productivity in the computer-producing sector would capture this direct effect. However, it is impossible to be precise about computer sector productivity because of the difficulty in measuring the real inputs (such as engineering and other business services) to this sector from other sectors. In lieu of a direct productivity measure, the rate of decline in the relative price of computers tells us something about quality improvement in the computer sector. The price of computers relative to that of nonfarm output, which had been falling at an 18 percent average annual rate before 1995, fell at a 29 percent annual rate thereafter, indicating an acceleration in computer quality after 1995. An estimation that weights these changes by the share of final sales of computers in nonfarm output (about 1¼ percent) finds that improved computer quality added 0.23 percentage point to the post-1995 acceleration (fourth line of Table 2-3). (These methods and estimates are, of course, approximate; one study using different methods attributes most of the acceleration in trend productivity to the computer-producing sector.)

These three explanations—capital deepening, changing labor composition, and rising computer quality—may account for half of the post-1995 acceleration in productivity. The other half reflects all the other factors that affect productivity growth. These may include cyclical influences and new efficiencies from the use of the Internet, especially for business-to-business transactions.

The Outlook for Productivity

Can the factors that account for the more rapid pace of labor productivity growth since 1995 be sustained? The data provide a mixed but, on balance, positive picture.

The trend toward a more educated work force seems likely to continue with support from the Administration's policy of promoting investment in education and job training. Moreover, the median age of the work force will continue to rise through at least 2008, when the leading edge of the baby-boom generation retires. But these trends are not expected to shift, and as a result, the contribution of labor composition to productivity is not likely to change much from its historical average of 0.3 percentage point per year.

The decline in the relative price of computers has been particularly rapid over the past 4 years, and so it is prudent to expect that this rate will return to its long-term rate of about 20 percent per year. If that happens, computers' contribution to productivity growth will drop from about 0.4 to 0.3 percentage point per year.

The growth rate of capital services per hour increased in 4 of the past 5 years, reaching 5.4 percent in 1999—a rate that implies a 2-percentage-point yearly contribution of capital deepening to labor productivity growth. For 2000 the pace of capital deepening is likely to increase further, because the current level of investment is already very high. (The rate of growth of capital services depends on the level of investment.) Projections over the longer run are more speculative, but the level of nominal investment is expected to remain high relative to nominal output. The President's budget proposal—in which the Federal Government continues to pay down the Federal debt—also promotes this investment. This high-investment economy is likely to promote a continued strong pace of capital deepening and strong productivity growth.

Besides the contributions of labor and capital, cyclical and other considerations enter the productivity forecast. Most important, the level of productivity in 1999 was likely above its trend, as hiring probably has not caught up with the surge in output, and many vacancies probably remain unfilled. A model that allows labor productivity to differ from its trend because of these cyclical influences estimates the trend of labor productivity growth at a 1.8 percent annual rate since 1990, up from a 1.6 percent annual rate from the peak of the previous business cycle to 1990. Simulations from this model overestimate the level of productivity from 1993 through 1997 and underestimate it thereafter. Although these errors may stem from the lack of a role for capital deepening in the model, this omission has the offsetting benefit that the estimate of the long-term trend in labor productivity is not overly sensitive to cyclical movements in investment spending.

Second, the projection depends on the time horizon. A projection for the near future extrapolates recent trends, whereas a projection for the distant

future extrapolates long-term trends. Near-term projections ought to balance the probable continued role of capital deepening in supporting strong productivity growth with the likelihood that a lot of job vacancies will be filled. Weighting these considerations, the Administration projects the trend rate of increase in labor productivity at 2.2 percent per year for 1999-2002, which is down from the nearly 3 percent pace actually observed over the past few years. The projection of productivity growth then begins to fade toward its long-term rate, with growth of 2.0 percent for 2003-05 and then 1.8 percent for 2006-10. Productivity over the entire 1999-2010 interval is projected to grow at a 2.0 percent average annual rate.

Supply-Side Components of GDP

In addition to productivity, the factors on the supply side whose effects on GDP growth sum to total GDP growth include population, the labor force participation rate, the employment rate, the workweek, and the two additional ratios shown in Table 2-4. In line with the latest projection from the

TABLE 2-4.—*Accounting for Growth in Real GDP, 1960-2007*

[Average annual percent change]

Item	1960 Q2 to 1973 Q4	1973 Q4 to 1990 Q3	1990 Q3 to 1999 Q3	1999 Q3 to 2007 Q4
1) Civilian noninstitutional population aged 16 and over	1.8	1.5	1.1	1.1
2) PLUS: Civilian labor force participation rate [1]	.2	.5	.0	.0
3) EQUALS: Civilian labor force [1]	2.0	2.0	1.0	1.1
4) PLUS: Civilian employment rate [1]	.0	-.1	.2	-.1
5) EQUALS: Civilian employment [1]	2.0	1.9	1.2	1.0
6) PLUS: Nonfarm business employment as a share of civilian employment [1 2]	.1	.1	.4	.2
7) EQUALS: Nonfarm business employment	2.1	2.0	1.6	1.2
8) PLUS: Average weekly hours (nonfarm business)	-.5	-.4	.1	.0
9) EQUALS: Hours of all persons (nonfarm business)	1.6	1.7	1.7	1.2
10) PLUS: Output per hour (productivity, nonfarm business)	2.8	1.5	2.0 [3] 2.4	2.0
11) EQUALS: Nonfarm business output	4.5	3.1	3.8 [3] 4.1	3.2
12) PLUS: Ratio of real GDP to nonfarm business output [4]	-.3	-.2	-.5 [3] -.7	-.3
13) EQUALS: Real GDP	4.2	3.0	3.2 [3] 3.4	[5] 2.8

[1] Adjusted for 1994 revision of the Current Population Survey.
[2] Line 6 translates the civilian employment growth rate into the nonfarm business employment growth rate.
[3] Income-side definition.
[4] Line 12 translates nonfarm business output back into output for all sectors (GDP), which includes the output of farms and general government.
[5] GDP growth is projected to fall below its underlying trend for this period (about 3 percent) as the employment rate is projected to fall 0.1 percent per year over this period.

Note.—Detail may not add to totals because of rounding.
The periods 1960 Q2, 1973 Q4, and 1990 Q3 are business-cycle peaks.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), and Department of Labor (Bureau of Labor Statistics).

Bureau of the Census, the working-age population is projected to grow at almost 1.1 percent annually through 2007 (a bit faster than projected last year). In line with the latest projection from the Bureau of Labor Statistics, the labor force participation rate is projected to increase by less than 0.1 percent per year. The length of the average workweek is projected to remain about flat over the entire projection horizon. In contrast, the employment rate is projected to decline roughly 0.1 percent per year as the unemployment rate edges up to 5.2 percent—the middle of the range judged consistent with long-run inflation stability. From 2008 on, growth in the working-age population slows a bit, and the labor force participation rate begins to fall as the first wave of the baby-boom cohort reaches the early retirement age of 62.

Budget Effects of a High-Investment Economy

An economy fueled by high investment—especially in computers—will be characterized by two forces that partly offset the positive effects on the Federal budget of faster productivity growth: higher depreciation and a larger wedge between the CPI and the GDP price index.

A high-investment economy is an economy in which a large share of output is required to replace worn-out capital, simply because more investment means more capital goods to be depreciated. The share of nominal business fixed investment in nominal GDP, which had averaged 11 percent since 1959, increased to about 12½ percent by the end of 1999 and is likely to increase further in the near term. The 1½-percentage-point increase in the investment share thus far portends a similar increase in the share of total gross domestic income claimed by depreciation. As depreciation claims an increasing share of income, less room will be available for the taxable components such as profits and wages and salaries.

The rapid decline in computer prices, together with an increasing nominal share of computers in GDP, also has negative effects on the Federal surplus through the "wedge" between the CPI and the GDP price index. A larger wedge reduces the Federal budget surplus because cost-of-living adjustments for Social Security and other indexed programs increase with the CPI, whereas Federal revenues increase with the slower-growing GDP price index. The effect is reinforced by the fact that the CPI is also used to index income tax brackets and other features of the tax code.

Rapid declines in computer prices increase the wedge, because computer prices have a 10 times larger weight in the GDP price index (1.1 percent) than in the CPI (where the December 1999 relative importance weight is only 0.11 percent). For example, computer price declines held down the increase of the GDP price index by 0.23 percentage point but reduced CPI inflation by only 0.03 percentage point.

Over the past 6 years, the CPI-U-RS has increased 0.6 percentage point per year faster than the GDP price index. The projected wedge is in line with this historical average, as the Administration's inflation projection flattens out after 2002 at 2.6 percent for the CPI and 2.0 percent for the GDP price index (Table 2-5).

TABLE 2-5.—*Administration Forecast*

Item	Actual		2000	2001	2002	2003	2004	2005	2006
	1998	1999							
	Percent change, fourth quarter to fourth quarter								
Nominal GDP	5.9	[1] 5.9	4.8	4.6	4.6	4.5	5.0	5.1	4.9
Real GDP (chain-type)	4.6	[1] 4.2	2.9	2.6	2.5	2.5	3.0	3.0	2.9
GDP price index (chain-type)	1.1	[1] 1.6	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index (CPI-U)	1.5	2.7	2.3	2.5	2.6	2.6	2.6	2.6	2.6
	Calendar year average								
Unemployment rate (percent)	4.5	4.2	4.2	4.5	5.0	5.2	5.2	5.2	5.2
Interest rate, 91-day Treasury bills (percent)	4.8	4.7	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Interest rate, 10-year Treasury notes (percent)	5.3	5.7	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Nonfarm payroll employment (millions)	125.8	[1]128.6	129.9	131.1	132.9	134.5	135.2	136.3	138.3

[1] Preliminary.

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

What Has Held Inflation in Check?

During the past 2½ years the key measures of inflation have remained low and stable despite an unemployment rate below 5 percent. Previous experience suggests that such a sustained period of low unemployment would push up the inflation rate. Yet inflation, as measured by the four-quarter change in the price index for GDP and the core CPI, has remained remarkably subdued.

In the 1995 and 1996 editions of the *Economic Report of the President*, the NAIRU, the unemployment rate consistent with stable inflation, was estimated to lie in a range centered around 5¾ percent. There is growing evidence that the NAIRU has fallen below that level. Indeed, several studies using statistical methods that allow the NAIRU to change over time estimate a pronounced drop in the late 1990s. Possible causes include spare manufacturing capacity, new efficiencies in the labor market from the expanded use of temporary help workers and Internet job search resources, higher-than-expected productivity growth, and declining import prices. Manufacturing capacity was discussed previously; the other factors are considered below.

The Changing Labor Force

Over the past two decades, the aging of the baby-boom generation has reduced the proportion of younger workers in the labor force. In the mid- and late 1970s, young baby-boomers swelled the ranks of the youngest segment of the labor force: in 1978 nearly 25 percent of American workers were between the ages of 16 and 24. As the baby-boom generation aged, this share fell and is now about 16 percent. Because younger workers are typically more prone to unemployment spells than older workers (the unemployment rate of workers aged 16-24 is nearly three times that of workers over 25), this aging of the labor force reduced the overall NAIRU. According to recent estimates, the changing age profile of American workers accounts for about 0.7 percentage point of the reduction in the NAIRU during the 1980s but had no significant further effect in the 1990s.

Rising education levels may also have brought down the NAIRU. The 1980s and 1990s were a period of marked increases in the educational attainment of the U.S. labor force. In 1998, for example, 57 percent of workers had some college education, up from about one-third in the mid-1970s. Unemployment rates are consistently lower for groups with more years of schooling. For instance, the unemployment rate for those with no high school diploma averages about 4 percentage points higher than for those with a high school diploma but no college. And the unemployment rate of those with a high school diploma but no college degree is about 3 percentage points higher than that for college graduates. These differences in unemployment rates may also reflect other worker characteristics that are correlated with education, however, obscuring any causal link between educational attainment and the NAIRU.

Temporary Help Agencies

The rapid growth of the temporary help industry may also have contributed to a decline in the NAIRU. Temporary help agencies have existed since the 1920s, but their role in labor markets expanded greatly during the 1980s and 1990s. Between 1982 and 1999, total employment in this industry increased more than sevenfold, and the industry's share of overall employment has grown from less than 0.5 percent in the early 1980s to more than 2.3 percent in 1999.

One way the temporary help industry may reduce the NAIRU is by creating short-term employment opportunities for workers who might otherwise be unemployed. Businesses in cyclical or volatile industries need flexibility to scale their payrolls up or down as demand fluctuates. Businesses frequently need temporary employees with specialized skills, who can substitute for permanent employees on leave. Similarly, the growing availability of temporary

work enables job hunters to work while they search for a permanent position and provides opportunities for people who desire to work intermittently.

Labor market data support the hypothesis that the temporary help industry creates employment opportunities. Thus far during this expansion, the temporary help industry has created 1.9 million new jobs, and this figure does not count those workers who found permanent jobs through their temporary assignments. Moreover, in 1997, 60 percent of all temporary workers would have preferred permanent positions, and about a third of this group were actively seeking permanent employment. This suggests that a significant proportion of temporary workers would have been unemployed in the absence of the temporary help industry. In fact, a recent study found that the unemployment rate in 1997 might have been up to 0.3 percentage point higher if only half of these "involuntary" temporary workers had remained idle while they sought permanent employment.

The Internet Job Market

Yet another partial explanation for the decline in the NAIRU is improved job matching through the Internet. The new medium has recently added to its many functions that of providing the virtual space for a burgeoning labor market. As both job hunters and recruiters discover its advantages, the Internet job market is rapidly becoming part of the mainstream job market. According to one study, nearly 60 percent of human resources managers used online recruiting in 1998, up from 13 percent in 1996. Moreover, a survey found that large companies are increasing the resources devoted to Internet recruiting.

A leading Internet jobs clearinghouse is America's Job Bank. Part of America's Career Kit (see Chapter 4), America's Job Bank is a partnership between the Department of Labor and the public employment services operated by the States. Funded by unemployment insurance tax revenues, America's Job Bank links 1,800 employment service offices around the country, aggregating information on over 1.5 million job seekers and a similar number of job opportunities in one convenient, easily accessible Internet site. Job hunters can post their resumes and search the job listing data base; firms can post job listings and search the resume data base. America's Job Bank charges no transaction or usage fees for either job seekers or employers.

Internet job sites such as America's Job Bank represent a more efficient mechanism for clearing labor markets than has been available before. These sites dramatically reduce the cost of the search process for both job hunters and recruiters, enabling labor market participants to investigate a greater number of opportunities in less time and at lower cost. One study found that the cost per hire of Internet advertising for an opening is about one-eighth that of traditional advertising methods. Such improvements in efficiency

make it easier and cheaper for job seekers to find suitable openings and for corporate recruiters to find suitable candidates.

Productivity and the NAIRU

Over long periods, labor productivity and real product wages (hourly compensation deflated by the price of output) move in tandem, because businesses can afford to give real wage increases that are justified by productivity gains, and competition forces them to do so. Eventually, a change in the rate of productivity growth tends to be matched by an equal change in the growth of both actual and anticipated real wages. Breaks in trend productivity growth, however, are difficult to recognize, and therefore wage and price inflation adjust only gradually to any change.

A significant break in the trend rate of productivity growth has occurred once before since accurate statistics have been kept. That break occurred after 1973. The productivity slowdown at that time elevated the NAIRU and contributed—along with demographics, oil price increases, and strong demand—to rising inflation in the late 1970s. During that period, nominal hourly compensation increased at a rate that would have been consistent with stable inflation if productivity had still been growing at its pre-1973 trend. Instead, because productivity growth had fallen, the higher compensation resulted in rising inflation of unit labor costs and prices. Making matters worse, many wage setters adjusted to the higher rate of inflation, creating a wage-price spiral. This process of rising inflation might have continued had the back-to-back recessions of 1980 and 1981-82 not raised the unemployment rate to 10 percent, well above the NAIRU. By the mid-1980s inflation was again stable, but gains in real hourly compensation (deflated by the output price) had settled down to about 1½ percent per year—a drop of almost half from the pace of the 1960s.

The acceleration in productivity after 1995 may have initiated a similar process, but in reverse, allowing the unemployment rate to fall lower, with less consequence for inflation, than would have been possible otherwise. The rate of growth of nominal hourly compensation has increased during recent years, but these nominal increases have not resulted in rising price inflation. Businesses have been able to grant these larger pay increases without raising price inflation, partly because increases in unit labor costs have remained stable as rising productivity growth offset the rising compensation gains.

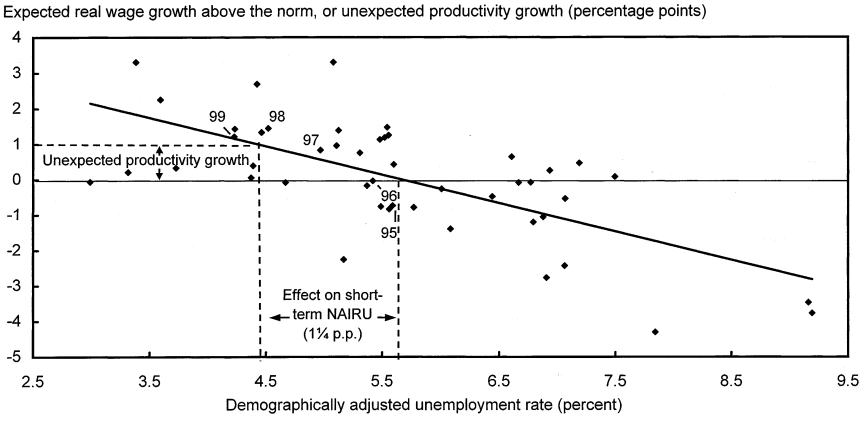
The new, higher trend growth rate of productivity since 1995 could have temporarily lowered the NAIRU, because it can take many years for firms and workers to recognize this favorable development and incorporate it into their wage-setting process. In the meantime, the productivity surprise can stabilize inflation of unit labor costs and prices even at unemployment rates below the previous NAIRU. The Phillips curve estimated from the scatter diagram in

Chart 2-17 shows how this could happen. It assumes that nominal increases in hourly compensation reflect three factors: a bonus for tight labor markets, as reflected in a low unemployment rate; a full adjustment for expected price inflation (with backward-looking inflation expectations); and a normal increase in real wages (which here will be called the "real wage norm"). The real wage norm may reflect prevailing views of the trend in labor productivity. But little is known about how the real wage norm is formed, and therefore the model is estimated on the assumption that the real wage norm reflects the previous year's increase in real hourly compensation.

With stable productivity growth, and with unemployment equal to the long-term NAIRU (where the diagonal regression line crosses the x-axis in the chart), wage and price inflation are stable from one year to the next. However, a 1-percentage-point positive surprise in productivity growth has the effect of temporarily lowering the NAIRU by 1¼ percentage point. With nominal wage growth unchanged and productivity growth higher, unit labor costs, and with them price inflation, would fall if the unemployment rate does not change. Only with a lower employment rate would unit labor costs and price inflation be stabilized. Hence the short-term NAIRU is lower.

The effect of the increase in productivity growth on unemployment probably will not last indefinitely. If productivity growth is maintained at its current high level, it will cease to be "unexpected," the real wage norm will eventually rise to that same level, and the short-term NAIRU will gravitate back to its long-term level.

Chart 2-17 **The Phillips Curve, Productivity, and the NAIRU**
If productivity grows 1 percentage point faster than expectations, the short-term NAIRU falls by 1¼ percentage point.



Note: Fitted 1953-99 data with fourth quarter-to-fourth quarter percent changes in hourly compensation and the price deflator for the nonfarm business sector. Wage and price inflation in 1999 are estimated based on the first three quarters. Annual average unemployment rate uses fixed (1993) labor force weights for six age-sex groups.
Sources: Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Council of Economic Advisers.

Declining Relative Import Prices

A decline in the relative price of imports can affect the short-term NAIRU in a manner similar to an acceleration of productivity. Competition from imports restrains the markup of prices over unit labor costs and thus reduces price inflation for a given rate of wage inflation. (A 1 percent decline in relative import prices lowers the inflation rate by 0.1 percentage point.) The 4 percent annual rate of decline in the price of nonpetroleum imports relative to U.S. nonfarm business prices during 1997 and 1998 lowered nonfarm price inflation by about 0.4 percentage point per year. The effect on the short-term NAIRU is similar to that of a productivity acceleration of the same magnitude and can be argued to have lowered the NAIRU by about 0.5 percentage point.

World price trends cannot be expected to continue to restrain inflation as much as they have in recent years. The relative price of nonpetroleum imports firmed in 1999, and with strength returning to overseas economies, these prices are likely to increase in 2000. In addition, the rebound in oil prices in 1999 may exert some upward pressure on prices of commodities that use oil as an input.

The Unemployment Forecast

The Administration's projection of the unemployment rate roughly follows its projection of the short-term NAIRU and reflects the factors just discussed. The short-term NAIRU, which has been centered around 5¾ percent over the postwar period and in the mid-1990s, probably fell into the 4 to 4½ percent range through the combination of the temporary help and Internet innovations to the labor market, the productivity surprise, falling relative import prices, and perhaps other factors. It is very difficult to quantify the long-term effects of the temporary help and Internet innovations to the labor market. For the purpose of its conservative forecast, the Administration estimates that they account for roughly a 0.5-percentage-point permanent reduction in the NAIRU from its historical average, to a range centered around 5.2 percent. In contrast, the effects of the productivity surprise and falling relative import prices are temporary and are expected to erode over the next several years. As a consequence, in the Administration's conservative projection, the unemployment rate edges up to 5.2 percent by 2003 and remains at that level thereafter.

The Near-Term Outlook

After growing at a 4.3 percent annual rate over the past 4 years, real GDP is projected to decelerate to an annual growth rate of 2.9 percent over the four quarters of 2000. This rate, which was slightly above the consensus projection

of professional economic forecasters when the GDP projection was finalized in November, is now a bit on the low side.

Because it constitutes two-thirds of GDP, consumption is expected to account for much of the expected deceleration. Personal outlays increased faster than disposable income in each of the past 7 years, and the saving rate plunged to 2 percent by the end of 1999. Although these consumption gains are consistent with the rapid rise in stock market wealth, they are not likely to persist unless the stock market continues to surge. More likely, real consumption growth will slow from its 5 percent rate over the past 2 years to rates consistent with the growth of real disposable income. However, if the stock market performs as well this year as it has in the recent past, it would present some upside risk to the Administration's projection.

Real business fixed investment has increased faster than real GDP in almost every year of this expansion. This pattern is expected to persist over the projection horizon as technological change boosts demand for computers and communications equipment. In contrast, real business purchases of industrial equipment have been nearly flat for the past year, and real investment in nonresidential structures has declined. If total demand slows as expected, purchases of these other investment goods and structures may decline.

Residential investment has been very strong, owing to continued gains in real disposable income and increases in wealth. With real incomes continuing to rise, housing starts are expected to remain high. However, the pace of residential investment is likely to fall back to a rate in line with the demographics of household growth.

Inventories remain quite lean in relation to sales. In fact, nonfarm inventories (measured as months of supply) have fallen to the lowest level on record. These lean stocks militate against any near-term threat to the expansion from excessive inventories. Nevertheless, as this report goes to press, there is speculation that firms may have stockpiled a buffer against Y2K disruptions before the turn of the year, planning to work off these stocks afterward.

Real exports, which had grown only 2 percent over the four quarters of 1998, grew 4 percent during 1999. The pickup may reflect an economic rebound among the United States' trading partners, especially those affected by the Asian economic crises. For example, Korean GDP grew at a 15 percent annual rate in the first three quarters of 1999 after falling 5 percent over the four quarters of 1998. Exports to a group of 10 major U.S. trading partners in East Asia, which fell $38 billion during the first year of the crisis (from the second quarter of 1997 to the second quarter of 1998), have recouped about half of that loss. A pickup is also evident among the 11 countries that have adopted the euro as their currency. In these countries GDP has accelerated to a 2.8 percent annual rate of growth during the first three quarters of 1999, from a 1.9 percent annual rate during the four quarters of 1998. The matur-

ing recovery among these trading partners is expected to lead to solid growth of U.S. exports for the next several years.

Even with this growth in export markets, however, net exports are likely to fall even further in the near future as U.S. demand for imports continues to outstrip foreign demand for U.S. exports. Nevertheless, the current account balance is expected to stabilize after 2001 and then improve, as foreign output growth boosts export demand while slower growth in the United States curbs import demand.

Interest rates are expected to remain flat over the entire 11-year projection span, at 5.2 percent (on a bank discount basis) for 91-day Treasury bills and 6.1 percent for the 10-year Treasury yield. Real interest rates, calculated by subtracting the Administration's expected rate of inflation (2.6 percent in the long term as measured by the CPI) from projected nominal rates, are projected to be similar to their historical averages.

On the income side, the Administration's projection is based on the long-run stability of the labor share of GDP. This share is flat over the projection period at about 58 percent—its historical long-run average. Wages as a share of total compensation are expected to erode slightly, as other labor income, especially medical insurance premiums, is expected to grow faster than wages. Because the labor share is projected to be flat and stable, so too is the capital share. However, the division of income within the capital share is not stable. As noted earlier, a rise in the depreciation share is a partial offset to the benefits of a high-investment economy, and this growing depreciation expense is projected to come at the expense of profits. Profits before tax, which were 9.2 percent of GDP in the third quarter of 1999, are projected to slide to about 7¼ percent of GDP by 2006.

A moderation in output growth to 2.5 percent is projected for 2001-03 (Table 2-5), 0.7 percentage point below the economy's potential growth rate at the beginning of that period. The tightness in labor and product markets at the beginning of the period is expected to dissipate during this slow-growth period. Over these 3 years, the unemployment rate is expected to edge up slowly to 5.2 percent, the middle of the range of unemployment compatible in the long run with stable inflation. From 2003 to 2007, the Administration's forecast is built around a 3.0 percent growth rate of potential output. From 2008 to 2010, real GDP slows further to a 2.6 percent annual rate, reflecting slower population growth and the anticipated retirement of the first wave of the baby-boom generation.

The Administration does not believe that annual growth of 3 percent is the best the economy can do; rather this projection reflects a conservative estimate of the effects of Administration policies to promote education and to foster a high-investment economy by paying down the national debt. The outcome could be even better—as indeed it has been for the past 4 years. But the

Administration's forecast is used for a very important purpose: to project Federal revenue and outlays so that the government can meet its responsibilities while living within its means. For this purpose, excessive optimism is dangerous and can stand in the way of making difficult but necessary budget choices. On the other hand, excessive pessimism can force difficult and possibly counterproductive decisions where none is required. In the final analysis, the only worthy objective is the creation of a sound forecast that uses all available information as fully as possible.

As of December 1999, the current economic expansion, having lasted 105 months, was the longest ever during peacetime and only a month shy of the longest on record. There is no apparent reason why this expansion cannot continue. As already noted, expansions do not die of old age. It is always difficult to forecast the future of the economy, but the current situation of low and stable core inflation and lean inventories reveals no obvious signs of an imminent slowdown. The most likely prognosis is therefore the same as last year's: sustained job creation and continued noninflationary growth.

CHAPTER 3

Technology and the American Economy

One Telephone Dumb; Five Million, Eloquent

If there were only one telephone in the world it would be exhibited in a glass case as a curiosity.

Even in its simplest form telephone talk requires a second instrument with connecting wires and other accessories.

For real, useful telephone service, there must be a comprehensive system of lines, exchanges, switchboards and auxiliary equipment, with an array of attendants always on duty.

Connected with such a system a telephone instrument ceases to be a curiosity, but becomes part of the great mechanism of universal communication.

To meet the manifold needs of telephone users the Bell System has been built, and today enables twenty-five million people to talk with one another, from five million telephones.

Such service cannot be rendered by any system which does not cover with its exchanges and connecting lines the whole country.

The Bell System meets the needs of the whole public for a telephone service that is united, direct and universal.

AT&T Archives

As new types of information technology link together computers, telephones, and other types of communications devices, network effects become increasingly important in determining the success or failure of some products. In industries not subject to network effects, the total value of a product is simply the sum of its value to each user. But in industries where network effects are present, such as telephone or Internet service, the more links the network has, the more valuable it is to each participant in the network.

Over the last century, the American economy has adapted again and again to continuing technological change. Repeatedly during our history, American firms and workers have exploited opportunities inspired by a succession of technical advances, in the process creating new products, new services, and even whole new industries. The new ideas that have reshaped individual industries have often had a broader effect on the economy as well. Innovation makes it possible to produce more output from society's available labor and capital, increasing the productivity of America's workers. Those productivity improvements have led to rising prosperity and living standards, as Chapter 2 discussed.

Innovations during the 20th century have led to dramatic changes in how firms compete in the American economy. In some cases, new technology has given birth to new markets, where startup companies compete on equal terms on a fresh and level playing field. In others, it has opened a door for entrepreneurs to enter older industries and challenge the established incumbents. As these forms of competition have spread and flourished, consumers have benefited in numerous ways, from expanded service, greater variety, and falling prices. These gains come not just from the new entrants but also from the old incumbent firms, forced to respond to the economic challenges posed by their rivals.

Today, new technologies are transforming the economy. No one can yet predict all the changes to come, but it seems clear that the information economy is changing the way companies compete and the nature of work. In addition to changing the competitive playing field, technology is increasingly redefining the role of the firm. Some firms are expanding to take on new roles and integrate new activities into their enterprise, some are finding it efficient to outsource some of their activities to specialists outside the firm, and some are restructuring through mergers and acquisitions. Two industries where these trends are strikingly evident are telecommunications and information technology; this chapter will look at both these industries, in which many firms, old as well as new, are exploring the economic opportunities made possible by innovations in computers, communications technology, and the Internet.

Although technological innovation brings constant and ultimately beneficial change to the economy, it also requires a constant reevaluation of government policies to determine how best to shape the forces of change to promote the public interest. As technology becomes increasingly vital to our knowledge-based economy, a crucial task of government is to design an appropriate technology policy to maintain the flow of new ideas, products, and methods that sustains long-run growth.

One element of technology policy is government's role in creating but also limiting the property rights of innovators. Without the intellectual property rights provided by patents and copyrights, for example, the reward to innovation in many fields would fall, as imitators quickly develop similar products. Yet strong property rights for innovation can also create barriers to entry and competition, hampering not only the mere imitators but also the true innovators seeking to build on the existing knowledge base. This problem becomes particularly acute as knowledge-based industries, such as software and information technology, grow in economic importance.

A second element of technology policy in today's economy is supporting the research and development (R&D) necessary to innovation. Although the private sector in recent years has increased its R&D expenditure, some of the

basic and applied research that forms the building blocks for tomorrow's discoveries may not take place without government support. Rather than support technologies that have clear and immediate commercial potential (which would likely be developed by the private sector without government support), government should seek out new technologies that will create benefits with large spillovers to society at large. Basic research that expands human knowledge is one example of the type of research that may have wide applications in many areas of the economy. By supporting the research necessary for scientific advances, government funding can create the knowledge from which will emerge the new technologies, new products, and new jobs of tomorrow's economy.

Another critical task for government is to ensure that the benefits of new technologies are widely shared. Well-functioning markets inherently maximize the private benefits from exchanges between individuals and firms, but markets do not always succeed in maximizing social benefits at the same time. Inefficiencies in the market, whether created by insufficient R&D incentives or from a firm's market power, can limit the gains society receives from technological innovation. One way to promote the widespread adoption of innovations is to ensure that policy set by the public sector fosters rather than stifles competition in the private sector. Antitrust policy is one tool for encouraging competition. When the Nation's antitrust laws were originally adopted, market power created by economies of scale in the production of many industrial goods was a major concern, but in today's economy the market power inherent in products that become de facto standards for an industry may be just as troubling. In addition to a vigorous antitrust policy, government can promote competition by changing the regulatory framework within which industries operate, to remove barriers to competition and spur innovation, thereby creating jobs for American workers and new services for American consumers.

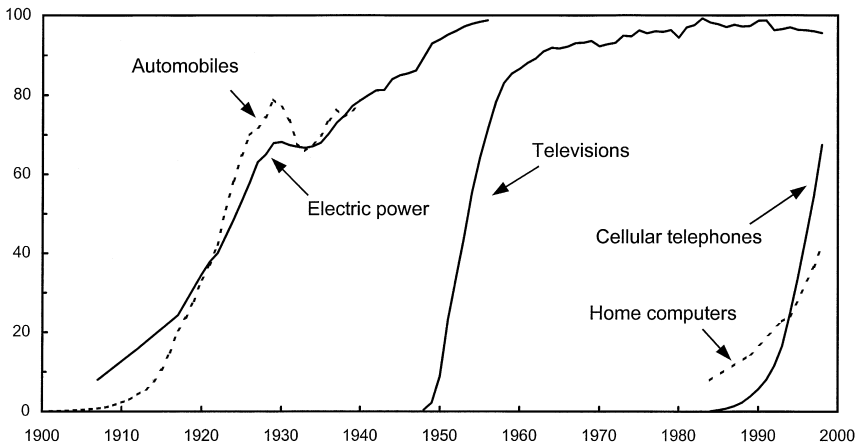
In other areas of the economy, such as the rapidly developing field of e-commerce, the challenge for government policy is different. Here new businesses are springing up spontaneously, and at an explosive pace. By refraining from imposing unnecessary regulatory burdens, government can ensure that innovative and valuable services will come to market. Government antitrust enforcement will continue to ensure that mergers between large firms deeply involved in the information economy will not injure competition.

Innovation and Economic Change: A Look Back

The changes that technology continues to unleash on our economy today are sweeping and may at times seem overwhelming. No one yet knows what

transformations the Internet and e-commerce, to take only the currently most celebrated examples, will eventually bring. In these circumstances we should remember that we are not the first generation to have to come to grips with rapid technological progress. Notable examples of the rapid adoption of new innovations include electric power, automobiles, and television. These earlier innovations spread through American households much as have more recent innovations such as computers and cellular telephones (Chart 3-1). As described below, throughout the 20th century new technological developments created new products and new ways for firms to conduct business, and so changed the structure of the economy. Those changes, in turn, produced changes in the role of government in competition, regulatory, and technology policy.

Chart 3-1 **Household Adoption of Selected Technologies Since 1900**
The rapid adoption of computers and cellular phones today has its parallel in earlier technologies.



Note: Automobile and cellular phone adoption are estimated by dividing the number of registrations and subscriptions by the number of U.S. households. Unlike the survey data used in the other series, these numbers will overstate actual adoption when households register multiple cars or purchase multiple cellular subscriptions.
Sources: Department of Transportation; Department of Commerce;Television Bureau of Advertising Inc.; and Federal Communications Commission.

One example, electricity, is a commonplace fixture in the economy of today, but in 1900 the electric power industry was just getting under way. At the turn of the century, fewer than 10 percent of homes had electric service, and cities were still being wired for electric transmission grids powered by central generating stations. At that time, only about 5 percent of factories employed electricity as a power source; most still used steam or water power to drive their machines through intricate arrangements of wheels, belts, and shafts. Electricity was initially used to power similar systems, but the shortcomings of mechanical power distribution systems remained. Once factory

workplaces were reorganized so that groups of machines could be separately powered by electric motors, however, manufacturers began to realize the full potential of electricity to improve productivity. Over time, electric power was incorporated into more and more elements of the modern factory. Some have argued that the process may be repeating itself today with computers. As modern businesses learn to use computers to change the way they operate, they can find new ways to optimize business procedures and increase productivity.

At other times during the century, technological advances in basic industrial products such as oil dramatically increased productivity and output, by expanding the scale at which firms could operate their plants. But some of the largest firms also formed combinations, like the Standard Oil trust, to limit competition. Concern about the market power of some of these large new industrial combinations led to passage of two of the cornerstones of public policy toward competition. The Sherman Antitrust Act (passed in 1890) governing anticompetitive actions by monopolies and the Clayton Act (passed in 1914) governing mergers remain the basis of antitrust law today.

The automobile, too, had made its appearance by the end of the 19th century, but it remained a high-priced luxury item until Henry Ford built the first automobile assembly line in 1913. Ford's innovation revolutionized the way cars were manufactured. Mass production of the Model T allowed Ford to offer, on an unprecedented scale, a product that combined relatively high quality with a dramatic reduction in cost. It made automobiles available to millions of American consumers for the first time. As increasing numbers of people bought the newer, cheaper cars, Ford continued to invest in his factories, increasing their efficiency and realizing huge economies of scale. Greater scale, in turn, allowed Ford to lower the cost of his automobiles still further and sell even more. By the early 1920s the Ford Motor Company dominated sales of automobiles in the United States, with a market share of 56 percent. Ford's dominance was short-lived, however, as other manufacturers, with newer models and innovations of their own, adapted their production processes following Ford's example. They were able to effectively compete with Ford by satisfying consumer demand for variety. Ford's innovation had a number of implications far beyond the automotive industry: it helped make America a more mobile society, for example. But perhaps the most important outcome for the economy as a whole was that other manufacturers in other industries soon copied the assembly line concept. The impact of this spillover from Ford's idea to other industries was enormous: mass production proved an economically efficient way to produce a vast range of other consumer products.

Another industry that saw major changes at the turn of the last century was telecommunications. The Bell system had enjoyed a monopoly in telephone service in the United States until its basic patents on the telephone expired in 1894, after which a wave of new competitors began providing phone service. The Bell system had concentrated on serving major cities and business customers, leaving many smaller communities unwired. Many of these independents extended service to the underserved communities, while others concentrated on competing with Bell in some major urban centers. By 1907, new entrants accounted for almost half the market. Service levels increased rapidly with this new competition: telephone penetration (measured as the number of phones per 100 people) rose from fewer than 2 in 1900 to more than 10 by 1916. Many of the new entrants adopted the latest innovation in telecommunications, automatic switching, much more quickly than the Bell system, which continued to rely upon operators to connect calls manually. Yet despite the advantages of this new switching technology, within a few years the number of independents began to decline. Faced with competitive pressure from the Bell system, most independents either failed, were acquired, or signed sublicensing agreements that allowed them to connect with the Bell system but limited their ability to compete with Bell.

The competitive failure of the independents was due at least in part to the Bell system's successful exploitation of the network dimension of telecommunications. The Bell system invested heavily in the technology and equipment needed to create a long-distance network. Although most customers at that time used the phone almost exclusively for local calls, businesses found the long-distance service very attractive. The independents tried but were unable to duplicate Bell's long-distance network connections, particularly in major urban areas where the Bell system had its largest networks, and where much of the long-distance business originated. Bell allowed the surviving independents to interconnect with its system, but only under the competition-restricting sublicensing agreements. Many independents chose this route, even though it meant signing away their own ability to expand and challenge Bell in the future.

In this case, the network characteristics of telecommunications proved critical to the competitive outcome. By providing long-distance services that its rivals were unable to duplicate, the Bell system was able to keep more people connected to its network and exploit economies of scale in long-distance service. But as it connected more users to its network, the Bell system also made it difficult for other companies to compete effectively. Without effective competition, the Bell system was in a position to limit service and set prices for that service at monopolistic levels.

Government policy toward these new technologies and new industries was as varied as the industries themselves. In the cases of telephones and electricity,

government often chose to permit one monopoly provider to serve a geographic region but subjected the monopoly firm to rate regulation to prevent consumers from being overcharged. In part, this policy response reflected a view that some industries are "natural monopolies." In a natural monopoly, high fixed costs may make competition inefficient because a single provider could instead deliver service at the lowest possible cost. Also, in industries like the telephone industry, where demand-side network effects are important, previous attempts at competition had ultimately foundered as one dominant network emerged.

In other industries, however, competition seemed more effective at restraining market power, and government policy favored continued competition. In the case of automobiles, despite large economies of scale at individual plants, several producers were able to effectively compete in the large market pioneered by Ford, and policy intervention was unnecessary. In the oil industry, where combinations such as the Standard Oil trust threatened competition, government did intervene, but rather than establish a regulated monopoly, it used the antitrust laws to create more competition. These early policy responses shaped each of these industries during the years that followed, and these policies are still applied to some firms today. Just as the economy has changed over the last century, however, so, too, has the range of policy responses available to promote competition as an alternative to regulation, as discussed more fully below.

Innovation and Change in the American Economy Today

Many of the same manufacturing industries that were just emerging at the beginning of the century continue to thrive, but new technologies and new processes are revitalizing these established industries and creating new ones. These innovations are taking place throughout the economy, and many involve both new technology and new ways of organizing the workplace.

Manufacturing industries remain dynamic and innovative, reflecting the pace of technological change. Manufacturers creating new products and processes account for about three-quarters of company-funded industrial R&D expenditure in the United States. Productivity growth in manufacturing also remains high, averaging 4.2 percent per year between 1993 and the third quarter of 1999, and these firms remain an important source of jobs for workers without college degrees. In an increasingly global economy, however, many manufacturing businesses have faced pressure to adapt to new ways of doing business in order to compete effectively with foreign companies.

One example is the "lean" production techniques first pioneered in the Japanese automobile industry. These methods, which involve redesigning the manufacturing process to eliminate waste and reduce the number of product defects, resulted in far lower costs and higher quality than traditional techniques in the U.S. automobile industry could achieve. Competition from Japanese and other foreign firms using these methods compelled U.S. automakers to focus on improving quality, and they have dramatically lowered costs and improved quality as a result.

Innovation in production technology has also changed the nature of the Nation's steel industry. Innovative U.S. minimill firms found that they could produce many steel products much more cheaply than could the traditional integrated mills by using electric arc furnace technology to recycle scrap steel and produce basic steel products. A U.S. minimill firm was also the first willing to gamble on constructing a full scale thin-slab caster using a foreign firm's technology. This new technology allowed minimills to compete in the large market for rolled sheet steel, used in such products as automobile body panels. U.S. companies using these new technologies are now offering increased competition to the traditional integrated mills; by the mid-1990s minimills accounted for close to 40 percent of U.S. steel production.

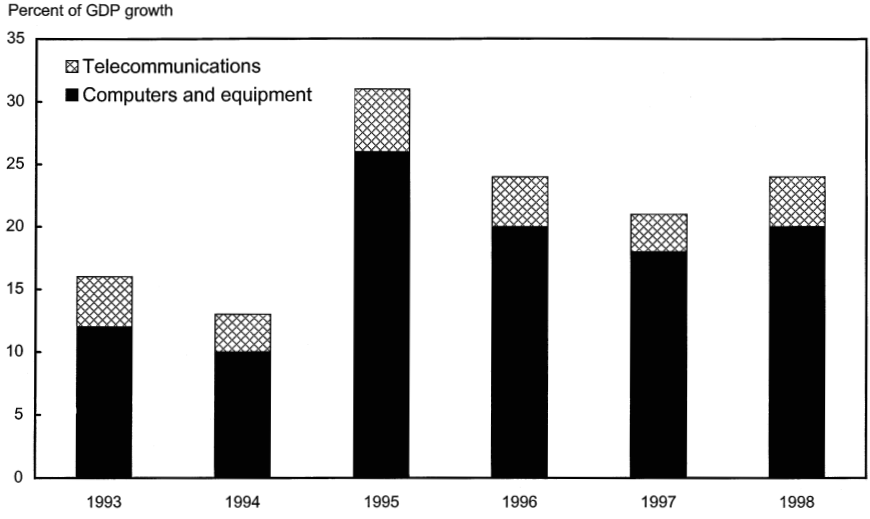
The pharmaceutical industry is one that is taking advantage of technological developments in biomedicine as well as in information technology. Traditionally, companies sifted through thousands of compounds to find those with desirable medical properties. Today's companies, in contrast, use a deeper understanding of human physiology that allows them to design, from the molecules up, drugs that target specific illnesses. The industry is also using the Internet to recruit patients for clinical trials of new drugs and to provide more complete and accessible information on new drugs to physicians.

Perhaps the most dramatic evidence of the economic impact of the information technology sector itself comes from the capital market, as reported in a recent study by a financial services company. According to the study, America's venture capital industry raised funds at a $25 billion annual rate in the first half of 1999, about two-thirds of which were placed in the information technology sector, and of that about three-quarters in Internet companies. In terms of market capitalization, the information technology hardware sector now accounts for about 14 percent of the U.S. total, versus 6 percent in 1989. The software component has expanded from about 2 percent in 1989 to around 9 percent today. Stocks in the Internet sector have a market value equal to around 4 percent of the total.

The importance of the information technology sector to the U.S. economy is not reflected in stock market valuations alone. The computer and telecommunications industries contributed between 21 and 31 percent of GDP growth in each of the years from 1995 to 1998 (Chart 3-2). And the contribution of these

Chart 3-2 **Contribution of Computers and Telecommunications Purchases to GDP Growth**

Spending on information technology has been a major source of GDP growth during the current expansion.



Source: Department of Commerce.

hardware-producing industries is only the tip of the iceberg. The bulk of employment today is in the private service-producing sectors, which also account for nearly two-thirds of GDP. Leading the growth in the service sectors have been a number of knowledge-based industries such as finance, insurance, and professional services (a category that includes business and legal services, among others). Measuring the contribution of these new services to GDP is important to developing an accurate picture of economic growth (Box 3-1).

In these knowledge-based industries, information technology has become increasingly important as a way to create new products and deliver them to customers. Broadly defined, information technology comprises technologies that process, store, and communicate information. For example, large U.S. banks now spend approximately 20 percent of their noninterest expense on information technology designed to integrate back office functions such as check processing with other functions such as customer service. Changes in information technology are transforming the economy by allowing people to communicate ideas and data in a variety of ways, from wireless phones to the Internet. The following sections examine several examples of this trend.

Developments in Telecommunications

The telecommunications industry is an example of an older industry that the new information technologies have transformed. From its origins as a provider of simple voice telephony, this industry has evolved into a source of advanced infrastructure and sophisticated services that are essential to a host

Box 3-1. Measuring the Economy in an Era of Technological Change

Technological advances raise challenging measurement issues for government statisticians seeking to measure the size of the economy or its rate of growth. If technological improvements in the manufacturing process simply raised the quantity produced of a standard product (for example, the number of yards of a particular fabric type) from given inputs, there would be little problem—one could simply count the additional output. But many technological advances improve the quality of existing products or even create new ones (such as Internet services). The statistical challenges these advances present are enormous.

Existing statistical techniques do provide measures of some of the quality improvements and new products. For example, the GDP statistics incorporate adjustments for improvements in computing power when measuring real investment expenditure for producer's durable equipment. Similarly, when calculating the consumer price index, estimates of real expenditure on automobiles incorporate adjustments for improvements in the quality of new cars over time, reflecting changes, such as antilock brakes and airbags, that make cars safer and better.

In many industries, however, the measurement issues defy easy statistical solution. The field of medicine offers numerous examples of new drugs, devices, and treatments that have revolutionized care—for example, new techniques for treating heart attacks have raised patient survival rates; the development of an insulin pump has reduced the incidence of medical complications among diabetics, while raising their quality of life. Some of the most perplexing measurement problems involve industries that are heavy users of information technology, such as finance, insurance, and business services. The widespread introduction of automatic teller machines, for example, makes it possible to obtain banking services (mainly deposits or withdrawals) at any hour of the day or night—a service that was nearly impossible to obtain a few decades ago. And the mutual fund industry provides individual investors with diversification possibilities that would have been barely conceivable 30 years ago.

The widespread use of information technology for e-commerce poses especially complicated measurement problems. As more and more businesses across a range of industries—from services to manufacturing to retailing—use e-commerce for some components of their operations, it becomes increasingly difficult to account for what portion of a final product or service may have been changed or enhanced by the use of information technology.

continued on next page...

Box 3-1.—*continued*

These difficulties in measurement should not obscure the very real contribution that technological advances make to the economy. Government statistical agencies and others are therefore actively pursuing new measurement initiatives to better gauge and understand the impact of these changes.

of businesses from data processing to online publishing. Indeed, these changes in telecommunications have been just as important for these information providers as for the telecommunications industry itself, since, as discussed below, major telecommunications advances like the Internet are already having a major impact on how businesses do business.

These changes came about from a convergence of factors in which both technology and government regulatory policy played a part. Beginning with the Department of Justice's antitrust case and the resulting 1982 consent decree that divided the American Telephone and Telegraph Company into its local and long-distance components, prevailing government policy toward telecommunications regulation has focused on how to reduce barriers to competition for both traditional telephone service and emerging new services. To allow more competition in wireless service, portions of the radio spectrum were auctioned off, allowing new competitors to create their own networks in competition with incumbent cellular providers. Using provisions of the 1996 Telecommunications Act, new competitors in local phone markets have begun to negotiate interconnection agreements and to sell local telephone service in competition with the dominant incumbent local exchange carriers (Box 3-2). To encourage the regional Bell operating companies to make such entry possible, the Telecommunications Act required them to meet a list of conditions on opening their markets to new entrants before they were allowed to offer long-distance service in their own regions. In December 1999 the Federal Communications Commission found that one regional Bell company had met those conditions in New York.

The changes in the telecommunications industry that have resulted from these two developments—the emergence of new technologies and the new regulatory environment created by the 1996 Telecommunications Act—have been dramatic. Hundreds of new companies have entered all segments of the industry; the number of publicly held telecommunications companies alone nearly doubled over a recent 5-year period. These new competitors have been responsible for much of the recent growth in the local, long-distance, wireless, and equipment industries. Structural adjustments to this new competition have forced layoffs at some firms, yet the telephone service and equipment sectors are responsible for the net creation of approximately

Box 3-2. Implementing Local Competition Provisions in the 1996 Telecommunications Act

The Telecommunications Act of 1996 reduces barriers to entry in local telephone markets. To facilitate the entry of competitors into networks owned by incumbent local exchange carriers (ILECs), the act allows a requesting carrier to obtain access to the incumbent's network in any of three ways. It can purchase local service at wholesale rates for resale to end users, it can lease various (unbundled) elements of the incumbent's network needed for service, or it can interconnect its own facilities with the incumbent's network.

Six months after the 1996 act was passed, the Federal Communications Commission (FCC) issued its First Report and Order implementing the local-competition provisions. Thereafter, numerous ILECs as well as some state utility commissions challenged the rules, claiming that the FCC had exceeded its jurisdiction. In January 1999 the Supreme Court affirmed the FCC's role in providing a roadmap for competition.

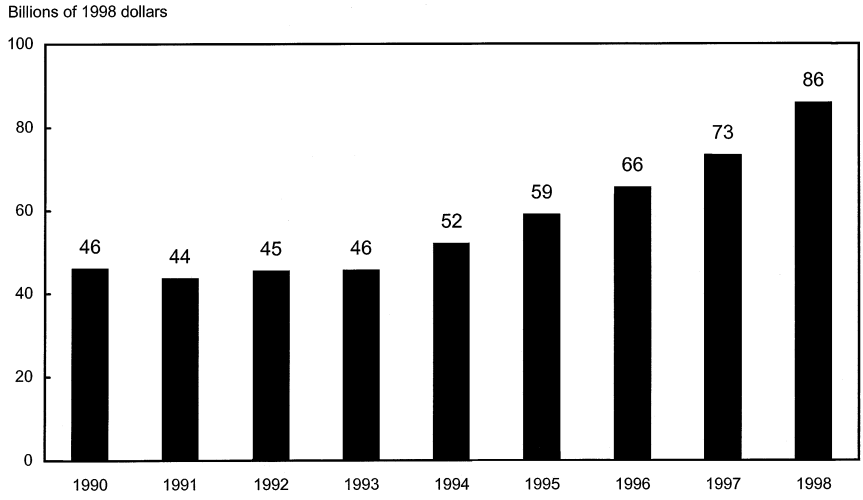
The FCC continues to monitor the progress of competition with traditional ILECs, and its recent reports show that local competition, although still limited, is growing rapidly. Industry analysts also support this conclusion: one source finds that, by the middle of 1999, new entrants had increased their revenue market share to 6.3 percent of local revenue. The FCC's new orders on DSL-based services extend the process to this new technology by further clarifying which network elements competitors may access. This, too, should encourage local competition.

200,000 new jobs in 5 years. Both new and existing firms have invested tens of billions of dollars in facilities, services, and R&D. These investments in turn have led to increased network capacity, the deployment of new technology, and the rollout of advanced communications services.

These changes are particularly evident in the communications equipment industry, which has boomed in the last few years. Investment in communications equipment grew from $46 billion (in inflation-adjusted dollars) in 1993 to $86 billion per year in 1998—a 13 percent annual growth rate over 5 years (Chart 3-3). Some of that equipment is being used by the new providers of wireless services that are building out the systems made possible by the wireless spectrum auctions. By 1998, companies providing wireless telephony had invested more than $50 billion in new capital equipment, and wireless phones are now increasingly common, with more than 69 million Americans now subscribing to cellular service.

In addition to wireless services, demand for new equipment and fiber optic cable by new local providers of switched voice and high-speed data services like those used for accessing the Internet has spurred investment. These

Chart 3-3 **Real Private Direct Investment in Communications Equipment**
Between 1993 and 1998, investment in communications equipment grew an average of 13 percent a year.



Sources: Department of Commerce (Bureau of Economic Analysis), and Department of Labor (Bureau of Labor Statistics).

developments reflect dramatically declining costs for both data transmission and computing power. The cost of transmitting a single bit of data over a kilometer of fiber optic cable has fallen by three orders of magnitude since the mid-1970s. At the same time, the cost of information processing has fallen as more and more transistors can be packed onto a single semiconductor chip. As technology continues to advance, semiconductor manufacturers have been able to double the power of computer microprocessors every 18 months. Improvements in semiconductors and reduced costs for other components have helped account for the 20 to 30 percent annual decline in the quality-adjusted price of computers. With new innovations in semiconductor technology still coming onstream, the cost of information processing continues to plummet, increasing the capabilities of the information industry and expanding the market for information services.

These falling prices have encouraged investment in the grid of telephone lines, cables, optical fibers, and signal processing and routing equipment that forms the backbone of the U.S. telecommunications infrastructure. The increasing public demand for fast and ready information has driven this backbone industry, motivating tremendous volumes of private investment. The growing demand for carrying capacity, or bandwidth, has led to investment in high-capacity fiber optic lines by telecommunications systems to meet the new infrastructure demands. The number of fiber-miles (the miles of sheathed fiber in a bundled cable times the number of fibers in the bundle) is one way to measure system capacity. By this measure, the total volume

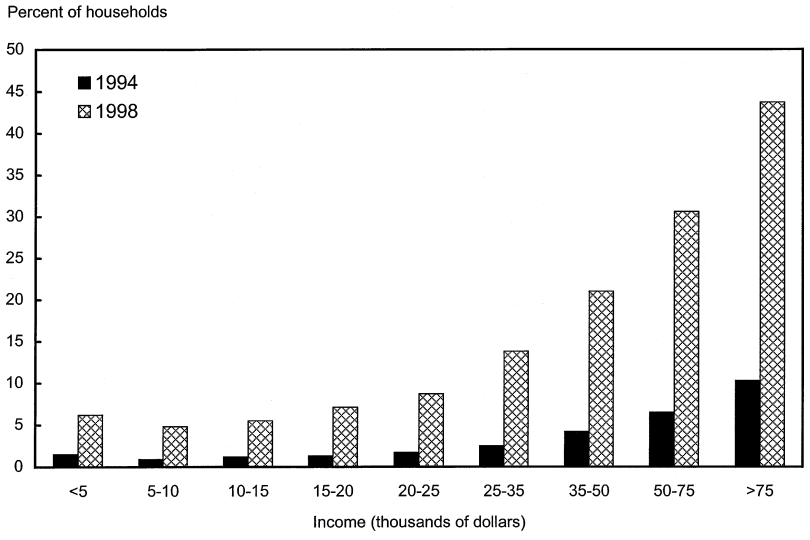
of fiber optic cable deployed by telecommunications carriers in the United States grew by about 16 percent in 1997, and by more than 21 percent in 1998, according to data from the Federal Communications Commission.

Consumer demand for telecommunications services is leading more and more American households to purchase additional telephone lines. Although some of these lines are used mostly for voice service, many are dedicated data lines. The number of additional lines more than doubled from 1993 to 1997, from 8.8 million to 17.9 million. This surge in growth mirrors the growth in American consumers' use of the Internet. In addition to extra phone lines, many residential users are beginning to purchase new high-speed broadband connections to the Internet being offered by phone and cable companies. For users who need to download large files, the speed of the connection can make an enormous difference in total transfer time. For example, a 10- to 20-minute digitized movie clip might take 10 megabytes of computer memory and require about 24 minutes to download with a 56-kilobit-per-second modem. By contrast, a cable modem or a high-speed digital subscriber line (DSL) connection offered by the phone company can download the same file in less than a minute. Rollout of these new services is just beginning: many phone companies are only now beginning to offer high-speed DSL connections in response to cable companies' offerings. By the end of the third quarter of 1999, cable modems were available to an estimated 37 million homes in North America, and approximately 1.4 million cable customers had signed up for the service. In contrast, only about 275,000 DSL lines were in service in the United States in October 1999. Deployment of DSL is expected to expand rapidly, however: as many as 2.1 million DSL lines may be in service by the end of 2000.

These investments are supporting the rapid growth of the Internet as it becomes a standard feature in American homes and workplaces. According to one survey, more than 118 million Americans had access to the Internet in November 1999, of whom more than 74 million were actively using the new medium. The use of e-mail at home has also risen sharply in the last few years, but this usage varies by income: more affluent Americans are much more likely to have e-mail access at home (Chart 3-4). This surge in connectivity has helped put the United States far in the lead in Internet use worldwide. The United States far surpasses Germany, Japan, or the United Kingdom in the number of Internet host computers per capita. Only Finland has a higher concentration than the United States, according to statistics compiled by the Organization for Economic Cooperation and Development (OECD). The OECD also found that the United States leads all other OECD member countries in the number per capita of web servers designed for electronic commerce. The combination of relatively

Chart 3-4 **Households with Access to E-Mail at Home, by Income**

Home access to e-mail rose sharply for all households between 1994 and 1998.



Source: Department of Commerce (National Telecommunications and Information Administration).

high penetration of personal computers among U.S. households and low Internet access costs in this country also has helped contribute to the greater success of electronic commerce here than in other countries. Internet access costs in the United States are much lower than in many other OECD countries (Table 3-1).

TABLE 3-1.— *Cost of Internet Access in 1999*

[U.S. dollars adjusted for purchasing power parities]

Country	Cost for 40 hours
Canada	31.45
United States	37.30
Japan	54.64
Italy	67.91
Germany	76.78
France	95.73
United Kingdom	105.61

Note.—Cost is for usage at peak times.

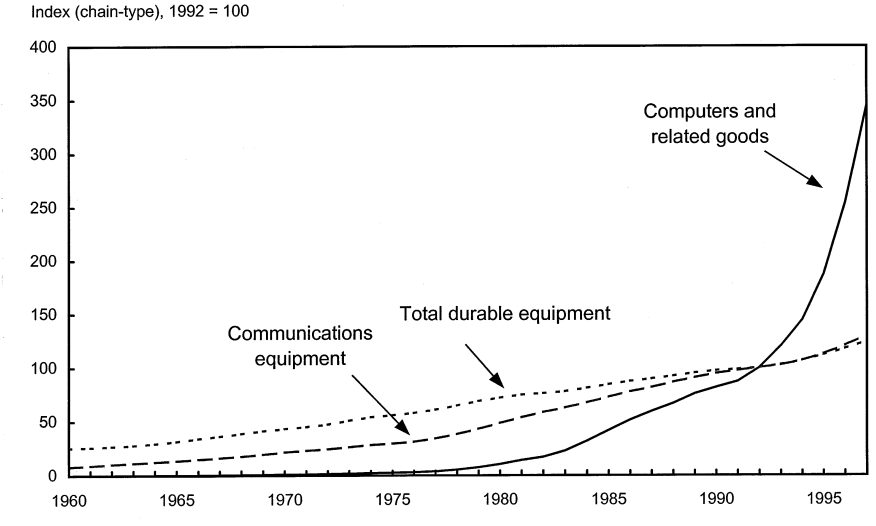
Source: Organization for Economic Cooperation and Development.

How Information Technology Is Changing the Economy

In addition to providing a new communications medium, the Internet and its kindred technologies possess vast potential to enhance the economy's productivity and make firms more efficient. Much as Ford's assembly line concept had broad spillover effects beyond the automobile industry, so, too, the Internet and e-commerce are having broad effects throughout a number of industries. Many firms are investing aggressively in these technologies to speed the flow of important business information, internally as well as externally, and so raise productivity. Over the past 20 years, the real net stock of information technology equipment in the private sector has been rising steadily. The last 5 years have seen particularly sharp increases in the net stock of computers and related equipment relative to other durable equipment (Chart 3-5).

Even across industries that are making large investments in information technology, however, the amount of that investment per worker varies widely (Table 3-2). Telecommunications firms, nondepository financial institutions, and radio and TV broadcasting firms all invested more than $15,000 per worker in information technology equipment, according to 1996 data from the Department of Commerce. Other firms in industries that are also major investors, such as banks, insurance carriers, and railroads, invested between $4,000 and $6,000 per worker in information technology equipment.

Chart 3-5 **Real Net Stock of Information Technology Equipment in the Private Sector**
Investment in computers and related goods has grown far faster than other types of business investment in recent years.



Source: Department of Commerce (Bureau of Economic Analysis).

TABLE 3-2.— *Information Technology Investment per Worker in the 15 Most Information Technology-Intensive Industries, 1996*

[Dollars]

Industry	Investment per worker
Telecommunications	29,236
Nondepository institutions	18,129
Pipelines, except natural gas	18,069
Radio and TV broadcasting	17,512
Electric, gas, and sanitary services	9,728
Petroleum and coal products	8,102
Real estate	7,610
Chemicals and allied products	6,049
Insurance carriers	5,911
Depository institutions	5,897
Holding and investment offices	5,739
Railroad transportation	4,587
Wholesale trade	4,488
Motion pictures	4,225
Electronic and other equipment	3,511

Source: Department of Commerce.

As firms adopt these new technologies, they are also changing the definition of what constitutes a firm in today's economy. For some manufacturing firms, information technology offers new ways to integrate their suppliers more closely in the design and manufacturing of products. Even where the firms in the supply chain remain separate entities, the degree of cooperation may come to resemble what might occur in a vertically integrated firm. At the same time, other firms are finding that transactions that were once organized internally may now be better organized as market transactions, with competitive bidding even for specialized orders of custom-made parts.

At the retail level, the rise of the Internet has made possible the "virtual firm," which exists only to market goods through a website. With outside specialists available to handle details like filling orders, a firm can be run without the extensive supply infrastructure that many traditional brick-and-mortar firms have built. As companies grow larger, however, some have found that outsourcing important activities is not necessarily the best way to handle growing volumes of customers. Instead these firms are now investing in the same type of real-world infrastructure that their more traditional competitors have always used.

Managing Information Flows

Information technology is having a major impact on how some firms organize their own internal operations. Investments in computer hardware like those described above often represent only a small portion of a company's

total investment in information technology. Effective implementation of this technology also requires investing in the staff who will operate it, in developing specialized applications, and in user support. Cost surveys of firms in the services sector suggest that, at small, centralized sites, the costs of the staff required for operations and specialized software development may account for 74 percent of total costs, far exceeding the more visible expenditures the firm may make on hardware and prepackaged software. To develop the applications they need, many service firms are now conducting more of their own R&D, and this activity is beginning to show up in the aggregate R&D statistics. Whereas in 1987 nonmanufacturing industries accounted for only about 8 percent of non-Federal R&D funds, by 1995 that figure was 25 percent. These investments have been concentrated in computer programming and data processing services, in wholesale and retail trade, in communications services, and in research, development, and testing services.

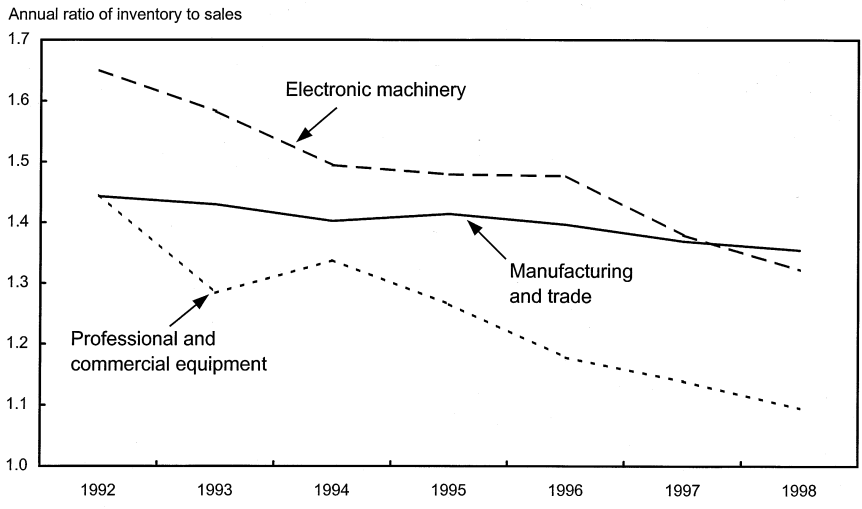
One area in which information technology can enhance productivity is the management of inventories. For example, electronic scanners have been a familiar sight in grocery checkout lines for some time, but some retailers have begun to adopt new and more efficient distribution methods that rely on these scanners and the wealth of transactions data they can provide. One large retailer with a chain of grocery superstores has used information technology to track what is selling in its stores and to use that information to build a more efficient distribution system. This firm uses its buying power to generate large orders to manufacturers, which then deliver the demanded goods to the firm's warehouse distribution centers. Those centers, in turn, are responsible for resupplying the individual retail stores. To keep revenue high and costs low, the firm also analyzes its scanner data on sales to maximize the use of its shelf space. Detailed information captured by scanners at each store track how fast products are selling, so that stores can be resupplied at frequent intervals from the distribution centers. This avoids the need to keep large and expensive inventories at the stores themselves. In total, this company has reduced its operating costs to a mere 17.5 percent of sales, compared with 22 percent for a traditional supermarket.

The increased investment in information technology by companies has coincided with a reduction in the economy-wide ratio of inventories to sales during the current economic expansion (Chart 3-6). Although, to be sure, information technology is used in many areas besides inventory management, some of those investments may have helped businesses to better manage inventory growth and improve productivity during the current expansion.

Information technology is also being used to better manage information flows between firms, such as between a final-goods manufacturer and the different levels of its supplier chain. In the automobile industry, for example, one recent report notes that companies have largely replaced paper drawings

Chart 3-6 **Real Inventory-to-Sales Ratios for Selected Product Categories**

Businesses require smaller inventories to support a given volume of sales today than they did just a few years ago.



Source: Department of Commerce (Bureau of Economic Analysis).

with digital representations as a means of storing, analyzing, and communicating data on products and parts. One original equipment manufacturer estimated that it exchanges product data both within the company and with its suppliers as many as 453,000 times a year.

Retail E-Commerce

Information technology is having an impact on how businesses do business in yet another way, through the growing use of the Internet by firms as a communications tool. The Internet is already revolutionizing distribution technology at both the retail and the wholesale level. With millions of people now online, the potential to use the Internet as a low-cost means to communicate information to customers and receive orders for products is growing ever larger. At the retail level, new firms are springing up to market a whole range of consumer products from books and music CDs to cars. E-commerce retailing has several potential advantages over traditional retailing, some of which it shares with traditional mail-order firms. Like a mail-order firm, a firm with a website may be able to offer more products online than a traditional brick-and-mortar store, because it is far less limited by shelf space constraints. It can make extensive product information available to interested customers around the country and the world, who can then make their selections automatically, without the need for a salesperson.

For e-retailers, the Internet replaces paper catalogs as the medium used to distribute information to customers, but these retailers still face some of the same challenges as traditional catalog and storefront retailers in delivering the goods. In response, some large electronic retailers have now begun building their own warehouse distribution centers, providing a real infrastructure to complement their virtual one. At present, the Internet is so new that no one can predict which business strategies and which retailers will succeed in the new medium. Many Internet retailers continue to lose money as they build their businesses and strive for the economies of scale needed to survive in a marketplace shared with both other Internet rivals and traditional competitors.

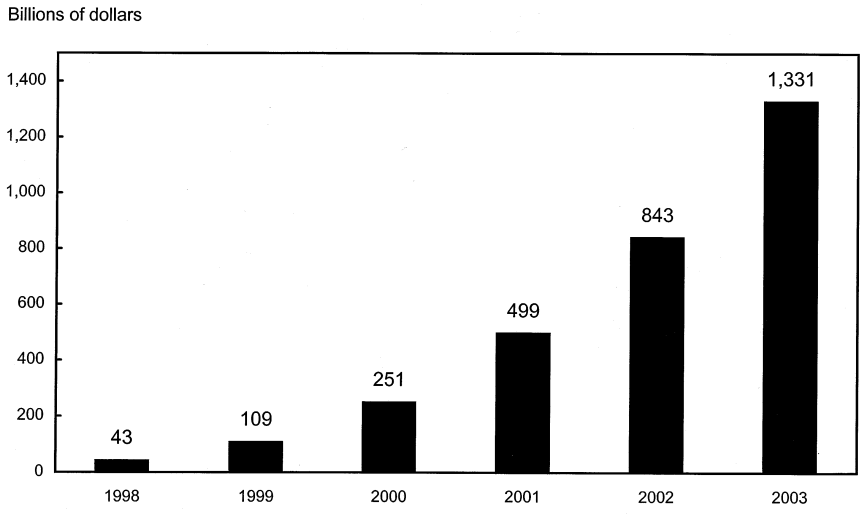
Unfortunately, despite a proliferation of anecdotes, hard data on the importance of e-commerce and the digital economy more generally remain scant. This lack of appropriate data hampers analysis of the impact of the digitization of the economy. For example, it is not currently possible to separate out e-commerce activities from other types of commercial activities in the statistical series produced by the Federal Government. Data specific to e-commerce currently come, for the most part, from market research firms, which use divergent definitions and methodologies. To address this problem, major Federal statistical agencies (the Bureau of Economic Analysis, the Bureau of the Census, and the Bureau of Labor Standards) are working together to formulate an e-commerce initiative that will help ensure that official government statistics accurately reflect the new digital economy.

Using private data for 1998, estimates of the value of online retailing range from $7 billion to $15 billion; even taking the high end of this range, e-commerce would account for only about 0.5 percent of retail sales. In one 1998 survey, however, nearly half of households with Internet access had made online purchases within 6 months of the survey. In addition, a much larger quantity of sales is influenced in some way by the Internet. For example, many consumers research their purchases, such as automobiles or books, online before buying them offline, through traditional outlets. By one estimate, roughly $50 billion in offline retail sales was influenced by the Internet in 1998.

Business-to-Business E-Commerce

The Internet plays a significant role today in providing new distribution channels for wholesale transactions between businesses. By one estimate, business-to-business e-commerce is expected to grow from $43 billion in 1998 to over $1.3 trillion by 2003 (Chart 3-7). Using the World Wide Web, companies can automate the order process and reduce costs. One major supplier of computer components had routinely been receiving orders by phone or facsimile from several hundred customers all over the world. Processing these orders was cumbersome, and moving several hundred of these

Chart 3-7 **Business-to-Business E-Commerce**
The value of business-to-business e-commerce is projected to rise severalfold over the next few years.



Source: Forrester Research, Inc.

customers to a web-based solution promised to improve customer service and give managers better access to information on the status of orders. The company built a website targeted to these customers and soon was able to move $1 billion in orders per month online.

Another firm that sells networking hardware also uses the Internet to reduce its costs. Many of the company's products are built to order from customers' specifications. The firm routinely checks those specifications to make sure the product will work as configured, but it found that nearly one in four orders taken by phone, fax, or e-mail contained errors that caused the order to be rejected or required additional customer contact. After moving the process of configuration and pricing online, the company now reports that 98 percent of orders pass through the system without an error, saving both the company and its customers valuable time and expense. Across all its operations, having moved more of its technical support and marketing functions online, the company estimates that it now saves more than $300 million per year in operating costs.

Business-to-business e-commerce is also resulting in new and more competitive markets. The Internet's size and reach have created deeper markets, with larger pools of both buyers and sellers, for many basic commodities. Where before specialized brokers were needed to match buyers and sellers in transactions, new websites today allow multiple buyers and sellers to find each other and enter into transactions quickly and efficiently. In the steel industry, for example, the electronic equivalent of a spot market now matches customers and

suppliers for surplus quantities of steel of various types. One firm that provides such a virtual marketplace for transactions in this industry has seen both the number of suppliers and the volume of product offered on its site expand substantially. In just one year, offerings on the site rose from about 20,000 tons a month to over 120,000 tons.

Purchasing managers are also using information technology to actively manage and reduce their firms' procurement costs by changing traditional relationships between the firm and its suppliers. For example, many manufacturers buy custom-made materials that they incorporate into finished products. Because these materials are often made to buyers' specifications, there are no catalogs or price lists to allow buyers to make price comparisons. Fragmented supply markets and the importance of product quality in supplier selection also make purchasing difficult. Concerns about the quality of new suppliers' products, for example, may cause a firm to rely instead on existing suppliers that are known quantities. One company achieves significant cost savings for the purchasing managers who are its clients by using electronic bidding technology to conduct auctions among alternative suppliers of a whole range of inputs. The company has organized auctions for goods ranging from printed circuit boards to injection-molded plastic parts (Box 3-3).

Although this firm's electronic auction software is an example of information technology at work, an important part of the service that the firm provides is a detailed, specific analysis of the desired components, followed by an extensive search for potential suppliers. In addition to the traditional suppliers that a firm has relied on in the past, the auction firm may find that other suppliers around the world can produce the demanded good as well. Working with the buyer, the company screens these firms to determine whether they are capable of producing the good that meets the buyer's specific needs. This use of information technology to cast a wider net poses both challenges and opportunities for suppliers. For efficient firms, it offers a way to compete for business they might not have been able to bid on previously. But existing suppliers must compete more aggressively than ever before if they wish to retain or expand their business in an increasingly global economy.

Information Technology and the Theory of the Firm

These developments in information technology raise a number of questions about the organization of firms in a market economy. Information technology has the potential to dramatically lower the cost of acquiring and disseminating information of significant value to firms and their customers. Using various types of information technology, firms can convey information about products to potential customers, obtain more detailed and targeted market data about customers and their needs, and then sell products to more customers. But how will lower costs of communication affect the structure of

Box 3-3. Holding an Online Auction

An online auction specialist allows corporate buyers to lower their procurement costs by providing the technology and support for computerized auctions. Rather than sending out a paper request for proposals and obtaining a single bid from each potential contractor, buyers holding online auctions can allow bidders to observe how their bids compare with those of their peers. To generate more competition, however, the auction specialist does more than simply provide a connection for the client firm's existing suppliers. The auction specialist also searches out new potential suppliers that meet the buyer's specifications.

In one such auction for printed circuit boards, the auction specialist first identified 29 bidders in North America, Asia, and Europe. Eight of the firms had done business with the buyer before, but the remainder had not. Each supplier was linked electronically to the auction firm's computer server, so that it could submit bids online, observe the bids placed by its competitors, and then decide whether to submit a new, lower bid of its own. Within 5 minutes after the auction opened, the bids received for the circuit board contract quickly dropped to 18 percent below the buyer's historical average cost for such goods. As the auction's closing time approached, more and more bids were submitted. By the time the auction had concluded, after about 1 hour, three bidders had submitted virtually identical low bids, and the buyer was able to reduce its expected cost by 42 percent, or $6.4 million.

the firm itself? When information is less costly to communicate, some firms may decide to expand their operations to exploit greater economies of scope in selling different products. Alternatively, other firms may find that, with more customers for what had previously been low-volume markets, it is more profitable to specialize, seeking lower production costs through greater economies of scale. The evolving nature of the new technology makes it hard to predict which effect will predominate, and the answers could easily vary across different lines of business.

Information technology may also have far-reaching implications for the structure of firms if it changes the sources of competitive advantage in the markets where they conduct business. Using the new information and communications technologies, firms have greater potential to respond quickly and more flexibly to challenges posed by changing circumstances. Older sources of competitive advantage, such as established distribution networks, may now seem outdated and unnecessary in light of new communications tools like the Internet. By eliminating middlemen from the distribution network, a firm can cut its costs while still serving its customers.

However, the same technology that disintermediates some actors in the economic chain between producers and consumers is also opening up new opportunities for other firms that can effectively add value in a different way. The auction firm that finds new suppliers, for example, replaces an internal procurement decision process with a market-based specialist. As firms continue to restructure themselves to take advantage of these new opportunities, they may find it worthwhile to expand or contract their activities to focus on those where they add the most value to the economic chain.

Information Technology and Network Effects

As new types of information technology link together computers, telephones, and other types of communications devices, network effects become increasingly important in determining the success or failure of some products. In industries not subject to network effects, the total value of a product is simply the sum of its value to each user; adding more users increases the total value only by the product's value to the new users. But in industries where network effects are present, such as telephone or Internet service, the value of the product to each user, including the existing users, rises as the total number of users rises. In the case of a phone network, for example, each person is connected to the network by a wire (or a wireless) link. The more links the network has, the more valuable it is to each participant in the network, because the network can be used to contact more people. This type of network effect, also called a network externality, creates a cycle of positive feedback in a growing network. As more people join the network, it becomes more attractive to potential new members, and the network increases in size, continuing the cycle. The same network effects that create positive feedback in a growing network, however, can work against a network that is shrinking. As a network shrinks, it becomes less valuable to members, and more members leave, causing the network's value to spiral downward.

Markets with strong network effects are referred to as "tippy," because they can tip in favor of one firm or another, depending upon which firm is able to generate enough positive feedback to win the allegiance of a sizable majority of consumers. The winning firm in such a market then becomes the dominant network and may be in a position to establish a de facto standard for the industry. Firms engaged in such a "standards war" may even choose to give their product away initially if doing so increases the firm's likelihood that it will own the dominant technology. Once a firm wins the standards war, consumers' switching costs may well be high enough that the firm can exercise market power to earn above-normal profits.

As the history of the Bell system at the beginning of the century demonstrates, network effects can have a dramatic impact on market outcomes when one network becomes very large relative to its competitors.

Using its size and its superior long-distance service, the Bell system became the dominant firm in areas of the country where it had once competed with independent phone companies. To convince consumers to sign up for its service over those of the independents, the Bell system advertised the advantages of its larger number of connections. By refusing to interconnect with competing systems, the Bell system was able to exploit the advantage of its large network to the detriment of its competitors.

Establishing a new network in an industry with strong network externalities can be very difficult, because users of the existing network may have to incur costs to move to the new network. In some cases, such as the software industry or the computer networking equipment industry, these switching costs may include major investments in equipment and training to use the new network. An even larger cost for users of the new network, however, may be that imposed by the lack of connections with the incumbent network.

These switching costs, however, do not necessarily allow the incumbent firm to rest on its laurels. A new network can supplant an established network in certain circumstances. One advantage a new network may have is that its new technology may simply work better for some applications than the established network's technology. Where the old network may have to worry about compatibility with existing standards, a new provider can start from scratch and take advantage of technological developments to create a better product. With a superior technology, a new network provider may be able to convince some users to incur the switching costs because the advantages of the new technology are large enough to make it worthwhile even if users cannot connect easily with the old network. Once it has established a niche market among these users, the provider can then seek to expand the use of its network to more mainstream customers. The computer industry, for example, has seen several waves of technology go beyond an existing dominant standard, and each of those waves in turn developed into its own standard. Early computer technology was dominated by mainframes, but mainframes were later supplanted by minicomputers for many uses, and by personal computers for still more uses. In each case the new technology started out not by directly challenging the incumbent, but by appealing to a group of users not well served by the existing technology.

As information technology advances, the economic effects of new data and communications networks will become increasingly important. The Internet provides a model for how those networks can work together. The Internet can be described as a "network of networks" held together by a standard communications protocol. The hardware and software running any individual local network may be completely incompatible with the hardware and software running a different local network, but with a standard communications protocol the two networks can talk to each other. This increases the

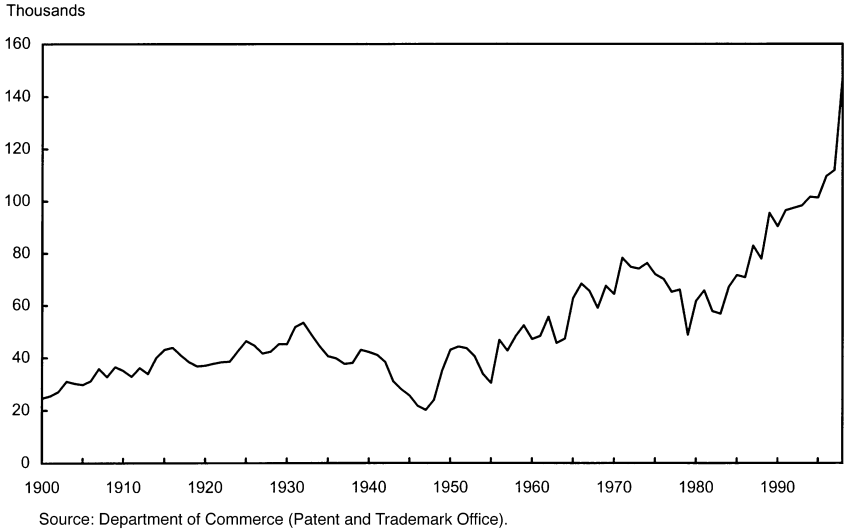
value of each network to its users. Where these new technologies will take us in the 21st century will only become evident over time, but by encouraging connections between networks, government and the private sector can work together to provide a strong platform on which new ideas and new technologies can grow.

The Role for Government Policies

We have seen how firms in a range of industries are now realizing some of the productivity gains that recent advances in information technology have promised. For its part, this Administration remains committed to a policy that encourages innovation and competition in the private sector to the fullest extent possible. One element of that policy is establishing the rules for protecting intellectual property rights to new products through patents. Although patents have been used to protect the property rights of inventors in their inventions since the founding of the Republic, the last several years have seen an explosion in the number of patents granted in the United States (Chart 3-8). Several hypotheses have been advanced to explain this surge in patent grants, including the possibility that it reflects today's rapid pace of technological discovery. A recent court ruling clearly indicating the patentability of computer software may also have encouraged the patent surge.

Chart 3-8 **Patents Granted Since 1900**

Since 1995, patent grants in the United States have increased at a historically unprecedented rate.



Source: Department of Commerce (Patent and Trademark Office).

Intellectual property rights in works of authorship, including those disseminated through the Internet, are protected through copyright. The Administration has worked to set up a legal framework for electronic contracting and has supported protection of intellectual property rights in the digital environment. In the latter area, the Administration has supported initiatives to ensure that copyrighted works are adequately protected on the Internet. Information in the form of software, texts, music, and audiovisuals is increasingly important to the economy, and all these media can be efficiently delivered over the Internet. Without legal protections commensurate to those enjoyed by distributors of physical media, intellectual property owners might choose not to make their works available in the digital environment. The Administration has also been active in advocating the development of international standards for the protection of copyrights on the Internet and in promoting a balanced approach to protecting data bases.

Support for Research and Development

Maintaining and increasing the flow of innovative ideas to the economy also require continuing efforts in R&D to create new products and services. Over the last several years, private industry has continued to expand its funding of R&D, but many of these efforts are focused on the development required to bring new products to market. To fill in the gaps in private R&D efforts, government must go a step beyond encouraging private innovation and competition. By supporting both the basic and the applied research necessary to create new technologies yet unimagined, government can act as a catalyst for growth in the American economy in this new century.

In supporting R&D, the objective of government policy is to identify projects with large potential spillover benefits to the economy. Funding basic and applied research is one way to accomplish this objective because it expands the knowledge base of society. Although this research can generate large payoffs in the form of new technologies, the private sector is unlikely on its own to provide the amount of research, basic or applied, that is best for society. Firms may underinvest in research because the social benefits from the innovations they might make exceed the payoff that the firm itself can capture with traditional mechanisms such as patents and protection of trade secrets. Some of the most innovative ideas that research might generate may not immediately result in commercially useful products or methods; they may require an extended period of further development before that can happen, and often companies may not want to wait that long. Hence government support for basic research is critical in a knowledge-based economy, where growth ultimately depends upon the flow of new ideas.

This problem seems particularly vexing for what are sometimes called general-purpose technologies (GPTs). A GPT is a technology that may have

many possible uses but that depends on the development of complementary innovations for those uses to be exploited. For example, an ordinary desktop computer can be put to a vast number of different uses, but all require complementary investment in software. Until a ready store of such complementary innovations is available, a GPT may not be very useful, and its creators may have limited incentive to make improvements in the technology. As these complementary innovations occur, however, the gains from further innovation to improve the GPT itself increase. And in turn, as the GPT is improved, the gains from creating still more complementary innovations rise, these innovations then appear, and so on in a virtuous cycle. Jumpstarting this virtuous cycle may be difficult, however, when the commercial gain appears to be low. In such circumstances, government can again play an important role by providing the initial funding for new technologies that still need more basic research.

The Internet itself is a GPT that developed in just this way. For all the considerable excitement today about its commercial potential, the Internet did not start out as a commercial project at all, but as a way to interconnect government computers at different sites to share information and data. At its creation in 1969 under a U.S. Department of Defense project, the predecessor to the Internet (then known as ARPANET) consisted of just four nodes at different locations. Over time, more nodes and more users were added, until eventually the National Science Foundation (NSF) took over the primary role in funding what by then had become the Internet. With the introduction of the World Wide Web by the European Center for Particle Research in 1989, and of a graphical user interface called Mosaic by the NSF's National Center for Supercomputing Applications in 1993, the Internet took a giant step further. From a tool used by a relatively small number of government workers and academics, it was transformed into a widely accessible public communications medium, and usage increased dramatically. As the number of users expanded, commercial development began and government sponsorship became unnecessary.

Technology Initiatives in the Budget

The Administration is committed to maintaining strong support for R&D efforts in a wide variety of areas. The centerpiece of this commitment is the 21st Century Research Fund, which aims at ensuring stability and growth for the Nation's highest priority research programs. In the President's budget for 2001, approximately $43 billion has been committed to science and technology endeavors through this fund, a 7 percent increase over the previous year. Through the fund, the Administration seeks to finance a broad and balanced national R&D portfolio to ensure that technological advancements continue to be made in areas of the economy where they are needed. Having

a balanced R&D portfolio is necessary because advances in one discipline may depend upon research gains in separate fields.

A number of programs undertaken by the 21st Century Research Fund are designed to leverage Federal R&D investments through partnerships with firms in the private sector. For example, the Partnership for a New Generation of Vehicles seeks to develop less polluting, more fuel-efficient technologies for cars by combining the research efforts of Federal Government laboratories with those of the major U.S. automakers. The Advanced Technology Program, administered by the National Institute of Standards and Technology, is another example of the Administration's efforts to encourage public-private partnerships in R&D. This program provides funding for scientific and technical projects that may offer substantial economic returns to the United States.

This year's budget also proposes a multiagency National Nanotechnology Initiative that increases the level of funding for nanotechnology research in 2001 by more than 80 percent, to nearly $500 million. The initiative focuses on the manipulation of matter at the atomic and molecular levels, offering an unprecedented chance to study new properties, processes, and phenomena that matter exhibits at a scale between atoms and molecules. The initiative hopes to culminate in technologies with the unprecedented ability to create new classes of devices as small as or smaller than a human cell. This research could lead to continued improvement in electronics and electro-optics for information technology; to higher performance, lower maintenance materials for manufacturing, defense, space, and environmental applications; and to accelerated biotechnical applications in medicine, health care, and agriculture. The results of this effort could be as significant to our economy as the development of the transistor and the Internet.

This year's budget also increases support for information technology R&D from $1.7 billion to $2.3 billion. This program funds the fundamental research in computer science that is expected to lead to major breakthroughs in the next generation of supercomputers, networks, software, and applications. This ongoing work includes the Next Generation Internet Initiative, which is connecting universities and national laboratories with high-speed networks that are 100 to 1,000 times faster than today's Internet. R&D in information technology also funds development of extremely powerful supercomputers for applications in a variety of fields. Long-term research under this program's umbrella will create high-technology, high-wage jobs and will improve our quality of life. All of these projects serve as examples of how a small investment today may yield significant benefits in the years to come.

Maintaining Competition

Another way in which government policy can encourage economic growth is through reducing barriers to competition and entry rather than imposing restrictions that in effect protect incumbent firms. For example, by making more of the electromagnetic spectrum available for wireless services, as discussed above, the Federal Government has enabled a number of new firms to enter the market for these services. The prices that consumers pay for wireless phone service have dropped, on average, as a result. In designing the spectrum auctions, the Federal Communications Commission was careful to limit the ability of existing cellular incumbents to acquire the lion's share of spectrum available, and this laid the necessary foundation for more competition between competing wireless networks. Similarly, the Telecommunications Act of 1996 removed barriers to entry across telecommunications markets, and it set conditions for regional Bell operating companies to enter long-distance markets after making changes to permit the entry of new competitors for local telephone services. In December 1999, the commission found that one company had met those conditions in New York State and allowed it to begin offering long-distance service in New York. Companies in other States are expected to qualify in the future as more local markets are opened to competition for both business and residential customers.

Vigorously enforcing the Nation's antitrust laws is another important element of a policy that promotes competition. As noted above, concerns about the competitive implications of mergers are not new, but the recent wave of large mergers has highlighted this aspect of antitrust policy. One reason for this merger activity is that firms are seeking to achieve efficiencies and become more competitive in the global marketplace. The vast majority of these mergers pose no competitive concern because they do not combine two significant competitors in a market that would raise a concern about diminished competition. In other cases, however, the antitrust agencies at the Department of Justice and the Federal Trade Commission have opposed elements of planned mergers that would have diminished competition in several cases, including gasoline marketing and refining, grain distribution, avionics, waste disposal, banking services, and mobile telephony. In these cases the antitrust agencies have opposed mergers because of their potentially adverse impact on consumers and have sought divestitures that would preserve competition.

In analyzing mergers and other potentially anticompetitive conduct, antitrust agencies increasingly must consider the effects that arise not only from traditional economies of scale in production, but also from the effects of market power created by network effects. For some products—for example, some types of basic computer software and hardware—having a large installed base of users creates a de facto standard both for those users and for product developers, who must use that standard to create new, complementary products. Users accustomed to

using a particular standard may have built up a large investment in knowledge and complementary products of their own that makes switching to any alternative, nonstandard product costly. Users also may be reluctant to switch when alternatives to the prevailing standard do not have enough developers creating the complementary products that would enhance the value of the basic product. In these circumstances, a company that controls a standard might use that market power to prevent other products from gaining the critical mass of users that would enable them to challenge the standard and undermine its market power. Antitrust agencies vigorously enforce the antitrust laws to preserve competition and eliminate unreasonably exclusionary practices related to standards.

For completely new areas of economic activity such as e-commerce, the Administration believes that growth can best be encouraged by limiting the regulatory burden. Regulatory forbearance and policies that let nascent markets grow have encouraged continuing investment in information infrastructure and made possible unprecedented growth in the development, adoption, and use of e-commerce. As one example, the Administration has successfully opposed the imposition of discriminatory taxes on Internet activity: the Internet Tax Freedom Act establishes a 3-year moratorium on new and discriminatory taxes on electronic commerce.

Finally, all policies that rely on the private sector to provide valuable new technologies or other innovations face a common challenge, namely, that of ensuring that all members of society benefit from those technologies and those innovations. Evidence is growing of a "digital divide," in which some racial, ethnic, and income groups in the United States use the Internet less than others. Created under the Telecommunications Act of 1996, the E-rate program for wiring schools and public libraries is an important means of increasing the diffusion of Internet use and ensuring that access to information is widely available (see Chapter 4). The discounts available under this program have allowed more than 1 million classrooms to be connected to the Internet. This policy, along with others discussed in the following chapter, will help Americans develop the skills they need to participate in an increasingly information-driven economy.

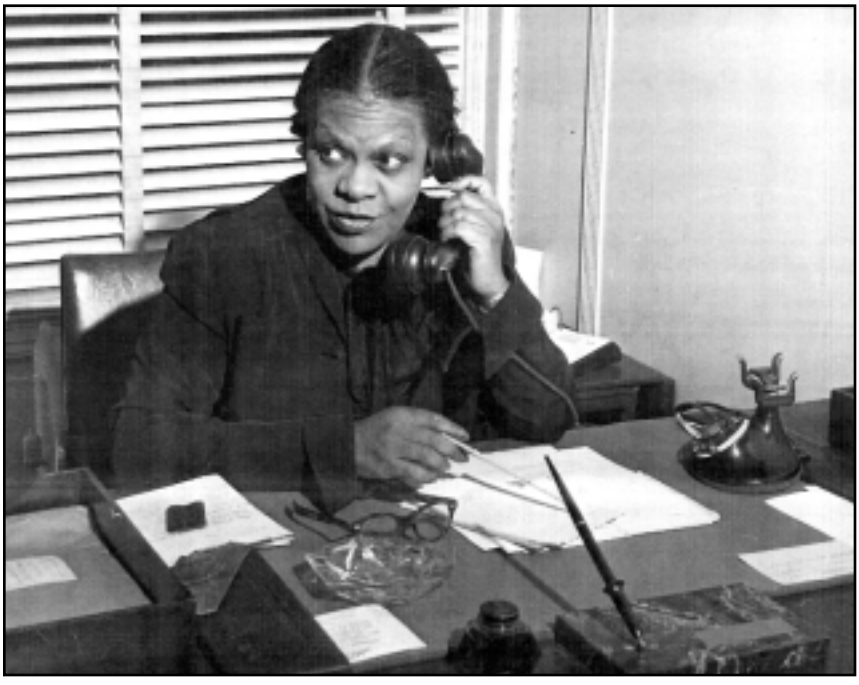
Conclusion

Recent developments in technology and regulation underscore the vital role that government has to play in ensuring the foundations for a growing economy and a vibrant private sector. By providing support for basic and applied research, government can act as a catalyst for new innovations and new technologies that may someday prove critical in maintaining America's technological lead in an increasingly information-dependent world.

Similarly, by reducing barriers to competition wherever possible, the regulatory environment that government creates can encourage the birth of new services that will lead to continued growth, while ensuring that all Americans have the opportunity to benefit. The dramatic changes in the American economy over the last century should remind us that future changes, still unpredictable, are sure to follow, creating new challenges and opportunities during the century that has just begun. If government continues to encourage firms and workers to meet those challenges, America can maintain a strong, yet flexible economy that fosters growth and provides opportunity for all its citizens for many years to come.

CHAPTER 4

Work and Learning in the 21st Century



National Archives

Eunice Hunton Carter, born in 1899, was a trailblazer for expanded labor market opportunities for women and minorities. She received bachelor's and master's degrees from Smith College, went on to Fordham Law School, and ultimately became the first African American woman district attorney in New York. Special prosecutor Thomas E. Dewey made her one of his "twenty against the underworld" who investigated organized crime in the late 1930s.

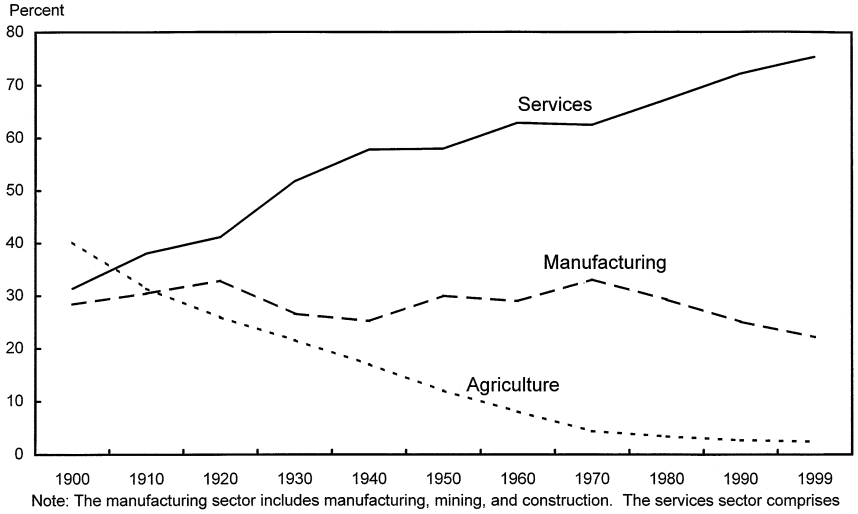
The nature of work has changed dramatically over the past 100 years. Today, vastly fewer people work on farms, and women are much more likely to be working for pay. Discrimination, which long limited the participation of minorities and women in the labor market, is now illegal and has been greatly reduced. In addition, the educational attainment of our labor force has risen sharply. These changes have combined to produce the most diverse and highly educated work force in our country's history. The tools and techniques of work also changed dramatically over the 20th century. At the beginning of the 21st century this has meant a technological revolution, which has affected the majority of jobs and put a premium on a new set of skills. This chapter examines the new labor market and the role government will play in preparing workers for the next century.

Formal education was a far less important job qualification for most workers at the turn of the last century than it is now. Over 40 percent of the work force was in agriculture, and another 28 percent was in manufacturing. Services, broadly defined, accounted for the remaining 31 percent (Chart 4-1). In keeping with this industry mix, a large proportion (38 percent) of workers were occupied in farming, forestry, or fishing. Another 25 percent were operators or laborers. Managers and professionals represented just 10 percent of the work force, and sales and administrative support occupations just 8 percent.

Over the course of the 20th century, the share of total employment in agriculture declined steadily. Until the early 1970s, manufacturing employment grew roughly in line with growth in the labor force, and manufacturing's share of total employment remained roughly constant. Since then, however, employment in services has accelerated, and the share of employment in manufacturing has declined. The occupational mix has changed accordingly. By 1999, 30 percent of workers were employed as managers and professionals, and 26 percent worked in technical, sales, and administrative support occupations. Operators, fabricators, and laborers made up just 14 percent of the work force, and farming, forestry, and fishing occupations represented a scant 3 percent.

Most recently, the change in the industrial and occupational mix of the economy has been associated with a technological revolution. That revolution has been a rich source of new jobs, but many of those jobs require familiarity with the latest technological advances. In 1996, for example, the share

Chart 4-1 **Composition of Employment by Major Sector Since 1900**
Over the 20th century, the U.S. work force shifted massively out of agricultural jobs and into service occupations.



Note: The manufacturing sector includes manufacturing, mining, and construction. The services sector comprises public administration; transportation, communication, and public utilities; wholesale and retail trade; and finance, insurance, and real estate.
Sources: Department of Commerce (Bureau of the Census) and Department of Labor (Bureau of Labor Statistics).

of total employment in industries that are intensive users of information technology was 41 percent. Projections by the Bureau of Labor Statistics suggest that this figure will rise to 44 percent by 2006. Other projections indicate that the five fastest growing occupations between now and 2008 will be related to computers.

This evolution of the labor market from one based on a strong back to one based on a strong mind has both caused and been driven by substantial improvements in educational attainment. The change in the education of the work force and the increasing value of education represent an important transformation of the labor market over the course of the century. A second important transformation has been an opening up of opportunities to women, minorities, and persons with disabilities. The typical adult female in 1900 was working at home or on the farm, and those women who worked for wages were likely to be unmarried and in low-paying occupations. African Americans and other minorities were also generally limited in their occupational choices. Over the course of the century, however, women and minorities entered the labor force in increasing numbers and enjoyed expanded occupational choice, and their earnings have risen. All groups have made substantial improvements in educational attainment and have shared in the greater wealth generated from the accumulation of skills and higher productivity.

This chapter analyzes these two key transformations of the labor market—the increasing value of education and the increasing opportunities for women, minorities, and persons with disabilities—and assesses the challenges they pose for current policy. Although education has proved to be an avenue toward higher earnings for all, a large gap has emerged between the wages of those with education beyond high school and the wages of those with less education. The economy has changed in a way that places a high premium on certain skills, some of them unknown only a few years ago, and workers without those skills are increasingly likely to be left behind. This wage premium provides a strong market signal about the value of education, but evidence suggests that many workers lack the skills needed for today's jobs. Therefore government policies have a role to play. Governments at all levels have traditionally been involved in providing education, in part because of the social as well as economic benefits associated with it. The last part of this chapter examines the role of government and, more specifically, the initiatives put forth by this Administration to improve the quantity and quality of education and training of the American work force and provide new opportunities for American workers. The challenge for public policy in the 21st century will be to develop an appropriate set of education and training policies, one that creates a framework of lifetime learning within which workers can acquire and maintain both the basic skills and the more technical skills they need in the new labor market.

The Transformation of the Labor Market

A hallmark of our increasingly technology-driven and knowledge-intensive labor market is the importance of education for success. The gains in educational attainment that the U.S. labor force achieved over the course of the 20th century were impressive and have led to great improvements for many groups. Yet the number of educated workers, although growing, has been falling short of demand: employers eager to hire qualified workers have driven up the relative wages of those who have the desired skills. In the 1980s and early 1990s, those who acquired the education and training that employers sought were rewarded in the labor market, while those who lacked that preparation saw their earnings lag behind.

The Rising Importance of Skills and Education

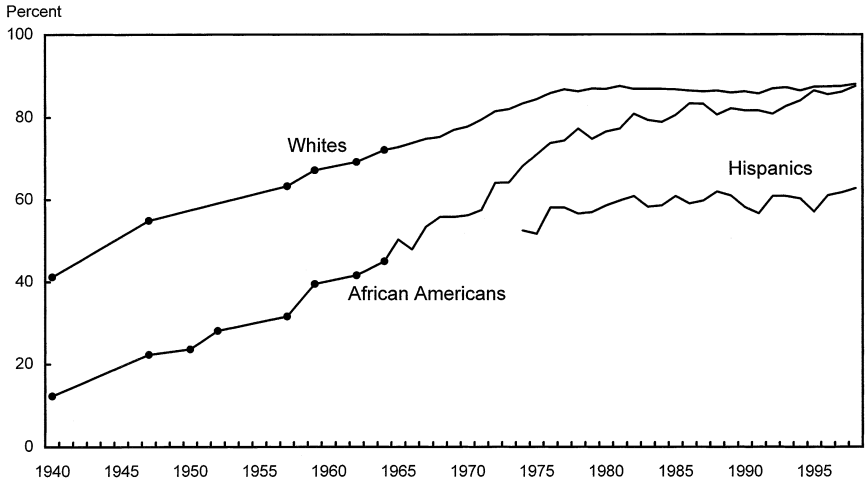
Growth in Educational Attainment

The average level of education of the U.S. working-age population increased dramatically in the 20th century. Many more Americans than ever before are graduating from high school and college, and overall educational attainment has increased. The median number of years that an adult American has spent in school rose from 8.6 in 1940 to nearly 13 in the 1990s. In addition, the disparity between men and women in high school and college completion rates has disappeared. In fact, in the decade just past, women completed both high school and college at slightly higher rates than men.

The gap in years of schooling between whites and other groups also narrowed substantially over the century. The gap between African Americans and whites in high school graduation rates fell markedly from the 1940s to the present (Chart 4-2). Whereas in 1940 the proportion of whites who had completed high school was more than triple that of African Americans (41.2 percent versus 12.3 percent), by 1998 this gap had virtually disappeared, with 88 percent of both groups having completed high school. Hispanics have not made the same gains, however, and the proportion of this population that had completed high school (which includes those Hispanics who immigrated as adults) was only 62.8 percent in 1998. Raising the high school completion rates of Hispanics has been an important goal of this Administration, and to achieve it, the President has pushed for the first-ever Hispanic Education Action Plan. The Federal budget for fiscal 2001 includes $823 million in increased funding for a number of education programs that help to improve the educational outcomes of Hispanics and other students with limited English proficiency.

College completion rates increased over the second half of the century (Chart 4-3). In contrast to high school completion rates, however, the racial

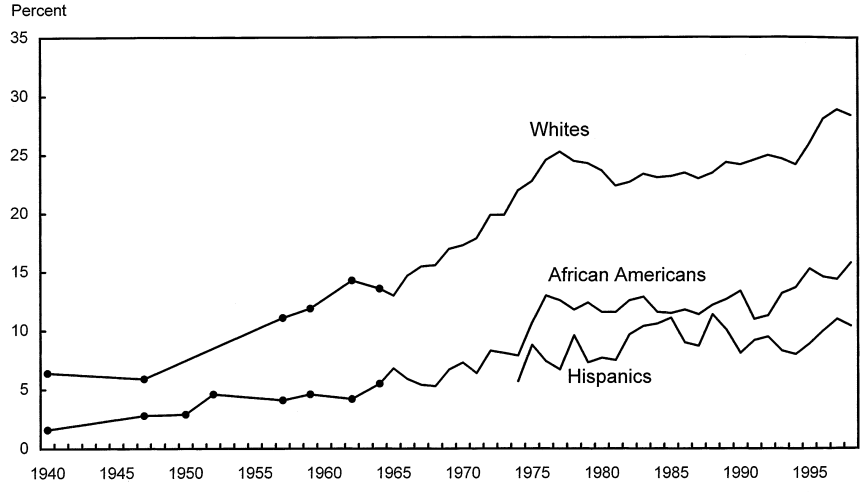
Chart 4-2 **High School Graduation Rates of 25- to 29-Year-Olds by Race and Ethnicity**
High school graduation rates have vastly improved since 1940. Rates for whites and African Americans have converged, but Hispanics lag behind.



Note: Annual data by race are available only since 1964; dots indicate previous years with available data. Before 1992, high school graduates are defined as having completed 4 years of high school. Since 1992, high school graduates are those who have received a high school diploma.
Source: Department of Commerce (Bureau of the Census).

and ethnic gap in college graduation rates remains large. In 1940, 6.4 percent of whites aged 25-29 had completed college; by 1998, 28.4 percent had. African American and Hispanic graduation rates have improved over the same period, but they still lag far behind that of whites. Although the rate for African

Chart 4-3 **College Completion Rates of 25- to 29-Year-Olds by Race and Ethnicity**
Many more Americans finish college today than in 1940, but completion rates for African Americans and Hispanics remain well below that for whites.



Note: Annual data by race are available only since 1964; dots indicate previous years with available data. Before 1992, college graduates are defined as having completed 4 years or more of college. Since 1992, college graduates are those who have received a college degree.
Source: Department of Commerce (Bureau of the Census).

Americans has risen almost 10-fold since 1940, only 15.8 percent of African Americans and only 10.4 percent of Hispanics aged 25-29 held bachelor's degrees in 1998. A number of Administration policies seek to improve access to postsecondary education and are discussed later in this chapter.

Changes in the Demand for Skills

These statistics show clearly that the American labor force is becoming more educated over time, but are these increases in educational attainment keeping up with the demands of an increasingly technology-driven labor market? And in that market, what happens to those who do not keep up? The rise in importance of basic computer skills illustrates the concern. Computer use on the job has increased tremendously since the introduction of the personal computer in the late 1970s. Already by 1984 about a quarter of all workers were using a computer at work, and by 1997 that proportion had risen to virtually half. What this trend implies is that the pool of potential jobs is shrinking for those who lack basic computer skills.

But it is not just computer skills that are in demand in today's labor market. Survey evidence from the 1992-94 period indicates that most jobs available to workers without a college degree require not only specific experience but the ability to perform basic tasks involving reading, writing, or arithmetic and the interpersonal skills to serve customers effectively. Focusing specifically on jobs available to those without a college degree, this survey found that over half of such jobs required workers, on a daily basis, to deal with customers (70.0 percent), read or write paragraphs (61.1 percent), do arithmetic (64.7 percent), or use computers (50.7 percent). Only 8 percent of the jobs available to non-college graduates required none of these skills.

Does this imply that the skill demands of employers have been increasing over time? Direct research evidence on this question is limited, but it suggests that indeed they have. The same survey asked employers directly whether overall skill use on jobs they had recently filled had risen in the past 5 to 10 years. The results indicate substantial increases in each of the skill categories (23 to 25 percent) over this relatively short period. The data also show that the changes in labor outcomes (wages and employment) for certain groups that took place over this time have occurred in a manner consistent with firms demanding greater levels of skill.

A mismatch does seem to be emerging between the skills that workers possess and the skills that employers demand. For example, a 1996 survey of medium-size and large businesses by the American Management Association found that 19 percent of applicants for vacant jobs lacked the necessary math and reading skills, but by 1998 this proportion had increased to almost 36 percent. Another recent study, this one of manufacturers, found that demand for nontraditional skills, such as computer skills, interpersonal and teamwork

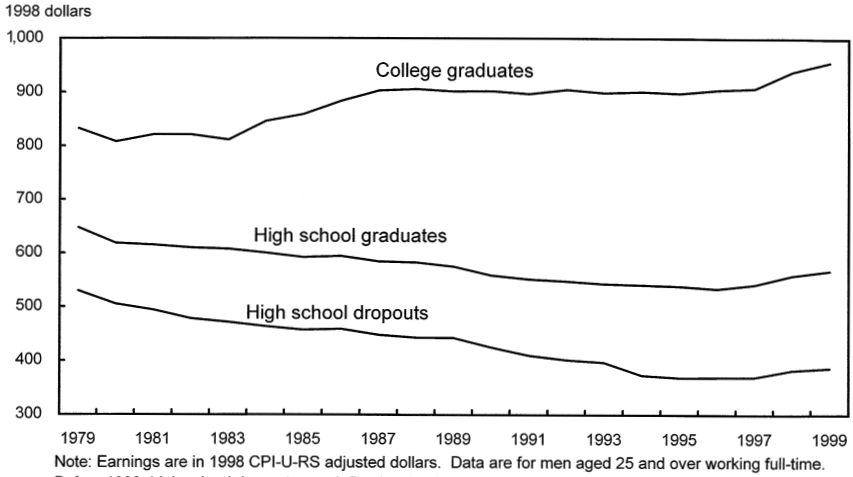
skills, and problem-solving skills, has been rising rapidly, especially among high adopters of new technology. Computer skill requirements were more frequently cited than other requirements as having increased from 1993 to 1996. However, employers cited more difficulty in finding applicants with good problem-solving skills than in finding qualified computer-skilled applicants. Although these results in part reflect the strong labor market of this period, they also indicate a rising absolute demand for skills.

Changes in the Education Premium

A sharp increase in the wages of college graduates relative to those without a college degree provides indirect but striking evidence of rising demand for workers with higher level skills. Between 1979 and 1999 the median real weekly wages of comparable male college graduates aged 25 and over who worked full-time rose by almost 15 percent, from $833 to $957 (Chart 4-4). Despite a 6 percent increase since 1996, the earnings of full-time working males with only a high school diploma fell by 12 percent over the same period. In 1999 the real weekly wages of male high school graduates were $568, down from $648 in 1979. Similarly, the real weekly wages of those with less than a high school diploma declined by 27 percent between 1979 and 1999, from $530 a week to $387, although their real wages in 1999 were 5 percent higher than in 1995.

In 1979 the median weekly earnings of male college graduates were 29 percent higher than those of similar men who possessed only a high school

Chart 4-4 **Median Weekly Earnings of Male Workers by Educational Attainment**
Real earnings of non-college graduates remain lower today than in 1979, but wages for college graduates and non-college graduates have risen in recent years.



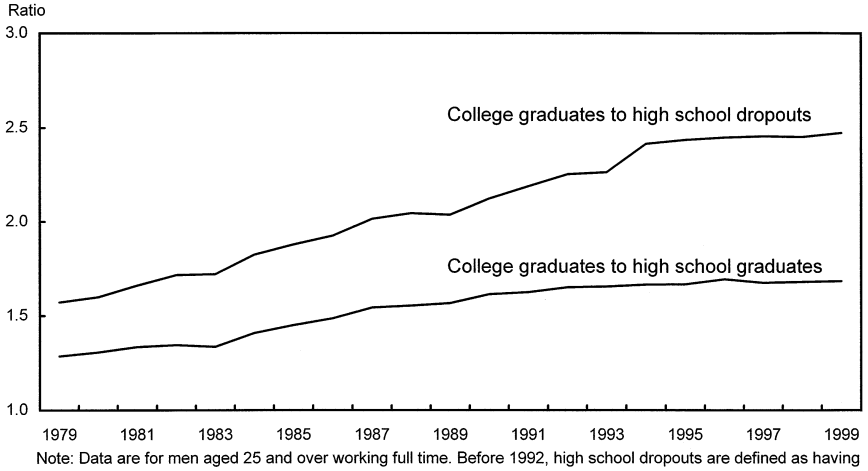
Note: Earnings are in 1998 CPI-U-RS adjusted dollars. Data are for men aged 25 and over working full-time. Before 1992, high school dropouts are defined as having completed less than 4 years of high school, high school graduates as having completed 4 years of high school but no college, and college graduates as having completed 4 years or more of college. Since 1992, data on educational attainment are based on the highest diploma or degree received, rather than the number of years of school completed.
Source: Department of Labor (Bureau of Labor Statistics).

diploma (Chart 4-5). That same year the median earnings of male college graduates were 57 percent higher than those of high school dropouts. Other evidence suggests that these ratios had been roughly constant or even declining slightly in the decade prior to 1979. By 1999 college graduates were earning 68 percent more per week (again measured at the median) than high school graduates, and 147 percent more than those who had not completed high school. Since the mid-1990s the returns to lower levels of education have increased at about the same rate as returns to college education, implying that the gap is little changed. Overall, this evidence suggests that there has been rapid growth in the demand for skills over the past two decades, because the premium associated with a college education has gone up even as the supply of college graduates has increased.

Providing further support for the rising importance of skills is evidence that, even within education groups, the rates of return to cognitive skills (reading and math skills, for example) may have increased in recent decades. Research has used longitudinal surveys to examine what impact a person's level of basic math and reading skills, as measured by scores on cognitive tests administered in high school, have on that person's wages after graduation. Results from a sample of high school graduates who did not go on to college indicate not only that a greater mastery of basic skills translates into higher wages, but also that this relationship has grown stronger over recent years. The implication is that basic skills are more important in the labor market than in the past. The same data also allow us to address the question of whether the educational wage premium

Chart 4-5 **Ratios of Median Weekly Earnings of Male College Graduates to Earnings of High School Graduates and Dropouts**

The gap in earnings between college graduates and those with less education widened during the 1980s and early 1990s, but it now seems to have stopped growing.



Note: Data are for men aged 25 and over working full time. Before 1992, high school dropouts are defined as having completed less than 4 years of high school, high school graduates as having completed 4 years of high school but no college, and college graduates as having completed 4 years or more of college. Since 1992, data on educational attainment are based on highest diploma or degree received, rather than the number of years of school completed.
Source: Department of Labor (Bureau of Labor Statistics).

already demonstrated is due to differences in skills between those who choose to go on to college and those who do not. When high school and college graduates are compared, the results suggest that, controlling for scores on math tests, between 1978 and 1986 there would have been no growth in the college wage premium for women, and only one-third as much for men. This again demonstrates the growing importance of skills for labor market outcomes.

In addition to finding a widening gap between the wages earned by different education groups and between people with different levels of cognitive skills, researchers have found evidence that skills associated with new technologies are becoming more important in the labor market. One such piece of evidence is the gap in wages between workers in information technology industries and those in other industries. According to the U.S. Department of Commerce, in 1997 workers in information technology-producing industries earned on average almost 78 percent more than did workers in all industries combined. And this figure was up sharply from 56 percent in 1989.

To the extent that higher education indicates a higher level of skill, one common explanation for the premium associated with education is referred to as "skill-biased technological change"—technological change that has caused demand for high-skilled workers to increase more rapidly than that for low-skilled workers. What might account for this effect? One explanation may be that when new technologies are introduced, workers already well endowed with certain skills are better able to use them. Technological change may also create scope for organizational changes in the workplace, such as more decentralized decisionmaking, which would further stimulate demand for workers with higher education. Adding to this, demand for less skilled workers has decreased in relative terms as some low-skilled jobs have been replaced by more automated production processes. But there are other possible explanations for the increase in the college wage premium. One is decreased demand for low-skilled workers as international trade has allowed imports to substitute for the goods these workers used to produce. As discussed in Chapter 1, however, recent evidence casts some doubt on these hypotheses: rapid technological growth and increased trade in the 1990s did not lead to increased inequality but, in fact, coincided with the end of a 20-year trend toward greater inequality. Other possible contributors to the higher college wage premium include the decline in the real minimum wage over the 1980s and the loss of collective bargaining power with the decline in unionization rates over the same period.

Growth in Opportunities

The 20th century witnessed changes in job opportunities for all workers. Changes were already under way at the start of the century, when the women's suffrage movement was active, and change continued with the civil rights movement of the 1960s. Government has played a critical role in

ensuring equal opportunity for all workers through the passage of the 19th Amendment, and later through such legislation as the 1964 Civil Rights Act, the 1967 Age Discrimination in Employment Act, the 1990 Americans with Disabilities Act, and, most recently, the 1999 Work Incentives Improvement Act. This last piece of legislation eliminated institutional barriers that had limited the employment opportunities of persons with disabilities. Thanks to these and other initiatives, jobs that were once closed to women, minorities, the disabled, and the aged are now open to all, regardless of their work-irrelevant characteristics. Rising demand for labor in general may have contributed to growth in opportunities for groups that have traditionally lacked access, but it should not be forgotten that these and other acts of government helped open the door.

The Economic Progress of Women

The progress made by women in the paid labor market has been one of the most important economic changes of the 20th century. In the early 1900s, men and women, if they were in the labor market, typically worked in different jobs. Whereas some 79 percent of men worked in manufacturing or agricultural jobs, the comparable figure for women was only about 47 percent. A plurality (28.7 percent) of women in the labor force were employed as private household workers, but fewer than 1 percent of men held such jobs. The differences for African American women are even more striking. It is estimated that among African American women who were in the labor market in 1890, over 90 percent worked as servants or agricultural workers.

Disparities remain even today, but today's occupational categories are much more likely to contain substantial numbers of both men and women. Table 4-1 examines the participation of female workers in a range of detailed occupational groups and how it has changed over recent years. Many occupations experienced sizable increases in the percentage of women employed, beyond the overall rise in female labor force participation. For instance, the share of engineers who are female rose from 1.2 percent to 10.6 percent between 1950 and 1999, and the share of lawyers who are female increased eightfold, from 3.5 percent to 28.8 percent.

The opening of opportunities in the labor market for these groups has gone hand in hand with improvements in labor market outcomes. An extensive social science literature documents these gains and attempts to identify their sources. One way of assessing progress is to consider the earnings of one group relative to another: Chart 4-6 shows the ratio of female to male median annual wage and salary income for all workers from 1967 to 1998 and the comparable ratio for annual earnings of full-time, full-year workers from 1960 to 1998. In 1967 the median woman worker earned about 40 cents for every dollar that a man earned. Among full-time, full-year workers, the ratio

TABLE 4-1.—*Share of Women Employed in Selected Occupations in 1950 and 1999*

[Percent]

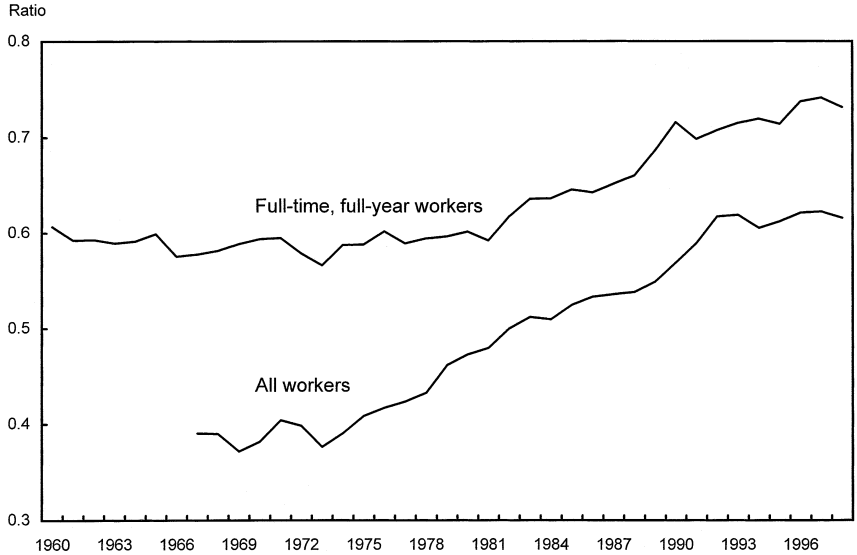
Occupation	1950	1999
Architects	4.0	15.7
Biological and life scientists	29.2	43.8
Chemists, except biochemists	10.0	27.4
Clergy	4.1	14.2
Dentists	2.7	16.5
Dietitians	94.3	84.0
Economists	18.4	51.2
Editors and reporters	37.6	49.8
Engineers	1.2	10.6
Lawyers	3.5	28.8
Librarians	88.6	83.7
Pharmacists	8.3	49.0
Physicians	6.1	24.5
Psychologists	43.8	64.9
Public relations specialists	10.5	61.0
Registered nurses	97.6	92.9
Social workers	69.2	71.4
Teachers		
Elementary school	90.9	83.8
Secondary school	56.7	57.5

Sources: Department of Commerce (Bureau of the Census) and Department of Labor (Bureau of Labor Statistics).

in that year was about 60 cents on the dollar, approximately the same as during most of the 1960s and 1970s. Since then, however, the gap between men and women has narrowed. In 1998 the ratio of median earnings of women to

Chart 4-6 **Ratios of Median Annual Earnings of Female Workers to Earnings of Males**

Ratios of female to male earnings have increased since the mid-1970s.



Note: Data are for wage and salary workers aged 14 and over through 1979 and aged 15 and over thereafter.
Source: Department of Commerce (Bureau of the Census).

those of men (again looking at full-time, full-year workers only) was 73 cents on the dollar.

An important research and policy question is how much of this gap is due to labor market discrimination. Because it is difficult to measure discrimination directly, researchers have explored this issue by first controlling for other factors that might legitimately explain the gap. For instance, an additional year of schooling is estimated to increase a worker's wages, on average, by 5 to 15 percent, and an additional 25 years of work experience increases wages by an estimated 80 percent. These findings have led some to attribute much of the male-female wage gap to differences between the sexes in education and labor market experience. A recent study using longitudinal data from the late 1980s found that about one-third of the pay gap was explained by differences in the skills and experience that women bring to the labor market. This study also found that about 28 percent of the gap was due to differences in the industries and occupations in which men and women worked and in their union status. Accounting for these differences raises the ratio of female to male median wages for the late 1980s from about 72 percent to about 88 percent, leaving around 12 percent unexplained.

Even as several beneficial trends have tended to boost women's wages relative to men's and helped narrow the male-female wage gap, two major trends have worked simultaneously to widen it. The first is increases in the pay premium associated with higher skill (as measured by educational attainment and labor market experience), and the second is increased differences in pay across industries and occupations. Despite the gains just documented, these trends have served to widen the wage gap because female workers still have less labor market experience, on average, than male workers, and because women tend to work in occupations with slower wage growth than those of men. Rising wage inequality across occupations, together with increasing economic returns to skills, slowed women's progress during the 1980s.

Although recent trends suggest that progress is being made, no one should doubt that barriers remain. Studies that have tried to measure discrimination by directly looking at pay differences between men and women in very similar jobs, or by comparing pay with specific measures of productivity, have found evidence of discrimination. There is also evidence that discrimination remains a problem at the highest levels of management. For example, in 1999 only four of the chief executive officers of Fortune 500 companies were women. A recent study notes that of the five highest paid executives at each of 4,200 companies, only 2.5 percent were women, and they earned about 45 percent less than their male counterparts. Although differences in managerial experience and company size can explain a large part of this wage gap, the "glass ceiling" may still be stopping the advancement of women within management hierarchies. To make further progress in this area, the President's 2001 budget proposal includes

$27 million for an Equal Pay Initiative that will, among other things, strengthen the ability of the Equal Employment Opportunity Commission to identify and respond to wage discrimination.

The Economic Progress of African Americans

Over the long term, the convergence of earnings between African Americans and whites is perhaps even more impressive than that between men and women. The gap in earnings between African American and white males declined between World War II and the late 1970s. One study showed that whereas in 1939 African American male wages averaged 43 percent of white male wages, by 1979 this percentage had risen to 73 percent. The study noted that convergence in education has been central to these improvements. Chart 4-7 presents recent evidence showing that the relative earnings of African American men have been increasing only gradually since the 1970s. This trend is broadly consistent with the education data presented above. Other research has shown that government policy appears to have played a role in improving at least the employment rates of African American men (Box 4-1), an area of considerable importance given the differences in unemployment rates between the two groups.

Research has also shown a near convergence in the earnings of African American and white females, although this trend has somewhat reversed in recent years. One study found that African American women in 1939 earned 40 percent of what white women earned; by 1979 that ratio had risen to 90 percent. Chart 4-7 shows that African American women's earnings have slipped relative to those of white women since the early 1980s. (However, the gap in earnings between white women and African American women remains smaller than the corresponding gap for men.) Despite these changes, other indicators of progress have been encouraging. For example, the unemployment rate for African Americans in 1999 was the lowest on record.

The Economic Progress of Persons with Disabilities

It has been estimated that one in five Americans of working age has a disability. A person is typically considered disabled if he or she has difficulty performing certain functions such as seeing, hearing, or walking; has difficulty performing activities of daily living; or has difficulty with certain social roles such as attending school or working. It is also estimated that 1 in 10 Americans is severely disabled, in need of assistance from specialized devices or other persons to perform basic activities. For working-age persons with disabilities, reducing discrimination, easing the transition into work, and improving labor market outcomes have been important goals of this Administration.

The labor market behavior of persons with disabilities often tracks the behavior of the broader groups to which they belong. For example, the

Box 4-1. The Role of Government Policy in Improving the Economic Status of African Americans

The Federal Government has led the way in extending opportunities to all Americans. Title VII of the 1964 Civil Rights Act outlawed employment discrimination on the basis of race, color, religion, sex, or national origin and established the Equal Employment Opportunity Commission (EEOC) to monitor compliance with the law and enforce its statutes. These statutes covered employers with at least 100 employees beginning July 1965; the threshold was lowered to 25 employees 3 years later. In September 1963, Executive Order 11246 prohibited employment discrimination by Federal contractors. The Equal Employment Opportunity Act of 1972 extended civil rights coverage to employers with 15 to 24 employees and expanded the enforcement power of the EEOC.

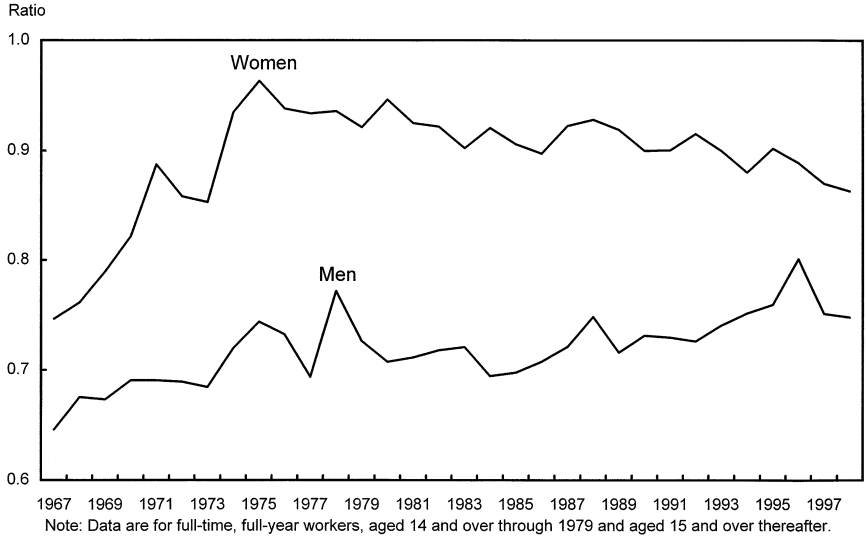
Measurement of the effects of civil rights legislation has been difficult, since the timing of the legislation coincided with many other significant changes in the U.S. labor market. Despite improvements in employment and wages for African Americans since the mid-1960s, it is sometimes difficult to identify a single cause for each change, or to measure the extent to which Federal policy (as opposed to other factors such as economic conditions or local sentiment) played a role. Nonetheless, researchers have documented a link between the enactment of Federal antidiscrimination policy and evidence of further opportunities for minorities and reduced discrimination.

An alternative argument is that these policies came about in part as a result of demand from employers. In a tight labor market, discrimination becomes costly, and it is possible that the passage of Title VII and subsequent legislation provided a justification for what would have occurred anyway. Nonetheless, it appears that government policy played a role and achieved its intended effect of opening opportunities and increasing the share of African American employment.

Some have argued that, rather than providing net economy-wide gains, Title VII and its amendments merely shifted African American employment from small to large employers. To isolate the true effect of the legislation, a recent study compared the growth in employment share across large firms with the growth across small firms newly bound by the 1972 expansion of the EEOC. The study found that there were gains in the employment share and pay of African Americans in the industries most affected by the 1972 legislation. The timing of these gains provides evidence that the Federal policy positively affected the labor market status of African Americans.

Chart 4-7 **Ratios of Median Annual Earnings of African American Workers to Earnings of White Workers**

African American men and women have seen earnings gains relative to whites of the same sex since the mid-1960s, but for women the gap has widened since 1974.



Note: Data are for full-time, full-year workers, aged 14 and over through 1979 and aged 15 and over thereafter.
Source: Department of Commerce (Bureau of the Census).

long-term decline in the labor force participation of men, particularly older men, and the long-term increase in female labor force participation are also evident in the populations of disabled men and women, respectively. Overall, however, persons with disabilities have lower rates of labor force activity (whether working, looking for work, or laid off). They are limited in their choice of occupation, and they are less likely to work in higher paying occupations than persons without disabilities. These limitations are particularly evident for those with severe disabilities. In 1994, for example, only 29.5 percent of adults aged 20-64 who had severe disabilities participated in the labor market. In contrast, 84.5 percent of adults in that age group without disabilities and 81.6 percent of those with moderate disabilities participated in the labor force. Despite some evidence of an upward trend in the labor market activity of those with severe disabilities, there is ample room for improvement.

The increasing importance, documented above, of education and of certain skills in the labor market will undoubtedly play an important role in future labor market outcomes for the disabled. The rate of labor force activity of severely disabled workers with a college degree (52.4 percent) was more than 1.5 times that of comparable workers with only 12 years of education (31.2 percent). It was about three times that of workers with less than 12 years of education (17.3 percent). Evidence also suggests that having computer skills improves the labor market outcomes of workers with

severe disabilities. For example, a recent study examined the earnings and work behavior of a group of workers who had experienced a spinal cord injury. Although their injuries led to a large decrease in employment, hours worked, and weekly earnings, if they had computer skills they returned more quickly to work and had relatively higher earnings once there. These results were still observed after controlling for educational attainment.

In recent years, government policies have begun to focus on helping disabled workers return to work. The 1990 Americans with Disabilities Act was designed to eliminate discrimination against the disabled, including in the workplace. In December 1999 the President signed the Ticket to Work and Work Incentives Improvement Act of 1999, to help eliminate the institutional barriers that limit employment opportunities for persons with disabilities. The act provides health insurance protections to the working disabled by giving States new options to allow workers with disabilities to buy into Medicaid. It extends Medicare coverage for an additional 4½ years for beneficiaries of disability insurance who return to work. It also creates a Medicaid buy-in demonstration program to help those who are disabled but still able to work. And it provides grants for States to develop infrastructure that will help people with disabilities return to work. The act also offers a "Ticket-to-Work" for disabled beneficiaries of Social Security disability insurance and Supplemental Security Income, giving them more choice in the selection of vocational rehabilitation and employment service providers.

Preparing the American Work Force for the 21st Century

The transformation of the economy from one based on agriculture and manufacturing into one based on services and high-technology skills has meant many changes for the American economy and people. It has, for example, led to the rise of new economic centers such as Silicon Valley and the decline of other areas that were once vibrant and had jobs in abundance. This Administration has led the battle to revitalize those areas of the country that have been left behind (Box 4-2). The changing economy has also meant a new set of challenges for the American worker. To compete successfully in the new economy, the American work force must continue to change. This section documents the role of education and training in providing the skills necessary for the labor market of today.

Box 4-2. Helping Areas Left Behind: Opening New Markets

The movement from agriculture to manufacturing that took place at the beginning of the 20th century implied a movement of jobs and people from rural to urban areas. Later, suburban employment grew as the rise in service occupations led to job creation outside the central cities. Accompanying this change has been a broader movement of manufacturing jobs out of the Northeast and the Midwest, the Nation's traditional manufacturing centers, to the South and the West. In all geographic regions, however, the largest share of employment growth between 1980 and 1990 took place in suburban counties. The movement of manufacturing and service jobs from central cities and rural areas has led to the further decay of many of these areas and to a spatial mismatch between the availability of jobs and workers to fill them.

To help revitalize areas that have been left behind because of sectoral shifts or urban flight, the Administration has implemented a number of important policies and proposed others. A prime example is the creation of empowerment zones and enterprise communities in struggling areas, as provided for in the Omnibus Budget Reconciliation Act of 1993. Businesses in these areas are eligible for tax incentives to facilitate employment, financing, and investment. In 1994 the first 9 empowerment zones were designated, along with 95 smaller enterprise communities. These programs have leveraged over $10 billion in additional public and private revitalization efforts, and a recent survey of businesses operating in the 31 empowerment zones created to date finds that these tax incentives have been an important factor in employment decisions. The fiscal 2001 budget proposes a series of extensions to this program, including a third round of 10 new empowerment zones. It will also extend existing wage credits for existing and new empowerment zones through 2009.

In addition, the Administration has proposed a new set of policies to spur investment in low-income areas. These include a tax credit to spur equity capital; creation of America's Private Investment Companies (APICs), patterned after overseas investment institutions to leverage investment in untapped domestic markets; and several programs designed to assist small businesses in low-income areas. The proposal would expand BusinessLINC, a public-private partnership that encourages large businesses to work with small business owners; microenterprise initiatives to provide funding for technical assistance to low-income microentrepreneurs; and the targeting of Small Business Investment Company resources to areas served by the New Markets initiative.

continued on next page...

Box 4-2.—*continued*

Other policy initiatives seek to overcome the spatial mismatch between workers and jobs. One of these is the "Moving to Opportunity" demonstration project, which helps families that leave high-poverty inner-city neighborhoods through counseling and rental assistance. Another is the "Bridges to Work" demonstration project, which provides placement, transportation, and support services to inner-city residents so that they can take advantage of suburban job opportunities.

Building Foundations: Educating America's Youth

The economic decision to improve one's skills—to invest in one's own human capital—is based on both the cost of that investment and the expected return. The cost includes such basic things as expenditure on tuition and books, but it also includes an opportunity cost: the earnings that the worker could have made had he or she chosen to stay in the labor market rather than go to school. And the return—or, to be precise, the *private* return—consists mainly of the higher wages available in the labor market to workers with more schooling or training. On average, having more years of formal schooling leads to better labor market outcomes for those schooled: higher wages, higher rates of employment, and lower rates of unemployment. Although it is difficult to put an exact dollar figure on this return, the evidence presented above indicates that it has increased substantially in recent decades. Further, and perhaps more important from a policy perspective, evidence suggests that society at large benefits from having a more educated population. The *social* return to education, for example, might include a more productive work force that can pay taxes, draws less on government-provided social programs, and participates more effectively in the democratic process.

Given the high rate of return to schooling, individuals and families have a tremendous private incentive to invest in education. People often make great financial and personal sacrifices so that they or their children can get more schooling, or schooling of higher quality. Despite the incentives, however, there are a number of reasons to expect that people might underinvest in education. Financial constraints present a problem for some. Because they cannot use their future human capital as collateral, would-be students may not be able to borrow enough to finance their education. They may also be underinformed, or misinformed, about the true opportunities available in the labor market. In particular, they may not know or realize what level of wages they could eventually earn if they make the human capital investment, or the length of time over which they will reap the returns. Perhaps most important for policy, when people make these personal decisions, they may not take into account the benefits of their further education to the rest of

society as well as to themselves. These explanations all point to a role for government to play in the provision of education and training.

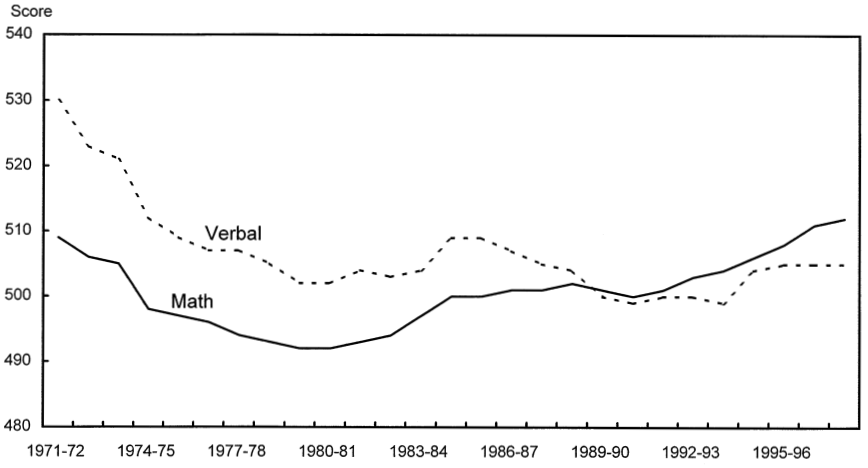
The challenge for government with respect to schools is to give students the skills they need to succeed in today's economy and tomorrow's and to participate more fully in American life in general. Fortunately, students themselves are recognizing the need for improved skills, and many are seeking greater challenge in their education. Students today are taking more courses in core academic subjects than did their counterparts in the early 1980s, and the courses they are taking are more challenging. For example, a higher percentage of high school graduates are completing algebra and higher-level mathematics courses, as well as courses in biology, chemistry, and physics, than in the 1980s. The proportion of students taking college advanced placement examinations has also increased dramatically, from 50 twelfth-graders out of every thousand in 1984 to 131 per thousand in 1997.

Although measuring educational progress is difficult, test scores may be indicative, and here the signs are mixed but generally positive in recent years. Since the early 1980s, scores on the National Assessment of Educational Progress (NAEP) show modest improvements in mathematics and science proficiency, but little change in reading and writing proficiency. Differences in NAEP scores by sex are now small, with females scoring higher in writing and reading achievement and males generally scoring higher in science and mathematics. Results for African Americans and Hispanics also show improvement since the mid-1970s. Indeed, the end of legal segregation, followed by efforts to equalize spending on public schools since 1970, has made a substantial difference in student achievement. On every major national test, including the NAEP, the gap between minority and white students' test scores narrowed substantially between 1970 and 1990.

Scores on the Scholastic Assessment Test (SAT, a test typically taken by college-bound high school juniors and seniors) have also shown improvement in recent years. Mathematics scores on the SAT were 16 points higher in 1995 than in 1980, although students scored higher on both parts of the test, mathematics and verbal, in the early 1970s (Chart 4-8; scores reflect the recentering that occurred in 1995). Between 1976 and 1995, the combined verbal and mathematics scores of African Americans climbed by over 50 points, while those of white students remained roughly stable. Observed gains in SAT scores are particularly impressive given that the proportion of high school graduates taking the test has increased by about a fourth since the early 1970s.

The gains that the U.S. education system has achieved in the past few decades deserve recognition, but they should be viewed in a broader context. Schools have been changing, but the economy has been changing more quickly. The result, as discussed above, is that a high school diploma alone is no longer a ticket to the middle class. Even at higher educational levels there may be a mismatch between the skills acquired in school and the skill

Chart 4-8 **Average Scores on the Scholastic Assessment Test (SAT)**
Mathematics test scores have improved since 1980, but verbal scores remain stagnant and below their 1970s values.



Note: Data for 1972 to 1986 were converted to the recentered scale by applying a formula applied to the original mean and standard deviation. For 1987 to 1995, individual student scores were converted to the recentered scale and recomputed. For 1996 and 1997, most students received scores on the recentered scale score. Any score on the original scale was converted to the recentered scale before recomputing the mean.
Source: College Entrance Examination Board, *National Report on College-Bound Seniors.*

requirements of jobs. To right this balance, the Administration has made improving education one of its highest priorities (Box 4-3).

Greater Access to Preschool Education: The Head Start Program

Research demonstrates that the early preschool years, when human ability and motivation are being shaped, are critical for skill formation. Developmental programs that intervene early in life have been shown to be more cost-effective than later attempts at remediation. One such program is Head Start, which since 1965 has provided comprehensive developmental services for America's low-income preschool children as well as social services for their families. These services focus on fostering intellectual, social, and emotional growth as well as providing a comprehensive health program. Since 1993, funding for Head Start has nearly doubled, to $5.3 billion in 2000. The additional funds have enabled Head Start to increase its enrollment from 714,000 to 877,000 children since 1993 and to enhance the quality of its services. The President's 2001 budget proposes a $1 billion increase in this program.

Although conclusive evidence is limited, two recent studies have shown the effectiveness of Head Start. A 1995 study used a nationally representative data set to compare children who had participated in the program with their siblings who had not. This methodology allowed the researchers to control for many confounding factors that they could not observe but that may be related to outcomes. The study found significant and persistent effects of Head Start in

Box 4-3. The Administration's Education Goals

In his 1998 State of the Union Address, the President stated that "[t]he Information Age is, first and foremost, an education age, in which education must start at birth and continue throughout a lifetime." To meet the challenges of the information-based, skills-intensive economy, the President has set ambitious goals for the Nation's education system:

- All students will read independently and well by the end of third grade.
- All students will master challenging mathematics, including the foundations of algebra and geometry, by the end of eighth grade.
- By 18 years of age, all students will be prepared for and able to afford college.
- All States and schools will have challenging and clear standards of achievement and accountability for all children, as well as effective strategies for reaching those standards.
- There will be a talented, dedicated, and well-prepared teacher in every classroom.
- Every classroom will be connected to the Internet, and all students will be technologically literate.
- Every school will be strong, safe, drug-free, and disciplined.

To achieve these goals, the President has proposed and implemented a broad agenda of education policies that extend from preschool to college.

increasing test scores and school attainment and in reducing grade repetition for whites. However, the large and significant gains in test scores for African Americans were found to be quickly lost after they left the program, perhaps because of lower quality in the schools that so many of them attend after leaving the program. Another study using the same methodology found large positive effects on test scores and schooling attainment for Hispanic children, although long-term follow-up was unavailable.

Improving Elementary and Secondary Education

It is important to ensure that all students have access to good-quality educational resources once they enter school. As was stated at the beginning of this chapter, students need society's help as they prepare themselves for a changing work force and the demands of a technology-driven labor market. The President has therefore laid out a three-part agenda to help State and local governments

build and maintain a world-class elementary and secondary school system. The first part of this agenda focuses on setting high standards. A national consensus has emerged on the key role of standards in school improvement: 48 States now test their students, and 36 publish annual report cards on individual schools. However, only 19 States currently use more extensive public rating systems to identify low-performing schools, and only 16 apply sanctions to failing schools.

A second and related way to encourage local cooperation in improving schools is to increase the accountability of those responsible for their outcomes. The Administration has proposed the Education Accountability Act, which requires States and school districts to comply with accountability measures in order to receive Federal funds. These accountability measures include identifying failing schools and making critical investments to turn them around; reconstituting or closing chronically underperforming schools; employing qualified teachers and assigning them to teach in their field of expertise; instituting disciplinary codes and issuing school report cards; and ending social promotion by making sure students get the help they need to succeed in school.

Finally, the President has emphasized the importance of investing in strategies aimed at raising student achievement. These include assuring students of access to the latest technology, reducing class sizes in the early grades, improving teacher quality, providing opportunities for extended learning in after-school and summer school programs, providing free and appropriate public education to students with disabilities, and offering options for public school choice. Each of these strategies is discussed below.

Improving Access to the Latest Technology. Computer and technology skills are increasingly important for students as they prepare for the future. Knowledge of these skills provides a gateway to higher wages and to the new jobs of the 21st century. Accordingly, in 1996 this Administration made it a priority to help all children gain access to the tools they need to prosper in a changing economy. The Technology Literacy Challenge had four basic goals: to equip all classrooms with modern computers, to connect all classrooms to the Internet, to promote the development of quality educational software, and to prepare teachers to use technology effectively. It is important to find creative ways to use technology in the classroom, because evidence suggests that it can be a useful tool. For example, a recent study showed that eighth graders who use computers to learn higher order thinking skills, or who had teachers trained in the use of technology, raised their achievement in mathematics by more than one-third of a grade level.

The Technology Literacy Challenge program addresses the goal of *equipping classrooms with computers* through the Technology Literacy Challenge Fund. Resources available through this fund can be used to help States and local school districts increase the number of modern, multimedia computers in the classroom. The fund's 2000 budget was $425 million. In the 1998-99 academic year

there were 9.8 students for every multimedia computer in use. This represented an improvement from 21.2 students per computer only 2 years before. The Administration has also supported the Computers for Learning program, an interagency effort to refurbish surplus computers from Federal Government operations and distribute them to schools. Thousands of computers from this program are currently in use in schools across the country.

One of the most important programs designed to help in *linking schools to the Internet* has been the E-rate program created under the Telecommunications Act of 1996. Through this program, approximately $3.6 billion has been made available since 1998 in the form of discounts to over 50,000 schools and libraries so that they can afford telecommunications equipment, Internet access, and internal connections to the classroom. The level of the discount for which a school is eligible is determined by the proportion of children eligible to participate in the Federal school lunch program. In this way the E-rate targets those schools and libraries that serve the most disadvantaged students. In fact, 70 percent of funding in the program's second year went to schools in the lowest income areas.

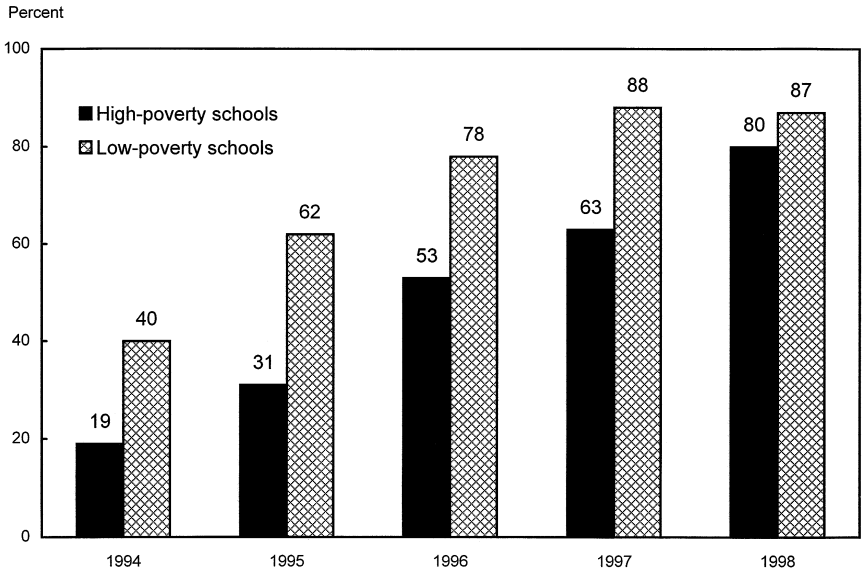
Progress so far has been dramatic. In 1994, according to the Department of Education, only 3 percent of classrooms had Internet connections; by 1998 that figure had risen to 51 percent. Already the E-rate alone has helped connect more than 1 million classrooms.

There is still a long way to go, however, before all children have easy access to the new medium. A "digital divide" remains for poor and minority children who lack the same access to this technology in their homes that other children enjoy. In fact, households with incomes over $75,000 are more than five times as likely to have a computer at home and more than seven times as likely to have home Internet access as those with incomes under $10,000. But with recent advances through the E-rate, the gap between rich and poor within schools has narrowed tremendously (Chart 4-9).

An essential complement to computer hardware and Internet access is *developing user-friendly educational software with engaging content*. The Department of Education's Technology Innovation Challenge Grants support partnerships among educators, the private sector, and nonprofit organizations to develop compelling applications of educational technology. For example, teachers in San Diego are working with university researchers and other partners to develop a curriculum of studies with an ocean exploration theme, designed to improve performance in mathematics and science.

Finally, making effective use of this new hardware and software requires *training teachers to use the new technology.* The Congress has approved a $75 million initiative proposed by the President to help train new teachers in the use of the new high-tech tools in their classrooms. This program will help ensure that all new teachers entering the work force can integrate technology effectively into their curriculum and teaching styles.

Chart 4-9 **Shares of Public Schools with Internet Access by Poverty Status**
The digital divide between low-poverty and high-poverty schools has all but disappeared.



Source: Department of Education (National Center for Education Statistics).

Class Size Reduction. Average class size in the United States declined from 29 in 1961 to 24 in 1991. Despite this improvement, however, many parents and educators believe class sizes are still too large. There is also substantial variation in class size, with many students still being taught in classes with more than 30 students. Smaller classes allow teachers to interact more with each student and to tailor instruction to that student's needs, and they allow students to participate more in class discussions. These benefits can boost students' academic performance. In Tennessee's Project STAR, for example, a group of students from kindergarten through third grade were randomly assigned to either regular-sized classes (22 to 25 students) or smaller classes (13 to 17 students). Over 11,000 students in 79 schools eventually participated in the program. Results show that students in smaller classes learned more in the first year of the program than did students in larger classes, and that these gains were maintained as these children continued in smaller classes in subsequent years. Some researchers have argued that children get a one-time gain from a reduction in class size, and that this gain is maintained in later years whether or not they remain in smaller classes.

In his 1999 State of the Union Address, the President proposed the first-ever nationwide effort to reduce class size in the early grades. The Congress passed the proposed legislation in 1999. School districts around the Nation received a total of $1.3 billion to enable them to recruit, hire, and train new, qualified teachers for the 2000-2001 school year. This was the first installment of a 7-year initiative to help schools hire 100,000 new teachers and reduce class size in the

early grades to a nationwide average of 18. All 50 States have received funds through the program. A recent report by the Department of Education on the program's first year estimated that 1.7 million children are benefiting from the program; that 29,000 teachers have been hired; that, in schools receiving the bulk of the funding, class sizes for grades one through three were reduced by an average of five students; and that the program's flexibility has allowed it to complement State and local efforts.

Improving Teacher Quality. Research has shown that teachers do make a difference to student achievement, although the exact characteristics that make some teachers more effective than others remain elusive. In fiscal 2000, $98 million was appropriated for Teacher Quality Enhancement Grants, which help link teacher preparation institutions and high-need school districts, to strengthen teacher education and to provide incentives to prospective teachers to teach in high-need schools. As part of the Hispanic Education Action Plan, in the fiscal 2001 budget the Administration has requested $100 million for Bilingual Education Professional Development. This would be an increase of $28.5 million over the fiscal 2000 level. The funding will provide more than 2,000 additional instructors in bilingual education and English as a second language with the high-quality pre-service and in-service training they need to teach students with limited proficiency in English.

Opportunities for Extended Learning in After-School Care and Summer School. The summer months can be an important time for learning outside of the classroom. Recent evidence has shown, however, that the test scores of poorer children are more likely to fall over the summer than those of children from wealthier families. This research suggests the importance of providing disadvantaged children with increased opportunities to learn. The President has called for a large investment in after-school and summer school programs to give children the extra help they need to meet high educational standards. The fiscal 2000 budget more than doubled Federal investment in these programs (21st Century Community Learning Centers), to $453 million, to provide educational support to 675,000 students. The President has proposed doubling funding again for fiscal 2001, to $1.0 billion.

Providing Public Education to All Students with Disabilities. The Individuals with Disabilities Act, first enacted in 1975, has helped change the lives of millions of people with disabilities. Before its enactment, approximately 1 million children with disabilities were shut out of schools, and hundreds of thousands more were denied appropriate services. In 1986, 26 percent of children with disabilities were educated in regular classrooms. By 1996 that proportion had risen to 45 percent. Today, people with disabilities are graduating from high school and going to college in unprecedented numbers.

During this Administration, the Federal investment in educating young people with disabilities has more than doubled, from nearly $3.0 billion in fiscal 1993 to about $6.0 billion in fiscal 2000, and the fiscal 2001 budget would increase this spending by $333 million. More important, however, is the Administration's strong commitment to improving the educational outcomes of disabled children. The 1997 amendments to the Individuals with Disabilities Act made it clear that the education of children with disabilities must be based on the same challenging standards applied to nondisabled students, with appropriate modifications and supports for their disabilities.

Options for Public School Choice. Charter schools provide parents with greater choice within the public school system. They also allow educators an opportunity to create innovative learning environments while remaining accountable for student achievement. The number of public charter schools nationwide has risen from 2 in 1993 to nearly 1,700 in 1999. Through the President's leadership, startup funding of $145 million for as many as 2,000 charter schools in 2000 has been provided.

Greater Access to Postsecondary Education

As discussed earlier in this chapter, the difference in average wages between those Americans with postsecondary education and those without it is considerable. One way to help people improve their economic status is to provide greater access to postsecondary education and more opportunities for people to enhance their skills throughout their working lives. The Administration is committed to making postsecondary education both attainable and affordable for all Americans, from recent high school graduates to adult learners and displaced workers. To help ensure access to 4-year and community colleges (Box 4-4), the President has proposed and supported programs that prepare students for postsecondary education and help make college affordable.

Preparing Students for College. Too many children, especially from low-income families, are reaching college age without the skills and knowledge they need to go on to college. Recent research has shown that students form their educational expectations early, and courses taken early in junior high or high school are closely related to postsecondary enrollment. This indicates that the end of high school may be too late to inform students of the importance of a college education. Rather, information on the importance of college admission requirements as well as on financial aid is critical for students early in their educational careers. GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) helps low-income students prepare for education beyond high school by providing tutoring, counseling, mentoring, information on financial aid, and other assistance these students need to become ready for college. The President is requesting $325 million for GEAR UP in fiscal 2001, an increase from $200 million in fiscal 2000, to finance needed services to over 1.4 million students in high-poverty schools.

Box 4-4. The Role of Community Colleges

Community colleges more than doubled in number and quadrupled their enrollments during the 1960s. In 1995, 5.5 million students were enrolled in these 2-year colleges, accounting for 38 percent of enrollments in all postsecondary institutions. Because community colleges typically charge lower fees than 4-year institutions and operate under open admissions policies, they have helped provide greater access to education for people at all income levels. They have lowered the costs of attendance in other ways as well, by offering evening and weekend classes where workers can enhance their skills while holding a job.

Community colleges were originally designed as a stepping stone for students who would later transfer to 4-year colleges to complete their bachelor's degrees. Today, however, community colleges provide a wide range of offerings, including vocational training and continuing adult education. The dramatic increase in community college enrollment was primarily the result of growth in part-time students; today roughly 65 percent of community college students attend part-time.

Almost 36 percent of community college students are 30 years old or older, compared with only 22 percent of students at public 4-year colleges. These schools have become an important source of the lifelong learning that today's dynamic economy demands. Recent evidence suggests that community colleges have increased the overall educational attainment of the American work force, and that one of their major roles has become that of providing access to higher education for those not traditionally served by the 4-year college system. Other evidence suggests that these schools also effectively address the skills mismatch described earlier. For example, a recent study noted that high-technology manufacturers were less likely to report difficulty in finding skilled labor in communities that had a community college than in those that did not.

TRIO programs are another important resource to help disadvantaged students prepare for and succeed in college. These are educational outreach programs designed to motivate and support students from low-income families. There are currently 2,400 TRIO programs serving 700,000 students. The fiscal 2000 budget is $645 million. Evaluation results from one type of TRIO program, Upward Bound, found that students in the program were four times more likely to earn a college degree than students from similar backgrounds who were not in TRIO.

Helping Finance Postsecondary Education. Enacted in 1997, the HOPE Scholarship program and the Lifetime Learning tax credit represent the largest Federal investment in higher education since the G.I. Bill over 50

years ago. In 2000, 13.1 million students—5.9 million receiving HOPE Scholarships and 7.2 million claiming the Lifetime Learning credit—are eligible to benefit. The budget for HOPE Scholarships in fiscal 2000 was approximately $5 billion. Each HOPE Scholarship provides a tax credit of up to $1,500 for each of the first 2 years of college for students enrolled on at least a half-time basis. This credit is phased out for joint tax filers with incomes between $80,000 and $100,000, and for single filers making between $40,000 and $50,000. By reducing the financial barriers to continued education, the President hopes to make the first 2 years of college as universal as high school.

In addition, the 2000 Federal budget provides $7.6 billion for Pell grants, a program that provides direct financial assistance to help financially needy students pay for their postsecondary education. The maximum award was increased 43 percent between 1993 and 2000, from $2,300 to $3,300.

To further these goals, the President's 2001 budget proposes a $30 billion investment in the form of a college opportunity tax cut. This initiative would offer a 28 percent tax credit for higher education expenses and would set higher income thresholds than do existing education tax credits. Unlike with the HOPE Scholarship, there would be no limit on the number of years in which a student could claim the credit. When fully phased in, the credit would cover $10,000 in expenses.

The Lifetime Learning tax credit targets adults who want to go back to school, change careers, or take courses to upgrade their skills, as well as college juniors and seniors and graduate and professional degree students. The 20 percent credit applies to the first $5,000 of a family's qualified education expenses through 2002 and to the first $10,000 thereafter, and it phases out at the same income levels as the HOPE Scholarship. The fiscal 2000 budget for this credit was $2.4 billion.

Student loans have opened the doors to college for millions of Americans. In 1993 the President established the direct student loan program to reduce costs and increase efficiency in the Federal Government's student loan programs and to offer expanded benefits to borrowers. The program offered students the option of income-contingent repayment: installments were based in part on the borrower's income after completing studies. In the Higher Education Amendments of 1998, the Administration proposed and obtained significantly lower interest rates for borrowers on student loans, easing the burden of repayment for new borrowers and for borrowers who consolidate their loans.

The Continuing Challenge: Reeducating and Retraining

Progress in strengthening formal education is a key ingredient in preparing young people for the labor market, but training after formal education is also essential, both for those just entering the market and for those well into their careers. To take advantage of the opportunities offered by an increasingly global, competitive, and information-driven economy, workers today may require ongoing, lifelong learning.

The Provision of Training

In large measure, it is the responsibility of individuals and firms, not of government, to develop the methods and practices most appropriate for promoting lifelong learning and training. As with education, both individuals and firms have strong incentives to invest in training: both stand to reap high returns from their investments. But as with education, government policies may have an important role to play in facilitating such investments.

Employers have a clear interest in providing their employees with the specialized training they need to perform those tasks that they can perform for that employer and nowhere else. Companies should therefore be willing to provide training in these firm-specific skills. In contrast, many other valuable skills are occupation- rather than firm-specific, and still others, such as many mathematical and literacy skills, are quite general in their application. The data on training described below suggest that firms do provide substantial training in general skills, but it is difficult to disentangle the cost of employer investments in training from that of employee investments in training, even when the employer sponsors the training.

Firms provide general training for several reasons. They may simply be unable to find employees with the necessary occupational skills, or employees may need some general training before they can benefit from training in more firm-specific skills. When firms provide general training in their own facilities but do not pay employees their full wages while in training, it is largely the employees, not the firms, who are then doing the investing—they are paying an opportunity cost. In practice, both individuals and firms are likely to share in these investments, but employers will be reluctant to invest heavily in general skills when workers have high turnover rates, since the firm does not reap the returns on the investment. Despite the evidence that firms do provide general training, there is reason to believe they might underinvest in such training.

As in the case of education, there are reasons to believe that individuals might underinvest in their own general training. If they are not sure that the skills they will acquire will result in higher wage offers, they will hesitate to bear the costs. They may also underinvest because their incomes are too low to carry them

through a period of unpaid training. In times of rapid technological progress, workers may be unaware of the value of new training or consider it too risky: the same rapid change that makes the skill valuable today may make it obsolete tomorrow. Finally, again as with investments in formal schooling, individual workers may fail to invest in training because they do not take account of the full social benefits of training in their decisionmaking.

All these underinvestment scenarios provide reasons for government policies to encourage general training. One way in which government attempts to encourage investment in training is by allowing employers to deduct from taxable income the tuition payments for schooling they provide for their employees. Other policies are discussed below. First, however, it is worthwhile to review the evidence on the value of firm-based training.

Firm-Based Training

Privately provided training by firms themselves is the primary mechanism by which workers receive training in the United States, and there is evidence that this firm-based training is growing. Although this source of training is difficult to measure, a number of surveys have been conducted and agree on several conclusions. First, training is very widespread: in 1994, 81 percent of all establishments offered some type of formal training, and 57 percent said that they had increased the amount offered since 1991 (only 2 percent reported providing less training). Second, firms with more than 1,000 employees are more likely to invest in training than small firms; virtually all large firms report that they offer formal training. This may be because smaller firms have trouble financing certain fixed costs associated with training, or because it is more difficult to measure the informal training that takes place in smaller firms. Third, there is considerable variation across industries, with a higher incidence of training provision in nonmanufacturing than in manufacturing firms. Fourth, establishments with more highly educated workers (which also tend to be larger establishments) are more likely to provide training. Finally, training is more likely when the firm is already making other investments, such as investments in capital, or in new organizational practices, such as self-managed teams or other "high-performance" work practices.

These data suggest that firm-based training becomes more prevalent as firms experience rapid technological progress, but much training is specific to the employer and is not of a general nature. For example, training in basic literacy and numeracy, in computer skills, or in teamwork is less common than training in safety procedures or in new, firm-specific production methods. Only 27 percent of all establishments provide training in basic educational skills for their workers, whereas 53 percent invest in computer-related skills and 82 percent invest in safety training. Although more workers receive training from their employers than from government-sponsored programs,

the level of employer-provided training may still, for the reasons discussed above, fall short of what is socially optimal. This is particularly true for lower income groups or those in industries experiencing increases in imports or other conditions associated with worker dislocation.

These incentives to underinvest in employer-provided general training may be particularly strong in the United States, where labor turnover is high and there is no national, standardized credentialing system for this type of training. U.S. companies invest roughly $60 billion a year on education, training, and upgrading skills, but this is modest relative to the challenge posed to the Nation by rapidly changing workplace demands.

Government Training Programs

Government training programs are aimed primarily at workers who have lost their jobs and are having difficulty finding new ones, or at those who are unemployed and disadvantaged and may lack the skills or experience to enter the labor market without further preparation. Some employment and training programs are designed specifically to help welfare recipients go to work. Typically, training programs include some form of remedial or vocational education, subsidized employment to provide job experience, or guidance in how to find a job.

Modern U.S. training programs trace their history back to the mid-1960s. The 1964 Economic Opportunity Act created the Job Corps, which still operates today, currently providing training for disadvantaged youth at over 100 urban and rural residential centers throughout the United States. Since its inception, the Job Corps has served more than 1.7 million young people. The Manpower Development and Training Act (MDTA) was enacted in 1962 to retrain technologically dislocated workers, but the Economic Opportunity Act of 1964 shifted its emphasis toward disadvantaged workers. In 1973 MDTA was replaced by the Comprehensive Employment and Training Act (CETA). This program, which gave State and local governments the authority to operate training programs with Federal grants, also had a public service job creation component, which grew quite large in the late 1970s. In an effort to shift more responsibility to the private sector, the Job Training Partnership Act (JTPA) replaced CETA in 1982. JTPA eliminated the public service employment component of training and further decentralized its administrative structure by giving primary responsibility for the program to State and local governments and the business community. The program currently serves over a million economically disadvantaged persons annually and was until recently the principal training program for the disadvantaged. JTPA is in the process of being replaced by the Workplace Investment Act, discussed below.

The first major mandatory training program for welfare recipients was the Work Incentive (WIN) Program of 1967. This program generally provided recipients of Aid to Families with Dependent Children (AFDC) with job search assistance. In 1988 WIN was replaced by the Job Opportunities and Basic Skills Training (JOBS) program. Created by the Family Support Act of 1988, this was a comprehensive welfare-to-work program that gave AFDC recipients the opportunity to take part in job training, work, and education-related activities that would lead toward economic self-sufficiency. The comprehensive welfare reform legislation passed in 1996 replaced JOBS (as well as the AFDC) with the Temporary Assistance for Needy Families (TANF) block grant. TANF gives States the flexibility to design their own welfare programs, provided they require recipients to participate in work or work-related activities in exchange for time-limited assistance. Within certain limitations, States may provide both pre- and postemployment services, including training to help welfare recipients find and keep a job.

Government appropriation specifically on training and employment services in fiscal 2000 amounted to approximately $5.5 billion a year, a level that implies that government-funded training opportunities for U.S. workers are limited relative to those available to workers in other countries. Comparative research done in 1994-95 found that the United States spent only 0.2 percent of its GDP on publicly funded employment and training programs, much less than many other industrial countries, including the United Kingdom (which spends 0.5 percent of GDP) and Sweden (3.0 percent).

Are government employment and training programs effective in improving labor market prospects for the disadvantaged? A review of the evidence provides grounds for cautious optimism. One general conclusion, however, is that these programs appear to have been more successful for disadvantaged adults—women in particular—than for disadvantaged youth.

Disadvantaged youth are perhaps the most difficult population to help, and success has been limited except in a few highly intensive or particularly well run programs. One program that has shown noteworthy success is the Center for Employment Training (CET) in San Jose, the only one of the 13 Jobstart demonstration programs found to be effective in increasing youth earnings. An evaluation of this program showed a 40 percent ($3,000) increase in participants' earnings. The Job Corps has also been shown to produce significant gains in earnings (about 15 percent per year) and to reduce the number of serious crimes that participants commit. Both of these programs are considerably more intensive than most other efforts: enrollees either reside at the program's facilities (in the case of the Job Corps) or spend many hours per month undergoing training (in the case of the CET). Finally, a number of programs have been specifically targeted at young single parents on welfare. Some of these programs have produced small short-run gains in employment and educational

attainment among teenage parents. However, it has proved difficult to sustain these gains once the program has been terminated.

The evidence is much more consistent that job training programs increase the earnings of disadvantaged adults, and particularly those of economically disadvantaged women. The JTPA Title II program, which offers short-term training and job search assistance to disadvantaged adults, appears to have increased the earnings of women in the program by 15 percent, and of men by 10 percent. More intensive programs that offer subsidized employment and supportive services to long-term welfare participants have yielded larger earnings gains. Mandatory welfare-to-work programs, which tend to offer job search assistance rather than training, have shown modest but positive effects on earnings and employment and small negative effects on welfare receipt. Given the very low initial earnings of most disadvantaged adults served by training programs, the gains made by most programs have not been enough to pull many of those served out of poverty. However, most studies documenting this finding were completed before the recent expansion of the Earned Income Tax Credit (EITC). It may be that the EITC boosts starting incomes enough so that the additional earnings generated by job search and training programs can then move noticeable numbers of participants out of poverty.

Research on the effects of employment and training programs for dislocated workers, although much more limited, suggests that some of these programs can be effective. Carefully targeted job search assistance programs can decrease the duration of unemployment and the receipt of unemployment insurance among displaced workers. These programs are generally cost-effective for the government. One study has suggested that for every dollar the government spent on targeted job search programs, the government saved about $2 in the form of reduced unemployment insurance payments and increased tax receipts due to faster reemployment.

Taken together, these results suggest that employment and training programs can achieve modest employment and earnings gains for disadvantaged women. These programs are also often cost-effective. Results for other groups are less clear. Moreover, the earnings gains generated by successful programs have usually not been enough to lift participants out of poverty. To some extent this is not surprising given the relatively modest and short-term nature of the investments these programs make. It is possible that more intensive interventions, focused on local skill demands and tailored to individual needs, would produce greater gains.

Training for the 21st Century

As Chapter 2 has documented, the macroeconomic environment for American workers improved markedly during the 1990s. The Nation's labor market is performing at extraordinary levels, with the unemployment rate at

a 30-year low, labor force participation at an all-time high, and real compensation measures recording strong gains. But even in today's economy, the rapid pace of change and the premium put on technology and skills may cause some workers to lose their jobs and have trouble finding new jobs given the skills they have. And those workers who have failed to acquire the necessary skills may have trouble securing employment that provides the middle-class standard of living they are striving for. This Administration has made it a priority to pursue training policies that will help ensure, for all those willing to work hard, an opportunity to prosper.

A key component of the Administration's efforts to strengthen work force development and promote lifelong learning is the Workforce Investment Act (WIA). Signed into law in August 1998, WIA represents the first major reform of the Nation's job training system in over 15 years. The act, which is now being implemented, will streamline and revitalize the system that provides workers with the information, advice, job search assistance, and training to find and retain good jobs, and provides employers with a pool of skilled workers. The act aims to enable any adult interested in advancing his or her career to continue learning, regardless of income; it also aims to provide high-quality information and services to all job seekers. Seven key principles are embodied in the law:

- *Streamlining services:* A variety of programs are being integrated at the street level to make the delivery system more accessible to both individuals and businesses. The Department of Labor has provided implementation funds to each State. Over 1,000 one-stop centers have already been opened. A group of Internet tools has also been created to provide timely and comprehensive labor market information (Box 4-5).
- *Empowering individuals:* Individual Training Accounts, along with consumer reports providing key information on the performance of training providers, and job counseling at one-stop centers will enable individuals to make informed training choices.
- *Making services universally accessible:* WIA aims to provide ready access to core employment-related services to all in need of those services.
- *Increased accountability:* States and local communities will be held accountable for meeting performance measures, will suffer sanctions if they fall short, and will receive incentive funds for strong results.
- *Strong role for local boards and business:* State and local Workforce Investment Boards will be chaired by a member of the business community and have a majority of members from business.
- *Provide local flexibility:* Local authorities will have flexibility to tailor delivery systems to meet the needs of their community.

Box 4-5. Using Technology to Help Workers: America's Career Kit

America's Career Kit uses the Internet to offer innovative ways to help workers find jobs, help employers find workers, and provide timely and valuable information about the labor market to all stakeholders. The initiative is designed to help reduce the mismatch between worker skills and shifting employer requirements. America's Career Kit consists of the following four websites:

- America's Job Bank is an Internet site that lists both job openings and resumes. With 6 million users each month, it is the Nation's largest online labor exchange.
- America's Talent Bank allows job seekers to post their resumes online, where potential employers can view them. A growing numbers of workers with information technology skills are using this resource.
- America's Career InfoNet provides information for both prospective employees and employers on employment trends, prevailing wages, and job training requirements. Data are also available on States and localities.
- America's Learning Exchange is an electronic marketplace for training and education resources. As of January 2000, the exchange counted 4,540 providers, 162,053 courses, and 42,968 programs.

- *Improved youth programs:* The act will foster connections between academic and occupational learning and provide activities geared toward youth development. A youth council will be established under each local Workforce Investment Board to improve coordination among organizations that serve young people. Given the mixed results of previous short-term training programs, WIA will require 12-month follow-up services in its programs.

The 2000 budget included $2.4 billion for the Universal Reemployment initiative. In a period of rapidly changing job demands, this program aims to provide training and reemployment services to all dislocated workers who want and need them. To this end, reemployment services will be targeted to unemployment insurance claimants in danger of exhausting their benefits, and funding for one-stop career centers will be increased. A new initiative will fund grants to identify skill shortages and target resources to industries struggling to fill jobs.

Finally, a new effort to encourage lifelong learning is taking shape through the Learning Anytime Anywhere Partnership program. This program supports partnerships among universities and colleges, businesses, community organizations, and other entities to use technology to address challenges in lifelong learning and postsecondary education.

Conclusion

Two key developments—the growing importance of education and the expansion of opportunity—transformed the American labor market in the 20th century. Tomorrow's workers will need skills and flexibility to respond to the opportunities and challenges that technology is making available. As long as skills command a premium in the labor market, both workers and firms will have an incentive to invest in education and training. But for any of a number of reasons, workers and firms might nevertheless underinvest in their human capital. Therefore government policy has continued—and will continue—to play a role in the acquisition of skills by the American work force. It is important, however, not to downplay the roles of other, noninstitutional factors, the most important of which is the family. As the chapter has noted, much of a person's skill formation occurs before he or she enters school. This implies that the environment in which a child is raised is very important for that child's later learning. Chapter 5 discusses the American family and the challenges it faces.

CHAPTER 5

The Changing American Family

Corbis

Among the trends that have shaped the American family over the course of the century, one of the most important has been the rise in female participation in the labor force as more opportunities have opened up for women to work and more women have taken advantage of those opportunities.

For most of the 20th century, the prototypical American family was a married couple with children in which the wife did not work for pay. But for decades now this traditional one-breadwinner, one-homemaker family has made up a declining share of families, as more wives have entered the paid labor force and as single-parent families have become more widespread. At the beginning of the 21st century, fewer than a third of all families are married couples in which the wife does not work outside the home. This means that a majority of American families face—and in consequence the Nation faces—different opportunities and different challenges from those of a society of "traditional" families.

The changes in the American family, viewed over the entire span of the 20th century, have been dramatic (Table 5-1). In 1900, for example, about

TABLE 5-1.—*Contrasting American Families Then and Now*

Item	1900[1]	1950	1998[2]
Households by type (percent)			
Family households	(3)	89.2	69.1
Married couple	(3)	78.2	53.0
Male householder, no wife present	(3)	2.7	3.8
Female householder, no husband present	(3)	8.3	12.3
Nonfamily households	(3)	10.8	30.9
Average household size (persons)	4.8	3.4	2.6
Households with seven or more people (percent)	20.4	4.9	1.2
Living arrangements of children by family status (percent)[4]			
Two-parent farm family	41	17	(5)
Two-parent nonfarm family			
Father breadwinner, mother homemaker	43	56	24
Dual earner	2	13	44
Single-parent	9	8	28
Not living with parent	5	6	4
Males and females by marital status (percent)			
Males aged 15 and over			
Married	54.6	68.9	58.0
Divorced	.3	2.0	8.2
Widowed	4.6	4.2	2.5
Never married	40.3	24.9	31.2
Females aged 15 and over			
Married	57.0	67.0	54.9
Divorced	.5	2.4	10.3
Widowed	11.2	12.0	10.2
Never married	31.2	18.5	24.7
Median age at first marriage			
Men	25.9	22.8	26.7
Women	21.9	20.3	25.0
Life expectancy at birth (years)			
Men	46.3	65.6	73.9
Women	48.3	71.1	79.4
Infant mortality rate (deaths per 1,000 live births)	99.9	29.2	7.2
Labor force participation rate of women (percent)	20.0	33.9	60.0
Women in the labor force by marital status (percent)			
Single	66.2	31.9	26.8
Married	15.4	52.2	53.1
Widowed, divorced, or separated	18.4	16.0	20.0

[1] Infant mortality rate is for 1915.
[2] Labor force participation rate of women is for 1999.
[3] Not available.
[4] Data for 1900 and 1950 are from Donald J. Hernandez, *America's Children*, The Russell Sage Foundation, 1993.
[5] Less than 2 percent and included in nonfarm totals.

Sources: Department of Commerce (Bureau of the Census); Department of Labor (Bureau of Labor Statistics); and Department of Health and Human Services (Centers for Disease Control and Prevention), except as noted.

80 percent of children lived in two-parent families with a mother or stepmother who worked on the farm or at home. Fewer than 10 percent of American children lived in one-parent families. The typical home had few of today's conveniences (only 8 percent of dwelling units had electricity in 1907), and many women sewed their own clothes and gave birth in the home rather than in a hospital. Women early in the century married younger, had more children, and died younger than women today. Ten percent of children died in infancy, and average life expectancy for both men

and women was less than 50 years. The average household had close to five members, and a fifth of all households had seven or more. Job opportunities for women who did not live on farms were limited as much by custom as by physical demands: only a fifth of all women worked for pay, and those who did were mainly single and poor.

The average family today enjoys many advantages that its counterpart of a century ago did not. As we have seen in earlier chapters, the material standard of living of the average family is much higher now than it was then. People are more likely not only to live longer but to remain healthy into retirement as well. It is partly because of these very advances, however, that families today face a different set of challenges than did families 100 years ago. In particular, the expansion of opportunities for women to work for pay, and the greater desire of women to seek such work, have added a new challenge to the perennial one of having adequate resources to meet family needs. That new challenge is how to balance the material gains from more hours of paid employment against the desire to reserve time for the responsibilities and enjoyments of family life.

This chapter examines these two challenges. It begins with an overview of some of the key trends that have created the modern American family: the rise in female labor force participation, changes in family formation and dissolution, and improvements in health and longevity. It then explores the emergence of a diverse set of family types, focusing on differences in incomes and in time spent at work. The remainder of the chapter explores the challenges these different kinds of families face—and their policy implications. This discussion is organized in two parts. The first discusses the "money crunch": the financial constraints that still burden many families despite the remarkable growth in the American standard of living. This problem is more likely to confront single-mother families and one-earner couples than two-earner couples. The second part discusses the "time crunch": the shortage of time to devote to family needs that results from the increased participation of parents, especially mothers, in the paid labor market. This problem affects a vast number of families, including many for whom the money crunch is less pressing. The chapter also discusses recent favorable trends in family incomes and reviews some of the Administration's policies designed to address the money and time crunches.

Key Trends Shaping the American Family

Among the many trends that have affected the American family over the course of the century, three have been particularly important. The first is the rise in female participation in the labor force as more opportunities have

opened up for women to work and as more women have taken advantage of those opportunities. The second is not a single trend but a set of related changes in how families form and dissolve, which have contributed to the growing prevalence of single-parent families. The third is improvements in health and life expectancy that have made care for older relatives—and providing for their own retirement—increasingly important issues for heads of families today. Many other kinds of households—including people living alone—are also part of American society and face challenges of their own, but this chapter focuses primarily on those challenges that affect families with children.

Female Labor Force Participation

Women have always worked, whether on the family farm, in the home, or in the paid labor force. What distinguished the 20th century was the enormous increase in the proportion of women who work for pay. In 1999 about three-fifths of the female population aged 16 and over were in the labor force (either employed or looking for work). This is three times as high as the female labor force participation rate in 1900. And the participation rate of women aged 25-44—those most likely to be balancing work and child rearing—has risen severalfold, from less than 20 percent in 1900 to over 75 percent today (Chart 5-1). The participation rate of women in this age group with children under age 18 has been somewhat lower than the overall rate but has shown a similar pattern of increase. Over the past 25 years the share of working mothers in this age group who were employed full-time has been roughly 71 percent.

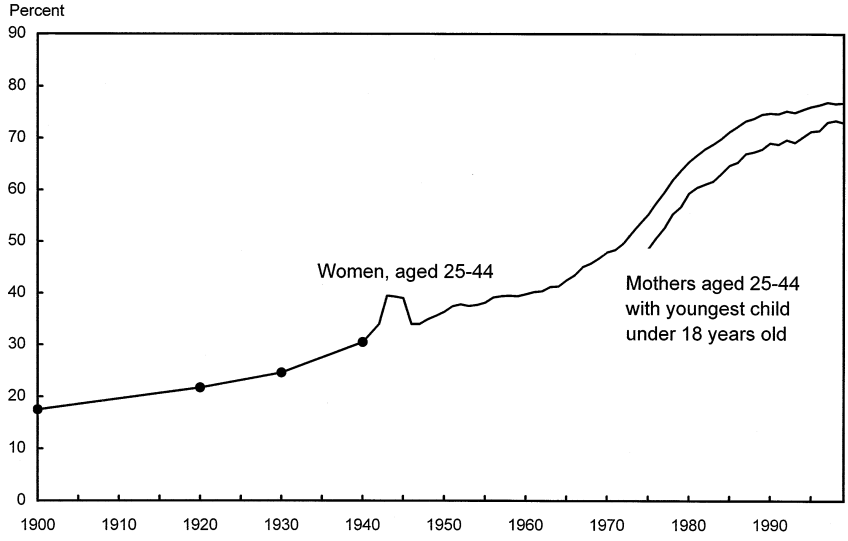
Many factors have contributed to this growth in women's participation in the paid labor market, including increases in education and wages for women, the opening up of more opportunities for women to work, and changes in family structure. As a result of higher labor force participation rates and later marriages, a larger proportion of women than ever before experience a period of independent living and employment before marriage. This gives them greater attachment to the labor force and increases the chances that they will continue to work, or return to work, after they marry and start a family.

Family Formation and Dissolution

Marriage remained a fairly universal experience throughout the 20th century. Among the population 15 years old and over, the proportions of both men and women who are married are roughly the same today as a century ago, although lower than in the 1950s and 1960s. Only 6 percent of women aged 45-64 in 1998 and 12 percent of women aged 35-44 had never been

Chart 5-1 **Labor Force Participation of Women**

Roughly four-fifths of younger women are in the labor force today, whereas roughly four-fifths were not in 1900. Women with children are also working in greater numbers.

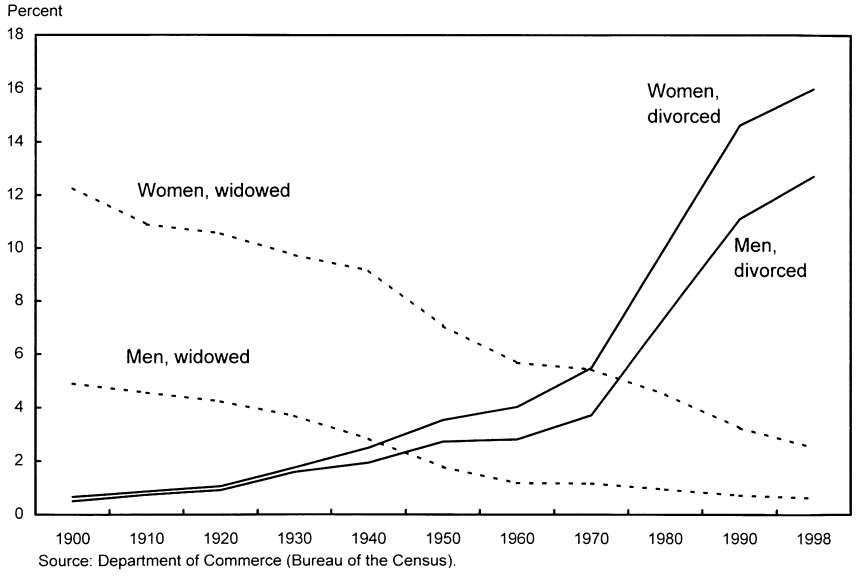


Note: Annual data are available only since 1942. Dots indicate decennial census data.
Sources: Department of Commerce (Bureau of the Census) and Department of Labor (Bureau of Labor Statistics).

married. However, one study found that women today are spending a smaller fraction of their adult lives married than did their counterparts a few decades ago. A much larger proportion of children are being born to unmarried mothers. As a result, the share of children living in one-parent families increased from 9 percent in 1900 to 28 percent in 1998.

Several strands of evidence suggest that people are spending a smaller fraction of their lives married than in 1900. First, people are marrying slightly later. In 1900 the typical first marriage was between a woman of 22 and a man of 26; now the typical bride is 3 years older and the groom nearly a year older. Second, divorce rates are much higher today than at the beginning of the century. In 1900, among those aged 35-54, widowhood was far more common than divorce. Over the century, the probability of being a widow in this age range declined markedly, while the probability of being divorced rose (Chart 5-2). The divorce rate, which jumped from around 10 per 1,000 married females per year in the mid-1960s to more than 20 per 1,000 in the mid-1970s, has drifted down slightly since then but remains high. A third reason why people spend a smaller fraction of their lives married is that life expectancy is longer today relative to the typical duration of a marriage. The net result of all these forces is that only 56 percent of the population aged 15 and over are married today, rather than 68 percent as in 1960. Thus it is probably not surprising that the proportion of children living in single-parent households has risen dramatically.

Chart 5-2 **Shares of Population Aged 35-54 Who Are Widowed or Divorced**
A smaller share of middle-aged Americans, men and women, are widowed now than in 1900, but far more of both sexes are divorced.



Source: Department of Commerce (Bureau of the Census).

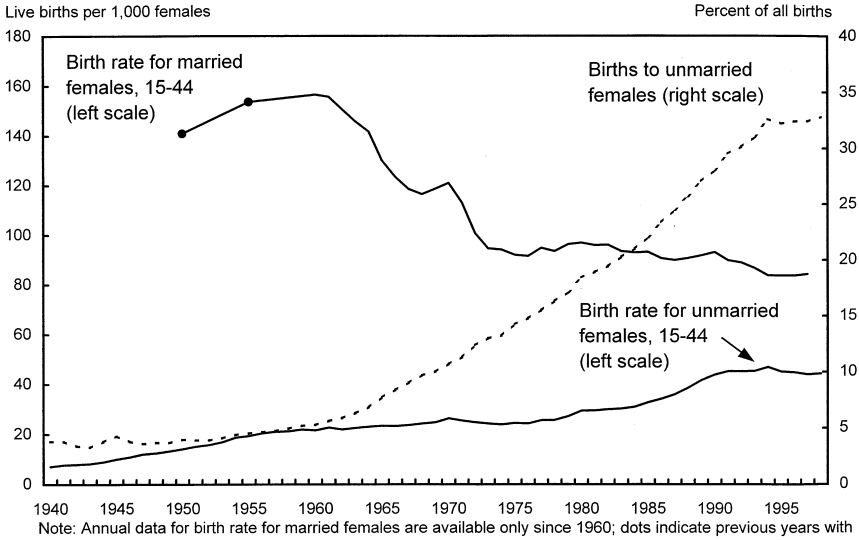
The increased prevalence of single-parent households is also related to the rise in out-of-wedlock births. For unmarried females aged 15-44, the number of births per 1,000 women increased dramatically from 7.1 in 1940 to 46.9 in 1994, but it has since stabilized and begun to decline, reaching 44.3 in 1998 (Chart 5-3). In contrast, this measure of the birth rate among married women has been dropping since the baby-boom of the 1950s and 1960s, although it remains nearly twice that of unmarried women. As a result of these trends, the share of all births that were to unmarried women of all ages increased eightfold, from 4.0 percent in 1950 to 32.8 percent in 1998, although this figure has begun to level off in recent years. Some of this increase reflects lower marriage rates generally, and some reflects the rapid increase in the late 1980s and early 1990s in out-of-wedlock births, including those to teens. (The Administration's efforts to reduce teen pregnancy are discussed later in this chapter.)

Life Expectancy and Health

The life expectancy and health of Americans increased dramatically over the 20th century. Major public health initiatives (such as immunization campaigns, better sewage systems, and education about hygiene) as well as medical advances (from antibiotics to pacemakers to bone marrow transplants) have led to the virtual eradication of numerous diseases and conditions that once contributed to high death rates and low life expectancy. For example, technological innova-

Chart 5-3 **Birth Rates for Married and Unmarried Females**

The share of out-of-wedlock births soared after 1960 but have recently stabilized. Meanwhile the birth rate for married females has fallen to about twice that for unmarried females.



Note: Annual data for birth rate for married females are available only since 1960; dots indicate previous years with available data.

Source: Department of Health and Human Services (Centers for Disease Control and Prevention).

tions, better obstetrical care and nutrition, more widespread access to prenatal care, and greater use of antibiotics all contributed to tremendous improvements in the health of mothers and infants. The infant mortality rate dropped by more than 90 percent over the century, from 99.9 per 1,000 live births in 1915 to 7.2 per 1,000 in 1998. The maternal mortality rate dropped similarly: whereas in 1900 more than 80 women died from pregnancy-related complications for every 10,000 live births, by 1997 this rate had fallen to less than 1 death for every 10,000 live births—more than a 98 percent decline. Advances also have been seen in other areas. Death rates from coronary disease have declined by 51 percent since 1972, improved sanitation has dramatically reduced typhoid and cholera in the United States, and the widespread use of vaccines has eliminated smallpox and polio.

These improvements have meant longer life spans for most Americans. Over the century, the average life span in the United States increased by 30 years, and one study attributes five-sixths of that increase to advances in public health such as vaccinations and food safety. Life expectancy at birth for a woman rose from 48.3 years in 1900 to 79.4 years by 1998. For men it rose over the same period from 46.3 years to 73.9 years. Older Americans now have longer remaining life expectancies as well. Whereas the average 60-year-old white man in 1900 could expect to live almost to age 75, by 1998 a man of that age could expect to live almost to age 80. Combined with the recent declines in fertility behavior, these changes in life expectancy have led

to an increasing share of the population that is elderly—a trend that will continue as the baby-boom generation ages.

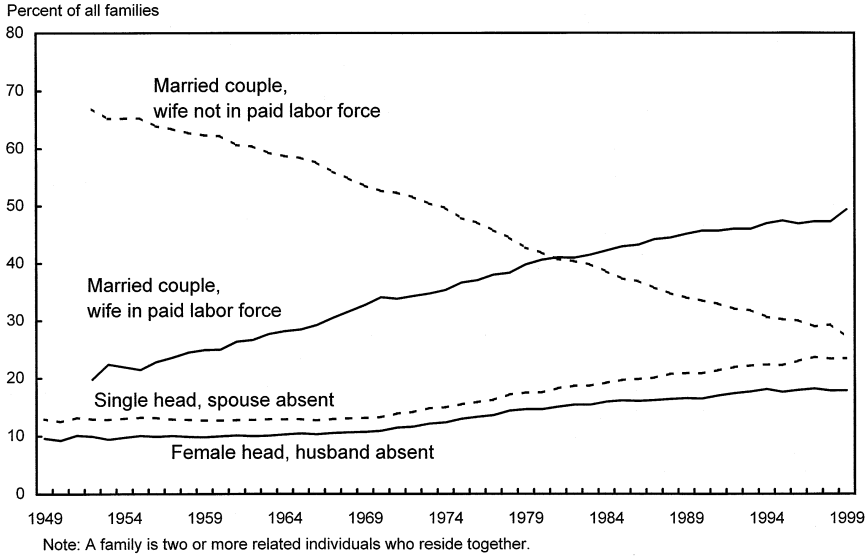
Increasing Diversity Across Families

Income and the time to enjoy it are two key components of economic well-being. In principle, the strong growth in productivity and the resulting growth in real wages over the past century, described in Chapter 1, could have allowed material standards of living to increase while simultaneously allowing families to work shorter hours. But in fact, the substantial increase in female labor force participation and the increase in the proportion of households headed by single females mean that there are more families with working women, and many women are working more hours. These trends also mean that there is now a greater diversity in family structure as well as differences in incomes and hours of work among family types.

Diversity in Family Structure

Traditional one-breadwinner, one-homemaker married couples have been declining as a share of all families, from 67 percent in 1952 to 27 percent in 1999 (Chart 5-4). Rising female labor force participation has increased the proportion of all married-couple families in which the wife works, and these

Chart 5-4 **Composition of Families by Family Structure**
The share of "traditional" families with a nonemployed wife has declined by more than half since 1950, whereas that of two-earner families has more than doubled.



Note: A family is two or more related individuals who reside together.
Source: Department of Commerce (Bureau of the Census).

now account for roughly half of all families. Reflecting the trends in marriage and divorce discussed above, the share of all families headed by a single householder with no spouse present (predominantly single-parent families) increased from 13 percent to 23 percent between 1949 and 1999. Although most children living in single-parent families live with their mothers, the share of single-parent families headed by fathers has more than doubled since 1975 and stood at 19 percent in 1999. It is estimated that more than a third of all children do not live with their biological fathers (Box 5-1).

Box 5-1. The Importance of Fathers

Although the proportion of single-parent families headed by the father is rising, the mother has typically been the custodial parent in such families. For this reason, and because of the higher incidence of poverty in female-headed families, the discussion of single-parent families in this chapter focuses on single mothers. An important issue for such families is the link between children's well-being and the absence of the father.

It is estimated that 36 percent of American children live apart from their biological fathers; about 40 percent of children in fatherless households have not seen their fathers in at least a year. Before they reach age 18, more than half of America's children are likely to have spent a significant portion of their childhood living apart from their fathers.

Yet there is strong evidence suggesting that the presence of a father matters:

- Children under age 6 who live apart from their fathers are about five times as likely to be poor as children with both parents at home.
- Girls without a father in their life are two and a half times as likely to get pregnant and 53 percent more likely to commit suicide.
- Boys without a father in their life are 63 percent more likely to run away and 37 percent more likely to abuse drugs.
- Children without father involvement are twice as likely to drop out of high school, roughly twice as likely to abuse alcohol or drugs, twice as likely to end up in jail, and nearly four times as likely to need help for emotional or behavioral problems than those with father involvement.

The absence of a father has effects beyond those on his own children: it can affect communities as well. About 4.5 million children in 1990 resided in predominantly fatherless neighborhoods in which more than half of all families with children were headed by single mothers.

continued on next page...

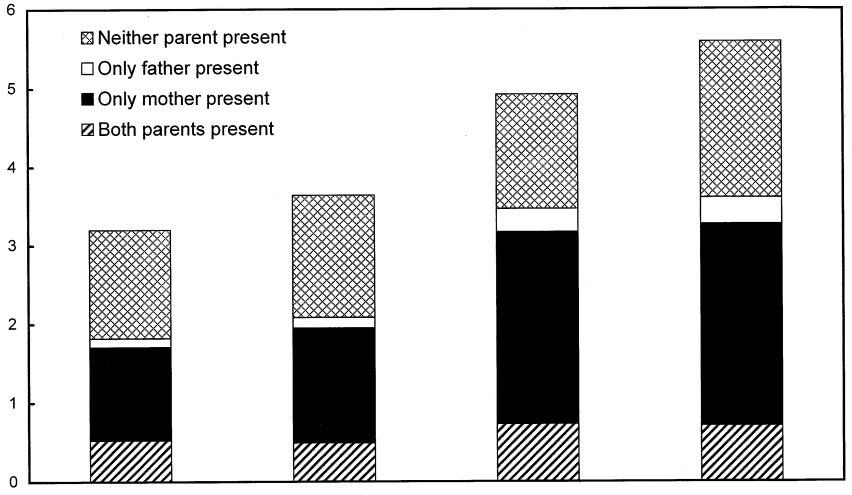
Box 5-1.—*continued*

Although most fathers can afford to pay child support (an estimated 74 percent of noncustodial fathers have incomes above the poverty level), about 2.8 million men are "dead-broke," noncustodial fathers, most of whom do not pay child support. Administration efforts aimed at helping these fathers to work and support their children are detailed later in this chapter.

Increasing life expectancy has also changed the structure of the family. For example, over 70 percent of adults aged 30-54 in the early 1990s had living relatives who spanned three or more generations, and over 40 percent of adults aged 50-59 had living family members from four or more generations. In addition, nearly 2.4 million families now have more than two generations living under one roof. Longer life expectancy has meant that more grandparents are able to watch their grandchildren grow to adulthood. And younger generations are facing caregiving responsibilities for older relatives. A 1997 survey estimated, for example, that 22 percent of all U.S. households provide care for an elderly person.

At the same time, grandparents have also become more important as caregivers—including primary caregivers. Over the last three decades, for example, the share of children under age 18 living in a household headed by a grandparent has risen by more than 70 percent (Chart 5-5). Most of the

Chart 5-5 **Grandchildren in Grandparents' Homes by Presence of Parents**
A larger share of children today live in households headed by a grandparent. The proportion of these children who share the home with neither of their parents has increased since 1990.
Percent of children under 18 who live with a grandparent



Source: Department of Commerce (Bureau of the Census).

increase in this share during the 1990s was from an increase in the share of children living in households with neither parent present. Between 1980 and 1990, by contrast, the increase came mostly from children living in grandparent-headed households with just a single parent present. The share of such households with a single father present, although small, continued to grow in the 1990s.

Consistent with the focus of the chapter, this discussion has emphasized family types likely to have children present. It is important to recall, however, that American households cover a much wider range of diversity than this (Box 5-2).

Diversity of Income and Hours of Work

An examination of income growth among families with children by family type reveals important differences among two-earner married couples, one-earner married couples, and families headed by single females. To some extent these differences represent choices about how many hours to work and how many to leave free for other things. But they may also reflect underlying differences in education or other factors that affect earnings opportunities.

Box 5-2. The Diversity of American Households

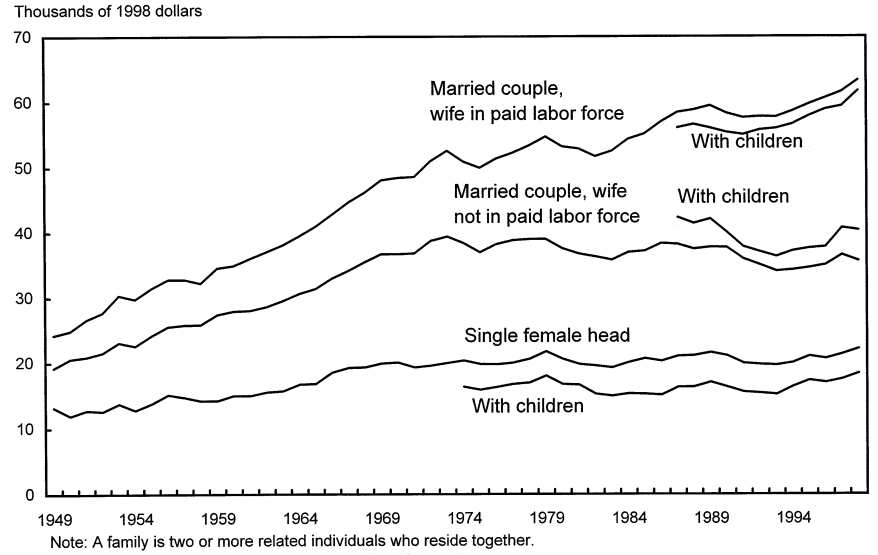
The Census Bureau defines a family as two or more people related by birth, marriage, or adoption who reside together. A household, by contrast, is defined as any person or group of people who occupy a single housing unit. Thus households include single people and groups of unrelated people who reside together.

In 1970 the proportion of households fitting the traditional definition of a family (a husband, a wife, and their children) was 40 percent; by 1998 only 25 percent of households fit that definition. The number of Americans living in unmarried-partner households is large and growing rapidly. From 1994 to 1998 the number of married-couple households increased by 2 percent, while the number of unmarried-partner households increased 16 percent. In 1998 about 1.7 million, or 1.6 percent, of households were same-sex partnerships.

The fraction of individuals choosing to live together outside of a formal marriage rose dramatically in the second half of the 20th century. One study reports that only 3 percent of women born between 1940 and 1944 had lived in a nonmarital cohabitation by age 25, whereas for women born 20 years later, 37 percent had cohabited by that same age. In fact, despite lower marriage rates and a later age of first marriage now than several decades ago, evidence indicates that individuals are still forming coresidential relationships at about the same point in their lives.

For the past 50 years, the median income of two-earner couples has been higher than that of one-earner couples, which in turn has been higher than that of families headed by a single female (Chart 5-6). Moreover, the gap between the median income of two-earner couples and that of the other family types has widened, both in absolute dollars and in percentage terms.

Chart 5-6 **Median Family Income by Family Structure**
The median income of the typical two-earner married couple has exceeded that of other family types for at least half a century and continued to grow strongly after 1973.



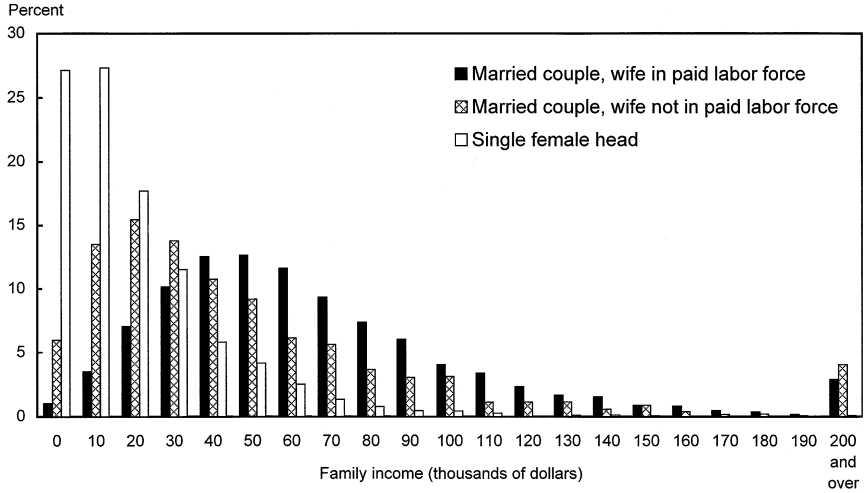
Note: A family is two or more related individuals who reside together.
Source: Department of Commerce (Bureau of the Census).

Although many measures of income inequality have stopped rising in recent years, the real median income of married-couple families where the wife is not in the paid labor force is less than three-fifths that of married-couple families where the wife works for pay. Recent increases have brought the real median income of female-headed families in 1998 above its previous peak in 1979, although that income is only a little more than a third the median for two-earner couples. To a great extent, of course, these differences reflect factors other than family type. As emphasized below, wives in two-earner couples are likely to have greater earnings opportunities than wives in single-earner couples. And single mothers tend to be younger and less educated than married mothers, with the result that their earnings are likely to be lower as well.

Median incomes provide one perspective on differences in income by family type, but they necessarily conceal the extent of income variation within each family-type grouping. Among families with children, there is considerable overlap between the distributions of income for each family type, par-

ticularly in the lower income ranges (Chart 5-7). The distribution of female-headed families with children, however, is more concentrated in the lower income range.

Chart 5-7 **Income Distributions for Families with Children by Family Structure, 1998**
A larger share of two-earner couples have high incomes, while the distribution of female-headed families is skewed toward lower incomes.



Note: Data are for a sample of civilian families with primary female aged 18-55 and children under 18. The incomes on the horizontal axis represent ranges of income (e.g. 10 is $10,000 - $19,999). A family is two or more related individuals who reside together.
Source: Council of Economic Advisers tabulation of Current Population Survey data.

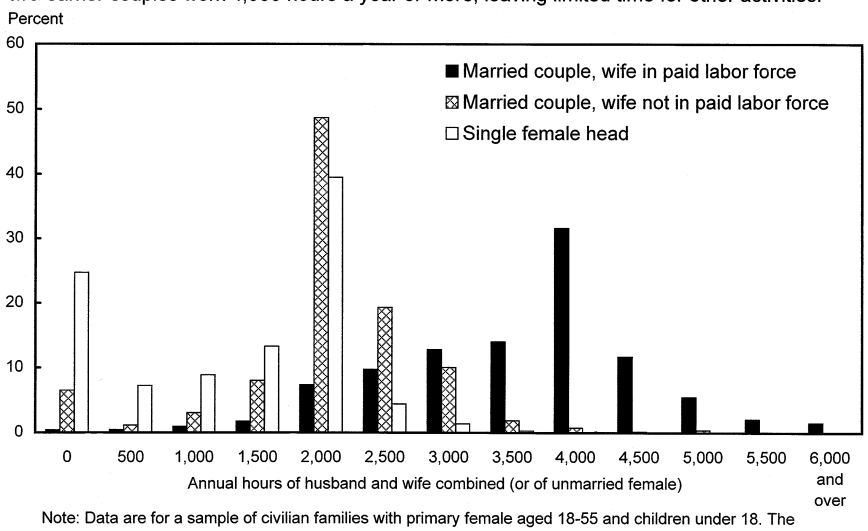
The income differences across families shown in Chart 5-7 are due largely to differences in earned income from employment, not differences in wealth or transfer payments (such as welfare payments). In 1998, wage and salary earnings represented 87 percent of income for the average married-couple family with children and 69 percent for the average female-headed family with children.

Differences in hours worked are a major factor accounting for differences in income across family types. Not surprisingly, dual-earner couples devote more total hours to work than the other family types, on average, and have the highest concentration of families in the portion of the distribution with the most hours worked (Chart 5-8). Among single-earner family types, husbands in single-earner couples work more hours on average than single mothers.

The Rising Earnings of Women with Children

The typical mother today now contributes significantly more earnings to family money income than did her counterpart several decades ago. The median earnings of single mothers with children rose from $4,800 to $12,000 (in 1998 dollars) between 1968 and 1998, and among working sin-

Chart 5-8 **Distribution of Annual Hours Worked by Families with Children, 1998**
Within each family type, the modal number of hours worked is about 2,000 per worker. Many two-earner couples work 4,000 hours a year or more, leaving limited time for other activities.



Note: Data are for a sample of civilian families with primary female aged 18-55 and children under 18. The hours on the horizontal axis represent ranges of hours (e.g. 0 is 0 - 499). A family is two or more related individuals who reside together.
Source: Council of Economic Advisers tabulation of Current Population Survey data.

gle mothers the median rose from $11,300 to $15,000. The median earnings of all wives with children rose from zero (more than half had no earnings) to $10,400 during this same time period, and from $7,600 to $18,000 for working mothers. As a result, married working mothers' earnings today represent 30 percent of the couple's combined earnings, compared with only 15 percent in 1968. In addition to raising average family income, mothers' earnings have dramatically increased the proportion of families who are well off. The share of working wives earning more than $20,000 rose from 14 percent to 43 percent between 1968 and 1998, and the share of single working mothers earning above $20,000 rose a smaller (although still sizable) amount, from 21 percent to 37 percent. Among married couples, wives' earnings have had a big effect in increasing the proportion of wealthy families: in 1998 only 18 percent of all men earned more than $60,000, but when wives' earnings are included, 37 percent of all married couples with children had combined earnings above $60,000. In contrast, among families headed by single women, only 2 percent had earnings above $60,000.

Thus, although most women now contribute to family income, there are pronounced differences across different types of families. These differences in mothers' contributions can be traced to differences both in wages and in hours of work.

As discussed in Chapter 4, women's wages have risen over time, in part because of rising skill levels. But single mothers have experienced slower wage

gains and have considerably lower wage rates, on average, than married mothers who work. The lower wages of single mothers are related in large measure to their lower average educational attainment than married mothers who work. Across all family types, about one-third of mothers have a high school diploma but no college. However, single mothers and wives who are not working are much less likely than working wives to have graduated from high school, although as a group each has made substantial strides in raising their educational attainment over the past three decades (Table 5-2). Furthermore, a smaller share of single mothers than of married mothers who work have at least some college,

TABLE 5-2.—*Educational Distribution of Women with Children*

[Percent]

Item	Single women		Married women who worked in previous year		Married women who worked in previous year	
	1969	1999	1969	1999	1969	1999
Less than high school diploma	51	19	34	21	32	8
High school diploma, no college	35	35	47	33	46	32
At least some college	14	46	20	46	22	60
Total	100	100	100	100	100	100

Note:—Data are for a sample of civilian families with primary female aged 18-55 and children under 18.
Data for 1999 are based on highest diploma or degree received; data for 1969, on the number of years of school completed.
Detail may not add to totals because of rounding.

Source: Council of Economic Advisers tabulations of March Current Population Survey data.

although the increase in the single mothers' share since the late 1960s has been large. In contrast, employed wives have strikingly higher levels of education than all others, so that a portion of the stronger growth in median incomes for these families shown in Chart 5-6 is due to their higher and rising educational attainment, which feeds into their higher wage rates.

The rising incomes of mothers are also a function of their rising hours of work, and here, too, single mothers differ from married mothers on average. Thirty years ago single mothers worked longer hours than married mothers, and thus their hours have risen less over time. For example, the share of single mothers working full-time rose 11 percentage points, to 67 percent, between 1968 and 1998, whereas the share of married mothers working full-time rose 18 percentage points, to 52 percent. The increase in full-time work arose almost entirely from women entering the labor force in greater numbers, not from a switch from part-time to full-time work: between 1968 and 1998 the proportion of single mothers who worked rose from 69 percent to 82 percent (Table 5-3); that of married mothers increased from 51 percent to

TABLE 5-3.—*Share of Women with Children Who Worked in Previous Year, by Education*

[Percent]

Item	Single women		Married women		All women	
	1969	1999	1969	1999	1969	1999
Less than high school diploma	63	64	50	52	52	57
High school diploma, no college	74	82	51	75	53	76
At least some college	79	90	53	79	55	82
All	69	82	51	75	53	77

Note:—Data are for a sample of civilian families with primary female aged 18-55 and children under 18. Data for 1999 are based on highest diploma or degree received; data for 1969, on the number of years of school completed.

Source: Council of Economic Advisers tabulations of March Current Population Survey data.

75 percent. (The proportion of married mothers working part-time increased substantially less, from 17 percent in 1968 to 23 percent in 1998.) Married mothers have dramatically increased their hours of work, but they continue to work somewhat less than single mothers.

A portion of the higher average earnings growth for married mothers relative to single mothers arises from the positive correlation between education and hours of work: well-educated women work longer hours. Well-educated women have also increased their hours of work the most over time. From 1968 to 1998, the proportion of mothers with less than a high school education who worked increased from 52 percent to 57 percent. For mothers with at least some college, in contrast, the proportion increased from 55 percent to 82 percent. Several factors shape the decision to work for pay. On the one hand, the potential to earn a high wage makes work attractive, and thus the well-educated should have greater incentive to work. On the other hand, higher earnings and higher husbands' incomes tend to lessen the need to work long hours—this "income effect" provides an incentive for women to consume more leisure or home time with their children. Highly educated women tend to be married to high-income men, and thus the husband's higher income induces the family to place a greater value on the wife's home time relative to paid employment. Over time, however, the effect of husbands' incomes on wives' hours of work has declined. Thus, highly educated women with children have increased their employment rate the most over time, and today they have the highest rate among women with children. The outcome is that highly educated women, working many hours and earning high wages, have contributed very significantly to the number of families

in the upper tail of the income distribution. For these families, incomes are high, but so, too, are hours of work (Box 5-3).

In sum, the growth of female hours of work and female earnings has had different effects on different family types. For married mothers, strong growth in wages and hours worked have been a primary source of family

Box 5-3. Women Professionals, the Rat Race, and the Time Crunch

As shown in Table 4-1, the proportion of women in many professional occupations has risen dramatically since 1950. As recently as 1979 only 10 percent of doctors and 13 percent of attorneys were women, but by 1999 these percentages had increased to 25 percent and 29 percent, respectively. The female share of enrollment in professional schools has been rising and exceeded 40 percent in 1996. To the extent that female professionals who are married have husbands who work full time, this growing professionalization of the female work force has created a time strain for many American families. There is little evidence that human resource systems originally designed for men with stay-at-home wives have adapted to ease this strain by offering jobs with shorter working hours. On the contrary, work hours among college-educated employees have been trending upward over the last several decades.

One of the reasons for some firms' reluctance to abandon existing work norms is their use of "rat race" work practices. In many professional settings, members of the professional group benefit from the productivity of other group members, yet these contributions to productivity are difficult to measure and reward directly. Firms instead find that a worker's willingness to work long hours often serves as a proxy for valuable yet hard-to-observe characteristics such as commitment and ambition. In response to this use of work hours as a screening device, workers will tend to overwork as a means of signaling to management their ability and willingness to contribute.

For example, in a survey conducted at two large Northeastern law firms, associates (young attorneys) and partners alike were in agreement that "billable hours" and especially "willingness to work long hours when required" were important factors in promotion to partner. Not surprisingly, associates at these firms worked long hours. Also not surprisingly, associates felt overworked: most indicated that they would gladly forgo their next raise in exchange for the opportunity to work fewer hours. Nonetheless, most associates indicated that they would be much more willing to work fewer hours if all other associates also agreed to cut back. Of course, firms might be reluctant to abandon these work practices unless they can develop other effective means of screening junior employees.

income growth over the last 30 years, even though married women's earnings on average still account for less than a third of the couple's earnings. The wages of female family heads have not grown as rapidly over time, so that, despite working many hours, their earnings lag behind those of married women.

Challenges Families Face

Over the century just ended, the American family experienced many positive changes that have resulted in richer lives for many parents and their children. Family income has increased dramatically and poverty has decreased. People live longer and are much healthier. Over the past few years, the gains from a strong labor market have been shared widely and fairly equally. Other favorable recent developments include a fall in teen pregnancy and out-of-wedlock birth rates and a stabilization of divorce rates. Despite this general prosperity, however, family income inequality remains high, and many families are experiencing a "money crunch" that makes it difficult to meet basic family needs. Many of these families have incomes that fall below the poverty threshold, but the perception of a "money crunch" is by no means limited to families officially classified as poor.

Perhaps an even greater number of families today are experiencing a "time crunch." With more women working more hours, the amount of family time devoted to work has increased, while that available for leisure and other family activities has declined. This time crunch affects a wide range of families from poor single mothers to prosperous two-earner couples.

This section explores the challenges facing American families as they deal with the money crunch and the time crunch. In each case, an analysis of the dimensions of the challenge and how it affects different kinds of families is followed by a discussion of policies that address that challenge.

The "Money Crunch"

Despite the increases in female labor supply and earnings discussed above, a large number of families with children—both married and female-headed—belong to what are sometimes called the working poor. Those families with incomes in the lower tail of the distribution in Chart 5-7 are the most likely to suffer from the money crunch. Based on the distributions in the chart, in 1998, 8 percent of families with working wives, 27 percent of families without working wives, and 64 percent of female-headed families had incomes below $25,000 (about 1.5 times the poverty line for a family of

four). These families, whose incomes have lagged behind the general advance, are at the epicenter of the money crunch.

Families headed by single females tend to have fewer financial resources than other families, and the number of children living in such families has grown substantially. Whereas families headed by single females made up only 10 percent of all families with children in 1970, in 1998 that figure was 22 percent. In 1970, just 11 percent of all American children under 18 years of age lived in such families; in 1998, 23 percent did. About half of all African American children under age 18 live in single-mother households, up from 30 percent in 1970. The fraction of white children living in single-mother households rose from 8 percent in 1970 to 18 percent in 1998. And as discussed earlier, the percentage of children living with grandparents has also been increasing in recent decades.

Divorce and out-of-wedlock childbirth are two events that contribute directly to lower incomes for female-headed families. It is estimated that 22 percent of women who get divorced experience a 50 percent or more decline in family income. Also, never-married mothers are much less likely to have a child support award than divorced mothers (44.1 percent versus 75.6 percent in 1995), and for those who have received child support payments, the annual amount received by never-married mothers is much less than that received by divorced mothers ($2,271 versus $3,990 in 1995).

Reflecting these low income levels, poverty rates for families headed by single females with children under age 18 are very high: 38.7 percent of these families were poor in 1998, compared with 6.9 percent of married-couple families with children. Although the job is not finished, this Administration has championed policies to increase the rewards from work and reduce poverty, including the expansion of the earned income tax credit, welfare reform, and the creation of the State Children's Health Insurance Program. These policies have contributed to improving living standards for lower income families, and the overall poverty rate has dropped from 15.1 percent in 1993 to 12.7 percent in 1998. These official poverty rates are based on a definition of income that does not include the earned income tax credit, Medicaid, food stamps, or other noncash benefits. An experimental poverty measure incorporating improvements proposed in a 1995 report by the National Academy of Sciences (a measure that does include the earned income tax credit and noncash benefits) shows an even larger drop.

Adequate income is certainly essential for families to develop a sense of economic well-being, but that sense of well-being may also be influenced by whether the family can meet what it perceives to be its consumption needs. As technological change has lowered the relative cost of food and freed up income for other expenditures over the course of the century, incomes have risen and

consumption patterns have changed, resulting perhaps in a perception of increased consumption needs. In 1950 about 30 percent of a typical family's expenditures were for food, and about 10 percent were for clothing. By 1997 those percentages had fallen to 14 percent and 5 percent, respectively. But other expenses have taken up the slack. The typical family now spends a greater share of its income on housing than in the past, and entirely new forms of consumption have become standard. Today, about 90 percent of households have automobiles, up from 59 percent in 1950, and the typical family has two motor vehicles and two television sets. Consumers have had the discretionary income to buy such goods as CD players, videocassette recorders, and personal computers. It is estimated that, in 1997, 35 percent of households owned a personal computer, 61 percent had a cordless phone, and 88 percent had a video recorder. Some of these goods that might once have been thought luxuries have become increasingly difficult for a family to do without. For example, to the extent that newly created jobs are in the suburbs rather than the inner cities, a car becomes a near necessity. And children who lack access to a computer at home may suffer an increasing educational disadvantage compared with their peers who have computers.

Meanwhile the same health and demographic trends that have increased longevity also confront many more families with the need to care for their elderly relatives. Although the elderly at any particular age are healthier today than in the past, they are likely to require more care over more years, in part because they are living longer and because medical advances can keep the very ill alive longer than before. This care often becomes the responsibility of their adult offspring.

Consumption of formal and informal care by the elderly has increased substantially. From 1987 to 1996 the number of nursing homes increased 20 percent, and the use of home and community-based care is growing rapidly. The population receiving such care is becoming older and increasingly frail. The proportion of nursing home residents over age 85 increased from 44 percent in 1987 to 49 percent in 1996, and that of residents with limitations in three or more standard activities of daily living (a common measure of frailty) rose from 72 percent to 83 percent over that period. The average cost of a nursing home is now more than $40,000 per year, and for those admitted to a nursing home at age 65 or older, the average length of stay is 29 months for women and 23 months for men. Nearly 50 percent of the costs of long-term care are paid out of pocket by nursing home patients and their families, and Medicaid bears most of the remaining costs. The implications for family time of increased care for elderly relatives are discussed in the next section.

Thus, as the typical market basket affordable by most families changes, it may be appropriate in characterizing the money crunch to expand our notion of family needs beyond such traditional, basic purchases as food and clothing to the acquisition of certain standard consumption goods like automobiles and telephones. The crunch is even tighter when the rising costs of educating children and caring for elderly parents is factored in.

Finally, the changing trends in the labor force participation of family members have given rise to increasing costs of working outside the home, such as child care, additional work expenses (for meals in restaurants, dry cleaning services, and so on), and transportation costs. It is estimated, for example, that just from 1986 to 1993 direct expenditure on child care rose 23 percent, after adjusting for inflation, for families with a preschool-age child and a working mother.

Boosting the Financial Resources of Families to Lessen the Money Crunch

Since 1993, families in each fifth of the income distribution have experienced solid and roughly equal percentage gains in income. In part this balance reflects the strong overall performance of the economy, but it also reflects a number of specific policies to make work pay for lower income working families facing a money crunch.

Expansion of the Earned Income Tax Credit

In 1993 the President signed into law a major expansion of the Earned Income Tax Credit (EITC), a refundable credit that is designed to reduce the overall tax burden of low-income workers. Because it is refundable, workers can receive the full credit to which they are entitled even if it exceeds the income tax they owe, and people generally receive the credit as part of their income tax refund. The EITC is not currently included in the definition of money income used to compute the official poverty rate. However, calculations based on an alternative income concept that does include the EITC show that the credit lifted more than 4.3 million Americans out of poverty in 1998—more than double the number in 1993. The EITC lifted more than 2.3 million children out of poverty in 1998. And over 40 percent of the decline in child poverty (computed using the alternative income concept) between 1993 and 1998 can be explained by progressive tax relief, especially the EITC. The President has proposed a major expansion of the EITC in his fiscal 2001 budget, to make the credit even more effective in rewarding work for families.

Increases in the Minimum Wage

The minimum wage was increased in two steps in 1996 and 1997 from $4.25 per hour to $5.15 per hour, boosting the wages of 10 million workers. The combined effects of the minimum wage and the EITC have dramatically increased the returns to work for families with children. For example, between 1993 and 1998, families with two children and one wage earner who worked full-time at the minimum wage experienced a 26 percent ($2,700) increase in their real income as a result of these two policies alone. Research examining the impact of minimum wage increases has shown that about two-thirds of workers affected by earlier minimum wage increases were adults—predominantly women and minorities—and that about one-third of the increase went to families in the lowest tenth of the family earnings distribution. Thus minimum wage increases can help reduce poverty among low-wage workers. Given recent tight labor markets, job opportunities are plentiful, and American families are benefiting from the higher minimum wage.

Welfare Reform

The welfare reform law signed by the President in 1996 dramatically changed the Nation's welfare system into one that requires work in exchange for time-limited assistance. The law contains strong work requirements, comprehensive enforcement of child support awards, and support for families moving from welfare to work. To assist people making this move and to support low-income working families, the Administration has addressed a range of logistical and financial challenges typically faced by such families.

Welfare-to-work grants help move long-term welfare recipients (mainly mothers) and certain noncustodial parents (mainly fathers) in poor areas into unsubsidized jobs, enabling them to work and support their families. Recent efforts have extended these services to a broader group of low-income noncustodial fathers, many of whom may have been wanting to contribute to the support of their children but lacked the means to do so. To encourage hiring and retention of long-term welfare recipients, employers are eligible for the welfare-to-work tax credit equal to 35 percent of the first $10,000 in wages in the first year of employment, and 50 percent in the second year.

New housing vouchers that subsidize the rents of low-income Americans are helping families move closer to new jobs, reduce a long commute, or secure more stable housing; new transportation grants are helping communities and States develop flexible transportation alternatives for welfare recipients and other low-income workers. New policy guidance allows States to use the more generous welfare rather than food stamp asset tests in determining food stamp eligibility for those on welfare, making it easier for low-income working families to own a car and still receive food stamps.

The 1996 welfare reform law invested an additional $4 billion over 6 years to provide more child care assistance for families moving from welfare to work and for other low-income parents. (Child care assistance is discussed further below.) The new State Children's Health Insurance Program provides funds to help States expand health care coverage of uninsured children, and new Medicaid rules allow States to expand Medicaid to cover more low-income families who work, including more two-parent families.

Finally, Individual Development Accounts (IDAs) empower low-income families to save for a first home, to enroll in postsecondary education, or to start a new business.

As a result of welfare reform and the strong economy, by June 1999 the number of welfare recipients nationwide had fallen to 6.9 million, 51 percent less than in 1993. That number represents 2.5 percent of the total population, the lowest proportion since 1967. All 50 States met the overall work participation requirements of the welfare reform legislation. Twenty-seven States were awarded bonus funds for their superior results in reforming welfare. Reports by the 46 States competing for the bonus indicate that more than 1.3 million welfare recipients nationwide went to work in the 12-month period from October 1997 through September 1998. Retention rates are also promising: 80 percent of those who got jobs were still working 3 months later. States reported an average earnings increase of 23 percent for former welfare recipients, from $2,088 in the first quarter of employment to $2,571 in the third quarter. Among those remaining on welfare, the proportion working has nearly quadrupled, from 7 percent in 1992 to 27 percent in 1998.

At least one independent study confirms these conclusions, finding that almost 70 percent of welfare leavers said they went off welfare because of increased earnings or a new job. When women move to paying jobs, they develop the skills needed to produce higher sustainable incomes over their lifetimes and to reduce the intergenerational cycle of dependency. In addition, the Administration's initiative to reduce teen pregnancy (Box 5-4) plays a role in breaking the cycle of dependency and increasing the well-being of families by reducing the number of children born to teen mothers.

Social Security and Medicare

Social Security is a key source of income for most recipients: in 1996 it was the main source of income for 66 percent of beneficiaries; it represented at least 90 percent of income for 30 percent of beneficiaries; it was the sole source of income for 18 percent. Social Security benefits provide 81 percent of total income for those in the lowest fifth of the income distribution of the elderly, and they are the largest single source of income for all but the

Box 5-4. The National Strategy to Reduce Teen Pregnancy

From 1980 to 1991 the overall birth rate to teens aged 15-19 rose from 53.0 to 62.1 per 1,000. Since then, however, this trend has been improving. Nationwide, this rate declined by 18 percent from 1991 to 1998, and teen birth rates have fallen in every State and across ethnic and racial groups. For a subset of this group, girls aged 15-17, the 1998 birth rate was at its lowest on record. In addition, teen pregnancy rates are at their lowest since 1976, the earliest year for which data on this group are available. Yet despite these recent improvements, teen pregnancy remains a problem, since the financial resources and opportunities of unwed teens and their children are significantly less than those of other families.

Each year more than 900,000 pregnancies occur among American teenagers. A collection of studies on teen parenthood found that roughly four-fifths of teen mothers end up on welfare. The children of adolescent mothers were found to have poorer health outcomes and were 50 percent more likely to be of low birthweight. In addition, the sons of adolescent mothers were found to be 2.7 times as likely to be incarcerated as the sons of mothers who delayed pregnancy, and the daughters of adolescent mothers were one-third more likely to become teen mothers themselves.

On January 4, 1997, the President announced a comprehensive national strategy to reduce teen pregnancy in this country. The new initiative, led by the Department of Health and Human Services (HHS), responded to a call from the President and the Congress for a national strategy to prevent out-of-wedlock teen pregnancies. It also responded to a directive, under the welfare reform act, to ensure that at least 25 percent of communities in this country have teen pregnancy prevention programs in place. Key efforts under this initiative include the following:

- *Implementing New Efforts Under Welfare Reform.* Under the welfare reform law signed by the President on August 22, 1996, unmarried minor parents are required to stay in school and live at home, or in an adult-supervised setting, in order to receive assistance. The law encourages the creation of Second Chance Homes, supportive and supervised living arrangements that provide teen parents with the skills they need to become good role models and providers for their children, giving them guidance in parenting and in avoiding repeat pregnancies.
- *Supporting Promising Approaches and Building Partnerships.* The Administration continues to support innovative teen pregnancy prevention strategies tailored to the unique needs of communities. HHS-funded programs supporting teen pregnancy prevention have been established in about 34 percent of the 4,752 Census-defined communities in the United States. In addition, HHS has built part-

continued on next page...

Box 5-4.—*continued*

nerships aimed at reducing teen pregnancies with national, State, and local organizations.

- *Disseminating Information on Innovative and Effective Practices.* On October 25, 1999, the Secretary of Health and Human Services unveiled a comprehensive guide, developed in partnership with the National Campaign to Reduce Teen Pregnancy, to help communities and nonprofit organizations establish successful local teen pregnancy prevention programs.
- *Improving Data Collection, Research, and Evaluation.* The national strategy is working to improve data collection, research, and evaluation to further understand the magnitude, trends, and causes of teen pregnancies and births. Efforts are also under way to develop targeted teen pregnancy prevention strategies and to assess how well these strategies work.
- *Sending a Strong Abstinence Message.* The welfare law also provides $50 million a year for 5 years in new funding for State abstinence education programs.

highest fifth. Although only 9 percent of aged beneficiaries are poor, an additional 41 percent would be poor based on their non-Social Security income. Recognizing the importance of Social Security to the elderly, the President has proposed using the benefits of fiscal discipline and debt reduction to strengthen Social Security, extending its solvency from 2034 to at least 2050.

Medicare is the main source of health insurance for the elderly and people with disabilities, insuring nearly 40 million Americans. The elderly population is projected to double in the next 30 years as the baby-boom generation retires. At the same time the ratio of elderly persons to workers who pay payroll taxes that help fund Medicare will increase. In addition, some Medicare payments systems and benefits are outdated. On June 29, 1999, the President unveiled his plan to modernize and strengthen the Medicare program to prepare it for the health, demographic, and financing challenges it will face in the 21st century. The plan proposes to make Medicare more competitive and efficient; to modernize and reform Medicare benefits, including adding a prescription drug benefit; and to make a long-term financing commitment to the program, and in doing so extend the solvency of the Medicare trust fund until at least 2025.

Assistance with Long-Term Care

Millions of adults and a growing number of children have long-term care needs arising from a health condition present at birth or from a chronic illness developed later in life. Moreover, with the number of Americans aged 65

or older, and of those 85 or older, both projected to double by 2030, long-term care is a need that will become more pressing in the 21st century.

The fiscal 2001 budget contains, as the centerpiece of the President's long-term care initiative, a $3,000 tax credit for people with long-term care needs or their caregivers. The President's initiative contains several features in addition to the credit. It would provide funding for services that support family caregivers of older persons; improve equity in Medicaid eligibility for people in home- and community-based settings; encourage partnerships between low-income housing for the elderly and Medicaid; and encourage the purchase of good-quality private long-term care insurance by Federal employees. This initiative complements the Administration's effort to improve the quality of care in nursing homes.

Other Policies to Help Families

Millions of families with children have benefited from the $500-per-child tax credit enacted in 1997, and the 2001 budget includes additional tax relief measures, including expansion of the child and dependent care tax credit. The 2001 budget also addresses another financial concern of American families—access to affordable health care coverage—by proposing a 10-year, $110 billion investment in expanding health insurance coverage.

Tougher enforcement of child support has helped ease the economic burden on single mothers and stresses the responsibility of both parents for the economic support of their children. In 1998, Federal and State child support enforcement efforts collected an estimated $14.3 billion from noncustodial parents, a nearly 80 percent increase since 1992. In 1998, 4.5 million families received child support, an increase of 59 percent since 1992. Finally, a primary means of reducing the money crunch is to provide more individuals with the skills and education they need to raise their incomes. The Administration has therefore placed great emphasis on policies to invest in skills, as discussed in Chapter 4.

The "Time Crunch"

The historic entry of millions of women into the labor force has resulted in higher incomes for families and a new sense of career satisfaction for many women. But it has also resulted in a significant jump in the total hours that parents spend at work. Around 4,000 hours per year total, or 2,000 hours for each parent, is common for families where both parents work full-time. Those families who work that many hours or more—that is, the upper tail of the hours distribution in Chart 5-8—are most likely to suffer from the time crunch. The share of married couples in which both spouses work full-time rose from 32 percent to 48 percent between 1968 and 1998. As the sole support of their children, single parents working long hours also are likely to

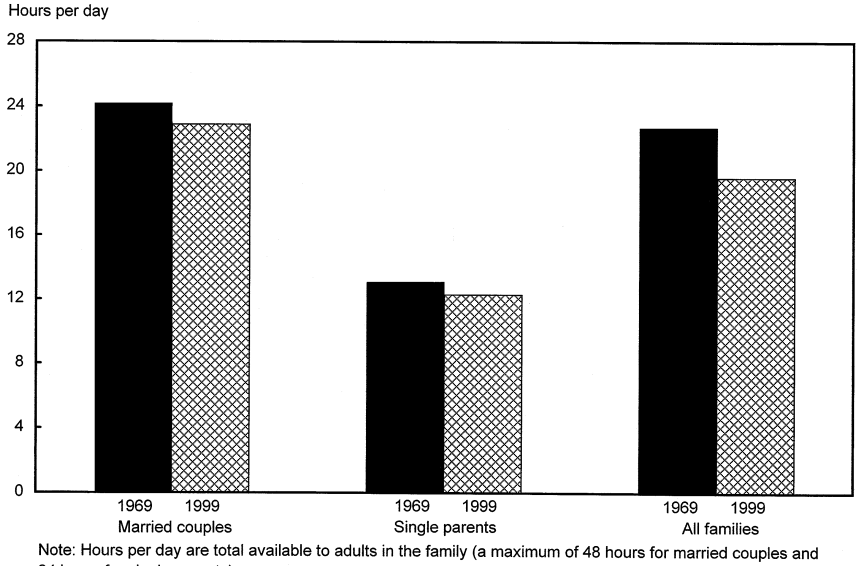
suffer from a time crunch; the share of these parents working full-time rose from 56 percent to 67 percent from 1968 to 1998.

Thus, although the choice to enter the labor market results in more material goods for families, these benefits come at the expense of home time. Evidence that families are feeling a time crunch comes from a 1995 national survey that asked whether respondents "always feel rushed, even to do the things you have to do." Thirty-three percent said yes, compared with 24 percent in 1965. The analysis of changes in parents' allocation of time in this section provides a closer look at how patterns of family care have changed as women have entered the labor force.

Time Use and Child Care

As women spend more time in paid employment and a larger share of families are headed by single parents, families have less time to devote to unpaid activities, including time with children. Between 1969 and 1999, for example, the total amount of parental time available outside of work fell in both married-couple and single-parent families (Chart 5-9). This conclusion comes from analyzing the trend in time reported in the Current Population Survey (CPS) as spent at work. To construct the time available on a daily basis, the analysis starts with 48 hours per day for married couples and 24 hours for single parents. It then subtracts the average daily amount of time spent at work plus 8 hours per parent per day for sleep. Because the proportion

Chart 5-9 **Time Available to Custodial Parents After Paid Work and Sleep**
Both married couples and single parents are finding fewer hours to spend with their children.



Note: Hours per day are total available to adults in the family (a maximum of 48 hours for married couples and 24 hours for single parents).
Source: Council of Economic Advisers tabulation of Current Population Survey data.

of single-parent families increased over this period, the average amount of family time available outside of work fell overall by even more than it did for either family type. Note that this analysis is only about time potentially available to spend with children, because the CPS does not contain information about how parents actually spend time outside of work.

The best source of information on time use comes from an analysis of time-use diary surveys conducted from 1965 to 1995. These surveys ask individuals to keep a daily record of how they spend their time during a designated day. Although rich in detail, these surveys cover a fairly small number of individuals and thus cannot be used to examine trends for subgroups of the population. To build a more comprehensive data base, the 2001 budget includes funding for the Bureau of Labor Statistics to start regular collection of time-use diaries from a probability sample large enough to provide data on subgroups.

Existing time-use diaries show that employed women spend about one-third less time on child care and household tasks than do women who are not in paid employment. The primary change in time use for women is that their increase in paid hours has been nearly equally offset by a reduction in time devoted to housework. Although men have increased their time spent on housework by about 5 hours per week, this is far less than the 11-hour-per-week reduction by women. (The study does not, however, report separate data for those who are parents.) Nevertheless, despite the assistance of husbands and despite the use of purchased inputs into home care, employed women in the aggregate still have a third less free time today than nonworking women.

The data display a 32 percent reduction in women's time spent on child care and household tasks between 1965 and 1995. This decline is mainly driven by reductions in housework activities. However, data from 1985 (the most recent year for which a detailed breakdown is available) indicate that working mothers spend 5 fewer hours per week on child care activities than do nonworking mothers (6.7 hours versus 12 hours). This suggests that the increase in the proportion of mothers working has played a role as well. Meanwhile men's time spent on child care has been constant at roughly 3 hours per week.

Undoubtedly the time crunch is worse for single-parent families (although, again, existing time-use evidence does not isolate data for this group). These families typically have lower incomes and thus are less able to purchase substitutes for their time in the home, such as home-based child care, cleaning services, or labor-saving products and appliances for the home. They also lack the assistance that a spouse provides. They may instead rely more on care provided by older relatives.

As a result of improvements in health and longevity, grandparents are increasingly a resource that parents—whether single or married—can draw on for help with child care. In a survey of grandparents caring for their grandchildren in a noncustodial relationship, over 60 percent cited the

employment of the grandchild's parents, the desire to help the grandchild's parents financially, or both as reasons for providing care. In addition, in a sample of working mothers aged 19-26 with a youngest child under 5, nearly 25 percent utilized a grandmother as the principal caregiver. As discussed in the next section, however, responsibilities for taking care of older relatives may compound the time crunch for many families.

Time Use and Parental Care

In 1997, more than 5 percent of households spent over 20 hours a week in caregiving for the elderly. And since nearly two-thirds of family caregivers are working, the need to balance work and family will likely increase in the 21st century. Caregivers of the elderly who are also in the paid labor force report making adjustments to work schedules and forgoing promotions, new assignments, transfers, relocations, and training opportunities. One recent study estimates that, by 2002, 42 percent of workers will provide some form of elder care.

Most of the discussion in this chapter has focused on the time and money costs of raising children and the stresses that these costs impose on families. Layered on top of this is the generational crunch: the need to stretch resources further when families have multiple caregiving responsibilities to consider as they try to maintain a delicate balance between work and family. With parents living longer, and with their daughters—the traditional providers of their care—now largely in the paid labor force, the costs of parental care are likely to become even greater in the 21st century. However, Social Security and other retirement benefits, as well as the availability of assisted living facilities, also permit more elderly people to live independently for longer.

The last 10 years have witnessed an explosion of care for the elderly outside of nursing homes, and this care is largely provided by women. From 1987 to 1997 the number of U.S. households that provided unpaid care to elderly adults more than tripled, from 7 million to more than 21 million, or from 8 percent to 22 percent of households. To the extent that more elderly adults are living on their own, much of this care will likely take place in the parent's home. The typical caregiver is a married woman with only a high school diploma and a household income of about $35,000, and the typical care recipient is most likely her mother, grandmother, or mother-in-law. However, even as more households are providing in-home care, they appear to be spending somewhat less time on that care. Today a typical caregiver spends fewer hours per week giving care. In addition, the caregiver is less likely to be residing with the recipient, and is more likely to use paid services than caregivers a decade ago.

The explosion in caregiving responsibility for parents is contributing to the time crunch that the American family is facing: 43 percent of surveyed

caregivers for the elderly say their caregiving has left them with less time for other family members. These changes surely arise in part because today's average caregiver is balancing work and family: half of all caregivers are working full-time outside the home. Among employed caregivers, one-fifth had to give up work at least temporarily, and half reported making changes to work schedules to accommodate caregiving. Surveys of caregivers underestimate the demand for parental care, however, because they cannot measure the frequency with which employed potential caregivers choose not to provide care.

In the future, the time and money commitments associated with parental care may become even more confining, given the trends identified above. The increase in the labor supply of women has been accompanied by an increase in their wages and thus the opportunity cost of their time. As employed women age and as their parents require more care, those higher wages may make these women increasingly reluctant to curtail their paid employment—thus they will face an even greater time crunch as they care for their parents. To the extent that these women have had children later in life, they may also experience the double generational crunch of caring for both children and parents simultaneously. And among those women whose children are already adults, many will have grandchildren to care for. During the 21st century, the increasing cost of elderly care will also fall on fewer children, because of the drop in fertility rates of the baby-boom generation and the rising population of the elderly relative to the working-age population. This looming increase in the time crunch may result in more substitution toward formal care, as the greater wealth of the baby-boom generation and their children may make such care more affordable. However, if the cost of that care rises relative to prices generally, these same baby-boomers are likely to experience a tightening money crunch as well.

Increasing the Flexibility of Paid Work to Lessen the Time Crunch

With a record high share of the population employed, many workers find themselves struggling to balance work and family. Women have less flexibility to respond to family needs than they once did, and men are increasingly being called on to take a greater role in child care and other responsibilities. Recognizing these changes, the Administration has supported a number of policies to increase flexibility at work and help families address the time crunch.

The Family and Medical Leave Act

The Family and Medical Leave Act (FMLA) of 1993 requires employers with 50 employees or more to provide up to 12 weeks of unpaid, job-

protected leave a year to eligible employees under certain defined circumstances. These include the need to care for a newborn, newly adopted, or foster child; for a child, spouse, or parent with a serious health condition; or for a serious health condition of the employee himself or herself, including maternity-related disability. The FMLA also requires employers to continue the employee's health benefits during leave. Employees are eligible to take such leave if they have worked for a covered employer for at least 1 year and have worked for at least 1,250 hours over the previous 12 months. Since 1993, millions of workers have taken advantage of the FMLA to spend necessary time with their families.

The experiences of both employers and employees with the FMLA were documented in national surveys sponsored by the Department of Labor. The employer survey found that one-third of employers (and two-thirds of employers in larger worksites) believed that the FMLA had had positive effects on their employees' ability to care for family members. Most employers also reported that compliance costs were small or negligible and that there was no noticeable effect on either business or employee performance. The employee survey found that the majority of those who took family or medical leave found it relatively easy to arrange; few reported concerns about job-related consequences of taking leave. This survey also found that employees with annual family incomes between $20,000 and $30,000 were more likely to take leave than employees with higher incomes, highlighting the importance of the FMLA to lower income workers.

Today, 92 million workers are covered by the FMLA. It has proved to be a significant advance in helping a larger cross section of working Americans meet their medical and family caregiving needs for children and for elderly parents while maintaining their jobs and their economic security.

The President has proposed expanding the FMLA to cover businesses with more than 25 employees (currently the threshold is 50 employees). This would extend coverage to almost 12 million more workers. He has also proposed requiring employers to allow FMLA-covered workers to take up to 24 hours of leave per year to attend parent-teacher conferences or routine doctors' appointments.

Work Arrangements That Promote Flexibility

The desire for greater job flexibility is also leading to new work arrangements between workers and their employers regarding when and where paid work is performed. An increasingly popular work arrangement is "flextime," which allows workers to vary the time they begin and end work. In 1997, 28 percent of full-time wage and salary workers had flexible work schedules. This was up sharply from 15 percent in 1991. The Federal Government has led by example in instituting flextime, allowing employees greater discretion in when they work. The President has also proposed a flextime initiative that

would allow all workers who get time-and-a-half pay for working overtime to be compensated in the form of time off for family and medical leave purposes or vacation instead of in cash.

Another approach to allowing greater flexibility on the job is working at home for pay. This arrangement is used by a small but growing share of workers. In 1997, for example, 3.3 percent of all wage and salary workers were working at home for pay, up from 1.9 percent in 1991. Another way parents share child care is by working different shifts. In order for shift work to make it easier to combine paid work and child care, however, the choice of shifts must be the worker's. In 1997, 83 percent of full-time wage and salary workers were on regular daytime schedules, 4.6 percent were on evening shifts, 3.9 percent were on employer-arranged irregular schedules, 3.5 percent were on night shifts, and 2.9 percent were on rotating shifts.

Improving Access to High-Quality, Affordable Child Care

Many parents are likely to adjust to an increase in their paid work time by increasing their use of nonparental child care providers. The availability, cost, and quality of child care are crucial to the well-being of children and to the ability of parents to balance the needs of work and family. Primary child care arrangements for preschool-age children of employed mothers in the fall of 1994 were divided roughly equally among care in the child's home (by a relative or nonrelative), care in another home (by a relative or nonrelative), and care in an organized child care facility. Since 1985 the trends have been toward a slight increase in the proportion of children receiving care in their own homes, relatively fewer children receiving care in another home, and relatively more children receiving care in an organized facility.

The Administration has consistently emphasized the importance of child care availability, affordability, and quality. Since 1993, child care funding for low-income families has more than doubled. The budget for fiscal 2001 supports a $3.3 billion increase in resources for child care, including more funding for programs benefiting poor and near-poor children and an expansion of the child and dependent care tax credit. The proposal would gradually make the credit refundable, so that it would be available to low-income working families for the first time. And it would increase the amount of the credit for middle-income families struggling to afford child care. As discussed in Chapter 4, funding for Head Start has likewise increased substantially during this Administration, and progress continues to be made toward the President's goal of enrolling 1 million children by 2002.

After-school care for children is another concern of working parents. In 1998, 68 percent of married couples with children were ones in which both parents were in the labor force, compared with 28 percent in 1970. Today, 28 million school-age children are in either married-couple families where both

parents are employed or single-parent families where the parent works outside the home; an additional 10 million children are in married-couple families where only one parent is employed. This has led to strong demand for quality programs to ensure that children are safe and learning during the hours when they are not supervised by a parent. In fact, experts estimate that during a typical week at least 5 million school-age children spend time unattended at home. This Administration has responded to this situation by increasing its investment in after-school and summer programs from $40 million in 1998 to $453 million in fiscal 2000. The President has called for a doubling of this investment in fiscal 2001.

Conclusion

The American family in the 21st century faces a different world and a different set of challenges than the family of 100 years ago. The twin problems of scarce time and scarce resources are not, of course, new, but their manifestations in our turn-of-the-millennium economy may well be. Thanks in part to greater participation of women in paid employment, families today enjoy a much higher standard of living than did families a century ago. But expectations also appear to be different today. Great changes in the economy have opened up great opportunities as well as great challenges. As people aspire to take advantage of those opportunities, changes in workplace arrangements and well-designed Federal policies can help them overcome the challenges.

CHAPTER 6

Opportunity and Challenge in the Global Economy

Photodisc

What an extraordinary episode in the economic progress of man that age was which came to an end in August, 1914! ...life offered, at a low cost and with the least trouble, conveniences, comforts, and amenities beyond the compass of the richest and most powerful monarchs of other ages. The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth...he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world.... But, most important of all, he regarded this state of affairs as normal, certain, and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous, and avoidable.

—John Maynard Keynes, The Economic Consequences of the Peace *(1919), writing about the pre-World War I economy*

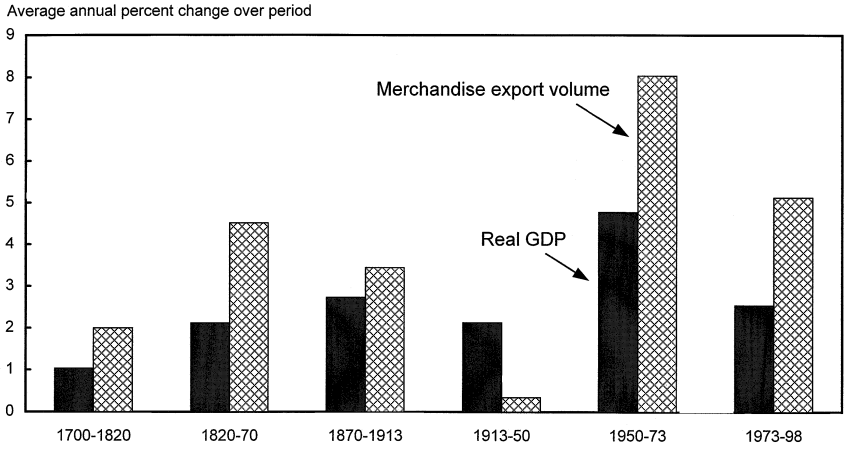
For centuries, rising prosperity and rising integration of the global economy have gone hand in hand. The United States and much of the rest of the world have never before been as affluent as today. Nor has economic globalization—the worldwide integration of national economies through trade, capital flows, and operational linkages among firms—ever before been as broad or as deep. Keynes's words in the epigraph describe London at the beginning of the 20th century, yet they ring even truer for the United States and many other countries as we look to the 21st. This conjuncture of rising wealth and expanding international ties is no coincidence. The United States

has gained enormously from these linkages, which have helped drive the unprecedented prosperity of the economy. Indeed, future improvements in Americans' living standards depend in part on our continued willingness to embrace international economic integration.

As Chart 6-1 shows, the involvement of several of the world's richest countries in international trade has grown faster than their output for roughly three centuries. The one period when trade grew more slowly than output was from 1913 to 1950—a period that encompassed the Great Depression and two world wars. Fortunately, despite Keynes's characterization of the pre-World War I period as an "extraordinary episode," the rising globalization and economic buoyancy of that period proved not to be an aberration. Rather, it was the 1913-50 period that stood out as the extraordinary episode, one of uncharacteristically weak growth in both output and trade. During that period, and that period only, trade generally fell relative to gross domestic product (GDP). After 1950 the world economy resumed its globalizing trend. But it took time to make up the ground lost: in the United States and elsewhere, the level of trade relative to output has consistently exceeded early-20th-century levels only in the past few decades.

One reason why prosperity and economic globalization have risen together is that dramatic improvements in technology have contributed to both. As earlier chapters discuss, technological advances have raised living standards, enabling each worker to produce more and better goods and services.

Chart 6-1 **GDP and Export Growth Rates for Group of Seven Countries Since 1700**
Trade has usually grown faster than output over the past three centuries.



Note: Data beginning in 1870 are for the Group of Seven major industrialized economies: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. Data for 1700-1820 are for the United Kingdom only; export data begin in 1720. Data for 1820-70 exclude Canada, Germany, and Japan.
Sources: Organization for Economic Cooperation and Development and Angus Maddison, *Monitoring the World Economy 1820-1992,* 1995 and *Dynamic Forces in Capitalist Development,* 1991.

Meanwhile innovations in transportation, communications, and information technology have made international economic integration ever easier.

Quite apart from the impact of technology, openness to the world itself makes us more prosperous. The freedom of firms to choose from a wider range of inputs, and of consumers to choose from a wider range of products, improves efficiency, promotes innovation in technology and management, encourages the transfer of technology, and otherwise enhances productivity growth. All these benefits, in turn, lead to higher real incomes and wages. Through trade, countries can shift resources into those sectors best able to compete in international markets, and so reap the benefits of specialization and scale economies. Opening domestic markets to global capital can improve the efficiency of investment, which can promote economic growth. Through firms' direct investment in foreign affiliates, countries can adopt international best practices in production, including managerial, technical, and marketing know-how.

Given the momentum of the economic and technological forces behind globalization, its rise may seem inevitable. But policy can play a critical role in either helping or hindering its advance. The experience of the 20th century reinforces this lesson. International linkages in the United States and elsewhere were fairly well developed at the beginning of the century: as Keynes observed, rising prosperity and increasing economic integration had come to seem the natural state of affairs. Yet from 1914 until mid-century, war as well as mistakes of economic policy thwarted this normalcy. In the trade arena, governments actively promoted protectionism through high tariff and nontariff barriers, and so inadvertently contributed to the slowed pace of world growth and development.

For the past half century, in contrast, policy has worked actively to remove barriers and distortions that impede the market forces underpinning trade and investment. For example, the General Agreement on Tariffs and Trade (GATT) and, more recently, the World Trade Organization (WTO) have championed trade liberalization. Since the 1970s, most industrial countries have removed most of their controls on international capital movements, and many developing countries have greatly relaxed theirs as well. Given the very real benefits of open markets in both trade and finance, we should continue to embrace and encourage this trend toward liberalization.

Of course, economic globalization is not an end in itself, but rather a means to raise living standards. Like other sources of economic growth, including technological progress, economic integration involves natural tradeoffs. It provides real benefits by increasing the choices available to people and firms, but it also raises legitimate concerns. Increased trade re-sorts each country's resources, directing them toward their most productive uses, but some industries and their workers may find themselves facing

sharp competition from other countries. Broader global capital flows can increase efficiency and speed development, but when these flows reverse course, they can temporarily upset whole economies.

Sound policy plays an important role in ensuring that the benefits of international economic integration are shared as widely as possible, raising living standards within and across all countries that take part. Even in an increasingly global economy, each nation controls its own destiny. In large measure, active participation in international markets for goods, services, and capital strengthens the case for policies that make sense even without integration. Among these are policies that encourage a flexible and skilled work force, provide an adequate social safety net, reward innovation, and ensure that the financial system is sound and that financial markets are deep.

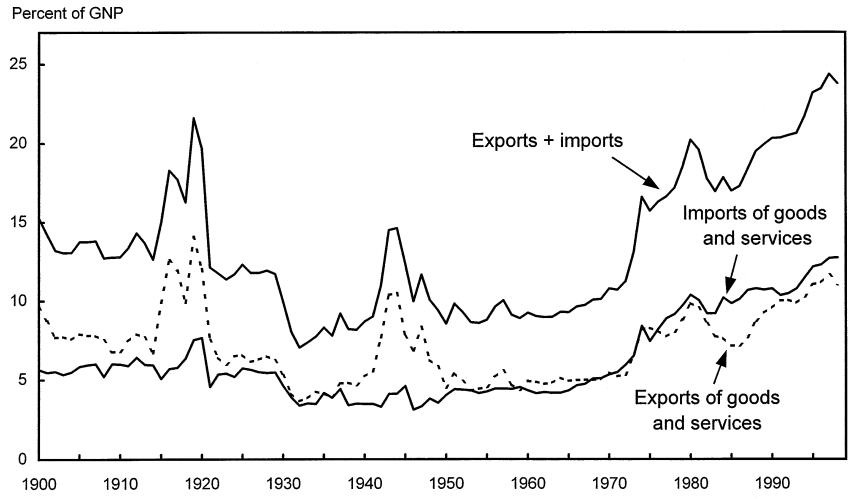
The Fall and Rise of the Global Economy

The U.S. economy today is more closely integrated with the rest of the world than at any time in history. Trade and, to a much lesser extent, investment links were well established a century ago, but both deteriorated during the interwar period. Over the past 50 years, however, international trade and investment have risen sharply. Today, global ties—through goods and services trade, through capital flows, and through integrated production relationships—are generally broader and deeper than ever before.

The Growing Importance of Trade

Historical statistics on U.S. trade reveal a striking pattern. A period of rising international economic integration began well before the 20th century but faltered between the two world wars. Although U.S. tariffs were relatively high during much of the 19th and early 20th centuries, the United States tended to participate actively in a generally flourishing world trade. Internationally, nontariff trade barriers were few. The interwar period that followed, however, was largely one of rising tariff and nontariff barriers—in the United States and elsewhere—and disintegration rather than integration. Since World War II, technological developments and the gradual international liberalization of trade and capital flows, described below, have once again put integration on the upswing. Chart 6-2 shows that, except briefly around the time of each world war, the ratio of trade (exports plus imports) to gross national product (GNP) did not return to turn-of-the-century levels until the 1970s. Recently, however, this ratio has approached 25 percent, its highest point in at least a century.

Chart 6-2 **U.S. Trade Relative to GNP Since 1900**
As a share of GNP, the sum of U.S. imports and exports has exceeded early-20th-century levels on a sustained basis only since the 1970s.



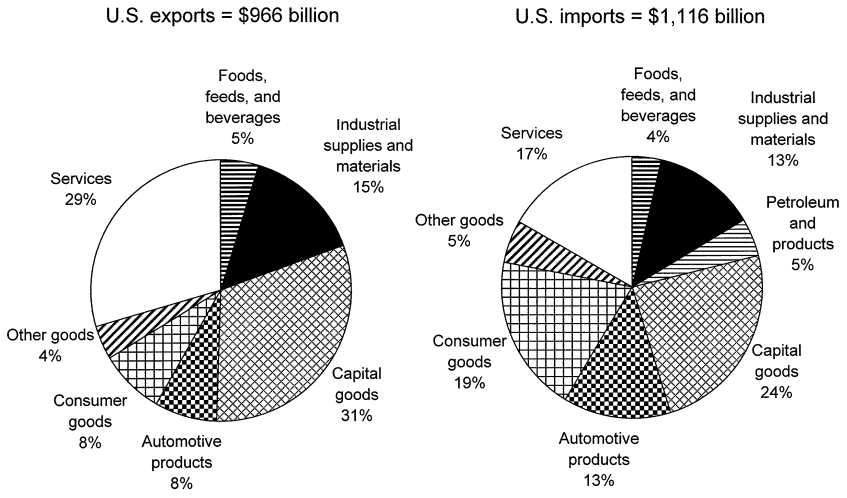
Sources: Department of Commerce (Bureau of Economic Analysis); Department of Commerce (Bureau of the Census); and Christina D. Romer, "The Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy*, 1989.

But to look at U.S. trade only in the aggregate would miss much of the story of this country's integration into the global economy. Important changes have also occurred within sectors and individual industries. Exports of both goods and services have risen much faster than production, but each has followed its own distinct path.

Although typically small relative to aggregate production, U.S. exports of services—including travel and transportation; royalties and license fees; telecommunications services; education; and a variety of financial and business, professional, and technical services—have grown dramatically, providing further evidence of the increasing importance of global linkages. (The United States exports transportation services when, for example, a European tourist flies a U.S. airline to New York, and imports transportation services when an American tourist flies a British carrier to London.) U.S. service providers have almost tripled the export share of their output over the past five decades. In 1950 only about 2 percent of U.S.-produced services were exported; in 1998 that share was about 6 percent.

Indeed, growth in exports of services has outpaced growth in exports of goods. Not coincidentally, services have become a more important part of the domestic economy over the same period. As a result, services now account for about 29 percent of U.S. exports (Chart 6-3), up from only 17 percent in 1950 and about 2 percent in 1900.

Chart 6-3 **U.S. Trade by Sector in 1998**
Capital goods make up the largest single share of both U.S. exports and U.S. imports. Services are the second largest component of exports and the third largest of imports.



Note: Data are on a national income and product accounts basis.
Source: Department of Commerce (Bureau of Economic Analysis).

Although goods production—capturing production in manufacturing, mining, and agriculture—has come to account for a smaller share of the economy, it, too, has become more deeply integrated into the global economy. The share of domestic goods production destined for export markets has grown from around 9 percent in 1929 to 21 percent in 1998. However, the shares for some specific industries and products are much larger. Many high-technology U.S. manufacturing industries, such as electronics, export 25 percent or more of their total shipments.

Imports, too, foster integration into the global economy. In fact, the United States often imports and exports within the same categories of products. Capital goods, for example, are the leading category of both U.S. imports and U.S. exports (Chart 6-3). This two-way trade can also be seen within specific industries, such as the computer industry. Some of this two-way, intraindustry trade reflects the globalization of production arrangements. Anecdotal evidence and recent studies document how production processes have been increasingly divided up and reallocated, either domestically or globally. That is, discrete elements of these processes, such as research and development, design, assembly, and packaging, are performed by firms in the United States and elsewhere, based on countries' relative strengths in completing different tasks. Part of the growth in trade may also reflect rising vertical specialization, in which goods are imported, further processed, and reexported.

Data from the U.S. computer industry (computer systems, hardware, and peripherals) illustrate the extent of both intraindustry trade and vertical specialization. According to one recent report, in 1998 an estimated 43 percent of domestic producers' total shipments was exported, and an estimated 58 percent of final and intermediate domestic consumption was imported. The same report notes that more than 60 percent by value of the hardware in a typical U.S. personal computer system comes from Asia.

Intraindustry trade may also reflect an interaction of consumers' desire for variety with economies of scale in production. The automobile industry provides some commonly cited examples. We observe firms in the United States and the European Union producing and exporting different kinds of luxury and sport vehicles for niche markets. Because the average cost of production falls as more cars are produced, firms try to reach as many customers as possible. This gives them an incentive to seek out markets abroad. And when many producers in different countries adopt the same strategy, the result is greater satisfaction of consumers' demand for product selection. Economists note that consumer tastes for variety help explain trade flows among countries with similar resource and technology bases.

U.S. firms' trading partners are located around the world, but they tend to be concentrated in industrial countries and in our closest neighbors. Canada is the top-ranking trade partner of the United States, accounting in 1998 for about 21 percent of U.S. merchandise exports and imports combined. Measured on the same basis, the European Union is a very close second, followed by Japan and then Mexico. In the aggregate, developing countries (excluding the few that are members of the Organization for Economic Cooperation and Development) account for about 31 percent of U.S. trade, although the 48 countries designated by the United Nations as least developed account for a very small share—less than 1 percent.

The Rise of International Capital Flows

Cross-border capital flows have likewise grown to unprecedented levels in the United States and around the world, reflecting reduced barriers to capital, an increased desire on the part of investors to diversify their portfolios internationally, and a plethora of new financial instruments and technologies. Cross-border transactions in bonds and equities have exploded in recent decades, reaching 223 percent of GDP in the United States in 1998, compared with only 9 percent of GDP in 1980. One survey reports that average daily turnover on world foreign exchange markets was about $1.5 trillion in April 1998, although not all such turnover necessarily crosses borders. This turnover has risen from $0.6 trillion in April 1989.

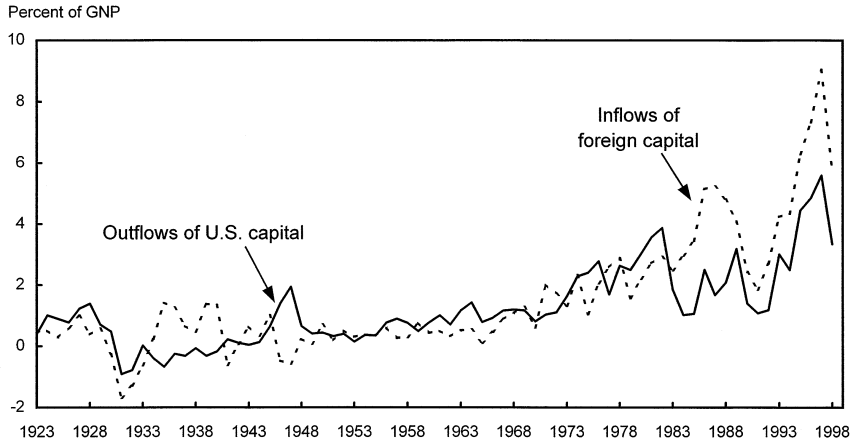
These cross-border figures include substantial trading and retrading of the same securities, and hence to some extent overstate the degree to which own-

ership claims cross borders. For example, a U.S. mutual fund might turn over its entire portfolio of foreign securities more than once during the course of a year. Official balance of payments data provide an alternative measure of gross flows that comes closer to measuring the true change in cross-border ownership claims. Chart 6-4 shows these data on inflows of capital sent into the United States by foreigners, and outflows of capital sent from the United States by U.S. residents. U.S. outflows abroad have been rising; foreign inflows into the United States have been rising even faster. These flows typically amounted to 1 percent or less of GNP through the 1960s. By contrast, flows have been much larger recently: from 1995 through 1998, for example, inflows averaged 7 percent of GNP.

Net capital flows (the difference between inflows and outflows in Chart 6-4), measured relative to GNP, have also reached much higher levels in recent decades. Indeed, the United States is by far the largest recipient of net capital inflows in the world, amounting to more than $200 billion in 1998.

The large net capital inflows of the past two decades have led to a profound change in the net international indebtedness position of the United States. The United States was a net debtor until the late 1910s and then a net creditor until the late 1980s. At the end of 1998, foreign-owned assets in the United States exceeded U.S.-owned assets abroad by about $1.2 trillion (valued at current cost), an amount equal to 14 percent of U.S. GNP. A century ago, the net international investment position of the United States was similar, with

Chart 6-4 **Capital Flows Into and Out of the United States Relative to GNP**
Capital flows into and out of the United States have soared since the 1960s. Since the 1980s, inflows from abroad have consistently exceeded outflows.



Note: Outflows of U.S. capital are the net increase in U.S.-owned assets abroad. Inflows of foreign capital are the net increase in foreign-owned assets in the United States.
Sources: Department of Commerce (Bureau of Economic Analysis); Department of Commerce (Bureau of the Census); and Christina D. Romer, "The Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy*, 1989.

net indebtedness of about 18 percent of GNP. However, the gross investment positions were much smaller then. In 1897, for example, U.S. assets abroad amounted to only 5 percent of U.S. GNP, compared with 56 percent in 1998.

Economists sometimes distinguish among various broad categories of capital flows. The main ones are foreign direct investment (FDI), portfolio investment (such as stocks and bonds), and bank lending. These types of capital flows differ greatly in their volatility—a matter of concern for emerging market economies, as discussed below. Anecdotal evidence and recent studies suggest that bank lending and portfolio flows may be the most volatile. FDI, in contrast, may be less fickle, because these flows arise, in part, from the internationalization of production processes (Box 6-1). FDI occurs, for example, when an investor sets up an enterprise in a foreign country or obtains a large enough share (U.S. statistics, and those of some other countries, set the threshold at 10 percent) in an existing foreign enterprise to influence managerial decisions. Global FDI outflows accounted for about a quarter of total international capital outflows between 1990 and 1996. They grew from an annual average of $181 billion between 1986 and 1991 to $649 billion in 1998.

Box 6-1. Multinational Corporations and Globalization

Globalization is played out in many arenas and by many actors, an important one of which is the multinational company (MNC). MNCs undertake FDI when they establish overseas operations through foreign affiliates. They also engage extensively in international trade. Worldwide, some 60,000 parent operations of MNCs and their 500,000 foreign affiliates account for roughly 25 percent of global output, one-third of it in host countries. In industrial countries, services accounted for 53 percent of all FDI inflows in 1997, and manufacturing for 35 percent. In developing countries, manufacturing accounted for about 50 percent of FDI inflows in 1997, and services for 41 percent.

U.S.-based MNCs account for a large share of U.S. production, trade, and employment. They produce about 19 percent of U.S. GDP through their parent operations (all these figures refer to nonbank MNCs only). In 1997 the trade associated with U.S. MNCs accounted for about 63 percent of U.S. goods exports and 40 percent of U.S. goods imports. Over 40 percent of these transactions involved trade between U.S. parent operations and their foreign affiliates. The parent operations of U.S. MNCs employed about 20 million workers in the United States in 1997, roughly the same number as in 1977.

Although foreign affiliates of U.S. MNCs trade with their parent operations, among others, data show that most of their sales are local,

continued on next page...

Box 6-1.—*continued*
occurring within the host country. In 1997, 63 percent of worldwide sales of goods and 82 percent of worldwide sales of services by foreign affiliates of U.S. MNCs were local, reflecting in part the importance of proximity in the delivery of some products. In terms of the gross product of U.S. MNCs' majority-owned foreign affiliates, the United Kingdom is the most important destination for U.S. MNCs, followed by Canada and Germany. The foreign affiliates of U.S. MNCs employed about 8 million workers in 1997, up from 7.2 million in 1977.

Just as U.S. MNCs have reached across national borders, so foreign-based MNCs have entered the United States. U.S. affiliates of foreign companies account for about 6 percent of U.S. private-industry gross product. In terms of the gross product of foreign MNCs' U.S. affiliates, the United Kingdom is again the leader, followed by Japan and Germany. In 1997, U.S. affiliates of foreign companies accounted for about 20 percent of U.S. goods exports and about 30 percent of U.S. goods imports. Also in 1997, U.S. affiliates of foreign companies employed about 5 million workers in the United States, up from only 1.2 million in 1977.

Transactions involving U.S. entities, as either investors or recipients, account for a large share of global FDI flows. U.S. FDI outflows amounted to $133 billion in 1998, up from an annual average of $26 billion between 1986 and 1991. Meanwhile, U.S. FDI inflows rose from an annual average of $49 billion between 1986 and 1991 to $193 billion in 1998. Globally, most FDI goes to industrialized countries, but developing countries' share of global FDI inflows is also substantial, totaling about 28 percent in 1998, although this marked a decline from 37 percent in 1997.

The Forces Behind Globalization

The forces driving globalization include technology and policy. Technological improvements—in transportation, communications, information technology, and elsewhere—have reduced the costs of doing business internationally, thus lowering significant barriers to trade and investment. These improvements have also increased the range of possible commercial transactions, particularly in financial markets, and have created venues for new kinds of transactions, such as electronic commerce.

Policy has also played an active role in reducing barriers to trade and investment. For example, over the past 50 years, policy measures have sought to reduce tariff and nontariff trade barriers. More recently, and especially since the 1970s, many countries have decided to remove restrictions on

capital flows. Coupled with other domestic policies designed to promote competition among firms, these kinds of market liberalization in trade and investment have helped reduce costs to consumers and promote technological innovation.

The Role of Technology

Although our nearest neighbors remain among our most important trading partners—Canada and Mexico together account for about one-third of our total trade—improvements in technology have reduced the costs of doing business overseas and made distant markets more accessible.

The cost of moving goods has fallen over time. Studies document substantial reductions in shipping costs in the pre-World War I period, and some indicators suggest that costs have continued to decline since then. This decline appears to reflect several factors, including direct declines in some shipping rates as well as a shift in the mix of traded goods and modes of shipping. One study reports that average ocean freight and port charges on U.S. trade fell from $95 per short ton in 1920 (measured in 1990 dollars) to $27 in 1960, but then leveled off. Another recent study looks at relatively disaggregated data since the 1950s and finds little evidence of declines in real ocean shipping rates. But that study does find that air shipment rates have fallen sharply: worldwide, the cost of airfreight, measured as average revenue per ton-kilometer, dropped by 78 percent between 1955 and 1996. In addition, the share of world trade in high-value-to-weight products such as pharmaceuticals has risen. Reflecting the falling cost of airfreight as well as the shifting composition of trade, air shipments in 1998 accounted for 28 percent of the value of U.S. international trade—up from 7 percent in 1965 and a negligible share in 1950.

At the same time, the cost of land-based shipping may also have fallen. Because of the importance of Canada and Mexico as trading partners, about 34 percent of the value of U.S. trade was shipped by land in 1998—up from about 28 percent in 1965—and even many goods that travel by ocean-going vessel must be transported to or from the port. Domestic deregulation in the U.S. transportation industry has contributed to efficiency gains in land transport, and the development of the Interstate Highway System since World War II also appears to have reduced transport costs. In addition, technological developments such as containerization have facilitated intermodal transportation and improved the quality of transport services. Containerization allows a standard-sized container to be hauled by truck or rail and then, if continuing overseas, loaded by crane directly onto a ship. This technology has reduced both handling requirements and transit time for deliveries.

Improved communications and information technologies have also facilitated international commerce. In 1930, for example, a 3-minute phone

call from New York to London cost $293 in 1998 dollars. By 1998, one widely subscribed discount plan charged only 36 cents for a clearer, more reliable 3-minute call. This decline in communications costs, coupled with the availability of new technologies, has probably been particularly important in facilitating services trade. Although market proximity is still an important factor for many services, firms' ability to provide customer support by telephone or e-mail at relatively low cost, or to transmit products electronically via the Internet, has reduced its importance in some industries. A report from the U.S. General Accounting Office notes that technological innovations linked to computers and satellites have influenced how intermodal freight shipments are handled. Such innovations include bar coding for verification and tracking, electronic transmission of business data and documents, and in-vehicle navigation systems that help shippers find the most direct or least congested routes.

Improvements in information and communications technology have also underpinned rapid technological change in the financial sector. Recent years have seen an explosion in the range of financial instruments, which has contributed to the massive gross flows of financial capital discussed earlier. For example, advances in computing technology enable traders to implement complex analytical models (such as models for pricing options), and this in turn allows financial firms to meet demand for new financial instruments. Under flexible exchange rate regimes, one source of demand for such instruments is the desire of market participants to remove or insure against the exchange rate risks they face in trading goods, services, or assets. Swaps, options, and futures permit them to do so.

In addition, rising financial wealth in many countries has created demand for instruments that facilitate international portfolio diversification, even as financial innovation has made it easier to supply these instruments. For example, international mutual funds—some highly specialized by sector or region—are more easily available today than ever before, reflecting both the rise in demand and the ease of supply.

Information and communications technologies have also made it easier to source inputs globally. For example, Chapter 3 discussed the case of a firm that specializes in finding suppliers for large custom procurement orders. After finding qualified suppliers, who may be located anywhere in the world, the firm coordinates online bids for the order. The process helps overcome the informational barriers to finding reliable, low-cost suppliers.

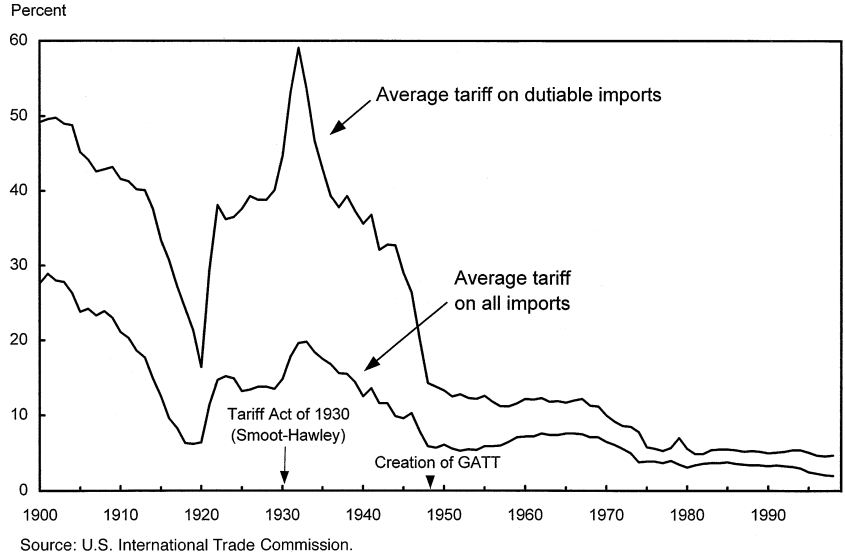
The Role of Policy

Given the economic and technological forces behind globalization, its rise may seem inevitable. Yet governments have taken on a critically important role in opening markets and removing distortions, thereby allowing market

forces to play themselves out. In the interwar period, in contrast, policy actively promoted protectionism through high tariff and nontariff barriers. Indeed, rising protectionism in a number of countries—including the United States, through the Tariff Act of 1930 (Smoot-Hawley)—made the Great Depression more severe. Despite efforts by the United States to begin reducing tariffs at home and abroad in 1934, through the Reciprocal Trade Agreements Act, world tariffs remained high on average. Since mid-century, however, policy in the United States and elsewhere has worked actively to reduce trade barriers that limit or distort the choices available to consumers and firms. Since the 1970s especially, governments have been reducing barriers to capital flows as well. As discussed later, policy can also help in dealing with the inevitable tensions and disruptions of economic integration.

The United States has played a leading role in liberalizing trade internationally, both by reducing its own tariffs and by encouraging others, through a variety of market-opening initiatives, to follow suit. The multilateral trading system, consisting of the GATT at first, and more recently the WTO, is at the core of these efforts. Before the creation of the GATT in 1948, trade barriers—in the United States and elsewhere—were more susceptible to a range of economic and political factors. Tariff rates, measured as the ratio of duties to import values, rose noticeably in the United States during the interwar period, partly because of new legislation. But some of the increase shown in Chart 6-5 reflects the effect of declining import prices in the early 1930s: many tariffs were "specific," in that they were imposed as a nominal

Chart 6-5 **Average U.S. Tariff Rates Since 1900**
Tariff rates rose sharply in the interwar period but have remained consistently low since the creation of the GATT.



Source: U.S. International Trade Commission.

dollar amount per imported quantity, so that when prices fell, effective tariff rates rose. A recent study shows that the Tariff Act of 1930 raised the tariff rate on U.S. imports by roughly 20 percent, on average, independent of the effects of price declines.

Following the creation of the GATT, and through successive rounds of multilateral negotiations, world trade markets have become more open and integrated, contributing to the strong economic growth of the second half of the 20th century. Success in reducing nontariff barriers was uneven throughout this period, but tariffs generally declined. For example, import tariffs on industrial products in industrial countries have dropped 90 percent over the last 50 years, from an average of about 40 percent to roughly 4 percent. Other market-opening initiatives have also contributed to trade, such as the U.S. "open skies" policy for international civil aviation, which has helped improve U.S. air carriers' access to passenger and cargo markets around the world. As Chart 6-1 showed, growth of trade has consistently outpaced growth of income since 1950.

Policy developments have also contributed to the growth of international capital flows. Most governments kept at least some controls on capital movements from World War II into the 1970s. Today, by contrast, restrictions on capital flows have generally been removed in the industrial countries, and they have been substantially relaxed in many developing economies as well. Pervasive controls on cross-border capital flows were part of the international monetary and financial regime adopted at Bretton Woods in 1944. These controls were partly a response to the severe instability of the international monetary system during the Great Depression. The industrialized countries generally began relaxing these controls in the 1950s, and the late 1970s saw much more widespread liberalization. Technological developments in a sense contributed to liberalization by making capital controls increasingly difficult to enforce. And a rising volume of trade conducted under flexible exchange rates spurred interest in financial transactions to hedge exposure to currency and commercial risk.

Moreover, recent decades have brought renewed recognition worldwide that financial markets, like markets for goods and services, generally allocate resources effectively. This recognition has given impetus to considerable financial liberalization in developing economies over the past decade. Financial liberalization has often accompanied other favorable economic policies, such as macroeconomic stabilization, privatization, trade liberalization, and deregulation. Such structural reforms in a significant number of capital-scarce developing countries have provided significant investment opportunities, with high expected rates of return, and this has attracted a surge of foreign capital. However, this surge does raise some concerns, as discussed later, and it puts a premium on adopting appropriate domestic macroeconomic policies and strengthening domestic financial systems.

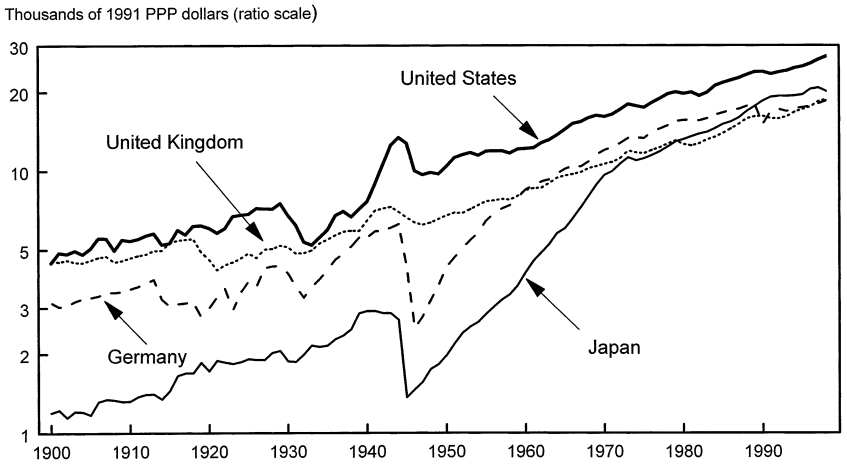
The Benefits of a Global Economy

The United States approaches globalization from a position of considerable strength. In per capita terms, the United States has been the world's richest major economy since overtaking the United Kingdom early in the 20th century, and by most measures it remains so today.

Chart 6-6 shows estimates of GDP per capita since 1900. The chart is plotted on a ratio scale, so that a steeper slope implies a faster growth rate. As the figure illustrates, the dominant macroeconomic fact for both the United States and other major economies for more than a century has been that output per person has grown. But this growth has been far from steady. The 1913-50 period, when global economic relations deteriorated and integration receded amid active protectionism and instability in the international monetary system, recorded the most volatile output growth rates in all four countries shown in the chart. The post-World War II period of rising globalization, in contrast, has been a time of rapidly rising prosperity.

Throughout much of the postwar period, Germany and Japan grew more quickly than the United States, somewhat closing the gap in GDP per capita. But this convergence slowed after the early 1970s and had largely ceased by the end of the 1980s. In 1998, GDP per capita remained considerably higher in the United States than in the other economies in Chart 6-6. Overall, the record shows that the U.S. economy has thrived in the global mar-

Chart 6-6 **GDP per Capita in the United States and Selected Major Economies**
The gap in income per capita between the United States and other major economies has narrowed in the postwar era, but the United States retains a clear lead.



Note: Data for 1960 to 1998 are from the OECD. Estimates from 1900 to 1959 are extrapolated backward using growth rates from Maddison's data. Data for Germany are for western Germany through 1990, and for all of Germany beginning in 1991. PPP stands for purchasing power parity.
Sources: Organization for Economic Cooperation and Development, and Angus Maddison, *Monitoring the World Economy 1820-1992,* 1995.

ketplace. The discussion of the benefits of globalization that follows suggests that this conjuncture of globalization and prosperity is no mere coincidence.

International economic integration raises living standards by improving resource allocation, promoting innovation, encouraging technology transfer, and otherwise enhancing productivity growth. Through trade, countries can shift resources into their most internationally competitive sectors and reap the benefits of specialization and scale economies. Their consumers also enjoy less expensive and more varied products. Opening domestic markets to global capital can help countries invest more efficiently. FDI can lead to improved management, better technology and training, and higher wages in local communities.

However, the same processes that bring about economic growth, including those that work through trade and investment, can force costly adjustments for some firms and their workers. An array of U.S. domestic policies, such as those to assist job search and training, address these issues, as do some elements of international agreements that the United States has entered into. Both are discussed later.

Globalization and Living Standards

Trade economists have long recognized the benefits of specialization in production and of access to markets. When a country produces and exports those goods and services that it can produce relatively inexpensively, and imports those that are relatively inexpensive to produce abroad, trade improves standards of living on both sides of the transaction. For example, the United States can produce financial services at lower cost, relative to other products that it might produce, than most developing countries can. Costa Rica, by comparison, can produce coffee at lower cost, relative to other products, than can most industrialized countries. In this example, the United States would likely benefit from producing and exporting financial services and importing coffee. The reverse is true of Costa Rica. Through freer trade and specialization, a country's resources can be directed more efficiently to those uses in which they generate the most economic value, thereby raising income.

Access to larger markets can also reduce costs and increase the returns to innovation. Producing such goods as automobiles and airplanes requires building large plants and installing complex and costly equipment. By adding exports to their domestic sales, manufacturers can lower their unit costs by extending production runs and spreading overhead costs more broadly. Moreover, the ability to spread fixed research and development costs may allow globally competitive firms to be more innovative than those confined to selling in domestic markets.

Domestic production can expand when firms export, drawing workers into jobs in the economy's most productive and internationally competitive sectors. Recent studies find a substantial wage premium—on the order of 15 percent—in U.S. jobs supported by goods exports. Moreover, opening up to trade means giving consumers and firms greater freedom of choice about what inputs to purchase and what goods to consume. For consumers, the availability of less expensive and more varied products increases the real purchasing power of domestic wages. Some of the benefits of market opening are quantifiable. For example, a study of the costs of protection in the United States found that tariffs and quantitative import restrictions in place in 1990 cost American consumers about $70 billion. Since 1990, these costs to U.S. consumers have fallen, as trade barriers have been reduced on some products. At the same time, import competition creates incentives for U.S. businesses to price their products more competitively.

Access to international capital markets can also improve living standards. International capital mobility allows portfolio diversification and improved risk sharing. It allows investments to take place where they offer the highest returns, thereby improving global resource allocation. And it allows a country to smooth its consumption by consuming today more than it produces today, paying for the difference by borrowing abroad. Therefore, global investment, like trade, yields benefits to both sides of the transaction. Capital goes to those who are best able to make productive use of it, and the suppliers of that capital receive a higher return for a given level of risk than they could get elsewhere. These benefits may be particularly pronounced in the case of FDI. Too large a volume of short-term capital flows, by contrast, may in some cases make an economy more vulnerable to crisis, as discussed later.

Trade and investment activities can be mutually reinforcing. For example, FDI by U.S. companies can help pave the way for U.S. exports. It may create demand for U.S.-produced inputs, possibly from the parent operations. It may also offer U.S. companies a foothold in foreign markets from which they can further expand sales. In many cases, investment in distribution and other essential services increases a supplier's ability to export into a market. Trade between firms and their foreign affiliates, so-called intrafirm trade, can be an efficient means of doing business overseas, particularly when firms need substantial information about suppliers, clients, or markets abroad in order to operate effectively. Over a third of U.S. merchandise exports and about two-fifths of U.S. merchandise imports are estimated to be intrafirm; worldwide, intrafirm trade's estimated share is about a third. Trade may also expand capital flows. For example, the growth of trade has created a need for more trade-related financing and, as noted previously, for tools to hedge risk.

Globalization and Growth

Although causality may be hard to establish, simple measures of the correlation between the openness of an economy and its growth suggest a mutually supportive relationship. For example, ample evidence demonstrates that countries that actively participate in international trade tend to have higher incomes than those that do not. They also experience more rapid growth and productivity improvements. Studies also suggest that countries that have adopted outward-oriented economic policies since the early 1970s experienced significantly higher annual growth of GDP per capita over the next two decades than countries that remained inward-oriented.

Exposure to foreign competition gives domestic firms an incentive to raise their productivity—and these gains recur. Once competition is introduced, it leads to a cycle of productivity improvements and quality enhancements that continue to benefit the economy indefinitely. Studies of the United States and Japan find a positive relationship between import growth and productivity growth. Furthermore, evidence suggests that openness can induce higher average productivity through access to a greater range of intermediate inputs and, within a given industry, through faster growth of those firms that achieve the highest productivity.

Increased trade and FDI can also boost productivity growth by improving the flow of knowledge and the transfer of technology. Traded manufactures, like all manufactures, embody knowledge and technology and, in the case of information and communications technology for example, may boost countries' ability to innovate. Besides providing funding, direct investors can bring international best practices, including managerial, technical, and marketing know-how, to the recipient, which can then spill over into the rest of the economy. In turn, the direct investors may also benefit from the expertise of the recipient firms. The flow of knowledge and transfer of technology also occur through local research and development (R&D). Expenditure on R&D performed by foreign affiliates in the United States accounted for about 12 percent of the R&D performed by all U.S. businesses in 1997. The ratio of R&D expenditure to gross product for these affiliates was 5 percent, twice the ratio for all U.S. businesses.

For developing countries, evidence suggests that FDI, along with high-technology trade, can play an important role in their catch-up to the industrial countries. When industrial-country investors build, contribute to, or acquire production facilities in a developing country, the recipient country gains not just from expanded production and improved job opportunities, but also from access to more advanced technologies. Recent studies show that, in developing countries with a sufficient stock of skilled labor, FDI from industrial countries can contribute more to growth than does the country's own domestic R&D.

In short, increased globalization benefits the United States and other economies. Globalization yields gains from trade, through specialization and through realization of scale economies in production. And by allowing capital to flow across borders, it lowers the cost of financing investment in the recipient country, increases the return to saving, and allows for portfolio diversification in the country providing the funds. Both trade and investment contribute to the flow of knowledge and transfer of technology.

The Challenges of Globalization

The United States has long sought to extend the benefits of trade and investment as widely as possible, both within and among countries, but significant challenges remain. The United States is committed to expanding trade and investment opportunities around the world. It is also committed to putting a human face on the global economy, in part through greater consideration of labor and environmental concerns and more openness in WTO proceedings. For all the evidence that trade raises living standards, some U.S. industries and their workers may face difficulties adjusting to more open markets. Economists attribute only a small share of worker dislocation (roughly 10 percent or less) to trade, but crafting sound domestic policy to help ease the transition for those affected poses another important challenge. The emerging market financial crises of 1997-99 highlight yet another challenge: the risk that sudden reversals in capital flows can in some cases be destabilizing. Finally, the growing U.S. trade deficit raises the challenge of ensuring not only that the United States remains an attractive location for investment, but also that Americans are saving enough for the future.

Spreading the Benefits of Trade

The United States has sought to open markets, extend the rule of law, and encourage economic growth internationally through bilateral, regional, and multilateral trade agreements. The multilateral trading system, consisting originally of the GATT and more recently the WTO, is at the core of these efforts. Although its achievements have been considerable, this system remains a work in progress. The recent difficulty in establishing a mandate for a new round of WTO negotiations, and the public protest accompanying the WTO Ministerial in Seattle, give a sense of the challenges that lie ahead.

Many countries continue to maintain high trade barriers, especially in agriculture and services, but institutional concerns, such as those relating to the WTO's accessibility and transparency and to its relationships with international labor and environmental organizations, have come increasingly to

the fore. Much work also remains to be done to ensure that developing countries—particularly the least developed—enjoy improved market access and obtain the technical assistance they need to realize the benefits that international trade can afford. At the same time, the United States must also address legitimate concerns about the adjustment of domestic industries and workers. On balance, trade does raise living standards, but there are those within an economy who may suffer losses when more-open markets shift resources from one use to another.

Opening Markets More Fully

The United States gains when it lowers its trade barriers, but it gains most when other nations also lower theirs. Indeed, as one of the world's most open economies, the United States has a particular interest in promoting liberalization abroad. The Uruguay Round, which lasted from 1986 to 1994, brought agriculture and textiles and clothing more fully into the GATT and took the first steps toward liberalizing trade in those sectors. It also brought service trade into the multilateral system by creating the General Agreement on Trade in Services. A series of post-Uruguay Round negotiations have yielded additional market access commitments in financial services, basic telecommunications services, and information technology, opening up new opportunities in areas where the United States is believed to be highly competitive. Yet room for improvement remains, as many countries continue to maintain significant tariff and nontariff barriers.

Agriculture provides a stark example. Bound tariff rates (maximum rates to which countries commit themselves in trade negotiations) on agricultural products average about 50 percent around the world, compared with less than 10 percent in the United States. Moreover, even after the European Union and Japan fully implement their Uruguay Round commitments, they will be free to provide as much as $78 billion and $35 billion, respectively, in trade-distorting domestic support to their farmers each year. By comparison, the United States will be limited to about $19 billion. Partly because of these policies, average prices for food and related goods are 34 percent higher in the European Union and 134 percent higher in Japan than in the United States.

To help meet the challenges of market opening, the United States is seeking additional market access in agriculture, services, and certain industrial products in the WTO. Notwithstanding the difficulty in establishing a negotiating mandate during the Seattle Ministerial, the WTO's built-in agenda calls for further negotiations on agriculture and services to have begun by January 2000. In agriculture the United States has proposed eliminating export subsidies and reducing tariffs and trade-distorting domestic supports. In services the United States has sought commitments for more openness in

key sectors such as finance, telecommunications, and construction. In other areas—chemicals, energy products, environmental products, fish, forest products, jewelry, medical and scientific equipment, and toys—the United States has sought accelerated tariff liberalization.

Rapid technological change poses additional challenges, sometimes raising questions about the nature of trade and product development. The United States has sought to promote the development and use of new technologies, such as electronic commerce and biotechnology, in ways that help spread the benefits of trade. With the strong support of the Congress, this Administration has sought an extension of the moratorium on tariffs on electronic commerce in the WTO. The United States is also seeking to ensure that trade in agricultural biotechnology products is based on transparent, predictable, and timely processes.

Strengthening Rules and Institutions

Credibility and predictability are essential components of the trading system. For firms to undertake the investments necessary to serve foreign markets, they need to believe that new barriers will not be raised and that old ones will not reassert themselves. To rely on foreign suppliers, buyers need to believe likewise that market access will not be disrupted. Traders need assurance that commitments will be binding and that markets will remain open even if circumstances change. And the rules of the trading game should ensure that governments play fair—that they neither seek advantage for favored interests by subsidizing their producers, nor pass regulations that unnecessarily distort international trade, nor otherwise circumvent international commitments. In setting these rules and encouraging compliance with them, the WTO has tried to strike an appropriate balance between the needs of the trading system and those of sovereign nations. Its agreements do not preclude the United States or other countries from establishing, maintaining, and effectively enforcing their own laws, nor do they prevent the United States from setting and achieving its environmental, labor, health, and safety standards at the levels it considers appropriate.

The WTO operates not by decree but by consensus among its members. Through consensus, the WTO has done much to achieve both credibility and fairness. Its rules allow nations to take antidumping measures, countervailing duty measures, and action against import surges, provided they follow certain procedures. The United States has used its own WTO-consistent trade laws to combat unfair foreign practices and to provide safeguards for domestic producers. The WTO also provides an improved framework for resolving disputes within the multilateral system. This framework has proved extremely useful to the United States, which as a complaining party has so far prevailed in 22 out of 24 cases, having favorably settled 10 without litigation

and having won 12 in litigation. And the WTO provides new rules for protecting intellectual property rights. For the United States and many other countries, such rights convey substantial value. In 1998, for example, U.S. exports of royalties and license fees amounted to about $37 billion.

By and large, countries participating in the GATT and later the WTO have adhered to their commitments. The trend toward market liberalization since World War II, and the maintenance of commitments not to raise barriers even in the face of international financial crises, stand in sharp contrast to the trade policy experience of the interwar period. The multilateral trading system has played a critical role in maintaining and expanding economic ties, helping make the last half century one of historically unprecedented economic growth for the United States and many of its trading partners.

Nevertheless, the rules of the WTO and the ways in which they are administered can be improved. The dispute settlement process, although much strengthened, is opaque and sometimes slow. During the Seattle Ministerial, the United States led the call for greater public access and participation. The United States has sought to open the WTO's dispute settlement procedures to the public and to allow nongovernmental organizations to file amicus briefs. The drawn-out pace of settlement proceedings has also caused dissatisfaction. Ordinarily, a case should not take more than a year (15 months if it is appealed), but in practice the dispute settlement process can continue to drag on even after the WTO has adopted a ruling. For example, in the case involving the EU banana import regime, the WTO found for the United States in about 18 months from the point of initial consultation, but by the time the United States was finally authorized to suspend trading concessions, nearly 3 years had passed.

Promoting Growth Internationally

The United States has long advocated the use of the multilateral trading system to promote economic growth internationally, often with considerable success, but not all countries are well positioned to reap the benefits that trade can afford. Steps can be taken to help ensure that developing countries, including the least developed, obtain the market access and technical assistance they need to benefit more fully.

Developing countries have increasingly come to appreciate the value of the multilateral trading system. The system not only provides them opportunities to trade on the basis of their comparative strengths but also reinforces market-oriented development strategies where they have been adopted. Originally dominated by the industrial countries, the system has witnessed growing participation as other nations have sought inclusion. Today the WTO counts 135 members, with over 30 nations, including China, seeking accession (Box 6-2). This allure of the trading system supports the conviction that

international trade is not a zero-sum game: both the United States and its trading partners reap the benefits.

Developing countries have come to account for an increasingly large share of world trade, but some have moved ahead more rapidly than others. Developing countries' total trade (exports plus imports) rose at an annual rate of 9.9 percent between 1989 and 1997, exceeding the 7.6 percent growth rate

Box 6-2. China's WTO Accession: Opening Foreign Markets, Extending the Rule of Law, and Encouraging Growth and Development

In November 1999 the United States and China concluded a bilateral agreement on China's WTO accession. This agreement, which represents a crucial step in China's accession to the multilateral organization, addresses many of the barriers to trade and investment in China that now impede the flow of goods, services, and capital. Upon implementation, the agreement would benefit both U.S. and other firms outside of China, by improving access to China's market. China would benefit as well from wider availability of high-quality foreign products and from the introduction of best-practice skills by U.S. firms in areas such as finance and insurance. The agreement would help address distortions in China's economy that have contributed to slowing output growth there and have reduced the prospects for future growth.

Under the terms of the agreement, China's WTO accession would continue the remarkable process of economic reform that began there two decades ago. China's economy has become increasingly market-oriented and increasingly open to trade and foreign investment. Between 1978 and 1999, China's official statistics indicate that the country's income per capita rose at a rate of more than 8 percent per year, which, according to the World Bank, has helped raise some 200 million people out of absolute poverty. (Some have argued that statistical shortcomings lead to an overstatement of this long-run growth rate, but even skeptics acknowledge that the results have been impressive.) Trade has grown even faster than output, with the sum of exports and imports rising from $21 billion in 1978 to $324 billion in 1998. Over this period more than $250 billion in FDI entered China.

Despite this substantial progress, China has continued to maintain significant barriers to foreign trade and investment. These barriers include high tariffs on many agricultural and industrial products and other, less quantifiable restrictions. For example, some products may be imported only by approved foreign trading companies, and foreign investment is sometimes restricted outside of particular sectors. In many sectors these barriers have shielded inefficient state-owned

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Box 6-2.—*continued*

enterprises—the core of the former centrally planned economy—from competition, reducing prospects for China's continued strong growth.

The bilateral agreement directly addresses many of these concerns, especially as they relate to trade. China has agreed to significant reductions in tariffs on imports of agricultural and industrial products: for example, tariffs on U.S. industrial products would decline from a simple average of 24.6 percent to 9.4 percent, calculated from a 1997 baseline. The bilateral agreement would also address many nontariff barriers. In agriculture, China would establish large and increasing tariff-rate quotas on bulk agricultural commodities, limit some state trading activities, and eliminate export subsidies. (A tariff-rate quota is one in which imports are allowed above the quota but a higher tariff applies than within the quota.) China would phase in full trading and distribution rights for most of its industrial sectors. The agreement also covers a wide range of trade in services, including banking, insurance, telecommunications, distribution, professional activities, and other business services. The agreement also contains a special safeguard rule, to protect against surges in China's exports to the United States, and it specifies a non-market economy methodology to address dumping.

As a result of these changes, U.S. firms would gain from better access to a fast-growing market of almost 1.3 billion people, and from greater certainty about China's economic policies in the future. WTO accession would commit China to a path of further economic liberalization, which could help lock in its transformation from a centrally planned to a market-based economy and encourage faster growth. This commitment can also help strengthen the rule of law in China, providing more certainty for U.S. firms seeking to do business there.

Although the bilateral agreement represents a crucial step toward China's WTO accession, several important ones remain. For example, China must still complete bilateral agreements with a number of other WTO members, as well as multilateral negotiations on its accession protocol. After that, China must complete its own domestic procedures for accession.

of trade worldwide. Over this period their share of world trade rose from 29.1 percent to 34.7 percent. Among developing countries, the trade of those that are WTO members grew slightly faster, at an annual rate of 10.5 percent. The 48 least developed countries have, as a group, done less well. For these countries, many of which are also WTO members, trade grew at an annual rate of only 6.1 percent through 1996.

As these data suggest, not all WTO members are well equipped to use the trading system effectively. Some of the least developed members lack the necessary domestic institutions and infrastructure to reap the full benefits of trade. For them, capacity building and technical assistance, coupled with additional market opening, could help spread those benefits. Through the WTO, the international community can make more progress in liberalization in certain priority areas, such as agriculture and services. But developing countries, including the least developed, can also take their own actions. In addition to participating in multilateral initiatives, they can benefit from increased unilateral liberalization, as free trade promotes the movement of labor and capital into their most productive uses, strengthens competitive forces, facilitates innovation, and raises living standards.

The United States has proposed measures for the WTO to provide developing countries with technical assistance in implementing trade policy. The United States will also work to give the least developed countries greater access to global markets, as it is already doing through the U.S. Generalized System of Preferences (GSP) program. The U.S. GSP program began in 1976, when the United States joined 19 other industrialized countries in granting tariff preferences to developing countries, to help promote economic growth through expanded international trade. Currently, over 4,400 products and product categories are eligible under the program for duty-free entry from designated beneficiaries—over 140 developing countries and territories in total—and another 1,783 products are eligible for duty-free entry from least developed beneficiaries only. The value of U.S. GSP duty-free imports in 1998 was $16.3 billion. However, lapses in authorization of the program, which have occurred several times over the past 5 years, have tended to detract from its efficacy, by creating uncertainty for investors and importers.

Addressing Concerns About Adjustment

As markets become more open, some domestic industries will expand while others may contract. Although globalization provides benefits overall, the adjustments that businesses and workers in shrinking industries may undergo can be costly and painful. Although, as noted above, economic studies typically find that trade is a small factor in U.S. job displacement, some workers may face short-term unemployment, and others may even face permanent wage reductions if they are unable to find comparable jobs in expanding sectors.

Trade, like other sources of economic growth, therefore presents challenges at home. But the fact that trade produces additional income means that, in principle, resources are available to help those who are hurt—either to adapt by becoming more productive and competitive at what they were already doing, or to switch activities. One way to help in the transition is to develop

programs that directly address the problems of dislocation. Another is to encourage trade while limiting the pace at which change occurs, as the United States has done by phasing in provisions of the WTO agreements and applying safeguard measures. Such gradualism may be desirable under certain circumstances, but trying to prevent liberalization altogether would be counterproductive. Permanent protection inevitably costs more, in terms of benefits forgone, than it saves. The key lies in maintaining an economy that is sufficiently flexible and vibrant to meet the challenges of reaping those benefits.

To address problems of worker dislocation, regardless of cause, the Administration has developed new programs to assist in job search and training. These programs add to the assistance already available to displaced workers through the Federal Trade Adjustment Assistance program. The Workforce Investment Act of 1998 retains a funding stream for dislocated workers and promotes customer access to services and information, as well as customer choice, through a One-Stop delivery system and through Individual Training Accounts. The Administration is also acting to ensure that Lifetime Learning tax credits and scholarships are available to assist workers in preparing for new jobs. Federal job and talent banks are meanwhile providing mechanisms for helping millions of U.S. workers find new jobs. For example, on a single day in January 2000, America's Job Bank listed over 1.5 million jobs.

The WTO agreements and U.S. trade laws also provide a cushion during periods of adjustment. For example, key features of the Agreement on Agriculture and the Agreement on Textiles and Clothing phase in gradually over periods of 6 to 10 years. Moreover, the WTO agreements allow countries to use certain forms of safeguards to protect themselves temporarily against import surges that seriously injure or threaten to seriously injure a domestic industry. The United States has invoked its own safeguard provisions three times since the creation of the WTO, in cases involving corn brooms, wheat gluten, and lamb meat.

Addressing Concerns About Core Labor Standards and the Environment

During the Seattle Ministerial, some participants and observers raised important questions about the relationships between trade and labor and between trade and the environment. The Administration is committed to ensuring that the benefits of trade are shared broadly and do not come at the expense of core labor standards or the environment. Economic evidence, presented below, suggests that trade can support labor and environmental objectives rather than obstruct them.

Over time, the United States has developed strategies to address international labor and environmental considerations through a variety of means.

For example, preferential U.S. trade programs contain criteria for workers' rights: legislation for the U.S. GSP program states that the President shall not designate any country a beneficiary developing country if "such country has not taken or is not taking steps to afford internationally recognized worker rights to workers in the country. . . ." The North American Free Trade Agreement contains side agreements on labor and the environment. At the same time, the United States has sought to promote core labor standards and environmental goals through multilateral institutions such as the International Labor Organization and the United Nations Environment Program. During negotiations in Seattle, the United States proposed to strengthen the WTO's links to these and other relevant international organizations. The United States is also seeking to create a working group on trade and labor in the WTO, to better understand the linkages between them. And just before the Seattle Ministerial, the President issued an executive order for the United States to conduct environmental reviews of certain kinds of trade agreements.

Economic evidence suggests that trade can support both labor and environmental objectives, in part through its positive effect on economic growth. For example, analysis using wage, employment, and income data to study the relationship between economic development and working conditions in Hong Kong, the Republic of Korea, Singapore, and Taiwan has found that these conditions generally improved as the economies developed. Studies of the relationship between pollution and income per capita are also revealing: in several cross-country analyses of emissions patterns of air and water pollutants, emissions seem to increase with income at low incomes and fall with income at high incomes. As countries become wealthier, they may eventually become cleaner, perhaps because of increased demand for environmental protection. Recognizing that trade and environmental objectives can be mutually supportive in even more direct ways, the United States is seeking to eliminate fishery subsidies that contribute to overfishing and to eliminate tariffs on environmental goods.

Nevertheless, international trade occurs in the context of domestic policy. Although sovereign nations bear responsibility for adopting sound domestic policies, the international community can contribute its expertise. In this regard, the United States has proposed measures in the WTO to provide technical assistance on implementing trade policy and on strengthening institutions in developing countries responsible for trade, labor, environmental, and other policies that influence the gains to living standards from trade.

Managing Capital Flows and the Macroeconomy

Globalization raises other challenges as well: flows of goods, services, and capital can be the source of macroeconomic shocks. To take an extreme example, the crisis in emerging markets that began in Thailand in 1997

demonstrated the potential adverse consequences of volatile capital flows. The crisis also highlighted the need for developing countries to strengthen their domestic financial systems and adopt appropriate macroeconomic policies, including consistent monetary and exchange rate policies, to cope with this volatility. Such policies allow countries to capture more fully the benefits of an increasingly global financial system and to minimize their vulnerability to crises. Of course, for some very poor countries the challenge is not that capital flows are too volatile, but that they are insufficient. Recent policy initiatives, discussed below, aim to distribute the benefits of global capital flows more broadly.

International Financial Crises and the New Financial Architecture

A particular concern is the potential role of sudden swings in capital flows in precipitating a financial crisis—a phenomenon marked by extreme financial market volatility and macroeconomic instability. An economic crisis can, of course, occur in a country that is closed to trade and capital flows, but adding an international dimension to the crisis can in some cases make the situation even worse. We have seen how international capital flows provide important benefits in allocating resources efficiently and promoting growth. But sometimes capital—especially short-term capital, such as overnight bank loans—can flow out of a country very quickly. For example, capital might leave a developing country in response to new information about the country or to a change in industrial-country interest rates. But whatever drives them, rapid outflows can force a sudden and costly adjustment in financial markets and the real economy.

A series of crises in emerging market economies in the 1990s have brought these issues to the fore. In Mexico in 1994 and 1995, policy shortcomings, weakness in Mexico's balance sheet, and financial market volatility combined to create a sharp liquidity crunch and a steep fall in output. The crisis that began in Thailand in 1997 seems to fit the same pattern. That crisis quickly spread to other Asian developing economies in 1997 before it began to ease in mid-1998; it then, however, revived and spread to Russia, Brazil, and several other Latin American countries in 1998 and early 1999.

Many emerging markets had exchange rate regimes that, to a greater or lesser extent, involved pegging the value of the domestic currency to the dollar while retaining latitude to adjust the pegged rate or even float the currency. For these economies the initial manifestation of the crisis was a sharp fall in reserves, which forced abandonment of the pegged rate; the currency's value then fell precipitously. Stock markets also dropped sharply. Severe declines in output soon followed. For example, annual output growth had averaged about 7 percent from 1990 to 1996 in the five "front-line" Asian crisis economies (Indonesia, Korea, Malaysia, the Philippines, and Thailand).

By contrast, in 1998 output fell on average by 7 percent in these economies. Large swings in capital flows required corresponding adjustments in the current account balances of these five economies, which shifted from combined deficits of $54 billion in 1996 and $25 billion in 1997 to a combined surplus of $69 billion in 1998.

Last year's *Economic Report of the President* discussed the recent emerging markets crisis at length. The crisis and the virulent contagion that ensued did not have a single, simple cause. Nevertheless, in some Asian countries, structural weaknesses, particularly in financial intermediation, appear to have been a key source of vulnerability. Weak financial systems intermediate resources poorly, so capital is not allocated efficiently. The combination of lax financial supervision and regulation, a tradition of lending to politically favored borrowers, and poor corporate governance, led in turn to considerable lending to low-productivity projects. In some cases, domestic and international capital liberalization may have exacerbated the problems caused by these distortions, by allowing banks and firms to borrow more money at lower rates in international markets than was advisable.

Insufficiently prudent management of the national balance sheet compounded these weaknesses. Too many countries involved in recent crises were seeking short-term capital from abroad. In Thailand, for example, the Bangkok International Banking Facility enabled Thai banks and firms to borrow heavily abroad in foreign currency at very short maturities, and the government decided to mortgage its foreign exchange reserves in forward markets. Fixed but adjustable exchange rates in some countries gave the illusion of currency stability, and low levels of usable reserves created vulnerability to a sudden turn in confidence that ultimately became self-perpetuating. As the psychology of the market shifted, the opportunity to fix the underlying problems that triggered the crisis without up-ending the economy drained away.

These weaknesses interacted with an inadequate focus on risk on the part of banks and investors in industrial countries, which had contributed to the rapid inflows of capital in the first place. This combination of structural weaknesses, policy biases that favored risky forms of finance, and an insufficient regard for risk led ultimately to an abrupt collapse in confidence that spread outward from Asia in 1997, as investors realized the extent of their exposure. Once confidence was lost, the problems in the affected countries were compounded by rapid and self-fulfilling outflows of capital.

How can countries and the international financial system retain the benefits of capital flows discussed earlier while making crises both less likely and less virulent? The debate over the new international financial architecture, as it has come to be known, seeks to address this question. The Mexican crisis of 1994-95 sparked the search for policies that could prevent large swings in

capital flows, but the emerging markets crisis of 1997-99 gave it particular urgency. The United States has taken the lead in these efforts.

The quest for a more stable global financial system is important for industrial economies as well as for emerging market economies. After all, the emerging markets crises had effects on both the real and the financial sector in the United States and in Europe and Japan. Together with continued weakness (indeed, outright recession) in Japan in 1997 and 1998, the crises reduced income growth abroad, which in turn cut U.S. exports. Some sectors of the economy—agriculture and manufacturing in particular—clearly suffered from the loss of export markets and from increased import competition. At the same time, weakness in the currencies of the crisis-stricken countries implied an appreciation of the dollar in both real and nominal terms, which made foreign products more competitive both abroad and in the United States. The crises overseas have at times also had significant repercussions on U.S. financial markets. In the period following Russia's default on its sovereign debt in August 1998, U.S. asset prices declined and considerable financial market stress followed.

At certain junctures, the weak external environment and the possibility of further financial market turmoil posed a clear risk to the continuing strong performance of the U.S. economy. The downside risks for the United States did not materialize, however, in part because of the policy response of U.S. authorities in the fall of 1998 and the financial packages assembled by the International Monetary Fund. Most Asian emerging market economies resumed growth in 1999. However, for much of this period the world economy was essentially flying on one engine: the robust performance of the U.S. economy. Indeed, during this period, the openness of the U.S. market helped cushion the adverse effects of the crisis on output and employment abroad. Thus events abroad create important policy challenges at home. For this reason, promoting the new international financial architecture is in America's own self-interest.

A consensus is emerging on the broad outlines of this new architecture (Box 6-3). A central lesson of the crises of the 1990s is that countries largely shape their own destinies. Hence, building a sound global financial system requires that individual countries work to ensure that their financial systems and macroeconomic policies are sound, consistent, and transparent. Improving transparency, for example, requires improved accounting standards and timely reporting of data. These steps can minimize the information problems that contribute to swings in capital flows. In addition, the recent crises demonstrate the critical importance of the choice of exchange rate regime in reducing a country's vulnerability to crisis. Whatever regime is adopted should be credible and supported by consistent macroeconomic policies and robust financial systems.

Box 6-3. The New International Financial Architecture

The international community, under U.S. leadership, has proposed a set of reforms to strengthen the international financial system. On the general principle that a market-based system provides the best prospects for a sound global economy, these reforms seek to improve crisis prevention and the international community's response to crisis in ways that allow markets to operate effectively.

Last year's *Economic Report of the President* described the background behind the major reform proposals and outlined their chief features. Since then, work has continued within the Group of Seven (G-7) large industrial countries and with key emerging market countries to explore ways to improve and implement these reforms. The United States has continued to play a leading role in these efforts. At its June 1999 summit in Cologne, Germany, the G-7 released a report on financial architecture. The report emphasized reforms in six areas:

- Strengthening and reforming the international financial institutions—the International Monetary Fund (IMF) and the World Bank—and arrangements for international cooperation
- Enhancing the transparency of financial institutions and markets and promoting best practices, to enable market participants to make informed judgments about risk and provide greater incentives for policymakers to implement sound policies
- Strengthening financial regulation in industrialized countries, so that creditors will act with greater discipline and assess more prudently the risks associated with their lending
- Strengthening macroeconomic policies and financial systems in emerging markets, to allow borrowers in emerging markets to benefit fully from integration into the international financial system
- Improving crisis prevention and management and involving the private sector, to ensure that all participants will expect to bear the consequences of the risks they take, and to reduce the risk of financial market contagion
- Promoting social policies to protect the poor and most vulnerable.

The Administration has pushed forward with this effort in several ways. It has made the terms of exceptional financing support more market-based through the creation of the IMF's Supplementary Reserve Facility and, most recently, its Contingent Credit Line (CCL). It has also helped countries develop stronger national financial systems, including through the incentives embodied in the terms of the CCL.

continued on next page...

Box 6-3.—*continued*

In addition, to promote dialogue on key economic and financial issues, a new informal mechanism known as the G-20 (a group of key industrial and emerging market economies that account for more than 80 percent of world GDP) met for the first time in December 1999. This group will be focusing on how countries can further reduce their vulnerability to modern capital account crises.

Improvements in national policies are necessary to strengthen the international financial system, but not sufficient. Policies and incentives must also be appropriate at an international level, as discussed in Box 6-3. These reforms seek to reduce the incidence and severity of future crises by providing suitable incentives for the effective working of a market-oriented system.

When reversals of capital flows do occur, an important task is to keep the damage to a minimum. Several actions can help in this regard. First, it appears clear that countries should avoid policy biases that encourage excessive reliance on short-term, foreign currency-denominated debt, since it is those flows that can flee most quickly. Second, ensuring that the financial system is sound can enable a country to cope with capital and exchange rate movements without excessive damage to financial intermediation.

Debt Relief for Developing Countries

An important goal of the proposed reforms of the international financial system is to ensure that countries realize the substantial benefits of open markets in trade and investment. However, some of the world's poorest nations are not benefiting from globalization. Many developing countries have unsustainable debts and policies that are not conducive to economic growth and development. Recognizing the need to integrate these countries into the global economy, the United States has actively pursued several multilateral and bilateral initiatives to reduce their debt burden.

Most recently, the United States helped forge an international consensus among the G-7, the International Monetary Fund, the World Bank, and other creditors to provide broader, faster, and deeper debt relief to many of the world's poorest, most heavily indebted nations. Together with previous debt relief commitments, the June 1999 Cologne Debt Initiative, which expanded on the Heavily Indebted Poor Countries (HIPC) Initiative of 1996, may reduce these countries' combined nominal debt by as much as $90 billion, in return for genuine reforms aimed at reducing poverty and encouraging long-run economic growth. The combined external debts of the 33 HIPCs most likely to benefit from the Cologne Debt Initiative were estimated at $127 billion in 1998, or nearly 120 percent of their combined GNP.

The key objective of the initiative is to strengthen the links among poverty reduction, debt relief, and sound economic policy so as to foster development. Countries seeking eligibility for debt relief must meet several requirements. They must undertake macroeconomic reforms, such as inflation stabilization. They must place increased emphasis on channeling the benefits of debt relief to poverty reduction, especially in the areas of health care and education. They must make efforts to improve governance, especially in establishing participatory processes with civil society and ensuring transparency. In consultation with the International Monetary Fund and the World Bank, eligible countries will design poverty reduction strategies that allow them to use the savings from debt relief to fight poverty effectively.

Openness has increased opportunity and prosperity in both industrialized and developing countries. In order to benefit, however, countries must have policies in place that are conducive to economic growth, and they should not be held back by unsustainable debts. As the Cologne Debt Initiative encourages growth and stability in return for debt reduction, it will benefit creditors and debtors alike by creating new opportunities for trade, investment, and the development of human capital.

The Trade and Current Account Deficits

Throughout the second half of the 1990s, the U.S. trade and current account deficits rose steadily. In the third quarter of 1999, the current account deficit (a comprehensive measure that comprises not only the trade deficit in goods and services but also net income and transfers) reached a record relative to GDP—even as the U.S. unemployment rate stood at its lowest level in 30 years. It is worth recalling that the benefits of openness, including higher real incomes, are realized no matter what the size of the external deficit. By themselves, external trade and current account deficits are neither inherently good nor inherently bad. What matter are the reasons for the deficits. The main reason for the deficits today appears to be the strength of the U.S. economic expansion relative to the slow or negative growth in many other countries.

By definition, a trade deficit occurs when a country's domestic spending exceeds its domestic production. The shortfall is then made up by importing more goods than are exported. When the United States runs a trade deficit, foreigners buy less than a dollar's worth of U.S. goods for every dollar they earn from their export sales to us. The natural question to ask is, What do foreigners do with the dollars left over after they buy those U.S. goods? In practice, they typically invest those excess dollars in U.S. assets. The desire of foreigners to purchase attractive U.S. assets—in essence, to lend us the money needed to finance a trade deficit—makes the deficit possible. In other words, there is necessarily a link between the international flow of goods and

services and the international flow of financial resources. In fact, one can as readily argue that the desire of foreigners to acquire attractive U.S. assets is responsible for the U.S. trade deficit as the reverse.

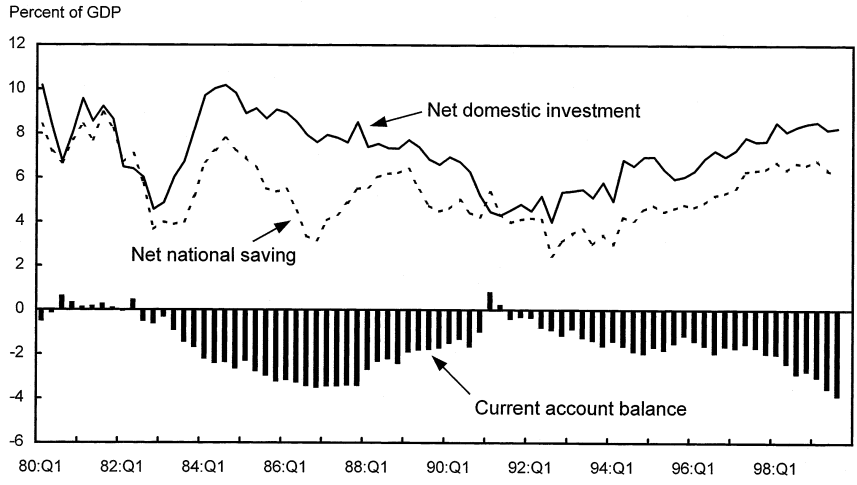
This link between the flow of goods and services and the flow of financial resources highlights another way of looking at the trade and current account deficits. From a national accounting perspective, a country's current account balance equals the difference between national saving and domestic investment (plus a statistical discrepancy and after minor adjustments). When the demand for domestic investment in the United States exceeds the pool of national saving, borrowing from foreigners—a rise in national indebtedness—makes up the difference. Conversely, when saving exceeds investment, the surplus is invested abroad.

Is it good or bad for a country to get into debt? The answer obviously depends on what the country does with the money. What matters for future incomes and living standards is whether the deficit is being used to finance more consumption or more investment.

In this respect, the deficit in the 1990s differs radically from that in the 1980s. The United States experienced large current account deficits in the mid-1980s (Chart 6-7), when net domestic investment fell as a share of GDP, and net national saving fell even faster. By contrast, in the current expansion the deficit has been associated with rising shares of GDP devoted to both investment and saving. The deficit's growth indicates that the rise in national saving, due to reduction of the Federal budget deficit, has not kept pace with the increase in investment. It signals rising investment rather than falling saving.

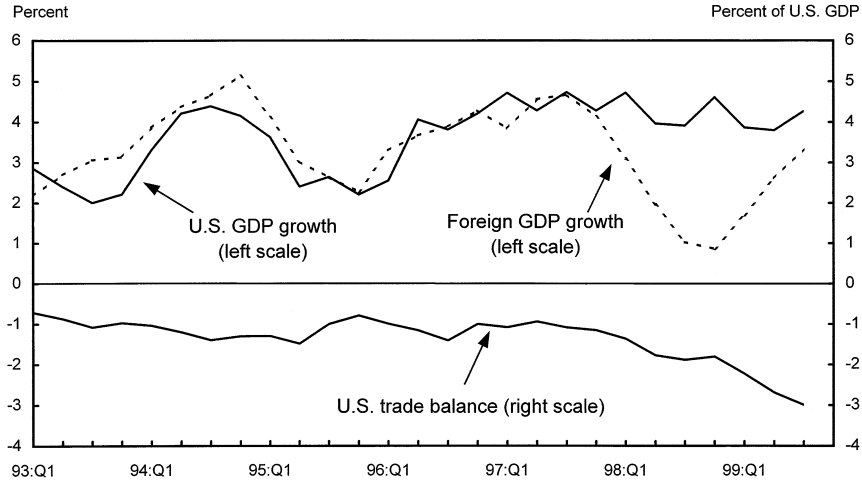
That a falling trade balance can coincide with a robust economy is no surprise; indeed, both economic theory and empirical observation lead one to expect such a pattern. A strong economy raises demand for imports and is generally associated with high demand for investment. As Chart 6-8 shows, GDP growth in the United States' trading partners as a group fell sharply in 1998, reflecting weaker growth in Europe, recession in Japan, and outright crisis in emerging markets. By contrast, U.S. growth remained robust. Since the end of 1997, the U.S. trade deficit has risen from about 1 percent of GDP (its average throughout the mid-1990s) to about 3 percent. The dramatic difference between U.S. and foreign growth appears to be the primary cause of the increase in the deficit, as demand grew more rapidly for all products, including imports, in the United States than elsewhere. From the perspective of capital flows, expected returns on investment have been relatively attractive in the United States. As a result, the United States has absorbed substantial net inflows of capital. Whether viewed as a phenomenon in the international flow of goods and services or as a phenomenon in the international flow of financial resources, the result of these recent devel-

Chart 6-7 **Saving, Investment, and the Current Account Balance**
The current account deficit grew in the mid-1980s as saving fell faster than investment. But in the 1990s both saving and investment rose as a share of GDP.



Note: The current account balance equals net national saving minus net domestic investment plus statistical discrepancy plus other adjustments.
Source: Department of Commerce (Bureau of Economic Analysis).

Chart 6-8 **U.S. and Foreign GDP Growth and U.S. Net Exports**
The sharp slowdown in many of the United States' trading partners in 1998 and continued weakness in 1999 contributed to a growing U.S. trade deficit.



Note: GDP growth is the percent change from four quarters earlier. Foreign GDP is an index of GDP in 35 U.S. trading partners, weighted by shares in U.S. nonagricultural exports. The trade balance is the balance in goods and services and is on a national income and product accounts basis.
Sources: Department of Commerce (Bureau of Economic Analysis), and various country sources.

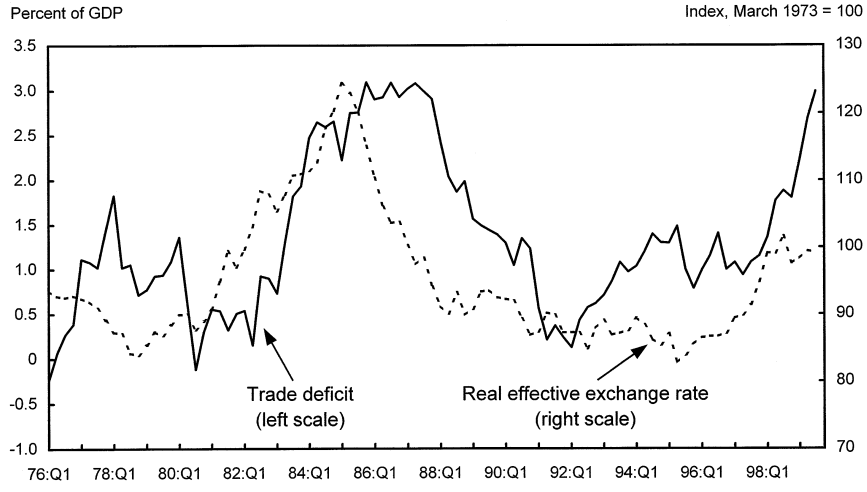
opments was that the U.S. trade and current account balances swung much more sharply into deficit.

Exchange rate movements, reflecting in part the desirability of U.S. assets, have also contributed to the rising trade deficit by affecting the relative price of imports and exports. Chart 6-9 shows that, over the past several decades, the trade deficit has tended to rise when the dollar has strengthened. Between 1995 and 1998 the dollar appreciated, although by less than in the 1980s.

In addition to these factors, some of the recent increase in the trade and current account deficits (and in the corresponding capital inflows) may reflect other, more persistent factors. A possible explanation for such a "structural" current account deficit, as well as for some of its recent increase, is faster U.S. productivity growth, as discussed in Chapter 2. If productivity growth has risen more in the United States than in other countries, this fact tends to make the United States a particularly attractive place for investment, since the expected returns to capital then rise. Capital may then flow into the United States to finance this higher investment. To the extent this story applies to the United States today, it again emphasizes the relative strength of the U.S. economy.

Clearly, then, large trade and current account deficits can easily coincide with a strong and robust economy, as they do today. Hence, a trade deficit does not by itself have implications for the overall level of employment. Nevertheless, some sectors of the U.S. economy, such as manufacturing, may be harmed by increased competition from foreign imports and from reduced

Chart 6-9 **Real Effective Exchange Rate of the Dollar and the Trade Deficit**
Increases in the trade deficit typically follow an appreciation of the dollar, and the late 1990s were no exception.



Note: The real effective exchange rate is the Federal Reserve's price-adjusted broad index of the foreign exchange value of the dollar. A rise in this index indicates an appreciation of the dollar.
Sources: Department of Commerce (Bureau of Economic Analysis), and Board of Governors of the Federal Reserve System.

demand for exports. It would be a mistake, however, to simply equate a manufacturing trade deficit with job loss in that sector. The inflows of capital into the United States that finance the trade deficit have allowed the economy to operate at higher levels of domestic investment than it could have otherwise. Higher investment, in turn, helps boost demand for manufacturing output.

Nevertheless, since the onset of the Asian financial crisis, manufacturing employment does appear to have been adversely affected by the reduced demand for U.S. exports. Between the first quarter of 1993 and the fourth quarter of 1997, U.S. manufacturing firms added about 700,000 workers to their payrolls. However, between the fourth quarter of 1997 and the fourth quarter of 1999, manufacturing employment fell by about 440,000 workers. The economy has remained at a high level of employment throughout this period—and has added more than 20 million new jobs since January 1993—which suggests that many of these displaced workers have found jobs elsewhere in the economy. As discussed earlier in this chapter, policy may also be able to help ease the adjustments resulting from trade.

In sum, although some adjustments have been necessary, today's trade and current account deficits reflect the relative strength of the U.S. economy. These deficits are essentially a macroeconomic phenomenon, reflecting a higher rate of domestic investment than of national saving. They have allowed U.S. firms to continue to invest at high rates even in a high-employment economy.

A vast array of factors affect the level of the deficit, by influencing the decisions of private individuals and firms, so it is very difficult to be precise about the "appropriate" level of the deficit. Nevertheless, for any given level of the current account deficit, one must keep several principles in mind.

First, the better are the United States' terms of trade—that is, the higher the prices we receive for our exports, and the lower the prices we pay for our imports—the higher Americans' incomes will be. Working to open large foreign markets can stimulate exports and improve the terms of trade. By contrast, closing markets in the United States through protectionist measures is counterproductive and should play no part in the policy response to the current account deficit. Measures such as higher tariffs and quotas do discourage imports by making them more expensive, but they also make our economy less efficient and reduce national income. Besides making Americans poorer, such protectionist measures would not necessarily have much effect on the current account balance, because they are unlikely to have much effect on either saving or investment.

Second, for any given level of the current account deficit, the United States is better off if it remains open and attractive to foreign investment, provided these capital flows are channeled into productive uses. Chapter 3 discussed the role of policy in nurturing innovation, which in turn leads to productive investment opportunities for the private sector. In addition, it is important to

continue prudential regulation of the financial system, to help it remain sound and keep pace with new technology and deregulation. The strong U.S. financial system is well positioned to channel capital inflows into profitable uses, and it is important to maintain that strength.

Although, again, the appropriate level of the current account deficit is difficult to assess, at least two principles are relevant should it prove necessary to reduce the deficit. First, the United States has an interest in policies that stimulate foreign growth, since it is better to reduce the current account deficit through faster growth abroad than through slower growth at home. A recession at home would obviously be a highly undesirable means of reducing the deficit. The cyclical component of the deficit, caused by declines in global demand in recent years, should reverse itself as the world economy recovers. For the future, the new international financial architecture, discussed earlier, should help maintain stronger and more stable foreign growth.

Second, any reductions in the deficit are better achieved through increased national saving than through reduced domestic investment. If there are attractive investment opportunities in the United States, we are better off borrowing from abroad to finance these opportunities than forgoing them. On the other hand, incomes in this country would be even higher in the future if these investments were financed through higher national saving. The United States needs policies that make saving more attractive. Indeed, the Administration has proposed substantial tax cuts to promote saving, especially among low- and moderate-income families who currently save relatively little. The United States also needs to maintain prudent fiscal policies. Here again, the Administration's proposals, which would lead to large and growing budget surpluses in the decade to come, are highly desirable.

A growth strategy for the United States based on continued prudent fiscal policy would also extend macroeconomic assistance to the problems faced by the manufacturing sector. By increasing national saving, such a policy would allow interest rates to remain lower than they would otherwise be. Lower interest rates would lead to higher domestic investment, which, in turn, would boost demand for equipment and construction. For any given level of investment, increased saving would also result in higher net exports, which would again raise employment in these sectors.

Conclusion

Over the long term, increasing the standard of living in the United States requires that Americans embrace change. We should not retreat from the constant succession of new opportunities that arise in an ever-changing world economy. The United States has long welcomed the opportunities that

integrating with the world economy provides. Growing international integration has benefited Americans profoundly, contributing to our increasing prosperity. It is clearly in our interest to forge ahead, both promoting and guiding the process of international economic integration.

Yet at the same time we must confront the very real challenges that arise from economic globalization. We must find ways to share its benefits as widely as possible, both at home and abroad. International policy on trade and capital flows plays an important role in ensuring that we capture the benefits of international economic integration.

Ultimately, however, our prosperity in the global economy depends primarily on our policies at home. The right policies for this task include those that encourage a flexible and skilled work force, that build an economic system in which innovation is rewarded, and that ensure that the U.S. financial system is sound and deep.

CHAPTER 7

Making Markets Work for the Environment

Hulton Getty/Liaison Agency

In 1900, one of the most common environmental problems confronting cities was the accumulation of horse manure on streets, giving offense to sight and smell and posing a public health hazard. Although the automobile eventually solved this problem, it caused others. Economic growth, structural change, and technological change over the past century gave rise to new environmental problems but also provided the income and know-how needed to address them. Innovative efforts to remedy these problems through market-based incentives help achieve environmental goals cost-effectively and provide lessons to guide efforts to solve the world's potentially most significant environmental challenge in the 21st century: global climate change.

Economic growth brings abundant benefits but can also unleash a wide array of environmental problems. Some, like water pollution, air pollution, and soil contamination, are by now long-familiar afflictions; others, like changes in the earth's atmosphere and climate, are of more recent onset. All must be dealt with, or else the very foundation of growth is threatened. Fortunately the same economic growth, structural change, and technological change that gave rise to these problems also provide the income and the know-how needed to address them. An economy that is healthy and thriving is better able to combat environmental ills. The challenge in addressing environmental problems lies in harnessing and channeling the power of markets, so that they both deliver continued economic growth and foster sound environmental practices.

The past century of experience in addressing environmental pollution illustrates that environmental goals must and can be achieved cost-effectively. Innovative efforts to address environmental problems through market-based incentives—such as emissions permit trading and emissions charges—can, when designed appropriately and applied in the appropriate context, achieve these goals at lower cost than other approaches. Poorly designed environmental markets and regulatory schemes, on the other hand, can squander valuable resources in the pursuit of environmental goals. Importantly, lessons learned in one environmental initiative can often be applied to others. In particular, the lessons already learned from addressing pollution in its various local manifestations can guide efforts to solve the world's potentially most significant environmental challenge in the 21st century: global climate change. The global nature of the problem illustrates the need to provide innovative incentives to global markets to address the potential damages.

Environmental Problems Since 1900

The nature of environmental pollution has changed during the past 100 years, reflecting, in large part, technological change and the changing structure of the economy. As fresh innovations allow firms and industries to reallocate their resources to more productive uses, the by-products of their production processes also change.

A Brief History of Environmental Problems

In 1900, one of the most common environmental problems confronting cities was the waste associated with the primary means of transportation, the horse. People traveling short distances usually rode either on horseback or in horse-drawn carriages. In densely populated cities, horse manure covered many streets, not only giving offense to sight and smell but also posing a public health hazard. The automobile eventually solved this problem but brought new ones in its wake.

As the century progressed, new environmental problems caught the public's attention. Before the introduction of filtration in 1889 and chlorination in 1908, outbreaks of typhoid fever from drinking contaminated water were common. Investments in new treatment technologies addressed this concern, and by 1958, 83 percent of the U.S. population had access to filtered or disinfected drinking water. The dust bowl phenomenon of the 1930s illustrated the potential for agriculture to result in serious soil erosion, as the wind carried away significant amounts of topsoil.

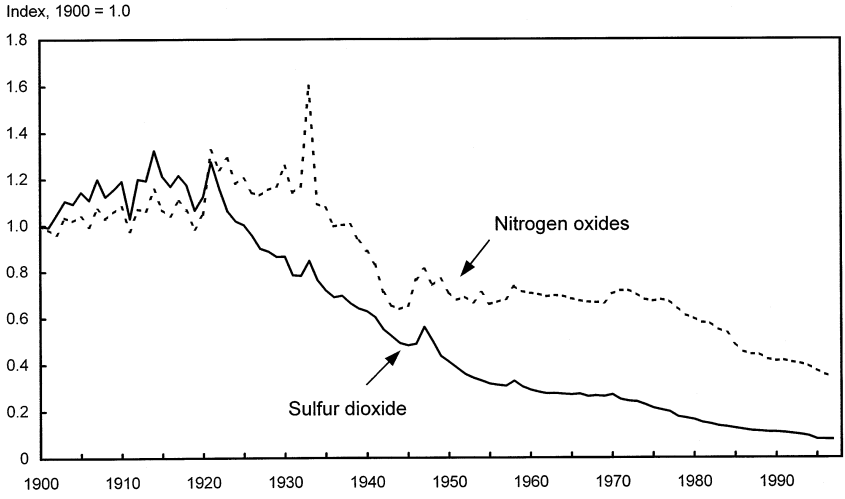
After World War II, faster growth and structural change led to a variety of new environmental problems. The Donora, Pennsylvania, "killer smog" of 1948 that took 20 lives demonstrated the seriousness of the public health threat posed by air pollution. The agrochemical revolution greatly increased agricultural yields, but the roughly threefold increase in pesticide tonnage between 1964 and 1982 also raised concerns about the effects of these chemicals on the environment and on human and animal health. One of these was the impact of the pesticide DDT on the bald eagle, as detailed in Rachel Carson's 1962 book *Silent Spring*. A burning river in Cleveland and air pollution so thick that cars drove with headlights on during the day made manifest the growing water and air quality problems of the 1960s.

Growing attention to many of these problems culminated in Earth Day in 1970. That event helped spur the series of groundbreaking environmental laws of the 1970s, such as the Clean Air Act, the Clean Water Act, the Endangered Species Act, the Safe Drinking Water Act, and the Resource Conservation and Recovery Act. In the late 1970s, incidents at Love Canal, New York, and elsewhere revealed concerns about the use and disposal of toxic and hazardous substances. The Environmental Protection Agency (EPA) currently has more than 1,200 Superfund sites—areas designated as most contaminated with hazardous wastes—on its national priority list for cleanup and remediation. The hole in the atmosphere's ozone layer that appears each spring over Antarctica, first detected during the 1980s, demonstrates the destructive effect of chlorofluorocarbons on this fragile but critical structure. In the 1990s the scientific community concluded that the balance of scientific evidence suggested that emissions of greenhouse gases from human activity have a discernible influence on the global climate.

Environmental Pollution and Development

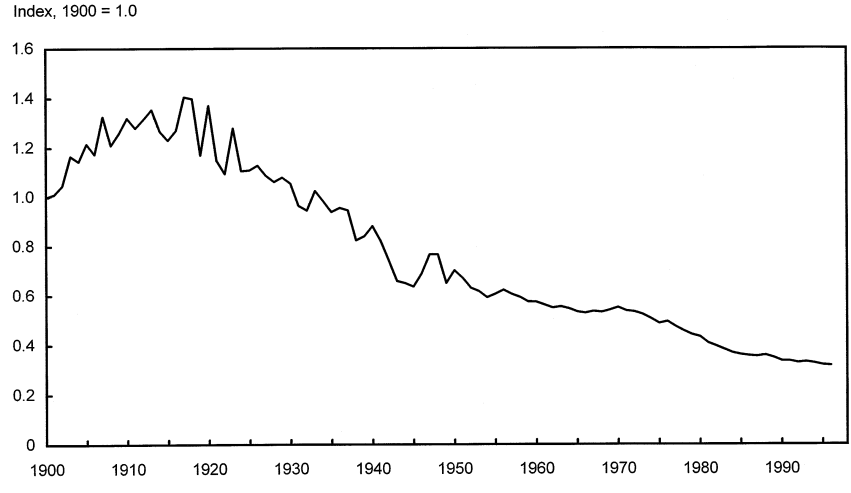
This sampler of environmental problems in the United States over the past 100 years mirrors the path of the Nation's economic development. For example, early in the century as the economy developed, emissions of sulfur dioxide (SO_2) and nitrogen oxides (NO_X) increased at a faster rate than economic growth. However, in the 1920s and 1930s, emissions relative to gross national product (GNP) began to fall for both of these air pollutants. In 1997 the U.S. economy was only one-third as NO_X-intensive as it had been in 1900 (that is, 1997 NO_X emissions per unit of output were one-third the level of 1900 emissions) and only one-tenth as SO_2-intensive as in 1900 (Chart 7-1). Although these trends may have reflected significant changes in the economy and more effective emissions control since the 1970s, current levels of NO_X and SO_2 emissions still present public health risks in the United States. Much the same has happened with carbon dioxide (Chart 7-2). The continuing transition of the U.S. economy away from traditional energy-intensive industries has reduced

Chart 7-1 **Sulfur Dioxide and Nitrogen Oxide Emissions per Unit of GNP Since 1900**
Measured per unit of GNP, emissions of nitrogen oxides in 1997 were roughly one-third, and emissions of sulfur dioxide one-tenth, their levels in 1900.



Sources: Department of Commerce (Bureau of Economic Analysis), Environmental Protection Agency, and Christina D. Romer, "The Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy*, 1989.

Chart 7-2 **Carbon Dioxide Emissions per Unit of GNP Since 1900**
Emissions of carbon dioxide per unit of economic output have fallen steadily since the early 1900s.



Sources: Department of Commerce (Bureau of Economic Analysis), Oak Ridge National Laboratory, and Christina D. Romer, "The Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1908," *Journal of Political Economy*, 1989.

carbon dioxide emissions per unit of GNP (Box 7-1). Advances in energy technology and changes in primary energy sources may have contributed to this improvement.

Box 7-1. Structural Economic Change and Carbon Dioxide Emissions

Historically, U.S. carbon dioxide (CO_2) emissions from energy use have grown about 2/3 percent for every 1 percent increase in real gross domestic product (GDP). In general, a variety of factors besides growth in aggregate output can affect CO_2 emissions.

Structural change. The U.S. economy continues to experience a shift of its output composition away from traditionally energy-intensive manufacturing sectors.

Weather. Cold winters increase the demand for heating fuels, and hot summers increase the demand for electricity for cooling. Because heating on a cold day is more energy-intensive than cooling on a hot day, on balance a warmer year tends to reduce energy use.

Energy prices. Sharp energy price increases can stimulate energy efficiency and reduce CO_2 emissions, whereas energy price decreases can result in higher energy consumption and higher CO_2 emissions.

Technological change. Technological improvements can reduce the consumption of energy necessary to generate a unit of output. Higher energy prices can accelerate the diffusion of more energy-efficient technologies, as can government programs aimed at promoting energy efficiency.

In 1998, U.S. CO_2 emissions from energy use grew 0.4 percent, while output in non-high-technology industries grew just 2.3 percent—less than the 4.3 percent increase in aggregate GDP and less than the long-term trend rate of growth of 3.1 percent per year for this group of industries. This slow emissions growth probably reflected not only the long-term shift toward high technology and services in the economy but also weakness in several energy-intensive industries, such as chemicals and primary metals. Weather, too, played a role in moderating energy use. The winter months of 1998 were 8 percent warmer than the same months in the previous year. The summer of 1998 was also warmer than the previous year's, but the increase in emissions from more summer cooling was less than the reduction in emissions from less winter heating. Finally, electricity prices changed little, and fossil fuel prices actually fell, between 1997 and 1998.

A statistical model of how structural change, weather conditions, and energy prices influenced U.S. CO_2 emissions over the 1962-98 period found that these emissions track non-high-technology output very closely. After accounting for non-high-technology output, weather,

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Box 7-1.—*continued*
and energy prices, the level of 1998 emissions predicted by the model was very close to (0.5 percent less than) actual 1998 emissions. This suggests that short-term technological change independent of these factors was not an important determinant of the 1998 emissions. As the high-technology component of the economy continues to grow as a share of the total, CO_2 emissions growth should slow further. This would maintain the long-term trend since the 1920s toward a less CO_2-intensive economy (Chart 7-2). As of 1996, for example, the economy was only about one-third as CO_2-intensive as the economy of 1900, possibly reflecting both increased diversity of fuels and change in the composition of GDP. Although it is less CO_2-intensive, growth in U.S. economic output over this century has resulted in a substantial increase in CO_2 emissions.

Many of the same problems are evident today in countries at various earlier stages of their economic development than the United States. The challenge for these countries is to pursue a "cleaner" development path. As they continue to develop and become wealthier, they will have the opportunity to benefit from the experience of the United States and other rich countries in addressing the environmental risks that economic activity generates. In some cases the United States was reactive to environmental problems in the past, because the scientific understanding of various environmental risks, as well as the technologies and policies to address them, lagged the need. Further, the United States lacks a coherent framework for accounting for environmental quality and natural resource use in tandem with market economic activity. A recent National Research Council report, for example, calls for a supplement to the national income and product accounts that would include assets and production activities associated with natural resources and the environment. This information, combined with traditional measures of economic welfare such as gross domestic product, can provide a more complete picture of this Nation's economic development (Box 7-2).

In contrast to the U.S. experience, those technologies and policies are there to be adopted almost off the shelf, and that means developing countries can be proactive, instituting appropriate policies to focus their development along a path that accounts for the costs of pollution. Appropriate policies may allow developing countries to leapfrog the more developed ones in environmental technology, in the way that some already have in communications technology. Just as some countries have adopted fully digitized wireless phone systems without first having built extensive traditional wired systems, so developing countries can effectively skip a generation of more pollution-intensive technologies and

Box 7-2. Taking Account of the Environment

A National Research Council (NRC) report released in July 1999 concluded that extending the U.S. national income and product accounts (NIPAs) to include assets and production activities associated with natural resources and the environment is an essential investment for the Nation. The report argues that it would be even more valuable to develop a comprehensive set of environmental and other nonmarket accounts, although not at the expense of maintaining and improving the current core national accounts.

The NIPAs were designed to measure production and income that arise primarily from the market economy. However, much economic activity takes place outside the market economy. Thus, by omitting important activities such as nonmarket work, environmental services, and investment in human capital, the NIPAs provide an incomplete and potentially misleading picture. Recognizing this, private scholars and governments have begun to develop methods of extending the national accounts to measure as much economic activity as is feasible, whether that activity takes place inside or outside marketplace boundaries. In the United States, the Bureau of Economic Analysis (BEA) began intensive work on environmental accounting in 1992, but it was directed by the Congress in 1994 to suspend further work and seek an external review of environmental accounting. The NRC report represents that review.

The NRC panel argues that environmental and natural resource accounts would provide useful data on resource trends and help governments, businesses, and individuals better plan their economic activities and investments. These accounts would provide valuable information on the interaction between the environment and the economy; they would help in determining whether the Nation is using its stocks of natural resources and environmental assets in a sustainable manner; and they would provide information on the implications of different regulations, taxes, and consumption patterns.

The NRC panel supports developing a broad set of accounts that would parallel each of several asset types. These include subsoil mineral assets such as fossil fuels and metals; renewable and other natural resources such as forests, agricultural resources, and fisheries; and environmental assets such as clean air and water. It is acknowledged that the last category poses considerably greater conceptual and data challenges than the first two. To preserve the integrity of the well-developed core income and product accounts, the NRC panel supports the BEA's preference for developing natural resource and environmental accounts as satellite or supplemental accounts. Satellite accounts serve the basic purpose of the national accounts in

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Box 7-2.—*continued*
providing useful information. In addition, and in light of the current state of knowledge and preliminary nature of the data and methodologies involved, developing satellite accounts allows experimentation and encourages the testing of a wide variety of approaches.

adopt less polluting technologies from the start. Because knowledge and technology developed in one country can diffuse itself worldwide, economic development does not have to result in the same stream of environmental problems that the United States and other industrial countries have suffered since 1900.

Designing Policies to Address Environmental Pollution

Private markets by themselves usually do not provide the needed incentive for producers and consumers to take into account the costs of the environmental pollution they impose on others. For example, a pulp-and-paper mill will aim to minimize all the inputs it must buy in the market, such as labor and capital, in the production of a unit of fiber product. But if it is unregulated, the mill has no economic incentive to minimize its water pollution, because it does not have to pay for the damage that its pollution causes. Absent appropriate policies that provide an incentive for producers to account for pollution costs, economic activity produces too much pollution. Lacking this incentive, the mill also lacks the incentive to invest in research and development (R&D) into pollution-reducing technologies. Well-designed policies that create such an incentive in private markets could make society better off. Of course, an excessively stringent policy might impose a high cost on society, with little benefit at the margin. The costs of eliminating all pollution, for example, could be so exorbitant that society would suffer from having to forgo using those resources on other valuable endeavors, such as education, health care, or product R&D. The task that falls on policymakers, then, is twofold: they must first set acceptable levels of pollution, and they must then select and use policy instruments that will achieve these levels efficiently.

Economists have long argued that environmental goals should be set so that the benefit from the last unit of pollution abatement is equal to the cost of abating that last unit of pollution. However, environmental goals in practice do not usually reflect such an explicit weighting of benefits and costs. Consequently, some environmental policies may have gone too far,

imposing costs of pollution reduction that exceeded the benefits and making society worse off. Other policies may have not gone far enough, lowering pollution only to a level where the benefits of more reduction would have still exceeded the costs. In some cases, benefit-cost analysis is legally obstructed from guiding environmental policy, because environmental law prevents regulatory agencies from even considering the costs of reaching the goal. The Clean Air Act of 1970, for example, mandates that air quality standards be set "to protect public health" with an "adequate margin of safety," and the courts have ruled that the EPA Administrator cannot consider the costs of achieving a clean air standard when setting that standard.

Traditional Regulatory Approaches to Address Environmental Pollution

Marked improvements in environmental quality have occurred over the past century, and especially since 1970. These are due in large part to technological innovations that have allowed industrial, energy, and transportation activities to continue while significantly reducing their impact on the environment. Although these gains are important, the means of achieving them have often included inflexible mandates that prescribe specific technologies and result in higher costs than may have been necessary. As the costs of addressing pollution (which the EPA estimated at $125 billion a year in 1990) have increased over the past three decades, attention has come to focus more on the means of achieving environmental goals.

Traditional regulations focused on setting technology and performance standards for pollution sources. (Technology standards mandate specific equipment that sources must use to control emissions. Performance standards, in contrast, mandate a limit on emissions allowed by each source but allow the source to choose how best to comply with the limit.) However, since technology standards mandate the same technologies across all sources, and performance requirements mandate the same level of emissions reductions or emissions rates across sources regardless of any heterogeneity in costs across sources, traditional regulation may not necessarily result in cost-effective attainment of the environmental standard in all areas. Only approaches that focus on eliciting emissions abatement from those activities with the lowest marginal cost of abatement will result in cost-effective attainment of an environmental standard.

Incentive-Based Approaches to Address Environmental Pollution

Two incentive-based approaches to environmental regulation, tradable permit systems and emissions charges, have the potential to save substantial resources in achieving environmental goals, because they promote the cost-effective attainment of emissions reductions. Tradable permit systems apply an aggregate emissions cap or quota to a set of emissions sources. The government then allocates among these sources a number of emissions permits that equals the cap or quota. Allocation may be by auction, or on the basis of the sources' historic emissions or desired performance levels, or by some other approach. Each source must hold enough permits to cover the level of emissions it chooses. Sources can buy and sell permits from each other, and in a well-functioning market an equilibrium permit price will evolve that reflects the value of an additional permit to all sources. Each firm managing a source then faces the same trade-off: it can either cut back emissions by one more unit or buy one more permit. Naturally, firms will cut back on emissions if it is cheaper to do so. The outcome will be that each firm equates its marginal abatement costs to the permit price. And because all sources face the same permit price, marginal abatement costs will be equalized across all sources. This minimizes the costs associated with achieving a given goal. (Box 7-3 provides an illustration.)

The emissions charge approach requires that each emissions source pay a charge based on its level of emissions. Sources will reduce their emissions until the cost of reducing another unit of emissions is greater than the charge. Just as in the case of tradable permits, the marginal cost of abatement is uniform across sources.

Besides promoting cost-effective emissions reduction, tradable permits and charges can promote technological innovation by stimulating R&D investment in a wider range of abatement technologies and processes. When this happens, emissions reductions may ultimately exceed those sought under either technology or performance standards. Under regimes using tradable permits or charges, each firm has the incentive to develop technologies and production processes that reduce emissions regardless of the firm's current emissions level. If, in a tradable permit system, a firm reduces emissions below what its permits allow, it can sell the unused permits to other firms; similarly under a charge system, a firm that reduces emissions pays a lower charge. Under a technology standard, two conditions must be satisfied for a firm to have an incentive to invest in R&D for new, cheaper abatement technologies: it must believe that the cheaper technologies can achieve the same level of emissions performance as existing technologies, and it must win regulatory approval to use the cheaper technologies. Under a performance

Box 7-3. Emissions Trading: An Illustrative Example

Consider a hypothetical example of two neighboring power plants that emit sulfur dioxide. Suppose that both plants emit 100 units of SO_2 each year, so total emissions are 200 units, and a regulatory agency has set an emissions target of 140 units per year for these two sources. Under a traditional approach, the regulatory agency could mandate a known technology (for example, an SO_2 scrubber) that would reduce both plants' emissions to 70 units each. Each plant would need to eliminate 30 units of emissions. Assume that it will cost Utility A $600 to reduce the 30th unit of emissions, and $9,000 to reduce all 30 units of emissions, and that it will cost Utility B $300 to reduce its 30th unit, and $4,500 to reduce all 30 units. The total cost for both plants of reducing emissions to 140 units per year is thus $13,500.

However, since the costs of reducing emissions vary significantly between these two plants, a market-based approach can achieve substantial cost savings. If these two plants can engage in emissions trading, they may find it economic for Utility B, with lower emissions abatement costs, to reduce its emissions level below 70 units per year, allowing Utility A to emit more than 70 units per year. Utility B finds that it can reduce its emissions down to 60 units per year, at which point the 40th unit of abatement costs $400, and the total cost of reducing all 40 units is $8,000. Utility A can reduce emissions down to a level of 80 units per year, at which point the 20th unit of abatement also costs $400, and the total cost to reduce all 20 units of emissions is $4,000. Utility A would save resources by purchasing tradable permits for 10 units of emissions at $400 a unit from Utility B, because this is less than it would pay if it had to undertake emissions reductions to achieve the 70-unit emissions level. Utility B would earn money by selling 10 tradable permits at $400 a unit, because this is more than what it costs to reduce emissions. With the sale, the total costs for Utility A are $8,000: $4,000 for emissions abatement and $4,000 for purchasing 10 permits. Total costs for Utility B are $4,000: $8,000 for emissions abatement minus $4,000 from the permit sale. The compliance cost for both facilities with trading would be $12,000, or 11 percent below the cost with the mandated technology standard ($13,500).

standard, a firm does have the incentive to find a lower cost way of reducing emissions, but only up to the level of the standard. Some performance standards are so strict that current technologies cannot achieve them. These "technology-forcing" performance standards, when set several years into the future, may induce innovation. However, innovative activity is risky: investments in R&D may or may not pay off in new discoveries. If they do not,

compliance costs may fall by less than anticipated, and the ambitious environmental goal may prove extremely costly to meet.

These incentive-based approaches also provide an opportunity for the government to raise revenue, either through the auctioning of tradable permits or through the system of charges. Such revenue can be used to reduce existing taxes, thereby delivering additional economic benefits relative to a traditional regulatory approach (Box 7-4).

Important Issues in Designing Incentive-Based Instruments

Environmental problems come in various forms, some of which may be better addressed through emissions trading, others through charges, and still others through other means. By tailoring policy instruments to the characteristics of a given type of environmental pollution and its sources, policymakers can implement policies at lower cost than with traditional approaches.

Uncertainty About Costs and Benefits

The tradable permit approach imposes a fixed quantity restriction on a given type of pollution in the aggregate, whereas a charge approach imposes a specified price on pollution. In a world with perfect information and certainty, these two instruments would have identical effects on emissions abatement and cost. An omniscient regulatory authority could set a charge knowing it would deliver a certain level of emissions, or it could set the quantity of tradable permits in the knowledge that it would deliver a certain price of emissions abatement. In the real world, however, uncertainties about costs and benefits can influence which approach is preferred. For example, if there are paramount concerns about the environmental effects of a control policy, a tradable permit approach may be preferred. This could be the case where a small increase in the level of emissions could result in a large decrease in benefits. On the other hand, if the costs of achieving a given emissions level are highly uncertain, the charge approach may be preferred. This could be the case where estimated abatement costs for a given level of emissions lie in a wide range. If there are concerns about both costs and benefits, a hybrid approach could allow for sources to engage in a tradable permit system but place a ceiling on the permit price (for example, a price at which the government would sell additional permits), to ensure against exorbitant compliance costs that exceed the marginal benefits.

Box 7-4. Should Regulators Allocate or Sell Tradable Permits?

The Administration has proposed a domestic greenhouse gas tradable permit program for 2008-12. Implementing a tradable permit program would require industries covered by the program to restrict their greenhouse gas emissions to comply with the Kyoto Protocol emissions target. Abating greenhouse gas emissions involves costs associated with investing in new technologies, fuel switching, and other means of reducing emissions. As the energy sector becomes more competitive over the next decade, the costs of controlling emissions will be reflected in consumer prices. For example, the Administration's economic analysis of the Kyoto Protocol found that a tradable permit price of $23 per ton of carbon equivalent would increase energy prices to consumers by about 5 percent in 2010.

A key question in implementing a tradable permit system is the distribution of permits. For example, the government can allocate (give away) permits to firms, or it can sell permits to firms through auctions. So long as the tradable permit market is efficient, the price of energy to consumers is likely to be the same in either case. Permits will be scarce, and the price of energy will reflect the cost of buying a permit or taking abatement measures regardless of how the permits were originally distributed. Producers who receive free permits will be like owners of particularly low cost oil wells when oil prices go up: they will sell at the market price and reap windfall profits. In contrast, an auction allows the government to capture the value of the permits, because competition should lead companies to bid away almost the full value of any potential windfall profits from owning the permits.

Allocating permits to firms would result in handing over assets valued in the tens to hundreds of billions of dollars annually. Because these firms can pass on most of the cost of reducing emissions to consumers, allocating permits would provide these firms with significant windfall profits and allow them to enjoy higher profits under climate policy than without climate policy. On the other hand, if the government sells permits, it will receive revenue in the tens to hundreds of billions of dollars annually. Although energy firms would make lower profits under an auction system, the permit revenue could, for example, be recycled back into the economy through tax cuts. Recent research has found that such revenue recycling could reduce the costs to society resulting from the use of greenhouse gas permits by up to about 80 percent.

Allocating permits to energy industries would significantly increase the value of their equity, whereas selling permits would lower it. An alternative is to follow a hybrid approach that combines elements of both allocating and auctioning. Recent research has estimated that allocating

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Box 7-4.—*continued*
roughly 5 to 15 percent of the permits to energy firms while auctioning the rest would be sufficient to ensure that these firms' average equity values would be unchanged, all else equal. Furthermore, since most of the permits would be auctioned, such an approach would still provide significant revenue to the government.

Heterogeneity in Abatement Benefits

The environmental effects of a unit of pollution may vary across sources. For example, rural Montana is in attainment with the national standard for ozone, so the NO_X emissions that contribute to ozone concentrations may not have any significant human health effects. However, Los Angeles is not in attainment with the standard, so NO_X emissions there contribute to ozone concentrations that do cause human health problems. Further, with prevailing wind patterns, NO_X emissions from Montana are not expected to carry to Southern California and contribute to ozone concentration in Los Angeles. Thus a one-for-one emissions trade between a source in Montana and a source in Los Angeles would not be appropriate, and a more complex system that takes account of different environmental effects of emissions in these two areas would have to be designed. The key attribute of an environmental problem, then, that facilitates effective trading is sufficient mixing of emissions prior to human exposure. For example, if two sources near each other emit NO_X, and their emissions mix well in the local airshed, the environmental effects of a unit of emissions by either source can be considered roughly the same. The benefits of emissions abatement will then be roughly the same regardless of which source undertakes the abatement. In this case a simple permit trading program would be appropriate, because it would deliver environmental outcomes comparable to those from a traditional regulatory approach.

Variability in abatement benefits among sources could result in a permit trading program creating "hot spots," or local areas where emissions concentrate to the detriment of public health and the environment. As trading of emissions permits proceeds, a set of neighboring emissions sources might purchase a substantial number of permits and maintain high levels of emissions. Locally high concentrations may not matter for some environmental pollutants, such as carbon dioxide, because of the global nature of greenhouse gas accumulation and mixing. However, some hazardous air pollutants, such as benzene, do have local effects, and the potential for a hot spot could arise with a tradable permit system for such emissions.

Heterogeneity in Abatement Costs

If the cost of abating emissions varies substantially across sources, the potential for cost savings through a trading program is great. It would be profitable for a firm with a high cost of reducing emissions to make a trade with a firm with a low cost, at a price somewhere between the two costs. Large discrepancies in abatement costs—which may relate to differences in the age of facilities, in previous investments in pollution control technologies, in fuel inputs, or in other respects—provide the economic incentive for a high volume of trade and can facilitate the development of an emissions market. However, if the costs of reducing pollution are similar across sources, a tradable permit system might not deliver substantial cost savings. The transactions costs of participating in trading (for example, from having to seek out another firm with which to trade) may overwhelm the cost savings associated with the trade if the two firms have similar abatement costs, and this may reduce the incentive to trade. In such a situation, a charge or other type of regulation may be more appropriate than trading.

Scope of the Emissions Trading Market

The size of a potential emissions market can significantly affect the volume and cost savings of a tradable permit system. A market with a small number of emissions sources may experience low trading volumes and inefficient, monopoly-like behavior—a robust market may never evolve. A larger set of participants can promote a more active, efficient market.

Several factors can influence the number of participants in a tradable permit market. First, the monitoring of emissions sources can significantly influence which sources participate and which do not. If their cost of monitoring emissions exceeds the gains from trading, small firms will have no incentive to join the trading program and will likely prefer a traditional regulatory approach. Continued technological development in monitoring equipment may help reduce the costs of monitoring and allow for markets to expand to more sources. However, inability to effectively monitor some sources may make it more difficult to design well-functioning tradable permit systems and emissions charges.

Second, additional scientific research on the human health effects of various types of emissions can influence the size of a market. By taking advantage of similarities in the effects of different pollutants, tradable permit markets can be structured to allow for trading across pollutants. For example, because both NO_X and volatile organic compounds contribute to the formation of ozone, the potential is there to allow for trading across these gases. However, some of these compounds may also be carcinogenic,

so a system of multipollutant trading should also recognize that a given pollutant might have multiple health effects.

Third, the extent of participation in a permit market may also depend on the technical capacity within firms to understand and engage in the trading system. Participating in a tradable permit market requires that a firm first evaluate its own cost of emissions abatement, then assess its potential role as either a buyer or a seller in the permit market, and finally identify potential trading partners and execute the trade. This involves a different set of managerial skills than does the traditional regulatory approach, which tends to require primarily an engineering focus. This may have important implications when considering the application of such instruments in other countries, where firm managers may have less experience both with environmental protection rules and with efficient markets.

Restrictions on Trading

Restrictions on trading eliminate some of the benefits of this approach, and substantial restrictions can seriously hinder the development of an efficient market in emissions permits. Restricting a firm's purchases of tradable permits to a specified fraction of the firm's own abatement raises the costs of achieving a given environmental standard without delivering additional environmental benefits.

Liability

Approaches that result in uncertainty regarding the value of tradable permits also may reduce participation in such markets. For example, a government may restrict the buyer's use of emissions permits and may even revoke them at a later date, depending on an ex post evaluation of the seller's emissions abatement. This increases uncertainty because it effectively institutes a system of buyer liability. If the seller does not undertake emissions abatement sufficient to back the permits it has sold, the sold permits are effectively returned to the seller. Then the seller has sufficient permits to cover its emissions, but the buyer, having effectively surrendered its purchased permits to the seller, does not have enough permits to cover its emissions, and will be found out of compliance. The buyer effectively becomes liable for the seller's efforts to abate emissions. The uncertainty that this buyer liability creates may bias firms against interfirm trading, leading them to focus solely on intrafirm or internal trading, where the benefits are more limited.

Banking and Borrowing

The severity of some environmental problems is a function of the stock of pollution as it accumulates over time, whereas for others it is a function of the flow of pollution during a specific period of time. An example of the first type is carbon dioxide emissions: these accumulate in the atmosphere, where they can last for more than 100 years, and it is their total stock that influences global warming. In contrast, ground-level ozone pollution usually threatens human health most significantly during short episodes of perhaps several days. In the first case, the long-term effects of pollution over time may allow for trading to occur across time as well as across space. With stock pollution problems, a unit of pollution in one period may have environmental effects roughly comparable to a unit of pollution in a subsequent period. With flow pollution problems, emissions in one period may have significantly different environmental effects from emissions in a later period, and this limits intertemporal trading.

The flexibility to trade across time—to effectively bank, or save, emissions permits for future use or to borrow permits from the future for current use—can also result in significant economic benefits. If environmental standards are expected to become more stringent in the future, the costs of emissions may increase significantly over time. Thus a firm may find it profitable to reduce emissions below the standard early in the program and save its surplus emissions permits for use later in the program. However, if the costs of a pollution control program are high in the near term because developing new technologies requires time, it may be profitable for a firm to borrow an emissions permit from the future and use it in the current period. In cases where total emissions over time, not the flow of emissions, cause the environmental damage, this flexibility to trade emissions across time can reduce the costs of achieving a desired environmental goal. Without the opportunity to bank and borrow, permit prices—even in a well-functioning market—could vary significantly over time and could even spike in the presence of new or unexpectedly stringent standards.

Tradable Permits and Charges in Practice

Economists have advocated emissions charges since the 1920s, and tradable permit systems since the 1960s, yet both approaches received limited application until recently. Among the first applications of permit trading were the EPA's efforts in the 1970s to provide additional flexibility to firms as they complied with Clean Air Act regulations. Later applications of trading to air quality issues have included the Regional Clean Air Incentives Market in Southern California, the phaseout of lead additives in gasoline, and the

sulfur dioxide trading program. The charge approach has been used to address residential solid waste generation. Although these applications represent only a subset of incentive-based approaches in the United States, they illustrate the importance of appropriate policy design in achieving environmental goals at the lowest possible cost.

Permit Trading: Emissions Trading Policy Under the Clean Air Act

The Clean Air Act of 1970 directed the EPA to develop ambient air quality standards for common air pollutants. Accordingly, the EPA set standards to protect public health for ozone, sulfur dioxide, lead, particulate matter, nitrogen dioxide, and carbon monoxide. It designated metropolitan areas that did not comply with these standards as "nonattainment areas" and established a set of technology and performance standards for a variety of emissions sources. In the late 1970s, to provide some flexibility in reducing emissions, the EPA implemented a trading policy consisting of "netting," "offsets," "bubbles," and "banking" mechanisms.

Netting allowed a facility that created a new source of emissions to net its total emissions across all sources within the facility. This effectively promoted internal "trading" among sources within a facility: the new source could emit pollutants in excess of its required level if an existing source reduced its pollution below its required level. Offsets allowed a new source in a nonattainment area to offset its emissions by paying to reduce emissions at another source in that area. Bubbles created aggregate caps for all existing sources within a facility. Instead of specific technology standards for each smokestack, the facility has the flexibility to reduce emissions in any manner it desires so long as the aggregate emissions are consistent with its cap. In addition, a facility with emissions below its bubble limit could sell emissions credits to other firms. Banking allowed facilities to save emissions reductions that exceeded the current standard for use at a future date. Whereas netting only occurs with respect to internal trading, the other three mechanisms can occur through both internal and external trading.

The experience with these mechanisms showed benefits but also demonstrated some design problems that limited the cost savings. A review of these programs in the late 1980s found that netting generated by far the greatest economic benefits, with estimates ranging rather broadly from $500 million to $12 billion. Bubbles generated cost savings on the order of more than $400 million, and offsets could likewise have generated benefits on the order of several hundred million dollars. Little banking activity occurred, resulting in very modest benefits. Nor was there much external trading: only about 10 percent of offsets occurred between two firms, and fewer than 2 percent of

bubbles were between two firms. Compared with estimated Clean Air Act compliance costs on the order of $500 billion over the 1970-90 period, these cost savings are very modest.

Several factors may have dampened the volume of external trading and the subsequent cost savings. First, the ability of firms to engage in trading was restricted. Firms had to invest in abatement technology before they were allowed to purchase permits from other sources, and this effectively stunted the growth of the emissions permit market. Trading ratios greater than one (for example, where one firm sells 12 permits but the buying firm can only use 10 of the permits that it purchases) reduced trading. Second, the review process for trades was costly and created uncertainties about whether the emissions credits created actual property rights; this uncertainty further lowered their value. The uncertainty that buyer liability creates may have biased firms in early trading programs toward internal trades. Third, the concept of trading was novel to many facilities managers, and the lack of appropriate human capital has been suggested as one reason for the low volume of external trading.

Trading under these rules in Southern California during the late 1980s incurred transactions costs as high as 30 percent of the value of the emissions permits in the transaction. These transactions costs reflected the costs of negotiations with other parties, an administrative fee, a certification fee, and costs for documenting the trade and the emissions reduction. If a firm wanted to bank emissions permits, it had to pay a banking fee as well. Moreover, the Southern California regulatory authority granted only 60 percent of proposed trades, and this increased uncertainty among potential participants. Together the extensive fees and the review process dampened the market for emissions permits.

Permit Trading: RECLAIM

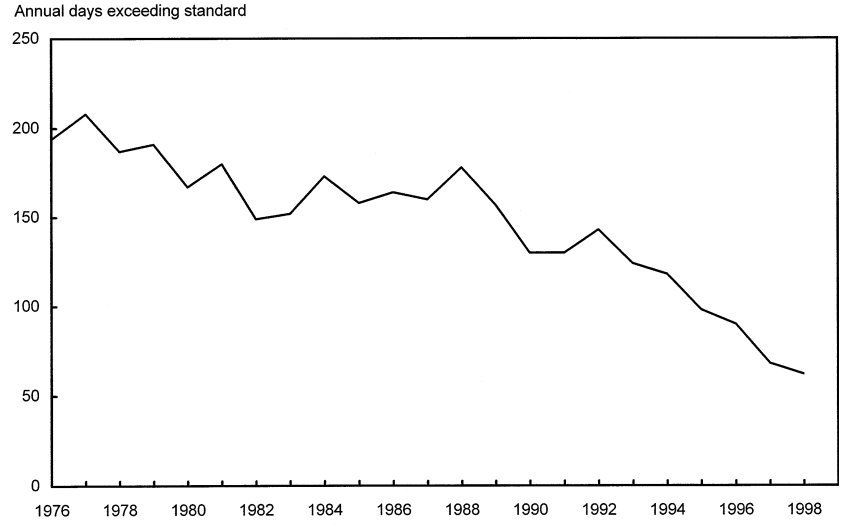
In response to the increasing cost of air quality regulation and the inefficiency of the then-current system of trading rules, in 1994 the Southern California Air Quality Management District began a tradable permit system known as the Regional Clean Air Incentives Market (RECLAIM). This program covers stationary sources that emit 4 or more tons annually of either nitrogen oxides or sulfur oxides. Smaller facilities can join the program voluntarily as well. The program also includes provisions that allow the retirement of older, more-polluting automobiles to generate emissions credits to be used by stationary sources. At its inception the program included 65 percent of all NO_X and 85 percent of all SO_X stationary sources (such as electric utilities and petroleum refineries).

RECLAIM has a single major restriction on trading, designed to prevent hot spots. Geographically, sources are divided into an inland zone and a

coastal zone. Trades can occur within a zone, but permits can only be sold from coastal zones (upwind) to inland zones (downwind), not vice versa. Without this restriction, a significant set of upwind sources could emit enough NO_X to result in the ozone standard being exceeded locally downwind.

To facilitate compliance, major sources must install continuous emissions monitors (CEMs), which provide emissions data to the regulatory authority. For 1994 through 1997, CEMs in RECLAIM cost approximately $13 million more per year than the monitoring equipment that would have been required under a traditional regulatory program. This cost was about one fifth the projected cost savings associated with the program between 1994 and 1999 and comprised a majority of the projected compliance costs borne by participating firms. However, monitoring provides important benefits. By providing greater certainty about a source's emissions, monitoring may enhance the integrity of the environmental market and reduce the need for regulatory supervision of every trade. RECLAIM has been largely successful in reducing emissions in a cost-effective manner. Annual ozone standard violations in 1998 were roughly two-thirds fewer than in 1980, and half the number in 1993 (Chart 7-3).

Chart 7-3 **South Coast Air Basin Exceedances of Federal Ozone Standard**
Southern California exceeded the Federal ozone health standard on roughly one-third as many days in 1998 as in 1980 and half as many days as in 1993.



Source: South Coast Air Quality Management District.

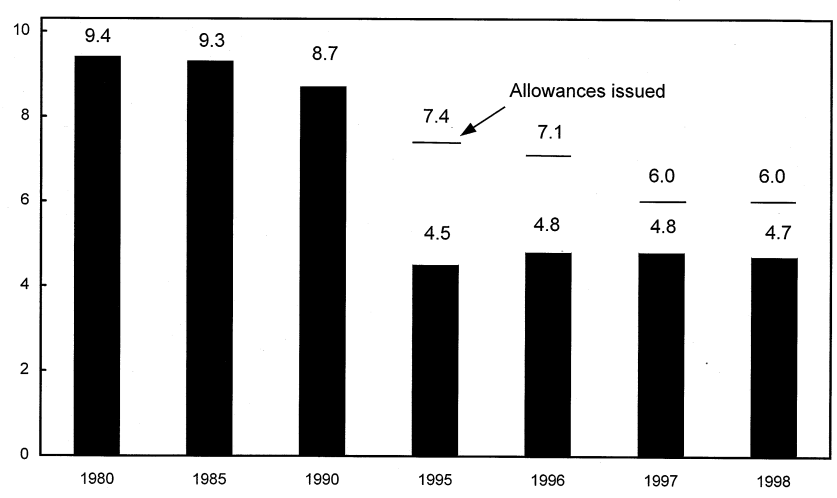
Permit Trading: Sulfur Dioxide Trading Program

In the atmosphere, emissions of SO_2 transform into sulfates and sulfuric acid and are transported over large distances. Because 70 percent of all U.S. SO_2 emissions come from electric utilities, and many of these are based in the eastern half of the United States, the sulfates are usually deposited in the Northeast. Acidic deposition, also known as acid rain, can acidify lakes, resulting in fish kills; it can reduce the alkalinity of forest soils, thereby harming various tree species; and it can degrade various ecosystem functions. In addition, SO_2 has been linked with several respiratory problems.

To address the acid rain problem, the 1990 Clean Air Act Amendments directed the EPA to design a tradable permit system for SO_2. The program required the 110 highest emitting, primarily coal-fired, power plants (representing 263 units) in the Eastern and Midwestern States to hold, starting in 1995 (phase I), permits sufficient to cover all their SO_2 emissions. Starting in 2000 (phase II), all large fossil fuel-fired power plants (approximately 2,000 units) in the eastern half of the United States will have to hold enough SO_2 permits to cover their emissions. Most allocations are based on the product of a common emissions performance standard and historical utilization, although a small percentage every year (about 3 percent) are auctioned at the Chicago Board of Trade. Utilities can freely buy and sell permits, and entities not required to hold permits to cover emissions may also participate in the SO_2 market. Utilities can also bank emissions permits for use in future years.

The SO_2 market has enjoyed very active participation and yielded substantial cost savings. Innovations in scrubber technology as well as the availability, due to rail deregulation, of low-cost, low-sulfur coal from Wyoming and Montana have contributed to compliance estimates as low as half of what had been predicted for the program. The market has experienced high volume, in part thanks to the role of private brokers. Compared with a traditional regulatory alternative, the fully implemented SO_2 market has generated cost savings of up to $1 billion annually. The heterogeneity of abatement costs for SO_2 in the utility industry has been recognized as one reason why the SO_2 market has experienced such heavy volume and substantial cost savings. The absence of individual trade reviews by the government and a system of seller liability have also contributed to high trading volumes. Banking of permits has also occurred to a substantial degree: total SO_2 emissions in 1995 were nearly 40 percent below the environmental goal because of banking activity (Chart 7-4). These banked permits will likely be used during phase II, which has tighter annual emissions limits.

Chart 7-4 **Emissions from Phase I Facilities in the Sulfur Dioxide Trading Program**
SO_2 emissions from the original 263 units have fallen well below binding targets, possibly reflecting the banking of emissions credits by firms in anticipation of stricter phase II limits.



Source: Environmental Protection Agency.

Permit Trading: Phasedown of Leaded Gasoline

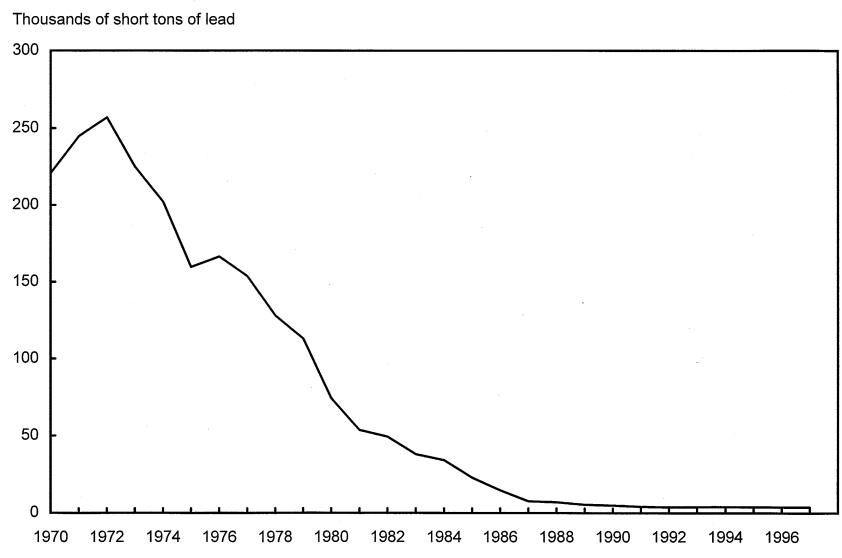
Exposure to lead can cause an array of health problems, including a reduction in children's IQ, behavioral disorders, and adult hypertension. Exposure to lead can occur through a variety of pathways, such as ingestion of lead-based paint flecks and lead-contaminated dust, drinking lead-contaminated water, and inhalation of airborne lead resulting from the combustion of lead-based gasoline. In the 1970s, vehicle emissions were responsible for approximately three-fourths of total U.S. lead emissions.

To address the risks of lead exposure, in 1982 the EPA implemented an interrefinery trading program for lead credits. The EPA capped the amount of lead allowed in all gasoline sold, and this cap declined until the lead content was 10 percent of its previous level. To sell gasoline containing lead, a refinery had to hold lead credits commensurate with the lead content of the sold fuel. Refineries could buy and sell lead credits, and the volume of trade was quite substantial.

During 1983 and 1984, only one refinery did not participate in the trading program. Up to 50 percent of all lead in gasoline was at one time or another the object of a lead credit transaction between refineries. In addition, the EPA provided a banking mechanism starting in 1985, and many refineries took advantage of banking until the end of the phasedown program in 1987. The inclusion of banking may have reduced costs up to 20 percent

over alternative schemes without banking. Unlike the experience with air pollutant emissions trading in the early 1980s, the phasedown of lead evolved into a fairly efficient market, resulting in an extraordinary reduction in lead emissions (Chart 7-5). Although this certainly reflects the less intrusive government role in the lead market (individual trades did not require government approval), the efficiency of the market may also reflect the technical capacity within firms to participate in trading. Firms that already have experience in trading, such as refineries that engage in intermediate product markets within the refinery industry, may be more inclined to trade. However, smaller firms may have been less inclined to trade because they lacked the technical capacity to evaluate their own costs of removing lead from gasoline and to assess their potential role in the lead market.

Chart 7-5 **Lead Emissions**
Lead emissions have been virtually eliminated in the United States.



Source: Environmental Protection Agency.

Charges: Unit-Based Pricing of Residential Solid Waste

Everyday activities generate solid waste. Through direct and indirect consumption, an average individual generates approximately 4 pounds of waste per day. The generation of waste requires the appropriate disposal at landfills and incinerators. Its disposal can result in numerous problems, including water pollution (from landfills), air pollution (from incinerators), and transportation-related problems associated with hauling waste, including noise, odor, and traffic congestion.

To address the problems associated with waste disposal, many communities have implemented waste management programs that include unit-based pricing of waste collection, in which households pay for disposal services according to the amount of waste they set out for collection or bring to collection centers. This alternative to traditional methods of paying for trash collection (through general revenue or a flat annual fee) can provide explicit information about the cost of waste generation to households. Households can respond in a number of ways to being charged for each unit of waste they set out for disposal. For example, they can do more recycling, set aside yard waste for separate collection, or buy goods with reduced packaging (what is called source reduction behavior). Some people have worried that unit-based pricing could also promote illegal dumping and burning, although this has not been a serious problem in most communities, in part because of antidumping programs. Under unit-based pricing, collection schemes usually take one of three forms: special bags; tags or stickers attached to waste receptacles; or subscription cans of varying sizes. Recycling programs and public education campaigns on viable substitutes for waste disposal often accompany the introduction of unit-based pricing programs.

By 1998, more than 4,000 communities in 46 States had adopted unit-based pricing schemes for their residential waste collection, covering nearly one in seven Americans (Table 7-1). Unit-based pricing reduces the amount of waste collected for disposal relative to a flat-fee system. Increasing the number of types of recyclables covered by a community's recycling program and introducing a yard waste collection program also appear to reduce the amount of waste collected for disposal. However, the total amount of waste

TABLE 7-1.—*Number of Communities Adopting Unit-Based Pricing Residential Solid Waste Collection Programs*

Start date	Cities (number)	Population (millions)	Households (millions)
No information[1]	1,541	8.3	2.2
Pre-1986	130	4.1	1.6
Pre-1991	883	5.1	1.9
Pre-1996	1,404	11.2	4.1
Pre-1999	65	5.7	2.1
Total	4,023	34.4	11.9

[1] Minnesota communities represent 68 percent of this group (1,043 of 1,541). A Minnesota statute requires pricing by weight or volume as a condition for receiving a license for solid waste collection. This statute went into effect in January 1994.

Source: Marie L. Miranda and David Bynum, "Unit Based Pricing in the United States: A Tally of Communities," Duke University, 1999.

generated (waste to landfills and incinerators plus recycling plus yard waste collection) does not appear to be significantly different under unit-based pricing from that under a flat-fee system. In other words, unit-based pricing may promote diversion from landfills to recycling and yard waste collection, but it does not appear to promote source reduction behavior.

Since the cost of reducing residential waste may not vary significantly across households, this experience with unit-based pricing may illustrate the merits of a charge approach. The small gains available through a trading approach may be swamped by the costs of acquiring information about potential buyers and sellers and other transactions costs in such a market. Thus very few trades would occur, resulting in little cost savings. In this case where control costs are fairly homogeneous, the charge approach appears to be more appropriate, and in the case of unit-based pricing of solid waste, it has been fairly successful at reducing waste to landfills and incinerators.

Implications of the U.S. Experience

These trading and emissions charge programs illustrate the potential for regulatory strategies to achieve environmental goals through approaches that provide incentives to effectively harness private markets. Of these examples, some have demonstrated more substantial cost savings than others, but in none did the market-oriented approach undermine the achievement of the environmental goal. More cost-effective attainment of environmental goals depended in large part on the design of markets tailored to the specific characteristics of the environmental problem at hand. In cases where emissions sources have roughly equivalent environmental effects, where emissions monitoring is available, and where the cost of reducing emissions varies across sources, trading can be a powerful tool to address pollution cost-effectively. The rules for the design of trading can ensure that the program achieves more of its potential cost-effectiveness. Such rules can include reasonable liability rules, banking and borrowing, and appropriate restrictions on trading, for example to address hot spots. In cases where the costs of reducing pollution are similar across sources, the charge approach may be more appropriate, and as we have seen, it has been used in many U.S. communities to address residential waste generation.

Such incentive-based approaches have also been used in other countries and in other policy contexts. For example, several European countries employ charges on air and water pollution. However, many of these programs are designed more to raise revenue and have minimal effects on emissions because the charges are set too low to induce much emissions abatement. In Singapore a traffic congestion pricing system has been in use since 1975 to reduce the number of vehicles in the central business district. In the United States, tradable permits have also been used to address such problems as overfishing (Box 7-5).

Box 7-5. Individual Quotas for Fisheries Management

Most commercial fisheries are experiencing declining fish stocks because of too much fishing. To prevent overfishing, some fisheries have resorted to fixing the total amount of fish that may be caught in a given year. Fishery managers set this limit, called the total allowable catch (TAC), low enough to guarantee the sustainability of the fishery, and they officially end the season once this limit has been reached. Because fishers know that managers have limited the total catch, their goal becomes to catch as large a fraction of it as possible. The "derbies" that result as each fishing crew tries to beat the rest of the fleet can waste significant resources. Fishers respond by overinvesting in gear and purchasing ever faster, ever larger boats, but these investments only make the derbies more frenetic. The rapid pace has in some cases significantly shortened the fishing season, needlessly restricting consumers' access to some fish species during certain periods and forcing fishers to concentrate their work effort into a shorter period.

Managers have tried to supplement the TAC with gear and access restrictions, but a potentially more efficient approach for some fisheries is to allocate shares of the TAC in the form of individual quotas. Since each fisher then has a right to a specified share of the TAC in a given year, each can catch this share in the cheapest manner possible without having to worry about the behavior of competitors. The incentives to concentrate production in the early portion of the season and to overinvest in capital disappear. And because the quotas can be traded, the market provides an incentive for the most efficient operators to catch the most fish. Less efficient fishers can sell their rights to more efficient fishers for an amount greater than their expected profit on the catch. Similarly, the more efficient fishers stand to net more than the profit of the less efficient ones, and so the individual quotas can be exchanged in such a way that both are better off.

Individual quotas have been used extensively around the world, with very promising results. New Zealand first introduced such a program in 1986, and at least seven other countries now employ individual quotas. Currently three programs operate in the United States, covering fishing for surf clams, ocean quahogs, wreckfish, Alaskan halibut, and Alaskan sablefish. The Sustainable Fisheries Act of 1996 placed a moratorium on the use of individual quotas through October 1, 2000, and requested a study of the quota approach by the National Research Council. The NRC panel released its report in April 1999. It recommended that the Congress lift the 1996 moratorium and allow regional fisheries to use individual quotas. The report emphasized that the quotas are not a panacea applicable to all fisheries. But it also concluded that past

continued on next page...

Box 7-5.—*continued*

experience has repeatedly demonstrated the effectiveness of individual quotas for "matching harvesting and processing capacities to the resource, slowing the race to fish, providing consumers with a better product, and reducing wasteful and dangerous fishing."

Applying the Lessons Learned: Global Climate Change

Perhaps the leading environmental challenge of the 21st century will be to address the risks associated with global climate change. Climate change results from the long-term accumulation of greenhouse gases in the atmosphere. The balance of scientific evidence suggests that emissions of greenhouse gases from human activity have a discernible influence on the global climate. Three characteristics of the climate change challenge create great potential for emissions trading and similar flexibility mechanisms to reduce greenhouse gas emissions. One is that a very large number of sources emit greenhouse gas emissions, which stay in the atmosphere for many years, so that the climatic effect of a unit of emissions is the same no matter where the emissions come from. A second is that the different types of sources have significantly different abatement costs, especially across countries. The number of potential participants and this heterogeneity in their abatement costs provide the basis for an active, competitive emissions trading market. Finally, emissions of carbon dioxide, the most prevalent greenhouse gas resulting from human activity, are relatively easy to calculate.

Emissions of greenhouse gases occur as a by-product of a variety of activities: fossil fuel combustion, deforestation, rice cultivation, maintenance of electricity transformers, aluminum manufacturing, and others. The atmospheric concentration of carbon dioxide has increased about 30 percent since the preindustrial period. Absent new mitigation efforts, that concentration will likely rise to double the preindustrial concentration by the middle part of the 21st century. Moreover, greenhouse gases can reside in the atmosphere for very long periods. Carbon dioxide and nitrous oxide may last in the atmosphere for approximately 100 years, and other greenhouse gases, such as perfluoromethane and perfluoroethane, can last in the atmosphere tens of thousands of years. Such an accumulation of greenhouse gases could pose significant risks, including rising sea levels, more frequent and severe storms, shifts in agricultural growing conditions, increased range and incidence of certain diseases, changes in the availability of freshwater supplies, and damage to ecosystems and biodiversity.

A landmark international agreement to address the risks of climate change was the Framework Convention on Climate Change, signed at the 1992 Earth Summit in Rio de Janeiro. Building on this treaty, 160 countries agreed to the Kyoto Protocol in December 1997. The Kyoto Protocol established binding greenhouse gas emissions targets for 38 industrialized countries for the period from 2008 to 2012. The United States agreed to a target of 7 percent below 1990 emissions levels. To promote cost-effective attainment of these targets, the agreement also established four flexibility mechanisms: emissions target bubbles, international emissions trading, Joint Implementation (JI), and the Clean Development Mechanism (CDM). The last three of these, if designed and implemented efficiently, could provide the foundation for a global emissions market. Since greenhouse gas emissions have the same climatic consequences wherever they occur, the most efficient way to address the risks of climate change is to reduce emissions wherever such reductions are cheapest.

Flexibility Mechanisms in the Kyoto Protocol

Emissions target bubbles effectively allow a group of countries to aggregate their emissions targets into one megatarget and to reallocate emissions to new targets within this group. For example, all the countries of the European Union have Kyoto Protocol targets set at 8 percent below their actual 1990 emissions (written herein as 1990 –8). Under the bubble, the EU target becomes 1990 –8, and individual countries within the group have targets that vary between 1990 –28 and 1990 +27. Thus, those EU countries that expect to find it easier than others to reduce emissions effectively take on bubble allocations below their Kyoto Protocol targets, whereas those that may find the targets more difficult to achieve get bubble allocations in excess of these targets. The bubble concept allows for countries to engage cooperatively in one set of "political trades" before the commitment period. However, once all EU countries have ratified the Kyoto Protocol, the allocations established under the bubble become their new targets.

International emissions trading may occur among all countries with binding emissions targets. With these targets, each country is allowed to emit a specified level of emissions: its so-called emissions allowances. Trading occurs when one country agrees to sell some of its emissions allowances to another country. It can also occur among firms and other private sector entities that hold emissions allowances through domestic trading programs. For example, a U.S. firm that must hold allowances for the U.S. domestic trading program could trade with a Canadian firm that must hold allowances for a Canadian domestic trading program. For countries that have opted for a traditional regulatory approach or a charge approach to controlling emissions, it may still be possible for international trading to occur between firms and governments.

Like international emissions trading, Joint Implementation may occur among countries with binding targets. Unlike international trading, however, JI is focused on projects. A firm in one industrial country may invest in a project to reduce greenhouse gas emissions in another. If both countries' governments approve the project, emissions allowances from the country where the reductions occurred are transferred to the other country in exchange for the investment.

The Clean Development Mechanism allows industrial and developing countries to work together to design and implement projects in developing countries that abate greenhouse gas emissions; however, developing countries do not need binding emissions targets to participate in the CDM. CDM projects must be certified on the basis of several criteria. In addition, a portion of the emissions credits generated by the project would support an adaptation fund for low-income countries especially vulnerable to climate change (adaptation charges) and for administrative costs of the CDM. Industrial countries can use CDM reductions to meet their emissions targets. The rules for international emissions trading, JI, and CDM are expected to be finalized at the next round of climate change negotiations at The Hague later in 2000.

Finally, the protocol allows for emissions allowances to be banked from one commitment period to the next. A 5-year average commitment period provides additional flexibility by effectively allowing for the banking and borrowing of emissions allowances within this period. This opportunity to bank and borrow can smooth out permit prices, which might otherwise experience large price swings due to normal annual fluctuations in the weather or the economy.

Cost-Effectiveness of Kyoto Protocol Flexibility Mechanisms

Although international emissions trading, Joint Implementation, and the Clean Development Mechanism can all help lower the cost of compliance with the Kyoto Protocol targets, their cost-effectiveness may vary. An efficient international emissions trading system would not require case-by-case reviews of trades; however, JI and CDM might require such review, and CDM projects would also require independent certification. Further, the adaptation charges and administrative costs would increase the costs of participating in a CDM project. The reviews and charges associated with project-based approaches could be similar to those in the early emissions trading programs under the Clean Air Act—netting, bubbling, and offsets—which experienced less activity than would have been expected with less bureaucratic oversight. In addition, the project orientation of JI and CDM would effectively exclude some cost-saving efforts. For example, a country pursuing a policy of cutting energy subsidies might find it impossible to classify this policy as a project under JI or CDM.

However, the country could cut energy subsidies and sell unneeded emissions allowances through the international emissions trading mechanism.

An international emissions market based on trading, JI, and CDM could allow substantial gains from trade in meeting emissions targets because the cost of controlling greenhouse gases differs widely from country to country. Countries that have relatively inexpensive ways of controlling greenhouse gases have incentives to reduce emissions by more than their targets require, because they can then sell tradable allowances that they will not need. By the same token, countries facing more expensive emissions abatement measures have incentives to buy less costly allowances from others. Modeling analyses of the Kyoto Protocol have found that, for the United States, moving from a no-international-trading scenario to a scenario of efficient trading among industrial countries would cut the price of a tradable carbon dioxide permit (a measure of marginal compliance cost) by half.

Expanding the Scope of Trading to More Countries

Modeling analyses also illustrate the significant potential for additional cost savings by expanding emissions trading to developing countries. Among the world's large economies, the cost to a country to abate a given percentage of its greenhouse gases may vary by more than a factor of 20. If developing countries adopt binding emissions targets, they can participate in international emissions trading and may gain substantial revenue from selling permits in the international emissions market (Box 7-6). In an efficient global market, low-cost opportunities to reduce greenhouse gases in developing countries would attract foreign direct investment in energy and industrial abatement technologies and for carbon dioxide sequestration activities (such as planting and managing stands of trees to absorb carbon dioxide). Developing countries could generate billions of dollars in revenue annually through the sale of emissions allowances to countries with higher abatement costs. Effectively, the Kyoto Protocol provides the potential for low-cost abating developing countries to create an export industry whose product is emissions abatement. While providing economic and environmental benefits to developing countries, an efficient global trading system could reduce the tradable permit price by up to about 90 percent in the United States.

Expanding the Scope of Trading to More Greenhouse Gases

Expanding the scope of trading could capture even more benefits. Recent analyses have found that allowing for trading across greenhouse gases can lower the cost of meeting emissions targets. Greenhouse gases could be traded on the basis of global warming potentials, which provide a measure of the effect of each

Box 7-6. Expanding the Scope of the Market Through Developing Country Participation

The Kyoto Protocol stipulates that countries must have a binding emissions target before they may engage in international emissions trading. Since the Kyoto conference, developing countries have expressed interest in emissions targets. Consistent with the Framework Convention on Climate Change, targets for developing countries should help promote their sustainable development. For them to do so, such targets should accommodate emissions growth, because some growth in emissions is an unavoidable consequence of development. Unlike the current targets in the Kyoto Protocol, which were set below most countries' current emissions levels, such a target for developing countries could be set above current levels. At the same time, to contribute to the international effort to address climate change risks, such targets should result in real abatement of emissions below levels that would otherwise be reached during the commitment period—that is, below the projected business-as-usual emissions level. This kind of target, often referred to as an emissions growth target, could provide for continued economic development but with a lower emissions growth rate.

Such a target could be expressed as some percentage of a base year, in a fashion similar to current Kyoto Protocol targets, but perhaps with a different base year and/or a percentage greater than 100 percent to account for expected emissions growth. An emissions target could also take other forms. It could, for example, be indexed to a country's economic performance (such as GDP) between now and the 2008-12 commitment period. Such targets could avoid the risk of a crunch arising from faster than projected economic growth between now and the commitment period. Developing countries would face only the much smaller risk that emissions would be higher than expected, given the economic conditions during the commitment period. Similarly, such targets would also avoid the risk of inadvertent laxness associated with lower than expected economic growth between now and the commitment period. This indexed target formulation is reflected in the emissions commitment announced by Argentina at the climate change negotiations held in Bonn, Germany, in the fall of 1999.

gas on the climate. For example, a pound of methane contributes 21 times as much as 1 pound of carbon dioxide to global warming. Thus, reductions in one kind of gas can substitute for increases in another. Absorption of carbon dioxide by planting trees and creating other carbon dioxide "sinks" could also serve as a low-cost substitute for reducing carbon dioxide emissions. Some modeling analyses indicate that efficient intergas trading could reduce costs to the United States by 25 to 40 percent relative to a policy that only reduces carbon dioxide to achieve the target.

Quantitative Restrictions on Trading

Some countries have argued that trading should be quantitatively restricted to ensure substantial domestic emissions abatement. This is somewhat analogous to early Clean Air Act trading rules that required firms to undertake significant emissions abatement before they could buy emissions permits from other firms with lower abatement costs. If this earlier experience is any guide, these types of restrictions on trading would likely raise the cost of compliance significantly, result in a less liquid tradable permit market, and deliver no benefits to the climate over those from a trading system with no quantitative restrictions. Interestingly, the proposal by the European Union to establish quantitative limits on international emissions trading, JI, and CDM would exempt the bubble mechanism, which the European Union has indicated it will use (Box 7-7).

Liability Rules for Trading

Some countries propose that buyers of emissions permits should be liable if the seller does not comply with its emissions target. But such a buyer's liability scheme could present significant uncertainty in the market, increase transactions costs, and risk the further development of the market. The uncertainty about allowance value (that is, whether allowances can be used for a country's compliance) is greatest in a new market where there is no track record for sellers and where market institutions to handle risk have not yet evolved. This uncertainty may preclude trades and prevent a robust allowance market from being established. Bearing risk, or acquiring information to reduce risk, imposes costs on buyers. The imposition of additional costs for undertaking a trade will make some trades unprofitable, thereby increasing compliance costs unnecessarily.

Making Trading Across Countries Work

Finally, the efficiency of an international trading system may be influenced by heterogeneity in domestic abatement programs as well as by lack of experience with trading. For example, some industrial countries may undertake traditional regulatory policies such as mandating fuel economy standards and requiring greenhouse gas performance standards for stationary sources. Such an approach would not provide explicit information about the cost of reducing emissions as would a domestic emissions trading program or a charge program. These countries may find it difficult to assess the nature and extent of their proper economic role in an international emissions market. Without the explicit cost information revealed in a domestic trading program, these countries may buy or sell emissions allowances to a degree that is inconsistent with what is economically optimal. With an efficient

Box 7-7. The EU Bubble Allocation and Restrictions on Kyoto Protocol Mechanisms

In May 1999 the European Union proposed quantitative restrictions on international emissions trading, Joint Implementation, and the Clean Development Mechanism that would limit industrial countries' opportunities to buy and sell emissions. The buying restrictions would take the form of two formulas; countries could choose the less binding of the two. If a country could demonstrate to a review team that domestic abatement measures produced emissions reductions in excess of the binding level, the buying cap could be raised such that purchased allowances equaled verified domestic abatement. The selling restriction also would take the form of a formula, with the opportunity to raise the binding selling cap equal to the amount of verified domestic emissions abatement. The proposed restrictions do not apply to the "political trading" under the bubble provision of the Protocol.

In 1998 the European Union announced its bubble allocation under the Kyoto Protocol. EU members will transfer portions of the group's assigned emissions targets to other EU countries. In the Kyoto Protocol, all EU countries are assigned targets of 1990 –8; under the bubble allocation these adjusted targets would range from 1990 –28 to 1990 +27. The United Kingdom's emissions have fallen since 1990 as a result of liberalizing its electricity sector; Germany's emissions have fallen in the same period in part because of restructuring related to unification with eastern Germany. Therefore these two countries accepted bubble allocations of 1990 –12.5 and 1990 –21, respectively. Since Ireland, Portugal, and Greece are expected to grow faster than most other EU countries, they received bubble allocations ranging from 1990 +13 to 1990 +27.

EU data indicate that several of the political transfers under the bubble allocation would probably not comply with the restrictions proposed by the European Union itself for the other Kyoto Protocol mechanisms. Indeed, 10 of the 15 EU countries could violate the EU proposal to restrict flexibility: 6 could receive transfers in excess of their binding buying constraints, and 4 could transfer emissions in excess of their selling constraints. Thus, two-thirds of EU members might benefit from political trades under the bubble that could not occur as economic trades under its own proposal to restrict international emissions trading, JI, and CDM.

domestic trading program, participating firms would have explicit price-of-abatement information on domestic abatement opportunities to guide their buying and selling in an international emissions market. Even if some countries implement domestic trading programs for one or a few industries, they may still forgo significant cost savings associated with a more

comprehensive domestic trading system. Integrating an international emissions market with private firms and national governments may result in some efficiency losses. The U.S. experience in other emissions markets suggests that countries and firms with very little experience at trading may not be as active participants as others.

To promote an efficient international trading system, the Administration has proposed a set of rules for trading based on its experiences with various trading programs. The Administration opposes quantitative restrictions on trading. The Administration supports a system of seller liability for trading, coordinated with a strong compliance system. To promote cost-effectiveness in the trading system, the Administration supports involving interested private entities in international emissions trading, JI, and the CDM. In addition, the Administration has proposed a domestic trading system for greenhouse gases for the 2008-12 commitment period and aims to have this domestic system integrated with international emissions trading. For the near term, the Administration has included a hybrid trading and charge system in its electricity restructuring bill to promote renewable power as a way to encourage the development of emerging renewable energy technologies (Box 7-8). In addition, the Administration has promoted the development and diffusion of more climate-friendly technologies through a variety of R&D and information programs (Box 7-9).

Box 7-8. The Renewable Portfolio Standard

The generation of electricity can result in an array of environmental problems, from emissions of air pollutants, to nuclear waste, to damage to aquatic ecosystems. Renewable sources of energy, such as wind, biomass, solar, and geothermal power, have the potential to deliver electricity while having a more modest impact on the environment. The Administration's bill to restructure the electricity industry—the Comprehensive Electricity Competition Act—calls for a renewable portfolio standard (RPS) to promote the development and use of renewable electricity.

The RPS would require all retail electricity sellers to cover a certain percentage of the electricity they generate with nonhydropower renewable sources of electricity; this percentage would rise from its 1997 level of 2.3 percent to 7.5 percent by 2010. A seller could meet this percentage requirement by generating electricity from its own renewable energy sources or by purchasing tradable renewable electricity credits from others who generate electricity from such sources. In addition, the RPS would be governed by a cost cap of 1.5 cents per kilowatt-hour. If the cost of generating renewable electricity reached 1.5 cents per kilo-

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Box 7-8.—*continued*

watt-hour above the price of nonrenewable electricity, an electricity seller could go to the Department of Energy and purchase an RPS credit for 1.5 cents per kilowatt-hour instead of incurring the greater costs of generating more expensive renewable energy. Revenue from these sales would contribute to a Public Benefits Fund, which is envisioned to support renewable power R&D, energy efficiency programs, and low-income assistance.

The combination of a tradable permit system with the cost cap would allow for considerable flexibility for electricity vendors in meeting the renewable standard. The costs of generating nonhydropower renewable electricity, especially in quantities more than three times that of today, are uncertain. The cost cap would provide additional certainty and a form of insurance to electricity sellers as they plan for investment in new generating technologies. It would also insure their customers against unexpectedly large electricity price changes.

Box 7-9. Climate Research and Development and Information Programs

Potential new technologies often do not receive sufficient private sector investment when investing firms cannot fully capture the benefits of these technologies. For example, some of the benefits of improved solar power technology accrue to society at large, in the form of improved local air quality and reduced carbon dioxide emissions relative to a fossil fuel power alternative. In such cases, producers have less economic incentive to invest in carbon-free power technologies than is socially optimal. Federal support for research and development in cleaner and more energy-efficient technologies can address this problem. Through the President's Climate Change Technology Initiative (CCTI), the Administration has invested $2.12 billion over the past 2 years in clean, energy-efficient technology development and has proposed to spend $1.43 billion in fiscal 2001. The CCTI has funded R&D in technologies associated with the four major sources of carbon dioxide emissions—buildings, industry, transportation, and electric power—and investments in carbon removal and sequestration.

Complementing these R&D programs, efforts to provide more information about the energy and environmental effects of products can promote the deployment of more climate-friendly technologies. Evidence suggests, for example, that better information about the potential cost savings from improving energy efficiency may increase

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Box 7-9.—*continued*

the use of energy-efficient technologies. Lacking this information, consumers may simply purchase the product with the lowest upfront cost, all else equal. However, information about the costs of operating a product over its lifetime may illustrate to the consumer that the life-cycle costs of the more energy-efficient product could be lower than those of the product with the cheaper price tag.

The Energy Star Program at the Environmental Protection Agency provides consumers with information about the energy efficiency of a wide variety of products through a readily identifiable label. Products bearing the Energy Star label appeal to consumers interested in both long-term energy costs and the environmental effects of using energy. Thus, Energy Star office equipment like computers, which are, on average, 50 percent more energy efficient, would be especially attractive to these consumers. In addition, the Administration's electricity restructuring bill includes a labeling provision that requires electricity generators to provide consumers with information about the environmental characteristics of the electricity provided, such as the fuel source. Under this bill, consumers who want to purchase "green" electricity will have the information they need to make such a decision.

Conclusion

Economic activity has long contributed to environmental pollution in one form or another, but the application of incentive-based approaches to repair the damage of pollution has only really come into vogue in the United States over the past 25 years. Experience with tradable emissions permits and emissions charges illustrates the potential for substantial cost savings in achieving environmental goals, as well as some of the pitfalls in designing these policy tools. Taking the characteristics of environmental problems properly into account makes it easier to identify and apply an appropriate regime. Drawing on the U.S. experience with market-oriented regulatory policies, the Administration has advocated and secured the inclusion of international emissions trading, Joint Implementation, and the Clean Development Mechanism in the Kyoto Protocol as ways to achieve the world's climate goals as cost-effectively as possible. Future efforts in negotiations to design rules for greenhouse gas emissions permit trading and to expand the scope of trading will seek to ensure even greater cost-effectiveness.

Among the challenges that lie ahead include an improved application of these tools internationally. Besides the United States, many other industrial countries have employed incentive-based approaches, especially emissions charges, to

address environmental pollution. Other countries, especially developing countries with substantial air and water pollution problems, can learn from the experience of the United States and other industrial countries and employ these instruments to achieve better environmental quality with the scarce resources they have available. Further, as countries begin to recognize and address cross-border environmental problems such as greenhouse gas emissions, the potential for cooperative use of incentive-based instruments could provide countries significant cost savings and environmental benefits.

Appendix A
REPORT TO THE PRESIDENT ON THE ACTIVITIES OF THE COUNCIL OF ECONOMIC ADVISERS DURING 1999

LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., December 31, 1999.

MR. PRESIDENT:

The Council of Economic Advisers submits this report on its activities during the calendar year 1999 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,

Martin N. Baily, *Chairman*
Robert Z. Lawrence, *Member*
Kathryn L. Shaw, *Member-Nominee*

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	January 12, 1993.
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	January 20, 1993.
Paul Wonnacott	Member	November 13, 1991	January 20, 1993.
Laura D'Andrea Tyson	Chair	February 5, 1993	April 22, 1995.
Alan S. Blinder	Member	July 27, 1993	June 26, 1994.
Joseph E. Stiglitz	Member	July 27, 1993	
	Chairman	June 28, 1995	February 10, 1997.
Martin N. Baily	Member	June 30, 1995	August 30, 1996.
Alicia H. Munnell	Member	January 29, 1996	August 1, 1997.
Janet L. Yellen	Chair	February 18, 1997	August 3, 1999.
Jeffrey A. Frankel	Member	April 23, 1997	March 2, 1999.
Rebecca M. Blank	Member	October 22, 1998	July 9, 1999.
Martin N. Baily	Chairman	August 12, 1999	
Robert Z. Lawrence	Member	August 12, 1999	

Report to the President on the Activities of the Council of Economic Advisers During 1999

The Council of Economic Advisers was established by the Employment Act of 1946 to provide the President with objective economic analysis and advice on the development and implementation of a wide range of domestic and international economic policy issues.

The Chairman of the Council

Martin N. Baily, who was a Member of the Council of Economic Advisers from 1995 to 1996, was appointed Chairman on August 12, 1999. Dr. Baily replaced Janet L. Yellen, who left the Council to return to the Haas School of Business at the University of California, Berkeley, where she is the Eugene E. and Catherine M. Trefethen Professor of Business Administration and a Professor of Economics. Before joining the Council in August, Dr. Baily was a Principal at McKinsey & Company, Inc., at the McKinsey Global Institute in Washington. He was also a Senior Fellow at the Brookings Institution and Co-Editor of the *Brookings Papers on Economic Activity, Microeconomics.*

Dr. Baily is responsible for communicating the Council's views on economic matters directly to the President through personal discussions and written reports. He also represents the Council at Cabinet meetings, meetings of the National Economic Council (NEC), daily White House senior staff meetings, budget team meetings with the President, and other formal and informal meetings with the President, senior White House staff, and other senior government officials. Dr. Baily is the Council's chief public spokesperson. He directs the work of the Council and exercises ultimate responsibility for the work of the professional staff.

The Members of the Council

Robert Z. Lawrence is a Member of the Council of Economic Advisers. Dr. Lawrence is on leave from the John F. Kennedy School of Government at Harvard University, where he is the Albert L. Williams Professor of International Trade and Investment at the Center for Business and Government. He

previously served as the New Century Senior Fellow at the Brookings Institution, as Editor of the *Brookings Trade Forum*, and as a Research Associate at the National Bureau of Economic Research.

Jeffrey A. Frankel was a Member of the Council of Economic Advisers until March 1999. Dr. Frankel currently holds the Harpel Chair for Capital Formation and Growth at the John F. Kennedy School of Government at Harvard University. He is also Director of the Program for International Finance and Macroeconomics at the National Bureau of Economic Research.

The President has nominated Kathryn L. Shaw to succeed Rebecca M. Blank as a Member of the Council. While awaiting confirmation, Dr. Shaw has been serving as Senior Economic Advisor. She is on leave from Carnegie Mellon University, where she is a Professor of Economics at the Graduate School of Industrial Administration. Dr. Blank was a Member of the Council of Economic Advisers until July 1999. She is currently the Henry Carter Adams Professor of Policy and Dean of the School of Public Policy at the University of Michigan.

The Chairman and the Members work as a team on most economic policy issues. Dr. Lawrence is primarily responsible for the Administration's economic forecast, macroeconomic analysis, international economic issues, and certain microeconomic issues, including those relating to natural resources, the environment, and industrial organization. Dr. Shaw has taken over responsibility for policy analysis relating to the budget and taxation, labor, retirement security, health care, welfare reform, and child and family issues. The Chairman and the Members participate in the deliberations of the NEC, and Dr. Baily is a member of the NEC Principals Committee.

Weekly Economic Briefings

Dr. Baily and the Members continued to prepare the *Weekly Economic Briefing of the President of the United States* for the President, the Vice President, and the President's other senior economic and policy advisers. The Council, in cooperation with the Office of the Vice President, prepares a written briefing, which provides analysis of current economic developments, more extended discussions of a wide range of economic issues and problems, and summaries of economic developments in different regions and sectors of the economy.

Macroeconomic Policies

A primary function of the Council is to advise the President on all major macroeconomic issues and developments. The Council prepares for the President, the Vice President, and the White House senior staff almost daily memoranda that report key economic data and analyze current economic events.

The Council, the Department of the Treasury, and the Office of Management and Budget—the Administration's economic "troika"—are responsible for producing the economic forecasts that underlie the Administration's budget proposals. The Council, under the leadership of the Chairman and the Members, initiates the forecasting process twice each year. In preparing these forecasts, the Council consults with a variety of outside sources, including leading private sector forecasters.

In 1999 the Council continued to take part in discussions about a range of budget issues including Medicare reform, discretionary spending priorities, and the Administration's tax proposals. The Council also participated in the development of the President's proposal to strengthen Social Security for the 21st century.

The Council also participates in the Working Group on Financial Markets, an interagency group that monitors developments related to financial markets and the banking sector. The group includes representatives from the Treasury, the Federal Reserve, the NEC, and various regulatory agencies. The Council also participated in a working group studying bankruptcy reform, and in another on the macroeconomic implications of the year-2000, or Y2K, computer problem.

The Council continued its efforts to improve the public's understanding of economic issues and of the Administration's economic agenda through regular briefings with the economic and financial press, frequent discussions with outside economists, and presentations to outside organizations. The Chairman and the Members also regularly exchanged views on the macroeconomy with the Chairman and Members of the Board of Governors of the Federal Reserve System.

International Economic Policies

The Council continued as an active participant in 1999 in international economic policymaking through the NEC and the National Security Council, providing both technical and analytical support and policy guidance. The Council took an active role in developing policies to respond to financial turmoil in Latin America and elsewhere, continuing the role it has taken following the series of emerging market financial crises that began in 1997. The Council also monitored closely the effects of the Asian crisis on U.S. trade and actively participated in developing proposals to reform the international financial architecture.

The Council has played an important role in evaluating and explaining the case for trade liberalization and U.S. participation in the multilateral trading system. Its involvement included writing a white paper on *America's Interest in the World Trade Organization.* The Council was also involved in a range of other international economic issues, including U.S. trade remedy laws

(antidumping, countervailing duties, safeguards, and Section 301 actions) and sanctions policy. Dr. Lawrence testified before the Trade Deficit Review Commission of the Senate on the causes and consequences of the U.S. trade deficit.

Council members regularly met with representatives of the Council's counterpart agencies in foreign countries, as well as with foreign trade ministers, other government officials, and members of the private sector. The Council often represents the United States at international meetings and forums, such as meetings of the Economic Committee of the Asia-Pacific Economic Cooperation forum.

The Council is a leading participant in the Organization for Economic Cooperation and Development (OECD), the principal forum for economic cooperation among the high-income industrial countries. The Council heads the U.S. delegation to the semiannual meetings of the OECD's Economic Policy Committee. Dr. Baily serves as chairman of that committee. In 1999 Dr. Lawrence participated in the OECD's Working Party 3 on macroeconomic policy and coordination. Charles F. Stone, Chief Economist at the Council, participated in the OECD's Working Party 1 meeting on structural issues and attended the OECD's workshop "Making Work Pay." Dr. Lawrence also participated in a meeting of subcabinet officials from the United States and Japan and was a member of the Joint Economic Development Group meeting with the Israeli government.

Microeconomic Policies

During 1999 the Council was an active participant in a range of microeconomic policy discussions, including discussions on welfare policy, regulation by the Occupational Health and Safety Agency, and statistical policy. The Council also participated in Administration working groups on Social Security and Medicare reform and on issues related to parental leave, pension regulations, long-term care, and private investment in high-poverty areas.

Over the past year the Council has released several research papers on microeconomic policy issues. In May 1999 the Council released a report titled *Families and the Labor Market, 1969-1999: Analyzing the "Time Crunch."* Its purpose was to further the national discussion on balancing work and family and to encourage a discussion of policies that could help strengthen American families. In a report titled *The Effects of Welfare Policy and the Economic Expansion on Welfare Caseloads: An Update,* the Council examined the unprecedented fall in the number of people receiving welfare. Released in August 1999, the report concluded that the welfare reforms of 1996 accounted for about one-third of the reduction in caseloads from 1996 to 1998. Finally, in December 1999 the Council and the Office of the Chief Economist at the Department of Labor released a report titled *20 Million*

Jobs: January 1993-November 1999. This study documented the strong job growth of the past 7 years and found evidence that a high proportion of the new jobs were in industry and occupation categories that pay wages above the median.

The Council has taken an active role in reviewing and analyzing progress in the telecommunications industry and other growing sectors of the digital economy. In February the Council released a white paper titled *Progress Report: Growth and Competition in U.S. Telecommunications, 1993-1998.* The Council has also been active in ongoing interagency discussions involving the digital economy and has recently assumed a leading role in facilitating work on the topic. Work in progress includes reviewing and improving data collection activities to better assess the growth of electronic commerce; participation in the new OECD Growth Project initiated at the May 1999 meeting of the OECD Council at the Ministerial level; and economic analysis of policy-related costs and barriers to electronic commerce.

The Council has also participated actively in interagency discussions on regulation and competition policy. On the domestic front, the Council has been involved in discussions about merger policy, rail policy regarding interconnections, and the performance of agricultural markets. Discussions regarding regulatory reform in the broadcast industry and in the air traffic control system have also been ongoing, as has the monitoring of issues related to the privatization of the U.S. Enrichment Corporation. The Council has been actively involved in several issues relating to international regulation and competition, including the effects of gray market imports, and has undertaken interagency discussions regarding the role of competition policy in the World Trade Organization.

The Council was active during 1999 in a range of policy discussions on natural resources and the environment, including implementation of the Clean Air Act as it applies to automobiles, petroleum refineries, power plants, and other pollution sources. Council Members and staff participated in several Administration efforts to assess oil supply issues, including the effects of oil imports on the U.S. economy and planning for potential Y2K oil supply disruptions. The Council has also contributed to Administration initiatives on national forest management.

Continuing the Council's involvement in the analysis of the Administration's global climate change policy, Dr. Yellen testified on two occasions before Senate and House committees on the economic implications of the Kyoto Protocol. At a high-level OECD meeting on climate change, Dr. Lawrence participated in a discussion on developing country participation in the Kyoto Protocol. The Council has been active in developing and promoting plans for the international trading of emissions permits and other market mechanisms to achieve the protocol's targets as efficiently as possible. It has also worked

with a number of developing countries to identify opportunities for them to further contribute to the global effort to address climate change. To advance these plans, Members and staff consulted with officials from a number of countries and organizations, including Argentina, Australia, Bolivia, Canada, China, Colombia, the European Union, Japan, Kazakhstan, Mexico, the OECD, and the Russian Federation. In addition, the Council has evaluated trends in U.S. carbon dioxide emissions and participated in Administration efforts to promote energy efficiency in the Federal Government.

The Staff of the Council of Economic Advisers

The professional staff of the Council consists of the Chief of Staff, the Senior Statistician, nine senior economists, six staff economists, and three research assistants. The professional staff and their areas of concentration at the end of 1999 were:

Chief of Staff

Audrey Choi

Senior Economists

Joseph E. Aldy	Environment and Natural Resources
Steven N. Braun	Director, Macroeconomic Forecasting
Michael J. Brien	Labor, Social Policy, and Education
John G. Fernald	International Economics
William H. Gillespie	Industrial Organization
Victoria A. Greenfield	International Trade and Agriculture
Robin L. Lumsdaine	Labor
Charles F. Stone	Chief Economist and Editor, *Weekly Economic Briefing of the President*
John C. Williams	Macroeconomics, Financial Markets, and Editor, *Weekly Economic Briefing of the President*

Senior Statistician

Catherine H. Furlong

Staff Economists

Douglas V. Almond	Labor and Health Economics
Jason A. Bernstein	Agriculture and International Economics
Yu-chin Chen	International Economics

Andrew R. Feldman	Labor and Social Economics
Leigh L. Linden	Environment, Natural Resources, and Industrial Organization
Noah Y. Weisberger	Macroeconomics

Research Assistants

John L. Goldie	*Weekly Economic Briefing of the President* and International Economics
Stephen F. Lin	Macroeconomics
Sarah L. Rosen	*Weekly Economic Briefing of the President* and Labor

Statistical Office

Mrs. Furlong directs the Statistical Office. The Statistical Office maintains and updates the Council's statistical information, oversees the publication of the monthly *Economic Indicators* and the statistical appendix to the *Economic Report of the President*, and verifies statistics in Presidential and Council memoranda, testimony, and speeches.

Susan P. Clements	Statistician
Linda A. Reilly	Statistician
Brian A. Amorosi	Statistical Assistant

Administrative Office

Catherine Fibich	Administrative Officer

Office of the Chairman

Alice H. Williams	Executive Assistant to the Chairman
Sandra F. Daigle	Executive Assistant to the Chairman and Assistant to the Chief of Staff
Lisa D. Branch	Executive Assistant to Dr. Lawrence
Francine P. Obermiller	Executive Assistant to Dr. Shaw

Staff Support

Mary E. Jones	Executive Assistant for International Economics, Labor, and Health Care
Rosalind V. Rasin	Executive Assistant for Environment, Industrial Organization, and Agriculture
Mary A. Thomas	Program Assistant for the *Weekly Economic Briefing of the President* and Macroeconomics

Michael Treadway provided editorial assistance in the preparation of the text of the 2000 *Economic Report of the President.*

Lowell J. Taylor and Christopher W. Snow joined the Council in January 2000 as senior economist and staff economist, respectively, and assisted with the preparation of the *Economic Report of the President*.

Student interns during the year were Sarah M. Anderson, Robert P. Bamsey, Carol L. Capece, David S. Felman, Paul K. Hoffmeister, Heather L. Jambrosic, Burth G. Lopez, Matthew S. Milner, Jason K. Nuzzo, Jacob M. Studley, and Aaron D. Tracy. The following student interns joined the Council in January to assist with the preparation of the *Economic Report of the President:* Karin A. Braack, Warren A. Herold, and Julie M. Meyers.

Departures

Michele Jolin, who served as Chief of Staff, resigned in April 1999 to accept a position as Vice President and Senior Project Manager of Innovative Learning Initiatives at Ashoka: Innovators for the Public.

The Council's senior 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. Some of the senior economists who resigned during the year returned to their previous affiliations. They are Elise H. Golan (U.S. Department of Agriculture), Cordelia W. Reimers (Hunter College of the City University of New York), and Robert F. Schoeni (RAND Corporation). Senior economists who resigned during the year and accepted new positions are Douglas W. Elmendorf (Department of the Treasury), Stephen Polasky (University of Minnesota), Nouriel Roubini (Department of the Treasury), Howard A. Shelanski (Federal Communications Commission), and Robin L. Lumsdaine (Deutsche Bank).

Staff economists are generally graduate students who spend 1 year with the Council and then return to complete their dissertations. Those who returned to their graduate studies in 1999 are Ryan D. Edwards (University of California, Berkeley), Nora E. Gordon (Harvard University), and Matthew R. McBrady (Harvard University). Bert I. Huang began graduate studies at Harvard Law School and at the Massachusetts Institute of Technology. Quindi C. Franco accepted a position at the Federal Communications Commission. After serving as research assistants at the Council, Raymond P. Guiteras accepted a position at Bain and Company, and Summer L. Scott accepted a position at Charles River Associates.

Public Information

The Council's annual *Economic Report of the President* is an important vehicle for presenting the Administration's domestic and international economic policies. It is now available for distribution as a bound volume and on the Internet, where it is accessible at http://www.access.gpo.gov/eop. The Council also has primary responsibility for compiling the monthly *Economic Indicators*, which is issued by the Joint Economic Committee of the Congress. The Internet address for the *Economic Indicators* is http://www.access.gpo.gov/congress/cong002.html. The Council's home page is located at http://www.whitehouse.gov/WH/EOP/CEA/html/index.html.

Appendix B
STATISTICAL TABLES RELATING TO INCOME, EMPLOYMENT, AND PRODUCTION

C O N T E N T S

NATIONAL INCOME OR EXPENDITURE:

POPULATION, EMPLOYMENT, WAGES, AND PRODUCTIVITY:

PRODUCTION AND BUSINESS ACTIVITY:

PRICES:

MONEY STOCK, CREDIT, AND FINANCE:

GOVERNMENT FINANCE:

CORPORATE PROFITS AND FINANCE:

AGRICULTURE:

INTERNATIONAL STATISTICS:

General Notes

Detail in these tables may not add to totals because of rounding.

Because of the formula used for calculating real gross domestic product (GDP), the chained (1996) dollar estimates for the detailed components do not add to the chained-dollar value of GDP or to any intermediate aggregates. The Department of Commerce (Bureau of Economic Analysis) no longer publishes chained-dollar estimates prior to 1987, except for selected series.

Unless otherwise noted, all dollar figures are in current dollars.

Symbols used:

p Preliminary.

...Not available (also, not applicable).

Data in these tables reflect revisions made by the source agencies from February 1999 through late January 2000. In particular, tables containing national income and product accounts (NIPA) estimates reflect the comprehensive revisions released by the Department of Commerce in October 1999.

TABLE B–1.—*Gross domestic product, 1959–99*

[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 private inventories
								Nonresidential			Residential	
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Equipment and software		
1959	507.4	318.1	42.7	148.5	127.0	78.5	74.6	46.5	18.1	28.4	28.1	3.9
1960	527.4	332.2	43.3	152.9	136.1	78.9	75.7	49.4	19.6	29.8	26.3	3.2
1961	545.7	342.7	41.8	156.6	144.3	78.2	75.2	48.8	19.7	29.1	26.4	3.0
1962	586.5	363.8	46.9	162.8	154.1	88.1	82.0	53.1	20.8	32.3	29.0	6.1
1963	618.7	383.1	51.6	168.2	163.4	93.8	88.1	56.0	21.2	34.8	32.1	5.6
1964	664.4	411.7	56.7	178.7	176.4	102.1	97.2	63.0	23.7	39.2	34.3	4.8
1965	720.1	444.3	63.3	191.6	189.5	118.2	109.0	74.8	28.3	46.5	34.2	9.2
1966	789.3	481.8	68.3	208.8	204.7	131.3	117.7	85.4	31.3	54.0	32.3	13.6
1967	834.1	508.7	70.4	217.1	221.2	128.6	118.7	86.4	31.5	54.9	32.4	9.9
1968	911.5	558.7	80.8	235.7	242.3	141.2	132.1	93.4	33.6	59.9	38.7	9.1
1969	985.3	605.5	85.9	253.2	266.4	156.4	147.3	104.7	37.7	67.0	42.6	9.2
1970	1,039.7	648.9	85.0	272.0	292.0	152.4	150.4	109.0	40.3	68.7	41.4	2.0
1971	1,128.6	702.4	96.9	285.5	320.0	178.2	169.9	114.1	42.7	71.5	55.8	8.3
1972	1,240.4	770.7	110.4	308.0	352.3	207.6	198.5	128.8	47.2	81.7	69.7	9.1
1973	1,385.5	852.5	123.5	343.1	385.9	244.5	228.6	153.3	55.0	98.3	75.3	15.9
1974	1,501.0	932.4	122.3	384.5	425.5	249.4	235.4	169.5	61.2	108.2	66.0	14.0
1975	1,635.2	1,030.3	133.5	420.7	476.1	230.2	236.5	173.7	61.4	112.4	62.7	–6.3
1976	1,823.9	1,149.8	158.9	458.3	532.6	292.0	274.8	192.4	65.9	126.4	82.5	17.1
1977	2,031.4	1,278.4	181.2	497.2	600.0	361.3	339.0	228.7	74.6	154.1	110.3	22.3
1978	2,295.9	1,430.4	201.7	550.2	678.4	436.0	410.2	278.6	91.4	187.2	131.6	25.8
1979	2,566.4	1,596.3	214.4	624.4	757.4	490.6	472.7	331.6	114.9	216.7	141.0	18.0
1980	2,795.6	1,762.9	214.2	696.1	852.7	477.9	484.2	360.9	133.9	227.0	123.2	–6.3
1981	3,131.3	1,944.2	231.3	758.9	954.0	570.8	541.0	418.4	164.6	253.8	122.6	29.8
1982	3,259.2	2,079.3	240.2	787.6	1,051.5	516.1	531.0	425.3	175.0	250.3	105.7	–14.9
1983	3,534.9	2,286.4	281.2	831.2	1,174.0	564.2	570.0	417.4	152.7	264.7	152.5	–5.8
1984	3,932.7	2,498.4	326.9	884.7	1,286.9	735.5	670.1	490.3	176.0	314.3	179.8	65.4
1985	4,213.0	2,712.6	363.3	928.8	1,420.6	736.3	714.5	527.6	193.3	334.3	186.9	21.8
1986	4,452.9	2,895.2	401.3	958.5	1,535.4	747.2	740.7	522.5	175.8	346.8	218.1	6.6
1987	4,742.5	3,105.3	419.7	1,015.3	1,670.3	781.5	754.3	526.7	172.1	354.7	227.6	27.1
1988	5,108.3	3,356.6	450.2	1,082.9	1,823.5	821.1	802.7	568.4	181.6	386.8	234.2	18.5
1989	5,489.1	3,596.7	467.8	1,165.4	1,963.5	872.9	845.2	613.4	193.4	420.0	231.8	27.7
1990	5,803.2	3,831.5	467.6	1,246.1	2,117.8	861.7	847.2	630.3	202.5	427.8	216.8	14.5
1991	5,986.2	3,971.2	443.0	1,278.8	2,249.4	800.2	800.4	608.9	183.4	425.4	191.5	–.2
1992	6,318.9	4,209.7	470.8	1,322.9	2,415.9	866.6	851.6	626.1	172.2	453.9	225.5	15.0
1993	6,642.3	4,454.7	513.4	1,375.2	2,566.1	955.1	934.0	682.2	179.4	502.8	251.8	21.1
1994	7,054.3	4,716.4	560.8	1,438.0	2,717.6	1,097.1	1,034.6	748.6	187.5	561.1	286.0	62.6
1995	7,400.5	4,969.0	589.7	1,497.3	2,882.0	1,143.8	1,110.7	825.1	204.6	620.5	285.6	33.0
1996	7,813.2	5,237.5	616.5	1,574.1	3,047.0	1,242.7	1,212.7	899.4	225.0	674.4	313.3	30.0
1997	8,300.8	5,524.4	642.9	1,641.7	3,239.8	1,383.7	1,315.4	986.1	254.1	732.1	329.2	68.3
1998	8,759.9	5,848.6	698.2	1,708.9	3,441.5	1,531.2	1,460.0	1,091.3	272.8	818.5	368.7	71.2
1999 *P*	9,248.4	6,254.9	758.1	1,841.1	3,655.7	1,621.6	1,577.4	1,166.5	272.6	893.9	410.9	44.3
1994: I	6,887.8	4,613.8	546.2	1,409.7	2,657.9	1,042.0	998.1	721.7	178.0	543.7	276.4	43.8
II	7,015.7	4,677.5	553.6	1,425.1	2,698.8	1,106.4	1,026.6	738.2	188.2	550.0	288.4	79.8
III	7,096.0	4,753.0	563.2	1,449.9	2,739.8	1,094.0	1,042.0	752.7	189.9	562.8	289.3	52.0
IV	7,217.7	4,821.3	580.0	1,467.2	2,774.0	1,146.1	1,071.6	781.8	193.9	587.9	289.8	74.6
1995: I	7,297.5	4,868.6	578.2	1,475.8	2,814.7	1,162.8	1,100.1	812.5	200.5	612.0	287.6	62.7
II	7,342.6	4,943.7	584.4	1,492.2	2,867.1	1,133.1	1,097.2	820.3	204.8	615.5	276.9	35.8
III	7,432.8	5,005.2	596.2	1,502.6	2,906.3	1,123.5	1,110.1	825.2	206.2	619.0	284.9	13.4
IV	7,529.3	5,058.4	600.0	1,518.5	2,939.9	1,155.6	1,135.4	842.3	207.0	635.3	293.1	20.2
1996: I	7,629.6	5,130.5	606.4	1,539.6	2,984.4	1,172.4	1,165.6	865.1	213.4	651.7	300.5	6.8
II	7,782.7	5,218.0	621.3	1,569.4	3,027.4	1,231.5	1,201.7	885.4	220.0	665.4	316.3	29.8
III	7,859.0	5,263.7	616.7	1,578.8	3,068.2	1,282.6	1,232.6	913.6	226.3	687.3	319.0	50.0
IV	7,981.4	5,337.9	621.5	1,608.4	3,107.9	1,284.3	1,250.9	933.7	240.3	693.4	317.2	33.5
1997: I	8,125.9	5,430.8	636.1	1,630.5	3,164.2	1,327.0	1,274.1	952.7	247.6	705.2	321.4	52.9
II	8,259.5	5,466.3	627.8	1,627.1	3,211.4	1,392.2	1,299.6	972.7	247.8	724.9	326.8	92.6
III	8,364.5	5,569.1	651.9	1,652.3	3,265.0	1,395.9	1,338.3	1,007.7	257.8	749.9	330.7	57.6
IV	8,453.0	5,631.3	655.8	1,657.1	3,318.5	1,419.6	1,349.4	1,011.4	263.1	748.3	338.0	70.2
1998: I	8,610.6	5,714.7	679.2	1,674.6	3,360.9	1,514.3	1,415.4	1,065.9	267.4	798.4	349.5	98.9
II	8,683.7	5,816.2	693.9	1,701.2	3,421.1	1,495.0	1,454.2	1,090.8	274.0	816.8	363.4	40.8
III	8,797.9	5,889.6	696.9	1,716.6	3,476.1	1,535.3	1,461.7	1,087.2	271.7	815.4	374.5	73.7
IV	8,947.6	5,973.7	722.8	1,742.9	3,508.0	1,580.3	1,508.9	1,121.4	278.0	843.4	387.5	71.4
1999: I	9,072.7	6,090.8	739.0	1,787.8	3,564.0	1,594.3	1,543.3	1,139.9	274.7	865.2	403.4	51.0
II	9,146.2	6,200.8	751.6	1,824.8	3,624.3	1,585.4	1,567.8	1,155.4	272.5	882.9	412.4	17.6
III	9,297.8	6,303.7	761.8	1,853.9	3,688.0	1,635.0	1,594.2	1,181.6	272.1	909.5	412.7	40.8
IV *P*	9,477.1	6,424.6	780.1	1,897.7	3,746.7	1,671.8	1,604.1	1,189.1	271.1	918.1	415.0	67.6

See next page for continuation of table.

TABLE B–1.—*Gross domestic product, 1959–99*—Continued

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Net exports of goods and services			Government consumption expenditures and gross investment					Final sales of domestic product	Gross domestic purchases [1]	Addendum: Gross national product [2]	Percent change from preceding period	
	Net exports	Exports	Imports	Total	Federal			State and local				Gross domestic product	Gross domestic purchases [1]
					Total	National defense	Nondefense						
1959	–1.7	20.6	22.3	112.5	67.4	56.0	11.4	45.1	503.5	509.1	510.3	.....	.....
1960	2.4	25.3	22.8	113.8	65.9	55.2	10.7	47.9	524.1	525.0	530.6	3.9	3.1
1961	3.4	26.0	22.7	121.5	69.5	58.1	11.3	52.0	542.7	542.3	549.3	3.5	3.3
1962	2.4	27.4	25.0	132.2	76.9	62.8	14.1	55.3	580.4	584.1	590.7	7.5	7.7
1963	3.3	29.4	26.1	138.5	78.5	62.7	15.8	59.9	613.1	615.4	623.2	5.5	5.4
1964	5.5	33.6	28.1	145.1	79.8	61.8	18.0	65.3	659.6	658.9	669.4	7.4	7.1
1965	3.9	35.4	31.5	153.7	82.1	62.4	19.7	71.6	710.9	716.2	725.5	8.4	8.7
1966	1.9	38.9	37.1	174.3	94.4	73.8	20.7	79.9	775.7	787.4	794.5	9.6	9.9
1967	1.4	41.4	39.9	195.3	106.8	85.8	21.0	88.6	824.2	832.6	839.5	5.7	5.7
1968	–1.3	45.3	46.6	212.8	114.0	92.2	21.8	98.8	902.4	912.7	917.6	9.3	9.6
1969	–1.2	49.3	50.5	224.6	116.1	92.6	23.5	108.5	976.2	986.5	991.5	8.1	8.1
1970	1.2	57.0	55.8	237.1	116.4	90.9	25.5	120.7	1,037.7	1,038.5	1,046.1	5.5	5.3
1971	–3.0	59.3	62.3	251.0	117.6	89.0	28.6	133.5	1,120.3	1,131.6	1,136.2	8.6	9.0
1972	–8.0	66.2	74.2	270.1	125.6	93.5	32.2	144.4	1,231.3	1,248.4	1,249.1	9.9	10.3
1973	.6	91.8	91.2	287.9	127.8	93.9	33.9	160.1	1,369.7	1,384.9	1,398.2	11.7	10.9
1974	–3.1	124.3	127.5	322.4	138.2	99.7	38.5	184.2	1,487.0	1,504.2	1,516.7	8.3	8.6
1975	13.6	136.3	122.7	361.1	152.1	107.9	44.2	209.0	1,641.4	1,621.6	1,648.4	8.9	7.8
1976	–2.3	148.9	151.1	384.5	160.6	113.2	47.4	223.9	1,806.8	1,826.2	1,841.0	11.5	12.6
1977	–23.7	158.8	182.4	415.3	176.0	122.6	53.5	239.3	2,009.1	2,055.1	2,052.1	11.4	12.5
1978	–26.1	186.1	212.3	455.6	191.9	132.0	59.8	263.8	2,270.1	2,322.0	2,318.0	13.0	13.0
1979	–24.0	228.7	252.7	503.5	211.6	146.7	65.0	291.8	2,548.4	2,590.4	2,599.3	11.8	11.6
1980	–14.9	278.9	293.8	569.7	245.3	169.6	75.6	324.4	2,801.9	2,810.5	2,830.8	8.9	8.5
1981	–15.0	302.8	317.8	631.4	281.8	197.8	84.0	349.6	3,101.5	3,146.3	3,166.1	12.0	12.0
1982	–20.5	282.6	303.2	684.4	312.8	228.3	84.5	371.6	3,274.1	3,279.8	3,295.7	4.1	4.2
1983	–51.7	277.0	328.6	735.9	344.4	252.5	92.0	391.5	3,540.7	3,586.6	3,571.8	8.5	9.4
1984	–102.0	303.1	405.1	800.8	376.4	283.5	92.8	424.4	3,867.3	4,034.7	3,968.1	11.3	12.5
1985	–114.2	303.0	417.2	878.3	413.4	312.4	101.0	464.9	4,191.2	4,327.2	4,238.4	7.1	7.2
1986	–131.9	320.3	452.2	942.3	438.7	332.2	106.5	503.6	4,446.3	4,584.7	4,468.3	5.7	6.0
1987	–142.3	365.6	507.9	997.9	460.4	351.2	109.3	537.5	4,715.3	4,884.7	4,756.2	6.5	6.5
1988	–106.3	446.9	553.2	1,036.9	462.6	355.9	106.8	574.3	5,089.8	5,214.6	5,126.8	7.7	6.8
1989	–80.7	509.0	589.7	1,100.2	482.6	363.2	119.3	617.7	5,461.4	5,569.8	5,509.4	7.5	6.8
1990	–71.4	557.2	628.6	1,181.4	508.4	374.9	133.6	673.0	5,788.7	5,874.7	5,832.2	5.7	5.5
1991	–20.7	601.6	622.3	1,235.5	527.4	384.5	142.9	708.1	5,986.4	6,006.9	6,010.9	3.2	2.3
1992	–27.9	636.8	664.6	1,270.5	534.5	378.5	156.0	736.0	6,303.9	6,346.8	6,342.3	5.6	5.7
1993	–60.5	658.0	718.5	1,293.0	527.3	364.9	162.4	765.7	6,621.2	6,702.8	6,666.7	5.1	5.6
1994	–87.1	725.1	812.1	1,327.9	521.1	355.1	165.9	806.8	6,991.8	7,141.4	7,071.1	6.2	6.5
1995	–84.3	818.6	902.8	1,372.0	521.5	350.6	170.9	850.5	7,367.5	7,484.8	7,420.9	4.9	4.8
1996	–89.0	874.2	963.1	1,421.9	531.6	357.0	174.6	890.4	7,783.2	7,902.1	7,831.2	5.6	5.6
1997	–88.3	968.0	1,056.3	1,481.0	537.8	352.5	185.3	943.2	8,232.4	8,389.1	8,305.0	6.2	6.2
1998	–149.6	966.3	1,115.9	1,529.7	538.7	348.6	190.1	991.0	8,688.7	8,909.5	8,750.0	5.5	6.2
1999 *P*	–256.8	996.3	1,253.1	1,628.7	570.8	364.7	206.1	1,057.9	9,204.2	9,505.3	.....	5.6	6.7
1994: I	–71.3	683.8	755.1	1,303.3	515.8	349.4	166.3	787.5	6,844.0	6,959.1	6,908.5	5.5	5.8
II	–84.2	714.5	798.7	1,316.1	515.9	353.9	162.0	800.2	6,936.0	7,100.0	7,032.4	7.6	8.3
III	–99.1	736.1	835.2	1,348.1	532.5	366.9	165.6	815.6	7,044.0	7,195.1	7,111.1	4.7	5.5
IV	–93.8	765.8	859.6	1,344.0	520.0	350.4	169.7	824.0	7,143.1	7,311.5	7,232.6	7.0	6.6
1995: I	–94.5	787.7	882.2	1,360.6	523.4	352.2	171.2	837.1	7,234.8	7,392.0	7,318.9	4.5	4.5
II	–109.0	802.5	911.5	1,374.9	525.5	353.9	171.6	849.4	7,306.8	7,451.6	7,367.9	2.5	3.3
III	–74.2	834.1	908.3	1,378.3	525.0	352.7	172.3	853.3	7,419.4	7,507.0	7,444.1	5.0	3.0
IV	–59.3	850.0	909.3	1,374.5	512.3	343.6	168.7	862.2	7,509.1	7,588.5	7,552.7	5.3	4.4
1996: I	–75.8	853.3	929.1	1,402.6	530.6	356.1	174.5	872.0	7,622.8	7,705.4	7,656.5	5.4	6.3
II	–89.8	864.7	954.5	1,423.0	537.2	361.3	175.9	885.7	7,752.9	7,872.4	7,800.3	8.3	9.0
III	–110.6	865.6	976.1	1,423.4	529.1	355.6	173.5	894.3	7,809.0	7,969.6	7,870.5	4.0	5.0
IV	–79.7	913.1	992.8	1,438.9	529.4	355.0	174.5	909.4	7,947.9	8,061.1	7,997.7	6.4	4.7
1997: I	–87.7	929.6	1,017.3	1,455.8	530.2	347.0	183.2	925.6	8,073.0	8,213.6	8,131.1	7.4	7.8
II	–77.5	965.3	1,042.8	1,478.6	543.0	354.9	188.1	935.6	8,166.9	8,337.0	8,269.1	6.7	6.1
III	–90.6	988.6	1,079.2	1,490.1	540.9	354.5	186.4	949.2	8,306.9	8,455.1	8,366.5	5.2	5.8
IV	–97.4	988.6	1,086.0	1,499.5	537.1	353.6	183.5	962.3	8,382.8	8,550.4	8,453.3	4.3	4.6
1998: I	–117.4	974.3	1,091.7	1,499.0	526.1	338.9	187.2	972.9	8,511.7	8,728.0	8,613.7	7.7	8.6
II	–153.9	960.1	1,114.0	1,526.5	542.2	347.9	194.3	984.2	8,642.9	8,837.7	8,683.7	3.4	5.1
III	–165.7	949.1	1,114.8	1,538.7	539.7	354.7	185.0	999.0	8,724.2	8,963.6	8,772.2	5.4	5.8
IV	–161.2	981.8	1,143.1	1,554.8	546.7	352.9	193.8	1,008.1	8,876.2	9,108.8	8,930.5	7.0	6.6
1999: I	–201.6	966.9	1,168.5	1,589.1	557.4	355.8	201.6	1,031.8	9,021.6	9,274.2	9,058.2	5.7	7.5
II	–245.8	978.2	1,224.0	1,605.9	561.6	354.3	207.3	1,044.3	9,128.6	9,392.0	9,131.9	3.3	5.2
III	–278.2	1,008.5	1,286.6	1,637.2	569.8	365.4	204.4	1,067.4	9,257.0	9,575.9	9,282.3	6.8	8.1
IV *P*	–301.8	1,031.5	1,333.3	1,682.6	594.6	383.4	211.2	1,088.0	9,409.5	9,778.9	.....	7.9	8.8

[1] Gross domestic product (GDP) less exports of goods and services plus imports of goods and services.
[2] GDP plus net income receipts from rest of the world.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–2.—*Real gross domestic product, 1959–99*

[Billions of chained (1996) 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 private inventories
								Nonresidential			Residential	
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Equipment and software		
1959	2,300.0	1,454.8				272.9						
1960	2,357.2	1,494.4				272.8						
1961	2,412.1	1,524.6				271.0						
1962	2,557.6	1,599.7				305.3						
1963	2,668.2	1,665.7				325.7						
1964	2,822.7	1,765.2				352.6						
1965	3,002.8	1,876.4				402.0						
1966	3,199.5	1,983.3				437.3						
1967	3,279.5	2,042.7				417.2						
1968	3,435.6	2,159.1				441.3						
1969	3,543.2	2,241.2				466.9						
1970	3,549.4	2,293.0				436.2						
1971	3,660.2	2,373.6				485.8						
1972	3,854.2	2,513.2				543.0						
1973	4,073.1	2,634.0				606.5						
1974	4,061.7	2,622.3				561.7						
1975	4,050.3	2,681.3				462.2						
1976	4,262.6	2,826.5				555.5						
1977	4,455.7	2,944.0				639.4						
1978	4,709.9	3,081.6				713.0						
1979	4,870.1	3,168.0				735.4						
1980	4,872.3	3,169.4				655.3						
1981	4,993.9	3,214.0				715.6						
1982	4,900.3	3,259.8				615.2						
1983	5,105.6	3,431.7				673.7						
1984	5,477.4	3,617.6				871.5						
1985	5,689.8	3,798.0				863.4						
1986	5,885.7	3,958.7				857.7						
1987	6,092.6	4,096.0	455.2	1,274.5	2,361.5	879.3	856.0	572.5	224.3	360.0	290.7	29.6
1988	6,349.1	4,263.2	481.5	1,315.1	2,460.6	902.8	887.1	603.6	227.1	386.9	289.2	18.4
1989	6,568.7	4,374.4	491.7	1,351.0	2,526.1	936.5	911.2	637.0	232.7	414.0	277.3	29.6
1990	6,683.5	4,454.1	487.1	1,369.6	2,595.1	907.3	894.6	641.7	236.1	415.7	253.5	16.5
1991	6,669.2	4,460.6	454.9	1,364.0	2,645.5	829.5	832.5	610.1	210.1	407.2	221.1	–1.0
1992	6,891.1	4,603.8	479.0	1,389.7	2,739.4	899.8	886.5	630.6	197.3	437.5	257.2	17.1
1993	7,054.1	4,741.9	518.3	1,430.3	2,795.4	977.9	958.4	683.6	198.9	487.1	276.0	20.0
1994	7,337.8	4,920.0	557.7	1,485.1	2,878.0	1,107.0	1,045.9	744.6	200.5	544.9	302.7	66.8
1995	7,537.1	5,070.1	583.5	1,529.0	2,957.8	1,140.6	1,109.2	817.5	210.1	607.6	291.7	30.4
1996	7,813.2	5,237.5	616.5	1,574.1	3,047.0	1,242.7	1,212.7	899.4	225.0	674.4	313.3	30.0
1997	8,165.1	5,433.7	657.4	1,619.9	3,156.7	1,385.8	1,316.0	995.7	244.0	751.9	320.6	69.1
1998	8,516.3	5,698.6	731.5	1,685.3	3,284.5	1,547.4	1,471.8	1,122.5	254.1	870.6	350.2	74.3
1999[P]	8,861.0	5,998.7	815.1	1,774.6	3,416.8	1,636.2	1,589.4	1,215.4	247.3	975.5	375.4	41.9
1994: I	7,218.5	4,857.6	546.9	1,465.3	2,846.4	1,057.3	1,014.9	720.0	193.2	527.4	296.5	47.8
II	7,319.8	4,899.2	551.7	1,477.6	2,870.9	1,118.5	1,039.9	734.1	202.9	532.6	307.5	85.8
III	7,360.5	4,936.7	557.7	1,490.9	2,888.9	1,101.8	1.050.9	747.2	202.3	545.7	305.2	56.3
IV	7,452.3	4,986.4	574.3	1,506.5	2.905.7	1,150.5	1,078.0	777.1	203.8	573.7	301.8	77.4
1995: I	7,480.4	5,004.7	570.4	1,514.3	2,920.4	1,162.4	1,101.9	806.4	208.1	598.5	295.8	62.2
II	7,496.0	5,053.6	577.4	1,525.3	2,951.3	1,128.5	1,095.0	811.4	211.0	600.7	283.5	32.5
III	7,555.0	5,094.0	590.7	1,531.7	2,971.8	1,119.1	1,107.1	816.7	210.9	606.0	290.4	9.0
IV	7,616.8	5,128.0	595.7	1,544.6	2,987.8	1,152.4	1,132.7	835.5	210.4	625.0	297.3	18.0
1996: I	7,671.4	5,170.3	601.7	1,553.9	3,014.8	1,172.3	1,165.2	861.6	215.9	645.8	303.6	5.6
II	7,800.5	5,227.5	620.4	1,569.9	3,037.2	1,233.4	1,203.7	885.6	221.3	664.3	318.1	30.3
III	7,843.3	5,255.4	618.1	1,578.6	3,058.8	1,281.4	1,231.6	914.3	225.4	688.9	317.3	51.2
IV	7,937.5	5,296.8	625.7	1,593.9	3,077.2	1,283.7	1,250.2	936.2	237.3	698.8	314.0	32.9
1997: I	8,033.4	5,361.1	642.1	1,609.0	3,110.1	1,326.5	1,274.1	957.9	242.0	715.8	316.3	51.5
II	8,134.8	5,385.1	639.7	1,608.2	3,137.0	1,394.1	1,300.6	980.8	239.5	741.5	320.0	93.1
III	8,214.8	5,471.8	669.7	1,630.7	3,172.0	1,397.6	1,337.9	1,018.0	245.9	772.3	320.5	59.2
IV	8,277.3	5,517.1	678.0	1,631.8	3,207.8	1,424.9	1,351.3	1,026.1	248.6	777.8	325.7	72.7
1998: I	8,412.7	5,592.3	704.9	1,654.9	3,234.2	1,531.5	1,424.2	1,088.6	252.1	837.9	336.5	107.3
II	8,457.2	5,675.6	723.9	1,681.9	3,272.2	1,513.1	1,466.7	1,120.2	256.4	865.5	347.4	43.1
III	8,536.0	5,730.7	731.2	1,692.0	3,309.6	1,551.1	1,474.0	1,120.3	252.1	870.6	354.2	76.1
IV	8,659.2	5,795.8	766.0	1,712.6	3,322.0	1,593.9	1,522.5	1,160.8	255.7	908.5	362.6	70.7
1999: I	8,737.9	5,888.4	788.8	1,749.5	3,356.5	1,608.2	1,555.9	1,182.7	251.9	935.7	373.7	50.1
II	8,778.6	5,961.8	806.1	1,763.7	3,399.2	1,599.8	1,581.0	1,202.9	248.5	960.9	378.8	14.0
III	8,900.6	6,033.3	821.2	1,779.3	3,440.6	1,651.6	1,607.3	1,234.3	246.1	996.6	375.1	38.0
IV[P]	9,026.9	6,111.2	844.5	1,805.9	3,470.6	1,685.4	1,613.5	1,241.9	242.8	1,008.7	374.0	65.4

See next page for continuation of table.

TABLE B–2.—*Real gross domestic product, 1959–99*—Continued

[Billions of chained (1996) dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Net exports of goods and services			Government consumption expenditures and gross investment					Final sales of domestic product	Gross domestic purchases [1]	Addendum: Gross national product [2]	Percent change from preceding period	
	Net exports	Exports	Imports	Total	Federal			State and local				Gross domestic product	Gross domestic purchases [1]
					Total	National defense	Nondefense						
1959		71.9	106.6	659.7					2,298.4	2,360.0	2,315.7		
1960		86.8	108.0	659.5					2,359.0	2,399.9	2,374.4	2.5	1.7
1961		88.2	107.3	691.3					2,415.5	2,453.5	2,430.9	2.3	2.2
1962		93.0	119.5	732.9					2,548.1	2,607.5	2,578.8	6.0	6.3
1963		100.0	122.7	750.2					2,661.4	2,714.6	2,690.7	4.3	4.1
1964		113.3	129.2	764.8					2,820.2	2,861.5	2,847.0	5.8	5.4
1965		115.6	142.9	788.6					2,982.7	3,055.7	3,028.3	6.4	6.8
1966		123.3	164.2	859.3					3,163.3	3,266.8	3,223.7	6.6	6.9
1967		126.0	176.2	924.1					3,259.4	3,356.3	3,304.3	2.5	2.7
1968		135.2	202.4	953.4					3,419.5	3,527.9	3,462.2	4.8	5.1
1969		142.7	213.9	950.0					3,527.6	3,638.9	3,568.8	3.1	3.1
1970		158.1	223.1	928.6					3,559.7	3,633.6	3,574.7	.2	–.1
1971		158.9	235.0	909.7					3,650.5	3,756.5	3,688.8	3.1	3.4
1972		171.7	261.3	909.8					3,843.3	3,962.7	3,885.2	5.3	5.5
1973		209.1	273.4	902.6					4,043.9	4,150.0	4,114.7	5.7	4.7
1974		229.6	267.2	921.3					4,043.4	4,102.6	4,108.0	–.3	–1.1
1975		228.3	237.5	939.3					4,083.9	4,054.5	4,086.5	–.3	–1.2
1976		241.0	284.0	938.6					4,239.6	4,309.1	4,306.3	5.2	6.3
1977		246.9	315.0	947.4					4,422.8	4,534.7	4,505.2	4.5	5.2
1978		273.1	342.3	977.6					4,672.4	4,788.1	4,758.8	5.7	5.6
1979		299.9	347.9	997.6					4,852.4	4,918.1	4,935.6	3.4	2.7
1980		332.8	324.8	1,018.6					4,899.2	4,838.5	4,936.2	.0	–1.6
1981		336.7	333.4	1,027.9					4,962.5	4,966.1	5,050.8	2.5	2.6
1982		313.2	329.2	1,044.5					4,935.6	4,899.8	4,956.4	–1.9	–1.3
1983		305.2	370.7	1,078.9					5,127.5	5,170.1	5,160.6	4.2	5.5
1984		330.7	461.0	1,116.3					5,400.5	5,621.4	5,528.7	7.3	8.7
1985		339.8	490.7	1,188.4					5,671.6	5,858.1	5,726.3	3.9	4.2
1986		365.0	531.9	1,253.2					5,885.9	6,071.7	5,908.4	3.4	3.6
1987	–157.6	406.6	564.2	1,290.9	597.5	450.2	146.3	694.4	6,068.2	6,267.2	6,112.2	3.5	3.2
1988	–113.5	472.2	585.6	1,306.1	586.7	446.8	138.7	720.3	6,333.4	6,471.9	6,373.7	4.2	3.3
1989	–81.2	527.6	608.8	1,341.8	594.5	443.3	150.3	748.1	6,542.4	6,653.7	6,594.7	3.5	2.8
1990	–58.6	573.6	632.2	1,385.5	606.6	443.2	162.8	779.6	6,671.3	6,742.9	6,718.1	1.7	1.3
1991	–16.4	612.6	629.0	1,402.8	604.8	438.4	165.9	798.4	6,674.2	6,682.0	6,696.9	–.2	–.9
1992	–18.7	652.1	670.8	1,410.7	595.2	417.1	178.0	815.8	6,878.7	6,906.4	6,915.8	3.3	3.4
1993	–59.9	671.9	731.8	1,398.1	571.9	394.7	177.2	826.5	7,035.3	7,113.1	7,080.3	2.4	3.0
1994	–87.6	731.8	819.4	1,399.4	551.2	375.9	175.4	848.3	7,275.9	7,425.3	7,355.5	4.0	4.4
1995	–79.2	807.4	886.6	1,405.9	536.4	361.9	174.5	869.5	7,505.5	7,615.8	7,558.0	2.7	2.6
1996	–89.0	874.2	963.1	1,421.9	531.6	357.0	174.6	890.4	7,783.2	7,902.1	7,831.2	3.7	3.8
1997	–109.8	985.4	1,095.2	1,455.1	530.9	348.3	182.7	924.1	8,095.7	8,273.9	8,168.8	4.5	4.7
1998	–215.1	1,007.1	1,222.2	1,480.3	526.1	341.7	184.4	953.9	8,441.3	8,723.2	8,506.0	4.3	5.4
1999 *P*	–324.5	1,042.5	1,367.0	1,534.6	541.3	348.1	193.1	993.0	8,813.7	9,165.5		4.0	5.1
1994: I	–81.2	695.7	776.8	1,387.3	550.7	373.3	177.4	836.7	7,176.3	7,299.6	7,240.1	3.6	4.3
II	–87.2	724.0	811.3	1,389.7	545.1	374.5	170.6	844.8	7,239.8	7,406.9	7,337.0	5.7	6.0
III	–93.2	741.4	834.6	1,416.8	563.1	387.8	175.3	853.9	7,308.9	7,453.8	7,376.6	2.2	2.6
IV	–88.6	766.2	854.8	1,403.9	546.0	367.8	178.2	858.0	7,378.4	7,540.9	7,468.2	5.1	4.8
1995: I	–93.4	779.7	873.1	1,406.8	544.0	366.9	177.2	862.8	7,419.1	7,574.0	7,502.7	1.5	1.8
II	–98.3	788.1	886.4	1,413.5	544.2	367.0	177.2	869.3	7,462.3	7,594.6	7,522.0	.8	1.1
III	–68.0	821.2	889.1	1,410.4	540.4	363.3	177.0	870.0	7,543.4	7,622.2	7,566.7	3.2	1.5
IV	–56.9	840.8	897.8	1,393.2	517.1	350.4	166.8	876.1	7,597.3	7,672.7	7,640.6	3.3	2.7
1996: I	–75.6	845.6	921.1	1,404.4	529.0	356.4	172.7	875.4	7,664.6	7,746.5	7,698.7	2.9	3.9
II	–90.6	859.8	950.4	1,430.2	540.1	363.0	177.2	890.1	7,770.9	7,891.0	7,818.3	6.9	7.7
III	–115.8	867.1	982.9	1,422.1	529.5	355.4	174.1	892.6	7,793.5	7,959.0	7,854.7	2.2	3.5
IV	–73.9	924.2	998.1	1,431.0	527.7	353.3	174.4	903.4	7,903.7	8,011.9	7,953.3	4.9	2.7
1997: I	–90.8	943.9	1,034.7	1,437.0	523.9	342.9	181.0	913.1	7,981.1	8,124.5	8,038.1	4.9	5.7
II	–100.9	979.9	1,080.8	1,457.1	536.4	350.8	185.5	920.7	8,042.0	8,235.4	8,144.0	5.1	5.6
III	–118.7	1,006.8	1,125.5	1,463.3	534.6	350.7	183.9	928.6	8,155.3	8,331.9	8,216.2	4.0	4.8
IV	–128.7	1,011.2	1,139.9	1,463.0	528.8	348.6	180.2	934.1	8,204.3	8,403.9	8,277.2	3.1	3.5
1998: I	–171.7	1,007.3	1,179.0	1,459.2	515.4	332.7	182.6	943.6	8,307.0	8,579.7	8,414.8	6.7	8.6
II	–218.4	997.2	1,215.6	1,480.7	530.1	341.6	188.4	950.5	8,410.4	8,667.2	8,456.6	2.1	4.1
III	–237.9	993.0	1,231.0	1,485.3	527.0	347.5	179.6	958.1	8,459.6	8,764.2	8,510.6	3.8	4.6
IV	–232.3	1,030.8	1,263.1	1,495.9	532.0	344.9	187.1	963.6	8,588.3	8,881.5	8,641.9	5.9	5.5
1999: I	–284.5	1,016.4	1,300.9	1,514.6	531.4	341.4	189.9	982.9	8,685.2	9,007.4	8,723.3	3.7	5.8
II	–319.0	1,026.4	1,345.4	1,519.5	534.2	339.2	194.9	985.1	8,757.9	9,078.2	8,764.3	1.9	3.2
III	–338.2	1,054.8	1,393.0	1,536.5	539.7	348.3	191.3	996.6	8,855.8	9,216.9	8,885.5	5.7	6.3
IV *P*	–356.1	1,072.4	1,428.6	1,567.7	560.1	363.7	196.4	1,007.5	8,955.9	9,359.4		5.8	6.3

[1] Gross domestic product (GDP) less exports of goods and services plus imports of goods and services.
[2] GDP plus net income receipts from rest of the world.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–3.—*Quantity and price indexes for gross domestic product, and percent changes, 1959–99*

[Quarterly data are seasonally adjusted]

Year or quarter	Gross domestic product (GDP)							
	Index numbers, 1996=100				Percent change from preceding period [1]			
	GDP (current dollars)	Real GDP (chain-type quantity index)	GDP chain-type price index	GDP implicit price deflator	GDP (current dollars)	Real GDP (chain-type quantity index)	GDP chain-type price index	GDP implicit price deflator
1959	6.49	29.44	22.06	22.06	.....	.....	.....	.....
1960	6.75	30.17	22.37	22.37	3.9	2.5	1.4	1.4
1961	6.98	30.87	22.62	22.62	3.5	2.3	1.1	1.1
1962	7.51	32.73	22.93	22.93	7.5	6.0	1.4	1.4
1963	7.92	34.15	23.18	23.19	5.5	4.3	1.1	1.1
1964	8.50	36.13	23.53	23.54	7.4	5.8	1.5	1.5
1965	9.22	38.43	23.98	23.98	8.4	6.4	1.9	1.9
1966	10.10	40.95	24.66	24.67	9.6	6.6	2.9	2.9
1967	10.68	41.97	25.43	25.43	5.7	2.5	3.1	3.1
1968	11.67	43.97	26.52	26.53	9.3	4.8	4.3	4.3
1969	12.61	45.35	27.81	27.81	8.1	3.1	4.8	4.8
1970	13.31	45.43	29.29	29.29	5.5	.2	5.3	5.3
1971	14.44	46.85	30.83	30.83	8.6	3.1	5.3	5.3
1972	15.88	49.33	32.18	32.18	9.9	5.3	4.4	4.4
1973	17.73	52.13	34.01	34.02	11.7	5.7	5.7	5.7
1974	19.21	51.99	36.94	36.96	8.3	–.3	8.6	8.6
1975	20.93	51.84	40.37	40.37	8.9	–.3	9.3	9.2
1976	23.34	54.56	42.78	42.79	11.5	5.2	6.0	6.0
1977	26.00	57.03	45.58	45.59	11.4	4.5	6.5	6.5
1978	29.38	60.28	48.74	48.75	13.0	5.7	6.9	6.9
1979	32.85	62.33	52.69	52.70	11.8	3.4	8.1	8.1
1980	35.78	62.36	57.39	57.38	8.9	.0	8.9	8.9
1981	40.08	63.92	62.71	62.70	12.0	2.5	9.3	9.3
1982	41.71	62.72	66.51	66.51	4.1	–1.9	6.1	6.1
1983	45.24	65.35	69.23	69.24	8.5	4.2	4.1	4.1
1984	50.33	70.11	71.80	71.80	11.3	7.3	3.7	3.7
1985	53.92	72.82	74.05	74.05	7.1	3.9	3.1	3.1
1986	56.99	75.33	75.67	75.66	5.7	3.4	2.2	2.2
1987	60.70	77.98	77.84	77.84	6.5	3.5	2.9	2.9
1988	65.38	81.26	80.46	80.46	7.7	4.2	3.4	3.4
1989	70.25	84.07	83.56	83.56	7.5	3.5	3.9	3.9
1990	74.28	85.54	86.84	86.83	5.7	1.7	3.9	3.9
1991	76.62	85.36	89.76	89.76	3.2	–.2	3.4	3.4
1992	80.88	88.20	91.70	91.70	5.6	3.3	2.2	2.2
1993	85.01	90.29	94.17	94.16	5.1	2.4	2.7	2.7
1994	90.29	93.92	96.14	96.14	6.2	4.0	2.1	2.1
1995	94.72	96.47	98.19	98.19	4.9	2.7	2.1	2.1
1996	100.00	100.00	100.00	100.00	5.6	3.7	1.8	1.8
1997	106.24	104.50	101.66	101.66	6.2	4.5	1.7	1.7
1998	112.12	109.00	102.86	102.86	5.5	4.3	1.2	1.2
1999 *p*	118.37	113.41	104.32	104.37	5.6	4.0	1.4	1.5
1994: I	88.16	92.39	95.42	95.42	5.5	3.6	1.9	1.9
II	89.79	93.69	95.85	95.85	7.6	5.7	1.8	1.8
III	90.82	94.21	96.41	96.41	4.7	2.2	2.4	2.4
IV	92.38	95.38	96.85	96.85	7.0	5.1	1.8	1.9
1995: I	93.40	95.74	97.56	97.55	4.5	1.5	2.9	2.9
II	93.98	95.94	97.96	97.95	2.5	.8	1.6	1.7
III	95.13	96.70	98.39	98.38	5.0	3.2	1.8	1.8
IV	96.37	97.49	98.86	98.85	5.3	3.3	1.9	1.9
1996: I	97.65	98.19	99.46	99.45	5.4	2.9	2.5	2.5
II	99.61	99.84	99.77	99.77	8.3	6.9	1.3	1.3
III	100.59	100.39	100.21	100.20	4.0	2.2	1.8	1.7
IV	102.15	101.59	100.56	100.55	6.4	4.9	1.4	1.4
1997: I	104.00	102.82	101.14	101.15	7.4	4.9	2.4	2.4
II	105.71	104.12	101.53	101.53	6.7	5.1	1.5	1.5
III	107.06	105.14	101.83	101.82	5.2	4.0	1.2	1.1
IV	108.19	105.94	102.15	102.12	4.3	3.1	1.3	1.2
1998: I	110.21	107.67	102.41	102.35	7.7	6.7	1.0	.9
II	111.14	108.24	102.70	102.68	3.4	2.1	1.1	1.3
III	112.60	109.25	103.06	103.07	5.4	3.8	1.4	1.5
IV	114.52	110.83	103.28	103.33	7.0	5.9	.9	1.0
1999: I	116.12	111.84	103.79	103.83	5.7	3.7	2.0	2.0
II	117.06	112.36	104.13	104.19	3.3	1.9	1.3	1.4
III	119.00	113.92	104.41	104.46	6.8	5.7	1.1	1.1
IV *p*	121.30	115.54	104.94	104.99	7.9	5.8	2.0	2.0

[1] Percent changes based on unrounded data. Quarterly percent changes are at annual rates.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–4.—*Percent changes in real gross domestic product, 1960–99*

[Percent change from preceding period; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Personal consumption expenditures				Gross private domestic investment				Exports and imports of goods and services		Government consumption expenditures and gross investment		
						Nonresidential fixed								
		Total	Durable goods	Nondurable goods	Services	Total	Structures	Equipment and software	Residential	Exports	Imports	Total	Federal	State and local
1960	2.5	2.7	2.0	1.5	4.4	5.7	7.9	4.2	–7.1	20.8	1.3	0.0	–3.0	4.4
1961	2.3	2.0	–3.8	1.8	4.1	–.6	1.3	–1.9	.3	1.7	–.7	4.8	3.9	6.1
1962	6.0	4.9	11.7	3.1	4.9	8.7	4.5	11.5	9.6	5.3	11.3	6.0	8.3	3.0
1963	4.3	4.1	9.7	2.1	4.6	5.5	1.1	8.4	11.8	7.6	2.7	2.4	–.3	6.1
1964	5.8	6.0	9.3	4.9	6.1	11.9	10.4	12.7	5.8	13.3	5.3	2.0	–1.7	6.7
1965	6.4	6.3	12.6	5.3	5.3	17.4	15.9	18.3	–2.9	2.0	10.6	3.1	.2	6.7
1966	6.6	5.7	8.5	5.5	5.0	12.5	6.8	15.9	–8.9	6.7	14.9	9.0	11.3	6.3
1967	2.5	3.0	1.6	1.6	4.9	–1.4	–2.5	–.7	–3.1	2.2	7.3	7.5	9.7	5.0
1968	4.8	5.7	11.0	4.6	5.1	4.4	1.4	6.2	13.6	7.3	14.9	3.2	.9	5.9
1969	3.1	3.8	3.6	2.7	5.0	7.6	5.4	8.8	3.0	5.5	5.7	–.3	–3.3	3.0
1970	.2	2.3	–3.2	2.4	4.0	–.5	.3	–1.0	–6.0	10.8	4.3	–2.3	–7.0	2.8
1971	3.1	3.5	10.0	1.8	3.2	–.1	–1.6	.9	27.4	.5	5.3	–2.0	–7.2	3.0
1972	5.3	5.9	12.7	4.4	5.2	9.1	3.1	12.8	17.8	8.0	11.2	.0	–2.2	2.0
1973	5.7	4.8	10.3	3.3	4.5	14.5	8.1	18.3	–.6	21.8	4.6	–.8	–5.0	2.8
1974	–.3	–.4	–6.9	–2.0	3.1	.8	–2.1	2.5	–20.6	9.8	–2.3	2.1	–.3	3.9
1975	–.3	2.3	.0	1.5	3.6	–9.9	–10.5	–9.6	–13.0	–.6	–11.1	2.0	.0	3.4
1976	5.2	5.4	12.8	4.9	3.8	4.9	2.5	6.2	23.5	5.6	19.6	–.1	–1.2	.8
1977	4.5	4.2	9.3	2.4	4.1	11.3	4.1	15.0	21.5	2.4	10.9	.9	1.7	.4
1978	5.7	4.7	5.3	3.7	5.3	14.1	11.8	15.2	6.3	10.6	8.7	3.2	2.7	3.6
1979	3.4	2.8	–.3	2.7	3.8	10.0	12.6	8.7	–3.7	9.8	1.7	2.0	2.5	1.7
1980	.0	.0	–7.9	–.2	2.4	–.1	6.6	–3.6	–21.1	10.9	–6.6	2.1	4.8	.1
1981	2.5	1.4	1.3	1.2	1.6	5.6	7.9	4.2	–8.0	1.2	2.6	.9	4.7	–1.9
1982	–1.9	1.4	.0	1.0	2.1	–3.7	–1.5	–5.2	–18.2	–7.0	–1.3	1.6	3.7	.0
1983	4.2	5.3	14.9	3.3	4.6	–1.0	–10.4	5.4	41.1	–2.6	12.6	3.3	6.3	.8
1984	7.3	5.4	14.6	4.0	4.3	17.6	14.3	19.5	14.6	8.4	24.3	3.5	3.1	3.8
1985	3.9	5.0	9.9	2.7	5.3	6.7	7.3	6.4	1.4	2.8	6.5	6.5	7.6	5.4
1986	3.4	4.2	9.1	3.6	3.4	–2.7	–10.8	2.0	12.0	7.4	8.4	5.4	5.5	5.4
1987	3.5	3.5	1.7	2.4	4.6	–.1	–3.6	1.7	.2	11.4	6.1	3.0	3.7	2.4
1988	4.2	4.1	5.8	3.2	4.2	5.4	1.3	7.5	–.5	16.1	3.8	1.2	–1.8	3.7
1989	3.5	2.6	2.1	2.7	2.7	5.5	2.5	7.0	–4.1	11.7	3.9	2.7	1.3	3.9
1990	1.7	1.8	–.9	1.4	2.7	.7	1.5	.4	–8.6	8.7	3.8	3.3	2.0	4.2
1991	–.2	.1	–6.6	–.4	1.9	–4.9	–11.0	–2.0	–12.8	6.8	–.5	1.2	–.3	2.4
1992	3.3	3.2	5.3	1.9	3.5	3.4	–6.1	7.4	16.3	6.4	6.6	.6	–1.6	2.2
1993	2.4	3.0	8.2	2.9	2.0	8.4	.8	11.3	7.3	3.0	9.1	–.9	–3.9	1.3
1994	4.0	3.8	7.6	3.8	3.0	8.9	.8	11.9	9.7	8.9	12.0	.1	–3.6	2.6
1995	2.7	3.0	4.6	3.0	2.8	9.8	4.8	11.5	–3.6	10.3	8.2	.5	–2.7	2.5
1996	3.7	3.3	5.6	2.9	3.0	10.0	7.1	11.0	7.4	8.3	8.6	1.1	–.9	2.4
1997	4.5	3.7	6.6	2.9	3.6	10.7	8.5	11.5	2.3	12.7	13.7	2.3	–.1	3.8
1998	4.3	4.9	11.3	4.0	4.0	12.7	4.1	15.8	9.2	2.2	11.6	1.7	–.9	3.2
1999 *p*	4.0	5.3	11.4	5.3	4.0	8.3	–2.7	12.0	7.2	3.5	11.8	3.7	2.9	4.1
1994: I	3.6	3.9	5.3	5.0	3.1	4.7	–15.4	12.5	9.1	1.6	7.9	–3.9	–11.1	1.1
II	5.7	3.5	3.5	3.4	3.5	8.1	21.5	4.0	15.7	17.3	18.9	.7	–4.1	3.9
III	2.2	3.1	4.4	3.6	2.5	7.3	–1.0	10.3	–3.0	10.0	12.0	8.0	13.9	4.4
IV	5.1	4.1	12.4	4.3	2.4	17.0	2.8	22.1	–4.4	14.1	10.0	–3.6	–11.6	1.9
1995: I	1.5	1.5	–2.7	2.1	2.0	16.0	8.8	18.4	–7.7	7.2	8.8	.8	–1.4	2.3
II	.8	4.0	5.0	2.9	4.3	2.5	5.8	1.5	–15.6	4.4	6.2	1.9	.2	3.0
III	3.2	3.2	9.5	1.7	2.8	2.6	–.3	3.6	10.1	17.9	1.2	–.9	–2.8	.3
IV	3.3	2.7	3.4	3.4	2.2	9.5	–.8	13.1	9.7	9.9	3.9	–4.8	–16.1	2.8
1996: I	2.9	3.3	4.1	2.4	3.7	13.1	10.8	14.0	8.8	2.3	10.8	3.3	9.6	–.3
II	6.9	4.5	13.0	4.2	3.0	11.6	10.5	12.0	20.6	6.9	13.3	7.5	8.7	6.9
III	2.2	2.2	–1.5	2.2	2.9	13.6	7.5	15.7	–1.0	3.5	14.4	–2.3	–7.7	1.1
IV	4.9	3.2	5.0	4.0	2.4	10.0	23.0	5.9	–4.1	29.0	6.3	2.5	–1.3	4.9
1997: I	4.9	4.9	10.9	3.8	4.3	9.6	8.0	10.1	3.0	8.8	15.5	1.7	–2.8	4.4
II	5.1	1.8	–1.5	–.2	3.5	9.9	–4.0	15.2	4.7	16.2	19.1	5.7	9.9	3.4
III	4.0	6.6	20.2	5.7	4.5	16.0	11.2	17.7	.6	11.5	17.6	1.7	–1.3	3.5
IV	3.1	3.4	5.0	.3	4.6	3.2	4.3	2.8	6.6	1.8	5.2	–.1	–4.2	2.4
1998: I	6.7	5.6	16.9	5.8	3.3	26.7	5.7	34.7	14.0	–1.5	14.4	–1.0	–9.8	4.1
II	2.1	6.1	11.2	6.7	4.8	12.1	7.1	13.8	13.6	–4.0	13.0	6.0	11.9	3.0
III	3.8	3.9	4.1	2.4	4.7	.0	–6.6	2.4	8.0	–1.7	5.2	1.3	–2.3	3.3
IV	5.9	4.6	20.4	5.0	1.5	15.3	5.8	18.6	9.8	16.1	10.8	2.9	3.9	2.3
1999: I	3.7	6.5	12.4	8.9	4.2	7.8	–5.8	12.5	12.9	–5.5	12.5	5.1	–.5	8.2
II	1.9	5.1	9.1	3.3	5.2	7.0	–5.3	11.2	5.5	4.0	14.4	1.3	2.1	.9
III	5.7	4.9	7.7	3.6	5.0	10.9	–3.8	15.7	–3.8	11.5	14.9	4.5	4.1	4.8
IV *p*	5.8	5.3	11.8	6.1	3.5	2.5	–5.3	4.9	–1.2	6.9	10.6	8.4	16.0	4.4

Note.—Percent changes based on unrounded data.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–5.—*Contributions to percent change in real gross domestic product, 1960–99*

[Percentage points, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product (percent change)	Personal consumption expenditures				Gross private domestic investment						
							Fixed investment					Change in private inventories
								Nonresidential				
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Equipment and software	Residential	
1960	2.5	1.71	0.17	0.44	1.10	0.00	0.13	0.52	0.28	0.24	–0.39	–0.13
1961	2.3	1.27	–.31	.53	1.05	–.10	–.05	–.06	.05	–.11	.01	–.05
1962	6.0	3.09	.89	.90	1.30	1.80	1.23	.77	.16	.61	.46	.57
1963	4.3	2.56	.77	.59	1.20	1.00	1.07	.50	.04	.46	.58	–.08
1964	5.8	3.70	.77	1.33	1.60	1.24	1.37	1.07	.36	.71	.30	–.12
1965	6.4	3.90	1.06	1.43	1.40	2.15	1.49	1.64	.57	1.07	–.15	.66
1966	6.6	3.51	.73	1.46	1.32	1.44	.86	1.29	.27	1.02	–.43	.58
1967	2.5	1.82	.13	.42	1.27	–.76	–.28	–.15	–.10	–.05	–.13	–.48
1968	4.8	3.47	.92	1.18	1.36	.89	.99	.46	.05	.40	.53	–.10
1969	3.1	2.33	.31	.69	1.33	.90	.90	.77	.20	.57	.13	.00
1970	.2	1.41	–.28	.61	1.08	–1.04	–.31	–.06	.01	–.07	–.26	–.72
1971	3.1	2.19	.81	.47	.91	1.66	1.09	–.01	–.06	.06	1.09	.57
1972	5.3	3.65	1.07	1.11	1.46	1.86	1.80	.92	.12	.80	.88	.06
1973	5.7	2.98	.90	.82	1.26	1.96	1.46	1.50	.31	1.18	–.04	.50
1974	–.3	–.28	–.61	–.51	.84	–1.31	–1.04	.09	–.08	.17	–1.13	–.27
1975	–.3	1.39	.00	.37	1.02	–2.98	–1.71	–1.14	–.43	–.71	–.57	–1.27
1976	5.2	3.41	1.04	1.24	1.13	2.83	1.42	.52	.09	.42	.91	1.41
1977	4.5	2.62	.80	.60	1.22	2.43	2.18	1.19	.15	1.04	.99	.25
1978	5.7	2.94	.47	.91	1.56	2.06	1.94	1.59	.44	1.15	.35	.12
1979	3.4	1.75	–.03	.65	1.13	.60	1.01	1.22	.51	.71	–.21	–.41
1980	.0	.03	–.66	–.04	.72	–2.09	–1.18	–.01	.30	–.30	–1.17	–.91
1981	2.5	.89	.10	.29	.49	1.58	.38	.73	.39	.34	–.35	1.20
1982	–1.9	.88	.00	.23	.65	–2.55	–1.21	–.50	–.08	–.42	–.71	–1.34
1983	4.2	3.37	1.08	.80	1.49	1.48	1.19	–.13	–.54	.41	1.32	.29
1984	7.3	3.50	1.15	.93	1.42	4.62	2.67	2.04	.61	1.43	.63	1.95
1985	3.9	3.17	.81	.61	1.75	–.17	.89	.83	.33	.50	.06	–1.06
1986	3.4	2.73	.78	.78	1.16	–.12	.20	–.34	–.49	.16	.54	–.32
1987	3.5	2.27	.16	.52	1.59	.42	.00	–.01	–.14	.13	.01	.42
1988	4.2	2.68	.51	.68	1.49	.44	.58	.60	.05	.56	–.02	–.14
1989	3.5	1.72	.18	.58	.95	.60	.42	.61	.09	.52	–.19	.17
1990	1.7	1.20	–.08	.30	.98	–.49	–.28	.08	.05	.03	–.36	–.21
1991	–.2	.10	–.53	–.09	.71	–1.26	–1.00	–.53	–.38	–.15	–.47	–.26
1992	3.3	2.13	.39	.40	1.34	1.12	.86	.34	–.18	.52	.52	.26
1993	2.4	2.00	.61	.61	.79	1.18	1.09	.82	.02	.80	.26	.10
1994	4.0	2.52	.59	.79	1.15	1.89	1.28	.91	.02	.89	.37	.61
1995	2.7	2.04	.37	.60	1.08	.47	.88	1.03	.13	.90	–.15	–.41
1996	3.7	2.22	.44	.60	1.18	1.37	1.39	1.10	.20	.91	.29	–.02
1997	4.5	2.51	.51	.59	1.41	1.82	1.31	1.22	.25	.97	.09	.50
1998	4.3	3.24	.86	.79	1.59	1.93	1.86	1.49	.13	1.37	.37	.07
1999 *p*	4.0	3.52	.89	1.04	1.59	.99	1.32	1.02	–.08	1.10	.31	–.33
1994: I	3.6	2.56	.41	.99	1.16	2.54	.79	.44	–.45	.89	.34	1.75
II	5.7	2.36	.28	.70	1.37	3.57	1.41	.81	.52	.30	.60	2.16
III	2.2	2.05	.35	.73	.97	–.93	.60	.73	–.03	.75	–.13	–1.53
IV	5.1	2.79	.95	.88	.95	2.72	1.51	1.69	.08	1.61	–.18	1.21
1995: I	1.5	1.09	–.20	.46	.84	.51	1.31	1.63	.23	1.39	–.31	–.80
II	.8	2.64	.39	.60	1.65	–1.90	–.38	.27	.16	.11	–.65	–1.51
III	3.2	2.20	.74	.35	1.11	–.53	.66	.29	–.01	.30	.37	–1.19
IV	3.3	1.81	.27	.69	.85	1.81	1.38	1.02	–.02	1.04	.36	.42
1996: I	2.9	2.17	.32	.47	1.39	1.16	1.74	1.41	.28	1.13	.33	–.58
II	6.9	3.06	.99	.86	1.22	3.26	2.04	1.28	.29	.99	.76	1.22
III	2.2	1.41	–.12	.44	1.09	2.50	1.43	1.47	.21	1.27	–.04	1.07
IV	4.9	2.14	.39	.79	.96	.15	.95	1.12	.61	.51	–.17	–.80
1997: I	4.9	3.28	.81	.78	1.69	2.13	1.19	1.07	.24	.83	.12	.94
II	5.1	1.24	–.11	–.02	1.38	3.33	1.30	1.12	–.12	1.24	.19	2.02
III	4.0	4.29	1.42	1.11	1.76	.17	1.80	1.78	.32	1.45	.03	–1.63
IV	3.1	2.22	.38	.06	1.78	1.30	.63	.38	.13	.24	.26	.66
1998: I	6.7	3.75	1.24	1.15	1.37	5.04	3.45	2.91	.18	2.73	.54	1.59
II	2.1	3.96	.84	1.28	1.85	–.85	1.95	1.42	.22	1.21	.53	–2.80
III	3.8	2.64	.33	.49	1.83	1.74	.34	.01	–.21	.22	.33	1.40
IV	5.9	3.13	1.51	.98	.64	1.94	2.20	1.79	.18	1.61	.41	–.26
1999: I	3.7	4.27	.96	1.68	1.63	.67	1.48	.94	–.18	1.12	.53	–.80
II	1.9	3.36	.71	.64	2.01	–.36	1.10	.86	–.16	1.02	.24	–1.46
III	5.7	3.33	.62	.73	1.97	2.25	1.16	1.33	–.11	1.44	–.17	1.09
IV *p*	5.8	3.59	.93	1.22	1.43	1.46	.28	.33	–.15	.48	–.05	1.18

See next page for continuation of table.

TABLE B–5.—*Contributions to percent change in real gross domestic product, 1960–99—Continued*

[Percentage points, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Net exports of goods and services							Government consumption expenditures and gross investment				
	Net exports	Exports			Imports			Total	Federal			State and local
		Total	Goods	Services	Total	Goods	Services		Total	National defense	Nondefense	
1960	0.79	0.85	0.76	0.09	–0.06	0.05	–0.11	–0.01	–0.39	–0.21	–0.18	0.39
1961	.11	.08	.02	.06	.03	.00	.02	1.04	.48	.43	.06	.56
1962	–.21	.25	.17	.08	–.47	–.40	–.07	1.35	1.06	.63	.43	.29
1963	.24	.35	.29	.06	–.12	–.12	.00	.54	–.04	–.27	.23	.57
1964	.41	.63	.51	.12	–.23	–.19	–.03	.44	–.22	–.44	.23	.66
1965	–.35	.10	.02	.08	–.45	–.41	–.04	.68	.02	–.17	.19	.66
1966	–.32	.33	.27	.06	–.65	–.49	–.16	1.92	1.29	1.25	.04	.63
1967	–.23	.11	.02	.09	–.34	–.17	–.16	1.67	1.16	1.19	–.03	.51
1968	–.35	.36	.30	.06	–.70	–.68	–.03	.75	.12	.18	–.07	.63
1969	–.02	.27	.20	.07	–.29	–.20	–.09	–.08	–.41	–.48	.06	.33
1970	.32	.54	.44	.10	–.22	–.15	–.07	–.52	–.84	–.80	–.04	.32
1971	–.26	.03	–.02	.04	–.29	–.33	.04	–.47	–.82	–.90	.09	.35
1972	–.21	.42	.43	–.01	–.63	–.57	–.06	.00	–.24	–.40	.16	.24
1973	.91	1.21	1.01	.20	–.29	–.34	.05	–.18	–.51	–.49	–.01	.33
1974	.87	.70	.46	.24	.18	.17	.00	.43	–.02	–.17	.14	.46
1975	.89	–.05	–.16	.11	.94	.87	.07	.42	.00	–.08	.08	.42
1976	–.99	.46	.31	.15	–1.45	–1.35	–.10	–.02	–.11	–.14	.02	.10
1977	–.72	.20	.08	.11	–.91	–.84	–.07	.20	.15	.05	.11	.04
1978	.05	.83	.68	.15	–.78	–.67	–.11	.65	.23	.05	.19	.42
1979	.65	.81	.77	.04	–.16	–.14	–.02	.40	.21	.16	.04	.20
1980	1.69	.98	.86	.12	.71	.67	.04	.42	.40	.24	.16	.01
1981	–.15	.12	–.08	.20	–.27	–.18	–.09	.19	.41	.37	.04	–.23
1982	–.54	–.66	–.67	.01	.12	.20	–.08	.33	.33	.47	–.14	.00
1983	–1.35	–.22	–.19	–.03	–1.13	–1.00	–.13	.69	.60	.47	.13	.09
1984	–1.57	.65	.46	.19	–2.22	–1.83	–.39	.73	.31	.35	–.04	.42
1985	–.44	.21	.19	.02	–.65	–.51	–.13	1.32	.73	.60	.13	.59
1986	–.30	.52	.26	.26	–.83	–.82	–.01	1.13	.54	.46	.07	.60
1987	.20	.82	.56	.26	–.62	–.39	–.23	.64	.36	.35	.01	.28
1988	.84	1.25	1.04	.22	–.41	–.36	–.05	.25	–.18	–.06	–.12	.42
1989	.59	1.02	.79	.22	–.43	–.37	–.05	.55	.12	–.05	.17	.43
1990	.39	.80	.55	.25	–.41	–.26	–.15	.65	.18	.00	.18	.48
1991	.70	.65	.48	.17	.05	.00	.05	.25	–.02	–.07	.05	.28
1992	–.04	.64	.48	.16	–.68	–.77	.08	.12	–.14	–.31	.17	.26
1993	–.64	.30	.21	.09	–.94	–.85	–.09	–.18	–.33	–.32	–.01	.15
1994	–.41	.88	.67	.21	–1.29	–1.18	–.11	.02	–.29	–.26	–.02	.31
1995	.12	1.07	.86	.20	–.95	–.87	–.08	.09	–.20	–.19	–.01	.29
1996	–.14	.90	.68	.23	–1.04	–.94	–.09	.21	–.06	–.06	.00	.28
1997	–.25	1.40	1.12	.28	–1.65	–1.43	–.22	.42	–.01	–.11	.10	.43
1998	–1.18	.25	.17	.08	–1.43	–1.21	–.22	.31	–.06	–.08	.02	.37
1999 *P*	–1.11	.38	.29	.09	–1.49	–1.33	–.16	.64	.18	.08	.10	.47
1994: I	–.71	.15	–.28	.43	–.85	–.72	–.13	–.79	–.91	–.98	.06	.12
II	–.33	1.62	1.27	.35	–1.95	–1.91	–.04	.15	–.31	.07	–.37	.45
III	–.35	.97	.95	.02	–1.32	–1.33	.01	1.46	.97	.71	.25	.49
IV	.26	1.39	1.20	.19	–1.13	–1.16	.03	–.67	–.90	–1.06	.16	.24
1995: I	–.25	.75	.66	.09	–.99	–.66	–.33	.18	–.09	–.04	–.05	.27
II	–.27	.46	.37	.10	–.74	–.83	.09	.37	.01	.01	.01	.35
III	1.68	1.83	1.13	.69	–.15	–.10	–.05	–.15	–.20	–.19	–.01	.05
IV	.59	1.07	.84	.23	–.48	–.36	–.12	–.90	–1.22	–.67	–.55	.32
1996: I	–1.03	.26	.40	–.14	–1.29	–1.18	–.11	.59	.63	.32	.31	–.04
II	–.79	.77	.35	.42	–1.55	–1.47	–.08	1.37	.60	.36	.24	.78
III	–1.29	.38	.61	–.23	–1.67	–1.45	–.22	–.41	–.54	–.38	–.16	.13
IV	2.13	2.89	1.75	1.14	–.76	–.76	.00	.47	–.08	–.10	.02	.55
1997: I	–.79	.98	1.09	–.12	–1.77	–1.39	–.38	.32	–.18	–.52	.34	.50
II	–.44	1.75	1.39	.36	–2.19	–2.02	–.17	1.02	.63	.40	.23	.39
III	–.77	1.29	1.04	.25	–2.06	–1.67	–.39	.31	–.08	–.01	–.08	.40
IV	–.44	.21	.29	–.08	–.64	–.54	–.11	–.01	–.28	–.10	–.17	.27
1998: I	–1.90	–.16	–.22	.06	–1.74	–1.42	–.32	–.16	–.64	–.76	.12	.48
II	–2.01	–.45	–.73	.28	–1.56	–1.36	–.20	1.03	.69	.42	.27	.33
III	–.82	–.18	.12	–.30	–.65	–.51	–.13	.23	–.14	.27	–.42	.37
IV	.33	1.65	1.38	.27	–1.32	–1.29	–.03	.51	.24	–.12	.36	.28
1999: I	–2.13	–.61	–.74	.13	–1.52	–1.28	–.24	.87	–.03	–.16	.13	.90
II	–1.35	.42	.32	.10	–1.77	–1.59	–.19	.23	.13	–.10	.23	.10
III	–.72	1.19	1.19	.00	–1.91	–1.83	–.08	.81	.26	.42	–.16	.55
IV *P*	–.70	.74	.57	.17	–1.44	–1.13	–.30	1.45	.94	.70	.24	.52

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–6.—*Chain-type quantity indexes for gross domestic product, 1959–99*

[Index numbers, 1996=100; quarterly data seasonally adjusted]

Year or quarter	Gross domestic product	Personal consumption expenditures				Gross private domestic investment					
							Fixed investment				
								Nonresidential			
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Equipment and software	Residential
1959	29.44	27.78	16.49	38.35	24.39	21.96	22.20	15.94	43.65	9.74	47.26
1960	30.17	28.53	16.82	38.93	25.46	21.95	22.39	16.84	47.12	10.16	43.89
1961	30.87	29.11	16.19	39.64	26.49	21.81	22.32	16.74	47.76	9.96	44.02
1962	32.73	30.54	18.08	40.89	27.79	24.57	24.33	18.19	49.91	11.11	48.24
1963	34.15	31.80	19.84	41.75	29.06	26.21	26.21	19.20	50.46	12.04	53.92
1964	36.13	33.70	21.67	43.80	30.82	28.37	28.74	21.47	55.71	13.58	57.05
1965	38.43	35.83	24.42	46.12	32.45	32.35	31.66	25.20	64.59	16.06	55.39
1966	40.95	37.87	26.48	48.65	34.07	35.19	33.47	28.35	69.02	18.61	50.43
1967	41.97	39.00	26.90	49.42	35.74	33.57	32.84	27.95	67.26	18.48	48.84
1968	43.97	41.22	29.85	51.67	37.58	35.51	35.12	29.19	68.21	19.62	55.50
1969	45.35	42.79	30.92	53.05	39.46	37.58	37.30	31.39	71.89	21.34	57.14
1970	45.43	43.78	29.91	54.32	41.03	35.10	36.51	31.22	72.12	21.12	53.73
1971	46.85	45.32	32.91	55.30	42.35	39.09	39.26	31.21	70.94	21.31	68.46
1972	49.33	47.99	37.08	57.73	44.54	43.70	43.96	34.04	73.12	24.04	80.63
1973	52.13	50.29	40.91	59.62	46.53	48.81	47.97	38.99	79.08	28.44	80.11
1974	51.99	50.07	38.10	58.42	47.95	45.20	44.96	39.30	77.43	29.13	63.57
1975	51.84	51.19	38.09	59.28	49.68	37.20	40.13	35.41	69.32	26.35	55.32
1976	54.56	53.97	42.95	62.17	51.59	44.70	44.08	37.14	71.02	27.98	68.34
1977	57.03	56.21	46.95	63.67	53.72	51.45	50.41	41.32	73.97	32.18	83.02
1978	60.28	58.84	49.43	66.05	56.55	57.38	56.22	47.15	82.66	37.09	88.26
1979	62.33	60.49	49.26	67.81	58.73	59.18	59.37	51.88	93.08	40.33	85.03
1980	62.36	60.51	45.39	67.71	60.16	52.73	55.58	51.85	99.23	38.88	67.05
1981	63.92	61.37	45.98	68.51	61.13	57.59	56.79	54.77	107.09	40.52	61.68
1982	62.72	62.24	45.98	69.17	62.43	49.51	52.81	52.72	105.47	38.42	50.45
1983	65.35	65.52	52.81	71.47	65.27	54.22	56.76	52.19	94.53	40.50	71.19
1984	70.11	69.07	60.54	74.31	68.05	70.13	66.28	61.37	108.03	48.40	81.56
1985	72.82	72.52	66.52	76.33	71.66	69.48	69.77	65.49	115.92	51.48	82.67
1986	75.33	75.58	72.58	79.07	74.11	69.02	70.60	63.73	103.43	52.51	92.58
1987	77.98	78.21	73.84	80.97	77.50	70.76	70.58	63.65	99.69	53.37	92.79
1988	81.26	81.40	78.11	83.55	80.76	72.65	73.15	67.11	100.95	57.37	92.32
1989	84.07	83.52	79.75	85.83	82.91	75.36	75.14	70.83	103.42	61.39	88.53
1990	85.54	85.04	79.01	87.01	85.17	73.01	73.77	71.35	104.95	61.63	80.92
1991	85.36	85.17	73.79	86.65	86.82	66.75	68.65	67.83	93.38	60.38	70.57
1992	88.20	87.90	77.70	88.29	89.91	72.41	73.10	70.11	87.70	64.86	82.09
1993	90.29	90.54	84.08	90.87	91.74	78.69	79.03	76.00	88.39	72.22	88.09
1994	93.92	93.94	90.46	94.35	94.45	89.08	86.25	82.78	89.14	80.79	96.64
1995	96.47	96.80	94.66	97.14	97.07	91.79	91.46	90.89	93.39	90.08	93.13
1996	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1997	104.50	103.75	106.63	102.92	103.60	111.51	108.52	110.71	108.45	111.48	102.35
1998	109.00	108.80	118.66	107.07	107.80	124.52	121.37	124.80	112.93	129.09	111.78
1999 *P*	113.41	114.53	132.23	112.74	112.14	131.67	131.06	135.13	109.92	144.63	119.84
1994: I	92.39	92.75	88.72	93.09	93.42	85.08	83.69	80.05	85.88	78.20	94.64
II	93.69	93.54	89.49	93.87	94.22	90.01	85.75	81.62	90.16	78.96	98.16
III	94.21	94.26	90.47	94.72	94.81	88.66	86.66	83.07	89.93	80.92	97.41
IV	95.38	95.21	93.16	95.71	95.36	92.58	88.89	86.40	90.57	85.06	96.33
1995: I	95.74	95.56	92.53	96.20	95.85	93.54	90.86	89.66	92.49	88.74	94.42
II	95.94	96.49	93.66	96.90	96.86	90.82	90.29	90.22	93.79	89.06	90.50
III	96.70	97.26	95.81	97.31	97.53	90.05	91.29	90.80	93.72	89.86	92.71
IV	97.49	97.91	96.62	98.13	98.06	92.74	93.40	92.89	93.53	92.67	94.89
1996: I	98.19	98.72	97.61	98.72	98.94	94.33	96.08	95.80	95.95	95.75	96.91
II	99.84	99.81	100.64	99.73	99.68	99.25	99.26	98.46	98.38	98.49	101.56
III	100.39	100.34	100.26	100.29	100.39	103.12	101.56	101.65	100.18	102.15	101.30
IV	101.59	101.13	101.50	101.26	100.99	103.30	103.10	104.09	105.49	103.61	100.24
1997: I	102.82	102.36	104.15	102.22	102.07	106.75	105.07	106.50	107.55	106.13	100.98
II	104.12	102.82	103.76	102.17	102.96	112.18	107.25	109.05	106.46	109.94	102.15
III	105.14	104.47	108.64	103.60	104.10	112.47	110.33	113.18	109.31	114.52	102.30
IV	105.94	105.34	109.98	103.67	105.28	114.66	111.43	114.09	110.48	115.32	103.96
1998: I	107.67	106.77	114.35	105.13	106.14	123.24	117.44	121.03	112.03	124.24	107.43
II	108.24	108.36	117.42	106.85	107.39	121.76	120.95	124.54	113.98	128.33	110.91
III	109.25	109.42	118.62	107.49	108.62	124.82	121.55	124.56	112.05	129.09	113.07
IV	110.83	110.66	124.26	108.80	109.03	128.26	125.55	129.06	113.64	134.70	115.74
1999: I	111.84	112.43	127.95	111.15	110.16	129.41	128.30	131.49	111.96	138.74	119.30
II	112.36	113.83	130.76	112.05	111.56	128.74	130.37	133.74	110.44	142.47	120.91
III	113.92	115.19	133.21	113.04	112.92	132.90	132.54	137.23	109.37	147.77	119.75
IV *P*	115.54	116.68	136.98	114.73	113.90	135.63	133.05	138.08	107.91	149.56	119.39

See next page for continuation of table.

TABLE B–6.—*Chain-type quantity indexes for gross domestic product, 1959–99—Continued*

[Index numbers, 1996=100; quarterly data seasonally adjusted]

Year or quarter	Exports of goods and services			Imports of goods and services			Government consumption expenditures and gross investment				
								Federal			State and local
	Total	Goods	Services	Total	Goods	Services	Total	Total	National defense	Non-defense	
1959	8.22	8.41	7.12	11.07	8.82	22.61	46.39	70.86	88.19	36.98	31.30
1960	9.93	10.38	7.88	11.21	8.67	24.38	46.38	68.76	86.49	34.00	32.66
1961	10.10	10.43	8.41	11.14	8.66	23.96	48.61	71.41	90.02	34.93	34.66
1962	10.64	10.89	9.16	12.40	9.94	25.08	51.54	77.32	95.29	42.14	35.71
1963	11.44	11.75	9.74	12.74	10.34	25.06	52.76	77.10	92.88	46.22	37.87
1964	12.96	13.36	10.90	13.41	11.03	25.71	53.79	75.79	88.86	50.23	40.43
1965	13.22	13.43	11.76	14.84	12.59	26.47	55.46	75.93	87.28	53.70	43.13
1966	14.11	14.36	12.42	17.05	14.57	29.83	60.43	84.51	99.90	54.40	45.85
1967	14.42	14.43	13.51	18.29	15.34	33.47	64.99	92.74	112.64	53.84	48.13
1968	15.47	15.57	14.20	21.02	18.51	34.08	67.05	93.60	114.65	52.45	50.96
1969	16.32	16.39	15.13	22.21	19.52	36.22	66.81	90.51	109.24	53.84	52.51
1970	18.09	18.26	16.47	23.16	20.29	38.11	65.30	84.15	100.03	53.01	53.99
1971	18.18	18.18	17.07	24.40	21.99	37.03	63.98	78.10	89.85	54.86	55.60
1972	19.64	20.14	16.92	27.13	24.98	38.54	63.98	76.34	85.39	58.38	56.73
1973	23.92	24.77	19.85	28.39	26.74	37.24	63.47	72.55	79.86	58.07	58.32
1974	26.27	26.73	23.48	27.75	26.00	37.20	64.79	72.37	77.91	61.50	60.60
1975	26.12	26.11	25.14	24.66	22.72	35.59	66.06	72.39	76.96	63.48	62.67
1976	27.57	27.35	27.39	29.49	27.86	38.04	66.01	71.50	75.35	64.06	63.15
1977	28.24	27.71	29.19	32.70	31.25	39.94	66.63	72.74	75.92	66.67	63.37
1978	31.24	30.81	31.74	35.54	34.05	42.78	68.75	74.71	76.51	71.45	65.63
1979	34.31	34.45	32.53	36.13	34.64	43.37	70.15	76.55	78.69	72.61	66.76
1980	38.07	38.55	34.81	33.73	32.06	42.40	71.63	80.26	81.99	77.19	66.85
1981	38.52	38.14	38.53	34.61	32.72	44.85	72.29	84.03	86.98	78.41	65.55
1982	35.83	34.70	38.72	34.18	31.90	47.24	73.46	87.10	93.46	74.22	65.52
1983	34.91	33.70	38.08	38.49	36.24	51.06	75.87	92.56	99.79	77.86	66.04
1984	37.84	36.36	41.81	47.86	45.00	63.86	78.51	95.45	104.57	76.65	68.53
1985	38.88	37.58	42.24	50.95	47.80	68.71	83.58	102.74	113.32	80.81	72.25
1986	41.76	39.51	47.92	55.23	52.70	68.94	88.13	108.39	120.44	83.31	76.15
1987	46.51	43.89	53.75	58.58	55.15	77.64	90.79	112.40	126.10	83.80	77.99
1988	54.01	52.16	58.86	60.81	57.38	79.75	91.85	110.37	125.15	79.46	80.90
1989	60.35	58.74	64.41	63.21	59.80	81.98	94.36	111.83	124.18	86.09	84.02
1990	65.62	63.58	70.84	65.64	61.60	88.23	97.44	114.11	124.15	93.23	87.56
1991	70.08	68.09	75.14	65.31	61.56	86.18	98.65	113.78	122.80	95.05	89.67
1992	74.59	72.73	79.28	69.64	67.26	82.69	99.21	111.96	116.83	101.94	91.63
1993	76.86	74.93	81.72	75.98	74.03	86.60	98.33	107.59	110.57	101.50	92.83
1994	83.72	82.18	87.59	85.08	83.86	91.65	98.42	103.69	105.28	100.47	95.28
1995	92.37	91.97	93.36	92.05	91.43	95.40	98.87	100.91	101.37	99.98	97.66
1996	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1997	112.73	114.51	108.49	113.72	114.21	111.19	102.33	99.88	97.55	104.63	103.79
1998	115.21	116.89	111.19	126.89	127.62	123.21	104.10	98.97	95.71	105.63	107.14
1999 *p*	119.26	121.33	114.39	141.93	143.84	132.59	107.92	101.84	97.52	110.62	111.53
1994: I	79.58	77.30	85.34	80.66	78.69	91.37	97.56	103.61	104.57	101.64	93.97
II	82.83	80.86	87.78	84.23	82.82	91.90	97.73	102.54	104.90	97.72	94.88
III	84.81	83.57	87.94	86.66	85.70	91.82	99.64	105.92	108.63	100.41	95.90
IV	87.65	87.00	89.29	88.75	88.24	91.50	98.73	102.71	103.02	102.09	96.36
1995: I	89.19	88.91	89.89	90.65	89.75	95.55	98.93	102.34	102.76	101.47	96.90
II	90.16	89.98	90.59	92.04	91.58	94.45	99.40	102.38	102.80	101.52	97.63
III	93.94	93.26	95.64	92.32	91.80	95.05	99.19	101.65	101.77	101.40	97.72
IV	96.19	95.73	97.33	93.21	92.59	96.53	97.98	97.27	98.14	95.53	98.40
1996: I	96.73	96.89	96.34	95.64	95.22	97.86	98.77	99.52	99.82	98.91	98.32
II	98.35	97.92	99.44	98.68	98.65	98.85	100.58	101.61	101.68	101.47	99.97
III	99.19	99.81	97.73	102.05	102.13	101.64	100.01	99.60	99.55	99.71	100.25
IV	105.72	105.39	106.49	103.63	104.00	101.65	100.64	99.27	98.95	99.91	101.46
1997: I	107.97	108.99	105.55	107.43	107.60	106.52	101.06	98.55	96.04	103.69	102.55
II	112.09	113.66	108.36	112.22	112.90	108.76	102.47	100.90	98.27	106.28	103.41
III	115.18	117.20	110.37	116.86	117.42	113.99	102.91	100.56	98.23	105.32	104.30
IV	115.68	118.21	109.68	118.35	118.92	115.47	102.89	99.48	97.65	103.23	104.91
1998: I	115.23	117.38	110.13	122.41	122.87	120.01	102.62	96.96	93.21	104.60	105.98
II	114.07	114.69	112.48	126.21	126.87	122.83	104.13	99.71	95.69	107.89	106.75
III	113.60	115.14	109.93	127.81	128.40	124.75	104.46	99.14	97.33	102.85	107.61
IV	117.92	120.35	112.22	131.14	132.33	125.24	105.20	100.08	96.61	107.16	108.23
1999: I	116.27	117.46	113.35	135.07	136.33	128.81	106.52	99.97	95.64	108.77	110.39
II	117.41	118.71	114.24	139.69	141.34	131.58	106.86	100.49	95.01	111.62	110.64
III	120.66	123.43	114.26	144.63	147.08	132.74	108.06	101.52	97.56	109.59	111.93
IV *p*	122.68	125.72	115.70	148.33	150.60	137.24	110.25	105.36	101.87	112.49	113.15

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–7.—*Chain-type price indexes for gross domestic product, 1959–99*

[Index numbers, 1996=100, except as noted; quarterly data seasonally adjusted]

Year or quarter	Gross domestic product	Personal consumption expenditures				Gross private domestic investment					
							Fixed investment				
								Nonresidential			
		Total	Durable goods	Nondurable goods	Services	Total	Total	Total	Structures	Equipment and software	Residential
1959	22.06	21.87	41.97	24.60	17.09	28.78	27.72	32.44	18.48	43.15	18.99
1960	22.37	22.24	41.77	24.95	17.55	28.92	27.87	32.59	18.46	43.51	19.12
1961	22.62	22.47	41.86	25.10	17.87	28.84	27.78	32.41	18.35	43.28	19.15
1962	22.93	22.74	42.05	25.30	18.20	28.87	27.81	32.42	18.50	43.08	19.18
1963	23.18	23.00	42.20	25.59	18.45	28.78	27.73	32.43	18.67	42.86	19.02
1964	23.53	23.32	42.40	25.92	18.79	28.95	27.90	32.60	18.94	42.84	19.18
1965	23.98	23.68	42.03	26.39	19.16	29.42	28.39	32.99	19.49	42.91	19.72
1966	24.66	24.29	41.83	27.26	19.72	30.03	28.99	33.49	20.19	43.05	20.44
1967	25.43	24.90	42.48	27.91	20.31	30.83	29.81	34.36	20.82	44.03	21.15
1968	26.52	25.88	43.89	28.98	21.16	31.99	31.02	35.58	21.87	45.24	22.27
1969	27.81	27.02	45.10	30.32	22.16	33.51	32.56	37.07	23.31	46.52	23.81
1970	29.29	28.30	46.09	31.82	23.35	34.93	33.96	38.82	24.83	48.25	24.58
1971	30.83	29.59	47.77	32.80	24.80	36.69	35.69	40.67	26.74	49.73	26.00
1972	32.18	30.67	48.28	33.90	25.96	38.24	37.23	42.08	28.68	50.37	27.58
1973	34.01	32.37	48.98	36.56	27.22	40.31	39.30	43.71	30.91	51.25	30.03
1974	36.94	35.56	52.08	41.82	29.13	44.33	43.18	47.95	35.15	55.08	33.12
1975	40.37	38.43	56.84	45.09	31.45	49.80	48.59	54.55	39.34	63.24	36.20
1976	42.78	40.68	59.99	46.83	33.88	52.57	51.42	57.59	41.25	67.02	38.53
1977	45.58	43.43	62.61	49.61	36.66	56.51	55.46	61.54	44.81	71.02	42.41
1978	48.74	46.42	66.20	52.93	39.37	61.15	60.17	65.69	49.15	74.84	47.61
1979	52.69	50.39	70.60	58.50	42.33	66.71	65.65	71.07	54.87	79.67	52.95
1980	57.39	55.62	76.54	65.31	46.52	73.01	71.83	77.39	59.97	86.58	58.68
1981	62.71	60.49	81.62	70.37	51.22	79.77	78.55	84.93	68.31	92.86	63.47
1982	66.51	63.79	84.76	72.34	55.28	83.91	82.91	89.69	73.76	96.60	66.87
1983	69.23	66.63	86.38	73.89	59.03	83.73	82.81	88.93	71.82	96.91	68.40
1984	71.80	69.06	87.58	75.64	62.06	84.40	83.37	88.83	72.42	96.29	70.37
1985	74.05	71.42	88.59	77.30	65.06	85.30	84.45	89.57	74.11	96.28	72.18
1986	75.67	73.13	89.69	77.01	68.00	87.19	86.51	91.17	75.54	97.92	75.21
1987	77.84	75.81	92.21	79.66	70.73	88.86	88.12	92.01	76.72	98.53	78.29
1988	80.46	78.73	93.49	82.34	74.11	90.96	90.48	94.17	79.98	99.95	80.99
1989	83.56	82.22	95.14	86.26	77.73	93.22	92.76	96.29	83.10	101.45	83.59
1990	86.84	86.02	96.00	90.98	81.61	95.08	94.70	98.23	85.77	102.93	85.54
1991	89.76	89.03	97.39	93.76	85.03	96.46	96.14	99.80	87.32	104.48	86.64
1992	91.70	91.44	98.28	95.20	88.19	96.32	96.07	99.29	87.29	103.75	87.69
1993	94.17	93.94	99.06	96.15	91.80	97.70	97.46	99.81	90.22	103.24	91.24
1994	96.14	95.86	100.56	96.83	94.43	99.11	98.92	100.54	93.50	102.98	94.48
1995	98.19	98.01	101.06	97.93	97.44	100.29	100.14	100.93	97.39	102.12	97.91
1996	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1997	101.66	101.67	97.79	101.35	102.63	99.84	99.95	99.04	104.14	97.37	102.68
1998	102.86	102.63	95.45	101.40	104.78	98.96	99.20	97.22	107.37	94.01	105.30
1999 *P*	104.32	104.27	93.00	103.74	106.99	98.81	99.24	95.97	110.24	91.64	109.48
1994: I	95.42	94.99	99.88	96.21	93.38	98.59	98.35	100.24	92.15	103.08	93.25
II	95.85	95.48	100.36	96.45	94.01	98.94	98.74	100.56	92.81	103.26	93.80
III	96.41	96.29	101.00	97.26	94.85	99.30	99.16	100.74	93.86	103.12	94.81
IV	96.85	96.70	101.00	97.40	95.48	99.59	99.41	100.60	95.17	102.46	96.05
1995: I	97.56	97.29	101.36	97.46	96.39	100.04	99.84	100.75	96.35	102.25	97.23
II	97.96	97.83	101.22	97.83	97.15	100.40	100.20	101.09	97.06	102.45	97.69
III	98.39	98.26	100.94	98.10	97.80	100.42	100.27	101.04	97.79	102.14	98.09
IV	98.86	98.65	100.72	98.31	98.40	100.31	100.25	100.82	98.38	101.64	98.62
1996: I	99.46	99.24	100.78	99.09	99.00	100.03	100.04	100.40	98.87	100.91	99.00
II	99.77	99.82	100.13	99.98	99.68	99.84	99.84	99.97	99.42	100.16	99.44
III	100.21	100.16	99.77	100.02	100.31	100.11	100.08	99.92	100.44	99.74	100.53
IV	100.56	100.78	99.32	100.92	101.01	100.02	100.05	99.71	101.28	99.19	101.03
1997: I	101.14	101.30	99.05	101.34	101.75	99.95	100.00	99.45	102.34	98.49	101.60
II	101.53	101.51	98.12	101.17	102.38	99.80	99.92	99.17	103.50	97.74	102.14
III	101.83	101.78	97.31	101.32	102.94	99.89	100.03	98.98	104.85	97.06	103.18
IV	102.15	102.08	96.70	101.55	103.46	99.74	99.86	98.56	105.86	96.18	103.80
1998: I	102.41	102.19	96.32	101.20	103.93	99.18	99.38	97.90	106.11	95.25	103.88
II	102.70	102.48	95.83	101.15	104.56	98.93	99.15	97.36	106.85	94.34	104.64
III	103.06	102.78	95.29	101.46	105.04	98.89	99.16	97.03	107.79	93.64	105.76
IV	103.28	103.08	94.34	101.78	105.60	98.85	99.11	96.60	108.73	92.81	106.93
1999: I	103.79	103.44	93.67	102.19	106.19	98.87	99.19	96.38	109.07	92.44	107.97
II	104.13	104.01	93.22	103.47	106.63	98.78	99.17	96.04	109.67	91.86	108.93
III	104.41	104.49	92.75	104.20	107.19	98.70	99.19	95.72	110.58	91.24	110.04
IV *P*	104.94	105.13	92.37	105.09	107.96	98.90	99.42	95.74	111.65	91.00	110.99

See next page for continuation of table.

TABLE B–7.—*Chain-type price indexes for gross domestic product, 1959–99*—Continued

[Index numbers, 1996=100, except as noted; quarterly data seasonally adjusted]

Year or quarter	Exports and imports of goods and services		Government consumption expenditures and gross investment					Final sales of domestic product	Gross domestic purchases [1]		Gross national product	Percent change [2]		
				Federal								Gross domestic product	Gross domestic purchases [1]	
	Exports	Imports	Total	Total	National defense	Non-defense	State and local		Total	Less food and energy			Total	Less food and energy
1959	28.74	20.95	17.04	17.86	17.76	17.66	16.17	21.90	21.57	.....	22.03	.....	.....	.....
1960	29.10	21.15	17.24	17.99	17.86	17.92	16.47	22.22	21.87	.....	22.34	1.4	1.4	.....
1961	29.51	21.15	17.56	18.27	18.07	18.50	16.86	22.46	22.10	.....	22.59	1.1	1.1	.....
1962	29.49	20.90	18.02	18.68	18.44	19.08	17.39	22.78	22.40	.....	22.90	1.4	1.3	.....
1963	29.44	21.30	18.45	19.13	18.90	19.54	17.78	23.03	22.67	.....	23.16	1.1	1.2	.....
1964	29.64	21.75	18.95	19.77	19.45	20.50	18.14	23.38	23.02	.....	23.51	1.5	1.6	.....
1965	30.62	22.06	19.47	20.30	20.01	20.90	18.65	23.83	23.44	.....	23.95	1.9	1.8	.....
1966	31.57	22.57	20.27	20.98	20.66	21.68	19.57	24.52	24.10	.....	24.64	2.9	2.8	.....
1967	32.82	22.66	21.12	21.62	21.31	22.28	20.66	25.28	24.80	.....	25.40	3.1	2.9	.....
1968	33.50	23.00	22.30	22.88	22.50	23.74	21.77	26.38	25.87	.....	26.50	4.3	4.3	.....
1969	34.53	23.60	23.62	24.10	23.72	24.92	23.20	27.67	27.11	.....	27.78	4.8	4.8	.....
1970	36.03	25.00	25.51	25.97	25.43	27.40	25.11	29.14	28.57	.....	29.26	5.3	5.4	.....
1971	37.33	26.53	27.56	28.25	27.69	29.73	26.96	30.68	30.12	.....	30.80	5.3	5.4	.....
1972	38.58	28.40	29.65	30.89	30.61	31.44	28.60	32.03	31.50	.....	32.14	4.4	4.6	.....
1973	43.90	33.34	31.87	33.08	32.91	33.30	30.83	33.86	33.37	.....	33.98	5.7	5.9	.....
1974	54.14	47.70	34.96	35.85	35.82	35.66	34.13	36.77	36.65	.....	36.90	8.6	9.8	.....
1975	59.70	51.67	38.41	39.45	39.24	39.72	37.45	40.19	39.99	.....	40.33	9.3	9.1	.....
1976	61.76	53.22	40.92	42.14	42.02	42.14	39.83	42.61	42.37	.....	42.74	6.0	6.0	.....
1977	64.32	57.92	43.79	45.42	45.15	45.76	42.41	45.42	45.31	.....	45.54	6.5	6.9	.....
1978	68.15	62.01	46.59	48.27	48.29	47.93	45.14	48.58	48.49	.....	48.71	6.9	7.0	.....
1979	76.25	72.62	50.46	51.98	52.19	51.20	49.10	52.52	52.67	.....	52.66	8.1	8.6	.....
1980	83.82	90.45	55.93	57.49	57.93	56.16	54.51	57.19	58.10	.....	57.36	8.9	10.3	.....
1981	89.92	95.32	61.42	63.10	63.71	61.37	59.90	62.50	63.36	.....	62.69	9.3	9.1	.....
1982	90.23	92.10	65.52	67.56	68.44	65.16	63.70	66.34	66.94	65.44	66.50	6.1	5.7	.....
1983	90.76	88.65	68.21	69.99	70.86	67.63	66.58	69.05	69.37	68.13	69.21	4.1	3.6	4.1
1984	91.64	87.89	71.74	74.19	75.95	69.40	69.56	71.61	71.78	70.63	71.77	3.7	3.5	3.7
1985	89.16	85.02	73.91	75.71	77.24	71.60	72.27	73.90	73.87	72.92	74.02	3.1	2.9	3.2
1986	87.75	85.01	75.20	76.14	77.27	73.20	74.28	75.54	75.52	75.25	75.64	2.2	2.2	3.2
1987	89.92	90.02	77.31	77.06	78.01	74.69	77.40	77.71	77.94	77.73	77.81	2.9	3.2	3.3
1988	94.66	94.46	79.39	78.85	79.65	76.95	79.73	80.36	80.57	80.55	80.44	3.4	3.4	3.6
1989	96.48	96.87	81.99	81.15	81.91	79.39	82.56	83.48	83.71	83.51	83.54	3.9	3.9	3.7
1990	97.13	99.43	85.27	83.82	84.57	82.09	86.32	86.77	87.14	86.67	86.83	3.9	4.1	3.8
1991	98.20	98.93	88.07	87.19	87.70	86.11	88.69	89.69	89.90	89.53	89.76	3.4	3.2	3.3
1992	97.66	99.09	90.06	89.81	90.75	87.67	90.21	91.64	91.90	91.75	91.71	2.2	2.2	2.5
1993	97.94	98.18	92.48	92.20	92.45	91.63	92.65	94.12	94.24	94.27	94.16	2.7	2.5	2.8
1994	99.07	99.12	94.89	94.53	94.48	94.60	95.11	96.10	96.18	96.36	96.13	2.1	2.1	2.2
1995	101.38	101.83	97.59	97.22	96.88	97.93	97.81	98.16	98.28	98.53	98.19	2.1	2.2	2.3
1996	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1.8	1.7	1.5
1997	98.23	96.45	101.78	101.30	101.22	101.45	102.06	101.69	101.39	101.34	101.67	1.7	1.4	1.3
1998	95.95	91.31	103.34	102.38	102.03	103.07	103.89	102.93	102.14	102.40	102.87	1.2	.7	1.0
1999 *p*	95.55	91.61	106.13	105.45	104.76	106.74	106.53	104.43	103.65	103.78	.....	1.4	1.5	1.4
1994: I	98.31	97.24	93.95	93.65	93.59	93.75	94.13	95.37	95.34	95.50	95.43	1.9	1.5	1.8
II	98.71	98.51	94.71	94.64	94.49	94.96	94.73	95.81	95.86	96.10	95.86	1.8	2.2	2.6
III	99.30	100.12	95.16	94.57	94.59	94.49	95.53	96.38	96.54	96.69	96.41	2.4	2.8	2.5
IV	99.96	100.60	95.74	95.24	95.25	95.20	96.04	96.82	96.96	97.14	96.85	1.8	1.8	1.9
1995: I	101.03	101.05	96.71	96.19	95.98	96.62	97.03	97.52	97.60	97.82	97.56	2.9	2.7	2.8
II	101.83	102.84	97.26	96.53	96.41	96.78	97.71	97.92	98.12	98.33	97.95	1.6	2.1	2.1
III	101.57	102.15	97.72	97.13	97.07	97.25	98.08	98.36	98.49	98.76	98.39	1.8	1.5	1.7
IV	101.08	101.28	98.66	99.05	98.06	101.09	98.42	98.84	98.91	99.21	98.86	1.9	1.7	1.9
1996: I	100.89	100.87	99.87	100.28	99.93	101.00	99.62	99.46	99.48	99.67	99.46	2.5	2.3	1.9
II	100.55	100.42	99.49	99.46	99.52	99.32	99.52	99.77	99.77	99.75	99.77	1.3	1.2	.3
III	99.79	99.28	100.09	99.93	100.06	99.65	100.19	100.21	100.14	100.12	100.21	1.8	1.5	1.5
IV	98.77	99.43	100.55	100.34	100.49	100.03	100.68	100.56	100.62	100.47	100.56	1.4	1.9	1.4
1997: I	98.47	98.27	101.31	101.20	101.20	101.19	101.38	101.16	101.09	100.90	101.15	2.4	1.9	1.8
II	98.50	96.43	101.47	101.24	101.16	101.38	101.62	101.56	101.23	101.25	101.53	1.5	.6	1.4
III	98.18	95.85	101.84	101.18	101.07	101.41	102.22	101.86	101.48	101.48	101.84	1.2	1.0	.9
IV	97.76	95.24	102.49	101.57	101.45	101.81	103.03	102.18	101.76	101.73	102.15	1.3	1.1	1.0
1998: I	96.72	92.57	102.73	102.07	101.86	102.49	103.11	102.47	101.79	101.94	102.42	1.0	.1	.8
II	96.27	91.63	103.10	102.30	101.85	103.15	103.56	102.77	101.99	102.24	102.71	1.1	.8	1.2
III	95.57	90.55	103.60	102.41	102.07	103.05	104.27	103.13	102.26	102.56	103.06	1.4	1.1	1.3
IV	95.25	90.48	103.94	102.76	102.32	103.59	104.62	103.36	102.51	102.84	103.29	.9	1.0	1.1
1999: I	95.13	89.81	104.93	104.89	104.21	106.18	104.98	103.88	102.92	103.28	103.79	2.0	1.6	1.7
II	95.30	90.96	105.69	105.13	104.47	106.37	106.02	104.24	103.40	103.58	104.14	1.3	1.9	1.2
III	95.61	92.35	106.56	105.60	104.93	106.85	107.11	104.54	103.85	103.88	104.41	1.1	1.7	1.2
IV *p*	96.18	93.31	107.34	106.17	105.44	107.55	108.00	105.07	104.44	104.39	.....	2.0	2.3	2.0

[1] Gross domestic product (GDP) less exports of goods and services plus imports of goods and services.

[2] Percent changes based on unrounded data. Quarterly percent changes are at annual rates.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–8.—*Gross domestic product by major type of product, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Final sales of domestic product	Change in private inventories	Goods							Services	Structures
				Total			Durable goods		Nondurable goods			
				Total	Final sales	Change in private inventories	Final sales	Change in private inventories	Final sales	Change in private inventories		
1959	507.4	503.5	3.9	251.7	247.8	3.9	92.4	2.9	155.5	1.1	193.2	62.5
1960	527.4	524.1	3.2	258.0	254.7	3.2	95.2	1.7	159.5	1.6	207.5	61.9
1961	545.7	542.7	3.0	260.7	257.7	3.0	94.5	–.1	163.2	3.0	221.4	63.6
1962	586.5	580.4	6.1	281.5	275.4	6.1	104.7	3.4	170.7	2.7	237.2	67.8
1963	618.7	613.1	5.6	293.2	287.6	5.6	111.5	2.6	176.1	3.0	252.8	72.7
1964	664.4	659.6	4.8	313.6	308.8	4.8	121.2	3.8	187.6	1.0	272.3	78.4
1965	720.1	710.9	9.2	343.3	334.1	9.2	134.2	6.2	199.9	3.0	292.1	84.7
1996	789.3	775.7	13.6	381.7	368.0	13.6	150.2	10.0	217.8	3.6	319.6	88.0
1967	834.1	824.2	9.9	395.3	385.5	9.9	155.3	4.8	230.2	5.0	349.1	89.6
1968	911.5	902.4	9.1	428.3	419.2	9.1	169.5	4.5	249.8	4.5	383.2	100.0
1969	985.3	976.2	9.2	457.7	448.5	9.2	180.9	6.0	267.6	3.2	419.3	108.3
1970	1,039.7	1,037.7	2.0	470.3	468.3	2.0	183.2	–.2	285.1	2.2	459.6	109.7
1971	1,128.6	1,120.3	8.3	496.1	487.9	8.3	190.2	2.9	297.6	5.3	504.0	128.4
1972	1,240.4	1,231.3	9.1	542.7	533.6	9.1	213.0	6.4	320.6	2.7	550.8	146.9
1973	1,385.5	1,369.7	15.9	622.0	606.1	15.9	245.8	13.0	360.3	2.9	600.6	162.9
1974	1,501.0	1,487.0	14.0	670.9	656.9	14.0	262.1	10.9	394.9	3.1	664.4	165.6
1975	1,635.2	1,641.4	–6.3	724.8	731.1	–6.3	294.7	–7.5	436.4	1.2	743.6	166.7
1976	1,823.9	1,806.8	17.1	811.4	794.3	17.1	329.6	10.8	464.7	6.3	821.3	191.2
1977	2,031.4	2,009.1	22.3	890.7	868.4	22.3	374.6	9.5	493.8	12.8	913.9	226.8
1978	2,295.9	2,270.1	25.8	1,004.5	978.7	25.8	426.2	18.2	552.5	7.6	1,019.6	271.8
1979	2,566.4	2,548.4	18.0	1,128.7	1,110.7	18.0	487.3	12.8	623.4	5.2	1,127.1	310.6
1980	2,795.6	2,801.9	–6.3	1,207.6	1,213.9	–6.3	518.0	–2.3	695.9	–4.0	1,268.9	319.1
1981	3,131.3	3,101.5	29.8	1,362.8	1,333.0	29.8	564.5	7.3	768.5	22.5	1,418.6	350.0
1982	3,259.2	3,274.1	–14.9	1,354.6	1,369.6	–14.9	566.1	–16.0	803.4	1.1	1,562.6	342.0
1983	3,534.9	3,540.7	–5.8	1,452.1	1,457.8	–5.8	611.8	2.5	846.1	–8.2	1,716.1	366.8
1984	3,932.7	3,867.3	65.4	1,637.0	1,571.6	65.4	686.6	41.4	885.0	24.0	1,872.2	423.6
1985	4,213.0	4,191.2	21.8	1,702.7	1,680.9	21.8	750.0	4.4	930.9	17.4	2,054.0	456.3
1986	4,452.9	4,446.3	6.6	1,758.2	1,751.7	6.6	781.5	–1.9	970.2	8.4	2,217.2	477.4
1987	4,742.5	4,715.3	27.1	1,853.5	1,826.4	27.1	809.9	22.9	1,016.5	4.2	2,399.6	489.3
1988	5,108.3	5,089.8	18.5	2,000.0	1,981.5	18.5	886.4	22.7	1,095.1	–4.3	2,599.5	508.8
1989	5,489.1	5,461.4	27.7	2,175.3	2,147.6	27.7	963.8	20.0	1,183.8	7.7	2,792.8	521.0
1990	5,803.2	5,788.7	14.5	2,266.4	2,251.9	14.5	994.3	7.7	1,257.6	6.8	3,010.8	526.0
1991	5,986.2	5,986.4	–.2	2,296.1	2,296.3	–.2	988.3	–13.6	1,308.0	13.4	3,203.9	486.2
1992	6,318.9	6,303.9	15.0	2,391.4	2,376.4	15.0	1,029.4	–3.0	1,346.9	18.0	3,416.0	511.5
1993	6,642.3	6,621.2	21.1	2,503.2	2,482.1	21.1	1,090.7	17.1	1,391.4	4.0	3,593.5	545.6
1994	7,054.3	6,991.8	62.6	2,680.2	2,617.6	62.6	1,161.6	35.7	1,456.0	26.8	3,782.6	591.6
1995	7,400.5	7,367.5	33.0	2,798.1	2,765.1	33.0	1,239.8	33.6	1,525.3	–.5	3,985.1	617.3
1996	7,813.2	7,783.2	30.0	2,951.3	2,921.3	30.0	1,331.9	19.1	1,589.4	10.9	4,191.0	670.9
1997	8,300.8	8,232.4	68.3	3,142.4	3,074.1	68.3	1,424.8	35.6	1,649.3	32.8	4,434.7	723.7
1998	8,759.9	8,688.7	71.2	3,310.3	3,239.1	71.2	1,528.9	38.9	1,710.2	32.2	4,664.5	785.1
1999 *p*	9,248.4	9,204.2	44.3	3,478.8	3,434.6	44.3	1,618.2	25.4	1,816.4	18.9	4,930.3	839.3
1994: I	6,887.8	6,844.0	43.8	2,615.2	2,571.4	43.8	1,141.1	25.1	1,430.2	18.7	3,705.8	566.8
II	7,015.7	6,936.0	79.8	2,666.0	2,586.2	79.8	1,148.5	41.8	1,437.7	38.0	3,758.3	591.5
III	7,096.0	7,044.0	52.0	2,680.7	2,628.7	52.0	1,168.7	31.1	1,459.9	21.0	3,814.9	600.3
IV	7,217.7	7,143.1	74.6	2,758.7	2,684.1	74.6	1,187.9	44.8	1,496.2	29.7	3,851.3	607.7
1995: I	7,297.5	7,234.8	62.7	2,781.5	2,718.8	62.7	1,215.9	48.0	1,502.8	14.7	3,902.0	614.0
II	7,342.6	7,306.8	35.8	2,767.6	2,731.7	35.8	1,218.7	32.5	1,513.0	3.3	3,965.1	610.0
III	7,432.8	7,419.4	13.4	2,796.4	2,782.9	13.4	1,251.4	23.3	1,531.5	–9.8	4,018.8	617.7
IV	7,529.3	7,509.1	20.2	2,847.1	2,826.9	20.2	1,273.0	30.4	1,553.9	–10.2	4,054.5	627.7
1996: I	7,629.6	7,622.8	6.8	2,876.6	2,869.8	6.8	1,298.8	10.2	1,571.0	–3.4	4,109.6	643.4
II	7,782.7	7,752.9	29.8	2,945.2	2,915.4	29.8	1,329.8	18.8	1,585.6	10.9	4,167.8	669.6
III	7,859.0	7,809.0	50.0	2,977.5	2,927.5	50.0	1,339.2	38.7	1,588.3	11.3	4,204.0	677.6
IV	7,981.4	7,947.9	33.5	3,005.9	2,972.4	33.5	1,359.8	8.6	1,612.7	24.8	4,282.4	693.1
1997: I	8,125.9	8,073.0	52.9	3,079.2	3,026.2	52.9	1,386.8	28.0	1,639.5	24.9	4,338.3	708.4
II	8,259.5	8,166.9	92.6	3,137.2	3,044.6	92.6	1,407.8	54.1	1,636.8	38.5	4,407.6	714.7
III	8,364.5	8,306.9	57.6	3,166.3	3,108.7	57.6	1,453.9	23.6	1,654.8	34.0	4,467.8	730.5
IV	8,453.0	8,382.8	70.2	3,187.0	3,116.8	70.2	1,450.7	36.5	1,666.1	33.7	4,524.9	741.2
1998: I	8,610.6	8,511.7	98.9	3,287.0	3,188.0	98.9	1,506.0	56.3	1,682.0	42.6	4,563.8	759.8
II	8,683.7	8,642.9	40.8	3,258.9	3,218.1	40.8	1,518.2	21.1	1,699.9	19.7	4,646.1	778.8
III	8,797.9	8,724.2	73.7	3,305.6	3,231.9	73.7	1,519.9	39.8	1,712.1	33.9	4,700.4	791.9
IV	8,947.6	8,876.2	71.4	3,389.8	3,318.4	71.4	1,571.4	38.6	1,747.0	32.8	4,747.9	809.9
1999: I	9,072.7	9,021.6	51.0	3,416.6	3,365.6	51.0	1,584.3	24.1	1,781.3	27.0	4,820.7	835.3
II	9,146.2	9,128.6	17.6	3,424.2	3,406.6	17.6	1,601.7	6.3	1,804.9	11.4	4,885.5	836.5
III	9,297.8	9,257.0	40.8	3,494.0	3,453.2	40.8	1,631.1	23.0	1,822.2	17.8	4,963.7	840.1
IV *p*	9,477.1	9,409.5	67.6	3,580.4	3,512.8	67.6	1,655.7	48.2	1,857.1	19.4	5,051.6	845.1

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–9.—*Real gross domestic product by major type of product, 1959–99*

[Billions of chained (1996) dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Final sales of domestic product	Change in private inventories	Goods							Services	Structures
				Total			Durable goods		Nondurable goods			
				Total	Final sales	Change in private inventories	Final sales	Change in private inventories	Final sales	Change in private inventories		
1959	2,300.0	2,298.4	12.1	764.7							1,201.5	340.6
1960	2,357.2	2,359.0	10.9	777.1							1,258.0	337.4
1961	2,412.1	2,415.5	9.5	780.6							1,314.8	346.8
1962	2,557.6	2,548.1	19.6	837.0							1,376.7	366.6
1963	2,668.2	2,661.4	18.4	866.1							1,440.7	391.3
1964	2,822.7	2,820.2	15.1	919.2							1,514.7	417.7
1965	3,002.8	2,982.7	30.6	994.9							1,585.1	438.6
1966	3,199.5	3,163.3	42.8	1,083.4							1,675.1	439.2
1967	3,279.5	3,259.4	31.7	1,095.2							1,763.3	432.7
1968	3,435.6	3,419.5	28.4	1,146.7							1,842.0	459.3
1969	3,543.2	3,527.6	27.4	1,180.6							1,912.3	465.2
1970	3,549.4	3,559.7	4.4	1,166.5							1,965.9	445.1
1971	3,660.2	3,650.5	23.9	1,194.3							2,013.1	486.4
1972	3,854.2	3,843.3	23.7	1,280.1							2,072.3	522.4
1973	4,073.1	4,043.9	35.6	1,395.0							2,142.5	533.7
1974	4,061.7	4,043.4	25.0	1,378.5							2,216.8	478.4
1975	4,050.3	4,083.9	–9.4	1,357.9							2,287.3	435.0
1976	4,262.6	4,239.6	32.5	1,453.8							2,345.9	475.9
1977	4,455.7	4,422.8	40.8	1,524.1							2,418.1	521.1
1978	4,709.9	4,672.4	44.1	1,621.8							2,520.5	567.1
1979	4,870.1	4,852.4	26.1	1,686.1							2,596.6	582.7
1980	4,872.3	4,899.2	–10.5	1,677.0							2,664.1	541.4
1981	4,993.9	4,962.5	37.9	1,753.6							2,705.1	533.5
1982	4,900.3	4,935.6	–15.6	1,678.4							2,760.5	487.8
1983	5,105.6	5,127.5	–9.7	1,754.8							2,848.3	524.3
1984	5,477.4	5,400.5	76.1	1,941.1							2,939.6	595.2
1985	5,689.8	5,671.6	27.1	1,990.0							3,079.2	626.1
1986	5,885.7	5,885.9	9.6	2,057.5							3,200.1	635.2
1987	6,092.6	6,068.2	29.6	2,136.3	2,112.2	29.6	837.8	25.0	1,285.3	3.1	3,333.2	631.1
1988	6,349.1	6,333.4	18.4	2,255.3	2,239.0	18.4	919.1	23.9	1,325.4	–6.9	3,465.5	632.8
1989	6,568.7	6,542.4	29.6	2,379.6	2,353.6	29.6	982.7	20.6	1,374.2	8.7	3,561.1	626.5
1990	6,683.5	6,671.3	16.5	2,404.2	2,391.1	16.5	1,000.0	7.9	1,394.2	8.6	3,666.8	614.8
1991	6,669.2	6,674.2	–1.0	2,372.7	2,375.6	–1.0	976.8	–14.0	1,403.6	13.5	3,744.4	559.5
1992	6,891.1	6,878.7	17.1	2,455.0	2,441.5	17.1	1,018.0	–2.9	1,427.2	20.6	3,858.6	584.9
1993	7,054.1	7,035.3	20.0	2,548.2	2,528.5	20.0	1,076.5	17.7	1,454.4	2.0	3,908.1	602.5
1994	7,337.8	7,275.9	66.8	2,708.3	2,647.0	66.8	1,144.2	35.9	1,504.4	30.8	4,000.2	630.7
1995	7,537.1	7,505.5	30.4	2,813.8	2,782.3	30.4	1,231.8	33.3	1,551.0	–3.6	4,090.6	632.9
1996	7,813.2	7,783.2	30.0	2,951.3	2,921.3	30.0	1,331.9	19.1	1,589.4	10.9	4,191.0	670.9
1997	8,165.1	8,095.7	69.1	3,141.3	3,071.6	69.1	1,445.0	35.8	1,627.1	33.3	4,324.2	700.2
1998	8,516.3	8,441.3	74.3	3,330.5	3,255.1	74.3	1,585.1	39.7	1,672.6	34.6	4,449.4	738.9
1999 *P*	8,861.0	8,813.7	41.9	3,505.8	3,459.1	41.9	1,714.7	26.3	1,749.5	15.6	4,597.1	763.7
1994: I	7,218.5	7,176.3	47.8	2,647.5	2,605.3	47.8	1,124.6	25.5	1,482.3	22.3	3,960.4	612.9
II	7,319.8	7,239.8	85.8	2,698.3	2,619.6	85.8	1,128.7	42.1	1,492.6	43.8	3,987.7	635.5
III	7,360.5	7,308.9	56.3	2,704.9	2,653.7	56.3	1,148.3	31.2	1,506.8	24.9	4,020.0	637.7
IV	7,452.3	7,378.4	77.4	2,782.7	2,709.7	77.4	1,175.2	44.6	1,535.9	32.4	4,032.9	636.9
1995: I	7,480.4	7,419.1	62.2	2,800.3	2,739.5	62.2	1,202.4	47.7	1,537.8	13.6	4,044.6	635.5
II	7,496.0	7,462.3	32.5	2,784.9	2,751.3	32.5	1,209.8	32.2	1,542.1	–.3	4,084.4	627.3
III	7,555.0	7,543.4	9.0	2,810.0	2,798.1	9.0	1,246.9	23.1	1,551.6	–14.7	4,114.2	631.3
IV	7,616.8	7,597.3	18.0	2,860.0	2,840.3	18.0	1,268.3	30.3	1,572.3	–12.8	4,119.4	637.6
1996: I	7,671.4	7,664.6	5.6	2,879.4	2,872.4	5.6	1,292.5	10.2	1,580.0	–4.7	4,142.0	650.2
II	7,800.5	7,770.9	30.3	2,942.3	2,912.8	30.3	1,330.2	18.7	1,582.5	11.5	4,184.7	673.5
III	7,843.3	7,793.5	51.2	2,976.3	2,926.4	51.2	1,340.8	38.7	1,585.6	12.7	4,192.5	674.5
IV	7,937.5	7,903.7	32.9	3,007.1	2,973.6	32.9	1,364.0	8.7	1,609.5	24.2	4,244.7	685.5
1997: I	8,033.4	7,981.1	51.5	3,071.4	3,018.9	51.5	1,392.5	28.1	1,626.4	23.3	4,267.4	695.0
II	8,134.8	8,042.0	93.1	3,130.2	3,036.8	93.1	1,422.9	54.3	1,614.2	38.8	4,310.2	695.1
III	8,214.8	8,155.3	59.2	3,167.5	3,107.9	59.2	1,479.8	23.8	1,629.1	35.4	4,344.9	703.2
IV	8,277.3	8,204.3	72.7	3,196.2	3,122.7	72.7	1,485.0	36.9	1,638.7	35.8	4,374.5	707.6
1998: I	8,412.7	8,307.0	107.3	3,302.8	3,195.9	107.3	1,547.4	57.1	1,650.5	50.2	4,388.6	724.2
II	8,457.2	8,410.4	43.1	3,277.8	3,231.5	43.1	1,568.0	21.3	1,665.7	21.8	4,442.9	737.5
III	8,536.0	8,459.6	76.1	3,323.9	3,246.9	76.1	1,578.1	40.7	1,671.2	35.3	4,471.4	742.5
IV	8,659.2	8,588.3	70.7	3,417.4	3,346.2	70.7	1,646.9	39.6	1,703.1	31.0	4,494.6	751.7
1999: I	8,737.9	8,685.2	50.1	3,442.1	3,390.0	50.1	1,668.7	25.1	1,725.2	25.0	4,529.5	770.2
II	8,778.6	8,757.9	14.0	3,446.1	3,427.5	14.0	1,693.5	6.5	1,738.5	7.5	4,571.0	764.7
III	8,900.6	8,855.8	38.0	3,525.3	3,481.3	38.0	1,734.2	23.8	1,752.9	14.2	4,620.4	760.9
IV *P*	9,026.9	8,955.9	65.4	3,609.6	3,537.8	65.4	1,762.5	49.8	1,781.3	15.8	4,667.6	759.0

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–10.—*Gross domestic product by sector, 1959–99*

[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	Nonfarm [1]			Farm	Total	Private households	Nonprofit institutions	Total	Federal	State and local
			Total [1]	Nonfarm less housing	Housing							
1959	507.4	436.6	417.7	382.1	35.6	18.9	12.4	3.6	8.9	58.4	32.0	26.5
1960	527.4	451.3	431.5	392.9	38.6	19.8	13.9	3.8	10.1	62.1	33.2	28.9
1961	545.7	465.1	445.0	403.6	41.4	20.1	14.5	3.7	10.7	66.1	34.5	31.6
1962	586.5	500.0	479.8	435.2	44.6	20.2	15.6	3.8	11.8	70.9	36.7	34.2
1963	618.7	526.3	506.0	458.5	47.4	20.4	16.7	3.8	12.8	75.7	38.6	37.1
1964	664.4	565.2	546.0	495.8	50.2	19.3	17.9	3.9	14.0	81.3	40.9	40.4
1965	720.1	613.9	592.1	538.5	53.5	21.9	19.3	4.0	15.3	86.8	42.6	44.2
1966	789.3	671.0	648.2	591.2	57.0	22.9	21.3	4.0	17.2	97.0	47.4	49.6
1967	834.1	703.4	681.1	620.3	60.8	22.2	23.4	4.2	19.2	107.3	51.8	55.5
1968	911.5	766.1	743.4	678.6	64.8	22.7	26.1	4.4	21.7	119.3	56.7	62.5
1969	985.3	825.4	800.2	730.3	69.9	25.2	29.5	4.4	25.0	130.5	60.5	70.0
1970	1,039.7	863.1	836.9	761.9	74.9	26.2	32.4	4.5	27.9	144.2	64.7	79.5
1971	1,128.6	935.7	907.6	825.9	81.7	28.1	35.6	4.6	31.0	157.3	68.6	88.7
1972	1,240.4	1,030.0	997.3	908.6	88.7	32.6	38.9	4.6	34.3	171.5	73.6	97.9
1973	1,385.5	1,156.8	1,107.1	1,010.1	96.9	49.8	43.0	4.8	38.2	185.7	76.4	109.3
1974	1,501.0	1,250.5	1,203.1	1,097.2	105.9	47.4	47.1	4.6	42.6	203.4	81.6	121.8
1975	1,635.2	1,356.8	1,308.1	1,193.8	114.3	48.8	52.0	4.6	47.3	226.4	89.1	137.2
1976	1,823.9	1,521.6	1,475.1	1,350.1	125.0	46.4	57.1	5.4	51.6	245.3	95.6	149.7
1977	2,031.4	1,702.8	1,655.6	1,516.2	139.4	47.2	62.4	5.9	56.4	266.2	103.6	162.7
1978	2,295.9	1,937.3	1,882.5	1,726.7	155.8	54.7	69.7	6.5	63.2	288.9	111.0	177.9
1979	2,566.4	2,174.9	2,110.5	1,934.4	176.1	64.5	77.3	6.4	70.9	314.2	118.7	195.5
1980	2,795.6	2,358.8	2,302.7	2,097.6	205.1	56.1	87.1	6.1	81.0	349.7	132.1	217.5
1981	3,131.3	2,647.3	2,577.4	2,342.2	235.2	69.9	97.6	6.2	91.4	386.5	148.3	238.2
1982	3,259.2	2,729.8	2,664.6	2,405.2	259.4	65.1	108.2	6.3	102.0	421.2	163.1	258.1
1983	3,534.9	2,968.1	2,918.9	2,642.2	276.7	49.2	119.2	6.3	112.9	447.7	173.0	274.7
1984	3,932.7	3,313.9	3,245.3	2,942.8	302.6	68.5	131.2	7.3	123.9	487.7	194.0	293.7
1985	4,213.0	3,546.8	3,479.7	3,147.4	332.3	67.1	141.0	7.3	133.6	525.3	206.3	319.1
1986	4,452.9	3,740.9	3,678.0	3,318.9	359.0	63.0	153.7	7.7	146.0	558.2	213.9	344.3
1987	4,742.5	3,976.0	3,910.9	3,523.9	387.0	65.1	173.3	7.7	165.6	593.1	224.5	368.7
1988	5,108.3	4,281.2	4,217.4	3,799.0	418.4	63.8	195.1	8.3	186.8	632.0	235.9	396.2
1989	5,489.1	4,600.9	4,524.7	4,074.5	450.2	76.2	214.6	8.9	205.7	673.6	247.6	426.0
1990	5,803.2	4,842.0	4,762.4	4,281.1	481.3	79.6	237.9	9.4	228.6	723.3	259.7	463.6
1991	5,986.2	4,962.4	4,889.2	4,381.3	507.9	73.2	257.5	9.1	248.4	766.3	275.8	490.4
1992	6,318.9	5,242.1	5,161.6	4,626.2	535.4	80.5	279.5	10.1	269.4	797.3	282.8	514.5
1993	6,642.3	5,518.0	5,444.4	4,895.5	548.9	73.6	297.0	10.7	286.3	827.3	287.0	540.3
1994	7,054.3	5,886.6	5,803.0	5,218.3	584.7	83.6	313.3	11.1	302.2	854.5	287.4	567.0
1995	7,400.5	6,190.1	6,116.9	5,499.4	617.5	73.2	330.3	11.9	318.4	880.1	286.8	593.3
1996	7,813.2	6,556.0	6,463.8	5,820.9	642.8	92.2	348.6	12.0	336.5	908.7	292.0	616.7
1997	8,300.8	6,996.8	6,908.8	6,240.1	668.6	88.0	366.2	12.1	354.1	937.8	293.7	644.0
1998	8,759.9	7,402.0	7,321.9	6,621.4	700.4	80.2	385.6	14.0	371.6	972.3	296.9	675.4
1999 *p*	9,248.4	7,821.5	7,739.2	6,994.2	745.0	82.3	408.2	15.9	392.3	1,018.7	308.2	710.5
1994: I	6,887.8	5,735.2	5,641.7	5,062.3	579.4	93.5	306.7	10.9	295.9	845.9	289.2	556.7
II	7,015.7	5,851.2	5,765.1	5,190.7	574.5	86.1	310.4	11.0	299.4	854.1	289.9	564.2
III	7,096.0	5,923.7	5,845.0	5,257.4	587.6	78.7	315.5	11.2	304.3	856.8	286.1	570.8
IV	7,217.7	6,036.1	5,960.1	5,362.6	597.4	76.0	320.6	11.4	309.2	861.0	284.6	576.5
1995: I	7,297.5	6,100.3	6,028.7	5,420.9	607.8	71.6	324.1	11.6	312.5	873.0	287.0	586.1
II	7,342.6	6,137.0	6,067.5	5,455.3	612.2	69.5	328.4	11.8	316.6	877.1	286.5	590.7
III	7,432.8	6,218.5	6,147.6	5,530.1	617.6	70.8	332.1	12.0	320.1	882.3	287.3	595.0
IV	7,529.3	6,304.7	6,223.8	5,591.3	632.5	80.9	336.7	12.1	324.6	887.9	286.4	601.4
1996: I	7,629.6	6,388.5	6,301.6	5,668.3	633.2	86.9	341.9	12.1	329.8	899.3	292.0	607.2
II	7,782.7	6,530.3	6,435.5	5,797.3	638.2	94.8	346.0	12.0	334.0	906.4	292.5	613.9
III	7,859.0	6,596.0	6,498.2	5,852.0	646.2	97.7	350.5	12.0	338.6	912.5	292.6	619.9
IV	7,981.4	6,709.1	6,619.8	5,966.2	653.7	89.3	355.8	11.9	343.8	916.5	290.9	625.6
1997: I	8,125.9	6,838.8	6,747.3	6,086.3	661.0	91.4	359.2	11.7	347.5	928.0	295.0	633.0
II	8,259.5	6,961.6	6,872.6	6,205.5	667.1	89.0	363.8	11.9	351.9	934.1	294.3	639.8
III	8,364.5	7,054.5	6,966.8	6,295.5	671.3	87.7	368.7	12.1	356.6	941.4	293.5	647.8
IV	8,453.0	7,132.4	7,048.3	6,373.2	675.2	84.0	373.1	12.5	360.6	947.6	292.1	655.5
1998: I	8,610.6	7,274.4	7,201.5	6,518.0	683.5	72.9	377.3	13.0	364.3	958.9	295.7	663.2
II	8,683.7	7,333.6	7,258.8	6,564.8	694.0	74.8	383.2	13.6	369.6	966.9	295.7	671.2
III	8,797.9	7,432.1	7,351.6	6,645.4	706.2	80.6	388.4	14.3	374.1	977.4	297.5	679.9
IV	8,947.6	7,568.0	7,475.5	6,757.5	718.0	92.5	393.4	15.2	378.2	986.2	298.8	687.3
1999: I	9,072.7	7,669.1	7,580.5	6,850.3	730.2	88.6	399.7	15.6	384.1	1,003.9	307.8	696.1
II	9,146.2	7,729.4	7,645.3	6,906.2	739.1	84.1	404.9	15.8	389.0	1,012.0	307.2	704.7
III	9,297.8	7,862.6	7,784.0	7,034.3	749.7	78.6	411.0	16.0	395.0	1,024.2	308.3	715.9
IV *p*	9,477.1	8,025.1	7,947.1	7,185.9	761.2	78.0	417.1	16.2	400.9	1,034.9	309.5	725.4

[1] Gross domestic business product equals gross domestic product less gross product of households and institutions and of general government. Nonfarm product equals gross domestic business product less gross farm product.

[2] Equals compensation of general government employees plus general government consumption of fixed capital.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–11.—*Real gross domestic product by sector, 1959–99*

[Billions of chained (1996) dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Business [1]					Households and institutions			General government [2]		
		Total	Nonfarm [1]			Farm	Total	Private households	Nonprofit institutions	Total	Federal	State and local
			Total [1]	Nonfarm less housing	Housing							
1959	2,300.0	1,770.7	1,721.8	1,550.6	167.8	39.7	115.6	22.6	86.1	460.3	250.4	211.1
1960	2,357.2	1,810.2	1,758.0	1,576.5	179.2	41.7	123.5	22.8	94.1	476.3	255.3	222.3
1961	2,412.1	1,850.1	1,798.0	1,606.7	189.8	41.9	124.4	22.1	96.1	493.3	260.8	233.7
1962	2,557.6	1,968.7	1,920.0	1,716.1	202.2	41.2	129.0	21.9	101.0	512.6	271.7	242.3
1963	2,668.2	2,058.8	2,009.3	1,795.0	212.7	42.3	132.1	21.6	104.7	527.8	274.1	254.9
1964	2,822.7	2,187.2	2,142.2	1,917.2	222.9	40.9	135.9	21.4	108.9	545.7	276.6	270.2
1965	3,002.8	2,338.2	2,291.2	2,053.0	235.5	43.2	140.8	20.7	115.0	564.0	278.4	286.6
1966	3,199.5	2,494.5	2,453.0	2,202.4	246.9	41.8	146.0	19.9	121.5	599.4	296.8	303.7
1967	3,279.5	2,545.9	2,499.7	2,237.9	259.2	44.6	150.8	20.0	126.3	631.5	316.4	316.4
1968	3,435.6	2,671.7	2,630.0	2,357.4	269.3	43.1	155.3	19.0	132.2	656.5	322.1	335.4
1969	3,543.2	2,757.5	2,714.8	2,430.7	281.4	44.3	160.3	18.0	138.7	673.6	323.5	350.7
1970	3,549.4	2,762.4	2,717.1	2,426.1	289.7	45.7	158.8	16.9	138.7	676.4	310.0	366.2
1971	3,660.2	2,863.2	2,815.6	2,512.8	301.7	47.7	162.3	16.1	143.3	678.0	296.4	381.2
1972	3,854.2	3,044.1	2,999.4	2,680.7	316.6	47.8	166.9	15.6	148.6	677.6	282.9	394.5
1973	4,073.1	3,247.8	3,208.5	2,873.6	331.4	47.6	170.9	15.2	153.2	680.5	272.7	408.1
1974	4,061.7	3,225.9	3,189.1	2,840.3	349.1	46.4	172.2	13.1	157.1	693.7	271.4	422.9
1975	4,050.3	3,203.1	3,145.9	2,795.1	353.1	54.8	177.7	12.3	163.8	704.4	269.5	435.8
1976	4,262.6	3,400.0	3,350.5	2,987.5	362.1	52.7	179.8	12.7	165.4	709.9	269.4	441.5
1977	4,455.7	3,576.1	3,524.0	3,148.0	373.4	55.5	185.0	12.9	170.4	716.4	269.2	448.3
1978	4,709.9	3,806.7	3,761.5	3,364.2	393.4	53.7	188.4	13.3	173.3	729.8	272.3	458.7
1979	4,870.1	3,951.4	3,900.4	3,483.3	414.4	57.8	192.5	11.8	179.5	737.2	271.7	466.9
1980	4,872.3	3,941.4	3,893.9	3,456.1	441.8	55.8	198.1	10.4	187.0	747.4	275.7	473.2
1981	4,993.9	4,051.6	3,980.0	3,526.6	459.3	71.7	202.6	9.7	192.6	751.4	279.8	473.0
1982	4,900.3	3,951.5	3,874.8	3,419.2	465.3	74.9	208.4	9.3	199.0	758.6	283.9	476.0
1983	5,105.6	4,142.3	4,099.8	3,637.0	468.3	50.0	213.0	9.2	203.8	763.2	290.2	474.1
1984	5,477.4	4,491.0	4,427.4	3,943.5	486.4	66.9	218.2	10.4	207.6	772.4	296.5	476.9
1985	5,689.8	4,673.5	4,594.2	4,094.0	502.4	80.1	224.9	10.1	214.7	794.3	304.7	490.6
1986	5,885.7	4,838.6	4,763.0	4,253.0	511.2	76.9	236.0	10.4	225.5	813.7	309.9	504.8
1987	6,092.6	5,015.4	4,938.6	4,413.1	526.3	78.3	247.8	10.2	237.6	831.4	318.0	514.5
1988	6,349.1	5,232.4	5,165.1	4,622.0	543.5	69.8	265.5	10.6	254.8	852.8	321.8	532.1
1989	6,568.7	5,417.3	5,340.0	4,779.0	561.4	79.1	279.8	11.1	268.6	873.0	325.6	548.5
1990	6,683.5	5,499.4	5,417.0	4,845.8	571.8	83.8	291.5	11.4	280.1	895.1	331.4	564.7
1991	6,669.2	5,468.7	5,384.7	4,799.7	586.4	85.3	300.9	10.5	290.4	903.6	333.3	571.2
1992	6,891.1	5,679.9	5,586.5	4,987.8	599.8	95.3	308.6	11.3	297.3	904.9	326.2	579.4
1993	7,054.1	5,830.0	5,745.2	5,146.2	599.5	85.6	319.7	11.7	308.0	906.2	319.7	587.1
1994	7,337.8	6,101.9	6,003.9	5,382.7	621.6	100.2	330.9	11.8	319.1	905.6	309.9	596.1
1995	7,537.1	6,289.1	6,203.5	5,567.4	636.2	85.5	341.5	12.2	329.3	906.7	299.1	607.7
1996	7,813.2	6,556.0	6,463.8	5,820.9	642.8	92.2	348.6	12.0	336.5	908.7	292.0	616.7
1997	8,165.1	6,888.8	6,786.3	6,135.6	650.8	103.1	360.5	11.8	348.7	915.9	287.8	628.2
1998	8,516.3	7,223.2	7,121.8	6,462.2	660.2	100.5	369.0	13.3	355.7	924.8	285.8	638.9
1999 *P*	8,861.0	7,547.5	7,446.1	6,766.4	680.9	99.4	376.3	14.6	361.7	939.0	284.8	654.1
1994: I	7,218.5	5,988.2	5,887.0	5,265.6	622.1	103.5	326.1	11.7	314.4	905.3	314.3	591.4
II	7,319.8	6,085.6	5,986.5	5,374.2	612.4	101.3	329.0	11.7	317.3	905.8	311.2	594.9
III	7,360.5	6,122.0	6,023.7	5,400.9	623.1	100.8	332.7	11.9	320.9	906.4	309.0	597.6
IV	7,452.3	6,211.8	6,118.5	5,490.0	628.7	95.0	335.8	12.0	323.8	905.0	304.9	600.3
1995: I	7,480.4	6,234.8	6,146.5	5,513.0	633.9	88.9	338.3	12.1	326.2	907.6	303.1	604.7
II	7,496.0	6,246.7	6,160.2	5,526.8	633.6	86.8	340.8	12.2	328.5	908.8	302.2	606.7
III	7,555.0	6,304.1	6,222.3	5,588.3	634.1	80.9	342.7	12.3	330.3	908.5	300.5	608.1
IV	7,616.8	6,370.8	6,285.0	5,641.8	643.4	85.4	344.3	12.3	332.0	901.8	290.5	611.2
1996: I	7,671.4	6,426.7	6,336.9	5,697.8	639.1	89.7	345.1	12.2	332.8	899.8	291.2	608.6
II	7,800.5	6,540.9	6,448.1	5,807.6	640.5	92.8	347.2	12.1	335.0	912.5	294.2	618.3
III	7,843.3	6,582.3	6,489.7	5,845.4	644.3	92.7	349.7	11.9	337.8	911.2	292.9	618.4
IV	7,937.5	6,674.0	6,580.4	5,932.9	647.4	93.6	352.3	11.8	340.5	911.1	289.8	621.4
1997: I	8,033.4	6,764.7	6,665.5	6,015.2	650.3	99.5	355.6	11.6	344.0	913.2	289.3	623.9
II	8,134.8	6,860.0	6,758.3	6,106.7	651.7	102.1	359.0	11.6	347.4	916.0	288.5	627.4
III	8,214.8	6,934.8	6,829.4	6,178.3	651.1	106.5	362.4	11.8	350.7	917.7	288.0	629.7
IV	8,277.3	6,995.8	6,892.1	6,242.3	650.1	104.2	364.9	12.0	352.8	916.9	285.2	631.6
1998: I	8,412.7	7,125.9	7,024.0	6,370.4	654.0	101.7	366.9	12.4	354.5	920.2	285.6	634.6
II	8,457.2	7,166.2	7,066.4	6,408.1	658.7	98.7	368.2	12.9	355.3	923.4	285.6	637.7
III	8,536.0	7,241.0	7,139.7	6,477.6	662.6	100.4	369.6	13.5	356.1	926.1	286.1	639.9
IV	8,659.2	7,359.5	7,257.1	6,592.7	665.4	101.3	371.3	14.2	357.0	929.6	286.1	643.4
1999: I	8,737.9	7,432.8	7,331.3	6,659.3	672.9	100.2	373.2	14.6	358.6	933.3	285.5	647.7
II	8,778.6	7,469.1	7,366.3	6,690.1	677.2	101.6	374.8	14.6	360.2	936.2	284.5	651.5
III	8,900.6	7,584.1	7,485.2	6,802.2	684.2	95.8	377.2	14.7	362.5	941.3	284.5	656.7
IV *P*	9,026.9	7,703.9	7,601.6	6,913.8	689.3	99.9	380.2	14.7	365.5	945.4	284.7	660.6

[1] Gross domestic business product equals gross domestic product less gross product of households and institutions and of general government. Nonfarm product equals gross domestic business product less gross farm product.

[2] Equals compensation of general government employees plus general government consumption of fixed capital.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–12.—*Gross product of nonfinancial corporate business, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross product of nonfinancial corporate business	Consumption of fixed capital	Net product												
			Total	Indirect business taxes [1]	Domestic income										
					Total	Compensation of employees	Corporate profits with inventory valuation and capital consumption adjustments								Net interest
							Total	Profits					Inventory valuation adjustment	Capital consumption adjustment	
								Profits before tax	Profits tax liability	Profits after tax					
										Total	Dividends	Undistributed profits			
1959	275.5	23.1	252.4	34.2	218.2	171.3	43.7	43.6	20.7	22.9	10.0	12.9	–0.3	0.4	3.1
1960	286.6	24.0	262.5	36.9	225.6	181.0	41.1	40.3	19.2	21.1	10.6	10.5	–.2	1.0	3.5
1961	294.5	24.6	269.9	38.6	231.2	185.2	42.1	40.1	19.5	20.6	10.6	10.1	.3	1.7	4.0
1962	321.1	25.5	295.5	41.5	254.0	200.0	49.5	44.9	20.6	24.3	11.4	12.9	.0	4.6	4.5
1963	341,5	26.5	314.9	43.7	271.2	210.9	55.5	49.8	22.8	27.1	12.6	14.4	.1	5.6	4.8
1964	368.4	28.0	340.4	46.8	293.6	226.5	61.8	56.1	24.0	32.1	13.7	18.4	–.5	6.2	5.3
1965	404.1	29.9	374.2	49.7	324.5	246.3	72.1	66.3	27.2	39.1	15.6	23.5	–1.2	7.1	6.1
1966	442.2	32.8	409.4	51.3	358.1	273.8	76.9	71.6	29.5	42.1	16.8	25.3	–2.1	7.4	7.4
1967	465,4	36.0	429.4	54.7	374.7	292.2	73.8	67.7	27.8	39.9	17.5	22.4	–1.6	7.6	8.8
1968	512.6	39.8	472.8	61.4	411.4	323.1	78.1	74.1	33.6	40.6	19.1	21.4	–3.7	7.7	10.1
1969	556.1	44.1	512.0	67.0	445.0	358.5	73.3	71.1	33.3	37.8	19.1	18.7	–5.9	8.0	13.2
1970	575.3	48.8	526.5	72.2	454.3	378.1	59.1	58.5	27.2	31.4	18.5	12.8	–6.6	7.1	17.1
1971	621.1	53.4	567.6	78.8	488.8	401.2	69.5	67.3	29.9	37.4	18.5	18.9	–4.6	6.8	18.1
1972	689.1	58.7	630.4	84.6	545.9	445.9	80.8	79.0	33.8	45.3	20.1	25.2	–6.6	8.4	19.2
1973	771.1	64.1	707.0	92.2	614.9	504.5	87.9	99.0	40.2	58.8	21.1	37.8	–19.6	8.5	22.5
1974	833.0	75.0	758.0	98.2	659.8	555.1	76.4	109.6	42.2	67.4	21.7	45.7	–38.2	5.0	28.3
1975	900.7	89.5	811.2	105.7	705.5	578.6	98.2	110.5	41.5	69.0	24.8	44.2	–10.5	–1.7	28.7
1976	1,015.2	99.2	916.1	114.0	802.1	655.0	119.7	137.9	53.0	84.9	28.0	56.9	–14.1	–4.1	27.5
1977	1,147.2	111.2	1,036.0	124.3	911.7	740.0	141.0	159.2	59.9	99.3	31.5	67.8	–15.7	–2.5	30.7
1978	1,305.7	127.0	1,178.7	135.2	1,043.5	851.0	156.2	184.4	67.1	117.3	36.4	80.9	–23.7	–4.5	36.3
1979	1,453.4	147.4	1,306.0	145.1	1,160.9	966.2	149.6	197.1	69.6	127.5	38.1	89.4	–40.1	–7.3	45.0
1980	1,581.0	170.1	1,410.9	163.8	1,247.1	1,056.9	132.0	183.6	67.0	116.6	45.3	71.3	–42.1	–9.5	58.1
1981	1,797.9	196.8	1,601.1	195.9	1,405.3	1,169.9	163.5	184.2	63.9	120.3	53.3	67.0	–24.6	3.9	71.8
1982	1,859.7	217.7	1,642.0	198.0	1,444.0	1,216.1	145.4	136.9	46.3	90.7	53.3	37.4	–7.5	15.9	82.5
1983	1,984.2	226.0	1,758.2	216.2	1,542.0	1,279.9	185.5	160.7	59.4	101.3	64.2	37.1	–7.4	32.2	76.6
1984	2,229.3	238.2	1,991.1	240.0	1,751.1	1,421.4	242.0	195.3	73.7	121.6	67.8	53.8	–4.0	50.7	87.7
1985	2,364.9	254.9	2,110.0	254.6	1,855.4	1,522.3	242.7	172.3	69.9	102.3	72.3	30.1	.0	70.4	90.4
1986	2,449.5	271.4	2,178.1	266.2	1,911.9	1,603.8	209.7	147.9	75.6	72.3	73.9	–1.6	7.1	54.8	98.4
1987	2,632.3	284.8	2,347.5	278.8	2,068.6	1,716.3	247.2	209.5	93.5	116.0	75.9	40.1	–16.2	53.9	105.1
1988	2,853.5	303.1	2,550.4	295.3	2,255.1	1,844.1	287.5	257.3	101.9	155.5	79.8	75.7	–22.2	52.3	123.6
1989	3,002.5	323.8	2,678.7	317.1	2,361.6	1,946.6	263.2	235.6	98.9	136.7	104.2	32.6	–16.3	43.9	151.8
1990	3,140.9	339.3	2,801.6	335.2	2,466.4	2,052.7	257.7	237.2	95.8	141.4	119.2	22.2	–12.9	33.4	156.0
1991	3,196.5	355.7	2,840.8	359.0	2,481.8	2,086.9	252.0	221.6	85.5	136.1	125.8	10.3	4.9	25.5	143.0
1992	3,336.4	370.5	2,966.0	380.4	2,585.6	2,194.2	278.0	258.0	91.2	166.8	135.0	31.9	–2.8	22.8	113.3
1993	3,508.8	387.0	3,121.8	400.5	2,721.3	2,290.7	324.7	305.8	105.2	200.5	149.3	51.2	–4.0	23.0	105.9
1994	3,791.7	415.0	3,376.7	436.6	2,940.1	2,430.2	402.0	381.4	128.9	252.6	158.6	94.0	–12.4	33.1	107.9
1995	4,004.0	437.7	3,566.3	455.5	3,110.8	2,552.7	442.3	422.1	136.7	285.4	179.3	106.0	–18.3	38.4	115.8
1996	4,221.5	462.7	3,758.9	473.9	3,285.0	2,667.1	509.1	460.2	150.1	310.1	201.9	108.2	3.1	45.8	108.7
1997	4,529.8	491.3	4,038.5	496.1	3,542.5	2,860.1	562.8	503.6	158.8	344.7	219.8	124.9	7.4	51.8	119.6
1998	4,834.6	522.2	4,312.4	523.5	3,788.9	3,090.4	575.0	490.6	152.5	338.1	245.4	92.7	20.9	63.5	123.5
1999[P]	.....	559.5	.....	556.8	.....	3,299.0	.....	.....	.....	.....	.....	.....	.....	73.8	.....
1994: I	3,686.9	426.7	3,260.2	425.3	2,834.9	2,376.6	356.3	352.3	119.7	232.5	148.4	84.2	–8.3	12.3	102.1
II	3,754.7	405.0	3,349.8	433.3	2,916.4	2,413.7	398.2	370.8	125.1	245.7	158.5	87.3	–10.2	37.6	104.5
III	3,818.2	411.2	3,406.9	440.6	2,966.3	2,442.7	413.7	389.3	131.1	258.2	158.1	100.1	–15.7	40.1	109.9
IV	3,907.2	417.1	3,490.0	447.1	3,042.9	2,487.6	440.0	413.3	139.6	273.7	169.3	104.4	–15.6	42.3	115.3
1995: I	3,932.7	425.6	3,507.1	451.6	3,055.4	2,517.8	420.6	414.1	134.4	279.6	172.7	107.0	–32.5	39.1	117.0
II	3,969.2	434.2	3,535.0	455.0	3,080.1	2,538.5	424.4	414.5	134.1	280.4	173.5	106.9	–28.2	38.1	117.2
III	4,038.2	440.9	3,597.2	454.3	3,142.9	2,566.7	460.4	431.3	139.5	291.8	183.2	108.5	–9.8	39.0	115.8
IV	4,076.2	450.2	3,626.0	461.1	3,164.8	2,587.9	463.6	428.7	139.0	289.7	188.0	101.7	–2.6	37.5	113.3
1996: I	4,117.2	452.6	3,664.6	466.1	3,198.4	2,600.0	491.6	445.9	144.9	300.9	198.9	102.0	2.1	43.6	106.9
II	4,192.7	458.5	3,734.2	472.6	3,261.6	2,649.2	504.4	460.2	150.0	310.2	195.0	115.2	–1.7	45.8	108.0
III	4,249.8	465.9	3,783.9	474.2	3,309.6	2,689.1	511.4	460.1	150.0	310.1	203.8	106.3	4.7	46.6	109.1
IV	4,326.5	473.6	3,852.9	482.7	3,370.2	2,730.1	529.1	474.7	155.5	319.2	210.1	109.1	7.1	47.3	111.0
1997: I	4,408.6	480.3	3,928.3	486.2	3,442.1	2,783.2	543.0	484.8	152.7	332.1	211.6	120.4	9.3	49.0	116.0
II	4,483.2	487.3	3,995.9	493.9	3,502.1	2,828.8	553.7	491.6	154.8	336.7	216.0	120.8	11.2	50.9	119.6
III	4,578.9	495.1	4,083.8	501.0	3,582.8	2,878.7	583.2	525.8	166.4	359.4	221.6	137.9	4.9	52.5	120.9
IV	4,648.6	502.5	4,146.0	503.2	3,642.8	2,949.9	571.2	512.1	161.5	350.7	230.1	120.6	4.0	55.1	121.8
1998: I	4,723.0	508.4	4,214.6	510.0	3,704.6	3,008.7	575.0	486.2	150.9	335.3	236.2	99.1	29.5	59.4	120.9
II	4,784.7	516.5	4,268.2	516.4	3,751.8	3,059.9	568.6	492.4	153.1	339.3	245.5	93.7	13.6	62.6	123.3
III	4,882.4	526.7	4,355.7	523.0	3,832.6	3,118.6	588.5	503.9	157.1	346.9	242.9	104.0	19.8	64.8	125.5
IV	4,948.4	537.2	4,411.1	544.5	3,866.7	3,174.6	568.0	479.8	148.8	331.0	256.9	74.0	20.8	67.4	124.1
1999: I	5,028.6	543.8	4,484.8	542.4	3,942.4	3,223.8	592.5	508.6	157.9	350.6	241.5	109.1	13.3	70.6	126.1
II	5,094.9	552.3	4,542.7	549.8	3,992.9	3,270.0	594.7	534.2	166.9	367.3	267.9	99.4	–13.6	74.1	128.1
III	5,176.6	568.5	4,608.1	558.5	4,049.5	3,326.3	589.2	541.8	169.3	372.5	264.6	108.0	–26.7	74.1	134.0
IV[P]	.....	573.6	.....	576.6	.....	3,375.9	.....	.....	.....	.....	.....	.....	.....	76.2	.....

[1] Indirect business tax and nontax liability plus business transfer payments less subsidies.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–13.—*Output, price, costs, and profits of nonfinancial corporate business, 1959–99*

[Quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross product of nonfinancial corporate business (billions of dollars)		Price, costs, and profit per unit of real output (dollars)								
			Price per unit of real gross product of nonfinancial corporate business[1]	Compensation of employees (unit labor cost)	Unit nonlabor cost				Corporate profits with inventory valuation and capital consumption adjustments[3]		
	Current dollars	Chained (1996) dollars			Total	Consumption of fixed capital	Indirect business taxes[2]	Net interest	Total	Profits tax liability	Profits after tax[4]
1959	275.5	940.2	0.293	0.182	0.064	0.025	0.036	0.003	0.046	0.022	0.024
1960	286.6	971.4	.295	.186	.067	.025	.038	.004	.042	.020	.023
1961	294.5	993.8	.296	.186	.068	.025	.039	.004	.042	.020	.023
1962	321.1	1,075.2	.299	.186	.067	.024	.039	.004	.046	.019	.027
1963	341.5	1,137.1	.300	.185	.065	.023	.038	.004	.049	.020	.029
1964	368.4	1,216.2	.303	.186	.065	.023	.038	.004	.051	.020	.031
1965	404.1	1,314.6	.307	.187	.066	.023	.038	.005	.055	.021	.034
1966	442.2	1,404.6	.315	.195	.065	.023	.037	.005	.055	.021	.034
1967	465.4	1,441.0	.323	.203	.069	.025	.038	.006	.051	.019	.032
1968	512.6	1,529.3	.335	.211	.073	.026	.040	.007	.051	.022	.029
1969	556.1	1,589.2	.350	.226	.078	.028	.042	.008	.046	.021	.025
1970	575.3	1,575.2	.365	.240	.088	.031	.046	.011	.038	.017	.020
1971	621.1	1,637.8	.379	.245	.092	.033	.048	.011	.042	.018	.024
1972	689.1	1,765.2	.390	.253	.092	.033	.048	.011	.046	.019	.027
1973	771.1	1,865.3	.413	.270	.095	.034	.049	.012	.047	.022	.026
1974	833.0	1,832.1	.455	.303	.110	.041	.054	.015	.042	.023	.019
1975	900.7	1,802.8	.500	.321	.125	.050	.059	.016	.054	.023	.031
1976	1,015.2	1,942.7	.523	.337	.124	.051	.059	.014	.062	.027	.034
1977	1,147.2	2,082.5	.551	.355	.128	.053	.060	.015	.068	.029	.039
1978	1,305.7	2,218.3	.589	.384	.134	.057	.061	.016	.070	.030	.040
1979	1,453.4	2,270.9	.640	.425	.149	.065	.064	.020	.066	.031	.035
1980	1,581.0	2,283.1	.692	.463	.172	.075	.072	.025	.058	.029	.028
1981	1,797.9	2,390.6	.752	.489	.194	.082	.082	.030	.068	.027	.042
1982	1,859.7	2,367.0	.786	.514	.211	.092	.084	.035	.061	.020	.042
1983	1,984.2	2,476.5	.801	.517	.209	.091	.087	.031	.075	.024	.051
1984	2,229.3	2,731.3	.816	.520	.207	.087	.088	.032	.089	.027	.062
1985	2,364.9	2,850.3	.830	.534	.210	.089	.089	.032	.085	.025	.061
1986	2,449.5	2,936.0	.834	.546	.217	.092	.091	.034	.071	.026	.046
1987	2,632.3	3,097.2	.850	.554	.216	.092	.090	.034	.080	.030	.050
1988	2,853.5	3,275.0	.871	.563	.221	.093	.090	.038	.088	.031	.057
1989	3,002.5	3,341.0	.899	.583	.237	.097	.095	.045	.079	.030	.049
1990	3,140.9	3,390.4	.926	.605	.245	.100	.099	.046	.076	.028	.048
1991	3,196.5	3,368.0	.949	.620	.255	.106	.107	.042	.075	.025	.049
1992	3,336.4	3,492.2	.955	.628	.247	.106	.109	.032	.080	.026	.053
1993	3,508.8	3,624.8	.968	.632	.246	.107	.110	.029	.090	.029	.061
1994	3,791.7	3,869.1	.980	.628	.248	.107	.113	.028	.104	.033	.071
1995	4,004.0	4,040.8	.991	.632	.250	.108	.113	.029	.109	.034	.076
1996	4,221.5	4,221.5	1.000	.632	.248	.110	.112	.026	.121	.036	.085
1997	4,529.8	4,501.0	1.006	.635	.246	.109	.110	.027	.125	.035	.090
1998	4,834.6	4,803.4	1.007	.643	.244	.109	.109	.026	.120	.032	.088
1994: I	3,686.9	3,777.3	.976	.629	.253	.113	.113	.027	.094	.032	.063
II	3,754.7	3,841.7	.977	.628	.245	.105	.113	.027	.104	.033	.071
III	3,818.2	3,888.7	.982	.628	.247	.106	.113	.028	.106	.034	.073
IV	3,907.2	3,968.8	.984	.627	.247	.105	.113	.029	.111	.035	.076
1995: I	3,932.7	3,979.3	.988	.633	.249	.107	.113	.029	.106	.034	.072
II	3,969.2	4,010.1	.990	.633	.250	.108	.113	.029	.106	.033	.072
III	4,038.2	4,070.7	.992	.631	.248	.108	.112	.028	.113	.034	.079
IV	4,076.2	4,103.2	.993	.631	.250	.110	.112	.028	.113	.034	.079
1996: I	4,117.2	4,128.3	.997	.630	.249	.110	.113	.026	.119	.035	.084
II	4,192.7	4,193.9	1.000	.632	.248	.109	.113	.026	.120	.036	.085
III	4,249.8	4,244.7	1.001	.634	.248	.110	.112	.026	.120	.035	.085
IV	4,326.5	4,319.2	1.002	.632	.248	.110	.112	.026	.122	.036	.086
1997: I	4,408.6	4,383.8	1.006	.635	.247	.110	.111	.026	.124	.035	.089
II	4,483.2	4,452.3	1.007	.635	.247	.109	.111	.027	.124	.035	.090
III	4,578.9	4,548.2	1.007	.633	.246	.109	.110	.027	.128	.037	.092
IV	4,648.6	4,619.7	1.006	.639	.244	.109	.109	.026	.124	.035	.089
1998: I	4,723.0	4,699.1	1.005	.640	.243	.108	.109	.026	.122	.032	.090
II	4,784.7	4,758.4	1.006	.643	.244	.109	.109	.026	.119	.032	.087
III	4,882.4	4,844.8	1.008	.644	.243	.109	.108	.026	.121	.032	.089
IV	4,948.4	4,911.2	1.008	.646	.245	.109	.111	.025	.116	.030	.085
1999: I	5,028.6	4,981.7	1.009	.647	.243	.109	.109	.025	.119	.032	.087
II	5,094.9	5,035.0	1.012	.649	.244	.110	.109	.025	.118	.033	.085
III	5,176.6	5,116.7	1.012	.650	.246	.111	.109	.026	.115	.033	.082

[1] The implicit price deflator for gross product of nonfinancial corporate business divided by 100.
[2] Indirect business tax and nontax liability plus business transfer payments less subsidies.
[3] Unit profits from current production.
[4] With inventory valuation and capital consumption adjustments.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–14.—*Personal consumption expenditures, 1959–99*

[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	42.7	18.9	18.1	148.5	80.7	26.4	11.3	4.0	127.0	45.0	18.7	7.6	10.5	16.4
1960	332.3	43.3	19.7	18.0	152.9	82.3	27.0	12.0	3.8	136.1	48.2	20.3	8.3	11.2	17.6
1961	342.7	41.8	17.8	18.3	156.6	84.0	27.6	12.0	3.8	144.3	51.2	21.2	8.8	11.7	18.7
1962	363.8	46.9	21.5	19.3	162.8	86.1	29.0	12.6	3.8	154.1	54.7	22.4	9.4	12.2	20.8
1963	383.1	51.6	24.4	20.7	168.2	88.3	29.8	13.0	4.0	163.4	58.0	23.6	9.9	12.7	22.6
1964	411.7	56.7	26.0	23.2	178.7	93.6	32.4	13.6	4.1	176.4	61.4	25.0	10.4	13.4	25.8
1965	444.3	63.3	29.9	25.1	191.6	100.7	34.1	14.8	4.4	189.5	65.4	26.5	10.9	14.5	27.9
1966	481.8	68.3	30.3	28.2	208.8	109.3	37.4	16.0	4.7	204.7	69.5	28.2	11.5	15.9	30.7
1967	508.7	70.4	30.0	30.0	217.1	112.5	39.2	17.1	4.8	221.2	74.1	30.2	12.2	17.3	33.9
1968	558.7	80.8	36.1	32.9	235.7	122.2	43.2	18.6	4.7	242.3	79.7	32.4	13.0	18.9	39.2
1969	605.5	85.9	38.4	34.7	253.2	131.5	46.5	20.5	4.6	266.4	86.8	35.2	14.1	20.9	44.8
1970	648.9	85.0	35.5	35.7	272.0	143.8	47.8	21.9	4.4	292.0	94.0	37.9	15.3	23.7	50.4
1971	702.4	96.9	44.5	37.8	285.5	149.7	51.7	23.2	4.6	320.0	102.7	41.3	16.9	27.1	56.9
1972	770.7	110.4	51.1	42.4	308.0	161.4	56.4	24.4	5.1	352.3	112.1	45.7	18.8	29.8	63.9
1973	852.5	123.5	56.1	47.9	343.1	179.6	62.5	28.1	6.3	385.9	122.7	50.2	20.4	31.2	71.5
1974	932.4	122.3	49.5	51.5	384.5	201.8	66.0	36.1	7.8	425.5	134.1	56.0	24.0	33.3	80.4
1975	1,030.3	133.5	54.8	54.5	420.7	223.2	70.8	39.7	8.4	476.1	147.0	64.3	29.2	35.7	93.4
1976	1,149.8	158.9	71.3	60.2	458.3	242.5	76.6	43.0	10.1	532.6	161.5	73.1	33.2	41.3	106.5
1977	1,278.4	181.2	83.5	67.2	497.2	262.7	84.1	46.9	11.1	600.0	179.5	82.7	38.5	49.2	122.6
1978	1,430.4	201.7	93.1	74.3	550.2	289.6	94.3	50.1	11.5	678.4	201.7	92.1	43.0	53.5	140.0
1979	1,596.3	214.4	93.5	82.7	624.4	324.7	101.2	66.2	14.4	757.4	226.5	101.0	47.8	59.1	158.1
1980	1,762.9	214.2	87.0	86.7	696.1	356.0	107.3	86.7	15.4	852.7	255.1	114.2	57.5	64.7	181.2
1981	1,944.2	231.3	95.8	92.1	758.9	383.5	117.2	97.9	15.8	954.0	287.7	127.3	64.8	68.7	213.0
1982	2,079.3	240.2	102.9	93.4	787.6	403.4	120.5	94.1	14.5	1,051.5	313.0	143.0	74.2	70.9	239.3
1983	2,286.4	281.2	126.9	106.6	831.2	423.8	130.9	93.1	13.6	1,174.0	338.7	157.6	82.4	79.4	267.9
1984	2,498.4	326.9	152.5	119.0	884.7	447.4	142.5	94.6	13.9	1,286.9	370.3	169.8	86.5	90.0	294.6
1985	2,712.6	363.3	175.7	128.5	928.8	467.6	152.1	97.2	13.6	1,420.6	406.8	182.2	90.8	100.0	322.5
1986	2,895.2	401.3	192.4	143.0	958.5	492.0	163.1	80.1	11.3	1,535.4	442.0	188.9	89.2	107.3	346.8
1987	3,105.3	419.7	193.1	153.4	1,015.3	515.3	174.4	85.4	11.2	1,670.3	476.4	196.9	90.9	118.2	381.8
1988	3,356.6	450.2	206.1	163.6	1,082.9	553.5	185.5	87.7	11.7	1,823.5	511.9	208.4	96.3	129.9	429.9
1989	3,596.7	467.8	211.4	171.4	1,165.4	591.9	198.9	97.0	11.9	1,963.5	546.4	221.3	101.0	136.6	479.2
1990	3,831.5	467.6	206.4	171.4	1,246.1	636.9	204.1	107.3	12.9	2,117.8	585.6	227.6	101.0	141.8	540.6
1991	3,971.2	443.0	182.8	171.5	1,278.8	657.6	208.7	102.5	12.4	2,249.4	616.0	238.6	107.4	142.8	591.0
1992	4,209.7	470.8	200.2	178.7	1,322.9	669.3	221.9	104.9	12.2	2,415.9	641.3	248.3	108.9	155.0	652.6
1993	4,454.7	513.4	222.1	192.4	1,375.2	697.9	231.1	106.6	12.9	2,566.1	666.5	268.9	118.6	166.2	700.6
1994	4,716.4	560.8	242.3	211.2	1,438.0	728.2	240.7	109.0	13.5	2,717.6	704.7	284.0	119.8	180.9	737.3
1995	4,969.0	589.7	249.3	225.0	1,497.3	755.8	247.8	113.3	14.1	2,882.0	740.8	298.1	122.5	197.7	780.7
1996	5,237.5	616.5	256.3	236.9	1,574.1	786.0	258.6	124.2	15.6	3,047.0	772.5	317.3	128.7	214.2	814.4
1997	5,524.4	642.9	263.1	249.5	1,641.7	817.0	271.2	126.2	15.2	3,239.8	809.8	332.7	130.4	234.4	850.2
1998	5,848.6	698.2	289.2	268.7	1,708.9	853.4	286.3	112.9	13.2	3,441.5	855.9	346.9	128.1	245.2	894.3
1999 *p*	6,254.9	758.1	315.9	290.2	1,841.1	903.0	306.2	123.3	14.8	3,655.7	902.8	362.6	130.4	254.9	941.3
1994: I	4,613.8	546.2	241.4	202.1	1,409.7	714.6	237.2	105.7	14.5	2,657.9	690.7	275.3	121.3	174.3	723.4
II	4,677.5	553.6	239.0	208.6	1,425.1	725.4	237.9	104.8	12.9	2,698.8	700.1	287.5	123.3	179.1	732.3
III	4,753.0	563.2	240.2	214.3	1,449.9	733.1	241.5	111.5	13.8	2,739.8	709.6	286.7	118.7	183.1	741.5
IV	4,821.3	580.0	248.8	219.9	1,467.2	739.6	246.3	113.8	13.0	2,774.0	718.6	286.4	115.9	186.9	752.0
1995: I	4,868.6	578.2	245.0	220.4	1,475.8	745.5	244.5	113.9	13.2	2,814.7	727.7	287.8	116.2	190.4	767.6
II	4,943.7	584.4	248.2	221.9	1,492.2	753.6	246.0	114.3	14.4	2,867.1	736.9	295.7	121.8	195.5	776.2
III	5,005.2	596.2	252.3	227.0	1,502.6	758.8	249.3	112.7	14.2	2,906.3	744.9	304.6	127.3	200.8	784.8
IV	5,058.4	600.0	251.7	231.0	1,518.5	765.3	251.2	112.2	14.6	2,939.9	753.7	304.2	124.7	204.2	794.3
1996: I	5,130.5	606.4	256.3	230.4	1,539.6	773.9	253.0	117.7	16.1	2,984.4	760.4	314.6	131.3	206.5	798.2
II	5,218.0	621.3	259.2	238.2	1,569.4	781.8	259.0	127.0	15.1	3,027.4	768.1	318.3	130.0	211.7	810.7
III	5,263.7	616.7	255.4	237.7	1,578.8	788.8	259.3	123.3	15.0	3,068.2	776.6	313.4	124.6	215.9	817.9
IV	5,337.9	621.5	254.2	241.2	1,608.4	799.3	263.0	128.6	16.0	3,107.9	785.1	322.7	129.1	222.6	831.0
1997: I	5,430.8	636.1	262.6	244.3	1,630.5	812.0	267.3	130.4	15.5	3,164.2	794.5	324.7	128.8	228.5	837.7
II	5,466.3	627.8	253.0	247.0	1,627.1	811.9	267.3	123.5	15.5	3,211.4	804.5	328.4	128.5	232.7	845.9
III	5,569.1	651.9	269.1	251.4	1,652.3	821.9	274.5	125.2	15.2	3,265.0	814.7	333.7	128.9	236.5	854.9
IV	5,631.3	655.8	267.8	255.1	1,657.1	822.2	275.7	125.6	14.7	3,318.5	825.4	344.0	135.2	239.7	862.4
1998: I	5,714.7	679.2	278.6	263.1	1,674.6	832.9	282.5	117.5	13.5	3,360.9	837.5	336.1	123.6	242.1	877.7
II	5,816.2	693.9	288.2	265.8	1,701.2	847.6	287.1	114.1	13.6	3,421.1	850.0	348.0	131.4	244.9	890.1
III	5,889.6	696.9	285.6	270.6	1,716.6	857.6	286.6	111.8	13.4	3,476.1	861.8	356.0	134.6	246.2	899.0
IV	5,973.7	722.8	304.4	275.3	1,742.9	875.6	289.2	108.3	12.6	3,508.0	874.3	347.3	122.9	247.7	910.5
1999: I	6,090.8	739.0	306.8	283.8	1,787.8	885.4	301.8	106.5	13.7	3,564.0	885.6	356.2	128.3	250.3	922.5
II	6,200.8	751.6	313.8	287.3	1,824.8	893.4	306.7	121.7	14.6	3,624.3	897.3	360.3	129.4	254.0	933.0
III	6,303.7	761.8	318.1	292.0	1,853.9	903.9	308.1	129.3	15.4	3,688.0	907.6	366.8	133.8	256.5	948.1
IV *p*	6,424.6	780.1	324.7	297.9	1,897.7	929.4	308.4	135.7	15.4	3,746.7	920.6	367.0	130.2	258.9	961.6

[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–15.—*Real personal consumption expenditures, 1987–99*

[Billions of chained (1996) 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		
1987	4,096.0	455.2	242.4	133.3	1,274.5	664.6	182.4	112.8	14.2	2,361.5	644.8	238.0	106.9	164.6	631.0
1988	4,263.2	481.5	254.9	142.3	1,315.1	690.7	187.8	114.9	14.7	2,460.6	663.4	248.2	112.3	172.8	659.9
1989	4,374.4	491.7	253.9	149.9	1,351.0	703.5	198.6	116.4	14.4	2,526.1	679.9	257.2	114.7	174.6	678.5
1990	4,454.1	487.1	246.1	150.9	1,369.6	722.4	197.2	113.1	13.1	2,595.1	696.2	259.8	112.8	173.4	710.9
1991	4,460.6	454.9	211.8	152.7	1,364.0	721.4	197.8	109.4	12.9	2,645.5	709.8	262.9	116.3	164.7	734.4
1992	4,603.8	479.0	225.7	161.5	1,389.7	725.6	208.8	112.5	13.2	2,739.4	719.3	267.6	115.7	171.1	765.4
1993	4,741.9	518.3	242.2	177.4	1,430.3	745.1	218.5	115.4	14.0	2,795.4	728.1	282.3	122.2	176.6	775.4
1994	4,920.0	557.7	255.1	196.3	1,485.1	764.9	231.6	117.4	15.0	2,878.0	749.1	293.0	122.8	189.0	783.1
1995	5,070.1	583.5	253.4	215.4	1,529.0	777.0	244.3	120.2	15.7	2,957.8	763.7	304.0	125.3	201.0	797.7
1996	5,237.5	616.5	256.3	236.9	1,574.1	786.0	258.6	124.2	15.6	3,047.0	772.6	317.3	128.7	214.2	814.4
1997	5,433.7	657.4	263.8	262.1	1,619.9	799.1	271.1	126.2	15.1	3,156.7	786.5	327.1	127.5	226.3	831.0
1998	5,698.6	731.5	291.9	297.4	1,685.3	820.6	292.2	127.7	14.5	3,284.5	805.6	344.3	129.6	234.2	854.4
1999[P]	5,998.7	815.1	318.0	341.6	1,774.6	850.8	317.8	128.1	15.9	3,416.8	826.1	359.9	132.5	240.9	876.7
1994: I	4,857.6	546.9	258.2	187.1	1,465.3	756.0	227.6	116.6	15.9	2,846.4	741.9	284.9	124.0	183.8	778.5
II	4,899.2	551.7	253.3	193.1	1,477.6	764.7	227.3	117.3	14.3	2,870.9	746.1	296.8	126.4	187.4	782.0
III	4,936.7	557.7	251.4	198.6	1,490.9	767.2	232.2	117.6	15.2	2,888.9	752.1	295.3	121.7	190.7	784.3
IV	4,986.4	574.3	257.5	206.4	1,506.5	771.6	239.2	118.3	14.5	2,905.7	756.5	294.9	119.2	194.2	787.7
1995: I	5,004.7	570.4	250.7	207.7	1,514.3	773.4	240.1	119.5	14.8	2,920.4	759.8	293.9	118.8	196.7	791.1
II	5,053.6	577.4	252.2	211.1	1,525.3	776.0	242.4	120.0	16.1	2,951.3	762.6	302.2	125.1	198.8	795.6
III	5,094.0	590.7	256.4	218.1	1,531.7	778.0	246.3	120.0	15.7	2,971.8	764.9	310.5	130.3	202.5	799.8
IV	5,128.0	595.7	254.4	224.6	1,544.6	780.6	248.4	121.5	16.3	2,987.8	767.6	309.3	127.2	206.0	804.5
1996: I	5,170.3	601.7	257.0	226.1	1,553.9	784.5	250.7	121.9	16.6	3,014.8	768.7	317.6	132.8	210.2	804.1
II	5,227.5	620.4	259.6	237.2	1,569.9	785.5	257.8	124.4	15.3	3,037.2	770.8	319.1	130.5	212.7	812.7
III	5,255.4	618.1	255.2	238.7	1,578.6	785.3	261.6	124.5	15.5	3,058.8	773.6	312.3	123.8	215.3	816.3
IV	5,296.8	625.7	253.4	245.5	1,593.9	788.5	264.3	125.9	14.9	3,077.2	777.0	320.1	127.9	218.5	824.6
1997: I	5,361.1	642.1	261.1	251.4	1,609.0	798.7	267.8	125.1	14.3	3,110.1	781.2	318.5	124.7	223.3	824.1
II	5,385.1	639.7	252.9	257.8	1,608.2	796.7	264.7	126.7	15.3	3,137.0	784.2	323.4	126.5	225.0	828.5
III	5,471.8	669.7	270.9	266.2	1,630.7	802.2	274.7	126.6	15.6	3,172.0	788.1	328.5	126.6	227.9	833.3
IV	5,517.1	678.0	270.4	273.1	1,631.8	798.9	277.1	126.4	15.1	3,207.8	792.6	337.9	132.2	229.1	838.2
1998: I	5,592.3	704.9	281.5	284.8	1,654.9	805.7	287.8	126.6	14.2	3,234.2	798.4	333.5	124.1	231.6	846.4
II	5,675.6	723.9	291.7	290.4	1,681.9	818.2	293.1	127.9	14.7	3,272.2	804.1	344.7	132.2	234.4	852.7
III	5,730.7	731.2	286.7	301.7	1,692.0	823.0	292.2	128.5	14.7	3,309.6	808.0	353.7	136.6	234.6	856.4
IV	5,795.8	766.0	307.4	312.6	1,712.6	835.4	295.6	127.7	14.2	3,322.0	812.0	345.4	125.7	236.1	862.2
1999: I	5,888.4	788.8	310.4	326.7	1,749.5	839.5	314.7	127.1	15.8	3,356.5	818.4	354.0	131.1	237.7	865.6
II	5,961.8	806.1	317.2	335.5	1,763.7	844.6	316.8	127.5	16.4	3,399.2	823.1	358.8	132.2	239.9	872.0
III	6,033.3	821.2	319.6	346.0	1,779.3	850.0	321.6	128.2	16.3	3,440.6	828.5	364.4	135.4	242.4	880.9
IV[P]	6,111.2	844.5	324.9	358.2	1,805.9	869.2	317.9	129.5	15.1	3,470.6	834.5	362.6	131.1	243.7	888.5

[1] Includes other items not shown separately.

[2] Includes imputed rental value of owner-occupied housing.

Note.—See Table B–2 for data for total personal consumption expenditures for 1959–86.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–16.—*Private gross fixed investment by type, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Private fixed investment	Nonresidential												Residential
		Total nonresidential	Structures				Equipment and software							
			Total [1]	Nonresidential buildings including farm	Utilities	Mining exploration, shafts, and wells	Total [1]	Information processing equipment and software				Industrial equipment	Transportation equipment	
								Total	Computers and peripheral equipment [2]	Software [3]	Other			
1959	74.6	46.5	18.1	10.6	4.9	2.5	28.4	4.0	0.0	0.0	4.0	8.4	8.3	28.1
1960	75.7	49.4	19.6	12.0	5.0	2.3	29.8	4.9	.2	.1	4.5	9.3	8.5	26.3
1961	75.2	48.8	19.7	12.7	4.6	2.3	29.1	5.2	.3	.2	4.8	8.7	8.0	26.4
1962	82.0	53.1	20.8	13.7	4.6	2.5	32.3	5.7	.3	.2	5.1	9.2	9.8	29.0
1963	88.1	56.0	21.2	13.9	5.0	2.3	34.8	6.5	.7	.4	5.3	10.0	9.4	32.1
1964	97.2	63.0	23.7	15.8	5.4	2.4	39.2	7.3	.9	.5	5.8	11.4	10.6	34.3
1965	109.0	74.8	28.3	19.5	6.1	2.4	46.5	8.5	1.2	.7	6.6	13.6	13.2	34.2
1966	117.7	85.4	31.3	21.3	7.1	2.5	54.0	10.6	1.7	1.0	7.9	16.1	14.5	32.3
1967	118.7	86.4	31.5	20.6	7.8	2.4	54.9	11.2	1.9	1.2	8.1	16.8	14.3	32.4
1968	132.1	93.4	33.6	21.1	9.2	2.6	59.9	11.9	1.9	1.3	8.6	17.2	17.6	38.7
1969	147.3	104.7	37.7	24.4	9.6	2.8	67.0	14.6	2.4	1.8	10.4	18.9	18.9	42.6
1970	150.4	109.0	40.3	25.4	11.1	2.8	68.7	16.7	2.7	2.3	11.6	20.2	16.2	41.4
1971	169.9	114.1	42.7	27.1	11.9	2.7	71.5	17.3	2.8	2.4	12.1	19.4	18.4	55.8
1972	198.5	128.8	47.2	30.1	13.1	3.1	81.7	19.3	3.5	2.8	13.1	21.3	21.8	69.7
1973	228.6	153.3	55.0	35.5	15.0	3.5	98.3	23.0	3.5	3.2	16.3	25.9	26.6	75.3
1974	235.4	169.5	61.2	38.3	16.5	5.2	108.2	26.8	3.9	3.9	19.0	30.5	26.3	66.0
1975	236.5	173.7	61.4	35.6	17.1	7.4	112.4	28.2	3.6	4.8	19.9	31.1	25.2	62.7
1976	274.8	192.4	65.9	35.9	20.0	8.6	126.4	32.4	4.4	5.2	22.8	33.9	30.0	82.5
1977	339.0	228.7	74.6	39.9	21.5	11.5	154.1	38.6	5.7	5.5	27.5	39.2	39.3	110.3
1978	410.2	278.6	91.4	49.7	24.1	15.4	187.2	48.3	7.6	6.6	34.2	47.4	47.3	131.6
1979	472.7	331.6	114.9	65.7	27.5	19.0	216.7	58.6	10.2	8.7	39.8	55.9	53.6	141.0
1980	484.2	360.9	133.9	73.7	30.2	27.4	227.0	69.6	12.5	10.7	46.4	60.4	48.4	123.2
1981	541.0	418.4	164.6	86.3	33.0	42.5	253.8	82.4	17.1	12.9	52.3	65.2	50.6	122.6
1982	531.0	425.3	175.0	94.5	32.5	44.8	250.3	88.9	18.9	15.4	54.6	62.3	46.8	105.7
1983	570.0	417.4	152.7	90.5	28.7	30.0	264.7	100.8	23.9	18.0	58.9	58.4	53.7	152.5
1984	670.1	490.3	176.0	110.0	30.0	31.3	314.3	121.7	31.6	22.1	68.0	67.6	64.8	179.8
1985	714.5	527.6	193.3	128.0	30.6	27.9	334.3	130.8	33.7	25.6	71.5	71.9	69.7	186.9
1986	740.7	522.5	175.8	123.3	31.2	15.7	346.8	137.6	33.4	27.8	76.4	74.8	71.8	218.1
1987	754.3	526.7	172.1	126.0	26.5	13.1	354.7	141.9	35.8	31.4	74.8	76.1	70.4	227.6
1988	802.7	568.4	181.6	133.8	26.6	15.7	386.8	155.9	38.0	36.7	81.2	83.5	76.1	234.2
1989	845.2	613.4	193.4	142.7	29.5	14.9	420.0	173.0	43.1	44.4	85.5	92.7	71.4	231.8
1990	847.2	630.3	202.5	149.1	28.4	17.9	427.8	176.1	38.6	50.2	87.3	91.5	75.7	216.8
1991	800.4	608.9	183.4	124.2	33.7	18.5	425.4	181.4	37.7	56.6	87.1	88.7	79.5	191.5
1992	851.6	626.1	172.2	113.2	36.7	14.2	453.9	197.5	43.6	60.8	93.1	92.4	86.1	225.5
1993	934.0	682.2	179.4	119.3	34.8	17.7	502.8	215.0	47.2	69.4	98.4	101.8	98.1	251.8
1994	1,034.6	748.6	187.5	129.0	34.0	17.4	561.1	233.7	51.3	75.5	106.9	113.3	117.8	286.0
1995	1,110.7	825.1	204.6	144.3	35.8	17.2	620.5	262.0	64.6	83.5	113.8	128.7	126.1	285.6
1996	1,212.7	899.4	225.0	161.7	36.0	21.1	674.4	287.3	70.9	95.1	121.3	136.4	138.9	313.3
1997	1,315.4	986.1	254.1	180.9	36.5	30.0	732.1	315.4	76.7	106.6	132.1	142.3	150.9	329.2
1998	1,460.0	1,091.3	272.8	197.0	39.2	30.0	818.5	356.9	88.5	123.4	144.9	150.2	176.0	368.7
1999 *p*	1,577.4	1,166.5	272.6	199.8	39.2	26.9	893.9	407.2	98.3	143.3	165.6	151.4	198.2	410.9
1994: I	998.1	721.7	178.0	120.5	34.0	16.8	543.7	227.3	48.7	73.9	104.6	109.4	114.0	276.4
II	1,026.6	738.2	188.2	131.1	33.5	16.8	550.0	231.0	50.3	75.0	105.7	110.5	112.8	288.4
III	1,042.0	752.7	189.9	130.8	34.0	17.5	562.8	234.5	51.3	75.9	107.4	114.5	116.4	289.3
IV	1,071.6	781.8	193.9	133.7	34.5	18.7	587.9	241.8	54.8	77.1	110.0	119.0	127.8	289.8
1995: I	1,100.1	812.5	200.5	140.2	35.4	17.6	612.0	250.5	57.7	78.8	114.0	124.7	134.0	287.6
II	1,097.2	820.3	204.8	144.7	36.1	16.5	615.5	261.1	64.3	81.8	115.0	128.9	122.4	276.9
III	1,110.1	825.2	206.2	145.2	36.2	17.0	619.0	263.1	65.6	85.0	112.5	130.8	121.8	284.9
IV	1,135.4	842.3	207.0	147.2	35.5	17.8	635.3	273.2	70.7	88.6	113.9	130.4	126.4	293.1
1996: I	1,165.6	865.1	213.4	151.8	35.8	19.0	651.7	280.0	70.5	91.7	117.8	135.0	129.1	300.5
II	1,201.7	885.4	220.0	157.4	35.5	20.7	665.4	283.4	69.6	94.0	119.8	137.7	134.6	316.3
III	1,232.6	913.6	226.3	163.2	35.5	21.6	687.3	290.9	71.6	96.1	123.2	135.9	146.5	319.0
IV	1,250.9	933.7	240.3	174.2	37.3	23.0	693.4	294.8	71.7	98.9	124.2	137.2	145.5	317.2
1997: I	1,274.1	952.7	247.6	178.2	35.5	28.2	705.2	303.1	73.8	102.2	127.1	136.4	146.0	321.4
II	1,299.6	972.7	247.8	175.8	36.2	30.2	724.9	309.9	75.7	105.0	129.2	141.9	150.2	326.8
III	1,338.3	1,007.7	257.8	185.2	37.0	29.5	749.9	322.7	79.0	108.0	135.7	144.3	156.9	330.7
IV	1,349.4	1,011.4	263.1	184.4	37.2	32.2	748.3	325.9	78.4	111.2	136.2	146.6	150.3	338.0
1998: I	1,415.4	1,065.9	267.4	191.0	38.7	31.3	798.4	343.4	85.9	115.8	141.8	148.6	174.7	349.5
II	1,454.2	1,090.8	274.0	196.1	38.9	32.1	816.8	353.3	88.6	120.7	144.1	149.7	177.2	363.4
III	1,461.7	1,087.2	271.7	197.5	39.2	28.8	815.4	361.0	89.1	126.2	145.8	150.9	164.9	374.5
IV	1,508.9	1,121.4	278.0	203.3	40.1	28.0	843.4	369.7	90.5	131.2	148.0	151.4	187.0	387.5
1999: I	1,543.3	1,139.9	274.7	204.0	39.2	25.2	865.2	382.3	92.3	135.5	154.5	147.9	193.1	403.4
II	1,567.8	1,155.4	272.5	199.8	39.1	26.0	882.9	401.7	96.4	140.7	164.6	149.3	193.6	412.4
III	1,594.2	1,181.6	272.1	197.5	39.9	28.0	909.5	416.8	100.8	145.8	170.2	153.0	204.9	412.7
IV *p*	1,604.1	1,189.1	271.1	198.0	38.8	28.5	918.1	428.2	103.7	151.4	173.1	155.5	201.3	415.0

[1] Includes other items, not shown separately.
[2] Includes new computers and peripheral equipment only.
[3] Excludes software "embedded," or bundled, in computers and other equipment.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–17.—*Real private gross fixed investment by type, 1987–99*

[Billions of chained (1996) dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Private fixed investment	Nonresidential												Residential
		Total nonresidential	Structures				Equipment and software							
			Total [1]	Nonresidential buildings including farm	Utilities	Mining exploration, shafts, and wells	Total [1]	Information processing equipment and software				Industrial equipment	Transportation equipment	
								Total	Computers and peripheral equipment [2]	Software [3]	Other			
1987	856.0	572.5	224.3	162.6	34.9	18.6	360.0	105.1	10.3	27.9	78.0	99.9	88.0	290.7
1988	887.1	603.6	227.1	166.5	33.6	20.4	386.9	116.4	11.8	32.4	83.5	104.9	93.6	289.2
1989	911.2	637.0	232.7	171.4	35.4	18.4	414.0	131.3	14.4	40.1	86.8	112.4	84.9	277.3
1990	894.6	641.7	236.1	173.6	33.0	21.3	415.7	136.4	14.2	45.9	87.6	105.8	87.4	253.5
1991	832.5	610.1	210.1	142.7	38.9	20.8	407.2	142.7	15.4	51.4	86.4	99.0	87.7	221.1
1992	886.5	630.6	197.3	129.2	41.8	17.2	437.5	163.0	20.8	58.7	91.5	100.8	92.3	257.2
1993	958.4	683.6	198.9	131.7	38.4	20.5	487.1	183.4	26.4	66.8	96.4	109.6	103.4	276.0
1994	1,045.9	744.6	200.5	137.2	36.1	19.8	544.9	206.6	32.6	74.3	104.9	119.6	120.4	302.7
1995	1,109.2	817.5	210.1	147.6	36.8	18.2	607.6	242.8	49.2	82.0	113.1	131.3	128.2	291.7
1996	1,212.7	899.4	225.0	161.7	36.0	21.1	674.4	287.3	70.9	95.1	121.3	136.4	138.9	313.3
1997	1,316.0	995.7	244.0	175.3	35.7	26.4	751.9	339.4	99.0	109.4	132.7	141.3	149.6	320.6
1998	1,471.8	1,122.5	254.1	184.6	38.0	25.4	870.6	418.5	154.2	129.2	147.1	148.1	175.3	350.2
1999 *p*	1,589.4	1,215.4	247.3	180.2	38.0	23.2	975.5	510.3	222.0	149.2	169.8	148.4	196.7	375.4
1994: I	1,014.9	720.0	193.2	130.2	36.5	19.3	527.4	198.2	29.7	72.2	102.3	116.7	117.4	296.5
II	1,039.9	734.1	202.9	140.7	35.7	19.2	532.6	202.8	31.2	73.7	103.4	117.1	115.0	307.5
III	1,050.9	747.2	202.3	138.5	36.0	19.7	545.7	208.0	32.8	74.9	105.4	120.5	118.2	305.2
IV	1,078.0	777.1	203.8	139.6	36.1	20.8	573.7	217.5	36.7	76.3	108.6	124.3	131.1	301.8
1995: I	1,101.9	806.4	208.1	144.5	36.9	19.1	598.5	227.5	40.5	77.5	112.8	129.3	137.3	295.8
II	1,095.0	811.4	211.0	148.3	37.3	17.6	600.7	239.2	47.0	80.1	113.9	131.8	124.7	283.5
III	1,107.1	816.7	210.9	148.1	37.0	17.9	606.0	245.0	50.8	83.3	111.9	132.7	123.3	290.4
IV	1,132.7	835.5	210.4	149.4	36.0	18.4	625.0	259.4	58.4	87.2	113.8	131.6	127.5	297.3
1996: I	1,165.2	861.6	215.9	153.4	36.1	19.6	645.8	271.7	63.1	90.7	117.8	135.6	130.2	303.6
II	1,203.7	885.6	221.3	158.3	35.7	21.0	664.3	281.4	67.9	93.6	119.7	138.0	134.7	318.1
III	1,231.6	914.3	225.4	162.4	35.5	21.5	688.9	293.6	73.9	96.4	123.3	135.7	145.8	317.3
IV	1,250.2	936.2	237.3	172.4	36.8	22.3	698.8	302.4	78.5	99.8	124.3	136.5	144.9	314.0
1997: I	1,274.1	957.9	242.0	175.1	35.1	26.2	715.8	316.9	85.8	104.0	127.6	135.6	144.9	316.3
II	1,300.6	980.8	239.5	171.4	35.4	26.9	741.5	330.0	94.2	107.1	129.9	141.1	149.1	320.0
III	1,337.9	1,018.0	245.9	178.5	36.0	25.4	772.3	350.2	105.1	111.1	136.2	143.2	155.0	320.5
IV	1,351.3	1,026.1	248.6	176.1	36.2	27.1	777.8	360.4	110.9	115.3	137.1	145.1	149.6	325.7
1998: I	1,424.2	1,088.6	252.1	181.7	37.6	26.5	837.9	388.8	131.3	120.9	143.1	147.0	174.2	336.5
II	1,466.7	1,120.2	256.4	184.9	37.7	27.1	865.5	409.4	146.9	126.2	146.3	147.9	177.0	347.4
III	1,474.0	1,120.3	252.1	184.2	37.9	24.2	870.6	427.4	160.4	131.9	148.3	148.7	164.2	354.2
IV	1,522.5	1,160.8	255.7	187.4	38.7	23.6	908.5	448.5	178.3	137.8	150.9	148.9	185.8	362.6
1999: I	1,555.9	1,182.7	251.9	186.6	38.1	21.6	935.7	470.4	193.4	141.6	157.8	145.0	190.8	373.7
II	1,581.0	1,202.9	248.5	181.2	38.0	22.6	960.9	501.0	212.9	147.0	168.4	146.6	191.6	378.8
III	1,607.3	1,234.3	246.1	177.2	38.5	24.3	996.6	526.0	233.5	152.0	174.7	150.0	204.0	375.1
IV *p*	1,613.5	1,241.9	242.8	175.9	37.2	24.5	1,008.7	543.6	248.1	156.1	178.5	151.9	200.6	374.0

[1] Includes other items, not shown separately.
[2] Includes new computers and peripheral equipment only.
[3] Excludes software "embedded," or bundled, in computers and other equipment.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–18.—*Government consumption expenditures and gross investment by type, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Government consumption expenditures and gross investment													
	Total	Federal									State and local			
		Total	National defense				Nondefense							
			Total	Consumption expenditures	Gross investment		Total	Consumption expenditures	Gross investment		Total	Consumption expenditures	Gross investment	
					Structures	Equipment and software			Structures	Equipment and software			Structures	Equipment and software
1959	112.5	67.4	56.0	42.2	2.5	11.2	11.4	9.8	1.5	0.2	45.1	31.1	12.8	1.1
1960	113.8	65.9	55.2	42.8	2.2	10.1	10.7	8.7	1.7	.3	47.9	34.0	12.7	1.2
1961	121.5	69.5	58.1	44.3	2.4	11.5	11.3	8.9	1.9	.6	52.0	37.0	13.8	1.3
1962	132.2	76.9	62.8	48.3	2.0	12.5	14.1	11.2	2.1	.8	55.3	39.4	14.5	1.3
1963	138.5	78.5	62.7	50.1	1.6	11.0	15.8	12.3	2.3	1.2	59.9	42.4	16.0	1.5
1964	145.1	79.8	61.8	50.3	1.3	10.2	18.0	13.9	2.5	1.6	65.3	46.3	17.2	1.8
1965	153.7	82.1	62.4	52.4	1.1	8.9	19.7	15.0	2.8	1.9	71.6	50.8	19.0	1.9
1966	174.3	94.4	73.8	61.4	1.3	11.1	20.7	15.8	2.8	2.1	79.9	56.8	21.0	2.1
1967	195.3	106.8	85.8	71.5	1.2	13.1	21.0	16.9	2.2	1.9	88.6	63.2	23.0	2.3
1968	212.8	114.0	92.2	79.0	1.2	11.9	21.8	18.0	2.1	1.7	98.8	71.1	25.2	2.4
1969	224.6	116.1	92.6	80.1	1.5	11.0	23.5	19.9	1.9	1.7	108.5	80.2	25.6	2.7
1970	237.1	116.4	90.9	78.7	1.3	10.9	25.5	21.7	2.1	1.7	120.7	92.0	25.8	3.0
1971	251.0	117.6	89.0	79.3	1.8	7.9	28.6	24.4	2.5	1.7	133.5	103.4	27.0	3.1
1972	270.1	125.6	93.5	82.3	1.8	9.4	32.2	27.6	2.7	1.8	144.4	113.8	27.1	3.5
1973	287.9	127.8	93.9	82.6	2.1	9.2	33.9	29.0	3.1	1.8	160.1	126.9	29.1	4.1
1974	322.4	138.2	99.7	87.5	2.2	10.1	38.5	32.9	3.4	2.2	184.2	144.5	34.7	4.9
1975	361.1	152.1	107.9	93.4	2.3	12.1	44.2	37.7	4.1	2.4	209.0	165.4	38.1	5.5
1976	384.5	160.6	113.2	97.9	2.1	13.2	47.4	40.1	4.6	2.7	223.9	180.1	38.1	5.7
1977	415.3	176.0	122.6	105.8	2.4	14.4	53.5	45.5	5.0	3.0	239.3	196.5	36.9	5.9
1978	455.6	191.9	132.0	114.2	2.5	15.3	59.8	50.1	6.1	3.7	263.8	214.3	42.8	6.6
1979	503.5	211.6	146.7	125.3	2.5	18.9	65.0	54.7	6.3	4.0	291.8	235.0	49.0	7.8
1980	569.7	245.3	169.6	145.3	3.2	21.1	75.6	63.6	7.1	4.9	324.4	260.5	55.1	8.9
1981	631.4	281.8	197.8	168.9	3.2	25.7	84.0	71.0	7.7	5.3	349.6	284.6	55.4	9.5
1982	684.4	312.8	228.3	193.6	4.0	30.8	84.5	71.7	6.8	6.0	371.6	306.8	54.2	10.6
1983	735.9	344.4	252.5	210.6	4.8	37.1	92.0	77.4	6.7	7.8	391.5	325.1	54.2	12.2
1984	800.8	376.4	283.5	234.9	4.9	43.8	92.8	77.1	7.0	8.7	424.4	349.5	60.5	14.4
1985	878.3	413.4	312.4	254.9	6.2	51.3	101.0	84.1	7.3	9.6	464.9	380.5	67.6	16.8
1986	942.3	438.7	332.2	269.3	6.8	56.1	106.5	89.0	8.0	9.5	503.6	410.8	74.2	18.6
1987	997.9	460.4	351.2	284.8	7.7	58.8	109.3	89.9	9.0	10.4	537.5	439.0	78.8	19.6
1988	1,036.9	462.6	355.9	294.6	7.4	53.9	106.8	88.2	6.8	11.7	574.3	467.9	84.8	21.5
1989	1,100.2	482.6	363.2	300.5	6.4	56.3	119.3	99.1	6.9	13.4	617.7	503.0	88.7	26.0
1990	1,181.4	508.4	374.9	308.9	6.1	59.8	133.6	111.0	8.0	14.6	673.0	545.8	98.5	28.7
1991	1,235.5	527.4	384.5	321.1	4.6	58.8	142.9	118.1	9.2	15.7	708.1	576.1	103.2	28.9
1992	1,270.5	534.5	378.5	316.9	5.2	56.3	156.0	128.8	10.3	16.9	736.0	601.6	104.2	30.1
1993	1,293.0	527.3	364.9	309.2	5.1	50.7	162.4	133.4	11.2	17.7	765.7	629.5	104.5	31.7
1994	1,327.9	521.1	355.1	301.1	5.7	48.3	165.9	138.6	10.5	16.8	806.8	662.6	108.7	35.5
1995	1,372.0	521.5	350.6	297.5	6.3	46.9	170.9	141.8	10.8	18.4	850.5	694.7	117.3	38.6
1996	1,421.9	531.6	357.0	302.4	6.7	47.9	174.6	142.9	11.1	20.5	890.4	726.5	122.5	41.3
1997	1,481.0	537.8	352.5	304.5	5.7	42.3	185.3	152.5	9.7	23.0	943.2	765.9	132.8	44.5
1998	1,529.7	538.7	348.6	299.9	5.4	43.3	190.1	153.6	11.3	25.2	991.0	807.5	135.2	48.3
1999[P]	1,628.7	570.8	364.7	310.9	5.3	48.6	206.1	164.1	11.3	30.7	1,057.9	857.3	148.2	52.4
1994: I	1,303.3	515.8	349.4	298.1	5.4	45.9	166.3	139.5	10.3	16.5	787.5	650.0	103.2	34.3
II	1,316.1	515.9	353.9	299.7	5.5	48.7	162.0	135.6	9.7	16.7	800.2	658.6	106.4	35.2
III	1,348.1	532.5	366.9	308.7	6.1	52.1	165.6	138.5	9.9	17.2	815.6	667.6	112.1	35.9
IV	1,344.0	520.0	350.4	297.8	6.0	46.5	169.7	140.9	11.9	16.9	824.0	674.2	113.2	36.6
1995: I	1,360.6	523.4	352.2	298.2	6.8	47.2	171.2	141.0	11.4	18.8	837.1	685.0	115.0	37.2
II	1,374.9	525.5	353.9	299.3	6.0	48.6	171.6	142.0	10.7	18.9	849.4	692.6	118.6	38.2
III	1,378.3	525.0	352.7	301.2	5.9	45.6	172.3	143.3	11.0	17.9	853.3	697.3	117.1	38.9
IV	1,374.5	512.3	343.6	291.2	6.4	46.0	168.7	140.6	10.1	17.9	862.2	703.8	118.5	39.9
1996: I	1,402.6	530.6	356.1	298.4	6.7	51.0	174.5	143.4	11.2	19.8	872.0	712.5	119.1	40.5
II	1,423.0	537.2	361.3	304.1	7.2	50.0	175.9	142.9	12.0	21.1	885.7	723.0	121.8	41.0
III	1,423.4	529.1	355.6	301.4	6.5	47.7	173.5	141.5	11.4	20.5	894.3	730.6	122.1	41.6
IV	1,438.9	529.4	355.0	305.6	6.4	43.0	174.5	143.8	10.0	20.7	909.4	740.0	127.1	42.3
1997: I	1,455.8	530.2	347.0	301.7	5.9	39.4	183.2	151.0	10.2	21.9	925.6	751.0	131.3	43.3
II	1,478.6	543.0	354.9	308.2	5.6	41.2	188.1	153.4	9.9	24.7	935.6	759.1	132.3	44.1
III	1,490.1	540.9	354.5	305.0	5.7	43.8	186.4	153.1	10.4	22.8	949.2	770.5	133.7	44.9
IV	1,499.5	537.1	353.6	303.0	5.7	44.9	183.5	152.6	8.4	22.5	962.3	782.8	133.9	45.6
1998: I	1,499.0	526.1	338.9	292.4	5.6	40.9	187.2	152.6	10.8	23.7	972.9	791.5	134.6	46.8
II	1,526.5	542.2	347.9	301.2	5.0	41.7	194.3	156.3	10.9	27.1	984.2	802.7	133.7	47.8
III	1,538.7	539.7	354.7	302.5	5.9	46.3	185.0	149.0	11.7	24.4	999.0	813.8	136.5	48.8
IV	1,554.8	546.7	352.9	303.4	5.1	44.4	193.8	156.5	11.6	25.7	1,008.1	822.2	136.1	49.8
1999: I	1,589.1	557.4	355.8	304.6	5.4	45.8	201.6	162.4	11.7	27.4	1,031.8	832.4	148.9	50.5
II	1,605.9	561.6	354.3	300.8	5.3	48.2	207.3	164.4	10.8	32.1	1,044.3	848.4	144.4	51.5
III	1,637.2	569.8	365.4	312.1	5.2	48.2	204.4	162.9	11.4	30.1	1,067.4	866.5	147.8	53.0
IV[P]	1,682.6	594.6	383.4	326.1	5.3	52.0	211.2	166.7	11.2	33.3	1,088.0	881.8	151.7	54.5

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–19.—*Real government consumption expenditures and gross investment by type, 1987–99*

[Billions of chained (1996) dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Government consumption expenditures and gross investment													
	Total	Federal									State and local			
		Total	National defense				Nondefense							
			Total	Consumption expenditures	Gross investment		Total	Consumption expenditures	Gross investment		Total	Consumption expenditures	Gross investment	
					Structures	Equipment and software			Structures	Equipment and software			Structures	Equipment and software
1987	1,290.9	597.5	450.2	373.2	11.2	65.7	146.3	125.1	11.6	10.6	694.4	576.1	99.9	20.3
1988	1,306.1	586.7	446.8	376.1	10.4	60.7	138.7	119.0	8.6	11.7	720.3	595.6	104.3	21.9
1989	1,341.8	594.5	443.3	372.4	8.3	62.6	150.3	129.4	8.3	13.2	748.1	616.5	106.5	26.0
1990	1,385.5	606.6	443.2	369.7	7.7	65.4	162.8	139.8	9.3	14.2	779.6	637.4	114.5	28.4
1991	1,402.8	604.8	438.4	369.5	5.7	62.9	165.9	140.9	10.4	15.0	798.4	652.9	118.3	28.1
1992	1,410.7	595.2	417.1	350.6	6.3	60.0	178.0	150.1	11.6	16.5	815.8	668.4	118.7	29.4
1993	1,398.1	571.9	394.7	336.1	5.7	52.8	177.2	147.7	12.4	17.2	826.5	679.9	116.1	31.0
1994	1,399.4	551.2	375.9	320.5	6.2	49.2	175.4	147.9	11.2	16.5	848.3	696.9	117.0	34.6
1995	1,405.9	536.4	361.9	308.7	6.5	46.8	174.5	145.6	11.1	17.9	869.5	710.9	120.9	37.8
1996	1,421.9	531.6	357.0	302.4	6.7	47.9	174.6	142.9	11.1	20.5	890.4	726.5	122.5	41.3
1997	1,455.1	530.9	348.3	299.4	5.5	43.2	182.7	149.6	9.4	23.7	924.1	749.8	128.4	45.9
1998	1,480.3	526.1	341.7	291.4	5.1	45.3	184.4	147.3	10.6	26.7	953.9	775.1	127.5	51.8
1999*p*	1,534.6	541.3	348.1	293.5	4.8	50.2	193.1	151.3	10.3	32.2	993.0	801.1	135.2	57.6
1994: I	1,387.3	550.7	373.3	320.1	5.9	47.4	177.4	150.4	11.2	16.1	836.7	690.7	112.7	33.5
II	1,389.7	545.1	374.5	319.2	6.0	49.4	170.6	144.0	10.4	16.3	844.8	695.2	115.4	34.3
III	1,416.8	563.1	387.8	328.2	6.5	53.0	175.3	148.0	10.6	16.9	853.9	699.1	120.0	35.0
IV	1,403.9	546.0	367.8	314.5	6.3	47.0	178.2	149.3	12.5	16.6	858.0	702.6	119.7	35.8
1995: I	1,406.8	544.0	366.9	312.2	7.1	47.6	177.2	147.0	11.9	18.3	862.8	706.6	119.9	36.4
II	1,413.5	544.2	367.0	312.2	6.2	48.5	177.2	147.9	11.1	18.4	869.3	709.3	122.7	37.4
III	1,410.4	540.4	363.3	311.8	6.0	45.5	177.0	148.4	11.2	17.5	870.0	711.7	120.2	38.2
IV	1,393.2	517.1	350.4	298.5	6.5	45.4	166.8	139.1	10.3	17.4	876.1	716.1	120.7	39.3
1996: I	1,404.4	529.0	356.4	300.5	6.7	49.1	172.7	141.9	11.3	19.5	875.4	715.2	120.2	40.0
II	1,430.2	540.1	363.0	305.2	7.3	50.6	177.2	144.1	12.0	21.1	890.1	726.8	122.4	40.8
III	1,422.1	529.5	355.4	300.6	6.5	48.4	174.1	142.0	11.4	20.6	892.6	729.3	121.6	41.8
IV	1,431.0	527.7	353.3	303.2	6.3	43.7	174.4	143.6	9.9	20.9	903.4	734.9	125.7	42.7
1997: I	1,437.0	523.9	342.9	296.9	5.7	40.1	181.0	148.6	10.0	22.4	913.1	740.4	128.6	44.1
II	1,457.1	536.4	350.8	303.4	5.4	41.9	185.5	150.6	9.7	25.4	920.7	747.2	128.3	45.3
III	1,463.3	534.6	350.7	300.3	5.5	44.8	183.9	150.2	10.1	23.6	928.6	753.0	129.1	46.6
IV	1,463.0	528.8	348.6	297.1	5.5	46.1	180.2	148.9	8.0	23.5	934.1	758.7	127.8	47.8
1998: I	1,459.2	515.4	332.7	285.0	5.4	42.4	182.6	147.6	10.3	24.9	943.6	766.2	128.1	49.6
II	1,480.7	530.1	341.6	293.4	4.8	43.4	188.4	149.8	10.3	28.7	950.5	772.8	126.9	51.1
III	1,485.3	527.0	347.5	293.6	5.5	48.6	179.6	142.9	11.0	25.9	958.1	777.8	128.3	52.5
IV	1,495.9	532.0	344.9	293.6	4.8	46.8	187.1	149.1	10.8	27.5	963.6	783.7	126.6	54.0
1999: I	1,514.6	531.4	341.4	289.5	5.0	47.2	189.9	150.8	10.9	28.6	982.9	790.4	137.8	55.2
II	1,519.5	534.2	339.2	284.9	4.9	49.9	194.9	152.1	9.9	33.7	985.1	797.3	132.1	56.6
III	1,536.5	539.7	348.3	294.0	4.7	50.0	191.3	149.8	10.4	31.8	996.6	804.9	134.1	58.6
IV*p*	1,567.7	560.1	363.7	305.7	4.8	53.8	196.4	152.4	10.1	34.9	1,007.5	811.7	136.9	60.1

Note.—See Table B–2 for data for total Government consumption expenditures and gross investment for 1959–86.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–20.—*Private inventories and final sales of domestic business, 1959–99*

[Billions of dollars, except as noted; seasonally adjusted]

Quarter	Private inventories[1]							Final sales of domestic business[3]	Ratio of private inventories to final sales of domestic business	
	Total[2]	Farm	Nonfarm							
			Total[2]	Manufacturing	Wholesale trade	Retail trade	Other		Total	Nonfarm
Fourth quarter:										
1959	121.4	30.6	90.8	47.7	16.5	20.5	6.1	36.5	3.33	2.49
1960	125.0	31.4	93.5	48.7	16.9	21.9	6.1	37.7	3.31	2.48
1961	128.2	33.0	95.2	50.1	17.3	21.3	6.6	39.5	3.24	2.41
1962	135.3	34.9	100.5	53.2	18.0	22.7	6.6	41.9	3.23	2.40
1963	137.7	32.2	105.5	55.1	19.5	23.9	7.1	44.5	3.09	2.37
1964	143.1	30.8	112.2	58.6	20.8	25.2	7.7	47.5	3.01	2.36
1965	157.2	35.0	122.2	63.4	22.5	28.0	8.3	52.5	2.99	2.33
1966	173.7	35.4	138.3	73.0	25.8	30.6	8.9	55.7	3.12	2.48
1967	184.0	35.0	149.1	79.9	28.1	30.9	10.1	59.2	3.11	2.52
1968	197.4	38.1	159.3	85.1	29.3	34.2	10.6	65.1	3.03	2.45
1969	215.8	41.2	174.6	92.6	32.5	37.5	12.0	69.4	3.11	2.52
1970	222.9	39.6	183.3	95.5	36.4	38.5	12.9	73.1	3.05	2.51
1971	240.6	46.3	194.4	96.6	39.4	44.7	13.7	79.6	3.02	2.44
1972	266.7	56.9	209.9	102.1	43.1	49.8	14.8	88.7	3.01	2.37
1973	322.7	73.4	249.4	121.5	51.7	58.4	17.7	97.8	3.30	2.55
1974	382.3	64.2	318.1	162.6	66.9	63.9	24.7	105.8	3.61	3.01
1975	387.3	68.3	319.0	162.2	66.5	64.4	25.9	118.5	3.27	2.69
1976	419.3	65.1	354.2	178.7	74.1	73.0	28.5	130.3	3.22	2.72
1977	462.7	71.3	391.4	193.2	84.0	80.9	33.3	145.6	3.18	2.69
1978	546.8	95.1	451.7	219.8	99.0	94.1	38.8	168.3	3.25	2.68
1979	644.7	112.1	532.6	261.8	119.5	104.7	46.6	187.3	3.44	2.84
1980	710.7	112.1	598.7	293.4	139.4	111.7	54.1	205.8	3.45	2.91
1981	754.9	103.2	651.7	313.1	148.8	123.2	66.6	223.0	3.39	2.92
1982	752.1	109.5	642.6	304.6	147.9	123.2	66.8	234.2	3.21	2.74
1983	769.6	104.5	665.1	308.9	153.4	137.6	65.2	257.2	2.99	2.59
1984	845.5	108.0	737.6	344.5	169.1	157.0	66.9	279.2	3.03	2.64
1985	856.5	106.3	750.2	333.3	175.9	171.4	69.5	300.2	2.85	2.50
1986	839.4	94.3	745.1	320.6	182.0	176.2	66.3	318.5	2.64	2.34
1987	901.0	96.6	804.4	339.6	195.8	199.1	69.9	336.5	2.68	2.39
1988	968.8	99.7	869.1	372.4	213.9	213.2	69.5	366.0	2.65	2.37
1989	1,016.3	101.6	914.7	390.5	222.8	231.4	70.1	388.5	2.62	2.35
1990	1,054.5	105.7	948.9	404.5	236.8	236.6	71.0	406.2	2.60	2.34
1991	1,028.0	94.0	934.0	384.1	239.2	240.2	70.5	417.5	2.46	2.24
1992	1,052.0	102.4	949.5	377.6	248.3	249.4	74.3	446.6	2.36	2.13
1993	1,082.8	99.1	983.7	380.1	258.6	268.6	76.5	470.0	2.30	2.09
1994: I	1,097.4	104.7	992.7	383.4	259.3	272.3	77.7	474.3	2.31	2.09
II	1,114.4	99.4	1,015.0	389.3	265.3	281.7	78.7	481.0	2.32	2.11
III	1,132.4	98.9	1,033.4	395.1	272.0	287.3	79.0	489.3	2.31	2.11
IV	1,163.0	102.9	1,060.0	404.3	281.5	293.6	80.6	496.8	2.34	2.13
1995: I	1,196.2	104.1	1,092.1	417.0	290.9	301.5	82.7	503.1	2.38	2.17
II	1,211.7	99.5	1,112.2	422.9	297.4	308.1	83.7	508.4	2.38	2.19
III	1,213.5	94.4	1,119.1	425.1	301.1	310.0	82.9	517.1	2.35	2.16
IV	1,222.4	96.3	1,126.1	424.5	303.7	312.2	85.6	523.7	2.33	2.15
1996: I	1,223.0	95.8	1,127.2	424.9	305.4	309.2	87.8	531.8	2.30	2.12
II	1,235.6	104.1	1,131.5	423.3	306.2	313.8	88.1	541.7	2.28	2.09
III	1,247.5	107.7	1,139.8	425.9	305.3	320.3	88.3	545.5	2.29	2.09
IV	1,251.5	103.4	1,148.1	428.9	305.2	322.0	92.1	556.3	2.25	2.06
1997: I	1,262.4	106.5	1,155.9	432.8	310.0	321.7	91.5	565.5	2.23	2.04
II	1,279.2	107.9	1,171.3	437.8	317.3	323.0	93.3	572.4	2.23	2.05
III	1,294.4	109.0	1,185.3	441.4	322.0	326.4	95.5	583.1	2.22	2.03
IV	1,307.5	107.2	1,200.3	445.4	326.7	331.2	97.0	588.5	2.22	2.04
1998: I	1,321.8	108.0	1,213.7	448.7	330.6	336.4	98.0	598.0	2.21	2.03
II	1,322.4	100.6	1,221.8	452.0	332.0	335.9	101.9	607.7	2.18	2.01
III	1,326.6	92.3	1,234.3	453.9	338.1	339.4	103.0	613.2	2.16	2.01
IV	1,334.5	92.4	1,242.1	450.5	341.8	344.0	105.7	624.7	2.14	1.99
1999: I	1,345.7	99.3	1,246.4	448.2	340.9	347.3	109.9	634.8	2.12	1.96
II	1,360.1	98.9	1,261.3	451.1	345.1	351.1	113.9	642.6	2.12	1.96
III	1,386.1	96.7	1,289.4	458.3	355.6	358.1	117.3	651.8	2.13	1.98
IV*p*	1,408.0	95.2	1,312.8	463.8	361.9	368.9	118.3	663.1	2.12	1.98

[1] Inventories at end of quarter. Quarter-to-quarter change calculated from this table is not the current-dollar change in private inventories 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 change in private inventories 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 of general government and includes a small amount of final sales by farms.

Note.—The industry classification of inventories is on an establishment basis. Estimates for nonfarm industries other than manufacturing and trade for 1986 and earlier periods are based on the 1972 Standard Industrial Classification (SIC). Manufacturing estimates for 1981 and earlier periods and trade estimates for 1966 and earlier periods are based on the 1972 SIC; later estimates for these industries are based on the 1987 SIC. The resulting discontinuities are small.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–21.—*Real private inventories and final sales of domestic business, 1987–99*

[Billions of chained (1996) dollars, except as noted; seasonally adjusted]

Quarter	Private inventories[1]							Final sales of domestic business[3]	Ratio of private inventories to final sales of domestic business	
	Total[2]	Farm	Nonfarm							
			Total[2]	Manufacturing	Wholesale trade	Retail trade	Other		Total	Nonfarm
Fourth quarter:										
1987	1,024.1	110.7	911.7	361.6	228.6	239.7	81.6	421.1	2.43	2.16
1988	1,042.5	96.5	945.4	378.5	238.5	247.4	80.4	441.4	2.36	2.14
1989	1,072.1	96.6	975.2	392.7	243.2	261.9	76.8	452.7	2.37	2.15
1990	1,088.6	99.2	989.0	401.6	252.2	260.2	73.8	455.6	2.39	2.17
1991	1,087.6	96.9	990.4	394.9	257.3	260.8	76.8	457.5	2.38	2.16
1992	1,104.7	103.1	1,001.1	390.1	266.2	265.4	79.1	480.5	2.30	2.08
1993	1,124.6	95.2	1,029.8	393.7	273.1	280.8	81.9	492.8	2.28	2.09
1994: I	1,136.6	99.3	1,037.3	396.4	273.2	284.8	82.8	495.5	2.29	2.09
II	1,158.0	103.9	1,054.0	399.5	278.0	292.3	84.2	500.5	2.31	2.11
III	1,172.1	107.1	1,065.0	402.1	282.7	296.1	84.0	505.9	2.32	2.11
IV	1,191.5	108.1	1,083.3	405.8	290.2	301.4	85.9	511.5	2.33	2.12
1995: I	1,207.0	106.7	1,100.3	411.1	295.5	307.0	86.7	514.5	2.35	2.14
II	1,215.1	103.0	1,112.1	415.0	299.3	311.4	86.4	517.8	2.35	2.15
III	1,217.4	97.2	1,120.1	418.1	302.7	312.7	86.5	524.4	2.32	2.14
IV	1,221.9	95.9	1,126.0	419.9	304.5	313.6	88.0	529.3	2.31	2.13
1996: I	1,223.3	95.8	1,127.5	424.2	305.4	309.9	87.9	535.0	2.29	2.11
II	1,230.8	98.7	1,132.1	423.3	306.7	313.8	88.3	542.6	2.27	2.09
III	1,243.6	102.9	1,140.7	426.8	305.2	319.6	88.9	544.4	2.28	2.10
IV	1,251.9	103.7	1,148.1	430.0	307.7	321.0	89.5	553.4	2.26	2.07
1997: I	1,264.7	102.5	1,162.3	435.7	313.7	320.3	92.5	559.4	2.26	2.08
II	1,288.0	104.3	1,183.7	443.1	322.5	323.0	95.1	563.9	2.28	2.10
III	1,302.8	105.9	1,196.8	447.4	326.4	326.5	96.7	572.9	2.27	2.09
IV	1,321.0	106.7	1,214.3	452.1	332.0	331.7	98.4	576.9	2.29	2.10
1998: I	1,347.8	107.5	1,240.2	461.6	339.2	337.0	102.4	585.0	2.30	2.12
II	1,358.6	104.9	1,253.5	468.6	342.7	336.2	106.2	593.3	2.29	2.11
III	1,377.6	104.4	1,272.9	474.2	351.2	339.0	108.9	597.0	2.31	2.13
IV	1,395.3	107.6	1,287.4	477.2	355.4	342.9	112.3	607.4	2.30	2.12
1999: I	1,407.8	109.4	1,298.2	477.2	357.8	347.2	116.2	615.0	2.29	2.11
II	1,411.3	109.7	1,301.4	475.1	360.6	348.7	117.2	620.7	2.27	2.10
III	1,420.8	108.7	1,311.7	475.5	366.9	352.2	117.2	628.3	2.26	2.09
IV[p]	1,437.1	106.9	1,329.6	478.1	371.1	361.9	118.4	636.1	2.26	2.09

[1] Inventories at end of quarter. Quarter-to-quarter changes calculated from this table are at quarterly rates, whereas the change in private 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 of general government and includes a small amount of final sales by farms.

Note.—The industry classification of inventories is on an establishment basis. Estimates for nonfarm industries other than manufacturing and trade for 1986 and earlier periods are based on the 1972 Standard Industrial Classification (SIC). Manufacturing estimates for 1981 and earlier periods and trade estimates for 1966 and earlier periods are based on the 1972 SIC; later estimates for these industries are based on the 1987 SIC. The resulting discontinuities are small.

See *Survey of Current Business*, Table 5.13, for detailed information on calculation of the chained (1996) dollar inventory series.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–22.—*Foreign transactions in the national income and product accounts, 1959–99*

[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	Exports of goods and services			Income receipts	Total	Imports of goods and services			Income payments	Transfer payments (net)				Net foreign investment
		Total	Goods[1]	Services[1]			Total	Goods[1]	Services[1]		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	2.4	0.5	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	.5	1.8	.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	.7	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	3.0	.7	2.1	.2	7.5
1965	43.5	35.4	27.8	7.6	8.1	43.5	31.5	22.2	9.3	2.7	3.0	.8	2.0	.2	6.2
1966	47.2	38.9	30.7	8.2	8.3	47.2	37.1	26.3	10.7	3.1	3.2	.8	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	3.4	1.0	2.1	.2	3.5
1968	55.6	45.3	35.3	10.0	10.3	55.6	46.6	33.9	12.6	4.1	3.2	1.0	1.9	.3	1.7
1969	61.2	49.3	38.3	11.0	11.9	61.2	50.5	36.8	13.7	5.8	3.2	1.1	1.8	.3	1.8
1970	69.9	57.0	44.5	12.4	13.0	69.9	55.8	40.9	14.9	6.6	3.6	1.3	1.9	.4	4.0
1971	73.4	59.3	45.6	13.8	14.1	73.4	62.3	46.6	15.8	6.4	4.1	1.3	2.3	.4	.6
1972	82.6	66.2	51.8	14.4	16.4	82.6	74.2	56.9	17.3	7.7	4.3	1.4	2.5	.5	–3.6
1973	115.6	91.8	73.9	17.8	23.8	115.6	91.2	71.8	19.3	11.1	4.6	1.5	2.4	.7	8.7
1974	154.6	124.3	101.0	23.3	30.3	154.6	127.5	104.5	22.9	14.6	5.4	1.3	3.1	1.0	7.1
1975	164.4	136.3	109.6	26.7	28.2	164.4	122.7	99.0	23.7	14.9	5.4	1.3	3.4	.7	21.4
1976	181.7	148.9	117.8	31.1	32.9	181.7	151.1	124.6	26.5	15.7	6.0	1.3	3.6	1.1	8.9
1977	196.6	158.8	123.7	35.1	37.9	196.6	182.4	152.6	29.8	17.2	6.0	1.3	3.3	1.4	–9.0
1978	233.5	186.1	145.4	40.7	47.4	233.5	212.3	177.4	34.8	25.3	6.4	1.5	3.6	1.4	–10.4
1979	299.1	228.7	184.0	44.7	70.4	299.1	252.7	212.8	39.9	37.5	7.5	1.6	3.9	2.0	1.4
1980	360.7	278.9	225.8	53.2	81.8	360.7	293.8	248.6	45.3	46.5	9.0	1.8	4.8	2.4	11.4
1981	398.4	302.8	239.1	63.7	95.6	398.4	317.8	267.8	49.9	60.9	13.4	5.5	4.8	3.2	6.3
1982	385.0	282.6	215.0	67.6	102.4	385.0	303.2	250.5	52.6	65.9	16.1	6.5	6.1	3.4	–.2
1983	379.5	277.0	207.3	69.7	102.5	379.5	328.6	272.7	56.0	65.6	17.2	6.8	7.0	3.4	–32.0
1984	426.0	303.1	225.6	77.5	122.9	426.0	405.1	336.3	68.8	87.6	20.3	7.7	9.1	3.5	–87.0
1985	416.1	303.0	222.2	80.8	113.1	416.1	417.2	343.3	73.9	87.8	22.1	8.1	11.1	2.9	–110.9
1986	431.4	320.3	226.0	94.3	111.1	431.4	452.2	370.0	82.2	95.6	24.2	9.0	12.1	3.2	–140.6
1987	488.5	365.6	257.5	108.1	122.9	488.5	507.9	414.8	93.1	109.2	23.4	9.9	10.2	3.4	–152.0
1988	598.7	446.9	325.8	121.1	151.8	598.7	553.2	452.1	101.1	133.4	25.4	10.6	10.3	4.5	–113.2
1989	686.2	509.0	371.7	137.3	177.2	686.2	589.7	484.5	105.2	156.8	26.3	11.4	10.4	4.6	–86.7
1990	745.5	557.2	398.5	158.6	188.3	745.5	628.6	508.0	120.6	159.3	26.8	12.0	10.0	4.8	–69.2
1991	769.3	601.6	426.4	175.2	167.7	769.3	622.3	500.7	121.6	143.0	–11.0	13.0	–29.0	5.0	14.9
1992	787.8	636.8	448.7	188.1	151.1	787.8	664.6	544.9	119.8	127.6	34.2	12.5	16.2	5.5	–38.7
1993	812.5	658.0	459.7	198.3	154.4	812.5	718.5	592.8	125.7	130.1	36.8	14.4	16.7	5.7	–72.9
1994	909.3	725.1	509.6	215.5	184.3	909.3	812.1	676.7	135.4	167.5	38.0	15.6	15.3	7.1	–108.3
1995	1,050.8	818.6	583.8	234.7	232.3	1,050.8	902.8	757.6	145.2	211.9	34.0	16.5	9.8	7.7	–98.0
1996	1,119.7	874.2	618.4	255.8	245.6	1,119.7	963.1	808.3	154.8	227.5	39.8	18.2	13.6	8.0	–110.7
1997	1,250.6	968.0	689.0	279.0	282.6	1,250.6	1,056.3	885.1	171.2	278.4	39.6	20.6	10.0	9.0	–123.7
1998	1,251.6	966.3	681.3	285.1	285.3	1,251.6	1,115.9	930.4	185.5	295.2	42.0	22.3	10.4	9.3	–201.5
1999[p]	.....	996.3	697.5	298.8	.....	.....	1,253.1	1,048.9	204.2	.....	44.7	24.4	10.5	9.8	.....
1994: I	847.8	683.8	475.8	208.0	164.0	847.8	755.1	622.0	133.0	143.3	32.0	15.3	10.2	6.5	–82.6
II	889.7	714.5	499.5	215.0	175.2	889.7	798.7	664.6	134.1	158.5	34.0	15.5	11.8	6.8	–101.6
III	927.2	736.1	518.8	217.3	191.1	927.2	835.2	698.2	137.0	176.0	37.5	15.7	14.6	7.2	–121.6
IV	972.6	765.8	544.3	221.5	206.8	972.6	859.6	722.0	137.6	191.9	48.4	15.9	24.7	7.8	–127.3
1995: I	1,011.9	787.7	563.6	224.1	224.2	1,011.9	882.2	740.4	141.8	202.8	34.3	15.9	10.5	7.9	–107.5
II	1,037.0	802.5	574.3	228.2	234.5	1,037.0	911.5	766.9	144.6	209.2	32.3	15.6	9.3	7.4	–116.1
III	1,065.7	834.1	593.0	241.1	231.6	1,065.7	908.3	761.9	146.4	220.4	33.7	16.4	9.5	7.8	–96.7
IV	1,088.7	850.0	604.4	245.6	238.7	1,088.7	909.3	761.5	147.8	215.3	35.7	18.0	10.0	7.7	–71.6
1996: I	1,092.4	853.3	607.8	245.5	239.1	1,092.4	929.1	778.6	150.5	212.3	41.7	17.4	16.8	7.5	–90.7
II	1,102.4	864.7	611.4	253.3	237.7	1,102.4	954.5	801.9	152.6	220.0	34.6	18.0	8.6	8.1	–106.7
III	1,111.2	865.6	615.4	250.1	245.6	1,111.2	976.1	818.6	157.5	234.1	35.4	18.2	9.0	8.2	–134.5
IV	1,172.9	913.1	639.0	274.0	259.8	1,172.9	992.8	834.3	158.5	243.5	47.6	19.3	19.9	8.4	–111.0
1997: I	1,198.5	929.6	659.4	270.2	268.9	1,198.5	1,017.3	852.3	165.0	263.7	34.8	19.6	6.7	8.5	–117.3
II	1,250.2	965.3	685.7	279.6	284.9	1,250.2	1,042.8	874.1	168.7	275.4	35.8	19.8	7.1	8.9	–103.7
III	1,279.4	988.6	704.8	283.8	290.9	1,279.4	1,079.2	904.3	174.9	288.9	38.1	21.5	7.4	9.2	–126.7
IV	1,274.3	988.6	706.0	282.6	285.7	1,274.3	1,086.0	909.7	176.3	285.5	49.8	21.7	18.8	9.3	–146.9
1998: I	1,265.4	974.3	692.8	281.5	291.1	1,265.4	1,091.7	912.8	178.9	288.0	37.9	21.1	7.6	9.1	–152.1
II	1,253.0	960.1	671.8	288.2	292.9	1,253.0	1,114.0	928.9	185.1	292.9	37.4	21.8	6.2	9.3	–191.4
III	1,225.5	949.1	667.2	281.9	276.4	1,225.5	1,114.8	927.2	187.7	302.0	41.3	22.9	9.1	9.3	–232.6
IV	1,262.7	981.8	693.3	288.6	280.8	1,262.7	1,143.1	952.6	190.4	297.9	51.6	23.3	18.7	9.6	–229.9
1999: I	1,250.7	966.9	674.3	292.6	283.8	1,250.7	1,168.5	974.3	194.2	298.2	39.7	23.5	6.8	9.5	–255.7
II	1,274.3	978.2	680.5	297.7	296.1	1,274.3	1,224.0	1,022.3	201.7	310.4	43.6	24.6	9.2	9.8	–303.7
III	1,316.2	1,008.5	708.8	299.7	307.7	1,316.2	1,286.6	1,079.3	207.4	323.2	42.7	24.5	8.5	9.8	–336.3
IV[p]	.....	1,031.5	726.5	305.0	.....	.....	1,333.3	1,119.9	213.4	.....	52.8	25.1	17.6	10.1	.....

[1] Certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services. Beginning with 1986, repairs and alterations of equipment were reclassified from goods to services.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–23.—*Real exports and imports of goods and services and receipts and payments of income, 1987–99*

[Billions of chained (1996) dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Exports of goods and services					Income receipts	Imports of goods and services					Income payments
	Total	Goods [1]			Services [1]		Total	Goods [1]			Services [1]	
		Total	Durable goods	Nondurable goods				Total	Durable goods	Nondurable goods		
1987	406.6	271.4	154.7	123.0	137.5	161.6	564.2	445.8	267.9	181.5	120.2	142.3
1988	472.2	322.6	191.9	135.6	150.5	192.6	585.6	463.9	279.1	188.5	123.4	168.1
1989	527.6	363.2	221.3	146.3	164.7	215.7	608.8	483.4	291.2	195.9	126.9	189.7
1990	573.6	393.2	243.0	154.0	181.2	219.2	632.2	497.9	299.2	202.7	136.6	184.6
1991	612.6	421.1	261.6	163.3	192.2	188.4	629.0	497.6	300.9	200.5	133.4	160.7
1992	652.1	449.8	280.8	172.7	202.8	165.1	670.8	543.7	331.9	215.5	128.0	140.4
1993	671.9	463.4	295.2	170.6	209.0	164.6	731.8	598.4	370.9	230.8	134.0	138.5
1994	731.8	508.2	330.5	178.9	224.0	191.9	819.4	677.9	432.2	247.4	141.9	174.2
1995	807.4	568.8	378.0	191.0	238.8	236.5	886.6	739.1	481.7	257.8	147.7	215.5
1996	874.2	618.4	421.7	196.7	255.8	245.6	963.1	808.3	533.3	275.1	154.8	227.5
1997	985.4	708.1	498.3	209.9	277.5	278.1	1,095.2	923.2	619.8	303.5	172.1	274.4
1998	1,007.1	722.8	513.5	209.3	284.4	279.2	1,222.2	1,031.6	700.2	331.6	190.7	289.6
1999 *p*	1,042.5	750.3	535.5	214.7	292.6	.....	1,367.0	1,162.7	803.4	359.5	205.2	.....
1994: I	695.7	478.0	310.7	168.5	218.3	172.6	776.8	636.1	400.3	238.2	141.4	151.1
II	724.0	500.0	327.0	173.8	224.5	183.2	811.3	669.5	424.8	246.6	142.3	166.0
III	741.4	516.8	335.3	182.8	224.9	198.3	834.6	692.8	440.1	254.6	142.1	182.3
IV	766.2	538.0	348.9	190.4	228.4	213.4	854.8	713.3	463.5	250.4	141.6	197.5
1995: I	779.7	549.8	360.9	189.6	229.9	230.0	873.1	725.5	472.2	253.7	147.9	207.7
II	788.1	556.5	368.9	187.9	231.7	239.2	886.4	740.3	481.6	259.2	146.2	213.1
III	821.2	576.7	385.1	191.7	244.6	235.3	889.1	742.1	481.1	261.7	147.1	223.6
IV	840.8	592.0	397.2	194.8	248.9	241.3	897.8	748.4	492.0	256.5	149.4	217.5
1996: I	845.6	599.2	403.0	196.2	246.4	240.5	921.1	769.7	508.0	261.7	151.5	213.3
II	859.8	605.5	413.3	192.2	254.3	238.4	950.4	797.4	524.4	273.1	153.0	220.6
III	867.1	617.2	423.9	193.3	249.9	245.3	982.9	825.6	544.8	280.8	157.3	233.9
IV	924.2	651.7	446.6	205.2	272.4	258.1	998.1	840.7	556.0	284.7	157.3	242.2
1997: I	943.9	674.0	469.2	204.8	269.9	265.6	1,034.7	869.8	584.5	285.5	164.9	261.0
II	979.9	702.9	494.8	208.1	277.1	280.9	1,080.8	912.6	611.2	301.5	168.3	271.7
III	1,006.8	724.7	515.0	209.8	282.3	285.9	1,125.5	949.1	635.9	313.3	176.4	284.5
IV	1,011.2	731.0	514.3	216.7	280.5	280.1	1,139.9	961.2	647.7	313.6	178.7	280.3
1998: I	1,007.3	725.9	515.6	210.3	281.7	285.5	1,179.0	993.2	673.1	320.4	185.8	283.4
II	997.2	709.3	501.8	207.5	287.7	286.9	1,215.6	1,025.5	693.3	332.5	190.1	287.7
III	993.0	712.0	507.5	204.4	281.1	270.3	1,231.0	1,037.9	700.7	337.5	193.1	295.8
IV	1,030.8	744.2	529.3	214.9	287.0	274.0	1,263.1	1,069.7	733.7	336.0	193.8	291.3
1999: I	1,016.4	726.4	518.2	208.1	289.9	276.0	1,300.9	1,102.0	753.6	348.5	199.4	290.7
II	1,026.4	734.1	522.8	211.2	292.2	286.6	1,345.4	1,142.5	787.4	355.0	203.7	301.1
III	1,054.8	763.3	548.2	214.9	292.2	296.5	1,393.0	1,188.9	825.3	363.8	205.5	311.8
IV *p*	1,072.4	777.4	552.9	224.4	295.9	.....	1,428.6	1,217.4	847.2	370.6	212.4	.....

[1] Certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services. Beginning with 1986, repairs and alterations of equipment were reclassified from goods to services.

Note.—See Table B–2 for data for total exports of goods and services and total imports of goods and services for 1959–86.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–24.—*Relation of gross domestic product, gross national product, net national product, and national income, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Plus: Income receipts from rest of the world	Less: Income payments to rest of the world	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
					Total	Private	Government		Indirect business tax and nontax liability	Business transfer payments	Statistical discrepancy		
1959	507.4	4.3	1.5	510.3	54.8	40.2	14.6	455.5	41.9	1.4	0.8	0.1	411.5
1960	527.4	5.0	1.8	530.6	57.0	41.8	15.2	473.6	45.5	1.4	–.6	.2	427.5
1961	545.7	5.4	1.8	549.3	58.6	42.8	15.7	490.7	48.1	1.5	–.2	1.2	442.5
1962	586.5	6.1	1.8	590.7	61.0	44.4	16.7	529.7	51.7	1.6	.7	1.4	477.1
1963	618.7	6.6	2.1	623.2	63.7	46.0	17.6	559.6	54.7	1.8	–.4	.9	504.3
1964	664.4	7.4	2.4	669.4	66.7	48.5	18.3	602.7	58.8	2.0	1.2	1.4	542.0
1965	720.1	8.1	2.7	725.5	70.9	51.8	19.1	654.6	62.7	2.2	1.9	1.7	589.5
1966	789.3	8.3	3.1	794.5	76.7	56.5	20.2	717.8	65.4	2.3	6.4	3.0	646.6
1967	834.1	8.9	3.4	839.5	83.3	61.6	21.7	756.3	70.4	2.5	4.8	2.9	681.5
1968	911.5	10.3	4.1	917.6	91.1	67.6	23.4	826.5	79.0	2.8	4.3	3.0	743.4
1969	985.3	11.9	5.8	991.5	100.0	74.8	25.2	891.5	86.6	3.1	2.9	3.5	802.4
1970	1,039.7	13.0	6.6	1,046.1	109.4	82.2	27.3	936.7	94.3	3.2	6.9	4.8	837.1
1971	1,128.6	14.1	6.4	1,136.2	119.3	90.1	29.2	1,017.0	103.6	3.4	11.3	4.9	903.5
1972	1,240.4	16.4	7.7	1,249.1	131.3	99.8	31.5	1,117.8	111.4	3.9	8.7	6.1	1,000.0
1973	1,385.5	23.8	11.1	1,398.2	143.3	109.6	33.8	1,254.9	121.0	4.5	8.0	5.6	1,127.0
1974	1,501.0	30.3	14.6	1,516.7	165.3	127.3	37.9	1,351.5	129.3	5.0	10.0	4.2	1,211.5
1975	1,635.2	28.2	14.9	1,648.4	191.4	149.6	41.8	1,457.0	140.0	5.2	17.7	7.7	1,301.8
1976	1,823.9	32.9	15.7	1,841.0	209.4	165.0	44.4	1,631.6	151.6	6.5	24.5	6.9	1,455.9
1977	2,031.4	37.9	17.2	2,052.1	232.0	184.8	47.2	1,820.1	165.5	7.3	21.6	9.7	1,635.4
1978	2,295.9	47.4	25.3	2,318.0	261.9	211.1	50.8	2,056.1	177.8	8.2	21.0	10.6	1,859.8
1979	2,566.4	70.4	37.5	2,599.3	301.0	245.5	55.5	2,298.3	188.7	9.9	35.7	11.0	2,075.0
1980	2,795.6	81.8	46.5	2,830.8	346.1	283.4	62.7	2,484.8	212.0	11.2	33.9	14.5	2,242.1
1981	3,131.3	95.6	60.9	3,166.1	395.8	324.8	71.0	2,770.2	249.3	13.4	27.5	16.1	2,496.1
1982	3,259.2	102.4	65.9	3,295.7	437.5	358.5	79.0	2,858.1	256.7	15.2	2.5	18.1	2,601.9
1983	3,534.9	102.5	65.6	3,571.8	457.2	373.8	83.3	3,114.6	280.3	16.2	47.0	24.3	2,795.4
1984	3,932.7	122.9	87.6	3,968.1	483.5	394.7	88.8	3,484.6	309.1	18.6	18.6	22.9	3,161.2
1985	4,213.0	113.1	87.8	4,238.4	517.7	423.7	94.0	3,720.7	329.4	20.7	11.7	20.4	3,379.2
1986	4,452.9	111.1	95.6	4,468.3	552.9	452.0	100.8	3,915.5	346.8	23.8	43.9	23.6	3,524.5
1987	4,742.5	122.9	109.2	4,756.2	587.4	479.6	107.8	4,168.8	369.3	24.2	3.3	30.1	3,802.0
1988	5,108.3	151.8	133.4	5,126.8	628.9	513.8	115.0	4,497.9	392.6	25.3	–42.2	27.4	4,149.6
1989	5,489.1	177.2	156.8	5,509.4	678.7	555.5	123.2	4,830.8	420.7	25.8	16.3	22.6	4,390.6
1990	5,803.2	188.3	159.3	5,832.2	712.5	580.7	131.8	5,119.7	447.3	26.1	30.6	25.3	4,640.9
1991	5,986.2	167.7	143.0	6,010.9	749.1	609.1	140.0	5,261.8	482.3	25.9	19.6	21.5	4,755.5
1992	6,318.9	151.1	127.6	6,342.3	788.7	643.4	145.3	5,553.7	510.6	28.1	43.7	22.4	4,993.7
1993	6,642.3	154.4	130.1	6,666.7	813.6	660.9	152.6	5,853.1	540.1	27.8	63.8	29.6	5,251.1
1994	7,054.3	184.3	167.5	7,071.1	875.7	715.3	160.3	6,195.5	575.3	30.8	58.5	25.2	5,556.1
1995	7,400.5	232.3	211.9	7,420.9	912.2	744.1	168.1	6,508.6	594.6	33.5	26.5	22.2	5,876.2
1996	7,813.2	245.6	227.5	7,831.2	956.4	782.1	174.3	6,874.9	620.0	34.4	32.8	22.6	6,210.2
1997	8,300.8	282.6	278.4	8,305.0	1,009.7	829.2	180.5	7,295.3	645.8	36.9	–3.2	19.0	6,634.9
1998	8,759.9	285.3	295.2	8,750.0	1,066.9	880.8	186.2	7,683.1	677.0	38.1	–47.6	20.8	7,036.4
1999 *p*	9,248.4	.....	.....	.....	1,141.2	945.3	195.9	.....	715.6	39.4	.....	26.4	.....
1994: I	6,887.8	164.0	143.3	6,908.5	916.4	758.0	158.4	5,992.1	565.3	29.5	52.7	27.6	5,372.1
II	7,015.7	175.2	158.5	7,032.4	849.4	690.3	159.1	6,183.0	572.2	30.3	81.3	25.1	5,524.3
III	7,096.0	191.1	176.0	7,111.1	862.1	701.3	160.8	6,249.0	578.7	31.2	54.6	23.6	5,608.2
IV	7,217.7	206.8	191.9	7,232.6	874.8	711.7	163.1	6,357.8	584.9	32.1	45.3	24.3	5,719.7
1995: I	7,297.5	224.2	202.8	7,318.9	890.2	724.8	165.5	6,428.6	589.3	33.0	53.7	21.8	5,774.4
II	7,342.6	234.5	209.2	7,367.9	904.7	737.3	167.3	6,463.2	594.1	33.1	24.9	22.0	5,833.1
III	7,432.8	231.6	220.4	7,444.1	916.3	747.4	168.9	6,527.8	593.6	33.9	3.1	22.5	5,919.6
IV	7,529.3	238.7	215.3	7,552.7	937.7	766.9	170.8	6,614.9	601.3	34.0	24.4	22.5	5,977.8
1996: I	7,629.6	239.1	212.3	7,656.5	937.9	765.6	172.3	6,718.6	606.8	33.6	34.4	23.3	6,067.1
II	7,782.7	237.7	220.0	7,800.3	948.3	775.0	173.3	6,852.0	613.2	34.3	49.6	22.9	6,177.8
III	7,859.0	245.6	234.1	7,870.5	962.8	787.8	175.0	6,907.7	615.7	34.6	25.1	22.0	6,254.2
IV	7,981.4	259.8	243.5	7,997.7	976.6	800.1	176.4	7,021.1	644.3	35.2	22.3	22.2	6,341.6
1997: I	8,125.9	268.9	263.7	8,131.1	989.1	810.9	178.2	7,142.0	632.5	35.9	20.9	20.9	6,473.6
II	8,259.5	284.9	275.4	8,269.1	1,002.1	822.2	179.9	7,267.0	643.0	36.7	23.9	18.5	6,581.9
III	8,364.5	290.9	288.9	8,366.5	1,016.6	835.6	181.0	7,349.9	652.0	37.3	–17.5	16.8	6,694.9
IV	8,453.0	285.7	285.5	8,453.3	1,031.0	848.0	183.0	7,422.3	655.4	37.7	–40.0	19.9	6,789.1
1998: I	8,610.6	291.1	288.0	8,613.7	1,042.0	858.2	183.8	7,571.7	663.5	37.6	1.4	18.0	6,887.2
II	8,683.7	292.9	292.9	8,683.7	1,056.5	871.7	184.8	7,627.1	670.1	38.0	–41.5	17.1	6,977.6
III	8,797.9	276.4	302.0	8,772.2	1,075.2	888.3	186.9	7,697.1	676.6	38.2	–87.9	16.9	7,087.1
IV	8,947.6	280.8	297.9	8,930.5	1,094.0	904.8	189.1	7,836.5	697.8	38.6	–62.4	31.4	7,193.8
1999: I	9,072.7	283.8	298.2	9,058.2	1,108.8	916.7	192.0	7,949.5	696.6	38.8	–99.4	21.0	7,334.5
II	9,146.2	296.1	310.4	9,131.9	1,126.3	931.8	194.5	8,005.6	706.7	39.3	–135.5	27.9	7,423.1
III	9,297.8	307.7	323.2	9,282.3	1,160.9	963.7	197.2	8,121.4	718.3	39.5	–141.2	17.3	7,522.1
IV *p*	9,477.1	.....	.....	.....	1,168.8	968.8	200.0	.....	740.6	40.0	.....	39.4	.....

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–25.—*Relation of national income and personal income, 1959–99*

[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	411.5	53.7	9.7	13.8	0.0	23.0	12.6	22.9	1.3	394.0
1960	427.5	52.3	10.7	16.4	.0	25.6	13.4	24.4	1.3	412.7
1961	442.5	53.4	12.4	17.0	.0	27.3	13.9	28.1	1.4	430.3
1962	477.1	61.5	14.1	19.1	.0	30.2	15.0	28.8	1.5	457.9
1963	504.3	67.6	15.2	21.7	.0	33.0	16.2	30.3	1.7	481.0
1964	542.0	74.7	17.3	22.4	.0	36.9	18.2	31.3	1.8	515.8
1965	589.5	85.9	19.7	23.4	.0	40.8	20.2	33.9	2.0	557.4
1966	646.6	91.8	22.6	31.3	.0	45.3	20.7	37.5	2.1	606.4
1967	681.5	89.4	25.4	34.9	.0	49.4	21.5	45.4	2.3	650.4
1968	743.4	96.3	27.2	38.7	.0	54.1	23.5	53.0	2.5	714.5
1969	802.4	93.4	32.2	44.1	.0	62.3	24.2	58.8	2.8	780.8
1970	837.1	81.3	38.4	46.4	.0	71.5	24.3	71.6	2.8	841.1
1971	903.5	94.8	42.6	51.2	.6	77.5	25.0	85.2	3.0	905.1
1972	1,000.0	109.4	46.2	59.2	.0	84.2	26.8	94.6	3.4	994.3
1973	1,127.0	123.5	53.9	75.5	–.1	97.6	29.9	108.1	3.8	1,113.4
1974	1,211.5	114.0	68.8	85.2	–.5	116.1	33.2	128.4	4.0	1,225.6
1975	1,301.8	132.5	76.6	89.3	.1	128.0	32.9	163.0	4.5	1,331.7
1976	1,455.9	160.1	80.8	101.3	.1	140.5	39.0	176.9	5.5	1,475.4
1977	1,635.4	190.5	95.7	113.1	.1	161.9	44.7	188.7	5.9	1,637.1
1978	1,859.8	216.8	114.5	131.3	.3	191.3	50.7	202.5	6.8	1,848.3
1979	2,075.0	221.9	144.2	152.7	–.2	233.5	57.4	226.4	7.9	2,081.5
1980	2,242.1	197.7	183.9	166.2	.0	286.4	64.0	270.2	8.8	2,323.9
1981	2,496.1	218.0	226.5	195.7	.1	352.7	73.6	307.0	10.2	2,599.4
1982	2,601.9	200.2	256.3	208.9	.0	401.6	76.1	342.3	11.8	2,768.4
1983	2,795.4	253.0	267.2	226.0	–.4	431.6	83.5	369.4	12.8	2,946.9
1984	3,161.2	308.7	309.6	257.5	.2	505.3	90.8	378.3	15.1	3,274.8
1985	3,379.2	321.3	326.7	281.4	–.2	546.4	97.5	403.1	17.8	3,515.0
1986	3,524.5	299.5	343.6	303.4	.0	579.2	106.1	428.4	20.7	3,712.4
1987	3,802.0	345.3	361.5	323.1	.0	609.7	112.1	447.8	20.8	3,962.5
1988	4,149.6	403.5	389.4	361.5	.0	650.5	129.4	476.1	20.8	4,272.1
1989	4,390.6	394.2	443.1	385.2	.0	736.5	154.8	519.2	21.1	4,599.8
1990	4,640.9	407.4	452.4	410.1	.1	772.4	165.4	573.1	21.3	4,903.2
1991	4,755.5	430.2	429.8	430.2	–.1	771.8	178.3	649.1	20.8	5,085.4
1992	4,993.7	451.9	399.5	455.0	–15.8	750.1	185.3	729.2	22.5	5,390.4
1993	5,251.1	509.7	374.3	477.8	6.4	725.5	203.0	776.5	22.1	5,610.0
1994	5,556.1	572.5	380.5	508.4	17.6	742.4	234.7	810.1	23.7	5,888.0
1995	5,876.2	668.3	389.8	533.2	16.4	792.5	254.0	860.1	25.8	6,200.9
1996	6,210.2	753.9	386.3	555.8	3.6	810.6	297.4	902.4	26.4	6,547.4
1997	6,634.9	837.9	412.5	588.2	–4.1	854.9	333.4	934.5	27.9	6,951.1
1998	7,036.4	846.1	435.7	621.9	3.5	897.8	348.3	954.8	28.8	7,358.9
1999 *p*	.....	.....	.....	658.1	.0	930.6	364.3	988.6	29.6	7,791.2
1994: I	5,372.1	497.6	364.6	498.2	56.4	714.4	219.8	801.1	23.1	5,713.7
II	5,524.3	568.3	369.6	506.2	4.7	727.1	229.5	805.2	23.6	5,860.8
III	5,608.2	597.9	385.4	510.9	4.7	750.2	240.3	811.5	24.0	5,935.3
IV	5,719.7	626.0	402.5	518.5	4.7	778.0	249.2	822.8	24.4	6,042.4
1995: I	5,774.4	629.4	396.8	525.6	16.4	784.8	248.4	845.4	25.1	6,109.9
II	5,833.1	654.9	392.8	530.4	16.4	791.9	250.8	856.3	25.7	6,163.3
III	5,919.6	692.4	386.7	535.9	16.4	794.7	251.8	865.0	26.1	6,225.9
IV	5,977.8	696.4	383.0	540.9	16.4	798.7	264.8	873.7	26.3	6,304.6
1996: I	6,067.1	737.2	378.2	544.7	3.6	797.2	285.9	892.6	26.1	6,405.1
II	6,177.8	748.9	385.5	552.9	3.6	805.9	290.4	900.0	26.2	6,509.4
III	6,254.2	754.8	388.1	559.5	3.6	814.6	302.4	905.5	26.5	6,597.1
IV	6,341.6	774.5	393.3	566.1	3.6	824.6	310.9	911.5	26.8	6,677.9
1997: I	6,473.6	803.6	402.3	576.6	–4.1	835.7	320.3	929.0	27.4	6,807.6
II	6,581.9	831.6	411.8	583.4	–4.1	850.6	330.2	932.9	27.8	6,900.6
III	6,694.9	862.8	414.6	591.2	–4.1	859.7	338.5	936.8	28.1	6,993.5
IV	6,789.1	853.5	421.2	601.5	–4.1	873.6	344.4	939.3	28.4	7,102.7
1998: I	6,887.2	858.3	423.3	610.3	3.5	880.1	346.1	948.2	28.5	7,194.7
II	6,977.6	847.9	434.6	617.6	3.5	895.3	347.0	951.4	28.7	7,296.3
III	7,087.1	843.8	444.0	626.1	3.5	909.3	348.0	957.7	28.8	7,413.6
IV	7,193.8	834.3	440.8	633.8	3.5	906.4	351.9	962.0	29.0	7,530.8
1999: I	7,334.5	882.0	446.3	647.2	.0	907.4	356.1	978.5	29.3	7,630.2
II	7,423.1	875.5	456.4	653.8	.0	920.5	361.2	984.1	29.5	7,732.6
III	7,522.1	879.2	476.3	662.3	.0	938.8	367.0	991.6	29.7	7,831.4
IV *p*	.....	.....	.....	669.0	.0	955.6	373.1	1,000.3	29.9	7,970.6

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–26.—*National income by type of income, 1959–99*

[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				
		Total	Wage and salary accruals			Supplements to wages and salaries			Total	Farm		Nonfarm	
			Total	Government	Other	Total	Employer contributions for social insurance	Other labor income		Total	Proprietors' income [2]	Total	Proprietors' income [3]
1959	411.5	281.0	259.8	46.0	213.8	21.2	7.9	13.4	51.8	10.9	11.8	40.9	40.3
1960	427.5	296.4	272.8	49.2	223.7	23.6	9.3	14.4	51.9	11.4	12.3	40.4	40.0
1961	442.5	305.3	280.5	52.4	228.0	24.8	9.6	15.2	54.4	12.1	12.9	42.3	42.0
1962	477.1	327.2	299.3	56.3	243.0	27.9	11.2	16.7	56.5	12.1	12.9	44.4	44.1
1963	504.3	345.3	314.8	60.0	254.8	30.4	12.4	18.0	57.8	11.9	12.7	45.8	45.5
1964	542.0	370.7	337.7	64.9	272.9	33.0	12.6	20.3	60.6	10.8	11.6	49.9	49.5
1965	589.5	399.5	363.7	69.9	293.8	35.8	13.1	22.7	65.2	13.1	13.9	52.2	52.2
1966	646.6	442.6	400.3	78.3	321.9	42.4	16.8	25.5	69.6	14.1	15.0	55.5	55.7
1967	681.5	475.2	428.9	86.4	342.5	46.2	18.0	28.2	71.1	12.8	13.7	58.4	58.7
1968	743.4	524.3	471.9	96.6	375.3	52.4	20.0	32.5	75.4	12.8	13.9	62.6	63.4
1969	802.4	577.6	518.3	105.5	412.7	59.4	22.8	36.6	78.9	14.2	15.4	64.7	65.5
1970	837.1	617.2	551.5	117.1	434.3	65.7	23.8	41.9	79.8	14.3	15.7	65.5	66.6
1971	903.5	658.8	584.5	126.7	457.8	74.4	26.4	48.0	86.1	14.9	16.5	71.2	72.6
1972	1,000.0	725.1	638.7	137.8	500.9	86.5	31.2	55.3	97.7	18.8	20.5	78.9	79.9
1973	1,127.0	811.2	708.6	148.7	560.0	102.6	39.8	62.8	115.2	30.7	32.6	84.5	86.6
1974	1,211.5	890.2	772.2	160.4	611.8	118.0	44.7	73.3	115.5	25.2	27.7	90.3	94.1
1975	1,301.8	949.0	814.7	176.1	638.6	134.4	46.7	87.6	121.6	23.5	26.9	98.1	99.9
1976	1,455.9	1,059.3	899.6	188.7	710.8	159.7	54.4	105.3	134.3	18.7	22.6	115.6	117.2
1977	1,635.4	1,180.4	994.0	202.4	791.6	186.4	61.1	125.3	148.3	17.5	21.7	130.8	131.9
1978	1,859.8	1,336.0	1,121.0	219.8	901.2	215.0	71.5	143.4	170.1	21.5	26.3	148.5	149.9
1979	2,075.0	1,500.8	1,255.6	236.9	1,018.7	245.2	82.6	162.6	183.7	23.7	29.4	160.0	161.4
1980	2,242.1	1,651.7	1,377.4	261.2	1,116.2	274.3	88.9	185.4	177.6	13.1	20.2	164.5	165.7
1981	2,496.1	1,825.7	1,517.3	285.6	1,231.7	308.5	103.6	204.8	186.2	20.3	28.6	165.9	161.4
1982	2,601.9	1,926.0	1,593.4	307.3	1,286.1	332.6	109.8	222.8	179.9	14.4	23.4	165.4	158.9
1983	2,795.4	2,042.7	1,684.3	324.5	1,359.8	358.5	119.9	238.6	195.5	7.2	16.0	188.3	172.8
1984	3,161.2	2,255.9	1,854.8	347.8	1,507.0	401.1	139.0	262.1	247.5	21.6	30.2	225.9	200.3
1985	3,379.2	2,425.2	1,995.2	373.5	1,621.7	430.0	147.7	282.3	267.0	21.5	29.7	245.5	211.2
1986	3,524.5	2,570.7	2,114.4	396.6	1,717.8	456.3	157.9	298.4	278.6	23.0	31.1	255.6	216.3
1987	3,802.0	2,755.6	2,270.2	422.2	1,848.0	485.4	166.3	319.1	303.9	29.0	36.9	274.8	239.8
1988	4,149.6	2,973.8	2,452.7	450.9	2,001.8	521.1	184.6	336.5	338.8	26.0	33.9	312.7	277.4
1989	4,390.6	3,151.0	2,596.8	479.7	2,117.1	554.2	193.7	360.5	361.8	32.2	40.0	329.6	293.5
1990	4,640.9	3,351.0	2,754.6	516.8	2,237.9	596.4	206.5	390.0	381.0	31.1	39.2	349.9	323.2
1991	4,755.5	3,454.9	2,824.2	545.6	2,278.6	630.7	215.1	415.6	384.2	26.4	34.4	357.8	333.0
1992	4,993.7	3,644.8	2,966.8	567.7	2,399.1	677.9	228.4	449.5	434.3	32.7	40.9	401.7	373.4
1993	5,251.1	3,814.4	3,091.6	584.9	2,506.8	722.8	240.0	482.8	461.8	30.1	38.2	431.7	401.4
1994	5,556.1	4,016.2	3,254.3	603.9	2,650.4	761.9	254.4	507.5	476.6	31.9	39.9	444.6	421.7
1995	5,876.2	4,202.5	3,441.1	622.7	2,818.4	761.4	264.5	497.0	497.7	22.2	30.2	475.5	447.8
1996	6,210.2	4,395.6	3,630.1	641.0	2,989.1	765.4	275.4	490.0	544.7	34.3	42.1	510.5	476.0
1997	6,634.9	4,675.7	3,884.7	664.4	3,220.3	791.0	290.1	500.9	578.6	29.5	37.2	549.1	504.2
1998	7,036.4	5,011.2	4,189.5	692.8	3,496.7	821.7	306.0	515.7	606.1	25.1	32.7	581.0	532.2
1999 *p*	.....	5,332.0	4,472.7	726.4	3,746.3	859.4	323.5	535.8	658.0	31.3	38.6	626.7	578.9
1994: I	5,372.1	3,943.5	3,190.2	597.4	2,592.8	753.3	249.4	503.9	468.4	40.6	48.6	427.9	413.7
II	5,524.3	3,994.9	3,233.4	603.7	2,629.7	761.5	253.4	508.1	479.5	33.9	41.9	445.6	419.6
III	5,608.2	4,032.8	3,267.7	605.3	2,662.4	765.1	255.5	509.5	475.8	27.7	35.7	448.1	422.7
IV	5,719.7	4,093.6	3,325.9	609.2	2,716.8	767.7	259.2	508.4	482.5	25.5	33.5	457.0	430.9
1995: I	5,774.4	4,142.7	3,379.6	618.8	2,760.8	763.1	260.9	502.2	488.6	21.4	29.4	467.2	441.8
II	5,833.1	4,178.8	3,417.2	620.9	2,796.4	761.6	263.1	498.5	491.4	19.6	27.7	471.8	444.8
III	5,919.6	4,224.3	3,463.6	623.9	2,839.7	760.7	265.7	495.0	499.7	20.5	28.5	479.2	450.8
IV	5,977.8	4,264.1	3,503.8	627.3	2,876.5	760.2	268.2	492.1	511.1	27.3	35.2	483.9	453.7
1996: I	6,067.1	4,297.4	3,537.4	634.3	2,903.1	760.0	270.0	490.0	525.9	31.1	39.0	494.8	463.6
II	6,177.8	4,367.8	3,604.6	639.3	2,965.3	763.2	274.0	489.1	546.6	36.3	44.2	510.3	477.1
III	6,254.2	4,427.8	3,660.9	643.1	3,017.8	766.8	277.2	489.6	553.5	38.0	45.8	515.5	479.8
IV	6,341.6	4,489.4	3,717.6	647.3	3,070.3	771.8	280.4	491.4	553.0	31.7	39.5	521.4	483.4
1997: I	6,473.6	4,566.1	3,785.3	656.6	3,128.7	780.8	284.6	496.2	569.1	32.5	40.3	536.6	494.9
II	6,581.9	4,631.3	3,844.3	661.0	3,183.3	787.0	287.8	499.1	575.1	30.2	37.9	544.9	500.2
III	6,694.9	4,705.2	3,911.3	667.1	3,244.2	793.9	291.5	502.4	582.9	28.9	36.6	554.0	508.1
IV	6,789.1	4,800.3	3,997.9	673.1	3,324.9	802.4	296.6	505.8	587.3	26.3	34.0	561.0	513.7
1998: I	6,887.2	4,889.4	4,079.6	682.6	3,397.1	809.8	300.3	509.5	586.6	17.5	25.2	569.1	519.4
II	6,977.6	4,967.0	4,149.7	689.3	3,460.4	817.3	303.8	513.5	594.2	18.7	26.4	575.5	527.6
III	7,087.1	5,053.6	4,227.9	696.7	3,531.2	825.7	308.1	517.7	606.4	22.9	30.5	583.6	534.6
IV	7,193.8	5,134.7	4,300.8	702.8	3,598.0	833.9	311.8	522.1	637.1	41.1	48.6	596.0	547.4
1999: I	7,334.5	5,217.7	4,371.5	715.8	3,655.7	846.2	318.3	528.0	639.9	32.5	39.6	607.5	558.9
II	7,423.1	5,287.1	4,432.6	721.3	3,711.3	854.5	321.5	533.0	655.3	34.1	41.2	621.2	573.8
III	7,522.1	5,373.6	4,509.4	730.3	3,779.1	864.2	325.7	538.5	654.0	21.0	28.8	633.0	586.2
IV *p*	.....	5,449.7	4,577.2	738.2	3,839.0	872.5	328.7	543.8	682.7	37.5	44.6	645.2	596.9

[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–24.

See next page for continuation of table.

TABLE B–26.—*National income by type of income, 1959–99*—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							
								Profits after tax					
	Total	Rental income of persons	Capital consumption adjustment	Total	Total	Profits before tax	Profits tax liability	Total	Dividends	Undistributed profits	Inventory valuation adjustment	Capital consumption adjustment	
1959	15.2	17.3	–2.1	53.7	53.4	53.7	23.6	30.0	12.6	17.5	–0.3	0.3	9.7
1960	16.2	18.3	–2.1	52.3	51.4	51.5	22.7	28.8	13.4	15.5	–.2	.9	10.7
1961	16.9	19.0	–2.1	53.4	51.7	51.5	22.8	28.7	13.9	14.8	.3	1.7	12.4
1962	17.8	19.9	–2.1	61.5	56.9	56.9	24.0	32.9	15.0	17.9	.0	4.6	14.1
1963	18.5	20.5	–2.0	67.6	62.0	61.9	26.2	35.7	16.2	19.5	.1	5.6	15.2
1964	18.6	20.6	–2.0	74.7	68.4	68.9	28.0	40.9	18.2	22.7	–.5	6.3	17.3
1965	19.2	21.4	–2.2	85.9	78.7	80.0	30.9	49.1	20.2	28.9	–1.2	7.1	19.7
1966	19.9	22.4	–2.5	91.8	84.4	86.5	33.7	52.8	20.7	32.1	–2.1	7.5	22.6
1967	20.4	23.2	–2.8	89.4	81.7	83.3	32.7	50.6	21.5	29.1	–1.6	7.7	25.4
1968	20.2	23.4	–3.3	96.3	88.5	92.2	39.4	52.8	23.5	29.3	–3.7	7.8	27.2
1969	20.3	24.3	–3.9	93.4	85.2	91.1	39.7	51.4	24.2	27.2	–5.9	8.3	32.2
1970	20.3	24.6	–4.3	81.3	74.0	80.6	34.4	46.2	24.3	21.9	–6.6	7.3	38.4
1971	21.2	26.1	–5.0	94.8	87.9	92.4	37.7	54.7	25.0	29.7	–4.6	6.9	42.6
1972	21.6	27.7	–6.1	109.4	100.7	107.3	41.9	65.5	26.8	38.6	–6.6	8.7	46.2
1973	23.1	30.1	–7.0	123.5	114.6	134.2	49.3	84.9	29.9	55.0	–19.6	8.9	53.9
1974	23.0	31.7	–8.7	114.0	108.5	146.8	51.8	95.0	33.2	61.8	–38.2	5.5	68.8
1975	22.0	32.3	–10.3	132.5	134.3	144.8	50.9	93.9	33.0	60.9	–10.5	–1.7	76.6
1976	21.5	33.0	–11.5	160.1	164.5	178.6	64.2	114.4	39.0	75.4	–14.1	–4.4	80.8
1977	20.4	34.0	–13.6	190.5	193.3	209.0	73.0	136.0	44.8	91.2	–15.7	–2.8	95.7
1978	22.4	38.9	–16.5	216.8	221.2	244.9	83.5	161.4	50.8	110.6	–23.7	–4.4	114.5
1979	24.5	44.5	–20.0	221.9	229.9	270.1	88.0	182.1	57.5	124.6	–40.1	–8.0	144.2
1980	31.3	54.9	–23.6	197.7	209.3	251.4	84.8	166.6	64.1	102.6	–42.1	–11.6	183.9
1981	39.6	66.1	–26.5	218.0	216.3	240.9	81.1	159.8	73.8	86.0	–24.6	1.7	226.5
1982	39.6	68.0	–28.5	200.2	188.0	195.5	63.1	132.4	76.2	56.2	–7.5	12.2	256.3
1983	36.9	65.9	–28.9	253.0	223.9	231.4	77.2	154.1	83.6	70.5	–7.4	29.1	267.2
1984	39.5	68.8	–29.4	308.7	262.0	266.0	94.0	172.0	91.0	81.0	–4.0	46.6	309.6
1985	39.1	70.3	–31.2	321.3	255.2	255.2	96.5	158.7	97.7	61.0	.0	66.0	326.7
1986	32.2	63.7	–31.5	299.5	250.5	243.4	106.5	136.9	106.3	30.6	7.1	49.0	343.6
1987	35.8	68.9	–33.1	345.3	298.4	314.6	127.1	187.5	112.2	75.3	–16.2	46.9	361.5
1988	44.1	79.1	–35.0	403.5	359.8	381.9	137.2	244.8	129.6	115.2	–22.2	43.8	389.4
1989	40.5	80.2	–39.7	394.2	360.4	376.7	141.5	235.3	155.0	80.2	–16.3	33.9	443.1
1990	49.1	87.2	–38.1	407.4	388.6	401.5	140.6	260.9	165.5	95.3	–12.9	18.8	452.4
1991	56.4	96.0	–39.6	430.2	421.1	416.1	133.6	282.6	178.4	104.1	4.9	9.1	429.8
1992	63.3	111.4	–48.1	451.9	448.8	451.6	143.1	308.4	185.5	122.9	–2.8	3.1	399.5
1993	90.9	133.6	–42.8	509.7	506.4	510.4	165.4	345.0	203.1	141.9	–4.0	3.3	374.3
1994	110.3	157.8	–47.5	572.5	561.0	573.4	186.7	386.7	234.9	151.8	–12.4	11.5	380.5
1995	117.9	165.4	–47.5	668.3	650.2	668.5	211.0	457.5	254.2	203.3	–18.3	18.1	389.8
1996	129.7	177.4	–47.6	753.9	729.4	726.3	223.6	502.7	297.7	205.0	3.1	24.4	386.3
1997	130.2	180.0	–49.9	837.9	803.2	795.9	238.3	557.6	333.7	223.9	7.4	34.6	412.5
1998	137.4	188.6	–51.1	846.1	802.8	781.9	240.2	541.7	348.6	193.1	20.9	43.3	435.7
1999 *p*	146.1	202.2	–56.1	.....	.....	.....	.....	.....	364.7	.....	.....	52.0	.....
1994: I	98.0	156.4	–58.3	497.6	506.6	514.8	165.4	349.4	220.0	129.4	–8.3	–9.0	364.6
II	112.0	154.9	–42.9	568.3	552.5	562.7	182.8	379.8	229.7	150.1	–10.2	15.8	369.6
III	116.2	160.0	–43.8	597.9	579.7	595.4	194.4	401.0	240.5	160.5	–15.7	18.2	385.4
IV	115.2	160.1	–45.0	626.0	605.1	620.7	204.1	416.6	249.4	167.1	–15.6	20.9	402.5
1995: I	116.9	163.0	–46.1	629.4	610.7	643.2	203.1	440.1	248.6	191.5	–32.5	18.8	396.8
II	115.1	161.3	–46.2	654.9	637.1	665.3	208.8	456.6	251.1	205.5	–28.2	17.7	392.8
III	116.6	163.0	–46.4	692.4	673.7	683.5	218.7	464.8	252.1	212.7	–9.8	18.8	386.7
IV	123.2	174.4	–51.3	696.4	679.2	681.8	213.3	468.5	265.0	203.4	–2.6	17.2	383.0
1996: I	128.4	175.2	–46.8	737.2	715.3	713.2	219.7	493.5	286.2	207.3	2.1	21.9	378.2
II	129.0	176.1	–47.0	748.9	724.7	726.3	225.3	501.0	290.7	210.3	–1.7	24.2	385.5
III	130.1	178.2	–48.1	754.8	729.6	724.9	224.0	500.9	302.7	198.2	4.7	25.2	388.1
IV	131.4	179.9	–48.5	774.5	748.1	741.0	225.6	515.4	311.3	204.1	7.1	26.4	393.3
1997: I	132.4	181.5	–49.1	803.6	772.6	763.3	228.9	534.4	320.6	213.8	9.3	31.0	402.3
II	132.0	181.5	–49.4	831.6	797.7	786.5	233.2	553.3	330.6	222.7	11.2	33.9	411.8
III	129.4	179.8	–50.3	862.8	827.0	822.1	246.8	575.3	338.8	236.5	4.9	35.7	414.6
IV	126.7	177.3	–50.6	853.5	815.5	811.6	244.1	567.4	344.8	222.6	4.0	38.0	421.2
1998: I	129.5	179.6	–50.0	858.3	818.4	788.9	239.9	548.9	346.5	202.5	29.5	39.9	423.3
II	133.9	184.3	–50.5	847.9	805.6	792.0	241.1	550.9	347.3	203.6	13.6	42.4	434.6
III	139.3	190.7	–51.4	843.8	799.9	780.1	244.3	535.8	348.4	187.4	19.8	43.9	444.0
IV	147.0	199.6	–52.6	834.3	787.4	766.7	235.6	531.0	352.2	178.8	20.8	46.9	440.8
1999: I	148.6	202.5	–53.9	882.0	831.4	818.1	248.0	570.1	356.4	213.7	13.3	50.6	446.3
II	148.8	203.5	–54.7	875.5	822.2	835.8	254.4	581.4	361.5	219.9	–13.6	53.2	456.4
III	139.0	198.9	–59.9	879.2	827.1	853.8	259.4	594.3	367.3	227.0	–26.7	52.1	476.3
IV *p*	148.2	204.0	–55.8	.....	.....	.....	.....	.....	373.5	.....	.....	52.1	.....

[2] Without capital consumption adjustment.
[3] Without inventory valuation and capital consumption adjustments.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–27.—*Sources of personal income, 1959–99*

[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	Private industries				Government		Farm	Nonfarm
			Total	Goods-producing industries		Distributive industries	Service industries			
				Total	Manufacturing					
1959	394.0	259.8	213.8	109.9	86.9	65.1	38.8	46.0	13.4	10.9	40.9
1960	412.7	272.8	223.7	113.4	89.8	68.6	41.7	49.2	14.4	11.4	40.4
1961	430.3	280.5	228.0	114.0	89.9	69.6	44.4	52.4	15.2	12.1	42.3
1962	457.9	299.3	243.0	122.2	96.8	73.3	47.6	56.3	16.7	12.1	44.4
1963	481.0	314.8	254.8	127.4	100.7	76.8	50.7	60.0	18.0	11.9	45.8
1964	515.8	337.7	272.9	136.0	107.3	82.0	54.9	64.9	20.3	10.8	49.9
1965	557.4	363.7	293.8	146.6	115.7	87.9	59.4	69.9	22.7	13.1	52.2
1966	606.4	400.3	321.9	161.6	128.2	95.1	65.3	78.3	25.5	14.1	55.5
1967	650.4	428.9	342.5	169.0	134.3	101.6	72.0	86.4	28.2	12.8	58.4
1968	714.5	471.9	375.3	184.1	146.0	110.8	80.4	96.6	32.5	12.8	62.6
1969	780.8	518.3	412.7	200.4	157.7	121.7	90.6	105.5	36.6	14.2	64.7
1970	841.1	551.5	434.3	203.7	158.4	131.2	99.4	117.1	41.9	14.3	65.5
1971	905.1	583.9	457.4	209.1	160.5	140.4	107.9	126.5	48.0	14.9	71.2
1972	994.3	638.7	501.2	228.2	175.6	153.3	119.7	137.4	55.3	18.8	78.9
1973	1,113.4	708.7	560.0	255.9	196.6	170.3	133.9	148.7	62.8	30.7	84.5
1974	1,225.6	772.6	611.8	276.5	211.8	186.8	148.6	160.9	73.3	25.2	90.3
1975	1,331.7	814.6	638.6	277.1	211.6	198.1	163.4	176.0	87.6	23.5	98.1
1976	1,475.4	899.5	710.8	309.7	238.0	219.5	181.6	188.6	105.3	18.7	115.6
1977	1,637.1	993.9	791.6	346.1	266.7	242.7	202.8	202.3	125.3	17.5	130.8
1978	1,848.3	1,120.7	901.2	392.6	300.1	274.9	233.7	219.6	143.4	21.5	148.5
1979	2,081.5	1,255.8	1,018.7	442.3	335.2	308.5	267.8	237.1	162.6	23.7	160.0
1980	2,323.9	1,377.5	1,116.2	472.3	356.2	336.7	307.2	261.3	185.4	13.1	164.5
1981	2,599.4	1,517.2	1,231.7	514.5	387.6	368.5	348.6	285.6	204.8	20.3	165.9
1982	2,768.4	1,593.4	1,286.1	514.6	385.7	385.9	385.6	307.3	222.8	14.4	165.4
1983	2,946.9	1,684.7	1,359.8	527.7	400.7	405.7	426.4	325.0	238.6	7.2	188.3
1984	3,274.8	1,854.6	1,507.0	586.1	445.4	445.2	475.6	347.6	262.1	21.6	225.9
1985	3,515.0	1,995.4	1,621.7	620.2	468.5	476.5	524.9	373.8	282.3	21.5	245.5
1986	3,712.4	2,114.4	1,717.8	636.8	480.7	501.6	579.3	396.6	298.4	23.0	255.6
1987	3,962.5	2,270.2	1,848.0	660.1	496.9	535.4	652.4	422.2	319.1	29.0	274.8
1988	4,272.1	2,452.7	2,001.8	706.7	529.9	575.1	720.1	450.9	336.5	26.0	312.7
1989	4,599.8	2,596.8	2,117.1	732.2	547.9	606.5	778.5	479.7	360.5	32.2	329.6
1990	4,903.2	2,754.6	2,237.9	754.4	561.4	633.6	849.9	516.7	390.0	31.1	349.9
1991	5,085.4	2,824.2	2,278.6	746.3	562.5	646.3	886.0	545.6	415.6	26.4	357.8
1992	5,390.4	2,982.6	2,414.9	765.7	583.5	680.2	969.0	567.7	449.5	32.7	401.7
1993	5,610.0	3,085.2	2,500.3	780.6	592.4	697.3	1,022.4	584.9	482.8	30.1	431.7
1994	5,888.0	3,236.7	2,632.8	824.0	620.3	738.4	1,070.4	603.9	507.5	31.9	444.6
1995	6,200.9	3,424.7	2,802.0	863.6	647.5	782.1	1,156.3	622.7	497.0	22.2	475.5
1996	6,547.4	3,626.5	2,985.5	908.2	673.7	822.4	1,254.9	641.0	490.0	34.3	510.5
1997	6,951.1	3,888.9	3,224.4	975.5	718.8	879.1	1,369.8	664.4	500.9	29.5	549.1
1998	7,358.9	4,186.0	3,493.2	1,038.7	757.5	944.6	1,509.9	692.8	515.7	25.1	581.0
1999[P]	7,791.2	4,472.7	3,746.3	1,082.6	779.9	1,005.5	1,658.1	726.4	535.8	31.3	626.7
1994: I	5,713.7	3,133.8	2,536.4	796.6	600.2	712.8	1,027.0	597.4	503.9	40.6	427.9
II	5,860.8	3,228.7	2,625.0	820.0	617.9	735.0	1,070.0	603.7	508.1	33.9	445.6
III	5,935.3	3,263.0	2,657.7	832.5	626.4	745.1	1,080.2	605.3	509.5	27.7	448.1
IV	6,042.4	3,321.2	2,712.1	846.9	636.7	760.8	1,104.4	609.2	508.4	25.5	457.0
1995: I	6,109.9	3,363.2	2,744.5	852.8	641.1	768.4	1,123.2	618.8	502.2	21.4	467.2
II	6,163.3	3,400.9	2,780.0	858.4	644.5	777.5	1,144.1	620.9	498.5	19.6	471.8
III	6,225.9	3,447.2	2,823.3	868.1	650.4	787.8	1,167.4	623.9	495.0	20.5	479.2
IV	6,304.6	3,487.5	2,860.1	875.0	654.0	794.7	1,190.5	627.3	492.1	27.3	483.9
1996: I	6,405.1	3,533.8	2,899.4	882.1	656.0	803.5	1,213.9	634.3	490.0	31.1	494.8
II	6,509.4	3,601.0	2,961.6	903.0	671.1	816.6	1,242.0	639.3	489.1	36.3	510.3
III	6,597.1	3,657.3	3,014.2	917.6	680.2	828.3	1,268.3	643.1	489.6	38.0	515.5
IV	6,677.9	3,713.9	3,066.7	930.0	687.6	841.2	1,295.6	647.3	491.4	31.7	521.4
1997: I	6,807.6	3,789.5	3,132.8	952.2	703.1	856.3	1,324.4	656.6	496.2	32.5	536.6
II	6,900.6	3,848.5	3,187.4	965.9	712.0	868.9	1,352.6	661.0	499.1	30.2	544.9
III	6,993.5	3,915.4	3,248.3	979.5	720.7	885.7	1,383.1	667.1	502.4	28.9	554.0
IV	7,102.7	4,002.1	3,329.0	1,004.3	739.4	905.6	1,419.1	673.1	505.8	26.3	561.0
1998: I	7,194.7	4,076.2	3,393.6	1,020.4	747.7	919.6	1,453.6	682.6	509.5	17.5	569.1
II	7,296.3	4,146.2	3,457.0	1,032.2	754.5	935.3	1,489.5	689.3	513.5	18.7	575.5
III	7,413.6	4,224.4	3,527.7	1,045.6	762.3	953.5	1,528.6	696.7	517.7	22.9	583.6
IV	7,530.8	4,297.3	3,594.5	1,056.6	765.6	969.9	1,568.0	702.8	522.1	41.1	596.0
1999: I	7,630.2	4,371.5	3,655.7	1,062.9	767.0	986.3	1,606.6	715.8	528.0	32.5	607.5
II	7,732.6	4,432.6	3,711.3	1,075.1	774.8	997.6	1,638.5	721.3	533.0	34.1	621.2
III	7,831.4	4,509.4	3,779.1	1,090.2	786.4	1,013.4	1,675.5	730.3	538.5	21.0	633.0
IV[P]	7,970.6	4,577.2	3,839.0	1,102.2	791.4	1,024.8	1,711.9	738.2	543.8	37.5	645.2

[1] The total of wage and salary disbursements and other labor income differs from compensation of employees in Table B–26 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–27.—*Sources of personal income, 1959–99*—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
				Total	Old-age, survivors, disability, and health insurance benefits	Government unemployment insurance benefits	Veterans benefits	Family assistance [1]	Other	
1959	15.2	12.6	23.0	24.2	10.2	2.8	4.6	0.9	5.7	6.0
1960	16.2	13.4	25.6	25.7	11.1	3.0	4.6	1.0	6.1	7.2
1961	16.9	13.9	27.3	29.5	12.6	4.3	5.0	1.1	6.5	7.4
1962	17.8	15.0	30.2	30.3	14.3	3.1	4.7	1.3	7.0	7.9
1963	18.5	16.2	33.0	32.0	15.2	3.0	4.8	1.4	7.6	9.3
1964	18.6	18.2	36.9	33.2	16.0	2.7	4.7	1.5	8.2	9.8
1965	19.2	20.2	40.8	35.9	18.1	2.3	4.9	1.7	9.0	10.3
1966	19.9	20.7	45.3	39.6	20.8	1.9	4.9	1.9	10.2	14.5
1967	20.4	21.5	49.4	47.6	25.5	2.2	5.6	2.3	12.1	16.8
1968	20.2	23.5	54.1	55.6	30.2	2.1	5.9	2.8	14.5	18.7
1969	20.3	24.2	62.3	61.6	32.9	2.2	6.7	3.5	16.2	21.4
1970	20.3	24.3	71.5	74.3	38.5	4.0	7.7	4.8	19.4	22.5
1971	21.2	25.0	77.5	88.2	44.5	5.8	8.8	6.2	23.0	24.7
1972	21.6	26.8	84.2	98.0	49.6	5.7	9.7	6.9	26.1	28.0
1973	23.1	29.9	97.6	111.9	60.4	4.4	10.4	7.2	29.5	35.7
1974	23.0	33.2	116.1	132.3	70.1	6.8	11.8	8.0	35.6	40.5
1975	22.0	32.9	128.0	167.5	81.4	17.6	14.5	9.3	44.7	42.6
1976	21.5	39.0	140.5	182.3	92.9	15.8	14.4	10.1	49.2	46.9
1977	20.4	44.7	161.9	194.6	104.9	12.7	13.8	10.6	52.5	52.0
1978	22.4	50.7	191.3	209.3	116.2	9.7	13.9	10.8	58.7	59.7
1979	24.5	57.4	233.5	234.2	131.8	9.8	14.4	11.1	67.1	70.2
1980	31.3	64.0	286.4	279.0	154.2	16.1	15.0	12.5	81.3	77.2
1981	39.6	73.6	352.7	317.2	182.0	15.9	16.1	13.1	90.2	92.1
1982	39.6	76.1	401.6	354.2	204.5	25.2	16.4	12.9	95.2	99.1
1983	36.9	83.5	431.6	382.2	221.7	26.3	16.6	13.8	103.8	106.1
1984	39.5	90.8	505.3	393.4	235.7	15.9	16.4	14.5	111.0	118.4
1985	39.1	97.5	546.4	420.9	253.4	15.7	16.7	15.2	119.9	133.6
1986	32.2	106.1	579.2	449.0	269.2	16.3	16.7	16.1	130.6	145.6
1987	35.8	112.1	609.7	468.6	282.9	14.5	16.6	16.4	138.2	156.8
1988	44.1	129.4	650.5	496.9	300.5	13.2	16.9	16.9	149.5	176.8
1989	40.5	154.8	736.5	540.4	325.2	14.3	17.3	17.5	166.1	191.6
1990	49.1	165.4	772.4	594.4	352.1	18.0	17.8	19.2	187.3	203.7
1991	56.4	178.3	771.8	669.9	382.4	26.6	18.3	21.1	221.5	215.1
1992	63.3	185.3	750.1	751.7	414.0	38.9	19.3	22.2	257.3	226.6
1993	90.9	203.0	725.5	798.6	444.4	34.1	20.1	22.8	277.2	237.8
1994	110.3	234.7	742.4	833.9	473.0	23.6	20.1	23.2	294.0	254.1
1995	117.9	254.0	792.5	885.9	508.0	21.5	20.9	22.6	313.0	268.8
1996	129.7	297.4	810.6	928.8	537.6	22.1	21.7	20.3	327.1	280.4
1997	130.2	333.4	854.9	962.4	565.8	20.0	22.5	17.6	336.5	298.1
1998	137.4	348.3	897.8	983.6	578.1	19.8	23.3	17.1	345.2	315.9
1999 *P*	146.1	364.3	930.6	1,018.2	596.6	20.2	24.3	15.9	361.3	334.5
1994: I	98.0	219.8	714.4	824.1	463.5	27.7	19.9	23.1	289.9	248.8
II	112.0	229.5	727.1	828.7	470.3	23.9	19.9	23.2	291.4	252.9
III	116.2	240.3	750.2	835.5	475.7	21.8	20.2	23.2	294.5	255.3
IV	115.2	249.2	778.0	847.1	482.6	21.0	20.4	23.2	300.0	259.2
1995: I	116.9	248.4	784.8	870.5	498.1	20.7	20.8	22.9	308.0	264.7
II	115.1	250.8	791.9	881.9	505.7	21.2	20.8	22.8	311.5	267.3
III	116.6	251.8	794.7	891.1	511.3	21.7	21.0	22.6	314.5	270.2
IV	123.2	264.8	798.7	900.1	516.7	22.2	20.9	22.3	318.1	272.7
1996: I	128.4	285.9	797.2	918.7	528.8	22.9	21.5	21.4	324.0	274.7
II	129.0	290.4	805.9	926.3	534.9	22.4	21.9	20.8	326.3	278.8
III	130.1	302.4	814.6	931.9	540.2	21.5	21.6	20.2	328.4	282.3
IV	131.4	310.9	824.6	938.3	546.4	21.5	21.8	18.9	329.6	285.7
1997: I	132.4	320.3	835.7	956.4	560.2	21.0	22.5	18.2	334.6	292.0
II	132.0	330.2	850.6	960.7	564.8	20.0	22.4	17.7	335.8	295.6
III	129.4	338.5	859.7	964.9	568.1	19.6	22.5	17.3	337.2	299.7
IV	126.7	344.4	873.6	967.7	570.2	19.2	22.7	17.1	338.4	304.9
1998: I	129.5	346.1	880.1	976.7	575.1	19.6	23.2	17.1	341.7	310.0
II	133.9	347.0	895.3	980.0	576.5	19.2	23.2	17.1	344.0	313.8
III	139.3	348.0	909.3	986.5	579.6	20.6	23.3	17.1	345.8	318.0
IV	147.0	351.9	906.4	991.0	581.1	19.9	23.6	17.3	349.1	322.0
1999: I	148.6	356.1	907.4	1,007.8	588.9	20.5	24.3	16.9	357.2	328.9
II	148.8	361.2	920.5	1,013.6	593.0	20.3	24.1	16.3	359.9	332.3
III	139.0	367.0	938.8	1,021.3	599.0	20.2	24.3	15.4	362.4	336.7
IV *P*	148.2	373.1	955.6	1,030.2	605.4	19.6	24.5	15.1	365.5	340.2

[1] Consists of aid to families with dependent children and, beginning with 1996, assistance programs operating under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996.

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–28.—*Disposition of personal income, 1959–99*

[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	394.0	42.8	351.2	324.7	318.1	6.1	0.5	26.5	92.4	90.6	7.6
1960	412.7	46.6	366.2	339.8	332.3	7.0	.5	26.4	92.8	90.7	7.2
1961	430.3	47.9	382.4	350.5	342.7	7.3	.5	31.9	91.7	89.6	8.3
1962	457.9	52.3	405.6	372.2	363.8	7.8	.5	33.5	91.7	89.7	8.3
1963	481.0	55.3	425.8	392.7	383.1	8.9	.7	33.1	92.2	90.0	7.8
1964	515.8	52.8	463.0	422.4	411.7	10.0	.7	40.5	91.2	88.9	8.8
1965	557.4	58.4	498.9	456.2	444.3	11.1	.8	42.7	91.4	89.0	8.6
1966	606.4	67.3	539.1	494.6	481.8	12.0	.8	44.5	91.7	89.4	8.3
1967	650.4	74.2	576.2	522.3	508.7	12.5	1.0	54.0	90.6	88.3	9.4
1968	714.5	88.3	626.2	573.6	558.7	13.8	1.0	52.7	91.6	89.2	8.4
1969	780.8	105.9	675.0	622.3	605.5	15.7	1.1	52.6	92.2	89.7	7.8
1970	841.1	104.6	736.5	667.0	648.9	16.8	1.3	69.5	90.6	88.1	9.4
1971	905.1	103.4	801.7	721.6	702.4	17.8	1.3	80.1	90.0	87.6	10.0
1972	994.3	125.6	868.6	791.7	770.7	19.6	1.4	76.9	91.1	88.7	8.9
1973	1,113.4	134.5	979.0	876.5	852.5	22.4	1.5	102.5	89.5	87.1	10.5
1974	1,225.6	153.3	1,072.3	957.9	932.4	24.2	1.3	114.3	89.3	87.0	10.7
1975	1,331.7	150.3	1,181.4	1,056.2	1,030.3	24.5	1.3	125.2	89.4	87.2	10.6
1976	1,475.4	175.5	1,299.9	1,177.8	1,149.8	26.6	1.3	122.1	90.6	88.5	9.4
1977	1,637.1	201.2	1,436.0	1,310.4	1,278.4	30.7	1.3	125.6	91.3	89.0	8.7
1978	1,848.3	233.5	1,614.8	1,469.4	1,430.4	37.5	1.5	145.4	91.0	88.6	9.0
1979	2,081.5	273.3	1,808.2	1,642.4	1,596.3	44.5	1.6	165.8	90.8	88.3	9.2
1980	2,323.9	304.2	2,019.8	1,814.1	1,762.9	49.4	1.8	205.6	89.8	87.3	10.2
1981	2,599.4	351.5	2,247.9	2,004.2	1,944.2	54.6	5.5	243.7	89.2	86.5	10.8
1982	2,768.4	361.6	2,406.8	2,144.6	2,079.3	58.8	6.5	262.2	89.1	86.4	10.9
1983	2,946.9	360.9	2,586.0	2,358.2	2,286.4	65.0	6.8	227.8	91.2	88.4	8.8
1984	3,274.8	387.2	2,887.6	2,581.1	2,498.4	75.0	7.7	306.5	89.4	86.5	10.6
1985	3,515.0	428.5	3,086.5	2,803.9	2,712.6	83.2	8.1	282.6	90.8	87.9	9.2
1986	3,712.4	449.9	3,262.5	2,994.7	2,895.2	90.6	9.0	267.8	91.8	88.7	8.2
1987	3,962.5	503.0	3,459.5	3,206.7	3,105.3	91.5	9.9	252.8	92.7	89.8	7.3
1988	4,272.1	519.7	3,752.4	3,460.1	3,356.6	92.9	10.6	292.3	92.2	89.5	7.8
1989	4,599.8	583.5	4,016.3	3,714.4	3,596.7	106.4	11.4	301.8	92.5	89.6	7.5
1990	4,903.2	609.6	4,293.6	3,959.3	3,831.5	115.8	12.0	334.3	92.2	89.2	7.8
1991	5,085.4	610.5	4,474.8	4,103.2	3,971.2	118.9	13.0	371.7	91.7	88.7	8.3
1992	5,390.4	635.8	4,754.6	4,340.9	4,209.7	118.7	12.5	413.7	91.3	88.5	8.7
1993	5,610.0	674.6	4,935.3	4,584.5	4,454.7	115.4	14.4	350.8	92.9	90.3	7.1
1994	5,888.0	722.6	5,165.4	4,849.9	4,716.4	117.9	15.6	315.5	93.9	91.3	6.1
1995	6,200.9	778.3	5,422.6	5,120.2	4,969.0	134.7	16.5	302.4	94.4	91.6	5.6
1996	6,547.4	869.7	5,677.7	5,405.6	5,237.5	149.9	18.2	272.1	95.2	92.2	4.8
1997	6,951.1	968.3	5,982.8	5,711.7	5,524.4	166.7	20.6	271.1	95.5	92.3	4.5
1998	7,358.9	1,072.6	6,286.2	6,056.6	5,848.6	185.7	22.3	229.7	96.3	93.0	3.7
1999 *p*	7,791.2	1,152.0	6,639.2	6,480.9	6,254.9	201.6	24.4	158.3	97.6	94.2	2.4
1994: I	5,713.7	695.4	5,018.3	4,744.0	4,613.8	114.9	15.3	274.3	94.5	91.9	5.5
II	5,860.8	732.2	5,128.6	4,809.1	4,677.5	116.1	15.5	319.5	93.8	91.2	6.2
III	5,935.3	724.3	5,211.0	4,886.9	4,753.0	118.2	15.7	324.1	93.8	91.2	6.2
IV	6,042.4	738.5	5,303.9	4,959.7	4,821.3	122.4	15.9	344.2	93.5	90.9	6.5
1995: I	6,109.9	751.8	5,358.1	5,012.1	4,868.6	127.5	15.9	346.0	93.5	90.9	6.5
II	6,163.3	780.5	5,382.8	5,091.3	4,943.7	132.1	15.6	291.5	94.6	91.8	5.4
III	6,225.9	781.6	5,444.4	5,158.4	5,005.2	136.8	16.4	285.9	94.7	91.9	5.3
IV	6,304.6	799.5	5,505.1	5,218.8	5,058.4	142.4	18.0	286.3	94.8	91.9	5.2
1996: I	6,405.1	830.7	5,574.4	5,292.2	5,130.5	144.3	17.4	282.2	94.9	92.0	5.1
II	6,509.4	872.5	5,637.0	5,383.9	5,218.0	147.9	18.0	253.1	95.5	92.6	4.5
III	6,597.1	877.3	5,719.8	5,433.7	5,263.7	151.8	18.2	286.1	95.0	92.0	5.0
IV	6,677.9	898.1	5,779.7	5,512.6	5,337.9	155.5	19.3	267.1	95.4	92.4	4.6
1997: I	6,807.6	934.2	5,873.4	5,609.9	5,430.8	159.6	19.6	263.4	95.5	92.5	4.5
II	6,900.6	954.4	5,946.2	5,650.2	5,466.3	164.0	19.8	296.1	95.0	91.9	5.0
III	6,993.5	978.6	6,014.9	5,759.4	5,569.1	168.7	21.5	255.5	95.8	92.6	4.2
IV	7,102.7	1,006.0	6,096.7	5,827.4	5,631.3	174.3	21.7	269.3	95.6	92.4	4.4
1998: I	7,194.7	1,031.2	6,163.5	5,914.7	5,714.7	178.8	21.1	248.9	96.0	92.7	4.0
II	7,296.3	1,058.0	6,238.3	6,020.9	5,816.2	182.8	21.8	217.5	96.5	93.2	3.5
III	7,413.6	1,088.3	6,325.3	6,100.5	5,889.6	187.9	22.9	224.8	96.4	93.1	3.6
IV	7,530.8	1,113.0	6,417.8	6,190.3	5,973.7	193.2	23.3	227.5	96.5	93.1	3.5
1999: I	7,630.2	1,124.8	6,505.4	6,310.3	6,090.8	196.1	23.5	195.1	97.0	93.6	3.0
II	7,732.6	1,139.4	6,593.2	6,425.2	6,200.8	199.9	24.6	168.0	97.5	94.0	2.5
III	7,831.4	1,160.4	6,671.0	6,531.5	6,303.7	203.3	24.5	139.5	97.9	94.5	2.1
IV *p*	7,970.6	1,183.2	6,787.4	6,656.6	6,424.6	206.9	25.1	130.8	98.1	94.7	1.9

[1] Percents based on data in millions of dollars.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–29.—*Total and per capita disposable personal income and personal consumption expenditures in current and real dollars, 1959–99*

[Quarterly data at seasonally adjusted annual rates, except as noted]

Year or quarter	Disposable personal income				Personal consumption expenditures				Gross domestic product per capita (dollars)		Population (thousands)[1]
	Total (billions of dollars)		Per capita (dollars)		Total (billions of dollars)		Per capita (dollars)				
	Current dollars	Chained (1996) dollars	Current dollars	Chained (1996) dollars	Current dollars	Chained (1996) dollars	Current dollars	Chained (1996) dollars	Current dollars	Chained (1996) dollars	
1959	351.2	1,606.3	1,983	9,068	318.1	1,454.8	1,796	8,213	2,865	12,985	177,130
1960	366.2	1,646.8	2,026	9,111	332.3	1,494.4	1,838	8,267	2,918	13,041	180,760
1961	382.4	1,701.5	2,081	9,260	342.7	1,524.6	1,865	8,298	2,970	13,128	183,742
1962	405.6	1,783.9	2,174	9,561	363.8	1,599.7	1,950	8,574	3,143	13,707	186,590
1963	425.8	1,851.1	2,249	9,779	383.1	1,665.7	2,024	8,799	3,268	14,095	189,300
1964	463.0	1,984.8	2,412	10,342	411.7	1,765.2	2,145	9,197	3,462	14,707	191,927
1965	498.9	2,107.2	2,567	10,842	444.3	1,876.4	2,286	9,655	3,705	15,450	194,347
1966	539.1	2,219.1	2,742	11,288	481.8	1,983.3	2,451	10,088	4,015	16,274	196,599
1967	576.2	2,313.8	2,899	11,641	508.7	2,042.7	2,559	10,278	4,197	16,500	198,752
1968	626.2	2,420.0	3,119	12,055	558.7	2,159.1	2,783	10,755	4,540	17,114	200,745
1969	675.0	2,498.0	3,329	12,322	605.5	2,241.2	2,987	11,055	4,860	17,477	202,736
1970	736.5	2,602.2	3,591	12,688	648.9	2,293.0	3,164	11,180	5,069	17,306	205,089
1971	801.7	2,709.2	3,860	13,044	702.4	2,373.6	3,382	11,429	5,434	17,623	207,692
1972	868.6	2,832.3	4,138	13,492	770.7	2,513.2	3,671	11,972	5,909	18,360	209,924
1973	979.0	3,024.2	4,619	14,269	852.5	2,634.0	4,022	12,428	6,537	19,218	211,939
1974	1,072.3	3,015.7	5,013	14,099	932.4	2,622.3	4,359	12,259	7,017	18,989	213,898
1975	1,181.4	3,074.6	5,470	14,236	1,030.3	2,681.3	4,771	12,414	7,571	18,753	215,981
1976	1,299.9	3,195.6	5,960	14,653	1,149.8	2,826.5	5,272	12,960	8,363	19,545	218,086
1977	1,436.0	3,306.6	6,519	15,010	1,278.4	2,944.0	5,803	13,364	9,221	20,227	220,289
1978	1,614.8	3,478.9	7,253	15,627	1,430.4	3,081.6	6,425	13,842	10,313	21,156	222,629
1979	1,808.2	3,588.7	8,033	15,942	1,596.3	3,168.0	7,091	14,073	11,401	21,635	225,106
1980	2,019.8	3,631.0	8,869	15,944	1,762.9	3,169.4	7,741	13,918	12,276	21,395	227,726
1981	2,247.9	3,715.6	9,773	16,154	1,944.2	3,214.0	8,453	13,973	13,614	21,712	230,008
1982	2,406.8	3,773.4	10,364	16,250	2,079.3	3,259.8	8,954	14,038	14,035	21,102	232,218
1983	2,586.0	3,881.4	11,036	16,564	2,286.4	3,431.7	9,757	14,644	15,085	21,788	234,332
1984	2,887.6	4,181.0	12,215	17,687	2,498.4	3,617.6	10,569	15,303	16,636	23,171	236,394
1985	3,086.5	4,321.8	12,941	18,120	2,712.6	3,798.0	11,373	15,924	17,664	23,856	238,506
1986	3,262.5	4,461.2	13,555	18,536	2,895.2	3,958.7	12,029	16,448	18,501	24,454	240,682
1987	3,459.5	4,563.1	14,246	18,790	3,105.3	4,096.0	12,787	16,867	19,529	25,089	242,842
1988	3,752.4	4,766.0	15,312	19,448	3,356.6	4,263.2	13,697	17,397	20,845	25,908	245,061
1989	4,016.3	4,885.0	16,235	19,746	3,596.7	4,374.4	14,539	17,682	22,188	26,552	247,387
1990	4,293.6	4,991.3	17,176	19,967	3,831.5	4,454.1	15,327	17,818	23,215	26,736	249,981
1991	4,474.8	5,026.2	17,710	19,892	3,971.2	4,460.6	15,717	17,653	23,691	26,394	252,677
1992	4,754.6	5,199.8	18,616	20,359	4,209.7	4,603.8	16,482	18,025	24,741	26,981	255,403
1993	4,935.3	5,253.6	19,121	20,354	4,454.7	4,741.9	17,259	18,372	25,735	27,330	258,107
1994	5,165.4	5,388.3	19,820	20,675	4,716.4	4,920.0	18,097	18,878	27,068	28,156	260,616
1995	5,422.6	5,533.0	20,613	21,032	4,969.0	5,070.1	18,888	19,272	28,131	28,650	263,073
1996	5,677.7	5,677.7	21,385	21,385	5,237.5	5,237.5	19,727	19,727	29,428	29,428	265,504
1997	5,982.8	5,884.7	22,320	21,954	5,524.4	5,433.7	20,610	20,272	30,968	30,461	268,046
1998	6,286.2	6,125.1	23,231	22,636	5,848.6	5,698.6	21,614	21,060	32,373	31,472	270,595
1999[P]	6,639.2	6,367.4	24,305	23,310	6,254.9	5,998.7	22,898	21,960	33,857	32,439	273,161
1994: I	5,018.3	5,283.5	19,326	20,348	4,613.8	4,857.6	17,768	18,707	26,526	27,800	259,662
II	5,128.6	5,371.7	19,705	20,639	4,677.5	4,899.2	17,972	18,824	26,956	28,124	260,268
III	5,211.0	5,412.3	19,969	20,741	4,753.0	4,936.7	18,214	18,918	27,193	28,207	260,948
IV	5,303.9	5,485.5	20,276	20,970	4,821.3	4,986.4	18,431	19,062	27,592	28,489	261,587
1995: I	5,358.1	5,507.8	20,441	21,012	4,868.6	5,004.7	18,573	19,093	27,839	28,537	262,129
II	5,382.8	5,502.4	20,489	20,945	4,943.7	5,053.6	18,818	19,236	27,949	28,533	262,714
III	5,444.4	5,541.0	20,670	21,036	5,005.2	5,094.0	19,002	19,340	28,219	28,683	263,400
IV	5,505.1	5,580.8	20,849	21,136	5,058.4	5,128.0	19,157	19,421	28,515	28,846	264,047
1996: I	5,574.4	5,617.6	21,072	21,235	5,130.5	5,170.3	19,394	19,544	28,841	28,999	264,542
II	5,637.0	5,647.2	21,261	21,300	5,218.0	5,227.5	19,681	19,716	29,354	29,421	265,134
III	5,719.8	5,710.9	21,517	21,483	5,263.7	5,255.4	19,801	19,770	29,564	29,504	265,834
IV	5,779.7	5,735.3	21,687	21,520	5,337.9	5,296.8	20,029	19,875	29,948	29,784	266,504
1997: I	5,873.4	5,798.0	21,994	21,712	5,430.8	5,361.1	20,337	20,076	30,430	30,083	267,040
II	5,946.2	5,857.9	22,215	21,885	5,466.3	5,385.1	20,422	20,119	30,857	30,391	267,671
III	6,014.9	5,909.8	22,410	22,019	5,569.1	5,471.8	20,749	20,387	31,165	30,607	268,399
IV	6,096.7	5,973.0	22,658	22,198	5,631.3	5,517.1	20,929	20,504	31,415	30,762	269,075
1998: I	6,163.5	6,031.5	22,863	22,373	5,714.7	5,592.3	21,198	20,744	31,939	31,205	269,591
II	6,238.3	6,087.5	23,086	22,528	5,816.2	5,675.6	21,524	21,004	32,136	31,298	270,219
III	6,325.3	6,154.6	23,345	22,715	5,889.6	5,730.7	21,737	21,151	32,471	31,504	270,946
IV	6,417.8	6,226.6	23,628	22,924	5,973.7	5,795.8	21,993	21,338	32,941	31,879	271,623
1999: I	6,505.4	6,289.3	23,904	23,110	6,090.8	5,888.4	22,381	21,637	33,338	32,107	272,145
II	6,593.2	6,339.1	24,171	23,239	6,200.8	5,961.8	22,732	21,856	33,530	32,182	272,778
III	6,671.0	6,384.8	24,389	23,343	6,303.7	6,033.3	23,047	22,058	33,993	32,541	273,518
IV[P]	6,787.4	6,456.3	24,753	23,546	6,424.6	6,111.2	23,430	22,287	34,563	32,921	274,201

[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–30.—*Gross saving and investment, 1959–99*

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross saving													
		Gross private saving						Gross government saving						
				Gross business saving					Federal			State and local		
	Total	Total	Personal saving	Total [1]	Undistributed corporate profits [2]	Corporate consumption of fixed capital	Noncorporate consumption of fixed capital	Total	Total	Consumption of fixed capital	Current surplus or deficit (–)	Total	Consumption of fixed capital	Current surplus or deficit (–)
1959	105.8	84.2	26.5	57.7	17.5	23.7	16.5	21.6	13.6	10.4	3.2	8.0	4.2	3.8
1960	110.9	84.4	26.4	58.0	16.3	24.7	17.1	26.5	17.8	10.7	7.1	8.7	4.4	4.3
1961	113.9	91.5	31.9	59.6	16.7	25.3	17.6	22.5	13.5	11.0	2.5	9.0	4.7	4.3
1962	124.6	100.4	33.5	66.9	22.5	26.2	18.1	24.2	14.0	11.6	2.4	10.2	5.0	5.2
1963	132.8	104.3	33.1	71.2	25.1	27.3	18.7	28.5	17.5	12.3	5.2	11.0	5.4	5.7
1964	143.0	117.6	40.5	77.1	28.6	28.8	19.7	25.5	13.4	12.5	.8	12.1	5.7	6.4
1965	158.1	129.4	42.7	86.7	34.8	30.9	21.0	28.8	16.0	12.8	3.2	12.7	6.2	6.5
1966	169.1	138.5	44.5	94.0	37.5	33.9	22.6	30.7	16.1	13.3	2.7	14.6	6.9	7.7
1967	171.1	150.8	54.0	96.8	35.3	37.3	24.3	20.3	5.8	14.2	–8.3	14.5	7.5	7.0
1968	183.3	153.7	52.7	101.0	33.4	41.3	26.4	29.6	13.8	15.1	–1.3	15.8	8.3	7.5
1969	199.8	157.0	52.6	104.4	29.5	45.8	29.0	42.8	25.5	15.9	9.6	17.3	9.3	8.0
1970	194.3	174.3	69.5	104.8	22.6	50.8	31.4	20.0	2.3	16.7	–14.4	17.6	10.6	7.1
1971	211.4	202.6	80.1	122.5	32.0	55.7	34.4	8.8	–9.5	17.4	–26.8	18.2	11.8	6.4
1972	241.6	217.0	76.9	140.1	40.7	61.3	38.5	24.6	–3.8	18.7	–22.5	28.4	12.9	15.6
1973	294.6	256.4	102.5	153.9	44.3	67.2	42.3	38.2	8.3	19.5	–11.2	30.0	14.3	15.7
1974	304.0	270.7	114.3	156.4	29.0	78.9	48.4	33.3	6.4	20.2	–13.9	27.0	17.7	9.3
1975	298.4	323.5	125.2	198.3	48.7	94.4	55.2	–25.1	–47.7	21.6	–69.3	22.7	20.2	2.4
1976	342.7	344.0	122.1	221.9	56.9	105.0	60.0	–1.3	–29.9	23.2	–53.0	28.6	21.3	7.3
1977	398.2	383.1	125.6	257.5	72.7	117.9	66.9	15.1	–20.6	24.6	–45.2	35.7	22.6	13.1
1978	481.6	439.1	145.4	293.7	82.5	134.9	76.2	42.5	–.6	26.3	–26.9	43.1	24.4	18.7
1979	544.9	487.8	165.8	322.0	76.4	157.0	88.5	57.1	16.6	28.0	–11.4	40.5	27.4	13.0
1980	555.5	537.8	205.6	332.2	48.8	181.9	101.5	17.7	–22.8	30.9	–53.8	40.6	31.7	8.8
1981	656.5	631.7	243.7	388.0	63.1	211.1	113.7	24.8	–18.9	34.7	–53.7	43.8	36.3	7.5
1982	625.7	681.6	262.2	419.4	60.9	234.5	124.0	–55.9	–93.1	39.5	–132.6	37.2	39.5	–2.3
1983	608.0	693.8	227.8	466.0	92.2	245.5	128.3	–85.7	–131.5	42.4	–173.9	45.7	40.9	4.8
1984	769.4	824.8	306.5	518.3	123.6	261.3	133.4	–55.4	–121.6	46.4	–168.1	66.2	42.4	23.8
1985	772.5	833.4	282.6	550.8	127.1	282.0	141.7	–60.9	–127.9	49.3	–177.1	67.0	44.7	22.3
1986	735.9	806.5	267.8	538.7	86.7	303.3	148.7	–70.5	–139.2	52.9	–192.1	68.7	47.9	20.8
1987	810.4	838.3	252.8	585.5	106.0	322.2	157.4	–27.9	–91.6	56.3	–147.9	63.7	51.5	12.2
1988	936.2	943.0	292.3	650.7	136.8	345.7	168.1	–6.7	–77.2	60.2	–137.4	70.5	54.9	15.6
1989	967.6	955.1	301.8	653.3	97.8	372.1	183.4	12.5	–65.6	64.4	–130.0	78.1	58.8	19.3
1990	977.7	1,016.2	334.3	681.9	101.2	392.3	188.4	–38.6	–104.3	68.7	–173.0	65.7	63.1	2.6
1991	1,015.8	1,098.9	371.7	727.2	118.2	412.3	196.8	–83.2	–142.3	73.0	–215.3	59.1	66.9	–7.8
1992	1,007.4	1,164.6	413.7	750.9	123.2	429.1	214.3	–157.2	–222.2	75.4	–297.5	65.0	69.9	–4.9
1993	1,039.4	1,159.4	350.8	808.6	141.2	449.3	211.6	–120.0	–195.4	78.7	–274.1	75.4	73.9	1.5
1994	1,155.9	1,199.3	315.5	883.8	150.8	483.4	231.9	–43.4	–130.9	81.4	–212.3	87.5	78.9	8.6
1995	1,257.5	1,266.0	302.4	963.6	203.1	512.6	231.5	–8.5	–108.0	84.0	–192.0	99.4	84.1	15.3
1996	1,349.3	1,290.4	272.1	1,018.3	232.5	543.6	238.5	58.9	–51.5	85.3	–136.8	110.4	88.9	21.4
1997	1,521.3	1,362.0	271.1	1,090.9	265.9	579.4	249.8	159.3	37.7	86.6	–48.8	121.5	94.0	27.5
1998	1,646.0	1,371.2	229.7	1,141.5	257.2	619.2	261.5	274.8	134.3	87.4	46.9	140.5	98.8	41.7
1999 *p*	.....	.....	158.3	.....	.....	666.3	279.0	.....	.....	90.8	.....	.....	105.1	.....
1994: I	1,122.4	1,200.9	274.3	926.6	112.1	492.6	265.4	–78.5	–157.1	80.4	–237.5	78.6	78.0	.6
II	1,145.7	1,170.3	319.5	850.8	155.8	472.7	217.6	–24.6	–109.3	81.2	–190.5	84.7	77.8	6.9
III	1,151.1	1,193.2	324.1	869.1	163.1	480.6	220.8	–42.0	–130.5	81.5	–212.0	88.5	79.3	9.2
IV	1,204.6	1,233.0	344.2	888.8	172.4	487.9	223.8	–28.4	–126.8	82.5	–209.4	98.4	80.6	17.8
1995: I	1,238.0	1,264.9	346.0	918.9	177.8	498.1	226.7	–26.8	–124.9	83.3	–208.3	98.1	82.2	15.9
II	1,233.1	1,240.2	291.5	948.7	195.0	508.5	228.9	–7.0	–105.1	83.9	–188.9	98.1	83.5	14.6
III	1,260.1	1,271.3	285.9	985.4	221.6	516.6	230.8	–11.2	–113.4	84.1	–197.6	102.3	84.8	17.5
IV	1,298.5	1,287.6	286.3	1,001.3	218.1	527.3	239.6	10.9	–88.4	84.8	–173.2	99.3	86.1	13.3
1996: I	1,295.6	1,282.7	282.2	1,000.5	231.3	531.0	234.6	12.9	–91.5	85.0	–176.5	104.3	87.3	17.0
II	1,328.2	1,264.6	253.1	1,011.5	232.9	538.4	236.6	63.5	–51.9	85.1	–137.0	115.4	88.3	27.2
III	1,372.8	1,305.6	286.1	1,019.5	228.1	547.7	240.1	67.2	–44.6	85.5	–130.1	111.8	89.5	22.3
IV	1,400.5	1,308.6	267.1	1,041.5	237.7	557.4	242.7	92.0	–18.0	85.7	–103.7	109.9	90.7	19.3
1997: I	1,440.9	1,324.3	263.4	1,060.9	254.1	565.6	245.4	116.6	–1.3	86.1	–87.4	117.9	92.0	25.9
II	1,522.4	1,382.0	296.1	1,085.9	267.9	574.3	248.0	140.4	23.2	86.4	–63.2	117.2	93.5	23.7
III	1,548.2	1,364.1	255.5	1,108.6	277.2	584.1	251.5	184.0	58.7	86.6	–27.9	125.3	94.4	30.9
IV	1,573.7	1,377.7	269.3	1,108.4	264.6	593.6	254.3	196.0	70.3	87.1	–16.8	125.6	95.9	29.7
1998: I	1,623.1	1,382.5	248.9	1,133.6	271.9	602.2	256.0	240.7	111.9	87.0	24.9	128.8	96.8	32.0
II	1,611.4	1,352.2	217.5	1,134.7	259.5	612.6	259.1	259.2	130.5	87.0	43.5	128.7	97.8	30.9
III	1,664.1	1,367.7	224.8	1,142.9	251.1	625.0	263.3	296.4	147.1	87.5	59.6	149.3	99.4	49.9
IV	1,685.4	1,382.3	227.5	1,154.8	246.5	637.1	267.7	303.0	147.8	88.1	59.7	155.2	101.1	54.2
1999: I	1,727.8	1,389.4	195.1	1,194.3	277.6	645.8	271.0	338.3	187.2	89.6	97.6	151.1	102.4	48.7
II	1,709.5	1,359.3	168.0	1,191.3	259.5	657.2	274.6	350.2	208.3	90.2	118.1	141.9	104.3	37.6
III	1,735.6	1,355.7	139.5	1,216.2	252.4	676.5	287.2	379.9	225.1	91.2	133.8	154.8	106.0	48.9
IV *p*	.....	.....	130.8	.....	.....	685.6	283.2	.....	.....	92.1	.....	.....	107.8	.....

[1] Includes private wage accruals less disbursements not shown separately.

[2] With inventory valuation and capital consumption adjustments.

See next page for continuation of table.

TABLE B–30.—*Gross saving and investment, 1959–99*—Continued

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross investment				Statistical discrepancy	Addenda:	
	Total	Gross private domestic investment	Gross government investment [3]	Net foreign investment [4]		Gross saving as a percent of gross national product	Personal saving as a percent of disposable personal income
1959	106.7	78.5	29.3	–1.2	0.8	20.7	7.6
1960	110.4	78.9	28.3	3.2	–.6	20.9	7.2
1961	113.8	78.2	31.3	4.3	–.2	20.7	8.3
1962	125.3	88.1	33.3	3.9	.7	21.1	8.3
1963	132.4	93.8	33.6	5.0	–.4	21.3	7.8
1964	144.2	102.1	34.6	7.5	1.2	21.4	8.8
1965	160.0	118.2	35.6	6.2	1.9	21.8	8.6
1966	175.6	131.3	40.4	3.9	6.4	21.3	8.3
1967	175.9	128.6	43.8	3.5	4.8	20.4	9.4
1968	187.6	141.2	44.7	1.7	4.3	20.0	8.4
1969	202.7	156.4	44.4	1.8	2.9	20.1	7.8
1970	201.2	152.4	44.8	4.0	6.9	18.6	9.4
1971	222.7	178.2	44.0	.6	11.3	18.6	10.0
1972	250.3	207.6	46.3	–3.6	8.7	19.3	8.9
1973	302.6	244.5	49.4	8.7	8.0	21.1	10.5
1974	314.0	249.4	57.4	7.1	10.0	20.0	10.7
1975	316.1	230.2	64.5	21.4	17.7	18.1	10.6
1976	367.2	292.0	66.4	8.9	24.5	18.6	9.4
1977	419.8	361.3	67.5	–9.0	21.6	19.4	8.7
1978	502.6	436.0	77.1	–10.4	21.0	20.8	9.0
1979	580.6	490.6	88.5	1.4	35.7	21.0	9.2
1980	589.5	477.9	100.3	11.4	33.9	19.6	10.2
1981	684.0	570.8	106.9	6.3	27.5	20.7	10.8
1982	628.2	516.1	112.3	–.2	2.5	19.0	10.9
1983	655.0	564.2	122.8	–32.0	47.0	17.0	8.8
1984	787.9	735.5	139.4	–87.0	18.6	19.4	10.6
1985	784.2	736.3	158.8	–110.9	11.7	18.2	9.2
1986	779.8	747.2	173.2	–140.6	43.9	16.5	8.2
1987	813.8	781.5	184.3	–152.0	3.3	17.0	7.3
1988	894.0	821.1	186.2	–113.2	–42.2	18.3	7.8
1989	983.9	872.9	197.7	–86.7	16.3	17.6	7.5
1990	1,008.2	861.7	215.8	–69.2	30.6	16.8	7.8
1991	1,035.4	800.2	220.3	14.9	19.6	16.9	8.3
1992	1,051.1	866.6	223.1	–38.7	43.7	15.9	8.7
1993	1,103.2	955.1	220.9	–72.9	63.8	15.6	7.1
1994	1,214.4	1,097.1	225.6	–108.3	58.5	16.3	6.1
1995	1,284.0	1,143.8	238.2	–98.0	26.5	16.9	5.6
1996	1,382.1	1,242.7	250.1	–110.7	32.8	17.2	4.8
1997	1,518.1	1,383.7	258.1	–123.7	–3.2	18.3	4.5
1998	1,598.4	1,531.2	268.7	–201.5	–47.6	18.8	3.7
1999 *p*	.....	1,621.6	296.4	.....	.....	.....	2.4
1994: I	1,175.1	1,042.0	215.7	–82.6	52.7	16.2	5.5
II	1,227.0	1,106.4	222.2	–101.6	81.3	16.3	6.2
III	1,205.7	1,094.0	233.3	–121.6	54.6	16.2	6.2
IV	1,249.9	1,146.1	231.1	–127.3	45.3	16.7	6.5
1995: I	1,291.7	1,162.8	236.4	–107.5	53.7	16.9	6.5
II	1,258.0	1,133.1	241.0	–116.1	24.9	16.7	5.4
III	1,263.3	1,123.5	236.4	–96.7	3.1	16.9	5.3
IV	1,322.9	1,155.6	238.9	–71.6	24.4	17.2	5.2
1996: I	1,330.0	1,172.4	248.3	–90.7	34.4	16.9	5.1
II	1,377.7	1,231.5	253.0	–106.7	49.6	17.0	4.5
III	1,397.9	1,282.6	249.9	–134.5	25.1	17.4	5.0
IV	1,422.8	1,284.3	249.4	–111.0	22.3	17.5	4.6
1997: I	1,461.8	1,327.0	252.1	–117.3	20.9	17.7	4.5
II	1,546.3	1,392.2	257.9	–103.7	23.9	18.4	5.0
III	1,530.7	1,395.9	261.5	–126.7	–17.5	18.5	4.2
IV	1,533.7	1,419.6	261.0	–146.9	–40.0	18.6	4.4
1998: I	1,624.6	1,514.3	262.4	–152.1	1.4	18.8	4.0
II	1,569.9	1,495.0	266.3	–191.4	–41.5	18.6	3.5
III	1,576.2	1,535.3	273.5	–232.6	–87.9	19.0	3.6
IV	1,623.0	1,580.3	272.6	–229.9	–62.4	18.9	3.5
1999: I	1,628.4	1,594.3	289.8	–255.7	–99.4	19.1	3.0
II	1,574.0	1,585.4	292.2	–303.7	–135.5	18.7	2.5
III	1,594.4	1,635.0	295.7	–336.3	–141.2	18.7	2.1
IV *p*	.....	1,671.8	308.1	.....	.....	.....	1.9

[3] For details on government investment, see Table B–18.

[4] Net exports of goods and services plus net income receipts from rest of the world less net transfers.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–31.—*Median money income (in 1998 dollars) and poverty status of families and persons, by race, selected years, 1980–98*

Year	Families[1]						Persons below poverty level		Median money income (in 1998 dollars) of persons 15 years old and over with income[2]			
			Below poverty level						Males		Females	
	Number (millions)	Median money income (in 1998 dollars)[2]	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												
1980[3]	60.3	$41,637	6.2	10.3	3.0	32.7	29.3	13.0	$24,816	$37,973	$9,744	$22,957
1981	61.0	40,502	6.9	11.2	3.3	34.6	31.8	14.0	24,374	37,434	9,874	22,536
1982	61.4	39,954	7.5	12.2	3.4	36.3	34.4	15.0	23,785	36,922	10,037	23,296
1983[4]	62.0	40,380	7.6	12.3	3.6	36.0	35.3	15.2	23,993	36,794	10,482	23,674
1984	62.7	41,469	7.3	11.6	3.5	34.5	33.7	14.4	24,474	37,658	10,775	24,194
1985	63.6	42,015	7.2	11.4	3.5	34.0	33.1	14.0	24,709	37,870	10,933	24,620
1986	64.5	43,811	7.0	10.9	3.6	34.6	32.4	13.6	25,452	38,510	11,318	25,049
1987[5]	65.2	44,438	7.0	10.7	3.7	34.2	32.2	13.4	25,520	38,283	11,902	25,202
1988	65.8	44,354	6.9	10.4	3.6	33.4	31.7	13.0	26,052	37,673	12,241	25,552
1989	66.1	44,974	6.8	10.3	3.5	32.2	31.5	12.8	26,150	37,357	12,651	25,814
1990	66.3	44,090	7.1	10.7	3.8	33.4	33.6	13.5	25,308	36,141	12,559	25,680
1991	67.2	43,011	7.7	11.5	4.2	35.6	35.7	14.2	24,497	36,299	12,537	25,425
1992[6]	68.2	42,490	8.1	11.9	4.3	35.4	38.0	14.8	23,765	35,820	12,447	25,668
1993	68.5	41,691	8.4	12.3	4.4	35.6	39.3	15.1	23,804	35,056	12,460	25,346
1994	69.3	42,655	8.1	11.6	4.2	34.6	38.1	14.5	23,889	34,769	12,611	25,588
1995	69.6	43,436	7.5	10.8	4.1	32.4	36.4	13.8	24,131	34,439	12,974	25,431
1996	70.2	43,945	7.7	11.0	4.2	32.6	36.5	13.7	24,761	34,842	13,313	25,904
1997	70.9	45,262	7.3	10.3	4.0	31.6	35.6	13.3	25,605	35,797	13,916	26,434
1998	71.6	46,737	7.2	10.0	3.8	29.9	34.5	12.7	26,492	36,252	14,430	26,855
WHITE												
1980[3]	52.7	43,382	4.2	8.0	1.6	25.7	19.7	10.2	26,397	39,057	9,798	23,178
1981	53.3	42,545	4.7	8.8	1.8	27.4	21.6	11.1	25,863	38,313	9,984	22,912
1982	53.4	41,949	5.1	9.6	1.8	27.9	23.5	12.0	25,146	37,906	10,174	23,609
1983[4]	53.9	42,283	5.2	9.7	1.9	28.3	24.0	12.1	25,242	37,773	10,665	23,990
1984	54.4	43,434	4.9	9.1	1.9	27.1	23.0	11.5	25,834	38,947	10,902	24,434
1985	55.0	44,161	5.0	9.1	2.0	27.4	22.9	11.4	25,921	38,922	11,145	24,968
1986	55.7	45,820	4.8	8.6	2.0	28.2	22.2	11.0	26,859	39,585	11,541	25,433
1987[5]	56.1	46,468	4.6	8.1	2.0	26.9	21.2	10.4	27,126	39,176	12,206	25,668
1988	56.5	46,730	4.5	7.9	1.9	26.5	20.7	10.1	27,501	38,941	12,543	25,935
1989	56.6	47,290	4.4	7.8	1.9	25.4	20.8	10.0	27,425	39,004	12,898	26,121
1990	56.8	46,038	4.6	8.1	2.0	26.8	22.3	10.7	26,402	37,515	12,867	25,989
1991	57.2	45,218	5.0	8.8	2.2	28.4	23.7	11.3	25,605	37,044	12,831	25,796
1992[6]	57.7	44,927	5.3	9.1	2.2	28.5	25.3	11.9	24,869	36,672	12,737	25,965
1993	57.9	44,331	5.5	9.4	2.4	29.2	26.2	12.2	24,795	35,907	12,708	25,921
1994	58.4	44,967	5.3	9.1	2.3	29.0	25.4	11.7	24,933	35,680	12,791	26,280
1995	58.9	45,612	5.0	8.5	2.2	26.6	24.4	11.2	25,557	35,846	13,173	25,952
1996	58.9	46,496	5.1	8.6	2.3	27.3	24.7	11.2	25,919	36,092	13,465	26,344
1997	59.5	47,482	5.0	8.4	2.3	27.7	24.4	11.0	26,522	36,681	14,007	26,882
1998	60.1	49,023	4.8	8.0	2.1	24.9	23.5	10.5	27,646	37,196	14,617	27,304
BLACK												
1980[3]	6.3	25,102	1.8	28.9	1.3	49.4	8.6	32.5	15,862	27,480	9,071	21,618
1981	6.4	24,000	2.0	30.8	1.4	52.9	9.2	34.2	15,379	27,108	8,870	20,692
1982	6.5	23,185	2.2	33.0	1.5	56.2	9.7	35.6	15,069	26,922	8,974	21,101
1983[4]	6.7	23,830	2.2	32.3	1.5	53.7	9.9	35.7	14,762	26,949	9,114	21,295
1984	6.8	24,208	2.1	30.9	1.5	51.7	9.5	33.8	14,822	26,580	9,670	22,020
1985	6.9	25,429	2.0	28.7	1.5	50.5	8.9	31.3	16,312	27,224	9,509	22,102
1986	7.1	26,181	2.0	28.0	1.5	50.1	9.0	31.1	16,095	27,909	9,765	22,255
1987[5]	7.2	26,410	2.1	29.4	1.6	51.1	9.5	32.4	16,092	28,011	9,971	22,926
1988	7.4	26,633	2.1	28.2	1.6	49.0	9.4	31.3	16,595	28,544	10,126	23,240
1989	7.5	26,565	2.1	27.8	1.5	46.5	9.3	30.7	16,575	27,216	10,352	23,492
1990	7.5	26,717	2.2	29.3	1.6	48.1	9.8	31.9	16,048	26,790	10,386	23,127
1991	7.7	25,788	2.3	30.4	1.8	51.2	10.2	32.7	15,513	27,080	10,551	22,899
1992[6]	8.0	24,517	2.5	31.1	1.9	50.2	10.8	33.4	15,178	26,711	10,325	23,536
1993	8.0	24,300	2.5	31.3	1.9	49.9	10.9	33.1	16,475	26,583	10,725	22,916
1994	8.1	27,164	2.2	27.3	1.7	46.2	10.2	30.6	16,478	26,842	11,597	22,688
1995	8.1	27,776	2.1	26.4	1.7	45.1	9.9	29.3	17,119	26,523	11,723	22,545
1996	8.5	27,553	2.2	26.1	1.7	43.7	9.7	28.4	17,132	28,191	12,230	22,845
1997	8.4	29,048	2.0	23.6	1.6	39.8	9.1	26.5	18,378	27,316	13,251	23,119
1998	8.5	29,404	2.0	23.4	1.6	40.8	9.1	26.1	19,321	27,472	13,137	23,864

[1] The term "family" refers to a group of two or more persons related by birth, marriage, or adoption and residing together. Every family must include a reference person. Beginning 1979, based on householder concept and restricted to primary families.

[2] Current dollar median money income adjusted by CPI–U–X1.

[3] Based on 1980 census population controls (beginning 1979); comparable with succeeding years.

[4] Reflects implementation of Hispanic population controls; comparable with succeeding years.

[5] Based on revised methodology; comparable with succeeding years.

[6] Based on 1990 census adjusted population controls; comparable with succeeding years.

Note.—Poverty rates (percent of persons below poverty level) for all races for years not shown above are: 1959, 22.4; 1960, 22.2; 1961, 21.9; 1962, 21.0; 1963, 19.5; 1964, 19.0; 1965, 17.3; 1966, 14.7; 1967, 14.2; 1968, 12.8; 1969, 12.1; 1970, 12.6; 1971, 12.5; 1972, 11.9; 1973, 11.1; 1974, 11.2; 1975, 12.3; 1976, 11.8; 1977, 11.6; 1978, 11.4; and 1979, 11.7.

Poverty thresholds are updated each year to reflect changes in the consumer price index (CPI–U).

For details see "Current Population Reports," Series P–60.

Source: Department of Commerce, Bureau of the Census.

TABLE B–32.—*Population by age group, 1929–99*

[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	227,726	16,451	38,838	17,167	21,590	63,470	44,504	25,707
1981	229,966	16,893	38,144	16,812	21,869	65,528	44,500	26,221
1982	232,188	17,228	37,784	16,332	21,902	67,692	44,462	26,787
1983	234,307	17,547	37,526	15,823	21,844	69,733	44,474	27,361
1984	236,348	17,695	37,461	15,295	21,737	71,735	44,547	27,878
1985	238,466	17,842	37,450	15,005	21,478	73,673	44,602	28,416
1986	240,651	17,963	37,404	15,024	20,942	75,651	44,660	29,008
1987	242,804	18,052	37,333	15,215	20,385	77,338	44,854	29,626
1988	245,021	18,195	37,593	15,198	19,846	78,595	45,471	30,124
1989	247,342	18,508	37,972	14,913	19,442	79,943	45,882	30,682
1990	249,948	18,850	38,595	14,460	19,304	81,208	46,292	31,239
1991	252,639	19,186	39,178	13,967	19,332	82,443	46,756	31,777
1992	255,374	19,488	39,848	13,736	19,168	82,501	48,339	32,294
1993	258,083	19,670	40,445	13,888	18,892	82,800	49,576	32,812
1994	260,599	19,697	41,076	14,142	18,487	83,104	50,884	33,209
1995	263,044	19,529	41,743	14,411	18,068	83,441	52,234	33,618
1996	265,463	19,289	42,235	14,917	17,592	83,762	53,712	33,955
1997	268,008	19,097	42,727	15,267	17,565	83,711	55,444	34,198
1998	270,561	18,966	43,056	15,660	17,758	83,454	57,267	34,401
1999	273,131	18,918	43,333	15,955	18,141	82,977	59,230	34,578

Note.—Includes Armed Forces overseas beginning 1940. Includes Alaska and Hawaii beginning 1950.
All estimates are consistent with decennial census enumerations.

Source: Department of Commerce, Bureau of the Census.

TABLE B–33.—*Civilian population and labor force, 1929–99*

[Monthly data seasonally adjusted, except as noted]

Year or month	Civilian noninstitutional population[1]	Civilian labor force					Not in labor force	Civilian labor force participation rate[2]	Civilian employment/population ratio[3]	Unemployment rate, civilian workers[4]
		Total	Employment			Unemployment				
			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	44,200	55.7	47.6	14.6
1941	99,900	55,910	50,350	9,100	41,250	5,560	43,990	56.0	50.4	9.9
1942	98,640	56,410	53,750	9,250	44,500	2,660	42,230	57.2	54.5	4.7
1943	94,640	55,540	54,470	9,080	45,390	1,070	39,100	58.7	57.6	1.9
1944	93,220	54,630	53,960	8,950	45,010	670	38,590	58.6	57.9	1.2
1945	94,090	53,860	52,820	8,580	44,240	1,040	40,230	57.2	56.1	1.9
1946	103,070	57,520	55,250	8,320	46,930	2,270	45,550	55.8	53.6	3.9
1947	106,018	60,168	57,812	8,256	49,557	2,356	45,850	56.8	54.5	3.9
	Thousands of persons 16 years of age and over									
1947	101,827	59,350	57,038	7,890	49,148	2,311	42,477	58.3	56.0	3.9
1948	103,068	60,621	58,343	7,629	50,714	2,276	42,447	58.8	56.6	3.8
1949	103,994	61,286	57,651	7,658	49,993	3,637	42,708	58.9	55.4	5.9
1950	104,995	62,208	58,918	7,160	51,758	3,288	42,787	59.2	56.1	5.3
1951	104,621	62,017	59,961	6,726	53,235	2,055	42,604	59.2	57.3	3.3
1952	105,231	62,138	60,250	6,500	53,749	1,883	43,093	59.0	57.3	3.0
1953[5]	107,056	63,015	61,179	6,260	54,919	1,834	44,041	58.9	57.1	2.9
1954	108,321	63,643	60,109	6,205	53,904	3,532	44,678	58.8	55.5	5.5
1955	109,683	65,023	62,170	6,450	55,722	2,852	44,660	59.3	56.7	4.4
1956	110,954	66,552	63,799	6,283	57,514	2,750	44,402	60.0	57.5	4.1
1957	112,265	66,929	64,071	5,947	58,123	2,859	45,336	59.6	57.1	4.3
1958	113,727	67,639	63,036	5,586	57,450	4,602	46,088	59.5	55.4	6.8
1959	115,329	68,369	64,630	5,565	59,065	3,740	46,960	59.3	56.0	5.5
1960[5]	117,245	69,628	65,778	5,458	60,318	3,852	47,617	59.4	56.1	5.5
1961	118,771	70,459	65,746	5,200	60,546	4,714	48,312	59.3	55.4	6.7
1962[5]	120,153	70,614	66,702	4,944	61,759	3,911	49,539	58.8	55.5	5.5
1963	122,416	71,833	67,762	4,687	63,076	4,070	50,583	58.7	55.4	5.7
1964	124,485	73,091	69,305	4,523	64,782	3,786	51,394	58.7	55.7	5.2
1965	126,513	74,455	71,088	4,361	66,726	3,366	52,058	58.9	56.2	4.5
1966	128,058	75,770	72,895	3,979	68,915	2,875	52,288	59.2	56.9	3.8
1967	129,874	77,347	74,372	3,844	70,527	2,975	52,527	59.6	57.3	3.8
1968	132,028	78,737	75,920	3,817	72,103	2,817	53,291	59.6	57.5	3.6
1969	134,335	80,734	77,902	3,606	74,296	2,832	53,602	60.1	58.0	3.5
1970	137,085	82,771	78,678	3,463	75,215	4,093	54,315	60.4	57.4	4.9
1971	140,216	84,382	79,367	3,394	75,972	5,016	55,834	60.2	56.6	5.9
1972[5]	144,126	87,034	82,153	3,484	78,669	4,882	57,091	60.4	57.0	5.6
1973[5]	147,096	89,429	85,064	3,470	81,594	4,365	57,667	60.8	57.8	4.9
1974	150,120	91,949	86,794	3,515	83,279	5,156	58,171	61.3	57.8	5.6
1975	153,153	93,775	85,846	3,408	82,438	7,929	59,377	61.2	56.1	8.5
1976	156,150	96,158	88,752	3,331	85,421	7,406	59,991	61.6	56.8	7.7
1977	159,033	99,009	92,017	3,283	88,734	6,991	60,025	62.3	57.9	7.1
1978[5]	161,910	102,251	96,048	3,387	92,661	6,202	59,659	63.2	59.3	6.1
1979	164,863	104,962	98,824	3,347	95,477	6,137	59,900	63.7	59.9	5.8
1980	167,745	106,940	99,303	3,364	95,938	7,637	60,806	63.8	59.2	7.1
1981	170,130	108,670	100,397	3,368	97,030	8,273	61,460	63.9	59.0	7.6
1982	172,271	110,204	99,526	3,401	96,125	10,678	62,067	64.0	57.8	9.7
1983	174,215	111,550	100,834	3,383	97,450	10,717	62,665	64.0	57.9	9.6
1984	176,383	113,544	105,005	3,321	101,685	8,539	62,839	64.4	59.5	7.5
1985	178,206	115,461	107,150	3,179	103,971	8,312	62,744	64.8	60.1	7.2
1986[5]	180,587	117,834	109,597	3,163	106,434	8,237	62,752	65.3	60.7	7.0
1987	182,753	119,865	112,440	3,208	109,232	7,425	62,888	65.6	61.5	6.2
1988	184,613	121,669	114,968	3,169	111,800	6,701	62,944	65.9	62.3	5.5
1989	186,393	123,869	117,342	3,199	114,142	6,528	62,523	66.5	63.0	5.3
1990[5]	189,164	125,840	118,793	3,223	115,570	7,047	63,324	66.5	62.8	5.6
1991	190,925	126,346	117,718	3,269	114,449	8,628	64,578	66.2	61.7	6.8
1992	192,805	128,105	118,492	3,247	115,245	9,613	64,700	66.4	61.5	7.5
1993	194,838	129,200	120,259	3,115	117,144	8,940	65,638	66.3	61.7	6.9
1994[5]	196,814	131,056	123,060	3,409	119,651	7,996	65,758	66.6	62.5	6.1
1995	198,584	132,304	124,900	3,440	121,460	7,404	66,280	66.6	62.9	5.6
1996	200,591	133,943	126,708	3,443	123,264	7,236	66,647	66.8	63.2	5.4
1997[5]	203,133	136,297	129,558	3,399	126,159	6,739	66,837	67.1	63.8	4.9
1998[5]	205,220	137,673	131,463	3,378	128,085	6,210	67,547	67.1	64.1	4.5
1999[5]	207,753	139,368	133,488	3,281	130,207	5,880	68,385	67.1	64.3	4.2

[1] Not seasonally adjusted.
[2] Civilian labor force as percent of civilian noninstitutional population.
[3] Civilian employment as percent of civilian noninstitutional population.
[4] Unemployed as percent of civilian labor force.

See next page for continuation of table.

TABLE B–33.—*Civilian population and labor force, 1929–99*—Continued

[Monthly data seasonally adjusted, except as noted]

Year or month	Civilian noninstitutional population[1]	Civilian labor force					Not in labor force	Civilian labor force participation rate[2]	Civilian employment/population ratio[3]	Unemployment rate, civilian workers[4]
		Total	Employment			Unemployment				
			Total	Agricultural	Nonagricultural					
	Thousands of persons 16 years of age and over							Percent		
1996: Jan	199,634	132,668	125,152	3,486	121,666	7,516	66,966	66.5	62.7	5.7
Feb	199,773	133,002	125,672	3,555	122,117	7,330	66,771	66.6	62.9	5.5
Mar	199,921	133,198	125,875	3,490	122,385	7,323	66,723	66.6	63.0	5.5
Apr	200,101	133,403	126,002	3,396	122,606	7,401	66,698	66.7	63.0	5.5
May	200,278	133,674	126,229	3,476	122,753	7,445	66,604	66.7	63.0	5.6
June	200,459	133,690	126,598	3,418	123,180	7,092	66,769	66.7	63.2	5.3
July	200,641	134,265	126,942	3,434	123,508	7,323	66,376	66.9	63.3	5.5
Aug	200,847	134,043	127,172	3,402	123,770	6,871	66,804	66.7	63.3	5.1
Sept	201,061	134,486	127,513	3,448	124,065	6,973	66,575	66.9	63.4	5.2
Oct	201,273	134,881	127,863	3,465	124,398	7,018	66,392	67.0	63.5	5.2
Nov	201,463	134,953	127,732	3,353	124,379	7,221	66,510	67.0	63.4	5.4
Dec	201,636	135,071	127,831	3,431	124,400	7,240	66,565	67.0	63.4	5.4
1997: Jan[5]	202,285	135,576	128,387	3,459	124,928	7,189	66,709	67.0	63.5	5.3
Feb	202,389	135,496	128,350	3,358	124,992	7,146	66,893	66.9	63.4	5.3
Mar	202,513	135,958	128,922	3,422	125,500	7,036	66,555	67.1	63.7	5.2
Apr	202,674	136,043	129,191	3,468	125,723	6,852	66,631	67.1	63.7	5.0
May	202,832	136,061	129,383	3,434	125,949	6,678	66,771	67.1	63.8	4.9
June	203,000	136,218	129,417	3,398	126,019	6,801	66,782	67.1	63.8	5.0
July	203,166	136,421	129,812	3,421	126,391	6,609	66,745	67.1	63.9	4.8
Aug	203,364	136,590	129,987	3,359	126,628	6,603	66,774	67.2	63.9	4.8
Sept	203,570	136,612	129,982	3,400	126,582	6,630	66,958	67.1	63.9	4.9
Oct	203,767	136,547	130,121	3,309	126,812	6,426	67,220	67.0	63.9	4.7
Nov	203,941	136,860	130,577	3,375	127,202	6,283	67,081	67.1	64.0	4.6
Dec	204,098	137,097	130,646	3,395	127,251	6,451	67,001	67.2	64.0	4.7
1998: Jan[5]	204,238	137,225	130,819	3,334	127,485	6,406	67,013	67.2	64.1	4.7
Feb	204,400	137,263	130,911	3,354	127,557	6,352	67,137	67.2	64.0	4.6
Mar	204,547	137,333	130,854	3,180	127,674	6,479	67,214	67.1	64.0	4.7
Apr	204,731	137,216	131,255	3,341	127,914	5,961	67,515	67.0	64.1	4.3
May	204,899	137,329	131,278	3,347	127,931	6,051	67,570	67.0	64.1	4.4
June	205,085	137,449	131,234	3,345	127,889	6,215	67,636	67.0	64.0	4.5
July	205,270	137,476	131,274	3,408	127,866	6,202	67,794	67.0	64.0	4.5
Aug	205,479	137,565	131,381	3,498	127,883	6,184	67,914	66.9	63.9	4.5
Sept	205,699	138,156	131,922	3,499	128,423	6,234	67,543	67.2	64.1	4.5
Oct	205,919	138,189	131,950	3,585	128,365	6,239	67,730	67.1	64.1	4.5
Nov	206,104	138,230	132,156	3,340	128,816	6,074	67,874	67.1	64.1	4.4
Dec	206,270	138,545	132,517	3,241	129,276	6,028	67,725	67.2	64.2	4.4
1999: Jan[5]	206,719	139,232	133,225	3,297	129,928	6,007	67,487	67.4	64.4	4.3
Feb	206,873	139,137	133,029	3,328	129,701	6,108	67,736	67.3	64.3	4.4
Mar	207,036	138,804	132,976	3,290	129,686	5,828	68,232	67.0	64.2	4.2
Apr	207,236	139,086	133,054	3,341	129,713	6,032	68,150	67.1	64.2	4.3
May	207,427	139,013	133,190	3,290	129,900	5,823	68,414	67.0	64.2	4.2
June	207,632	139,332	133,398	3,330	130,068	5,934	68,300	67.1	64.2	4.3
July	207,828	139,336	133,399	3,278	130,121	5,937	68,492	67.0	64.2	4.3
Aug	208,038	139,372	133,530	3,234	130,296	5,842	68,666	67.0	64.2	4.2
Sept	208,265	139,475	133,650	3,179	130,471	5,825	68,790	67.0	64.2	4.2
Oct	208,483	139,697	133,940	3,238	130,702	5,757	68,786	67.0	64.2	4.1
Nov	208,666	139,834	134,098	3,310	130,788	5,736	68,832	67.0	64.3	4.1
Dec	208,832	140,108	134,420	3,279	131,141	5,688	68,724	67.1	64.4	4.1

[5] 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.

Beginning 1990, the introduction of 1990 census-based population controls, adjusted for the estimated undercount, added about 1.1 million to the civilian population and labor force, 880,000 to civilian employment, and 175,000 to unemployment. The overall unemployment rate rose by about 0.1 percentage point.

Beginning 1994, data are not strictly comparable with earlier data because of the introduction of a major redesign of the Current Population Survey and collection methodology.

Beginning 1997, 1998, and 1999 data are not strictly comparable due to the introduction of revised population controls. See February issues *Employment and Earnings* for details on the effects. Also, for 1998, data reflect the introduction of a new composite estimation procedure for the Current Population Survey.

Note.—Labor force data in Tables B–33 through B–42 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–34.—*Civilian employment and unemployment by sex and age, 1950–99*

[Thousands of persons 16 years of age and over; monthly data seasonally adjusted]

Year or month	Civilian employment							Unemployment						
	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
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	118,793	65,104	3,427	61,678	53,689	3,154	50,535	7,047	3,906	667	3,239	3,140	544	2,596
1991	117,718	64,223	3,044	61,178	53,496	2,862	50,634	8,628	4,946	751	4,195	3,683	608	3,074
1992	118,492	64,440	2,944	61,496	54,052	2,724	51,328	9,613	5,523	806	4,717	4,090	621	3,469
1993	120,259	65,349	2,994	62,355	54,910	2,811	52,099	8,940	5,055	768	4,287	3,885	597	3,288
1994	123,060	66,450	3,156	63,294	56,610	3,005	53,606	7,996	4,367	740	3,627	3,629	580	3,049
1995	124,900	67,377	3,292	64,085	57,523	3,127	54,396	7,404	3,983	744	3,239	3,421	602	2,819
1996	126,708	68,207	3,310	64,897	58,501	3,190	55,311	7,236	3,880	733	3,146	3,356	573	2,783
1997	129,558	69,685	3,401	66,284	59,873	3,260	56,613	6,739	3,577	694	2,882	3,162	577	2,585
1998	131,463	70,693	3,558	67,135	60,771	3,493	57,278	6,210	3,266	686	2,580	2,944	519	2,424
1999	133,488	71,446	3,685	67,761	62,042	3,487	58,555	5,880	3,066	633	2,433	2,814	529	2,285
1998: Jan	130,819	70,338	3,516	66,822	60,481	3,520	56,961	6,406	3,328	659	2,669	3,078	472	2,606
Feb	130,911	70,362	3,485	66,877	60,549	3,485	57,064	6,352	3,331	709	2,622	3,021	491	2,530
Mar	130,854	70,239	3,531	66,708	60,615	3,474	57,141	6,479	3,426	686	2,740	3,053	532	2,521
Apr	131,255	70,690	3,544	67,146	60,565	3,456	57,109	5,961	3,066	587	2,479	2,895	501	2,394
May	131,278	70,598	3,461	67,137	60,680	3,485	57,195	6,051	3,179	679	2,500	2,872	515	2,357
June	131,234	70,612	3,598	67,014	60,622	3,492	57,130	6,215	3,262	685	2,577	2,953	555	2,398
July	131,274	70,645	3,558	67,087	60,629	3,469	57,160	6,202	3,360	693	2,667	2,842	506	2,336
Aug	131,381	70,575	3,578	66,997	60,806	3,487	57,319	6,184	3,225	686	2,539	2,959	551	2,408
Sept	131,922	70,865	3,598	67,267	61,057	3,574	57,483	6,234	3,342	740	2,602	2,892	516	2,376
Oct	131,950	71,000	3,544	67,456	60,950	3,491	57,459	6,239	3,223	712	2,511	3,016	592	2,424
Nov	132,156	71,201	3,628	67,573	60,955	3,417	57,538	6,074	3,154	698	2,456	2,920	523	2,397
Dec	132,517	71,173	3,645	67,528	61,344	3,568	57,776	6,028	3,209	693	2,516	2,819	477	2,342
1999: Jan	133,225	71,368	3,597	67,771	61,857	3,484	58,373	6,007	3,138	707	2,431	2,869	551	2,318
Feb	133,029	71,230	3,703	67,527	61,799	3,538	58,261	6,108	3,232	648	2,584	2,876	546	2,330
Mar	132,976	71,269	3,641	67,628	61,707	3,491	58,216	5,828	2,949	643	2,306	2,879	541	2,338
Apr	133,054	71,208	3,646	67,562	61,846	3,510	58,336	6,032	3,062	632	2,430	2,970	541	2,429
May	133,190	71,207	3,737	67,470	61,983	3,500	58,483	5,823	3,111	603	2,508	2,712	487	2,225
June	133,398	71,330	3,685	67,645	62,068	3,421	58,647	5,934	3,084	613	2,471	2,850	509	2,341
July	133,399	71,437	3,734	67,703	61,962	3,485	58,477	5,937	3,061	597	2,464	2,876	501	2,375
Aug	133,530	71,436	3,668	67,768	62,094	3,446	58,648	5,842	3,063	591	2,472	2,779	523	2,256
Sept	133,650	71,630	3,687	67,943	62,020	3,390	58,630	5,825	3,013	628	2,385	2,812	582	2,230
Oct	133,940	71,623	3,725	67,898	62,317	3,517	58,800	5,757	3,057	616	2,441	2,700	545	2,155
Nov	134,098	71,732	3,695	68,037	62,366	3,528	58,838	5,736	2,996	645	2,351	2,740	526	2,214
Dec	134,420	71,927	3,730	68,197	62,493	3,535	58,958	5,688	3,003	671	2,332	2,685	489	2,196

Note.—See footnote 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–35.—*Civilian employment by demographic characteristic, 1955–99*

[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
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	118,793	102,261	56,703	45,558	5,779	16,533	8,401	8,131	801	12,175	5,995	6,180	598
1991	117,718	101,182	55,797	45,385	5,216	16,536	8,426	8,110	690	12,074	5,961	6,113	494
1992	118,492	101,669	55,959	45,710	4,985	16,823	8,482	8,342	684	12,151	5,930	6,221	492
1993	120,259	103,045	56,656	46,390	5,113	17,214	8,693	8,521	691	12,382	6,047	6,334	494
1994	123,060	105,190	57,452	47,738	5,398	17,870	8,998	8,872	763	12,835	6,241	6,595	552
1995	124,900	106,490	58,146	48,344	5,593	18,409	9,231	9,179	826	13,279	6,422	6,857	586
1996	126,708	107,808	58,888	48,920	5,667	18,900	9,319	9,580	832	13,542	6,456	7,086	613
1997	129,558	109,856	59,998	49,859	5,807	19,701	9,687	10,014	853	13,969	6,607	7,362	631
1998	131,463	110,931	60,604	50,327	6,089	20,532	10,089	10,443	962	14,556	6,871	7,685	736
1999	133,488	112,235	61,139	51,096	6,204	21,253	10,307	10,945	968	15,056	7,027	8,029	691
1998: Jan	130,819	110,567	60,348	50,219	6,111	20,245	9,971	10,274	926	14,269	6,751	7,518	677
Feb	130,911	110,616	60,409	50,207	6,046	20,295	9,936	10,359	914	14,366	6,735	7,631	664
Mar	130,854	110,478	60,255	50,223	6,088	20,405	10,000	10,405	932	14,484	6,827	7,657	707
Apr	131,255	110,813	60,586	50,227	6,002	20,407	10,095	10,312	988	14,463	6,883	7,580	749
May	131,278	110,902	60,528	50,374	6,049	20,331	10,022	10,309	906	14,326	6,804	7,522	676
June	131,234	110,645	60,483	50,162	6,061	20,585	10,142	10,443	1,024	14,636	6,950	7,686	821
July	131,274	110,766	60,544	50,222	6,088	20,490	10,080	10,410	938	14,526	6,873	7,653	727
Aug	131,381	110,920	60,591	50,329	6,113	20,542	10,063	10,479	949	14,553	6,845	7,708	736
Sept	131,922	111,350	60,728	50,622	6,191	20,596	10,133	10,463	999	14,551	6,881	7,670	769
Oct	131,950	111,245	60,832	50,413	6,094	20,733	10,190	10,543	930	14,793	6,986	7,807	732
Nov	132,156	111,387	61,009	50,378	6,070	20,811	10,217	10,594	995	14,799	6,949	7,850	768
Dec	132,517	111,539	60,959	50,580	6,167	20,955	10,230	10,725	1,049	14,894	6,962	7,932	801
1999: Jan	133,225	111,978	60,946	51,032	6,130	21,253	10,406	10,847	968	15,056	7,114	7,942	724
Feb	133,029	112,017	60,959	51,058	6,218	21,022	10,262	10,760	1,001	14,924	7,002	7,922	720
Mar	132,976	112,030	61,075	50,955	6,154	20,977	10,215	10,762	998	14,925	6,985	7,940	705
Apr	133,054	111,886	60,993	50,893	6,167	21,125	10,198	10,927	979	15,011	6,982	8,029	684
May	133,190	111,898	60,892	51,006	6,259	21,230	10,261	10,969	984	15,053	7,038	8,015	696
June	133,398	112,115	61,053	51,062	6,113	21,264	10,278	10,986	972	15,069	7,015	8,054	704
July	133,399	112,193	61,207	50,986	6,238	21,143	10,175	10,968	958	14,962	6,922	8,040	682
Aug	133,530	112,308	61,193	51,115	6,161	21,270	10,302	10,968	935	15,047	7,018	8,029	660
Sept	133,650	112,303	61,322	50,981	6,191	21,378	10,297	11,081	905	15,114	7,016	8,098	659
Oct	133,940	112,548	61,301	51,247	6,302	21,421	10,342	11,079	948	15,124	7,030	8,094	662
Nov	134,098	112,611	61,294	51,317	6,271	21,519	10,456	11,063	954	15,187	7,076	8,111	663
Dec	134,420	112,951	61,436	51,515	6,244	21,433	10,499	10,934	1,016	15,204	7,127	8,077	732

Note.—See footnote 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–36.—*Unemployment by demographic characteristic, 1955–99*

[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
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	7,047	5,186	2,935	2,251	903	1,860	971	889	308	1,565	806	758	268
1991	8,628	6,560	3,859	2,701	1,029	2,068	1,087	981	330	1,723	890	833	280
1992	9,613	7,169	4,209	2,959	1,037	2,444	1,314	1,130	390	2,011	1,067	944	324
1993	8,940	6,655	3,828	2,827	992	2,285	1,227	1,058	373	1,844	971	872	313
1994	7,996	5,892	3,275	2,617	960	2,104	1,092	1,011	360	1,666	848	818	300
1995	7,404	5,459	2,999	2,460	952	1,945	984	961	394	1,538	762	777	325
1996	7,236	5,300	2,896	2,404	939	1,936	984	952	367	1,592	808	784	310
1997	6,739	4,836	2,641	2,195	912	1,903	935	967	359	1,560	747	813	302
1998	6,210	4,484	2,431	2,053	876	1,726	835	891	329	1,426	671	756	281
1999	5,880	4,273	2,274	1,999	844	1,606	792	814	318	1,309	626	684	268
1998: Jan	6,406	4,549	2,456	2,093	796	1,815	878	937	331	1,495	707	788	283
Feb	6,352	4,561	2,463	2,098	866	1,779	859	920	328	1,479	699	780	284
Mar	6,479	4,691	2,567	2,124	899	1,789	853	936	326	1,468	676	792	276
Apr	5,961	4,268	2,265	2,003	809	1,698	794	904	283	1,444	657	787	258
May	6,051	4,365	2,373	1,992	858	1,705	789	916	343	1,420	621	799	291
June	6,215	4,505	2,446	2,059	929	1,709	818	891	301	1,397	640	757	255
July	6,202	4,395	2,430	1,965	833	1,801	918	883	347	1,512	763	749	296
Aug	6,184	4,512	2,413	2,099	905	1,690	834	856	331	1,419	681	738	287
Sept	6,234	4,513	2,509	2,004	887	1,751	848	903	378	1,425	666	759	309
Oct	6,239	4,551	2,438	2,113	950	1,699	812	887	351	1,381	648	733	296
Nov	6,074	4,386	2,344	2,042	895	1,682	814	868	332	1,386	665	721	291
Dec	6,028	4,441	2,411	2,030	874	1,566	780	786	299	1,261	601	660	242
1999: Jan	6,007	4,378	2,341	2,037	892	1,573	796	777	358	1,281	611	670	295
Feb	6,108	4,438	2,422	2,016	851	1,650	793	857	340	1,326	629	697	281
Mar	5,828	4,207	2,200	2,007	841	1,623	743	880	352	1,306	588	718	302
Apr	6,032	4,458	2,274	2,184	852	1,590	781	809	323	1,277	595	682	263
May	5,823	4,295	2,318	1,977	807	1,545	771	774	292	1,237	599	638	234
June	5,934	4,403	2,325	2,078	834	1,532	761	771	281	1,239	583	656	232
July	5,937	4,299	2,276	2,023	803	1,651	787	864	282	1,404	650	754	251
Aug	5,842	4,311	2,372	1,939	813	1,550	713	837	300	1,274	576	698	258
Sept	5,825	4,192	2,209	1,983	870	1,654	814	840	345	1,360	648	712	294
Oct	5,757	4,106	2,174	1,932	842	1,654	904	750	317	1,365	735	630	294
Nov	5,736	4,092	2,167	1,925	857	1,633	826	807	319	1,321	649	672	263
Dec	5,688	4,057	2,163	1,894	864	1,622	831	791	300	1,309	644	665	248

Note.—See footnote 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–37.—*Civilian labor force participation rate and employment/population ratio, 1950–99*

[Percent;[1] monthly data seasonally adjusted]

Year or month	Labor force participation rate							Employment/population ratio						
	All civilian workers	Males	Females	Both sexes 16–19 years	White	Black and other	Black	All civilian workers	Males	Females	Both sexes 16–19 years	White	Black and other	Black
1950	59.2	86.4	33.9	51.8	.....	.....	.....	56.1	82.0	32.0	45.5	.....	.....	.....
1951	59.2	86.3	34.6	52.2	.....	.....	.....	57.3	84.0	33.1	47.9	.....	.....	.....
1952	59.0	86.3	34.7	51.3	.....	.....	.....	57.3	83.9	33.4	46.9	.....	.....	.....
1953	58.9	86.0	34.4	50.2	.....	.....	.....	57.1	83.6	33.3	46.4	.....	.....	.....
1954	58.8	85.5	34.6	48.3	58.2	64.0	.....	55.5	81.0	32.5	42.3	55.2	58.0	.....
1955	59.3	85.4	35.7	48.9	58.7	64.2	.....	56.7	81.8	34.0	43.5	56.5	58.7	.....
1956	60.0	85.5	36.9	50.9	59.4	64.9	.....	57.5	82.3	35.1	45.3	57.3	59.5	.....
1957	59.6	84.8	36.9	49.6	59.1	64.4	.....	57.1	81.3	35.1	43.9	56.8	59.3	.....
1958	59.5	84.2	37.1	47.4	58.9	64.8	.....	55.4	78.5	34.5	39.9	55.3	56.7	.....
1959	59.3	83.7	37.1	46.7	58.7	64.3	.....	56.0	79.3	35.0	39.9	55.9	57.5	.....
1960	59.4	83.3	37.7	47.5	58.8	64.5	.....	56.1	78.9	35.5	40.5	55.9	57.9	.....
1961	59.3	82.9	38.1	46.9	58.8	64.1	.....	55.4	77.6	35.4	39.1	55.3	56.2	.....
1962	58.8	82.0	37.9	46.1	58.3	63.2	.....	55.5	77.7	35.6	39.4	55.4	56.3	.....
1963	58.7	81.4	38.3	45.2	58.2	63.0	.....	55.4	77.1	35.8	37.4	55.3	56.2	.....
1964	58.7	81.0	38.7	44.5	58.2	63.1	.....	55.7	77.3	36.3	37.3	55.5	57.0	.....
1965	58.9	80.7	39.3	45.7	58.4	62.9	.....	56.2	77.5	37.1	38.9	56.0	57.8	.....
1966	59.2	80.4	40.3	48.2	58.7	63.0	.....	56.9	77.9	38.3	42.1	56.8	58.4	.....
1967	59.6	80.4	41.1	48.4	59.2	62.8	.....	57.3	78.0	39.0	42.2	57.2	58.2	.....
1968	59.6	80.1	41.6	48.3	59.3	62.2	.....	57.5	77.8	39.6	42.2	57.4	58.0	.....
1969	60.1	79.8	42.7	49.4	59.9	62.1	.....	58.0	77.6	40.7	43.4	58.0	58.1	.....
1970	60.4	79.7	43.3	49.9	60.2	61.8	.....	57.4	76.2	40.8	42.3	57.5	56.8	.....
1971	60.2	79.1	43.4	49.7	60.1	60.9	.....	56.6	74.9	40.4	41.3	56.8	54.9	.....
1972	60.4	78.9	43.9	51.9	60.4	60.2	59.9	57.0	75.0	41.0	43.5	57.4	54.1	53.7
1973	60.8	78.8	44.7	53.7	60.8	60.5	60.2	57.8	75.5	42.0	45.9	58.2	55.0	54.5
1974	61.3	78.7	45.7	54.8	61.4	60.3	59.8	57.8	74.9	42.6	46.0	58.3	54.3	53.5
1975	61.2	77.9	46.3	54.0	61.5	59.6	58.8	56.1	71.7	42.0	43.3	56.7	51.4	50.1
1976	61.6	77.5	47.3	54.5	61.8	59.8	59.0	56.8	72.0	43.2	44.2	57.5	52.0	50.8
1977	62.3	77.7	48.4	56.0	62.5	60.4	59.8	57.9	72.8	44.5	46.1	58.6	52.5	51.4
1978	63.2	77.9	50.0	57.8	63.3	62.2	61.5	59.3	73.8	46.4	48.3	60.0	54.7	53.6
1979	63.7	77.8	50.9	57.9	63.9	62.2	61.4	59.9	73.8	47.5	48.5	60.6	55.2	53.8
1980	63.8	77.4	51.5	56.7	64.1	61.7	61.0	59.2	72.0	47.7	46.6	60.0	53.6	52.3
1981	63.9	77.0	52.1	55.4	64.3	61.3	60.8	59.0	71.3	48.0	44.6	60.0	52.6	51.3
1982	64.0	76.6	52.6	54.1	64.3	61.6	61.0	57.8	69.0	47.7	41.5	58.8	50.9	49.4
1983	64.0	76.4	52.9	53.5	64.3	62.1	61.5	57.9	68.8	48.0	41.5	58.9	51.0	49.5
1984	64.4	76.4	53.6	53.9	64.6	62.6	62.2	59.5	70.7	49.5	43.7	60.5	53.6	52.3
1985	64.8	76.3	54.5	54.5	65.0	63.3	62.9	60.1	70.9	50.4	44.4	61.0	54.7	53.4
1986	65.3	76.3	55.3	54.7	65.5	63.7	63.3	60.7	71.0	51.4	44.6	61.5	55.4	54.1
1987	65.6	76.2	56.0	54.7	65.8	64.3	63.8	61.5	71.5	52.5	45.5	62.3	56.8	55.6
1988	65.9	76.2	56.6	55.3	66.2	64.0	63.8	62.3	72.0	53.4	46.8	63.1	57.4	56.3
1989	66.5	76.4	57.4	55.9	66.7	64.7	64.2	63.0	72.5	54.3	47.5	63.8	58.2	56.9
1990	66.5	76.4	57.5	53.7	66.9	64.4	64.0	62.8	72.0	54.3	45.3	63.7	57.9	56.7
1991	66.2	75.8	57.4	51.6	66.6	63.8	63.3	61.7	70.4	53.7	42.0	62.6	56.7	55.4
1992	66.4	75.8	57.8	51.3	66.8	64.6	63.9	61.5	69.8	53.8	41.0	62.4	56.4	54.9
1993	66.3	75.4	57.9	51.5	66.8	63.8	63.2	61.7	70.0	54.1	41.7	62.7	56.3	55.0
1994	66.6	75.1	58.8	52.7	67.1	63.9	63.4	62.5	70.4	55.3	43.4	63.5	57.2	56.1
1995	66.6	75.0	58.9	53.5	67.1	64.3	63.7	62.9	70.8	55.6	44.2	63.8	58.1	57.1
1996	66.8	74.9	59.3	52.3	67.2	64.6	64.1	63.2	70.9	56.0	43.5	64.1	58.6	57.4
1997	67.1	75.0	59.8	51.6	67.5	65.2	64.7	63.8	71.3	56.8	43.4	64.6	59.4	58.2
1998	67.1	74.9	59.8	52.8	67.3	66.0	65.6	64.1	71.6	57.1	45.1	64.7	60.9	59.7
1999	67.1	74.7	60.0	52.0	67.3	65.9	65.8	64.3	71.6	57.4	44.7	64.8	61.3	60.6
1998: Jan	67.2	75.0	60.0	52.9	67.4	66.0	65.2	64.1	71.6	57.1	45.6	64.7	60.6	59.0
Feb	67.2	74.9	59.9	52.9	67.4	65.9	65.4	64.0	71.6	57.1	45.1	64.7	60.6	59.3
Mar	67.1	74.9	60.0	53.0	67.3	66.2	65.8	64.0	71.4	57.1	45.2	64.6	60.9	59.7
Apr	67.0	74.9	59.7	52.0	67.2	65.8	65.5	64.1	71.8	57.0	45.0	64.7	60.8	59.5
May	67.0	74.8	59.8	52.2	67.3	65.5	64.8	64.1	71.6	57.1	44.5	64.8	60.4	58.9
June	67.0	74.9	59.8	53.2	67.2	66.2	65.8	64.0	71.5	57.0	45.3	64.6	61.1	60.1
July	67.0	74.9	59.6	52.4	67.1	66.0	65.8	64.0	71.5	56.9	44.8	64.6	60.7	59.6
Aug	66.9	74.6	59.8	52.9	67.2	65.7	65.4	63.9	71.4	57.0	45.0	64.6	60.7	59.6
Sept	67.2	75.0	59.9	53.7	67.4	65.9	65.3	64.1	71.6	57.2	45.7	64.8	60.8	59.5
Oct	67.1	74.9	59.9	52.8	67.3	66.0	66.0	64.1	71.6	57.1	44.6	64.7	61.0	60.4
Nov	67.1	74.9	59.8	52.4	67.3	66.1	66.0	64.1	71.8	57.0	44.7	64.7	61.2	60.3
Dec	67.2	74.9	60.0	52.8	67.4	66.1	65.8	64.2	71.7	57.4	45.5	64.8	61.5	60.6
1999: Jan	67.4	75.1	60.2	52.4	67.5	66.5	66.2	64.4	71.9	57.5	44.5	65.0	61.9	61.0
Feb	67.3	75.0	60.1	52.9	67.5	65.9	65.8	64.3	71.7	57.4	45.4	64.9	61.1	60.4
Mar	67.0	74.7	60.0	52.0	67.3	65.6	65.6	64.2	71.7	57.3	44.6	64.9	60.9	60.4
Apr	67.1	74.7	60.1	52.0	67.4	65.8	65.8	64.2	71.6	57.4	44.7	64.8	61.2	60.6
May	67.0	74.6	60.0	51.9	67.2	65.9	65.7	64.2	71.5	57.5	45.1	64.7	61.4	60.7
June	67.1	74.7	60.1	51.4	67.4	65.8	65.7	64.2	71.6	57.5	44.4	64.8	61.4	60.7
July	67.0	74.7	60.0	51.8	67.3	65.7	65.8	64.2	71.6	57.3	44.9	64.8	60.9	60.2
Aug	67.0	74.6	60.0	51.2	67.3	65.6	65.5	64.2	71.5	57.4	44.3	64.8	61.2	60.4
Sept	67.0	74.7	59.9	51.5	67.2	66.1	66.0	64.2	71.6	57.3	44.0	64.8	61.4	60.6
Oct	67.0	74.6	60.0	52.1	67.2	66.1	66.0	64.2	71.6	57.5	44.9	64.8	61.4	60.5
Nov	67.0	74.6	60.0	52.1	67.2	66.2	66.0	64.3	71.6	57.5	44.8	64.8	61.6	60.7
Dec	67.1	74.7	60.0	52.3	67.3	65.9	65.9	64.4	71.7	57.6	45.1	65.0	61.2	60.7

[1] Civilian labor force or civilian employment as percent of civilian noninstitutional population in group specified.

Note.—Data relate to persons 16 years of age and over.
See footnote 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–38.—*Civilian labor force participation rate by demographic characteristic, 1955–99*

[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						
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	66.5	66.9	77.1	59.6	78.5	57.4	55.3	57.6	64.0	71.0	40.7	75.0	58.3	36.8	60.6
1991	66.2	66.6	76.5	57.3	78.0	57.4	54.1	57.6	63.3	70.4	37.3	74.6	57.5	33.5	60.0
1992	66.4	66.8	76.5	56.9	78.0	57.7	52.5	58.1	63.9	70.7	40.6	74.3	58.5	35.2	60.8
1993	66.3	66.8	76.2	56.6	77.7	58.0	53.5	58.3	63.2	69.6	39.5	73.2	57.9	34.6	60.2
1994	66.6	67.1	75.9	57.7	77.3	58.9	55.1	59.2	63.4	69.1	40.8	72.5	58.7	36.3	60.9
1995	66.6	67.1	75.7	58.5	77.1	59.0	55.5	59.2	63.7	69.0	40.1	72.5	59.5	39.8	61.4
1996	66.8	67.2	75.8	57.1	77.3	59.1	54.7	59.4	64.1	68.7	39.5	72.3	60.4	38.9	62.6
1997	67.1	67.5	75.9	56.1	77.5	59.5	54.1	59.9	64.7	68.3	37.4	72.2	61.7	39.9	64.0
1998	67.1	67.3	75.6	56.6	77.2	59.4	55.4	59.7	65.6	69.0	40.7	72.5	62.8	42.5	64.8
1999	67.1	67.3	75.6	56.4	77.2	59.6	54.5	59.9	65.8	68.7	38.6	72.4	63.5	38.8	66.1
1998: Jan	67.2	67.4	75.7	56.9	77.2	59.6	55.6	59.9	65.2	68.8	38.6	72.5	62.2	40.9	64.4
Feb	67.2	67.4	75.7	56.8	77.3	59.5	55.5	59.8	65.4	68.5	38.7	72.1	62.9	39.6	65.3
Mar	67.1	67.3	75.6	57.6	77.1	59.5	55.6	59.8	65.8	69.0	38.2	72.8	63.1	42.7	65.2
Apr	67.0	67.2	75.6	55.9	77.2	59.4	54.2	59.8	65.5	69.3	38.6	73.0	62.4	44.0	64.3
May	67.0	67.3	75.6	55.8	77.2	59.5	55.5	59.8	64.8	68.1	36.7	72.0	62.0	42.5	64.0
June	67.0	67.2	75.5	56.7	77.1	59.3	55.6	59.6	65.8	69.5	42.1	72.9	62.9	45.8	64.6
July	67.0	67.1	75.5	55.8	77.2	59.2	55.1	59.5	65.8	69.9	44.3	73.0	62.5	39.3	64.8
Aug	66.9	67.2	75.5	56.6	77.1	59.4	55.7	59.7	65.4	68.7	40.3	72.3	62.7	43.1	64.7
Sept	67.2	67.4	75.7	56.5	77.3	59.6	56.5	59.8	65.3	68.8	44.5	71.8	62.5	43.3	64.4
Oct	67.1	67.3	75.7	56.6	77.3	59.5	55.8	59.7	66.0	69.5	39.9	73.1	63.2	43.8	65.2
Nov	67.1	67.3	75.7	56.9	77.3	59.3	54.0	59.7	66.0	69.2	44.3	72.3	63.4	41.9	65.6
Dec	67.2	67.4	75.7	56.7	77.3	59.5	55.3	59.8	65.8	68.6	41.6	72.0	63.4	43.1	65.5
1999: Jan	67.4	67.5	75.7	56.3	77.4	59.7	54.9	60.1	66.2	69.9	42.6	73.3	63.3	39.9	65.6
Feb	67.3	67.5	75.8	56.5	77.4	59.7	55.4	60.0	65.8	68.9	40.7	72.4	63.2	40.3	65.6
Mar	67.0	67.3	75.6	55.6	77.3	59.6	55.0	59.9	65.6	68.3	41.2	71.7	63.4	40.3	65.8
Apr	67.1	67.4	75.5	55.8	77.2	59.6	55.0	60.0	65.8	68.3	37.7	72.0	63.8	38.8	66.3
May	67.0	67.2	75.4	57.1	77.0	59.5	54.2	59.9	65.7	68.7	37.3	72.6	63.2	37.7	65.8
June	67.1	67.4	75.5	56.2	77.2	59.6	53.0	60.1	65.7	68.2	36.5	72.1	63.6	38.9	66.1
July	67.0	67.3	75.6	56.5	77.2	59.4	54.0	59.8	65.8	67.9	36.8	71.7	64.1	38.2	66.7
Aug	67.0	67.3	75.6	55.7	77.3	59.4	53.7	59.9	65.5	68.0	35.4	72.0	63.5	38.5	66.1
Sept	67.0	67.2	75.5	56.6	77.1	59.3	54.2	59.7	66.0	68.5	37.6	72.3	64.0	39.1	66.5
Oct	67.0	67.2	75.4	56.8	77.0	59.5	55.4	59.8	66.0	69.3	39.7	72.9	63.3	37.4	65.9
Nov	67.0	67.2	75.3	56.8	76.9	59.5	55.1	59.9	66.0	68.8	36.8	72.8	63.7	37.9	66.3
Dec	67.1	67.3	75.4	57.0	77.0	59.7	54.6	60.1	65.9	69.2	40.9	72.6	63.3	38.2	65.8

[1] Civilian labor force as percent of civilian noninstitutional population in group specified.

Note.—See Note, Table B–37.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–39.—*Civilian employment/population ratio by demographic characteristic, 1955–99*

[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						
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	62.8	63.7	73.3	51.0	75.1	54.7	48.3	55.2	56.7	62.6	27.7	67.1	51.9	25.8	54.7
1991	61.7	62.6	71.6	47.2	73.5	54.2	45.9	54.8	55.4	61.3	23.8	65.9	50.6	21.5	53.6
1992	61.5	62.4	71.1	46.4	73.1	54.2	44.2	54.9	54.9	59.9	23.6	64.3	50.8	22.1	53.6
1993	61.7	62.7	71.4	46.6	73.3	54.6	45.7	55.2	55.0	60.0	23.6	64.3	50.9	21.6	53.8
1994	62.5	63.5	71.8	48.3	73.6	55.8	47.5	56.4	56.1	60.8	25.4	65.0	52.3	24.5	55.0
1995	62.9	63.8	72.0	49.4	73.8	56.1	48.1	56.7	57.1	61.7	25.2	66.1	53.4	26.1	56.1
1996	63.2	64.1	72.3	48.2	74.2	56.3	47.6	57.0	57.4	61.1	24.9	65.5	54.4	27.1	57.1
1997	63.8	64.6	72.7	48.1	74.7	57.0	47.2	57.8	58.2	61.4	23.7	66.1	55.6	28.5	58.4
1998	64.1	64.7	72.7	48.6	74.7	57.1	49.3	57.7	59.7	62.9	28.4	67.1	57.2	31.8	59.7
1999	64.3	64.8	72.8	49.3	74.8	57.3	48.3	58.0	60.6	63.1	26.7	67.5	58.6	29.0	61.5
1998: Jan	64.1	64.7	72.7	49.0	74.7	57.2	50.6	57.7	59.0	62.3	26.7	66.6	56.3	29.3	59.0
Feb	64.0	64.7	72.7	48.4	74.7	57.1	49.9	57.7	59.3	62.0	25.6	66.5	57.1	29.2	59.9
Mar	64.0	64.6	72.5	49.1	74.4	57.1	49.6	57.7	59.7	62.8	27.6	67.1	57.2	30.6	59.9
Apr	64.1	64.7	72.8	48.7	74.8	57.1	48.4	57.7	59.5	63.2	28.8	67.5	56.6	32.6	59.0
May	64.1	64.8	72.7	47.9	74.8	57.2	49.7	57.8	58.9	62.4	24.6	67.1	56.1	30.7	58.6
June	64.0	64.6	72.6	48.5	74.6	56.9	49.0	57.5	60.1	63.7	32.2	67.6	57.2	34.9	59.5
July	64.0	64.6	72.6	48.1	74.7	57.0	49.5	57.5	59.6	62.9	31.0	66.8	56.9	28.4	59.8
Aug	63.9	64.6	72.6	48.6	74.6	57.1	49.3	57.6	59.6	62.5	28.2	66.8	57.2	31.8	59.8
Sept	64.1	64.8	72.7	48.3	74.7	57.3	50.6	57.8	59.5	62.7	30.1	66.8	56.9	32.4	59.3
Oct	64.1	64.7	72.8	48.6	74.8	57.1	48.7	57.7	60.4	63.6	26.1	68.2	57.8	33.4	60.3
Nov	64.1	64.7	72.9	49.0	74.9	57.0	47.6	57.7	60.3	63.2	29.9	67.3	58.0	32.5	60.6
Dec	64.2	64.8	72.8	48.8	74.8	57.2	49.3	57.8	60.6	63.2	30.1	67.3	58.6	34.9	61.0
1999: Jan	64.4	65.0	72.9	48.6	75.0	57.4	48.6	58.1	61.0	64.4	28.4	68.8	58.3	30.2	61.2
Feb	64.3	64.9	72.9	49.3	74.9	57.5	49.1	58.1	60.4	63.3	28.0	67.6	58.1	30.2	61.0
Mar	64.2	64.9	73.0	48.5	75.0	57.3	48.8	57.9	60.4	63.0	27.8	67.4	58.2	29.2	61.1
Apr	64.2	64.8	72.8	48.7	74.9	57.2	48.6	57.8	60.6	62.9	25.7	67.5	58.8	29.6	61.7
May	64.2	64.7	72.7	50.1	74.5	57.3	48.4	57.9	60.7	63.3	26.9	67.8	58.6	29.2	61.6
June	64.2	64.8	72.8	49.5	74.7	57.3	46.7	58.1	60.7	63.0	26.0	67.6	58.8	30.7	61.6
July	64.2	64.8	72.9	49.9	74.8	57.2	48.1	57.9	60.2	62.1	25.5	66.6	58.6	29.3	61.6
Aug	64.2	64.8	72.8	48.9	74.8	57.3	47.8	58.0	60.4	62.8	24.9	67.5	58.4	28.2	61.5
Sept	64.2	64.8	72.9	49.4	74.9	57.1	47.8	57.8	60.6	62.7	26.2	67.2	58.9	26.8	62.1
Oct	64.2	64.8	72.8	50.0	74.7	57.3	48.9	58.0	60.5	62.7	25.7	67.3	58.7	27.6	61.9
Nov	64.3	64.8	72.7	49.6	74.7	57.4	48.9	58.0	60.7	63.1	25.4	67.7	58.8	28.0	61.9
Dec	64.4	65.0	72.9	49.4	74.8	57.6	48.7	58.2	60.7	63.4	29.6	67.5	58.5	29.4	61.4

[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 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–40.—*Civilian unemployment rate, 1950–99*

[Percent;[1] monthly data seasonally adjusted]

Year or month	All civilian workers	Males			Females			Both sexes 16–19 years	White	Black and other	Black	Experienced wage and salary workers	Married men, spouse present[2]	Women who maintain families
		Total	16–19 years	20 years and over	Total	16–19 years	20 years and over							
1950	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	3.3	2.8	8.1	2.5	4.4	8.3	4.0	8.2	3.1	5.3	.....	3.7	1.5	.....
1952	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	2.9	2.8	7.9	2.5	3.3	7.2	2.9	7.6	2.7	4.5	.....	3.2	1.7	.....
1954	5.5	5.3	13.5	4.9	6.0	11.4	5.5	12.6	5.0	9.9	.....	6.2	4.0	.....
1955	4.4	4.2	11.6	3.8	4.9	10.2	4.4	11.0	3.9	8.7	.....	4.8	2.6	.....
1956	4.1	3.8	11.1	3.4	4.8	11.2	4.2	11.1	3.6	8.3	.....	4.4	2.3	.....
1957	4.3	4.1	12.4	3.6	4.7	10.6	4.1	11.6	3.8	7.9	.....	4.6	2.8	.....
1958	6.8	6.8	17.1	6.2	6.8	14.3	6.1	15.9	6.1	12.6	.....	7.3	5.1	.....
1959	5.5	5.2	15.3	4.7	5.9	13.5	5.2	14.6	4.8	10.7	.....	5.7	3.6	.....
1960	5.5	5.4	15.3	4.7	5.9	13.9	5.1	14.7	5.0	10.2	.....	5.7	3.7	.....
1961	6.7	6.4	17.1	5.7	7.2	16.3	6.3	16.8	6.0	12.4	.....	6.8	4.6	.....
1962	5.5	5.2	14.7	4.6	6.2	14.6	5.4	14.7	4.9	10.9	.....	5.6	3.6	.....
1963	5.7	5.2	17.2	4.5	6.5	17.2	5.4	17.2	5.0	10.8	.....	5.6	3.4	.....
1964	5.2	4.6	15.8	3.9	6.2	16.6	5.2	16.2	4.6	9.6	.....	5.0	2.8	.....
1965	4.5	4.0	14.1	3.2	5.5	15.7	4.5	14.8	4.1	8.1	.....	4.3	2.4	.....
1966	3.8	3.2	11.7	2.5	4.8	14.1	3.8	12.8	3.4	7.3	.....	3.5	1.9	.....
1967	3.8	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	3.6	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	3.5	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	4.9	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	5.9	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	5.6	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	4.9	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	5.6	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	8.5	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	7.7	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	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	6.1	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	5.1	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	7.1	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	7.6	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	9.7	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	9.6	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	7.5	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	7.2	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	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	6.2	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	5.5	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	5.3	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	5.6	5.7	16.3	5.0	5.5	14.7	4.9	15.5	4.8	10.1	11.4	5.3	3.4	8.3
1991	6.8	7.2	19.8	6.4	6.4	17.5	5.7	18.7	6.1	11.1	12.5	6.6	4.4	9.3
1992	7.5	7.9	21.5	7.1	7.0	18.6	6.3	20.1	6.6	12.7	14.2	7.2	5.1	10.0
1993	6.9	7.2	20.4	6.4	6.6	17.5	5.9	19.0	6.1	11.7	13.0	6.6	4.4	9.7
1994	6.1	6.2	19.0	5.4	6.0	16.2	5.4	17.6	5.3	10.5	11.5	5.9	3.7	8.9
1995	5.6	5.6	18.4	4.8	5.6	16.1	4.9	17.3	4.9	9.6	10.4	5.4	3.3	8.0
1996	5.4	5.4	18.1	4.6	5.4	15.2	4.8	16.7	4.7	9.3	10.5	5.2	3.0	8.2
1997	4.9	4.9	16.9	4.2	5.0	15.0	4.4	16.0	4.2	8.8	10.0	4.7	2.7	8.1
1998	4.5	4.4	16.2	3.7	4.6	12.9	4.1	14.6	3.9	7.8	8.9	4.3	2.4	7.2
1999	4.2	4.1	14.7	3.5	4.3	13.2	3.8	13.9	3.7	7.0	8.0	4.0	2.2	6.4
1998: Jan	4.7	4.5	15.8	3.8	4.8	11.8	4.4	13.8	4.0	8.2	9.5	4.5	2.5	7.7
Feb	4.6	4.5	16.9	3.8	4.8	12.3	4.2	14.7	4.0	8.1	9.3	4.4	2.5	7.5
Mar	4.7	4.7	16.3	3.9	4.8	13.3	4.2	14.8	4.1	8.1	9.2	4.5	2.5	7.5
Apr	4.3	4.2	14.2	3.6	4.6	12.7	4.0	13.5	3.7	7.7	9.1	4.1	2.2	7.5
May	4.4	4.3	16.4	3.6	4.5	12.9	4.0	14.7	3.8	7.7	9.0	4.3	2.3	7.5
June	4.5	4.4	16.0	3.7	4.6	13.7	4.0	14.9	3.9	7.7	8.7	4.3	2.3	7.0
July	4.5	4.5	16.3	3.8	4.5	12.7	3.9	14.6	3.8	8.1	9.4	4.3	2.3	6.9
Aug	4.5	4.4	16.1	3.7	4.6	13.6	4.0	14.9	3.9	7.6	8.9	4.4	2.3	6.8
Sept	4.5	4.5	17.1	3.7	4.5	12.6	4.0	14.9	3.9	7.8	8.9	4.4	2.3	7.5
Oct	4.5	4.3	16.7	3.6	4.7	14.5	4.0	15.6	3.9	7.6	8.5	4.3	2.3	6.9
Nov	4.4	4.2	16.1	3.5	4.6	13.3	4.0	14.8	3.8	7.5	8.6	4.2	2.3	6.9
Dec	4.4	4.3	16.0	3.6	4.4	11.8	3.9	14.0	3.8	7.0	7.8	4.1	2.3	6.3
1999: Jan	4.3	4.2	16.4	3.5	4.4	13.7	3.8	15.1	3.8	6.9	7.8	4.1	2.3	6.3
Feb	4.4	4.3	14.9	3.7	4.4	13.4	3.8	14.2	3.8	7.3	8.2	4.1	2.4	6.5
Mar	4.2	4.0	15.0	3.3	4.5	13.4	3.9	14.2	3.6	7.2	8.0	4.1	2.1	6.6
Apr	4.3	4.1	14.8	3.5	4.6	13.4	4.0	14.1	3.8	7.0	7.8	4.2	2.3	7.1
May	4.2	4.2	13.9	3.6	4.2	12.2	3.7	13.1	3.7	6.8	7.6	4.1	2.3	6.0
June	4.3	4.1	14.3	3.5	4.4	13.0	3.8	13.6	3.8	6.7	7.6	4.1	2.2	6.5
July	4.3	4.1	13.8	3.5	4.4	12.6	3.9	13.2	3.7	7.2	8.6	4.1	2.3	6.4
Aug	4.2	4.1	13.9	3.5	4.3	13.2	3.7	13.5	3.7	6.8	7.8	4.0	2.3	6.3
Sept	4.2	4.0	14.6	3.4	4.3	14.7	3.7	14.6	3.6	7.2	8.3	4.0	2.2	6.4
Oct	4.1	4.1	14.2	3.5	4.2	13.4	3.5	13.8	3.5	7.2	8.3	3.9	2.2	6.0
Nov	4.1	4.0	14.9	3.3	4.2	13.0	3.6	14.0	3.5	7.1	8.0	3.9	2.1	6.0
Dec	4.1	4.0	15.2	3.3	4.1	12.2	3.6	13.8	3.5	7.0	7.9	3.9	2.2	6.2

[1] Unemployed as percent of civilian labor force in group specified.
[2] Data for 1950 are for March; data for 1951–54 are for April.

Note.—Data relate to persons 16 years of age and over.
See footnote 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–41.—*Civilian unemployment rate by demographic characteristic, 1955–99*

[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						
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	5.6	4.8	4.9	14.3	4.3	4.7	12.6	4.1	11.4	11.9	31.9	10.4	10.9	29.9	9.7
1991	6.8	6.1	6.5	17.6	5.8	5.6	15.2	5.0	12.5	13.0	36.3	11.5	12.0	36.0	10.6
1992	7.5	6.6	7.0	18.5	6.4	6.1	15.8	5.5	14.2	15.2	42.0	13.5	13.2	37.2	11.8
1993	6.9	6.1	6.3	17.7	5.7	5.7	14.7	5.2	13.0	13.8	40.1	12.1	12.1	37.4	10.7
1994	6.1	5.3	5.4	16.3	4.8	5.2	13.8	4.6	11.5	12.0	37.6	10.3	11.0	32.6	9.8
1995	5.6	4.9	4.9	15.6	4.3	4.8	13.4	4.3	10.4	10.6	37.1	8.8	10.2	34.3	8.6
1996	5.4	4.7	4.7	15.5	4.1	4.7	12.9	4.1	10.5	11.1	36.9	9.4	10.0	30.3	8.7
1997	4.9	4.2	4.2	14.3	3.6	4.2	12.8	3.7	10.0	10.2	36.5	8.5	9.9	28.7	8.8
1998	4.5	3.9	3.9	14.1	3.2	3.9	10.9	3.4	8.9	8.9	30.1	7.4	9.0	25.3	7.9
1999	4.2	3.7	3.6	12.6	3.0	3.8	11.3	3.3	8.0	8.2	30.9	6.7	7.8	25.1	6.8
1998: Jan	4.7	4.0	3.9	13.8	3.3	4.0	9.0	3.7	9.5	9.5	30.6	8.1	9.5	28.4	8.3
Feb	4.6	4.0	3.9	14.8	3.3	4.0	10.1	3.6	9.3	9.4	33.9	7.8	9.3	26.2	8.2
Mar	4.7	4.1	4.1	14.8	3.4	4.1	10.8	3.6	9.2	9.0	27.7	7.8	9.4	28.4	8.1
Apr	4.3	3.7	3.6	13.0	3.0	3.8	10.7	3.4	9.1	8.7	25.3	7.6	9.4	25.9	8.3
May	4.4	3.8	3.8	14.2	3.1	3.8	10.5	3.3	9.0	8.4	33.0	6.8	9.6	27.7	8.4
June	4.5	3.9	3.9	14.6	3.2	3.9	11.9	3.4	8.7	8.4	23.5	7.4	9.0	23.9	7.9
July	4.5	3.8	3.9	13.8	3.3	3.8	10.1	3.3	9.4	10.0	30.1	8.5	8.9	27.6	7.8
Aug	4.5	3.9	3.8	14.1	3.2	4.0	11.6	3.5	8.9	9.0	30.0	7.6	8.7	26.3	7.5
Sept	4.5	3.9	4.0	14.5	3.3	3.8	10.5	3.3	8.9	8.8	32.2	7.0	9.0	25.1	7.9
Oct	4.5	3.9	3.9	14.1	3.2	4.0	12.8	3.4	8.5	8.5	34.5	6.7	8.6	23.8	7.5
Nov	4.4	3.8	3.7	13.8	3.1	3.9	11.8	3.4	8.6	8.7	32.5	6.9	8.4	22.3	7.5
Dec	4.4	3.8	3.8	13.8	3.2	3.9	10.9	3.4	7.8	7.9	27.6	6.5	7.7	19.1	6.9
1999: Jan	4.3	3.8	3.7	13.8	3.1	3.8	11.5	3.3	7.8	7.9	33.3	6.1	7.8	24.5	6.7
Feb	4.4	3.8	3.8	12.6	3.3	3.8	11.4	3.3	8.2	8.2	31.2	6.7	8.1	25.0	7.0
Mar	4.2	3.6	3.5	12.8	2.9	3.8	11.2	3.3	8.0	7.8	32.4	6.0	8.3	27.6	7.1
Apr	4.3	3.8	3.6	12.6	3.0	4.1	11.6	3.6	7.8	7.9	32.0	6.3	7.8	23.8	6.9
May	4.2	3.7	3.7	12.2	3.1	3.7	10.6	3.3	7.6	7.8	27.9	6.6	7.4	22.5	6.5
June	4.3	3.8	3.7	12.0	3.2	3.9	12.0	3.4	7.6	7.7	28.8	6.4	7.5	21.2	6.7
July	4.3	3.7	3.6	11.7	3.1	3.8	11.1	3.3	8.6	8.6	30.7	7.2	8.6	23.4	7.7
Aug	4.2	3.7	3.7	12.3	3.2	3.7	11.0	3.2	7.8	7.6	29.6	6.3	8.0	26.7	6.9
Sept	4.2	3.6	3.5	12.7	2.9	3.7	11.9	3.2	8.3	8.5	30.3	7.1	8.1	31.4	6.7
Oct	4.1	3.5	3.4	11.9	2.9	3.6	11.7	3.1	8.3	9.5	35.3	7.7	7.2	26.1	6.1
Nov	4.1	3.5	3.4	12.8	2.8	3.6	11.2	3.1	8.0	8.4	31.0	7.0	7.7	25.9	6.6
Dec	4.1	3.5	3.4	13.3	2.8	3.5	10.9	3.0	7.9	8.3	27.5	7.0	7.6	23.0	6.7

[1] Unemployed as percent of civilian labor force in group specified.

Note.—See Note, Table B–40.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–42.—*Unemployment by duration and reason, 1950–99*

[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 [3]			Job leavers	Reentrants	New entrants
								Total	On layoff	Other			
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	2.3	1,229	394	836	438	945	396
1968	2,817	1,594	810	256	156	8.4	4.5	1,070	334	736	431	909	407
1969	2,832	1,629	827	242	133	7.8	4.4	1,017	339	678	436	965	413
1970	4,093	2,139	1,290	428	235	8.6	4.9	1,811	675	1,137	550	1,228	504
1971	5,016	2,245	1,585	668	519	11.3	6.3	2,323	735	1,588	590	1,472	630
1972	4,882	2,242	1,472	601	566	12.0	6.2	2,108	582	1,526	641	1,456	677
1973	4,365	2,224	1,314	483	343	10.0	5.2	1,694	472	1,221	683	1,340	649
1974	5,156	2,604	1,597	574	381	9.8	5.2	2,242	746	1,495	768	1,463	681
1975	7,929	2,940	2,484	1,303	1,203	14.2	8.4	4,386	1,671	2,714	827	1,892	823
1976	7,406	2,844	2,196	1,018	1,348	15.8	8.2	3,679	1,050	2,628	903	1,928	895
1977	6,991	2,919	2,132	913	1,028	14.3	7.0	3,166	865	2,300	909	1,963	953
1978	6,202	2,865	1,923	766	648	11.9	5.9	2,585	712	1,873	874	1,857	885
1979	6,137	2,950	1,946	706	535	10.8	5.4	2,635	851	1,784	880	1,806	817
1980	7,637	3,295	2,470	1,052	820	11.9	6.5	3,947	1,488	2,459	891	1,927	872
1981	8,273	3,449	2,539	1,122	1,162	13.7	6.9	4,267	1,430	2,837	923	2,102	981
1982	10,678	3,883	3,311	1,708	1,776	15.6	8.7	6,268	2,127	4,141	840	2,384	1,185
1983	10,717	3,570	2,937	1,652	2,559	20.0	10.1	6,258	1,780	4,478	830	2,412	1,216
1984	8,539	3,350	2,451	1,104	1,634	18.2	7.9	4,421	1,171	3,250	823	2,184	1,110
1985	8,312	3,498	2,509	1,025	1,280	15.6	6.8	4,139	1,157	2,982	877	2,256	1,039
1986	8,237	3,448	2,557	1,045	1,187	15.0	6.9	4,033	1,090	2,943	1,015	2,160	1,029
1987	7,425	3,246	2,196	943	1,040	14.5	6.5	3,566	943	2,623	965	1,974	920
1988	6,701	3,084	2,007	801	809	13.5	5.9	3,092	851	2,241	983	1,809	816
1989	6,528	3,174	1,978	730	646	11.9	4.8	2,983	850	2,133	1,024	1,843	677
1990	7,047	3,265	2,257	822	703	12.0	5.3	3,387	1,028	2,359	1,041	1,930	688
1991	8,628	3,480	2,791	1,246	1,111	13.7	6.8	4,694	1,292	3,402	1,004	2,139	792
1992	9,613	3,376	2,830	1,453	1,954	17.7	8.7	5,389	1,260	4,129	1,002	2,285	937
1993	8,940	3,262	2,584	1,297	1,798	18.0	8.3	4,848	1,115	3,733	976	2,198	919
1994	7,996	2,728	2,408	1,237	1,623	18.8	9.2	3,815	977	2,838	791	2,786	60
1995	7,404	2,700	2,342	1,085	1,278	16.6	8.3	3,476	1,030	2,446	824	2,525	579
1996	7,236	2,633	2,287	1,053	1,262	16.7	8.3	3,370	1,021	2,349	774	2,512	580
1997	6,739	2,538	2,138	995	1,067	15.8	8.0	3,037	931	2,106	795	2,338	569
1998	6,210	2,622	1,950	763	875	14.5	6.7	2,822	866	1,957	734	2,132	520
1999	5,880	2,568	1,832	755	725	13.4	6.4	2,622	848	1,774	783	2,005	469
1998: Jan	6,406	2,550	1,932	824	1,009	15.6	7.3	2,836	860	1,976	819	2,232	509
Feb	6,352	2,584	1,912	837	958	15.3	7.0	2,815	839	1,976	774	2,190	528
Mar	6,479	2,836	1,964	852	915	14.6	6.8	3,032	989	2,043	741	2,203	555
Apr	5,961	2,598	1,928	620	862	14.6	6.6	2,694	722	1,972	621	2,110	522
May	6,051	2,639	1,984	663	841	14.8	6.0	2,832	829	2,003	743	2,076	525
June	6,215	2,556	2,064	820	793	14.0	6.8	2,818	838	1,980	731	2,095	524
July	6,202	2,586	1,998	762	824	14.2	6.8	2,801	924	1,877	773	2,062	508
Aug	6,184	2,621	1,957	804	833	13.8	6.7	2,801	903	1,898	731	2,168	509
Sept	6,234	2,616	1,959	730	906	14.4	6.7	2,850	887	1,963	742	2,160	472
Oct	6,239	2,829	1,873	730	855	14.0	5.9	2,816	874	1,942	743	2,144	562
Nov	6,074	2,525	1,978	745	860	14.4	6.7	2,749	831	1,918	668	2,142	522
Dec	6,028	2,573	1,884	759	813	14.0	6.8	2,795	865	1,930	719	1,994	503
1999: Jan	6,007	2,397	2,012	776	715	13.5	6.8	2,708	863	1,845	729	2,009	519
Feb	6,108	2,585	1,925	754	785	13.8	6.9	2,721	854	1,867	750	2,090	498
Mar	5,828	2,521	1,884	752	715	13.6	6.8	2,646	833	1,813	774	2,007	446
Apr	6,032	2,741	1,868	794	680	13.2	6.1	2,695	843	1,852	810	2,039	473
May	5,823	2,502	1,832	784	735	13.4	6.6	2,678	837	1,841	781	2,034	440
June	5,934	2,540	1,775	806	828	14.3	6.3	2,670	876	1,794	831	2,038	359
July	5,937	2,640	1,778	779	732	13.5	5.8	2,670	847	1,823	768	2,003	459
Aug	5,842	2,599	1,798	747	716	13.2	6.4	2,629	893	1,736	793	1,942	481
Sept	5,825	2,582	1,805	708	704	13.0	5.9	2,573	869	1,704	758	1,967	504
Oct	5,757	2,545	1,811	719	715	13.2	6.3	2,518	802	1,716	778	1,958	511
Nov	5,736	2,601	1,760	725	676	13.0	6.2	2,493	851	1,642	821	1,935	485
Dec	5,688	2,620	1,694	693	695	12.8	5.9	2,401	795	1,606	825	2,036	453

[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 equal to total unemployment.
[3] Beginning January 1994, job losers and persons who completed temporary jobs.

Note.—Data relate to persons 16 years of age and over.
See footnote 5 and Note, Table B–33.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–43.—*Unemployment insurance programs, selected data, 1967–99*

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[3]	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					
1967	56,342	1,270	2,222	1,205	226	17	2.5	2,092	41.25
1968	57,977	1,187	2,191	1,111	201	16	2.2	2,032	43.43
1969	59,999	1,177	2,299	1,101	200	16	2.1	2,128	46.17
1970	59,526	2,070	4,209	1,805	296	25	3.4	3,849	50.34
1971	59,375	2,608	6,154	2,150	295	39	4.1	4,957	54.02
1972	66,458	2,192	5,491	1,848	261	35	3.5	4,471	56.76
1973	69,897	1,793	4,517	1,632	247	29	2.7	4,008	59.00
1974	72,451	2,558	6,934	2,262	363	37	3.5	5,975	64.25
1975	71,037	4,937	16,802	3,986	478	81	6.0	11,755	70.23
1976	73,459	3,846	12,345	2,991	386	63	4.6	8,975	75.16
1977	76,419	3,308	10,999	2,655	375	55	3.9	8,357	78.79
1978	88,804	2,645	9,007	2,359	346	39	3.3	7,717	83.67
1979	92,062	2,592	9,401	2,434	388	39	2.9	8,613	89.67
1980	92,659	3,837	16,175	3,350	488	59	3.9	13,761	98.95
1981	93,300	3,410	15,287	3,047	460	57	3.5	13,262	106.70
1982	91,628	4,592	24,491	4,059	583	80	4.6	20,649	119.34
1983	91,898	3,774	21,000	3,395	438	80	3.9	17,787	123.59
1984	96,474	2,560	13,838	2,475	377	50	2.8	12,610	123.47
1985	99,186	2,699	15,283	2,617	397	49	2.9	14,131	128.14
1986	101,099	2,739	16,670	2,643	378	52	2.8	15,329	135.65
1987	103,936	2,369	14,929	2,300	328	46	2.4	13,607	140.55
1988	107,156	2,135	13,694	2,081	310	38	2.0	12,565	144.97
1989	109,929	2,205	14,948	2,158	330	37	2.1	13,760	151.73
1990	111,500	2,575	18,721	2,522	388	45	2.4	17,356	161.56
1991	109,606	3,406	26,717	3,342	447	67	3.2	24,526	169.88
1992	110,167	3,348	[8] 26,460	3,245	408	74	3.1	23,869	173.64
1993	112,146	2,845	[8] 22,950	2,751	341	62	2.6	20,539	179.62
1994	115,255	2,746	22,844	2,670	340	57	2.5	20,401	182.16
1995	118,068	2,639	22,386	2,572	357	51	2.3	20,125	187.04
1996	120,567	2,656	22,915	2,595	356	53	2.3	20,645	189.27
1997	123,813	2,370	20,715	2,323	323	48	2.0	18,587	192.84
1998	[7] 126,691	2,260	20,319	2,222	321	44	1.8	18,665	200.29
1999 *p*	.....	2,222	20,471	2,187	298	44	1.8	18,725	211.81
				**	**		**		
1998: Jan	.....	2,759	2,005.3	2,250	316	48	1.9	1,959.3	198.15
Feb	.....	2,779	1,936.6	2,197	309	45	1.9	1,893.7	200.75
Mar	.....	2,794	2,124.4	2,170	308	47	1.8	2,077.1	200.96
Apr	.....	2,253	1,741.3	2,136	311	47	1.8	1,697.0	198.73
May	.....	1,995	1,428.0	2,112	316	44	1.8	1,389.4	198.51
June	.....	2,075	1,518.6	2,235	353	43	1.9	1,478.8	197.40
July	.....	2,210	1,725.0	2,372	325	44	2.0	1,691.5	200.25
Aug	.....	2,226	1,567.4	2,230	305	43	1.9	1,532.2	198.45
Sept	.....	1,846	1,413.1	2,166	301	39	1.8	1,377.8	200.78
Oct	.....	1,714	1,282.7	2,195	313	37	1.8	1,248.4	201.94
Nov	.....	2,062	1,437.9	2,238	320	40	1.9	1,399.0	203.05
Dec	.....	2,326	1,872.0	2,262	323	45	1.9	1,822.2	204.71
1999: Jan	.....	2,867	2,106.5	2,270	319	48	1.9	2,057.8	210.01
Feb	.....	2,773	2,075.2	2,228	291	45	1.8	2,032.2	213.05
Mar	.....	2,732	2,381.9	2,177	295	47	1.8	2,336.9	213.81
Apr	.....	2,217	1,792.1	2,182	308	46	1.8	1,757.2	210.69
May	.....	2,105	1,570.4	2,185	306	46	1.8	1,540.0	210.99
June	.....	2,129	1,699.0	2,213	305	45	1.8	1,666.8	209.76
July	.....	2,064	1,608.3	2,224	296	45	1.8	1,577.7	208.05
Aug	.....	2,175	1,699.2	2,202	287	46	1.8	1,662.5	208.81
Sept	.....	1,782	1,456.6	2,180	293	40	1.8	1,423.7	212.10
Oct	.....	1,754	1,333.9	2,132	289	39	1.7	1,300.9	215.36
Nov	.....	1,943	1,533.6	2,128	287	41	1.7	1,495.8	214.43
Dec *p*	.....	2,053	1,761.0	2,132	285	40	1.7	1,722.3	215.03

** Monthly data are seasonally adjusted.

[1] Includes persons under the State, UCFE (Federal employee, effective January 1955), RRB (Railroad Retirement Board) programs, and UCX (unemployment compensation for ex-servicemembers, effective October 1958) programs.

[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), Federal Supplemental Compensation, and Emergency Unemployment Compensation programs, except as noted in footnote 8.

[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] Latest data available for all programs combined. Workers covered by State programs account for about 97 percent of wage and salary earners.

[8] Including Emergency Unemployment Compensation and Federal Supplemental Compensation, total benefits paid for 1992 and 1993 would be approximately (in millions of dollars): for 1992, 39,990 and for 1993, 34,876.

Note.—Insured unemployment and initial claims programs include Puerto Rican sugar cane workers beginning 1963.

Source: Department of Labor, Employment and Training Administration.

TABLE B–44.—*Employees on nonagricultural payrolls, by major industry, 1950–99*

[Thousands of persons; monthly data seasonally adjusted]

Year or month	Total	Goods-producing industries					
		Total	Mining	Construction	Manufacturing		
					Total	Durable goods	Nondurable goods
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	52,855	20,967	828	2,962	17,176	9,825	7,351
1958	51,322	19,513	751	2,817	15,945	8,801	7,144
1959	53,270	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	60,763	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	71,211	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	91,152	25,497	1,139	4,188	20,170	12,082	8,089
1982	89,544	23,812	1,128	3,904	18,780	11,014	7,766
1983	90,152	23,330	952	3,946	18,432	10,707	7,725
1984	94,408	24,718	966	4,380	19,372	11,476	7,896
1985	97,387	24,842	927	4,668	19,248	11,458	7,790
1986	99,344	24,533	777	4,810	18,947	11,195	7,752
1987	101,958	24,674	717	4,958	18,999	11,154	7,845
1988	105,209	25,125	713	5,098	19,314	11,363	7,951
1989	107,884	25,254	692	5,171	19,391	11,394	7,997
1990	109,403	24,905	709	5,120	19,076	11,109	7,968
1991	108,249	23,745	689	4,650	18,406	10,569	7,837
1992	108,601	23,231	635	4,492	18,104	10,277	7,827
1993	110,713	23,352	610	4,668	18,075	10,221	7,854
1994	114,163	23,908	601	4,986	18,321	10,448	7,873
1995	117,191	24,265	581	5,160	18,524	10,683	7,841
1996	119,608	24,493	580	5,418	18,495	10,789	7,706
1997	122,690	24,962	596	5,691	18,675	11,010	7,665
1998	125,826	25,347	590	5,985	18,772	11,170	7,602
1999 *p*	128,610	25,240	535	6,273	18,432	10,986	7,446
1998: Jan	124,580	25,355	606	5,879	18,870	11,219	7,651
Feb	124,773	25,366	606	5,885	18,875	11,229	7,646
Mar	124,961	25,367	605	5,879	18,883	11,237	7,646
Apr	125,220	25,418	600	5,943	18,875	11,238	7,637
May	125,478	25,379	595	5,932	18,852	11,225	7,627
June	125,689	25,381	593	5,962	18,826	11,210	7,616
July	125,808	25,240	588	5,990	18,662	11,066	7,596
Aug	126,170	25,344	585	6,005	18,754	11,177	7,577
Sept	126,361	25,333	583	6,009	18,741	11,159	7,582
Oct	126,567	25,306	578	6,042	18,686	11,128	7,558
Nov	126,841	25,298	574	6,085	18,639	11,092	7,547
Dec	127,186	25,354	570	6,173	18,611	11,074	7,537
1999: Jan	127,378	25,315	560	6,170	18,585	11,050	7,535
Feb	127,730	25,329	553	6,238	18,538	11,027	7,511
Mar	127,813	25,285	550	6,232	18,503	11,014	7,489
Apr	128,134	25,288	538	6,277	18,473	10,993	7,480
May	128,162	25,199	531	6,239	18,429	10,971	7,458
June	128,443	25,180	526	6,258	18,396	10,960	7,436
July	128,816	25,247	528	6,270	18,449	11,015	7,434
Aug	128,945	25,148	524	6,246	18,378	10,975	7,403
Sept	129,048	25,186	527	6,293	18,366	10,959	7,407
Oct	129,332	25,198	528	6,314	18,356	10,952	7,404
Nov *p*	129,554	25,260	527	6,369	18,364	10,958	7,406
Dec *p*	129,869	25,277	529	6,385	18,363	10,959	7,404

Note.—Data in Tables B–44 and B–45 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–33 through B–42), which include proprietors, self-employed persons, domestic servants,

See next page for continuation of table.

TABLE B–44.—*Employees on nonagricultural payrolls, by major industry, 1950–99*—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
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	31,264	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	44,158	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	48,276	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	65,655	5,165	5,375	15,171	5,298	18,615	16,031	2,772	13,259
1982	65,732	5,081	5,295	15,158	5,340	19,021	15,837	2,739	13,098
1983	66,821	4,952	5,283	15,587	5,466	19,664	15,869	2,774	13,096
1984	69,690	5,156	5,568	16,512	5,684	20,746	16,024	2,807	13,216
1985	72,544	5,233	5,727	17,315	5,948	21,927	16,394	2,875	13,519
1986	74,811	5,247	5,761	17,880	6,273	22,957	16,693	2,899	13,794
1987	77,284	5,362	5,848	18,422	6,533	24,110	17,010	2,943	14,067
1988	80,084	5,512	6,030	19,023	6,630	25,504	17,386	2,971	14,415
1989	82,630	5,614	6,187	19,475	6,668	26,907	17,779	2,988	14,791
1990	84,497	5,777	6,173	19,601	6,709	27,934	18,304	3,085	15,219
1991	84,504	5,755	6,081	19,284	6,646	28,336	18,402	2,966	15,436
1992	85,370	5,718	5,997	19,356	6,602	29,052	18,645	2,969	15,676
1993	87,361	5,811	5,981	19,773	6,757	30,197	18,841	2,915	15,926
1994	90,256	5,984	6,162	20,507	6,896	31,579	19,128	2,870	16,257
1995	92,925	6,132	6,378	21,187	6,806	33,117	19,305	2,822	16,484
1996	95,115	6,253	6,482	21,597	6,911	34,454	19,419	2,757	16,662
1997	97,727	6,408	6,648	21,966	7,109	36,040	19,557	2,699	16,857
1998	100,480	6,600	6,831	22,296	7,407	37,526	19,819	2,686	17,133
1999 *p*	103,370	6,791	7,003	22,784	7,633	38,999	20,160	2,669	17,491
1998: Jan	99,225	6,505	6,755	22,142	7,258	36,905	19,660	2,680	16,980
Feb	99,407	6,528	6,767	22,149	7,282	37,003	19,678	2,677	17,001
Mar	99,594	6,545	6,780	22,155	7,317	37,103	19,694	2,674	17,020
Apr	99,802	6,559	6,798	22,177	7,348	37,194	19,726	2,675	17,051
May	100,099	6,577	6,814	22,237	7,374	37,334	19,763	2,675	17,088
June	100,308	6,589	6,826	22,257	7,400	37,460	19,776	2,677	17,099
July	100,568	6,606	6,836	22,321	7,430	37,576	19,799	2,675	17,124
Aug	100,826	6,625	6,846	22,353	7,445	37,688	19,869	2,688	17,181
Sept	101,028	6,637	6,871	22,382	7,467	37,780	19,891	2,689	17,202
Oct	101,261	6,657	6,876	22,392	7,494	37,929	19,913	2,711	17,202
Nov	101,543	6,671	6,891	22,443	7,520	38,070	19,948	2,723	17,225
Dec	101,832	6,684	6,901	22,525	7,542	38,207	19,973	2,701	17,272
1999: Jan	102,063	6,708	6,924	22,556	7,570	38,313	19,992	2,702	17,290
Feb	102,401	6,723	6,937	22,648	7,581	38,458	20,054	2,713	17,341
Mar	102,528	6,732	6,947	22,611	7,595	38,556	20,087	2,710	17,377
Apr	102,846	6,750	6,965	22,724	7,611	38,697	20,099	2,688	17,411
May	102,963	6,758	6,977	22,748	7,621	38,782	20,077	2,666	17,411
June	103,263	6,781	6,993	22,796	7,636	38,952	20,105	2,664	17,441
July	103,569	6,799	7,012	22,903	7,647	39,055	20,153	2,656	17,497
Aug	103,797	6,813	7,031	22,888	7,650	39,205	20,210	2,651	17,559
Sept	103,862	6,831	7,041	22,862	7,653	39,257	20,218	2,654	17,564
Oct	104,134	6,841	7,064	22,891	7,668	39,433	20,237	2,643	17,594
Nov *p*	104,294	6,860	7,066	22,887	7,678	39,545	20,258	2,646	17,612
Dec *p*	104,592	6,892	7,082	22,952	7,690	39,654	20,322	2,652	17,670

Note (cont'd).—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–45.—*Hours and earnings in private nonagricultural industries, 1959–99*[1]

[Monthly data seasonally adjusted]

Year or month	Average weekly hours			Average hourly earnings			Average weekly earnings, total private			
	Total private	Manufacturing		Total private		Manufacturing (current dollars)	Level		Percent change from year earlier	
		Total	Overtime	Current dollars	1982 dollars[2]		Current dollars	1982 dollars[2]	Current dollars	1982 dollars[2]
1959	39.0	40.3	2.7	$2.02	$6.69	$2.19	$78.78	$260.86	4.9	4.2
1960	38.6	39.7	2.5	2.09	6.79	2.26	80.67	261.92	2.4	.4
1961	38.6	39.8	2.4	2.14	6.88	2.32	82.60	265.59	2.4	1.4
1962	38.7	40.4	2.8	2.22	7.07	2.39	85.91	273.60	4.0	3.0
1963	38.8	40.5	2.8	2.28	7.17	2.45	88.46	278.18	3.0	1.7
1964	38.7	40.7	3.1	2.36	7.33	2.53	91.33	283.63	3.2	2.0
1965	38.8	41.2	3.6	2.46	7.52	2.61	95.45	291.90	4.5	2.9
1966	38.6	41.4	3.9	2.56	7.62	2.71	98.82	294.11	3.5	.8
1967	38.0	40.6	3.4	2.68	7.72	2.82	101.84	293.49	3.1	–.2
1968	37.8	40.7	3.6	2.85	7.89	3.01	107.73	298.42	5.8	1.7
1969	37.7	40.6	3.6	3.04	7.98	3.19	114.61	300.81	6.4	.8
1970	37.1	39.8	3.0	3.23	8.03	3.35	119.83	298.08	4.6	–.9
1971	36.9	39.9	2.9	3.45	8.21	3.57	127.31	303.12	6.2	1.7
1972	37.0	40.5	3.5	3.70	8.53	3.82	136.90	315.44	7.5	4.1
1973	36.9	40.7	3.8	3.94	8.55	4.09	145.39	315.38	6.2	–.0
1974	36.5	40.0	3.3	4.24	8.28	4.42	154.76	302.27	6.4	–4.2
1975	36.1	39.5	2.6	4.53	8.12	4.83	163.53	293.06	5.7	–3.0
1976	36.1	40.1	3.1	4.86	8.24	5.22	175.45	297.37	7.3	1.5
1977	36.0	40.3	3.5	5.25	8.36	5.68	189.00	300.96	7.7	1.2
1978	35.8	40.4	3.6	5.69	8.40	6.17	203.70	300.89	7.8	–.0
1979	35.7	40.2	3.3	6.16	8.17	6.70	219.91	291.66	8.0	–3.1
1980	35.3	39.7	2.8	6.66	7.78	7.27	235.10	274.65	6.9	–5.8
1981	35.2	39.8	2.8	7.25	7.69	7.99	255.20	270.63	8.5	–1.5
1982	34.8	38.9	2.3	7.68	7.68	8.49	267.26	267.26	4.7	–1.2
1983	35.0	40.1	3.0	8.02	7.79	8.83	280.70	272.52	5.0	2.0
1984	35.2	40.7	3.4	8.32	7.80	9.19	292.86	274.73	4.3	.8
1985	34.9	40.5	3.3	8.57	7.77	9.54	299.09	271.16	2.1	–1.3
1986	34.8	40.7	3.4	8.76	7.81	9.73	304.85	271.94	1.9	.3
1987	34.8	41.0	3.7	8.98	7.73	9.91	312.50	269.16	2.5	–1.0
1988	34.7	41.1	3.9	9.28	7.69	10.19	322.02	266.79	3.0	–.9
1989	34.6	41.0	3.8	9.66	7.64	10.48	334.24	264.22	3.8	–1.0
1990	34.5	40.8	3.6	10.01	7.52	10.83	345.35	259.47	3.3	–1.8
1991	34.3	40.7	3.6	10.32	7.45	11.18	353.98	255.40	2.5	–1.6
1992	34.4	41.0	3.8	10.57	7.41	11.46	363.61	254.99	2.7	–.2
1993	34.5	41.4	4.1	10.83	7.39	11.74	373.64	254.87	2.8	–.0
1994	34.7	42.0	4.7	11.12	7.40	12.07	385.86	256.73	3.3	.7
1995	34.5	41.6	4.4	11.43	7.39	12.37	394.34	255.07	2.2	–.6
1996	34.4	41.6	4.5	11.82	7.43	12.77	406.61	255.73	3.1	.3
1997	34.6	42.0	4.8	12.28	7.55	13.17	424.89	261.31	4.5	2.2
1998	34.6	41.7	4.6	12.78	7.75	13.49	442.19	268.32	4.1	2.7
1999[p]	34.5	41.7	4.6	13.24	7.86	13.91	456.78	271.25	3.3	1.1
1998: Jan	34.8	42.2	4.9	12.54	7.66	13.38	436.39	266.42	5.2	3.7
Feb	34.7	42.0	4.8	12.60	7.69	13.41	437.22	266.92	4.5	3.3
Mar	34.6	41.8	4.8	12.64	7.72	13.45	437.34	267.00	3.8	2.7
Apr	34.6	41.6	4.6	12.69	7.73	13.45	439.07	267.40	4.4	3.0
May	34.7	41.8	4.6	12.73	7.74	13.48	441.73	268.53	4.6	3.0
June	34.6	41.8	4.6	12.76	7.75	13.48	441.50	268.23	4.6	3.1
July	34.6	41.7	4.6	12.80	7.76	13.46	442.88	268.57	4.6	3.1
Aug	34.6	41.7	4.5	12.85	7.78	13.53	444.61	269.30	3.9	2.5
Sept	34.5	41.6	4.5	12.88	7.80	13.58	444.36	268.98	3.8	2.6
Oct	34.6	41.7	4.5	12.91	7.80	13.57	446.69	269.90	3.9	2.6
Nov	34.6	41.7	4.5	12.94	7.80	13.58	447.72	270.04	3.5	2.1
Dec	34.6	41.7	4.5	12.98	7.81	13.60	449.11	270.39	3.8	2.3
1999: Jan	34.6	41.6	4.5	13.04	7.83	13.64	451.18	270.98	3.4	1.7
Feb	34.6	41.6	4.5	13.06	7.84	13.67	451.88	271.40	3.4	1.7
Mar	34.5	41.5	4.5	13.11	7.86	13.71	452.30	271.33	3.4	1.6
Apr	34.4	41.6	4.3	13.14	7.83	13.79	452.02	269.22	2.9	.7
May	34.4	41.7	4.6	13.18	7.85	13.85	453.39	270.04	2.6	.6
June	34.5	41.7	4.7	13.24	7.89	13.95	456.78	272.05	3.5	1.4
July	34.5	41.9	4.7	13.28	7.88	14.02	458.16	271.91	3.5	1.2
Aug	34.5	41.8	4.7	13.29	7.87	14.03	458.51	271.47	3.1	.8
Sept	34.4	41.8	4.7	13.35	7.86	14.04	459.24	270.30	3.3	.5
Oct	34.5	41.8	4.7	13.39	7.87	14.07	461.96	271.58	3.4	.6
Nov[p]	34.5	41.7	4.6	13.40	7.87	14.07	462.30	271.46	3.3	.5
Dec[p]	34.5	41.7	4.7	13.46	7.88	14.10	464.37	271.88	3.4	.6

[1] For production or nonsupervisory workers; total includes private industry groups shown in Table B–44.
[2] Current dollars divided by the consumer price index for urban wage earners and clerical workers on a 1982=100 base.

Note.—See Note, Table B–44.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–46.—*Employment cost index, private industry, 1980–99*

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:															
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
1992	115.6	112.9	122.2	116.1	112.8	123.4	115.2	113.0	121.2	116.5	113.7	122.6	115.1	112.6	122.0
1993	119.8	116.4	128.3	120.6	116.1	130.3	119.3	116.6	126.7	121.3	117.3	130.0	119.0	116.0	127.4
1994	123.5	119.7	133.0	124.3	119.6	134.8	122.8	119.7	131.5	125.1	120.8	134.3	122.6	119.1	132.3
1995	126.7	123.1	135.9	127.3	122.9	137.1	126.2	123.2	134.7	128.3	124.3	136.7	125.9	122.5	135.3
1996	130.6	127.3	138.6	130.9	126.8	139.7	130.2	127.5	137.4	132.1	128.4	139.8	129.8	126.8	137.9
1997	135.1	132.3	141.8	134.1	130.6	141.5	135.3	133.1	141.4	135.3	132.2	141.7	134.7	132.1	141.5
1998	139.8	137.4	145.2	137.8	135.2	143.2	140.5	138.4	145.7	138.9	136.8	142.7	139.7	137.4	145.8
1999: Mar	140.4	138.1	145.8	138.9	136.3	144.3	140.9	138.9	146.1	139.9	137.9	143.6	140.3	137.9	146.3
June	142.0	139.7	147.3	139.9	137.3	145.2	142.8	140.8	147.9	140.9	139.0	144.5	142.0	139.7	148.0
Sept	143.3	141.0	148.6	141.1	138.5	146.3	144.1	142.1	149.4	142.1	140.2	145.7	143.4	141.0	149.4
Dec	144.6	142.2	150.2	142.5	139.7	148.2	145.3	143.3	150.7	143.6	141.5	147.8	144.5	142.1	150.7
	Index, June 1989=100; seasonally adjusted														
1998: Mar	136.1	133.6	142.2	135.2	132.0	141.6	136.6	134.4	142.5	136.3	133.7	141.7	136.0	133.4	142.6
June	137.3	134.9	143.2	136.3	133.2	142.3	137.8	135.6	143.7	137.1	134.6	142.2	137.2	134.7	143.8
Sept	138.7	136.5	144.1	137.2	134.3	142.9	139.5	137.5	144.8	138.1	136.0	142.6	138.7	136.3	144.9
Dec	139.7	137.5	145.1	137.9	135.2	143.4	140.6	138.5	146.1	138.9	136.8	142.8	139.9	137.6	146.1
1999: Mar	140.2	138.1	145.4	138.9	136.3	144.4	140.7	138.9	145.9	139.8	137.9	143.6	140.2	137.9	146.2
June	141.8	139.8	146.8	139.8	137.3	145.0	142.7	140.8	147.8	140.7	139.0	144.3	142.0	139.7	147.9
Sept	143.0	140.9	148.1	141.0	138.5	146.2	143.9	142.0	149.3	142.0	140.2	145.7	143.2	140.8	149.3
Dec	144.5	142.3	150.1	142.5	139.7	148.4	145.5	143.4	151.1	143.6	141.5	147.9	144.7	142.3	151.0
	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
1992	3.5	2.6	5.2	3.8	2.8	5.7	3.2	2.5	4.8	3.8	3.1	5.6	3.2	2.6	5.0
1993	3.6	3.1	5.0	3.9	2.9	5.6	3.6	3.2	4.5	4.1	3.2	6.0	3.4	3.0	4.4
1994	3.1	2.8	3.7	3.1	3.0	3.5	2.9	2.7	3.8	3.1	3.0	3.3	3.0	2.7	3.8
1995	2.6	2.8	2.2	2.4	2.8	1.7	2.8	2.9	2.4	2.6	2.9	1.8	2.7	2.9	2.3
1996	3.1	3.4	2.0	2.8	3.2	1.9	3.2	3.5	2.0	3.0	3.3	2.3	3.1	3.5	1.9
1997	3.4	3.9	2.3	2.4	3.0	1.3	3.9	4.4	2.9	2.4	3.0	1.4	3.8	4.2	2.6
1998	3.5	3.9	2.4	2.8	3.5	1.2	3.8	4.0	3.0	2.7	3.5	.7	3.7	4.0	3.0
1999: Mar	3.0	3.3	2.2	2.8	3.3	2.0	3.1	3.3	2.4	2.6	3.1	1.3	3.2	3.4	2.5
June	3.3	3.6	2.5	2.7	3.1	1.9	3.6	3.8	2.9	2.7	3.3	1.5	3.5	3.7	2.8
Sept	3.1	3.2	2.8	2.9	3.1	2.3	3.2	3.3	3.1	2.8	3.1	2.2	3.2	3.3	3.0
Dec	3.4	3.5	3.4	3.4	3.3	3.4	3.4	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	Percent change from 3 months earlier, seasonally adjusted														
1998: Mar	0.7	0.9	0.4	0.7	1.1	–0.1	0.7	0.9	0.5	0.7	1.1	–0.1	0.8	0.8	0.6
June	.9	1.0	.7	.8	.9	.5	.9	.9	.8	.6	.7	.4	.9	1.0	.8
Sept	1.0	1.2	.6	.7	.8	.4	1.2	1.4	.8	.7	1.0	.3	1.1	1.2	.8
Dec	.7	.7	.7	.5	.7	.3	.8	.7	.9	.6	.6	.1	.9	1.0	.8
1999: Mar	.4	.4	.2	.7	.8	.7	.1	.3	–.1	.6	.8	.6	.2	.2	.1
June	1.2	1.2	1.0	.6	.7	.5	1.4	1.4	1.3	.6	.8	.5	1.3	1.3	1.2
Sept	.8	.8	.9	.9	.9	.8	.8	.9	1.0	.9	.9	1.0	.8	.8	.9
Dec	1.0	1.0	1.4	1.1	.9	1.5	1.1	1.0	1.2	1.1	.9	1.5	1.0	1.1	1.1

[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.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–47.—*Productivity and related data, business sector, 1959–99*

[Index numbers, 1992=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	47.2	50.5	31.5	31.2	66.7	61.8	13.1	13.7	58.5	61.1	27.7	27.0	27.0	26.5
1960	48.0	51.2	32.1	31.7	66.7	62.0	13.6	14.3	59.9	62.8	28.4	27.9	27.3	26.8
1961	49.8	52.8	32.7	32.4	65.7	61.3	14.2	14.7	61.7	64.3	28.5	27.9	27.5	27.0
1962	52.1	55.2	34.8	34.6	66.8	62.6	14.8	15.4	63.9	66.2	28.4	27.8	27.8	27.3
1963	54.1	57.2	36.4	36.2	67.2	63.3	15.4	15.9	65.3	67.6	28.4	27.8	28.0	27.5
1964	56.6	59.6	38.7	38.6	68.3	64.8	16.1	16.6	67.8	69.9	28.5	27.9	28.3	27.8
1965	58.6	61.4	41.4	41.3	70.6	67.3	16.8	17.2	69.3	71.0	28.6	28.0	28.7	28.2
1966	61.0	63.6	44.2	44.3	72.5	69.7	17.9	18.2	71.8	73.0	29.3	28.6	29.4	28.9
1967	62.3	64.6	45.0	45.1	72.3	69.7	18.9	19.2	73.7	75.0	30.3	29.7	30.3	29.8
1968	64.5	66.9	47.3	47.5	73.4	70.9	20.4	20.7	76.5	77.6	31.7	31.0	31.4	30.9
1969	64.8	67.1	48.8	48.9	75.2	73.0	21.9	22.2	77.6	78.6	33.7	33.0	32.8	32.3
1970	66.2	68.0	48.8	48.9	73.7	71.8	23.5	23.7	79.0	79.7	35.6	34.9	34.3	33.7
1971	68.8	70.7	50.5	50.6	73.4	71.6	25.0	25.3	80.5	81.3	36.4	35.7	35.8	35.3
1972	71.0	73.0	53.8	54.0	75.8	74.0	26.6	26.9	82.9	83.8	37.5	36.8	37.1	36.4
1973	73.1	75.2	57.5	57.8	78.5	76.9	28.9	29.1	84.7	85.3	39.5	38.7	39.1	37.7
1974	72.2	74.3	56.8	57.2	78.6	77.0	31.7	31.9	83.7	84.4	43.8	43.0	42.6	41.4
1975	74.8	76.4	56.3	56.3	75.2	73.7	34.9	35.2	84.5	85.2	46.7	46.0	46.7	45.7
1976	77.2	78.9	59.9	60.1	77.6	76.1	38.0	38.2	87.0	87.5	49.2	48.4	49.3	48.4
1977	78.4	80.0	63.2	63.4	80.6	79.2	41.0	41.3	88.1	88.8	52.3	51.6	52.4	51.6
1978	79.5	81.3	67.2	67.6	84.6	83.2	44.7	45.0	89.7	90.5	56.2	55.4	56.0	55.0
1979	79.7	81.3	69.7	70.0	87.4	86.2	49.0	49.3	90.0	90.6	61.5	60.7	60.6	59.4
1980	79.8	81.3	69.1	69.5	86.7	85.5	54.3	54.7	89.7	90.3	68.1	67.2	65.9	65.0
1981	81.4	82.4	71.0	71.0	87.3	86.1	59.5	60.0	89.8	90.6	73.1	72.8	71.9	71.1
1982	81.2	82.0	69.1	68.9	85.1	83.9	63.9	64.4	91.1	91.8	78.8	78.5	75.8	75.4
1983	84.0	85.6	72.6	73.2	86.5	85.5	66.6	67.2	91.2	91.9	79.3	78.5	78.5	77.9
1984	86.4	87.4	79.0	79.3	91.5	90.7	69.5	70.0	91.5	92.1	80.5	80.1	80.7	80.1
1985	88.1	88.6	82.4	82.3	93.5	93.0	72.9	73.3	92.8	93.2	82.8	82.7	82.8	82.6
1986	90.7	91.3	85.4	85.5	94.2	93.7	76.7	77.1	95.9	96.3	84.6	84.4	84.1	83.9
1987	91.3	91.7	88.6	88.7	97.0	96.7	79.7	80.0	96.3	96.6	87.3	87.2	86.1	85.9
1988	92.4	92.9	92.4	92.8	100.0	99.8	83.4	83.6	97.3	97.4	90.3	89.9	88.8	88.5
1989	93.3	93.5	95.6	95.8	102.5	102.4	85.7	85.8	95.8	95.8	91.9	91.7	92.1	91.8
1990	94.5	94.6	97.0	97.1	102.6	102.7	90.6	90.5	96.4	96.3	95.9	95.7	95.4	95.1
1991	95.9	96.1	96.1	96.3	100.3	100.2	94.9	94.9	97.4	97.4	99.0	98.8	98.4	98.3
1992	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
1993	100.1	100.1	102.7	103.0	102.6	102.9	102.4	102.1	99.9	99.6	102.3	102.1	102.5	102.6
1994	101.4	101.4	107.7	107.8	106.2	106.3	104.5	104.3	99.7	99.5	103.0	102.9	104.4	104.5
1995	102.2	102.4	111.1	111.5	108.8	108.9	106.7	106.5	99.1	98.9	104.4	104.0	106.4	106.5
1996	105.2	105.2	116.1	116.4	110.4	110.7	110.1	109.8	99.6	99.3	104.7	104.4	107.9	107.8
1997	107.5	107.2	122.3	122.5	113.8	114.3	114.2	113.8	101.1	100.7	106.2	106.1	109.5	109.7
1998	110.5	110.2	128.6	129.0	116.4	117.1	120.3	119.7	105.1	104.5	108.8	108.6	110.3	110.5
1994:I	101.2	101.0	105.5	105.5	104.3	104.4	104.3	104.1	100.4	100.2	103.1	103.0	103.7	103.6
II	101.4	101.4	107.5	107.5	106.0	106.1	104.2	104.0	99.7	99.6	102.7	102.6	104.1	104.1
III	101.2	101.1	108.1	108.1	106.8	106.9	104.3	104.1	99.1	98.9	103.1	103.0	104.7	104.9
IV	101.9	102.0	109.7	109.9	107.7	107.7	105.0	104.9	99.2	99.1	103.0	102.8	105.1	105.3
1995:I	101.6	101.8	110.1	110.4	108.4	108.4	105.5	105.3	98.9	98.8	103.8	103.5	105.8	106.0
II	101.9	102.1	110.4	110.7	108.3	108.4	106.3	106.1	98.9	98.7	104.3	103.9	106.2	106.4
III	102.1	102.4	111.4	111.8	109.1	109.2	107.0	106.9	99.1	98.9	104.8	104.4	106.6	106.7
IV	103.1	103.2	112.6	112.9	109.2	109.4	107.9	107.7	99.4	99.2	104.7	104.3	106.9	106.9
1996:I	104.1	104.2	113.7	114.0	109.2	109.4	108.6	108.4	99.2	99.1	104.3	104.0	107.3	107.3
II	105.3	105.3	115.8	116.1	110.0	110.3	109.7	109.4	99.4	99.2	104.2	103.9	107.8	107.6
III	105.4	105.3	116.6	116.9	110.7	111.0	110.7	110.3	99.8	99.4	105.0	104.7	108.2	107.9
IV	105.9	105.8	118.3	118.6	111.7	112.1	111.6	111.2	99.8	99.5	105.3	105.0	108.5	108.4
1997:I	106.3	106.1	120.0	120.2	112.9	113.3	112.5	112.2	100.1	99.8	105.9	105.7	109.1	109.1
II	107.1	106.9	121.8	122.0	113.7	114.1	113.2	112.9	100.4	100.1	105.7	105.6	109.5	109.6
III	108.1	107.8	123.2	123.4	114.0	114.5	114.6	114.1	101.2	100.8	106.0	105.8	109.7	109.9
IV	108.4	108.1	124.4	124.6	114.7	115.3	116.4	115.9	102.4	101.9	107.4	107.2	109.9	110.1
1998:I	109.7	109.3	126.9	127.1	115.7	116.3	117.8	117.2	103.4	102.9	107.5	107.3	110.0	110.4
II	109.8	109.5	127.5	127.9	116.1	116.8	119.4	118.8	104.4	103.9	108.8	108.5	110.2	110.5
III	110.7	110.4	128.9	129.3	116.4	117.1	121.2	120.6	105.6	105.1	109.5	109.3	110.4	110.7
IV	111.9	111.5	131.2	131.6	117.2	118.0	122.7	122.0	106.5	105.9	109.6	109.4	110.5	110.6
1999:I	112.7	112.2	132.5	132.9	117.5	118.4	124.2	123.3	107.4	106.6	110.2	109.8	110.9	111.0
II	113.0	112.4	133.1	133.5	117.8	118.7	125.7	124.7	107.8	106.9	111.3	111.0	111.2	111.4
III	114.3	113.8	135.1	135.6	118.3	119.2	127.1	126.2	108.3	107.5	111.3	110.9	111.4	111.6

[1] Output refers to real gross domestic product in the sector.

[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 for recent quarters. The trend from 1978–98 is based on the consumer price index research series (CPI–U–RS).

[5] Current dollar output divided by the output index.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–48.—*Changes in productivity and related data, business sector, 1960–99*

[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	1.9	1.3	1.9	1.8	0.1	0.5	4.3	4.4	2.6	2.7	2.4	3.1	1.1	1.2
1961	3.6	3.2	2.0	2.0	–1.6	–1.2	4.0	3.4	2.9	2.4	.4	.2	.8	.8
1962	4.6	4.6	6.4	6.8	1.7	2.1	4.5	4.1	3.5	3.0	–.1	–.5	1.0	1.0
1963	3.9	3.5	4.6	4.6	.6	1.1	3.7	3.5	2.3	2.2	–.3	.0	.6	.7
1964	4.6	4.3	6.4	6.7	1.7	2.4	5.2	4.6	3.8	3.3	.6	.3	1.1	1.2
1965	3.5	3.1	7.0	7.0	3.4	3.9	3.7	3.3	2.1	1.7	.2	.2	1.6	1.4
1966	4.1	3.5	6.8	7.2	2.6	3.6	6.7	5.8	3.7	2.9	2.5	2.2	2.5	2.3
1967	2.1	1.7	1.9	1.7	–.3	.0	5.7	5.8	2.5	2.7	3.5	4.1	2.8	3.2
1968	3.5	3.5	5.0	5.3	1.4	1.7	8.2	7.9	3.8	3.5	4.5	4.2	3.9	3.8
1969	.5	.2	3.1	3.1	2.5	2.9	7.0	6.8	1.4	1.3	6.4	6.6	4.4	4.3
1970	2.0	1.5	.0	–.1	–2.0	–1.6	7.7	7.2	1.9	1.4	5.6	5.6	4.4	4.5
1971	4.0	3.9	3.6	3.5	–.4	–.3	6.4	6.5	1.9	2.0	2.2	2.5	4.6	4.6
1972	3.1	3.2	6.5	6.7	3.3	3.4	6.2	6.4	2.9	3.1	3.0	3.1	3.5	3.1
1973	3.0	3.0	6.8	7.1	3.7	4.0	8.6	8.2	2.2	1.9	5.3	5.1	5.3	3.7
1974	–1.3	–1.1	–1.1	–1.1	.1	.1	9.7	9.8	–1.2	–1.1	11.1	11.1	9.2	9.7
1975	3.6	2.8	–.9	–1.6	–4.3	–4.3	10.3	10.1	1.0	.9	6.5	7.1	9.5	10.5
1976	3.2	3.3	6.4	6.8	3.1	3.4	8.8	8.6	2.9	2.7	5.5	5.2	5.6	5.9
1977	1.5	1.4	5.5	5.5	3.9	4.0	7.9	8.0	1.3	1.4	6.3	6.6	6.3	6.6
1978	1.5	1.6	6.4	6.7	4.9	5.0	9.0	9.1	1.8	1.9	7.4	7.3	6.9	6.5
1979	.2	–.1	3.6	3.5	3.4	3.6	9.7	9.5	.3	.1	9.5	9.6	8.2	8.2
1980	.1	.1	–.8	–.7	–.9	–.8	10.8	10.8	–.3	–.3	10.7	10.7	8.7	9.3
1981	2.0	1.3	2.7	2.1	.7	.7	9.5	9.7	.1	.3	7.4	8.2	9.1	9.5
1982	–.2	–.5	–2.8	–2.9	–2.5	–2.5	7.5	7.4	1.4	1.4	7.8	7.9	5.5	6.0
1983	3.4	4.3	5.2	6.2	1.7	1.9	4.2	4.3	.0	.1	.7	–.1	3.6	3.3
1984	2.8	2.2	8.8	8.3	5.8	6.0	4.4	4.3	.3	.2	1.5	2.0	2.8	2.8
1985	2.0	1.3	4.2	3.9	2.2	2.5	4.9	4.6	1.5	1.2	2.9	3.3	2.6	3.1
1986	3.0	3.1	3.7	3.9	.7	.8	5.2	5.2	3.3	3.3	2.1	2.1	1.6	1.6
1987	.6	.5	3.7	3.7	3.0	3.2	3.9	3.8	.4	.3	3.2	3.3	2.4	2.4
1988	1.2	1.3	4.3	4.6	3.1	3.3	4.7	4.5	1.0	.8	3.5	3.1	3.1	3.0
1989	.9	.7	3.5	3.3	2.5	2.6	2.8	2.7	–1.5	–1.6	1.8	2.0	3.8	3.7
1990	1.3	1.1	1.5	1.4	.2	.3	5.7	5.5	.6	.5	4.3	4.3	3.6	3.7
1991	1.5	1.6	–.9	–.9	–2.3	–2.4	4.8	4.9	1.0	1.1	3.2	3.3	3.1	3.4
1992	4.3	4.1	4.0	3.9	–.3	–.2	5.3	5.3	2.7	2.7	1.0	1.2	1.6	1.7
1993	.1	.1	2.7	3.0	2.6	2.9	2.4	2.1	–.1	–.4	2.3	2.1	2.5	2.6
1994	1.3	1.3	4.8	4.7	3.5	3.3	2.0	2.1	–.2	–.1	.7	.8	1.8	1.9
1995	.7	1.0	3.2	3.4	2.4	2.4	2.1	2.1	–.6	–.6	1.4	1.1	1.9	1.9
1996	2.9	2.7	4.5	4.4	1.5	1.7	3.2	3.1	.5	.4	.3	.4	1.5	1.3
1997	2.2	2.0	5.4	5.3	3.1	3.3	3.7	3.6	1.5	1.4	1.5	1.6	1.5	1.7
1998	2.8	2.8	5.1	5.2	2.2	2.4	5.3	5.2	3.9	3.8	2.4	2.4	.7	.8
1994:I	1.2	1.1	3.4	2.5	2.2	1.4	5.3	5.6	3.9	4.2	4.0	4.5	1.2	1.2
II	.8	1.5	7.7	8.0	6.9	6.5	–.7	–.3	–2.9	–2.4	–1.5	–1.7	1.4	1.9
III	–.8	–1.1	2.1	2.2	2.9	3.3	.7	.4	–2.4	–2.7	1.6	1.5	2.6	3.1
IV	3.0	3.6	6.4	6.9	3.3	3.1	2.7	3.0	.4	.7	–.3	–.6	1.6	1.4
1995:I	–1.3	–.8	1.4	1.8	2.8	2.6	1.6	1.6	–1.2	–1.3	3.0	2.4	2.7	2.7
II	1.1	1.1	.9	1.1	–.2	–.1	3.1	2.9	–.1	–.2	1.9	1.8	1.5	1.5
III	.9	1.2	3.8	4.2	2.9	3.0	2.9	3.0	.8	.9	2.0	1.7	1.5	1.0
IV	3.8	3.2	4.2	4.0	.4	.7	3.4	3.1	1.3	1.0	–.4	–.1	1.1	.6
1996:I	4.1	3.9	4.1	3.9	.0	–.1	2.4	2.5	–.6	–.4	–1.6	–1.4	1.7	1.6
II	4.7	4.2	7.7	7.6	2.9	3.3	4.4	4.0	.7	.3	–.3	–.2	1.7	1.4
III	.3	.1	2.7	2.8	2.4	2.6	3.5	3.1	1.4	1.0	3.2	2.9	1.4	1.2
IV	2.1	1.9	5.9	5.9	3.7	3.9	3.3	3.3	.2	.2	1.2	1.3	1.2	1.8
1997:I	1.3	.9	5.8	5.5	4.4	4.5	3.4	3.6	1.0	1.2	2.1	2.7	2.2	2.5
II	3.4	3.3	6.2	6.2	2.7	2.8	2.6	2.6	1.5	1.5	–.7	–.6	1.4	1.7
III	3.6	3.3	4.8	4.6	1.1	1.3	4.8	4.4	3.0	2.6	1.1	1.0	.8	1.1
IV	1.2	1.2	3.9	4.1	2.7	2.9	6.7	6.4	4.8	4.5	5.4	5.1	.7	.8
1998:I	4.6	4.4	8.1	8.3	3.4	3.7	4.9	4.8	4.2	4.1	.3	.4	.4	.9
II	.6	.9	2.2	2.4	1.6	1.4	5.5	5.6	3.9	3.9	4.9	4.6	.8	.5
III	3.4	3.1	4.4	4.4	.9	1.2	6.1	6.2	4.7	4.7	2.6	3.0	.9	.6
IV	4.3	4.1	7.2	7.3	2.8	3.1	4.9	4.6	3.3	2.9	.6	.5	.4	–.3
1999:I	3.0	2.7	3.9	4.0	.9	1.3	4.9	4.2	3.6	2.8	1.9	1.4	1.3	1.5
II	.8	.6	1.9	1.8	1.0	1.3	5.1	4.8	1.5	1.2	4.2	4.2	1.1	1.4
III	4.7	4.9	6.3	6.6	1.6	1.6	4.6	4.7	1.9	2.1	–.1	–.2	.7	.7

[1] Output refers to real gross domestic product in the sector.

[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 for recent quarters. The trend from 1978–98 is based on the consumer price index research series (CPI–U–RS).

[5] Current dollar output divided by the output index.

Note.—Percent changes are based on original data and may differ slightly from percent changes based on indexes in Table B–47.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–49.—*Industrial production indexes, major industry divisions, 1950–99*

[1992=100; monthly data seasonally adjusted]

Year or month	Total industrial production	Manufacturing			Mining	Utilities
		Total	Durable	Nondurable		
1950	24.7	23.5	22.7	24.2	58.7	14.5
1951	26.8	25.4	25.6	25.0	64.4	16.5
1952	27.8	26.4	27.2	25.4	63.9	17.9
1953	30.2	28.8	30.7	26.5	65.6	19.4
1954	28.6	26.9	27.1	26.7	64.3	20.9
1955	32.2	30.3	31.0	29.6	71.7	23.3
1956	33.6	31.6	32.0	31.1	75.4	25.6
1957	34.1	31.9	32.2	31.6	75.5	27.3
1958	31.9	29.7	28.2	31.9	69.3	28.6
1959	35.7	33.5	32.4	35.1	72.5	31.5
1960	36.5	34.1	32.9	35.9	73.9	33.7
1961	36.7	34.2	32.3	37.0	74.4	35.6
1962	39.8	37.3	35.9	39.3	76.5	38.2
1963	42.1	39.5	38.3	41.4	79.5	40.9
1964	45.0	42.2	41.0	44.1	82.7	44.4
1965	49.5	46.8	46.6	47.1	85.8	47.1
1966	53.8	51.0	51.8	50.0	90.4	50.7
1967	55.0	52.0	52.3	51.6	92.1	53.3
1968	58.1	54.9	54.9	54.9	95.6	57.6
1969	60.7	57.4	57.1	57.8	99.5	62.7
1970	58.7	54.8	52.7	57.8	102.0	66.5
1971	59.5	55.6	52.5	60.2	99.5	69.7
1972	65.3	61.5	58.6	65.5	101.5	74.2
1973	70.6	66.9	65.4	68.8	102.5	77.1
1974	69.6	65.9	64.1	68.3	101.9	76.1
1975	63.4	59.3	56.1	64.0	99.7	76.9
1976	69.3	65.4	61.9	70.5	100.5	79.9
1977	74.9	71.2	68.1	75.7	103.4	82.0
1978	79.3	75.8	73.6	78.9	106.5	84.4
1979	82.0	78.5	77.4	79.9	108.3	86.8
1980	79.7	75.5	73.4	78.3	111.5	87.3
1981	81.0	76.7	74.6	79.5	115.6	85.0
1982	76.7	72.1	68.2	77.7	111.2	82.3
1983	79.5	76.3	72.2	81.9	106.6	83.7
1984	86.6	83.8	82.7	85.3	113.9	86.7
1985	88.0	85.7	85.6	86.0	111.0	88.8
1986	89.0	88.1	87.4	89.1	102.6	86.4
1987	93.2	92.8	92.0	93.8	102.1	89.4
1988	97.4	97.1	98.1	96.0	104.7	93.9
1989	99.1	99.0	100.5	97.3	103.2	97.1
1990	98.9	98.5	99.0	97.9	104.8	98.3
1991	97.0	96.2	95.5	97.0	102.6	100.4
1992	100.0	100.0	100.0	100.0	100.0	100.0
1993	103.4	103.7	105.4	101.8	100.0	103.9
1994	109.1	110.0	114.3	105.2	102.5	105.3
1995	114.4	115.8	123.9	107.1	102.1	109.0
1996	119.4	121.3	134.0	107.8	103.7	112.6
1997	127.1	130.1	148.0	111.2	105.9	112.7
1998	132.4	136.4	160.7	111.6	103.8	114.4
1999*p*	137.2	142.3	172.8	111.8	98.1	116.8
1998: Jan	130.9	134.5	155.9	113.0	107.7	109.4
Feb	130.7	134.3	156.4	112.2	107.4	109.8
Mar	131.1	134.5	157.0	112.0	105.8	113.8
Apr	131.7	135.3	158.1	112.5	105.5	113.0
May	132.4	135.9	159.6	112.2	106.0	116.0
June	131.5	134.8	158.0	111.6	104.2	117.8
July	131.3	134.7	157.3	112.0	103.1	117.0
Aug	133.6	137.4	164.2	111.0	103.2	117.3
Sept	133.5	137.3	164.6	110.4	101.7	119.1
Oct	134.1	138.3	165.8	111.2	101.6	115.6
Nov	133.8	138.3	165.4	111.6	101.5	110.8
Dec	133.8	138.4	166.2	111.1	98.1	112.5
1999: Jan	134.1	138.6	166.3	111.3	98.0	114.5
Feb	134.5	139.3	166.8	112.3	97.4	112.6
Mar	135.1	139.7	168.1	111.8	97.5	116.8
Apr	135.5	140.2	169.4	111.5	96.7	116.3
May	136.2	141.0	170.8	111.9	97.4	116.1
June	136.6	141.4	172.2	111.3	97.1	117.4
July	137.4	142.0	173.8	111.0	97.8	119.8
Aug	137.7	142.5	174.4	111.5	98.5	117.8
Sept	138.1	142.9	175.0	111.8	98.3	117.7
Oct*p*	139.4	144.3	176.4	113.1	99.3	118.6
Nov*p*	139.9	145.2	177.7	113.6	99.8	115.5
Dec*p*	140.5	145.5	177.9	114.0	100.2	119.5

Source: Board of Governors of the Federal Reserve System.

TABLE B–50.—*Industrial production indexes, market groupings, 1950–99*

[1992=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					
1950	24.7	23.8	27.8	29.2	24.8	28.6	16.6	15.6	11.9	26.3	25.1	21.3	.....	.....
1951	26.8	25.7	27.5	25.8	21.4	29.6	23.1	19.1	29.3	27.6	27.8	24.3	.....	.....
1952	27.8	27.5	28.1	23.2	21.4	30.8	27.7	21.6	41.2	27.5	28.2	24.8	.....	.....
1953	30.2	29.4	29.8	29.3	24.2	31.7	30.1	22.5	49.4	29.4	31.3	28.9	.....	.....
1954	28.6	27.9	29.6	27.3	22.3	32.1	26.3	19.8	43.5	29.3	28.9	25.0	23.0	51.4
1955	32.2	30.1	33.0	36.3	26.3	34.5	26.9	21.4	39.8	33.2	34.2	30.6	26.3	57.8
1956	33.6	31.9	34.2	29.9	27.7	36.8	29.5	24.8	38.9	34.7	35.1	30.7	27.6	61.1
1957	34.1	32.8	35.1	31.3	27.1	37.9	30.7	25.8	40.6	34.7	35.1	30.6	27.4	61.8
1958	31.9	31.3	34.8	24.9	25.6	39.0	27.5	21.8	40.8	33.9	31.6	25.8	27.3	57.3
1959	35.7	34.3	38.1	31.2	29.4	41.7	30.2	24.5	43.0	37.5	36.4	30.7	31.2	60.7
1960	36.5	35.5	39.6	35.7	29.6	43.1	31.0	25.1	44.2	37.7	36.9	31.1	31.7	61.5
1961	36.7	35.8	40.4	32.6	30.5	44.5	30.6	24.4	44.9	38.5	36.9	30.4	33.0	62.0
1962	39.8	38.8	43.1	39.5	33.1	46.6	34.0	26.5	52.0	40.8	40.2	33.8	35.8	64.1
1963	42.1	41.0	45.5	43.2	35.7	48.7	36.1	27.8	56.1	43.1	42.8	36.0	37.9	67.9
1964	45.0	43.3	48.1	45.3	39.0	51.1	38.1	31.1	54.3	45.9	46.3	39.3	41.3	70.7
1965	49.5	47.6	51.8	55.8	44.2	53.3	43.1	35.6	60.1	48.9	51.6	45.0	45.3	73.9
1966	53.8	52.1	54.5	55.6	48.7	55.8	50.2	41.3	70.6	51.9	56.2	49.6	48.9	78.6
1967	55.0	54.2	55.8	48.9	49.3	58.7	53.4	42.1	80.6	54.0	55.7	47.8	49.8	81.3
1968	58.1	56.8	59.2	58.2	52.8	61.0	54.9	43.9	80.7	57.1	59.4	50.7	54.7	85.0
1969	60.7	58.6	61.4	58.5	56.3	63.1	56.4	46.8	76.8	60.2	62.9	53.3	59.2	89.4
1970	58.7	56.5	60.7	49.2	54.6	64.1	52.4	45.1	65.1	59.3	60.7	48.4	59.5	93.8
1971	59.5	57.0	64.2	62.7	57.8	66.0	49.1	42.9	58.5	61.1	61.6	48.6	62.0	94.6
1972	65.3	61.9	69.3	67.7	66.2	70.2	53.7	48.9	56.8	68.2	67.9	54.9	68.4	98.2
1973	70.6	66.5	72.4	74.7	70.0	72.4	59.9	57.2	55.5	72.6	74.3	62.8	73.4	98.9
1974	69.6	66.3	70.2	64.6	64.7	72.4	61.9	59.7	54.7	70.0	72.8	61.0	73.7	96.3
1975	63.4	62.4	67.4	60.8	57.0	70.9	56.7	53.3	53.7	63.2	63.9	50.8	65.6	94.2
1976	69.3	66.8	74.1	75.5	63.9	76.1	58.6	55.3	54.6	69.6	71.4	58.5	74.3	96.5
1977	74.9	72.4	79.5	87.2	71.8	79.8	64.3	62.0	54.4	75.7	76.9	64.6	78.9	97.9
1978	79.3	77.2	82.6	89.6	74.9	82.9	71.0	69.3	55.9	79.9	81.0	70.2	81.6	98.9
1979	82.0	79.7	81.5	81.4	73.6	82.9	77.6	77.3	57.7	82.0	83.9	73.3	84.4	101.4
1980	79.7	79.3	79.6	62.3	69.7	83.8	79.1	76.7	63.2	77.7	80.3	67.7	80.7	102.2
1981	81.0	81.2	80.1	61.6	70.7	84.3	82.8	78.0	64.5	77.6	81.4	70.4	82.3	100.2
1982	76.7	78.3	78.8	59.1	64.4	84.2	77.7	70.6	72.6	75.8	75.1	62.6	74.6	96.7
1983	79.5	80.0	83.2	74.3	73.1	86.2	76.4	68.3	80.4	81.0	78.3	68.2	81.0	94.7
1984	86.6	87.0	86.7	89.4	80.1	87.5	87.6	79.2	89.5	86.9	85.9	79.5	84.5	99.5
1985	88.0	89.3	87.6	95.4	77.3	88.5	91.8	82.5	103.8	89.1	86.3	80.9	83.2	99.1
1986	89.0	90.3	90.7	97.5	82.6	91.3	90.0	82.0	113.0	92.7	86.3	82.3	85.7	95.2
1987	93.2	93.3	93.7	100.7	89.1	93.6	92.9	85.1	117.5	100.7	90.4	87.5	90.9	96.2
1988	97.4	97.9	96.7	107.1	94.5	95.9	99.9	93.5	117.1	102.5	95.1	93.6	94.8	98.5
1989	99.1	99.9	97.7	108.9	95.9	96.7	103.7	98.8	117.4	102.9	97.0	95.7	97.2	99.5
1990	98.9	99.5	97.3	100.9	96.0	97.1	103.2	98.2	115.9	101.9	97.2	95.3	98.1	100.6
1991	97.0	97.7	97.0	90.3	95.2	98.1	98.8	95.7	106.7	97.5	95.9	93.2	96.9	100.8
1992	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
1993	103.4	103.4	103.6	111.3	112.4	101.5	103.2	104.6	93.7	102.5	103.8	106.6	102.0	99.5
1994	109.1	107.7	108.0	122.9	125.0	104.0	107.2	111.4	86.8	106.3	111.9	118.7	107.1	101.3
1995	114.4	111.6	110.8	122.6	132.7	106.5	112.8	119.4	84.0	108.1	120.3	133.4	108.6	102.4
1996	119.4	115.3	112.4	123.5	136.6	107.8	120.4	130.2	78.9	110.8	127.8	147.7	108.1	103.5
1997	127.1	121.1	115.1	130.7	138.9	110.1	132.1	145.7	75.9	115.3	139.0	167.0	112.9	103.6
1998	132.4	125.4	116.2	134.7	149.0	109.9	142.7	161.2	75.4	118.8	146.5	182.1	112.7	103.1
1999 *p*	137.2	128.2	117.2	144.7	159.1	108.9	149.1	171.8	74.3	122.3	154.7	198.6	114.2	102.0
1998: Jan	130.9	125.1	117.3	135.2	147.2	111.4	138.5	154.5	75.4	117.1	143.4	176.5	114.2	103.1
Feb	130.7	124.5	116.2	133.2	148.0	110.0	139.1	155.1	75.6	117.2	143.7	177.4	113.8	103.0
Mar	131.1	124.9	116.5	134.3	149.6	110.1	139.5	156.1	75.2	117.6	144.0	177.8	113.5	103.9
Apr	131.7	125.5	117.1	136.3	149.9	110.6	140.1	157.2	75.2	118.0	144.6	179.0	113.9	103.5
May	132.4	125.8	117.1	136.9	151.0	110.5	140.8	158.2	75.2	118.7	146.0	181.3	113.6	105.0
June	131.5	125.4	116.0	123.1	150.0	110.7	141.7	159.9	75.3	118.2	144.1	178.4	112.6	104.3
July	131.3	124.8	115.4	108.0	150.9	111.3	141.3	159.6	75.2	119.0	144.0	178.4	113.0	103.5
Aug	133.6	127.2	116.9	143.5	149.3	109.8	145.3	165.1	76.1	119.3	147.1	185.5	111.5	103.4
Sept	133.5	126.7	115.5	139.3	148.3	108.6	146.4	167.0	75.3	119.0	147.8	186.5	111.9	104.0
Oct	134.1	127.5	116.0	143.4	147.6	108.9	147.5	168.4	76.3	120.4	147.6	187.0	111.3	103.2
Nov	133.8	126.8	115.6	142.0	147.3	108.6	146.3	167.0	75.8	120.0	147.9	187.7	111.8	102.1
Dec	133.8	126.0	115.1	141.7	148.8	107.9	145.2	166.3	75.2	121.1	148.5	189.2	111.7	101.6
1999: Jan	134.1	126.6	116.3	143.7	152.8	108.7	144.6	165.9	75.0	121.4	148.2	188.8	111.3	101.8
Feb	134.5	127.3	117.2	142.0	158.0	109.3	144.9	166.3	75.4	121.3	148.7	189.2	112.4	101.7
Mar	135.1	127.3	116.7	140.0	157.8	108.9	145.9	167.5	75.6	121.6	150.3	191.9	112.7	102.4
Apr	135.5	127.6	116.5	142.0	160.0	108.3	147.0	169.4	75.1	121.7	150.8	193.1	112.8	102.2
May	136.2	128.2	116.8	145.4	158.3	108.4	148.4	171.2	75.2	122.3	151.7	194.3	113.8	102.2
June	136.6	128.3	117.0	147.4	158.8	108.4	148.3	171.2	74.6	121.7	153.1	197.2	114.2	101.6
July	137.4	128.6	116.8	143.7	161.1	108.3	149.3	172.6	74.5	121.5	155.0	200.3	114.5	102.9
Aug	137.7	129.5	117.6	150.6	158.7	108.9	150.5	173.9	74.7	121.7	154.6	199.9	114.4	102.3
Sept	138.1	129.1	117.1	145.5	159.7	108.7	150.2	173.7	73.6	122.6	155.7	202.3	114.7	101.8
Oct *p*	139.4	130.7	118.9	147.9	165.1	110.0	151.4	175.1	73.7	123.6	156.8	203.1	116.5	102.6
Nov *p*	139.9	131.0	118.9	146.9	163.5	110.3	152.3	176.1	73.0	123.6	158.0	205.9	117.2	101.6
Dec *p*	140.5	130.9	119.1	144.6	164.2	110.7	151.8	175.6	72.0	124.4	159.2	207.3	117.4	103.4

[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–51.—*Industrial production indexes, selected manufactures, 1950–99*

[1992=100; monthly data seasonally adjusted]

Year or month	Durable manufactures								Nondurable manufactures				
	Primary metals		Fabricated metal products	Industrial machinery and equipment	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						
1950	75.5	106.9	43.0	14.5	7.4	24.9	38.0	45.3	52.5	38.3	25.7	10.1	32.2
1951	82.1	119.5	45.9	18.4	7.4	27.8	34.8	45.2	51.5	38.0	26.2	11.4	32.8
1952	75.0	105.2	44.8	20.0	8.5	32.3	29.8	44.6	54.2	37.6	26.1	11.9	33.5
1953	85.0	121.3	50.6	20.9	9.7	40.6	37.6	47.1	54.9	38.6	27.3	12.9	34.2
1954	68.8	94.3	45.5	17.8	8.6	35.3	32.4	46.8	54.2	36.1	28.4	13.1	34.9
1955	89.4	125.3	52.0	19.5	9.9	40.6	43.4	52.3	59.9	41.2	31.3	15.3	36.9
1956	88.8	123.0	52.7	22.4	10.7	39.4	35.2	51.7	61.3	42.3	33.2	16.4	39.0
1957	85.0	118.5	54.1	22.3	10.6	42.2	36.9	47.4	61.1	40.3	34.4	17.3	39.6
1958	67.4	89.3	48.5	18.8	9.7	33.3	27.3	48.2	59.4	39.8	33.6	17.9	40.6
1959	78.8	102.8	54.4	21.9	11.8	37.7	35.4	54.6	65.4	45.0	35.9	20.8	42.6
1960	78.5	104.5	54.5	22.0	12.8	39.0	40.0	51.5	66.7	44.1	37.3	21.6	43.8
1961	77.0	99.8	53.1	21.4	13.6	36.7	35.1	53.9	67.1	45.4	37.5	22.7	45.0
1962	82.6	104.0	57.7	24.0	15.7	42.4	42.7	56.8	69.9	48.5	38.9	25.2	46.4
1963	89.1	113.3	59.6	25.6	16.1	46.5	47.3	59.5	72.7	50.3	40.9	27.6	48.1
1964	100.5	128.9	63.3	29.2	17.0	47.7	48.5	63.9	75.3	54.3	43.4	30.2	50.3
1965	110.6	141.4	69.6	32.8	20.3	56.7	62.0	66.4	79.5	59.1	46.2	33.7	51.5
1966	117.4	145.7	74.5	38.1	24.4	60.8	60.9	68.9	81.6	62.7	49.7	36.7	53.4
1967	108.5	134.6	77.9	38.9	24.5	59.5	53.6	68.2	81.2	62.7	52.4	38.4	55.8
1968	112.4	139.0	82.1	39.2	25.8	64.6	64.2	70.2	83.2	70.0	53.3	43.2	57.3
1969	120.9	151.4	83.5	42.4	27.5	64.1	64.5	70.1	85.9	73.6	55.9	46.7	59.2
1970	112.5	140.9	77.4	41.1	26.3	53.8	51.9	69.7	82.5	72.0	54.3	48.6	60.1
1971	106.7	128.9	77.0	38.2	26.4	58.2	65.0	71.5	83.5	76.0	54.8	51.7	62.0
1972	119.5	143.3	84.5	44.3	30.2	62.2	71.0	81.9	88.6	83.3	58.5	58.2	65.3
1973	135.6	163.1	93.9	51.8	34.4	70.8	82.7	82.2	89.3	86.7	60.0	63.6	66.6
1974	131.4	158.0	90.1	55.1	34.1	64.4	71.4	74.6	85.3	78.9	59.1	65.9	67.5
1975	104.7	127.0	78.1	47.7	29.3	57.9	60.5	69.5	77.9	75.2	55.3	60.1	67.1
1976	117.1	139.9	86.5	50.1	32.9	65.9	79.7	79.0	91.8	83.5	60.4	67.2	70.9
1977	119.0	138.0	94.7	56.6	38.1	71.9	92.4	86.1	98.0	88.3	66.3	72.4	74.6
1978	128.0	147.5	98.2	63.3	42.2	77.5	96.8	87.5	100.4	88.6	70.1	76.4	77.2
1979	130.0	148.4	101.6	70.2	46.9	78.7	89.0	86.3	95.3	91.5	72.0	79.2	77.9
1980	108.0	119.0	94.4	70.5	48.6	70.3	65.8	80.4	95.4	89.0	72.4	75.9	79.7
1981	113.9	126.6	93.0	74.7	51.0	66.9	62.8	78.1	97.3	86.3	74.3	77.3	81.4
1982	80.5	80.5	84.9	65.8	51.7	63.0	56.9	70.3	96.3	80.1	77.5	71.0	82.4
1983	88.2	90.0	87.2	65.2	55.9	70.5	72.1	83.3	100.3	89.9	81.4	76.0	84.6
1984	98.7	98.9	95.2	78.9	66.7	80.5	87.3	89.8	102.2	90.4	87.0	79.3	86.4
1985	98.4	98.8	96.5	81.2	68.4	88.8	95.0	92.0	98.6	86.5	90.2	79.4	88.9
1986	91.2	86.8	95.6	81.8	71.0	94.1	94.2	99.6	101.8	90.5	93.4	82.4	91.2
1987	97.8	95.4	101.9	86.0	75.6	96.1	94.9	104.9	105.5	96.3	102.5	87.0	93.5
1988	106.2	107.6	106.1	97.1	82.5	101.1	100.2	105.1	103.5	95.0	103.4	92.2	94.9
1989	104.9	106.2	104.8	103.0	85.8	105.1	101.2	104.3	100.3	96.5	103.5	95.1	95.9
1990	104.0	106.4	101.2	100.1	87.7	102.3	95.3	101.6	97.2	93.2	103.1	97.3	97.0
1991	96.7	96.0	96.2	95.4	89.6	96.5	88.5	94.5	97.8	92.7	99.1	96.4	98.4
1992	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
1993	105.1	106.1	104.4	110.1	109.4	103.5	113.0	100.8	102.4	105.3	100.7	101.6	102.0
1994	113.8	114.4	112.2	125.6	130.5	107.5	130.6	105.9	106.3	110.6	100.7	104.8	103.7
1995	116.2	116.5	116.4	143.7	165.7	106.7	133.2	107.9	107.1	110.2	101.3	107.4	105.8
1996	119.6	118.9	120.1	159.6	206.6	107.6	131.8	110.1	104.1	108.7	101.3	109.8	105.4
1997	126.7	125.6	126.1	178.3	260.0	117.1	140.6	115.0	102.1	111.9	105.2	114.6	107.8
1998	125.6	122.6	128.8	206.4	315.1	121.6	141.7	118.5	96.6	110.9	105.1	115.1	109.3
1999 *P*	126.5	122.9	128.8	230.5	389.6	122.3	151.0	121.7	90.8	111.2	104.5	117.1	110.3
1998: Jan	130.7	130.5	129.4	193.5	287.4	121.7	143.7	116.3	100.4	114.7	106.0	116.3	109.9
Feb	130.6	130.8	129.3	196.3	289.6	120.8	141.9	117.2	98.9	112.2	105.7	115.7	109.3
Mar	128.9	129.1	129.2	199.1	291.9	120.4	140.6	116.9	98.7	112.5	105.5	115.5	109.4
Apr	128.9	127.4	129.4	199.2	298.0	121.9	143.3	117.6	97.7	112.7	105.5	116.2	109.4
May	128.3	127.0	129.9	201.1	303.5	124.1	146.6	117.5	96.8	113.6	105.5	115.6	109.5
June	123.5	121.4	129.2	205.9	311.7	113.2	123.2	117.9	97.0	112.3	104.2	114.9	108.9
July	123.8	121.6	127.7	209.9	319.0	105.6	106.9	118.6	96.9	112.0	104.4	115.5	108.4
Aug	124.9	122.3	127.2	211.7	323.3	129.1	155.8	119.6	96.3	110.6	104.5	114.0	107.7
Sept	128.3	125.9	128.4	235.5	402.1	123.1	155.6	119.7	89.0	110.8	104.6	117.4	109.6
Oct	128.3	124.4	129.0	239.0	410.9	122.1	156.6	120.4	89.6	114.0	106.4	119.1	110.6
Nov	131.2	129.9	130.1	240.5	417.7	121.8	156.4	120.9	89.5	112.3	106.0	120.7	111.9
Dec	131.3	129.7	130.3	241.6	425.4	118.9	152.0	121.6	89.5	111.8	106.0	121.2	110.4
1999: Jan	122.9	118.1	129.0	217.5	346.7	122.7	146.5	122.6	92.3	108.0	104.3	114.5	111.0
Feb	120.1	114.6	128.4	221.7	347.5	123.2	147.8	122.3	92.2	110.5	104.3	116.6	111.4
Mar	124.0	118.1	128.5	224.6	354.0	122.6	148.1	121.7	91.8	110.1	103.7	116.8	110.9
Apr	123.9	119.4	128.0	227.0	366.4	122.1	148.4	121.5	92.4	111.4	104.2	115.6	110.6
May	123.9	120.1	127.2	228.4	373.3	122.8	150.6	123.9	91.2	110.9	104.1	117.0	110.6
June	127.4	124.5	128.3	228.2	384.2	123.5	152.9	122.2	90.7	110.8	103.5	116.3	110.0
July	128.0	126.2	128.6	230.0	399.2	122.9	152.2	121.5	89.8	112.3	102.8	115.8	108.9
Aug	129.6	127.6	128.5	231.4	401.3	122.9	152.2	120.2	89.2	111.7	103.6	117.7	108.9
Sept	128.3	125.9	128.4	235.5	402.1	123.1	155.6	119.7	89.0	110.8	104.6	117.4	109.6
Oct *P*	128.3	124.4	129.0	239.0	410.9	122.1	155.6	120.4	89.6	114.0	106.4	119.1	110.6
Nov *P*	131.2	129.9	130.1	240.5	417.7	121.8	156.4	120.9	89.5	112.3	106.0	120.7	111.3
Dec *P*	131.3	129.7	130.3	241.6	425.4	118.9	152.0	121.6	89.5	111.8	106.0	121.2	111.4

Source: Board of Governors of the Federal Reserve System.

TABLE B–52.—*Capacity utilization rates, 1950–99*

[Percent;[1] monthly data seasonally adjusted]

Year or month	Total industry	Manufacturing					Mining	Utilities
		Total	Durable goods	Non-durable goods	Primary processing	Advanced processing		
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	87.0	87.2	87.5	86.3	85.3	88.0	81.2	94.5
1968	87.3	87.1	87.2	86.6	86.1	87.3	83.5	95.1
1969	87.3	86.6	86.7	86.5	86.5	86.4	86.5	96.7
1970	81.1	79.4	77.2	82.8	79.9	78.9	88.8	96.2
1971	79.4	77.9	74.7	82.6	78.7	77.1	87.3	94.6
1972	84.4	83.4	81.4	86.4	85.5	82.2	90.3	95.2
1973	88.4	87.7	88.0	87.3	90.5	86.2	92.3	93.5
1974	84.3	83.4	83.1	83.9	85.1	82.5	92.3	87.3
1975	74.6	72.9	70.6	76.3	72.1	73.3	89.7	84.4
1976	79.3	78.2	75.7	81.8	79.2	77.6	89.8	85.2
1977	83.5	82.6	80.8	85.3	83.8	81.9	90.9	85.0
1978	85.8	85.2	84.4	86.4	85.9	84.8	90.9	85.4
1979	86.0	85.3	85.6	84.9	86.0	84.9	91.4	86.6
1980	81.5	79.5	78.4	81.0	77.2	80.8	93.4	85.9
1981	80.8	78.3	76.8	80.4	77.2	78.8	93.9	82.5
1982	74.5	71.8	68.0	77.5	68.6	73.5	86.3	79.3
1983	75.7	74.4	70.1	80.8	74.5	74.4	80.4	79.7
1984	80.8	79.8	77.6	82.9	80.0	79.7	86.0	81.9
1985	79.8	78.8	76.8	81.5	79.1	78.6	84.3	83.5
1986	78.7	78.7	75.7	82.8	79.9	78.1	77.6	80.6
1987	81.3	81.3	77.9	85.9	84.5	79.9	80.3	82.5
1988	84.0	83.8	81.7	86.4	86.8	82.3	85.2	84.9
1989	84.1	83.6	82.0	85.7	86.1	82.5	86.9	86.3
1990	82.3	81.4	79.0	84.4	83.9	80.3	89.8	85.7
1991	79.3	77.9	74.7	81.9	79.6	77.2	88.4	86.3
1992	80.2	79.4	76.6	82.8	82.3	78.1	86.4	84.5
1993	81.3	80.5	78.8	82.5	84.0	79.0	86.1	87.1
1994	83.1	82.5	81.5	83.7	87.2	80.5	87.5	87.4
1995	83.3	82.6	81.7	83.7	86.6	80.8	87.0	89.2
1996	82.5	81.5	80.8	82.4	85.4	79.9	88.5	90.4
1997	83.3	82.4	82.1	83.1	86.1	81.0	89.2	89.7
1998	81.8	80.9	80.9	81.3	84.0	79.8	86.4	90.8
1999*p*	80.7	79.8	79.9	80.3	83.0	78.8	81.6	91.6
1998: Jan	83.3	82.5	82.4	83.2	86.0	81.3	90.0	87.1
Feb	82.7	81.9	81.9	82.4	85.5	80.7	89.7	87.4
Mar	82.5	81.5	81.5	82.1	85.1	80.3	88.2	90.6
Apr	82.4	81.5	81.3	82.2	85.1	80.2	87.9	89.8
May	82.4	81.3	81.3	81.9	84.7	80.2	88.3	92.2
June	81.3	80.1	79.7	81.2	83.7	78.9	86.7	93.6
July	80.8	79.7	78.7	81.4	83.5	78.3	85.7	92.9
Aug	81.9	80.8	81.5	80.5	83.0	80.2	85.8	93.0
Sept	81.5	80.4	81.1	80.0	82.6	79.7	84.5	94.4
Oct	81.5	80.5	81.1	80.4	82.7	79.9	84.3	91.5
Nov	80.9	80.2	80.3	80.5	82.6	79.4	84.2	87.6
Dec	80.6	79.9	80.1	80.1	83.1	78.8	81.4	88.9
1999: Jan	80.4	79.6	79.6	80.2	83.1	78.4	81.3	90.3
Feb	80.4	79.7	79.3	80.7	82.8	78.7	80.9	88.7
Mar	80.5	79.6	79.5	80.3	82.9	78.5	80.9	91.9
Apr	80.4	79.5	79.6	80.0	82.6	78.5	80.4	91.4
May	80.5	79.7	79.7	80.2	82.7	78.7	81.0	91.1
June	80.5	79.6	79.9	79.7	82.7	78.6	80.7	92.1
July	80.7	79.7	80.3	79.4	82.9	78.6	81.3	93.9
Aug	80.7	79.7	80.2	79.7	82.8	78.8	81.9	92.2
Sept	80.6	79.7	80.0	79.9	82.8	78.7	81.8	92.0
Oct*p*	81.2	80.2	80.3	80.7	83.3	79.2	82.6	92.6
Nov*p*	81.2	80.4	80.4	81.0	83.7	79.4	83.1	90.1
Dec*p*	81.3	80.3	80.0	81.2	83.7	79.1	83.4	93.1

[1] Output as percent of capacity.

Source: Board of Governors of the Federal Reserve System.

TABLE B–53.—*New construction activity, 1959–99*

[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]			
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	75.1	54.9	30.5	24.1	24.4	7.9	5.0	11.5	20.2	3.7	16.5
1965	81.9	60.0	30.2	23.8	29.7	9.4	7.2	13.1	21.9	3.9	18.0
1966	85.8	61.9	28.6	21.8	33.3	9.4	9.3	14.6	23.8	3.8	20.0
1967	87.2	61.8	28.7	21.5	33.1	9.3	8.4	15.4	25.4	3.3	22.1
1968	96.8	69.4	34.2	26.7	35.2	10.4	8.5	16.3	27.4	3.2	24.2
1969	104.9	77.2	37.2	29.2	39.9	12.5	9.6	17.8	27.8	3.2	24.6
1970	105.9	78.0	35.9	27.1	42.1	13.0	9.3	19.8	27.9	3.1	24.8
1971	122.4	92.7	48.5	38.7	44.2	15.3	7.8	21.1	29.7	3.8	25.9
1972	139.1	109.1	60.7	50.1	48.4	18.8	6.7	22.9	30.0	4.2	25.8
1973	153.8	121.4	65.1	54.6	56.3	21.7	9.0	25.6	32.3	4.7	27.6
1974	155.2	117.0	56.0	43.4	61.1	21.7	11.5	27.9	38.1	5.1	33.0
1975	152.6	109.3	51.6	36.3	57.8	17.2	11.7	28.9	43.3	6.1	37.2
1976	172.1	128.2	68.3	50.8	59.9	17.0	10.5	32.4	44.0	6.8	37.2
1977	200.5	157.4	92.0	72.2	65.4	19.7	11.3	34.5	43.1	7.1	36.0
1978	239.9	189.7	109.8	85.6	79.9	24.7	16.2	39.0	50.1	8.1	42.0
1979	272.9	216.2	116.4	89.3	99.8	34.0	22.0	43.7	56.6	8.6	48.1
1980	273.9	210.3	100.4	69.6	109.9	41.7	20.5	47.7	63.6	9.6	54.0
1981	289.1	224.4	99.2	69.4	125.1	48.7	25.4	51.0	64.7	10.4	54.3
1982	279.3	216.3	84.7	57.0	131.6	53.9	26.1	51.6	63.1	10.0	53.1
1983	311.6	248.1	125.5	94.6	122.6	53.4	19.5	49.8	63.5	10.6	52.9
1984	369.0	298.8	153.8	113.8	144.9	71.6	20.9	52.4	70.2	11.2	59.0
1985	401.4	323.6	158.5	114.7	165.1	88.1	24.1	52.9	77.8	12.0	65.8
1986	429.9	345.3	187.1	133.2	158.2	84.0	21.0	53.2	84.6	12.4	72.2
1987	441.6	351.0	194.7	139.9	156.3	83.2	21.2	52.0	90.6	14.1	76.6
1988	455.6	360.9	198.1	138.9	162.8	86.4	23.2	53.2	94.7	12.3	82.5
1989	469.8	371.6	196.6	139.2	175.1	89.2	28.8	57.1	98.2	12.2	86.0
1990	468.5	361.1	182.9	128.0	178.2	85.8	33.6	58.8	107.5	12.1	95.4
1991	424.2	314.1	157.8	110.6	156.2	62.2	31.4	62.6	110.1	12.8	97.3
1992	452.1	336.2	187.8	129.6	148.4	53.2	29.0	66.2	115.8	14.4	101.5
1993	478.6	362.7	210.5	144.1	152.2	57.9	26.5	67.8	116.0	14.4	101.5
1994	519.5	399.3	238.9	167.9	160.5	64.4	28.9	67.1	120.2	14.4	105.8
1995	537.4	407.5	230.7	162.9	176.8	75.4	32.5	68.9	129.9	15.8	114.2
1996	583.4	449.0	256.5	179.4	192.5	87.0	32.7	72.9	134.5	15.3	119.2
1997	618.2	475.1	265.9	187.3	209.3	99.0	31.4	78.9	143.1	14.1	129.0
1998	665.4	520.1	294.3	213.9	225.7	110.2	32.3	83.2	145.4	14.4	131.0
1998: Jan	640.0	495.0	277.6	197.7	217.4	105.0	32.3	80.2	145.0	13.9	131.1
Feb	644.6	499.9	280.8	200.6	219.1	103.6	32.3	83.3	144.7	14.5	130.2
Mar	650.5	506.7	284.0	203.8	222.7	104.1	36.0	82.6	143.8	14.3	129.5
Apr	656.3	511.8	287.6	207.4	224.3	107.3	33.2	83.8	144.4	13.7	130.8
May	648.7	510.9	288.0	207.5	222.9	107.5	32.0	83.4	137.8	13.6	124.2
June	672.8	525.3	291.9	211.2	233.4	113.4	32.8	87.2	147.5	14.0	133.5
July	673.7	525.2	297.3	216.8	227.9	111.9	31.5	84.6	148.5	15.8	132.7
Aug	670.0	523.7	297.3	216.2	226.3	110.0	33.2	83.2	146.4	14.8	131.6
Sept	672.1	524.3	299.8	219.0	224.5	110.1	32.4	82.0	147.8	14.6	133.1
Oct	674.3	528.7	302.1	221.6	226.6	115.1	30.9	80.6	145.6	13.9	131.7
Nov	680.1	534.7	306.3	226.1	228.4	116.0	30.8	81.6	145.4	14.9	130.5
Dec	690.5	541.6	310.3	230.5	231.3	117.4	30.3	83.6	148.9	14.4	134.4
1999: Jan	697.9	543.5	315.8	235.1	227.6	117.1	29.9	80.7	154.4	13.9	140.5
Feb	710.7	548.7	318.5	238.1	230.2	119.6	29.0	81.6	162.0	15.5	146.5
Mar	715.4	555.4	323.1	241.5	232.2	120.4	29.1	82.8	160.0	13.9	146.1
Apr	704.6	547.9	322.2	241.2	225.7	118.5	26.2	81.0	156.7	14.1	142.6
May	698.5	546.9	321.8	239.9	225.1	120.4	25.0	79.7	151.6	12.7	138.9
June	698.9	546.9	320.9	238.5	226.0	118.9	25.5	81.7	151.9	13.5	138.4
July	702.0	546.0	320.3	238.9	225.6	118.6	26.2	80.7	156.0	14.1	141.9
Aug	698.4	541.8	319.7	238.6	222.1	117.5	25.7	78.9	156.6	13.4	143.3
Sept	698.2	540.9	320.0	239.1	220.9	117.6	25.6	77.7	157.2	12.7	144.6
Oct	697.3	540.3	322.1	239.6	218.2	115.4	24.6	78.1	157.0	14.1	142.8
Nov*p*	715.1	549.8	325.8	243.9	224.0	119.8	25.6	78.6	165.3	12.9	152.4

[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, gas, electric, railroad, and petroleum pipelines), 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–54.—*New housing units started and authorized, 1959–99*

[Thousands of units; monthly data at seasonally adjusted annual rates]

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	282.9		1,208.3	938.3	77.1	192.9
1960	1,296.1	1,274.0	1,252.2	994.7	257.5		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	590.7		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	(4)	(3)	1,013.9	840.4	35.6	137.9	948.8	753.5	43.1	152.1
1992	(4)	(3)	1,199.7	1,029.9	30.7	139.0	1,094.9	910.7	45.8	138.4
1993	(4)	(3)	1,287.6	1,125.7	29.4	132.6	1,199.1	986.5	52.3	160.2
1994	(4)	(3)	1,457.0	1,198.4	35.0	223.5	1,371.6	1,068.5	62.2	241.0
1995	(4)	(3)	1,354.1	1,076.2	33.7	244.1	1,332.5	997.3	63.7	271.5
1996	(4)	(3)	1,476.8	1,160.9	45.2	270.8	1,425.6	1,069.5	65.8	290.3
1997	(4)	(3)	1,474.0	1,133.7	44.5	295.8	1,441.1	1,062.4	68.5	310.3
1998	(4)	(3)	1,616.9	1,271.4	42.6	302.9	1,612.3	1,187.6	69.2	355.5
1999 *p*	(4)	(3)	1,663.0	1,331.7	31.7	299.6	1,640.2	1,231.8	66.4	342.0
1998: Jan	(4)	(3)	1,527	1,227	49	251	1,578	1,165	68	345
Feb	(4)	(3)	1,644	1,283	68	293	1,661	1,200	77	384
Mar	(4)	(3)	1,583	1,234	44	305	1,606	1,162	72	372
Apr	(4)	(3)	1,542	1,235	43	264	1,529	1,155	57	317
May	(4)	(3)	1,541	1,221	50	270	1,549	1,174	64	311
June	(4)	(3)	1,626	1,274	45	307	1,531	1,143	73	315
July	(4)	(3)	1,719	1,306	41	372	1,626	1,191	74	361
Aug	(4)	(3)	1,615	1,264	50	301	1,670	1,202	72	396
Sept	(4)	(3)	1,576	1,251	27	298	1,569	1,171	70	328
Oct	(4)	(3)	1,698	1,298	40	360	1,726	1,210	69	447
Nov	(4)	(3)	1,654	1,375	30	249	1,688	1,254	63	371
Dec	(4)	(3)	1,750	1,383	29	338	1,708	1,296	77	335
1999: Jan	(4)	(3)	1,820	1,393	57	370	1,778	1,279	79	420
Feb	(4)	(3)	1,752	1,380	27	345	1,738	1,306	72	360
Mar	(4)	(3)	1,746	1,394	33	319	1,654	1,242	69	343
Apr	(4)	(3)	1,577	1,260	30	287	1,572	1,214	67	291
May	(4)	(3)	1,668	1,389	26	253	1,591	1,243	59	289
June	(4)	(3)	1,607	1,305	29	273	1,641	1,241	64	336
July	(4)	(3)	1,680	1,332	39	309	1,641	1,247	63	331
Aug	(4)	(3)	1,655	1,289	31	335	1,619	1,210	66	343
Sept	(4)	(3)	1,637	1,295	38	304	1,506	1,171	63	272
Oct	(4)	(3)	1,642	1,339	25	278	1,594	1,178	62	354
Nov *p*	(4)	(3)	1,598	1,299	24	275	1,612	1,200	68	344
Dec *p*	(4)	(3)	1,712	1,402	30	280	1,622	1,228	70	324

[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 19,000 permit-issuing places beginning 1994; in 17,000 places for 1984–93; 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–55.—*Manufacturing and trade sales and inventories, 1954–99*

[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]
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	26,480	45,069	1.62	9,893	11,678	1.13	15,321	22,769	1.43
1956	54,063	87,304	1.55	27,740	50,642	1.73	10,513	13,260	1.19	15,811	23,402	1.47
1957	55,879	89,052	1.59	28,736	51,871	1.80	10,475	12,730	1.23	16,667	24,451	1.44
1958	54,201	87,055	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	25,305	1.41
1960	60,827	94,719	1.56	30,878	53,786	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	11,988	14,488	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	90,820	145,681	1.60	46,486	84,646	1.82	19,576	25,786	1.32	24,757	35,249	1.42
1968	98,685	156,611	1.59	50,229	90,560	1.80	21,012	27,166	1.29	27,445	38,885	1.42
1969	105,690	170,400	1.61	53,501	98,145	1.83	22,818	29,800	1.31	29,371	42,455	1.45
1970	108,221	178,594	1.65	52,805	101,599	1.92	24,167	33,354	1.38	31,249	43,641	1.40
1971	116,895	188,991	1.62	55,906	102,567	1.83	26,492	36,568	1.38	34,497	49,856	1.45
1972	131,081	203,227	1.55	63,027	108,121	1.72	29,866	40,297	1.35	38,189	54,809	1.44
1973	153,677	234,406	1.53	72,931	124,499	1.71	38,115	46,918	1.23	42,631	62,989	1.48
1974	177,912	287,144	1.61	84,790	157,625	1.86	47,982	58,667	1.22	45,141	70,852	1.57
1975	182,198	288,992	1.59	86,589	159,708	1.84	46,634	57,774	1.24	48,975	71,510	1.46
1976	204,150	318,345	1.56	98,797	174,636	1.77	50,698	64,622	1.27	54,655	79,087	1.45
1977	229,513	350,706	1.53	113,201	188,378	1.66	56,136	73,179	1.30	60,176	89,149	1.48
1978	260,320	400,931	1.54	126,905	211,691	1.67	66,413	86,934	1.31	67,002	102,306	1.53
1979	297,701	452,640	1.52	143,936	242,157	1.68	79,051	99,679	1.26	74,713	110,804	1.48
1980	327,233	508,924	1.56	154,391	265,215	1.72	93,099	122,631	1.32	79,743	121,078	1.52
1981	355,822	545,786	1.53	168,129	283,413	1.69	101,180	129,654	1.28	86,514	132,719	1.53
1982	347,625	573,908	1.67	163,351	311,852	1.95	95,211	127,428	1.36	89,062	134,628	1.49
1983	369,286	590,287	1.56	172,547	312,379	1.78	99,225	130,075	1.28	97,514	147,833	1.44
1984	410,124	649,780	1.53	190,682	339,516	1.73	112,199	142,452	1.23	107,243	167,812	1.49
1985	422,583	664,039	1.56	194,538	334,749	1.73	113,459	147,409	1.28	114,586	181,881	1.52
1986	430,419	662,738	1.55	194,657	322,654	1.68	114,960	153,574	1.32	120,803	186,510	1.56
1987	457,735	709,848	1.50	206,326	338,109	1.59	122,968	163,903	1.29	128,442	207,836	1.55
1988	497,157	767,222	1.49	224,619	369,374	1.57	134,521	178,801	1.30	138,017	219,047	1.54
1989	527,039	815,455	1.52	236,698	391,212	1.63	143,760	187,009	1.28	146,581	237,234	1.58
1990	545,909	840,663	1.52	242,686	405,073	1.65	149,506	195,775	1.29	153,718	239,815	1.56
1991	542,815	834,715	1.53	239,847	390,950	1.65	148,306	200,376	1.33	154,661	243,389	1.54
1992	567,176	842,939	1.48	250,394	382,510	1.54	154,150	208,244	1.32	162,632	252,185	1.52
1993	595,444	870,316	1.44	260,635	384,039	1.47	161,223	216,974	1.32	173,586	269,303	1.51
1994	638,742	934,342	1.41	279,002	404,877	1.41	172,237	235,413	1.31	187,503	294,052	1.50
1995	684,261	994,826	1.43	299,555	430,985	1.41	187,889	253,565	1.32	196,816	310,276	1.55
1996	717,135	1,013,201	1.41	309,622	436,729	1.40	198,668	255,871	1.29	208,845	320,601	1.51
1997	752,095	1,060,326	1.38	327,452	456,133	1.37	206,671	273,885	1.28	217,972	330,308	1.49
1998	777,772	1,095,042	1.39	337,687	466,798	1.38	211,251	287,484	1.33	228,834	340,760	1.46
1998: Jan	764,610	1,063,043	1.39	331,937	458,197	1.38	209,635	273,523	1.30	223,038	331,323	1.49
Feb	769,153	1,069,619	1.39	335,883	461,178	1.37	209,112	276,503	1.32	224,158	331,938	1.48
Mar	774,054	1,074,243	1.39	338,991	461,948	1.36	210,555	278,013	1.32	224,508	334,282	1.49
Apr	773,653	1,077,101	1.39	335,553	464,668	1.38	211,441	277,163	1.31	226,659	335,270	1.48
May	772,689	1,077,294	1.39	333,622	465,729	1.40	210,436	278,837	1.33	228,631	332,728	1.46
June	775,648	1,078,506	1.39	335,110	466,701	1.39	210,660	278,881	1.32	229,878	332,924	1.45
July	775,112	1,079,804	1.39	335,380	467,636	1.39	211,665	279,067	1.32	228,067	333,101	1.46
Aug	774,164	1,083,716	1.40	336,445	468,445	1.39	209,621	281,803	1.34	228,098	333,468	1.46
Sept	781,291	1,088,414	1.39	340,481	468,552	1.38	211,305	284,138	1.34	229,505	335,724	1.46
Oct	784,513	1,091,246	1.39	340,133	471,031	1.38	211,499	284,073	1.34	232,881	336,142	1.44
Nov	788,042	1,095,041	1.39	341,423	471,000	1.38	212,157	285,615	1.35	234,462	338,426	1.44
Dec	796,406	1,095,042	1.37	344,247	466,798	1.36	215,550	287,484	1.33	236,609	340,760	1.44
1999: Jan	794,865	1,095,209	1.38	341,673	464,867	1.36	213,597	286,698	1.34	239,595	343,644	1.43
Feb	803,481	1,098,308	1.37	343,724	464,198	1.35	216,138	288,638	1.34	243,619	345,472	1.42
Mar	812,055	1,103,619	1.36	349,065	463,578	1.33	219,595	289,360	1.32	243,395	350,681	1.44
Apr	812,237	1,105,654	1.36	347,568	463,194	1.33	219,921	289,636	1.32	244,748	352,824	1.44
May	821,761	1,108,901	1.35	350,624	463,742	1.32	223,909	290,216	1.30	247,228	354,943	1.44
June	829,593	1,112,311	1.34	354,702	462,690	1.30	227,863	291,367	1.28	247,028	358,254	1.45
July	834,062	1,115,790	1.34	357,301	465,043	1.30	227,293	293,982	1.29	249,468	356,765	1.43
Aug	844,439	1,119,251	1.33	361,844	464,351	1.28	229,827	295,558	1.29	252,768	359,342	1.42
Sept	842,647	1,124,016	1.33	358,709	465,669	1.30	231,135	298,469	1.29	252,803	359,878	1.42
Oct	846,797	1,127,772	1.33	360,201	467,522	1.30	233,048	299,793	1.29	253,548	360,457	1.42
Nov[p]	858,160	1,137,356	1.33	364,913	469,518	1.29	236,805	302,947	1.28	256,442	364,891	1.42

[1] Annual data are averages of monthly not seasonally adjusted figures.

[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–56.—*Manufacturers' shipments and inventories, 1954–99*

[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
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	24,933	13,540	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	25,847	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	211,691	138,181	45,198	58,848	34,135	73,510	29,619	12,085	31,806
1979	143,936	75,927	68,009	242,157	160,734	52,670	69,325	38,739	81,423	32,814	13,910	34,699
1980	154,391	77,419	76,972	265,215	174,788	55,173	76,945	42,670	90,427	36,606	15,884	37,937
1981	168,129	83,727	84,402	283,413	186,443	57,998	80,998	47,447	96,970	38,165	16,194	42,611
1982	163,351	79,212	84,139	311,852	200,444	59,136	86,707	54,601	111,408	44,039	18,612	48,757
1983	172,547	85,481	87,066	312,379	199,854	60,325	86,899	52,630	112,525	44,816	18,691	49,018
1984	190,682	97,940	92,742	339,516	221,330	66,031	98,251	57,048	118,186	45,692	19,328	53,166
1985	194,538	101,279	93,259	334,749	218,193	63,904	98,162	56,127	116,556	44,106	19,442	53,008
1986	194,657	103,238	91,419	322,654	211,997	61,331	97,000	53,666	110,657	42,335	18,124	50,198
1987	206,326	108,128	98,198	338,109	220,799	63,562	102,393	54,844	117,310	45,319	19,270	52,721
1988	224,619	118,458	106,161	369,374	242,468	69,611	112,958	59,899	126,906	49,396	20,559	56,951
1989	236,698	123,158	113,540	391,212	257,513	72,435	122,251	62,827	133,699	50,674	21,653	61,372
1990	242,686	123,776	118,910	405,073	263,209	73,559	124,130	65,520	141,864	52,645	22,817	66,402
1991	239,847	121,000	118,847	390,950	250,019	70,834	114,960	64,225	140,931	53,011	22,815	65,105
1992	250,394	128,489	121,905	382,510	238,105	69,459	104,424	64,222	144,405	54,007	23,532	66,866
1993	260,635	135,886	124,749	384,039	239,334	72,590	102,468	64,276	144,705	55,072	23,371	66,262
1994	279,002	149,131	129,870	404,877	253,624	78,468	107,037	68,119	151,253	58,157	24,638	68,458
1995	299,555	160,586	138,970	430,985	268,353	85,577	107,209	75,567	162,632	62,324	26,007	74,301
1996	309,622	167,013	142,608	436,729	273,815	86,438	111,289	76,088	162,914	60,416	26,621	75,877
1997	327,452	179,892	147,560	456,133	286,372	89,844	117,236	79,292	169,761	61,233	29,498	79,030
1998	337,687	189,666	148,022	466,798	295,344	91,740	121,246	82,358	171,454	62,306	29,344	79,804
1998: Jan	331,937	182,303	149,634	458,197	288,086	90,779	117,542	79,765	170,111	61,732	29,348	79,031
Feb	335,883	187,298	148,585	461,178	290,153	91,428	118,362	80,363	171,025	62,130	29,622	79,273
Mar	338,991	189,998	148,993	461,948	290,887	91,922	118,438	80,527	171,061	62,364	29,390	79,307
Apr	335,553	186,843	148,710	464,668	293,393	92,470	120,494	80,429	171,275	62,086	29,746	79,443
May	333,622	185,789	147,833	465,729	294,375	92,778	121,101	80,496	171,354	61,926	29,800	79,628
June	335,110	186,536	148,574	466,701	295,143	93,198	121,420	80,525	171,558	62,374	29,828	79,356
July	335,380	186,907	148,473	467,636	295,669	93,445	121,367	80,857	171,967	62,673	29,678	79,616
Aug	336,445	188,789	147,656	468,445	296,913	93,042	122,862	81,009	171,532	62,627	29,275	79,630
Sept	340,481	192,842	147,639	468,552	296,757	93,291	122,063	81,403	171,795	62,838	29,164	79,793
Oct	340,133	193,818	146,315	471,031	298,561	93,345	123,446	81,770	172,470	62,691	29,402	80,377
Nov	341,423	194,823	146,600	471,000	297,981	93,115	122,509	82,357	173,019	62,747	29,795	80,477
Dec	344,247	195,531	148,716	466,798	295,344	91,740	121,246	82,358	171,454	62,306	29,344	79,804
1999: Jan	341,673	194,091	147,582	464,867	293,563	91,974	119,364	82,225	171,304	62,041	29,441	79,822
Feb	343,724	194,465	149,259	464,198	294,030	92,436	119,250	82,344	170,168	61,503	29,457	79,208
Mar	349,065	198,292	150,773	463,578	293,391	92,298	118,609	82,484	170,187	61,090	29,786	79,311
Apr	347,568	197,246	150,322	463,194	292,415	91,722	117,829	82,864	170,779	61,027	30,347	79,405
May	350,624	199,425	151,199	463,742	292,403	91,677	117,183	83,543	171,339	61,166	30,610	79,563
June	354,702	200,990	153,712	462,690	291,645	92,031	116,056	83,558	171,045	60,921	30,553	79,571
July	357,301	203,268	154,033	465,043	293,505	92,918	116,737	83,850	171,538	60,997	30,336	80,205
Aug	361,844	205,709	156,135	464,351	292,461	92,531	115,260	84,670	171,890	60,895	29,972	81,023
Sept	358,709	201,895	156,814	465,669	292,901	92,990	115,393	84,518	172,768	61,160	30,194	81,414
Oct	360,201	202,306	157,895	467,522	293,448	92,872	115,659	84,917	174,074	61,192	30,559	82,323
Nov[p]	364,913	204,293	160,620	469,518	294,704	94,186	115,558	84,960	174,814	61,630	30,838	82,346

[1] Annual data are averages of monthly not seasonally adjusted figures.
[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–57.—*Manufacturers' new and unfilled orders, 1954–99*

[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		Non-durable goods industries	Total	Durable goods industries	Non-durable goods industries	Total	Durable goods industries	Non-durable goods industries
		Total	Capital goods industries, non-defense							
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	3.79	4.58	.69
1969	53,990	29,876	7,046	24,114	114,341	110,161	4,180	3.71	4.45	.69
1970	52,022	27,340	6,072	24,682	105,008	100,412	4,596	3.61	4.36	.76
1971	55,921	29,905	6,682	26,016	105,247	100,225	5,022	3.32	4.00	.76
1972	64,182	35,038	7,745	29,144	119,349	113,034	6,315	3.26	3.85	.86
1973	76,003	42,627	9,926	33,376	156,561	149,204	7,357	3.80	4.51	.91
1974	87,327	46,862	11,594	40,465	187,043	181,519	5,524	4.09	4.93	.62
1975	85,139	41,957	9,886	43,181	169,546	161,664	7,882	3.69	4.45	.82
1976	99,513	51,307	11,490	48,206	178,128	169,857	8,271	3.24	3.88	.74
1977	115,109	61,035	13,681	54,073	202,024	193,323	8,701	3.24	3.85	.71
1978	131,629	72,278	17,588	59,351	259,169	248,281	10,888	3.57	4.20	.81
1979	147,604	79,483	21,154	68,121	303,593	291,321	12,272	3.89	4.62	.82
1980	156,359	79,392	21,135	76,967	327,416	315,202	12,214	3.85	4.58	.75
1981	168,025	83,654	21,806	84,371	326,547	314,707	11,840	3.87	4.68	.69
1982	162,140	78,064	19,213	84,077	311,887	300,798	11,089	3.84	4.74	.62
1983	175,451	88,140	19,624	87,311	347,273	333,114	14,159	3.53	4.29	.69
1984	192,879	100,164	23,669	92,715	373,529	359,651	13,878	3.60	4.37	.64
1985	195,706	102,356	24,545	93,351	387,196	372,097	15,099	3.67	4.47	.68
1986	195,204	103,647	23,982	91,557	393,515	376,699	16,816	3.59	4.41	.70
1987	209,389	110,809	26,094	98,579	430,426	408,688	21,738	3.63	4.43	.83
1988	228,270	122,076	31,108	106,194	474,154	452,150	22,004	3.64	4.46	.76
1989	239,572	126,055	32,988	113,516	508,849	487,098	21,751	3.96	4.85	.77
1990	244,507	125,583	33,331	118,924	531,131	509,124	22,007	4.15	5.15	.76
1991	238,805	119,849	30,471	118,957	519,199	495,802	23,397	4.08	5.07	.79
1992	248,212	126,308	31,524	121,905	492,893	469,381	23,512	3.51	4.30	.75
1993	257,698	133,081	31,694	124,617	457,810	436,017	21,793	3.14	3.80	.71
1994	279,733	149,542	35,697	130,191	466,699	440,998	25,701	2.92	3.50	.75
1995	300,632	161,782	40,511	138,851	479,674	455,459	24,215	2.81	3.38	.68
1996	312,442	169,711	44,631	142,730	513,062	487,441	25,621	2.93	3.49	.72
1997	329,335	181,726	48,165	147,610	536,131	509,927	26,204	2.80	3.33	.69
1998	336,140	188,308	51,700	147,832	519,038	495,172	23,866	2.61	3.07	.64
1998: Jan	336,432	187,048	52,302	149,384	540,626	514,672	25,954	2.86	3.41	.68
Feb	334,446	186,033	50,436	148,413	539,189	513,407	25,782	2.80	3.31	.69
Mar	334,712	185,963	50,502	148,749	534,910	509,372	25,538	2.75	3.25	.68
Apr	337,502	188,921	51,240	148,581	536,859	511,450	25,409	2.79	3.31	.67
May	330,233	182,777	50,834	147,456	533,470	508,438	25,032	2.79	3.31	.66
June	331,188	182,986	51,053	148,202	529,548	504,888	24,660	2.74	3.24	.65
July	334,821	186,617	50,763	148,204	528,989	504,598	24,391	2.72	3.23	.64
Aug	337,815	190,304	55,371	147,511	530,359	506,113	24,246	2.74	3.24	.65
Sept	340,388	192,783	53,540	147,605	530,266	506,054	24,212	2.70	3.17	.66
Oct	334,663	188,523	50,138	146,140	524,796	500,759	24,037	2.66	3.12	.65
Nov	335,930	189,193	50,675	146,737	519,303	495,129	24,174	2.61	3.06	.65
Dec	343,982	195,574	52,005	148,408	519,038	495,172	23,866	2.61	3.07	.64
1999: Jan	349,314	201,708	56,863	147,606	526,677	502,787	23,890	2.67	3.14	.64
Feb	343,046	193,786	53,233	149,260	525,999	502,108	23,891	2.67	3.15	.64
Mar	349,722	199,366	53,299	150,356	526,656	503,182	23,474	2.64	3.10	.64
Apr	344,915	194,674	52,525	150,241	524,003	500,610	23,393	2.63	3.08	.63
May	348,259	196,609	53,041	151,650	521,638	497,794	23,844	2.59	3.03	.64
June	351,128	197,084	50,948	154,044	518,064	493,888	24,176	2.57	3.01	.65
July	359,903	205,532	55,030	154,371	520,666	496,152	24,514	2.55	2.98	.65
Aug	364,440	207,446	56,423	156,994	523,262	497,889	25,373	2.53	2.95	.67
Sept	360,886	204,349	56,050	156,537	525,439	500,343	25,096	2.58	3.02	.67
Oct	360,725	202,442	56,291	158,283	525,963	500,479	25,484	2.57	2.99	.68
Nov[p]	365,477	204,550	54,319	160,927	526,527	500,736	25,791	2.54	2.97	.67

[1] Annual data are averages of monthly not seasonally adjusted figures.

[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–58.—*Consumer price indexes for major expenditure classes, 1958–99*

[For all urban consumers; 1982–84=100, except as noted]

Year or month	All items (CPI–U)	Food and beverages		Apparel	Housing	Transportation	Medical care	Entertainment	Recreation [2]	Education and communication [2]	Other goods and services	Energy [3]
		Total [1]	Food									
1958	28.9	.....	30.2	44.6	.....	28.6	20.6	.....	.....	.....	.....	21.5
1959	29.1	.....	29.7	45.0	.....	29.8	21.5	.....	.....	.....	.....	21.9
1960	29.6	.....	30.0	45.7	.....	29.8	22.3	.....	.....	.....	.....	22.4
1961	29.9	.....	30.4	46.1	.....	30.1	22.9	.....	.....	.....	.....	22.5
1962	30.2	.....	30.6	46.3	.....	30.8	23.5	.....	.....	.....	.....	22.6
1963	30.6	.....	31.1	46.9	.....	30.9	24.1	.....	.....	.....	.....	22.6
1964	31.0	.....	31.5	47.3	.....	31.4	24.6	.....	.....	.....	.....	22.5
1965	31.5	.....	32.2	47.8	.....	31.9	25.2	.....	.....	.....	.....	22.9
1966	32.4	.....	33.8	49.0	.....	32.3	26.3	.....	.....	.....	.....	23.3
1967	33.4	35.0	34.1	51.0	30.8	33.3	28.2	40.7	.....	.....	35.1	23.8
1968	34.8	36.2	35.3	53.7	32.0	34.3	29.9	43.0	.....	.....	36.9	24.2
1969	36.7	38.1	37.1	56.8	34.0	35.7	31.9	45.2	.....	.....	38.7	24.8
1970	38.8	40.1	39.2	59.2	36.4	37.5	34.0	47.5	.....	.....	40.9	25.5
1971	40.5	41.4	40.4	61.1	38.0	39.5	36.1	50.0	.....	.....	42.9	26.5
1972	41.8	43.1	42.1	62.3	39.4	39.9	37.3	51.5	.....	.....	44.7	27.2
1973	44.4	48.8	48.2	64.6	41.2	41.2	38.8	52.9	.....	.....	46.4	29.4
1974	49.3	55.5	55.1	69.4	45.8	45.8	42.4	56.9	.....	.....	49.8	38.1
1975	53.8	60.2	59.8	72.5	50.7	50.1	47.5	62.0	.....	.....	53.9	42.1
1976	56.9	62.1	61.6	75.2	53.8	55.1	52.0	65.1	.....	.....	57.0	45.1
1977	60.6	65.8	65.5	78.6	57.4	59.0	57.0	68.3	.....	.....	60.4	49.4
1978	65.2	72.2	72.0	81.4	62.4	61.7	61.8	71.9	.....	.....	64.3	52.5
1979	72.6	79.9	79.9	84.9	70.1	70.5	67.5	76.7	.....	.....	68.9	65.7
1980	82.4	86.7	86.8	90.9	81.1	83.1	74.9	83.6	.....	.....	75.2	86.0
1981	90.9	93.5	93.6	95.3	90.4	93.2	82.9	90.1	.....	.....	82.6	97.7
1982	96.5	97.3	97.4	97.8	96.9	97.0	92.5	96.0	.....	.....	91.1	99.2
1983	99.6	99.5	99.4	100.2	99.5	99.3	100.6	100.1	.....	.....	101.1	99.9
1984	103.9	103.2	103.2	102.1	103.6	103.7	106.8	103.8	.....	.....	107.9	100.9
1985	107.6	105.6	105.6	105.0	107.7	106.4	113.5	107.9	.....	.....	114.5	101.6
1986	109.6	109.1	109.0	105.9	110.9	102.3	122.0	111.6	.....	.....	121.4	88.2
1987	113.6	113.5	113.5	110.6	114.2	105.4	130.1	115.3	.....	.....	128.5	88.6
1988	118.3	118.2	118.2	115.4	118.5	108.7	138.6	120.3	.....	.....	137.0	89.3
1989	124.0	124.9	125.1	118.6	123.0	114.1	149.3	126.5	.....	.....	147.7	94.3
1990	130.7	132.1	132.4	124.1	128.5	120.5	162.8	132.4	.....	.....	159.0	102.1
1991	136.2	136.8	136.3	128.7	133.6	123.8	177.0	138.4	.....	.....	171.6	102.5
1992	140.3	138.7	137.9	131.9	137.5	126.5	190.1	142.3	.....	.....	183.3	103.0
1993	144.5	141.6	140.9	133.7	141.2	130.4	201.4	145.8	.....	.....	192.9	104.2
1994	148.2	144.9	144.3	133.4	144.8	134.3	211.0	150.1	.....	.....	198.5	104.6
1995	152.4	148.9	148.4	132.0	148.5	139.1	220.5	153.9	.....	.....	206.9	105.2
1996	156.9	153.7	153.3	131.7	152.8	143.0	228.2	159.1	.....	.....	215.4	110.1
1997	160.5	157.7	157.3	132.9	156.8	144.3	234.6	162.5	.....	.....	224.8	111.5
1998 [4]	163.0	161.1	160.7	133.0	160.4	141.6	242.1	.....	101.1	100.3	237.7	102.9
1999 [5]	166.6	164.6	164.1	131.3	163.9	144.4	250.6	.....	102.0	101.2	258.3	106.6
1998: Jan [4]	161.6	160.3	159.9	129.8	158.3	142.7	238.1	.....	100.3	99.9	231.3	105.9
Feb	161.9	159.8	159.4	131.9	158.8	142.1	239.3	.....	100.7	99.8	233.1	103.2
Mar	162.2	160.1	159.7	134.9	159.2	141.4	239.8	.....	101.0	99.9	232.4	101.6
Apr	162.5	160.2	159.8	135.8	159.5	141.5	240.7	.....	101.1	99.9	234.7	101.9
May	162.8	160.7	160.3	135.3	159.7	142.0	241.4	.....	101.0	100.1	236.7	103.8
June	163.0	160.6	160.1	132.5	160.6	141.7	242.0	.....	101.2	100.1	236.4	105.7
July	163.2	160.9	160.5	129.6	161.2	141.8	242.7	.....	101.1	100.0	237.8	105.2
Aug	163.4	161.4	161.0	131.6	161.5	141.2	243.5	.....	101.3	100.1	238.0	103.8
Sept	163.6	161.5	161.1	133.6	161.5	140.7	243.9	.....	101.3	100.9	240.4	102.7
Oct	164.0	162.4	162.0	135.6	161.4	141.3	244.3	.....	101.1	101.0	241.3	101.3
Nov	164.0	162.5	162.1	135.0	161.3	141.5	244.7	.....	101.3	101.0	240.5	100.5
Dec	163.9	162.7	162.3	130.7	161.3	140.7	245.2	.....	101.2	100.7	250.3	98.9
1999: Jan [5]	164.3	163.9	163.6	127.9	161.8	140.4	246.6	.....	101.7	100.9	255.4	98.1
Feb	164.5	163.8	163.3	129.7	162.3	139.8	247.7	.....	101.8	100.9	255.0	97.3
Mar	165.0	163.7	163.3	132.7	162.8	140.6	248.3	.....	101.8	100.8	253.3	98.4
Apr	166.2	163.9	163.4	135.2	163.0	144.3	249.1	.....	102.0	100.7	256.1	105.0
May	166.2	164.2	163.7	134.2	163.0	144.2	249.5	.....	102.2	100.4	255.8	105.6
June	166.2	164.1	163.6	130.9	164.1	143.4	250.2	.....	102.2	100.3	255.9	106.8
July	166.7	164.2	163.8	127.3	164.7	144.7	251.1	.....	102.2	100.4	258.3	108.7
Aug	167.1	164.7	164.2	127.5	165.0	145.7	251.9	.....	102.2	101.2	257.6	111.3
Sept	167.9	165.1	164.6	131.8	165.2	146.5	252.3	.....	101.7	101.9	262.6	113.2
Oct	168.2	165.5	165.1	134.6	165.0	147.3	252.8	.....	101.8	102.1	263.2	111.6
Nov	168.3	165.7	165.2	133.6	164.9	147.6	253.3	.....	101.9	102.2	263.0	111.2
Dec	168.3	165.9	165.4	130.1	164.8	148.3	254.2	.....	102.0	102.3	263.0	112.2

[1] Includes alcoholic beverages, not shown separately.
[2] December 1997=100.
[3] Household fuels—gas (piped), electricity, fuel oil, etc.—and motor fuel. Motor oil, coolant, etc. also included through 1982.
[4] Data beginning 1998 reflect changes in series composition and renaming.
[5] Data beginning 1999 reflect a change in the formula used for calculating the basic components of the consumer price index as well as other changes in methodology.

Note.—Data beginning 1983 incorporate a rental equivalence measure for homeowners' costs.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–59.—*Consumer price indexes for selected expenditure classes, 1958–99*

[For all urban consumers; 1982–84=100, except as noted]

Year or month	Food and beverages				Housing							
		Food				Shelter			Fuels and utilities			
	Total[1]	Total	At home	Away from home	Total	Total[2]	Rent of primary residence	Owners' equivalent rent of primary residence[3]	Total[2]	Fuels		Furnishings and operations
										Total	Fuel oil and other fuels	Gas (piped) and electricity	
1958		30.2	32.0	24.1		24.5	37.6		24.8		13.7	21.9	
1959		29.7	31.2	24.8		24.7	38.2		25.4		13.9	22.4	
1960		30.0	31.5	25.4		25.2	38.7		26.0		13.8	23.3	
1961		30.4	31.8	26.0		25.4	39.2		26.3		14.1	23.5	
1962		30.6	32.0	26.7		25.8	39.7		26.3		14.2	23.5	
1963		31.1	32.4	27.3		26.1	40.1		26.6		14.4	23.5	
1964		31.5	32.7	27.8		26.5	40.5		26.6		14.4	23.5	
1965		32.2	33.5	28.4		27.0	40.9		26.6		14.6	23.5	
1966		33.8	35.2	29.7		27.8	41.5		26.7		15.0	23.6	
1967	35.0	34.1	35.1	31.3	30.8	28.8	42.2		27.1	21.4	15.5	23.7	42.0
1968	36.2	35.3	36.3	32.9	32.0	30.1	43.3		27.4	21.7	16.0	23.9	43.6
1969	38.1	37.1	38.0	34.9	34.0	32.6	44.7		28.0	22.1	16.3	24.3	45.2
1970	40.1	39.2	39.9	37.5	36.4	35.5	46.5		29.1	23.1	17.0	25.4	46.8
1971	41.4	40.4	40.9	39.4	38.0	37.0	48.7		31.1	24.7	18.2	27.1	48.6
1972	43.1	42.1	42.7	41.0	39.4	38.7	50.4		32.5	25.7	18.3	28.5	49.7
1973	48.8	48.2	49.7	44.2	41.2	40.5	52.5		34.3	27.5	21.1	29.9	51.1
1974	55.5	55.1	57.1	49.8	45.8	44.4	55.2		40.7	34.4	33.2	34.5	56.8
1975	60.2	59.8	61.8	54.5	50.7	48.8	58.0		45.4	39.4	36.4	40.1	63.4
1976	62.1	61.6	63.1	58.2	53.8	51.5	61.1		49.4	43.3	38.8	44.7	67.3
1977	65.8	65.5	66.8	62.6	57.4	54.9	64.8		54.7	49.0	43.9	50.5	70.4
1978	72.2	72.0	73.8	68.3	62.4	60.5	69.3		58.5	53.0	46.2	55.0	74.7
1979	79.9	79.9	81.8	75.9	70.1	68.9	74.3		64.8	61.3	62.4	61.0	79.9
1980	86.7	86.8	88.4	83.4	81.1	81.0	80.9		75.4	74.8	86.1	71.4	86.3
1981	93.5	93.6	94.8	90.9	90.4	90.5	87.9		86.4	87.2	104.6	81.9	93.0
1982	97.3	97.4	98.1	95.8	96.9	96.9	94.6		94.9	95.6	103.4	93.2	98.0
1983	99.5	99.4	99.1	100.0	99.5	99.1	100.1	102.5	100.2	100.5	97.2	101.5	100.2
1984	103.2	103.2	102.8	104.2	103.6	104.0	105.3	107.3	104.8	104.0	99.4	105.4	101.9
1985	105.6	105.6	104.3	108.3	107.7	109.8	111.8	113.2	106.5	104.5	95.9	107.1	103.8
1986	109.1	109.0	107.3	112.5	110.9	115.8	118.3	119.4	104.1	99.2	77.6	105.7	105.2
1987	113.5	113.5	111.9	117.0	114.2	121.3	123.1	124.8	103.0	97.3	77.9	103.8	107.1
1988	118.2	118.2	116.6	121.8	118.5	127.1	127.8	131.1	104.4	98.0	78.1	104.6	109.4
1989	124.9	125.1	124.2	127.4	123.0	132.8	132.8	137.4	107.8	100.9	81.7	107.5	111.2
1990	132.1	132.4	132.3	133.4	128.5	140.0	138.4	144.8	111.6	104.5	99.3	109.3	113.3
1991	136.8	136.3	135.8	137.9	133.6	146.3	143.3	150.4	115.3	106.7	94.6	112.6	116.0
1992	138.7	137.9	136.8	140.7	137.5	151.2	146.9	155.5	117.8	108.1	90.7	114.8	118.0
1993	141.6	140.9	140.1	143.2	141.2	155.7	150.3	160.5	121.3	111.2	90.3	118.5	119.3
1994	144.9	144.3	144.1	145.7	144.8	160.5	154.0	165.8	122.8	111.7	88.8	119.2	121.0
1995	148.9	148.4	148.8	149.0	148.5	165.7	157.8	171.3	123.7	111.5	88.1	119.2	123.0
1996	153.7	153.3	154.3	152.7	152.8	171.0	162.0	176.8	127.5	115.2	99.2	122.1	124.7
1997	157.7	157.3	158.1	157.0	156.8	176.3	166.7	181.9	130.8	117.9	99.8	125.1	125.4
1998[4]	161.1	160.7	161.1	161.1	160.4	182.1	172.1	187.8	128.5	113.7	90.0	121.2	126.6
1999[5]	164.6	164.1	164.2	165.1	163.9	187.3	177.5	192.9	128.8	113.5	91.4	120.9	126.7
1998: Jan[4]	160.3	159.9	161.0	159.2	158.3	179.2	169.5	185.1	128.8	114.5	96.4	121.6	125.6
Feb	159.8	159.4	160.0	159.6	158.8	180.1	169.9	185.5	127.4	112.8	95.2	119.7	126.1
Mar	160.1	159.7	160.2	159.9	159.2	180.8	170.3	185.9	127.1	112.5	94.4	119.4	126.3
Apr	160.2	159.8	160.2	160.2	159.5	181.0	170.7	186.4	127.0	112.3	92.8	119.4	127.0
May	160.7	160.3	160.7	160.6	159.7	181.2	171.1	186.8	127.9	113.2	91.8	120.5	126.6
June	160.6	160.1	160.5	160.7	160.6	181.8	171.7	187.4	131.2	116.8	89.5	124.7	126.7
July	160.9	160.5	160.8	161.1	161.2	182.6	172.2	188.0	131.3	116.8	87.8	124.9	127.2
Aug	161.4	161.0	161.4	161.5	161.5	183.3	172.8	188.5	130.6	115.9	86.7	124.0	126.8
Sept	161.5	161.1	161.2	162.1	161.5	183.4	173.4	189.2	130.0	115.2	85.9	123.3	126.5
Oct	162.4	162.0	162.5	162.3	161.4	183.9	173.9	189.8	127.1	112.0	86.4	119.6	126.6
Nov	162.5	162.1	162.5	162.6	161.3	184.0	174.5	190.3	126.5	111.4	86.8	118.9	126.6
Dec	162.7	162.3	162.6	163.0	161.3	184.0	174.9	190.7	126.6	111.4	86.1	118.9	126.6
1999: Jan[5]	163.9	163.6	164.3	163.5	161.8	184.7	175.3	191.0	126.2	110.9	86.6	118.3	126.8
Feb	163.8	163.3	163.8	163.8	162.3	185.5	175.6	191.3	126.0	110.6	86.2	118.0	126.7
Mar	163.7	163.3	163.4	164.2	162.8	186.3	176.0	191.5	125.9	110.5	86.2	117.9	126.7
Apr	163.9	163.4	163.5	164.5	163.0	186.6	176.4	191.9	125.7	110.2	87.7	117.5	127.2
May	164.2	163.7	163.9	164.6	163.0	186.5	176.7	192.2	126.5	111.0	87.7	118.4	126.7
June	164.1	163.6	163.7	164.6	164.1	187.2	177.1	192.6	130.2	115.1	87.3	123.0	126.8
July	164.2	163.8	163.7	165.1	164.7	188.0	177.5	193.0	131.1	116.0	87.5	124.0	126.8
Aug	164.7	164.2	164.1	165.6	165.0	188.3	177.9	193.4	131.4	116.2	89.2	124.1	126.8
Sept	165.1	164.6	164.5	165.8	165.2	188.3	178.4	193.9	132.7	117.6	93.9	125.3	127.0
Oct	165.5	165.1	165.1	166.2	165.0	188.5	178.8	194.2	130.3	115.0	97.6	122.0	126.6
Nov	165.7	165.2	165.1	166.5	164.9	188.6	179.8	194.9	130.0	114.6	100.7	121.4	126.4
Dec	165.9	165.4	165.4	166.8	164.8	188.6	180.3	195.2	129.6	114.1	106.3	120.3	126.4

[1] Includes alcoholic beverages, not shown separately.
[2] Includes other items, not shown separately.
[3] December 1982=100.

See next page for continuation of table.

TABLE B–59.—*Consumer price indexes for selected expenditure classes, 1958–99*—Continued

[For all urban consumers; 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[2]	New vehicles		Used cars and trucks	Motor fuel	Motor vehicle maintenance and repair				
			Total[2]	New cars							
1958	28.6	29.5	50.1	50.0	24.0	23.4	25.4	20.9	20.6	46.1	17.9
1959	29.8	30.8	52.3	52.2	26.8	23.7	26.0	21.5	21.5	46.8	18.7
1960	29.8	30.6	51.6	51.5	25.0	24.4	26.5	22.2	22.3	46.9	19.5
1961	30.1	30.8	51.6	51.5	26.0	24.1	27.1	23.2	22.9	46.3	20.2
1962	30.8	31.4	51.4	51.3	28.4	24.3	27.5	24.0	23.5	45.6	20.9
1963	30.9	31.6	51.1	51.0	28.7	24.2	27.8	24.3	24.1	45.2	21.5
1964	31.4	32.0	50.9	50.9	30.0	24.1	28.2	24.7	24.6	45.1	22.0
1965	31.9	32.5	49.8	49.7	29.8	25.1	28.7	25.2	25.2	45.0	22.7
1966	32.3	32.9	48.9	48.8	29.0	25.6	29.2	26.1	26.3	45.1	23.9
1967	33.3	33.8	49.3	49.3	29.9	26.4	30.4	27.4	28.2	44.9	26.0
1968	34.3	34.8	50.7	50.7	.....	26.8	32.1	28.7	29.9	45.0	27.9
1969	35.7	36.0	51.5	51.5	30.9	27.6	34.1	30.9	31.9	45.4	30.2
1970	37.5	37.5	53.1	53.0	31.2	27.9	36.6	35.2	34.0	46.5	32.3
1971	39.5	39.4	55.3	55.2	33.0	28.1	39.3	37.8	36.1	47.3	34.7
1972	39.9	39.7	54.8	54.7	33.1	28.4	41.1	39.3	37.3	47.4	35.9
1973	41.2	41.0	54.8	54.8	35.2	31.2	43.2	39.7	38.8	47.5	37.5
1974	45.8	46.2	58.0	57.9	36.7	42.2	47.6	40.6	42.4	49.2	41.4
1975	50.1	50.6	63.0	62.9	43.8	45.1	53.7	43.5	47.5	53.3	46.6
1976	55.1	55.6	67.0	66.9	50.3	47.0	57.6	47.8	52.0	56.5	51.3
1977	59.0	59.7	70.5	70.4	54.7	49.7	61.9	50.0	57.0	60.2	56.4
1978	61.7	62.5	75.9	75.8	55.8	51.8	67.0	51.5	61.8	64.4	61.2
1979	70.5	71.7	81.9	81.8	60.2	70.1	73.7	54.9	67.5	69.0	67.2
1980	83.1	84.2	88.5	88.4	62.3	97.4	81.5	69.0	74.9	75.4	74.8
1981	93.2	93.8	93.9	93.7	76.9	108.5	89.2	85.6	82.9	83.7	82.8
1982	97.0	97.1	97.5	97.4	88.8	102.8	96.0	94.9	92.5	92.3	92.6
1983	99.3	99.3	99.9	99.9	98.7	99.4	100.3	99.5	100.6	100.2	100.7
1984	103.7	103.6	102.6	102.8	112.5	97.9	103.8	105.7	106.8	107.5	106.7
1985	106.4	106.2	106.1	106.1	113.7	98.7	106.8	110.5	113.5	115.2	113.2
1986	102.3	101.2	110.6	110.6	108.8	77.1	110.3	117.0	122.0	122.8	121.9
1987	105.4	104.2	114.4	114.6	113.1	80.2	114.8	121.1	130.1	131.0	130.0
1988	108.7	107.6	116.5	116.9	118.0	80.9	119.7	123.3	138.6	139.9	138.3
1989	114.1	112.9	119.2	119.2	120.4	88.5	124.9	129.5	149.3	150.8	148.9
1990	120.5	118.8	121.4	121.0	117.6	101.2	130.1	142.6	162.8	163.4	162.7
1991	123.8	121.9	126.0	125.3	118.1	99.4	136.0	148.9	177.0	176.8	177.1
1992	126.5	124.6	129.2	128.4	123.2	99.0	141.3	151.4	190.1	188.1	190.5
1993	130.4	127.5	132.7	131.5	133.9	98.0	145.9	167.0	201.4	195.0	202.9
1994	134.3	131.4	137.6	136.0	141.7	98.5	150.2	172.0	211.0	200.7	213.4
1995	139.1	136.3	141.0	139.0	156.5	100.0	154.0	175.9	220.5	204.5	224.2
1996	143.0	140.0	143.7	141.4	157.0	106.3	158.4	181.9	228.2	210.4	232.4
1997	144.3	141.0	144.3	141.7	151.1	106.2	162.7	186.7	234.6	215.3	239.1
1998[4]	141.6	137.9	143.4	140.7	150.6	92.2	167.1	190.3	242.1	221.8	246.8
1999[5]	144.4	140.5	142.9	139.6	152.0	100.7	171.9	197.7	250.6	230.7	255.1
1998: Jan[4]	142.7	139.3	144.4	141.8	148.1	97.8	165.0	187.1	238.1	217.6	242.9
Feb	142.1	138.4	144.4	141.7	148.4	94.1	165.5	191.2	239.3	218.4	244.2
Mar	141.4	137.5	144.4	141.7	147.3	90.9	165.7	193.7	239.8	218.5	244.8
Apr	141.5	137.7	144.3	141.5	148.2	91.7	165.7	193.4	240.7	220.2	245.4
May	142.0	138.4	143.3	140.6	150.0	94.7	165.9	190.4	241.4	221.5	245.9
June	141.7	138.2	142.6	140.0	150.9	94.8	166.5	188.2	242.0	222.1	246.5
July	141.8	138.0	142.7	140.1	151.3	93.7	166.8	192.0	242.7	222.2	247.4
Aug	141.2	137.4	142.8	140.0	151.1	91.6	167.3	192.2	243.5	223.1	248.2
Sept	140.7	137.0	142.3	139.4	151.9	90.0	168.3	190.2	243.9	224.0	248.4
Oct	141.3	137.7	142.5	139.7	153.0	90.8	169.0	189.9	244.3	224.2	249.0
Nov	141.5	138.0	143.5	140.6	154.0	89.7	169.5	187.4	244.7	224.5	249.3
Dec	140.7	137.2	144.1	141.3	153.1	86.2	169.6	188.4	245.2	225.6	249.6
1999: Jan[5]	140.4	136.7	144.4	141.4	150.6	85.0	169.8	190.4	246.6	225.9	251.3
Feb	139.8	135.9	143.8	140.8	148.3	83.6	170.4	193.1	247.7	226.8	252.6
Mar	140.6	136.4	143.4	140.3	147.4	86.3	170.6	198.8	248.3	227.7	253.1
Apr	144.3	140.1	143.3	140.1	148.3	100.9	170.9	201.4	249.1	229.3	253.5
May	144.2	140.2	142.9	139.6	149.6	101.4	171.3	198.4	249.5	229.4	254.0
June	143.4	139.7	142.5	139.1	150.9	99.2	171.7	192.6	250.2	230.5	254.6
July	144.7	140.6	142.0	138.6	152.3	102.5	172.1	200.8	251.1	231.7	255.5
Aug	145.7	141.9	141.4	138.0	153.8	107.8	172.1	197.1	251.9	232.5	256.2
Sept	146.5	142.9	141.6	138.2	155.7	110.3	172.8	194.7	252.3	233.1	256.6
Oct	147.3	143.3	142.3	138.8	156.4	110.0	173.2	201.5	252.8	233.2	257.1
Nov	147.6	143.6	143.1	139.6	156.1	109.3	173.6	202.2	253.3	233.7	257.7
Dec	148.3	144.4	143.6	140.1	155.0	112.2	173.8	201.2	254.2	234.6	258.5

[4] See footnote 4, Table B–58.
[5] See footnote 5, Table B–58.

Note.—See Note, Table B–58.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–60.—*Consumer price indexes for commodities, services, and special groups, 1958–99*

[For all urban consumers; 1982–84=100, except as noted]

Year or month	All items (CPI–U)	Commodities		Services		Special indexes				CPI–U–X1 (all items) (Dec. 1982=97.6)[1]	CPI–U–RS (Dec. 1977=100)[2]	
		All commodities	Commodities less food	All services	Services less medical care services	All items less food	All items less energy	All items less food and energy	All items less medical care		All items	All items less food and energy
1958	28.9	33.3	35.3	22.6	23.6	28.6	29.7	29.6	29.5	31.4	.....	.....
1959	29.1	33.3	35.8	23.3	24.2	29.2	29.9	30.2	29.8	31.6	.....	.....
1960	29.6	33.6	36.0	24.1	25.0	29.7	30.4	30.6	30.2	32.2	.....	.....
1961	29.9	33.8	36.1	24.5	25.4	30.0	30.7	31.0	30.5	32.5	.....	.....
1962	30.2	34.1	36.3	25.0	25.9	30.3	31.1	31.4	30.8	32.8	.....	.....
1963	30.6	34.4	36.6	25.5	26.3	30.7	31.5	31.8	31.1	33.3	.....	.....
1964	31.0	34.8	36.9	26.0	26.8	31.1	32.0	32.3	31.5	33.7	.....	.....
1965	31.5	35.2	37.2	26.6	27.4	31.6	32.5	32.7	32.0	34.2	.....	.....
1966	32.4	36.1	37.7	27.6	28.3	32.3	33.5	33.5	33.0	35.2	.....	.....
1967	33.4	36.8	38.6	28.8	29.3	33.4	34.4	34.7	33.7	36.3	.....	.....
1968	34.8	38.1	40.0	30.3	30.8	34.9	35.9	36.3	35.1	37.7	.....	.....
1969	36.7	39.9	41.7	32.4	32.9	36.8	38.0	38.4	37.0	39.4	.....	.....
1970	38.8	41.7	43.4	35.0	35.6	39.0	40.3	40.8	39.2	41.3	.....	.....
1971	40.5	43.2	45.1	37.0	37.5	40.8	42.0	42.7	40.8	43.1	.....	.....
1972	41.8	44.5	46.1	38.4	38.9	42.0	43.4	44.0	42.1	44.4	.....	.....
1973	44.4	47.8	47.7	40.1	40.6	43.7	46.1	45.6	44.8	47.2	.....	.....
1974	49.3	53.5	52.8	43.8	44.3	48.0	50.6	49.4	49.8	51.9	.....	.....
1975	53.8	58.2	57.6	48.0	48.3	52.5	55.1	53.9	54.3	56.2	.....	.....
1976	56.9	60.7	60.5	52.0	52.2	56.0	58.2	57.4	57.2	59.4	.....	.....
1977	60.6	64.2	63.8	56.0	55.9	59.6	61.9	61.0	60.8	63.2	.....	.....
1978	65.2	68.8	67.5	60.8	60.7	63.9	66.7	65.5	65.4	67.5	104.4	103.5
1979	72.6	76.6	75.3	67.5	67.5	71.2	73.4	71.9	72.9	74.0	114.2	110.8
1980	82.4	86.0	85.7	77.9	78.2	81.5	81.9	80.8	82.8	82.3	126.9	120.6
1981	90.9	93.2	93.1	88.1	88.7	90.4	90.1	89.2	91.4	90.1	138.8	131.8
1982	96.5	97.0	96.9	96.0	96.4	96.3	96.1	95.8	96.8	95.6	147.1	141.7
1983	99.6	99.8	100.0	99.4	99.2	99.7	99.6	99.6	99.6	99.6	153.2	149.6
1984	103.9	103.2	103.1	104.6	104.4	104.0	104.3	104.6	103.7	103.9	159.4	156.7
1985	107.6	105.4	105.2	109.9	109.6	108.0	108.4	109.1	107.2	107.6	164.8	163.5
1986	109.6	104.4	101.7	115.4	114.6	109.8	112.6	113.5	108.8	109.6	167.8	170.2
1987	113.6	107.7	104.3	120.2	119.1	113.6	117.2	118.2	112.6	113.6	173.6	176.9
1988	118.3	111.5	107.7	125.7	124.3	118.3	122.3	123.4	117.0	118.3	179.9	183.9
1989	124.0	116.7	112.0	131.9	130.1	123.7	128.1	129.0	122.4	124.0	187.7	191.3
1990	130.7	122.8	117.4	139.2	136.8	130.3	134.7	135.5	128.8	130.7	197.1	200.1
1991	136.2	126.6	121.3	146.3	143.3	136.1	140.9	142.1	133.8	136.2	204.4	208.8
1992	140.3	129.1	124.2	152.0	148.4	140.8	145.4	147.3	137.5	140.3	209.7	215.5
1993	144.5	131.5	126.3	157.9	153.6	145.1	150.0	152.2	141.2	144.5	215.1	221.8
1994	148.2	133.8	127.9	163.1	158.4	149.0	154.1	156.5	144.7	148.2	219.8	227.2
1995	152.4	136.4	129.8	168.7	163.5	153.1	158.7	161.2	148.6	152.4	225.7	233.3
1996	156.9	139.9	132.6	174.1	168.7	157.5	163.1	165.6	152.8	156.9	231.8	239.1
1997	160.5	141.8	133.4	179.4	173.9	161.1	167.1	169.5	156.3	160.5	236.9	244.4
1998	163.0	141.9	132.0	184.2	178.4	163.4	170.9	173.4	158.6	163.0	240.1	249.6
1999	166.6	144.4	134.0	188.8	182.7	167.0	174.4	177.0	162.0	166.6	245.1	254.5
1998: Jan	161.6	141.6	131.9	181.8	176.1	161.9	169.0	171.2	157.3	161.6	238.3	246.8
Feb	161.9	141.5	131.9	182.4	176.6	162.3	169.6	172.1	157.5	161.9	238.6	247.9
Mar	162.2	141.5	131.8	182.9	177.2	162.6	170.1	172.6	157.8	162.2	239.0	248.7
Apr	162.5	142.0	132.4	183.2	177.4	163.0	170.4	173.0	158.1	162.5	239.5	249.3
May	162.8	142.3	132.7	183.4	177.6	163.3	170.5	173.1	158.4	162.8	239.9	249.2
June	163.0	141.8	132.1	184.2	178.4	163.5	170.5	173.0	158.6	163.0	240.0	249.1
July	163.2	141.6	131.5	184.9	179.0	163.6	170.8	173.3	158.7	163.2	240.3	249.4
Aug	163.4	141.7	131.4	185.3	179.5	163.9	171.2	173.8	159.0	163.4	240.6	250.0
Sept	163.6	141.8	131.6	185.5	179.6	164.1	171.6	174.2	159.2	163.6	240.9	250.6
Oct	164.0	142.6	132.3	185.5	179.7	164.4	172.2	174.7	159.5	164.0	241.4	251.3
Nov	164.0	142.5	132.1	185.6	179.7	164.3	172.3	174.8	159.5	164.0	241.4	251.4
Dec	163.9	142.2	131.7	185.7	179.8	164.2	172.3	174.8	159.4	163.9	241.2	251.4
1999: Jan	164.3	142.5	131.4	186.3	180.3	164.5	172.9	175.3	159.8	164.3	241.8	252.1
Feb	164.5	142.2	131.1	186.9	180.9	164.7	173.2	175.7	160.0	164.5	242.1	252.7
Mar	165.0	142.6	131.7	187.6	181.5	165.3	173.7	176.2	160.5	165.0	242.8	253.4
Apr	166.2	144.6	134.6	187.8	181.8	166.7	174.2	176.8	161.6	166.2	244.6	254.3
May	166.2	144.5	134.3	187.9	181.8	166.6	174.1	176.6	161.6	166.2	244.6	254.0
June	166.2	143.9	133.4	188.6	182.6	166.7	174.0	176.6	161.6	166.2	244.6	254.0
July	166.7	143.9	133.4	189.5	183.4	167.2	174.3	176.9	162.0	166.7	245.3	254.4
Aug	167.1	144.5	134.0	189.9	183.8	167.7	174.5	177.1	162.5	167.1	245.9	254.7
Sept	167.9	145.8	135.8	190.1	183.9	168.5	175.1	177.7	163.2	167.9	247.1	255.6
Oct	168.2	146.4	136.3	190.2	184.1	168.8	175.7	178.3	163.6	168.2	247.5	256.4
Nov	168.3	146.2	136.1	190.5	184.3	168.8	175.8	178.4	163.6	168.3	247.7	256.6
Dec	168.3	146.1	135.9	190.5	184.3	168.8	175.7	178.2	163.6	168.3	247.7	256.3

[1] CPI–U–X1 is a rental equivalence approach to homeowners' costs for the consumer price index for years prior to 1983, the first year for which the official index (CPI–U) incorporates such a measure. CPI–U–X1 is rebased to the December 1982 value of the CPI–U (1982–84=100); thus it is identical with CPI–U data for December 1982 and all subsequent periods. Data prior to 1967 estimated by moving the series at the same rate as the CPI–U for each year.

[2] CPI research series using current methods (CPI–U–RS) introduced in June 1999. Data for 1999 are preliminary.

Note.—See Note, Table B–58.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–61.—*Changes in special consumer price indexes, 1960–99*

[For all urban consumers; percent change]

Year or month	All items (CPI–U)		All items less food		All items less energy		All items less food and energy		All items less medical care	
	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
1960	1.4	1.7	1.0	1.7	1.3	1.7	1.0	1.3	1.3	1.3
1961	.7	1.0	1.3	1.0	.7	1.0	1.3	1.3	.3	1.0
1962	1.3	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.0
1963	1.6	1.3	1.6	1.3	1.9	1.3	1.6	1.3	1.6	1.0
1964	1.0	1.3	1.0	1.3	1.3	1.6	1.2	1.6	1.0	1.3
1965	1.9	1.6	1.6	1.6	1.9	1.6	1.5	1.2	1.9	1.6
1966	3.5	2.9	3.5	2.2	3.4	3.1	3.3	2.4	3.4	3.1
1967	3.0	3.1	3.3	3.4	3.2	2.7	3.8	3.6	2.7	2.1
1968	4.7	4.2	5.0	4.5	4.9	4.4	5.1	4.6	4.7	4.2
1969	6.2	5.5	5.6	5.4	6.5	5.8	6.2	5.8	6.1	5.4
1970	5.6	5.7	6.6	6.0	5.4	6.1	6.6	6.3	5.2	5.9
1971	3.3	4.4	3.0	4.6	3.4	4.2	3.1	4.7	3.2	4.1
1972	3.4	3.2	2.9	2.9	3.5	3.3	3.0	3.0	3.4	3.2
1973	8.7	6.2	5.6	4.0	8.2	6.2	4.7	3.6	9.1	6.4
1974	12.3	11.0	12.2	9.8	11.7	9.8	11.1	8.3	12.2	11.2
1975	6.9	9.1	7.3	9.4	6.6	8.9	6.7	9.1	6.7	9.0
1976	4.9	5.8	6.1	6.7	4.8	5.6	6.1	6.5	4.5	5.3
1977	6.7	6.5	6.4	6.4	6.7	6.4	6.5	6.3	6.7	6.3
1978	9.0	7.6	8.3	7.2	9.1	7.8	8.5	7.4	9.1	7.6
1979	13.3	11.3	14.0	11.4	11.1	10.0	11.3	9.8	13.4	11.5
1980	12.5	13.5	13.0	14.5	11.7	11.6	12.2	12.4	12.5	13.6
1981	8.9	10.3	9.8	10.9	8.5	10.0	9.5	10.4	8.8	10.4
1982	3.8	6.2	4.1	6.5	4.2	6.7	4.5	7.4	3.6	5.9
1983	3.8	3.2	4.1	3.5	4.5	3.6	4.8	4.0	3.6	2.9
1984	3.9	4.3	3.9	4.3	4.4	4.7	4.7	5.0	3.9	4.1
1985	3.8	3.6	4.1	3.8	4.0	3.9	4.3	4.3	3.5	3.4
1986	1.1	1.9	.5	1.7	3.8	3.9	3.8	4.0	.7	1.5
1987	4.4	3.6	4.6	3.5	4.1	4.1	4.2	4.1	4.3	3.5
1988	4.4	4.1	4.2	4.1	4.7	4.4	4.7	4.4	4.2	3.9
1989	4.6	4.8	4.5	4.6	4.6	4.7	4.4	4.5	4.5	4.6
1990	6.1	5.4	6.3	5.3	5.2	5.2	5.2	5.0	5.9	5.2
1991	3.1	4.2	3.3	4.5	3.9	4.6	4.4	4.9	2.7	3.9
1992	2.9	3.0	3.2	3.5	3.0	3.2	3.3	3.7	2.7	2.8
1993	2.7	3.0	2.7	3.1	3.1	3.2	3.2	3.3	2.6	2.7
1994	2.7	2.6	2.6	2.7	2.6	2.7	2.6	2.8	2.5	2.5
1995	2.5	2.8	2.7	2.8	2.9	3.0	3.0	3.0	2.5	2.7
1996	3.3	3.0	3.1	2.9	2.9	2.8	2.6	2.7	3.3	2.8
1997	1.7	2.3	1.8	2.3	2.1	2.5	2.2	2.4	1.6	2.3
1998	1.6	1.6	1.5	1.4	2.4	2.3	2.4	2.3	1.5	1.5
1999	2.7	2.2	2.8	2.2	2.0	2.0	1.9	2.1	2.6	2.1
	Percent change from preceding month									
	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted
1998: Jan	0.2	0.1	0.1	0.0	0.4	0.2	0.3	0.2	0.2	0.1
Feb	.2	.1	.2	.1	.4	.2	.5	.3	.1	.1
Mar	.2	0	.2	.1	.3	.1	.3	.1	.2	.1
Apr	.2	.2	.2	.2	.2	.3	.2	.3	.2	.2
May	.2	.2	.2	.2	.1	.2	.1	.2	.2	.3
June	.1	.1	.1	.1	0	.1	–.1	.1	.1	0
July	.1	.2	.1	.1	.2	.2	.2	.2	.1	.2
Aug	.1	.1	.2	.1	.2	.2	.3	.2	.2	.1
Sept	.1	.1	.1	.1	.2	.2	.2	.2	.1	.1
Oct	.2	.2	.2	.1	.3	.2	.3	.2	.2	.2
Nov	0	.2	–.1	.1	.1	.2	.1	.1	0	.1
Dec	–.1	.1	–.1	.2	0	.3	0	.3	–.1	.2
1999: Jan	.2	.1	.2	.1	.3	.1	.3	.1	.3	.1
Feb	.1	.1	.1	.1	.2	.1	.2	.1	.1	0
Mar	.3	.2	.4	.2	.3	.1	.3	.1	.3	.2
Apr	.7	.7	.8	.8	.3	.4	.3	.4	.7	.7
May	0	0	–.1	–.1	–.1	.1	–.1	.1	0	0
June	0	0	.1	0	–.1	.1	0	.1	0	–.1
July	.3	.3	.3	.3	.2	.2	.2	.2	.2	.3
Aug	.2	.3	.3	.3	.1	.1	.1	.1	.3	.3
Sept	.5	.4	.5	.5	.3	.3	.3	.3	.4	.4
Oct	.2	.2	.2	.1	.3	.2	.3	.2	.2	.1
Nov	.1	.1	0	.2	.1	.2	.1	.2	0	.2
Dec	0	.2	0	.2	–.1	.1	–.1	.1	0	.2

[1] Changes from December to December are based on unadjusted indexes.

Note.—See Note, Table B–58.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–62.—*Changes in consumer price indexes for commodities and services, 1929–99*

[For all urban consumers; percent change]

Year	All items (CPI–U)		Commodities				Services				Medical care[2]		Energy[3]	
			Total		Food		Total		Medical care					
	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	0	1.2	1.2	1.0	0	.....	.....
1940	.7	.7	1.4	.7	2.5	1.7	.8	.8	0	0	0	1.0	.....	.....
1941	9.9	5.0	13.3	6.7	15.7	9.2	2.4	.8	1.2	0	1.0	0	.....	.....
1942	9.0	10.9	12.9	14.5	17.9	17.6	2.3	3.1	3.5	3.5	3.8	2.9	.....	.....
1943	3.0	6.1	4.2	9.3	3.0	11.0	2.3	2.3	5.6	4.5	4.6	4.7	.....	.....
1944	2.3	1.7	2.0	1.0	0	–1.2	2.2	2.2	3.2	4.3	2.6	3.6	.....	.....
1945	2.2	2.3	2.9	3.0	3.5	2.4	.7	1.5	3.1	3.1	2.6	2.6	.....	.....
1946	18.1	8.3	24.8	10.6	31.3	14.5	3.6	1.4	9.0	5.1	8.3	5.0	.....	.....
1947	8.8	14.4	10.3	20.5	11.3	21.7	5.6	4.3	6.4	8.7	6.9	8.0	.....	.....
1948	3.0	8.1	1.7	7.2	–.8	8.3	5.9	6.1	6.9	7.1	5.8	6.7	.....	.....
1949	–2.1	–1.2	–4.1	–2.7	–3.9	–4.2	3.7	5.1	1.6	3.3	1.4	2.8	.....	.....
1950	5.9	1.3	7.8	.7	9.8	1.6	3.6	3.0	4.0	2.4	3.4	2.0	.....	.....
1951	6.0	7.9	5.9	9.0	7.1	11.0	5.2	5.3	5.3	4.7	5.8	5.3	.....	.....
1952	.8	1.9	–.9	1.3	–1.0	1.8	4.4	4.5	5.8	6.7	4.3	5.0	.....	.....
1953	.7	.8	–.3	–.3	–1.1	–1.4	4.2	4.3	3.4	3.5	3.5	3.6	.....	.....
1954	–.7	.7	–1.6	–.9	–1.8	–.4	2.0	3.1	2.6	3.4	2.3	2.9	.....	.....
1955	.4	–.4	–.3	–.9	–.7	–1.4	2.0	2.0	3.2	2.6	3.3	2.2	.....	.....
1956	3.0	1.5	2.6	1.0	2.9	.7	3.4	2.5	3.8	3.8	3.2	3.8	.....	.....
1957	2.9	3.3	2.8	3.2	2.8	3.2	4.2	4.3	4.8	4.3	4.7	4.2	.....	.....
1958	1.8	2.8	1.2	2.1	2.4	4.5	2.7	3.7	4.6	5.3	4.5	4.6	–0.9	0
1959	1.7	.7	.6	0	–1.0	–1.7	3.9	3.1	4.9	4.5	3.8	4.4	4.7	1.9
1960	1.4	1.7	1.2	.9	3.1	1.0	2.5	3.4	3.7	4.3	3.2	3.7	1.3	2.3
1961	.7	1.0	0	.6	–.7	1.3	2.1	1.7	3.5	3.6	3.1	2.7	–1.3	.4
1962	1.3	1.0	.9	.9	1.3	.7	1.6	2.0	2.9	3.5	2.2	2.6	2.2	.4
1963	1.6	1.3	1.5	.9	2.0	1.6	2.4	2.0	2.8	2.9	2.5	2.6	–.9	0
1964	1.0	1.3	.9	1.2	1.3	1.3	1.6	2.0	2.3	2.3	2.1	2.1	0	–.4
1965	1.9	1.6	1.4	1.1	3.5	2.2	2.7	2.3	3.6	3.2	2.8	2.4	1.8	1.8
1966	3.5	2.9	2.5	2.6	4.0	5.0	4.8	3.8	8.3	5.3	6.7	4.4	1.7	1.7
1967	3.0	3.1	2.5	1.9	1.2	.9	4.3	4.3	8.0	8.8	6.3	7.2	1.7	2.1
1968	4.7	4.2	4.0	3.5	4.4	3.5	5.8	5.2	7.1	7.3	6.2	6.0	1.7	1.7
1969	6.2	5.5	5.4	4.7	7.0	5.1	7.7	6.9	7.3	8.2	6.2	6.7	2.9	2.5
1970	5.6	5.7	3.9	4.5	2.3	5.7	8.1	8.0	8.1	7.0	7.4	6.6	4.8	2.8
1971	3.3	4.4	2.8	3.6	4.3	3.1	4.1	5.7	5.4	7.4	4.6	6.2	3.1	3.9
1972	3.4	3.2	3.4	3.0	4.6	4.2	3.4	3.8	3.7	3.5	3.3	3.3	2.6	2.6
1973	8.7	6.2	10.4	7.4	20.3	14.5	6.2	4.4	6.0	4.5	5.3	4.0	17.0	8.1
1974	12.3	11.0	12.8	11.9	12.0	14.3	11.4	9.2	13.2	10.4	12.6	9.3	21.6	29.6
1975	6.9	9.1	6.2	8.8	6.6	8.5	8.2	9.6	10.3	12.6	9.8	12.0	11.4	10.5
1976	4.9	5.8	3.3	4.3	.5	3.0	7.2	8.3	10.8	10.1	10.0	9.5	7.1	7.1
1977	6.7	6.5	6.1	5.8	8.1	6.3	8.0	7.7	9.0	9.9	8.9	9.6	7.2	9.5
1978	9.0	7.6	8.8	7.2	11.8	9.9	9.3	8.6	9.3	8.5	8.8	8.4	7.9	6.3
1979	13.3	11.3	13.0	11.3	10.2	11.0	13.6	11.0	10.5	9.8	10.1	9.2	37.5	25.1
1980	12.5	13.5	11.0	12.3	10.2	8.6	14.2	15.4	10.1	11.3	9.9	11.0	18.0	30.9
1981	8.9	10.3	6.0	8.4	4.3	7.8	13.0	13.1	12.6	10.7	12.5	10.7	11.9	13.6
1982	3.8	6.2	3.6	4.1	3.1	4.1	4.3	9.0	11.2	11.8	11.0	11.6	1.3	1.5
1983	3.8	3.2	2.9	2.9	2.7	2.1	4.8	3.5	6.2	8.7	6.4	8.8	–.5	.7
1984	3.9	4.3	2.7	3.4	3.8	3.8	5.4	5.2	5.8	6.0	6.1	6.2	.2	1.0
1985	3.8	3.6	2.5	2.1	2.6	2.3	5.1	5.1	6.8	6.1	6.8	6.3	1.8	.7
1986	1.1	1.9	–2.0	–.9	3.8	3.2	4.5	5.0	7.9	7.7	7.7	7.5	–19.7	–13.2
1987	4.4	3.6	4.6	3.2	3.5	4.1	4.3	4.2	5.6	6.6	5.8	6.6	8.2	.5
1988	4.4	4.1	3.8	3.5	5.2	4.1	4.8	4.6	6.9	6.4	6.9	6.5	.5	.8
1989	4.6	4.8	4.1	4.7	5.6	5.8	5.1	4.9	8.6	7.7	8.5	7.7	5.1	5.6
1990	6.1	5.4	6.6	5.2	5.3	5.8	5.7	5.5	9.9	9.3	9.6	9.0	18.1	8.3
1991	3.1	4.2	1.2	3.1	1.9	2.9	4.6	5.1	8.0	8.9	7.9	8.7	–7.4	.4
1992	2.9	3.0	2.0	2.0	1.5	1.2	3.6	3.9	7.0	7.6	6.6	7.4	2.0	.5
1993	2.7	3.0	1.5	1.9	2.9	2.2	3.8	3.9	5.9	6.5	5.4	5.9	–1.4	1.2
1994	2.7	2.6	2.3	1.7	2.9	2.4	2.9	3.3	5.4	5.2	4.9	4.8	2.2	.4
1995	2.5	2.8	1.4	1.9	2.1	2.8	3.5	3.4	4.4	5.1	3.9	4.5	–1.3	.6
1996	3.3	3.0	3.2	2.6	4.3	3.3	3.3	3.2	3.2	3.7	3.0	3.5	8.6	4.7
1997	1.7	2.3	.2	1.4	1.5	2.6	2.8	3.0	2.9	2.9	2.8	2.8	–3.4	1.3
1998	1.6	1.6	.4	.1	2.3	2.2	2.6	2.7	3.2	3.2	3.4	3.2	–8.8	–7.7
1999	2.7	2.2	2.7	1.8	1.9	2.1	2.6	2.5	3.6	3.4	3.7	3.5	13.4	3.6

[1] Changes from December to December are based on unadjusted indexes.
[2] Commodities and services.
[3] Household fuels—gas (piped), electricity, fuel oil, etc.—and motor fuel. Motor oil, coolant, etc. also included through 1982.

Note.—See Note, Table B–58.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–63.—*Producer price indexes by stage of processing, 1954–99*

[1982=100]

Year or month	Finished goods									Total finished consumer goods
	Total finished goods	Consumer foods			Finished goods excluding consumer foods					
		Total	Crude	Processed	Total	Consumer goods			Capital equipment	
						Total	Durable	Nondurable		
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	121.7	124.1	119.3	124.4	120.9	118.7	123.9	115.0	126.7	120.5
1992	123.2	123.3	107.6	124.4	123.1	120.8	125.7	117.3	129.1	121.7
1993	124.7	125.7	114.4	126.5	124.4	121.7	128.0	117.6	131.4	123.0
1994	125.5	126.8	111.3	127.9	125.1	121.6	130.9	116.2	134.1	123.3
1995	127.9	129.0	118.8	129.8	127.5	124.0	132.7	118.8	136.7	125.6
1996	131.3	133.6	129.2	133.8	130.5	127.6	134.2	123.3	138.3	129.5
1997	131.8	134.5	126.6	135.1	130.9	128.2	133.7	124.3	138.2	130.2
1998	130.7	134.3	127.2	134.8	129.5	126.4	132.9	122.2	137.6	128.9
1999	133.1	135.1	125.4	135.9	132.3	130.6	133.0	127.9	137.6	132.1
1998: Jan	130.3	133.1	127.1	133.5	129.4	126.1	133.4	121.5	137.9	128.3
Feb	130.2	133.6	129.4	134.0	129.0	125.6	133.4	120.8	137.9	128.2
Mar	130.1	133.4	130.2	133.7	129.0	125.6	133.2	120.9	137.9	128.1
Apr	130.4	133.8	132.3	133.9	129.2	126.0	133.0	121.5	137.7	128.5
May	130.6	133.6	121.7	134.5	129.6	126.7	132.3	122.8	137.3	128.9
June	130.7	133.8	117.9	135.0	129.7	127.0	131.8	123.4	137.2	129.1
July	131.0	134.7	128.4	135.2	129.7	127.0	132.0	123.3	137.1	129.4
Aug	130.7	135.2	121.7	136.3	129.2	126.4	131.5	122.7	136.8	129.2
Sept	130.6	135.4	127.1	136.0	129.1	126.3	131.0	122.8	136.7	129.1
Oct	131.4	135.5	134.7	135.5	130.1	127.1	134.4	122.5	138.1	129.8
Nov	130.9	134.9	127.3	135.5	129.6	126.4	134.4	121.4	138.2	129.0
Dec	131.1	134.5	129.3	134.9	130.0	127.1	133.8	122.7	137.9	129.4
1999: Jan	131.4	135.6	134.2	135.6	130.0	127.1	133.3	122.9	137.8	129.7
Feb	130.8	134.1	122.6	135.0	129.7	126.6	133.5	122.2	138.0	129.0
Mar	131.1	134.7	130.5	135.0	129.9	127.0	133.1	122.9	137.7	129.4
Apr	131.9	133.4	128.4	133.8	131.3	129.0	133.1	125.7	137.8	130.4
May	132.4	134.5	126.5	135.2	131.6	129.6	132.8	126.6	137.6	131.2
June	132.7	135.1	126.4	135.8	131.8	130.0	132.3	127.5	137.2	131.7
July	132.9	134.6	121.7	135.6	132.3	130.8	131.7	128.9	137.0	132.1
Aug [1]	133.7	135.9	123.8	136.8	133.0	131.9	131.6	130.4	136.9	133.2
Sept	134.8	137.0	126.6	137.8	134.0	133.4	131.1	132.8	136.7	134.6
Oct	135.0	135.6	119.7	136.9	134.7	133.7	134.8	131.6	138.5	134.4
Nov	135.0	135.4	118.6	136.7	134.8	133.9	134.6	132.0	138.3	134.5
Dec	135.0	135.7	125.6	136.5	134.7	133.7	134.6	131.8	138.3	134.4

[1] Data have been revised through August 1999 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 by stage of processing, 1954–99*—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
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	114.4	111.1	114.6	118.1	124.5	85.3	128.1	121.4	101.2	105.5	94.6	82.9	97.5
1992	114.7	110.7	114.9	117.9	126.5	84.5	127.7	122.7	100.4	105.1	93.5	84.0	94.2
1993	116.2	112.7	116.4	118.9	132.0	84.7	126.4	125.0	102.4	108.4	94.7	87.1	94.1
1994	118.5	114.8	118.7	122.1	136.6	83.1	129.7	127.0	101.8	106.5	94.8	82.4	97.0
1995	124.9	114.8	125.5	130.4	142.1	84.2	148.8	132.1	102.7	105.8	96.8	72.1	105.8
1996	125.7	128.1	125.6	128.6	143.6	90.0	141.1	135.9	113.8	121.5	104.5	92.6	105.7
1997	125.6	125.4	125.7	128.3	146.5	89.3	136.0	135.9	111.1	112.2	106.4	101.3	103.5
1998	123.0	116.2	123.4	126.1	146.8	81.1	140.8	134.8	96.8	103.9	88.4	86.7	84.5
1999	123.2	111.1	123.9	124.5	148.9	84.9	142.5	134.2	98.2	98.8	94.3	91.1	91.1
1998: Jan	124.2	118.7	124.5	127.5	146.3	83.3	141.4	135.5	101.7	105.5	95.4	91.1	93.0
Feb	123.8	118.5	124.1	127.3	146.4	81.6	141.9	135.3	100.1	105.1	93.0	85.5	93.0
Mar	123.3	116.9	123.7	127.0	146.7	79.6	141.6	135.5	99.4	106.3	91.0	88.5	87.5
Apr	123.3	115.6	123.8	126.9	147.0	80.1	141.0	135.1	100.3	105.8	92.9	91.8	88.4
May	123.5	116.3	123.9	126.8	146.9	81.7	141.7	134.8	100.5	106.2	92.9	91.8	88.3
June	123.5	115.6	124.0	126.3	146.7	83.1	141.4	134.7	97.6	106.2	88.2	85.7	84.9
July	123.5	116.4	123.9	126.0	147.2	83.2	141.3	135.1	98.1	103.7	90.6	90.7	85.3
Aug	123.2	116.5	123.6	126.0	147.4	82.2	140.7	134.7	94.3	103.3	84.7	84.4	80.1
Sept	122.9	115.2	123.4	125.5	147.3	82.3	140.6	134.3	92.1	101.3	82.5	75.3	82.9
Oct	122.3	114.6	122.7	125.0	146.7	80.8	139.5	134.1	94.0	103.7	83.9	81.9	80.4
Nov	121.8	115.5	122.2	124.6	146.6	79.0	139.4	134.3	93.6	102.4	84.1	86.4	77.5
Dec	120.9	114.5	121.3	124.1	146.6	75.8	138.7	134.3	89.8	97.0	81.6	87.7	72.4
1999: Jan	120.9	114.6	121.2	123.9	146.9	76.1	138.3	134.1	90.1	101.2	79.2	78.3	75.3
Feb	120.4	112.6	120.9	123.5	147.3	74.9	138.0	133.8	88.2	98.2	78.1	78.1	73.5
Mar	120.7	111.0	121.2	123.4	147.8	76.2	138.5	133.7	89.0	98.8	79.1	74.6	77.8
Apr	121.6	109.0	122.3	123.2	148.0	80.6	140.4	133.8	91.1	95.4	84.8	80.0	83.4
May	122.2	109.8	122.9	123.8	148.5	82.5	141.6	133.7	97.4	99.6	92.3	91.6	87.5
June	123.0	110.2	123.7	124.1	149.5	84.9	142.2	133.9	97.4	99.5	92.5	90.1	88.9
July	123.9	109.1	124.7	124.6	150.5	87.6	142.1	133.9	97.9	96.2	95.5	91.6	92.9
Aug [1]	124.6	110.9	125.4	125.0	150.4	90.0	143.6	134.2	103.1	100.1	101.5	100.5	96.2
Sept	125.2	112.1	125.9	125.1	149.7	92.5	146.3	134.4	106.9	100.5	107.4	105.3	102.7
Oct	125.2	112.5	125.9	125.9	149.2	90.3	146.6	134.9	104.9	99.6	104.7	101.7	100.8
Nov	125.4	112.0	126.2	126.0	149.3	91.2	146.5	135.1	108.6	99.5	110.9	110.5	104.7
Dec	125.6	110.0	126.5	126.1	149.7	91.7	146.5	135.2	103.9	96.8	105.0	90.5	109.5

[2] Intermediate materials for food manufacturing and feeds.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–64.—*Producer price indexes by stage of processing, special groups, 1974–99*

[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	121.7	124.1	78.1	131.1	126.7	133.7	114.4	111.1	85.1	121.4	101.2	105.5	80.4	128.2
1992	123.2	123.3	77.8	134.2	129.1	137.3	114.7	110.7	84.3	122.0	100.4	105.1	78.8	128.4
1993	124.7	125.7	78.0	135.8	131.4	138.5	116.2	112.7	84.6	123.8	102.4	108.4	76.7	140.2
1994	125.5	126.8	77.0	137.1	134.1	139.0	118.5	114.8	83.0	127.1	101.8	106.5	72.1	156.2
1995	127.9	129.0	78.1	140.0	136.7	141.9	124.9	114.8	84.1	135.2	102.7	105.8	69.4	173.6
1996	131.3	133.6	83.2	142.0	138.3	144.3	125.7	128.1	89.8	134.0	113.8	121.5	85.0	155.8
1997	131.8	134.5	83.4	142.4	138.2	145.1	125.6	125.4	89.0	134.2	111.1	112.2	87.3	156.5
1998	130.7	134.3	75.1	143.7	137.6	147.7	123.0	116.2	80.8	133.5	96.8	103.9	68.6	142.1
1999	133.1	135.1	78.9	146.1	137.6	151.7	123.2	111.1	84.6	133.1	98.2	98.8	78.4	135.3
1998: Jan	130.3	133.1	77.5	142.7	137.9	145.7	124.2	118.7	83.0	134.3	101.7	105.5	74.9	150.5
Feb	130.2	133.6	75.9	142.8	137.9	146.0	123.8	118.5	81.4	134.2	100.1	105.1	71.7	150.7
Mar	130.1	133.4	74.2	143.5	137.9	147.1	123.3	116.9	79.4	134.1	99.4	106.3	69.6	149.2
Apr	130.4	133.8	74.7	143.5	137.7	147.3	123.3	115.6	79.9	134.1	100.3	105.8	72.7	147.6
May	130.6	133.6	76.3	143.4	137.3	147.3	123.5	116.3	81.5	133.9	100.5	106.2	72.7	147.2
June	130.7	133.8	77.2	143.3	137.2	147.2	123.5	115.6	82.8	133.6	97.6	106.2	66.9	146.6
July	131.0	134.7	76.9	143.4	137.1	147.4	123.5	116.4	82.9	133.6	98.1	103.7	70.9	143.8
Aug	130.7	135.2	75.4	143.3	136.8	147.5	123.2	116.5	81.9	133.4	94.3	103.3	64.5	139.8
Sept	130.6	135.4	75.4	143.1	136.7	147.4	122.9	115.2	82.0	133.1	92.1	101.3	62.2	137.9
Oct	131.4	135.5	74.6	144.7	138.1	149.1	122.3	114.6	80.5	132.7	94.0	103.7	65.6	133.2
Nov	130.9	134.9	72.8	144.8	138.2	149.1	121.8	115.5	78.8	132.4	93.6	102.4	66.9	130.2
Dec	131.1	134.5	70.8	146.1	137.9	151.6	120.9	114.5	75.5	132.1	89.8	97.0	64.2	128.1
1999: Jan	131.4	135.6	71.3	145.9	137.8	151.2	120.9	114.6	75.9	131.9	90.1	101.2	61.0	128.8
Feb	130.8	134.1	70.1	146.0	138.0	151.3	120.4	112.6	74.7	131.8	88.2	98.2	58.8	130.9
Mar	131.1	134.7	71.2	145.8	137.7	151.2	120.7	111.0	76.0	131.9	89.0	98.8	60.5	129.9
Apr	131.9	133.4	75.9	145.8	137.8	151.2	121.6	109.0	80.3	132.1	91.1	95.4	68.1	129.1
May	132.4	134.5	77.5	145.6	137.6	151.0	122.2	109.8	82.2	132.5	97.4	99.6	77.1	131.4
June	132.7	135.1	78.6	145.5	137.2	151.0	123.0	110.2	84.6	132.9	97.4	99.5	77.1	132.2
July	132.9	134.6	80.7	145.3	137.0	150.9	123.9	109.1	87.2	133.4	97.9	96.2	80.4	134.2
Aug[2]	133.7	135.9	83.5	145.2	136.9	150.7	124.6	110.9	89.6	133.7	103.1	100.1	87.3	136.8
Sept	134.8	137.0	85.9	145.6	136.7	151.6	125.2	112.1	92.1	133.7	106.9	100.5	94.1	139.6
Oct	135.0	135.6	83.6	147.5	138.5	153.5	125.2	112.5	90.0	134.2	104.9	99.6	89.6	142.5
Nov	135.0	135.4	84.0	147.4	138.3	153.5	125.4	112.0	90.9	134.4	108.6	99.5	97.5	142.8
Dec	135.0	135.7	83.8	147.4	138.3	153.4	125.6	110.0	91.4	134.6	103.9	96.8	89.0	145.5

[1] Intermediate materials for food manufacturing and feeds.

[2] Data have been revised through August 1999 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.—*Producer price indexes for major commodity groups, 1954–99*

[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]
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	40.0	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	116.4	105.7	121.9	116.5	116.3	138.9	81.2	125.6
1992	115.9	103.6	122.1	117.4	117.8	140.4	80.4	125.9
1993	118.4	107.1	124.0	119.0	118.0	143.7	80.0	128.2
1994	119.1	106.3	125.5	120.7	118.3	148.5	77.8	132.1
1995	120.5	107.4	127.0	125.5	120.8	153.7	78.0	142.5
1996	129.7	122.4	133.3	127.3	122.4	150.5	85.8	142.1
1997	127.0	112.9	134.0	127.7	122.6	154.2	86.1	143.6
1998	122.7	104.6	131.6	124.8	122.9	148.0	75.3	143.9
1999	120.4	98.4	131.2	126.5	121.0	146.0	80.6	144.2
1998: Jan	123.0	106.3	131.3	125.9	123.2	148.8	78.6	143.4
Feb	123.3	106.3	131.7	125.3	123.2	148.4	76.6	143.0
Mar	123.2	107.4	130.9	125.0	123.1	147.1	74.6	145.3
Apr	122.8	106.5	130.8	125.3	123.2	147.5	75.8	144.9
May	123.0	105.8	131.5	125.5	123.2	147.8	77.0	144.9
June	123.0	105.7	131.5	125.1	123.2	150.8	76.4	144.8
July	123.0	105.0	131.9	125.3	123.0	149.2	77.2	144.7
Aug	122.8	102.9	132.6	124.5	122.9	149.7	74.8	144.1
Sept	122.2	102.0	132.1	124.1	122.8	149.3	74.3	143.2
Oct	122.8	104.8	131.8	124.2	122.5	146.4	74.2	143.3
Nov	122.5	103.1	132.0	123.8	122.2	144.9	73.2	143.0
Dec	120.5	99.0	131.1	123.3	122.0	146.6	70.4	142.7
1999: Jan	122.1	102.2	131.9	123.1	121.8	145.8	70.1	142.3
Feb	120.1	98.3	131.0	122.7	121.5	144.1	68.6	141.8
Mar	120.3	99.2	130.8	123.1	121.5	144.5	70.0	141.9
Apr	118.3	96.5	129.1	124.6	121.3	144.6	75.5	142.1
May	120.1	99.6	130.3	125.6	121.2	145.0	78.9	142.6
June	120.4	99.2	130.8	126.1	121.0	145.0	80.1	143.4
July	118.8	95.2	130.5	127.0	120.8	145.2	82.8	144.4
Aug[2]	120.9	99.0	131.8	128.1	120.9	146.3	86.5	144.6
Sept	121.9	99.6	132.9	129.2	120.4	147.4	89.9	145.2
Oct	121.0	98.0	132.3	129.2	120.6	148.7	87.2	146.7
Nov	120.6	97.6	132.0	129.9	120.6	146.6	89.6	147.1
Dec	119.7	96.7	131.1	129.6	120.7	149.4	87.8	147.6

[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 1999 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–65.—*Producer price indexes for major commodity groups, 1954–99*—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	
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	38.2	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	115.1	132.1	142.9	120.2	123.0	121.2	117.2	126.4	122.1	140.8
1992	115.1	146.6	145.2	119.2	123.4	122.2	117.3	130.4	124.9	145.3
1993	116.0	174.0	147.3	119.2	124.0	123.7	120.0	133.7	128.0	145.4
1994	117.6	180.0	152.5	124.8	125.1	126.1	124.2	137.2	131.4	141.9
1995	124.3	178.1	172.2	134.5	126.6	128.2	129.0	139.7	133.0	145.4
1996	123.8	176.1	168.7	131.0	126.5	130.4	131.0	141.7	134.1	147.7
1997	123.2	183.8	167.9	131.8	125.9	130.8	133.2	141.6	132.7	150.9
1998	122.6	179.1	171.7	127.8	124.9	131.3	135.4	141.2	131.4	156.0
1999	122.5	183.6	174.1	124.6	124.3	131.7	138.8	141.7	131.6	166.7
1998: Jan	123.1	181.1	172.3	130.1	125.5	130.8	133.6	141.4	132.0	152.3
Feb	123.1	182.2	172.2	130.0	125.3	131.1	133.8	141.5	132.1	153.2
Mar	123.0	182.4	172.1	129.5	125.3	131.2	133.9	141.5	132.0	153.5
Apr	122.9	182.5	172.2	129.6	125.1	131.2	134.9	141.3	131.7	154.7
May	122.7	180.4	172.2	129.2	124.9	131.5	135.2	140.7	130.6	155.6
June	122.5	177.5	171.8	128.7	125.0	131.5	135.6	140.2	129.9	155.6
July	122.4	178.5	171.9	127.9	124.8	131.5	136.0	140.4	130.2	155.4
Aug	122.3	179.7	171.8	127.2	124.7	131.3	136.2	140.0	129.6	156.3
Sept	122.5	178.0	171.5	126.7	124.7	131.2	136.4	139.6	128.8	156.3
Oct	122.2	175.5	171.1	125.5	124.6	131.3	136.6	142.9	133.7	156.3
Nov	122.2	175.2	170.6	124.8	124.6	131.3	136.5	142.8	133.6	156.4
Dec	122.3	175.9	170.4	124.0	124.5	131.4	136.6	142.3	132.9	166.0
1999: Jan	122.0	177.2	170.7	123.5	124.7	131.4	136.9	142.0	132.0	166.0
Feb	121.7	179.8	170.7	123.4	124.7	131.3	137.6	142.3	132.4	165.7
Mar	121.6	181.6	171.6	122.9	124.6	131.4	137.8	141.8	131.7	165.4
Apr	121.9	181.6	172.0	123.1	124.5	131.5	138.3	141.9	131.9	165.4
May	122.0	183.7	172.6	123.8	124.3	131.5	138.5	141.5	131.4	165.4
June	122.1	187.8	173.4	123.8	124.2	131.8	138.8	141.1	130.6	165.0
July	122.4	192.0	174.4	124.4	124.1	131.7	138.9	140.5	129.8	164.8
Aug[2]	122.8	189.6	175.2	124.9	124.0	131.8	139.5	140.4	129.7	164.8
Sept	123.0	184.8	176.1	125.4	124.2	131.8	139.7	139.8	128.8	169.1
Oct	123.1	181.1	176.9	126.5	124.3	131.9	139.9	143.5	134.3	169.4
Nov	123.4	181.6	177.5	126.6	124.2	131.9	140.1	143.2	133.7	169.3
Dec	123.5	182.5	177.9	127.3	124.2	132.1	140.2	143.0	133.5	169.8

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B–66.—*Changes in producer price indexes for finished goods, 1960–99*

[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
1960	1.8	0.9	5.3	2.0	.....	.....	0.3	0.6	0.3	0.3	.....	.....	.....	.....
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	–.1	2.1	–1.5	–.2	.3	3.0	–.7	2.9	2.5	3.1	–9.6	4.1	3.1	3.6
1992	1.6	1.2	1.6	–.6	1.6	1.8	1.6	1.8	1.7	1.9	–.3	–.4	2.0	2.4
1993	.2	1.2	2.4	1.9	–.4	1.1	–1.4	.7	1.8	1.8	–4.1	.3	.4	1.2
1994	1.7	.6	1.1	.9	1.9	.6	2.0	–.1	2.0	2.1	3.5	–1.3	1.6	1.0
1995	2.3	1.9	1.9	1.7	2.3	1.9	2.3	2.0	2.2	1.9	1.1	1.4	2.6	2.1
1996	2.8	2.7	3.4	3.6	2.6	2.4	3.7	2.9	.4	1.2	11.7	6.5	.6	1.4
1997	–1.2	.4	–.8	.7	–1.2	.3	–1.5	.5	–.6	–.1	–6.4	.2	0	.3
1998	0	–.8	.1	–.1	–.1	–1.1	–.1	–1.4	0	–.4	–11.7	–10.0	2.5	.9
1999	3.0	1.8	.9	.6	3.6	2.2	5.2	3.3	.3	0	18.4	5.1	.9	1.7
	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
1998: Jan	–0.6	–0.6	–1.0	–0.3	–0.5	–0.7	–0.9	–0.9	0	–0.1	–3.4	–3.7	0.1	0
Feb	–.1	–.1	.4	.3	–.3	–.2	–.4	–.2	0	0	–2.1	–1.4	.1	.1
Mar	–.1	0	–.1	–.2	0	.1	0	0	0	.1	–2.2	–2.2	.5	.5
Apr	.2	.2	.3	.4	.2	0	.3	.2	–.1	–.1	.7	–.4	0	.1
May	.2	–.1	–.1	–.5	.3	.2	.6	.2	–.3	–.1	2.1	.4	–.1	.1
June	.1	–.2	.1	–.1	.1	–.2	.2	–.2	–.1	–.1	1.2	–.8	–.1	–.1
July	.2	.2	.7	.5	0	.2	0	.2	–.1	.1	–.4	–.1	.1	.2
Aug	–.2	–.3	.4	–.3	–.4	–.3	–.5	–.3	–.2	–.1	–2.0	–1.9	–.1	0
Sept	–.1	.2	.1	.2	–.1	.2	–.1	.1	–.1	.3	0	–.4	–.1	.3
Oct	.6	.3	.1	.4	.8	.2	.6	.4	1.0	.1	–1.1	.8	1.1	.1
Nov	–.4	–.2	–.4	–.4	–.4	–.2	–.6	–.3	.1	.1	–2.4	–1.3	.1	.1
Dec	.2	.5	–.3	0	.3	.5	.6	1.0	–.2	–.1	–2.7	–1.8	.9	1.0
1999: Jan	.2	.3	.8	1.5	0	–.1	0	–.1	–.1	–.1	.7	.8	–.1	–.2
Feb	–.5	–.5	–1.1	–1.2	–.2	–.1	–.4	–.2	.1	.1	–1.7	–1.1	.1	.1
Mar	.2	.3	.4	.3	.2	.2	.3	.4	–.2	–.1	1.6	1.7	–.1	–.1
Apr	.6	.5	–1.0	–.7	1.1	.9	1.6	1.3	.1	.1	6.6	5.5	0	.1
May	.4	.2	.8	.4	.2	.1	.5	.1	–.1	0	2.1	.3	–.1	.1
June	.2	0	.4	.3	.2	–.2	.3	0	–.3	–.2	1.4	–.4	–.1	–.1
July	.2	.2	–.4	–.6	.4	.5	.6	.8	–.1	–.1	2.7	3.0	–.1	.1
Aug[2]	.6	.5	1.0	.2	.5	.6	.8	.8	–.1	–.1	3.5	3.7	–.1	–.1
Sept	.8	1.0	.8	1.0	.8	1.0	1.1	1.4	–.1	.3	2.9	2.3	.3	.7
Oct	.1	–.1	–1.0	–.7	.5	.1	.2	–.1	1.3	.3	–2.7	–1.0	1.3	.3
Nov	0	.2	–.1	.1	.1	.2	.1	.4	–.1	–.1	.5	1.4	–.1	0
Dec	0	.3	.2	.4	–.1	.3	–.1	.4	0	.1	–.2	1.2	0	.1

[1] Changes from December to December are based on unadjusted indexes.

[2] Data have been revised through August 1999 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–67.—*Money stock and debt measures, 1959–99*

[Averages of daily figures, except debt; billions of dollars, seasonally adjusted]

Year and month	M1	M2	M3	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 retail MMMF balances, savings deposits (including MMDAs), and small time deposits	M2 plus large time deposits, RPs, Eurodollars, and institution-only MMMF balances	Debt of domestic nonfinancial sectors (monthly average of adjacent month-end levels)	M1	M2	M3	Debt
December:								
1959	140.0	297.8	299.7	687.7	.....	.....	.....	7.7
1960	140.7	312.4	315.2	723.1	0.5	4.9	5.2	5.1
1961	145.2	335.5	340.8	765.9	3.2	7.4	8.1	5.9
1962	147.8	362.7	371.3	818.7	1.8	8.1	8.9	6.9
1963	153.3	393.2	405.9	873.6	3.7	8.4	9.3	6.7
1964	160.3	424.7	442.4	937.1	4.6	8.0	9.0	7.3
1965	167.8	459.2	482.1	1,004.1	4.7	8.1	9.0	7.1
1966	172.0	480.2	505.4	1,071.3	2.5	4.6	4.8	6.7
1967	183.3	524.8	557.9	1,145.7	6.6	9.3	10.4	6.9
1968	197.4	566.8	607.2	1,237.3	7.7	8.0	8.8	8.0
1969	203.9	587.9	615.9	1,327.4	3.3	3.7	1.4	7.3
1970	214.4	626.5	677.1	1,416.8	5.1	6.6	9.9	6.7
1971	228.3	710.3	776.0	1,550.5	6.5	13.4	14.6	9.4
1972	249.2	802.3	885.9	1,706.8	9.2	13.0	14.2	10.1
1973	262.9	855.5	985.0	1,892.0	5.5	6.6	11.2	10.9
1974	274.2	902.4	1,070.2	2,065.0	4.3	5.5	8.6	9.1
1975	287.1	1,016.6	1,171.9	2,252.4	4.7	12.7	9.5	9.1
1976	306.2	1,152.6	1,312.3	2,497.2	6.7	13.4	12.0	10.9
1977	330.9	1,271.1	1,472.7	2,814.1	8.1	10.3	12.2	12.7
1978	357.3	1,366.9	1,646.5	3,202.8	8.0	7.5	11.8	13.8
1979	381.8	1,474.7	1,810.1	3,591.9	6.9	7.9	9.9	12.1
1980	408.1	1,600.4	1,996.3	3,934.2	6.9	8.5	10.3	9.5
1981	436.2	1,756.1	2,254.9	4,345.9	6.9	9.7	13.0	10.5
1982	474.3	1,911.2	2,460.9	4,782.2	8.7	8.8	9.1	10.0
1983	520.8	2,127.8	2,699.2	5,351.8	9.8	11.3	9.7	11.9
1984	551.2	2,311.7	2,992.8	6,148.8	5.8	8.6	10.9	14.9
1985	619.4	2,497.4	3,209.8	7,068.7	12.4	8.0	7.3	15.0
1986	724.3	2,734.0	3,501.2	7,933.3	16.9	9.5	9.1	12.2
1987	749.7	2,832.8	3,692.0	8,673.9	3.5	3.6	5.4	9.3
1988	786.3	2,995.8	3,935.2	9,464.0	4.9	5.8	6.6	9.1
1989	792.6	3,159.9	4,091.0	10,156.3	.8	5.5	4.0	7.3
1990	824.6	3,279.1	4,155.6	10,818.1	4.0	3.8	1.6	6.5
1991	896.7	3,379.8	4,208.6	11,292.8	8.7	3.1	1.3	4.4
1992	1,024.5	3,434.1	4,220.0	11,816.8	14.3	1.6	.3	4.6
1993	1,129.4	3,487.5	4,279.9	12,403.5	10.2	1.6	1.4	5.0
1994	1,149.9	3,502.2	4,353.9	12,999.6	1.8	.4	1.7	4.8
1995	1,126.9	3,649.3	4,618.6	13,716.6	–2.0	4.2	6.1	5.5
1996	1,081.6	3,824.2	4,955.8	14,463.6	–4.0	4.8	7.3	5.4
1997	1,075.2	4,046.7	5,403.4	15,227.9	–.6	5.8	9.0	5.3
1998	1,093.7	4,401.4	5,995.7	16,250.4	1.7	8.8	11.0	6.7
1999*p*	1,125.4	4,662.7	6,484.9	.....	2.9	5.9	8.2	.....
1998: Jan	1,074.2	4,071.4	5,448.2	15,303.0	1.2	7.2	10.1	6.0
Feb	1,076.4	4,100.8	5,483.1	15,395.5	.8	7.1	9.6	6.3
Mar	1,081.0	4,125.9	5,541.3	15,493.8	3.0	7.2	10.3	6.6
Apr	1,082.4	4,154.9	5,586.2	15,581.4	3.8	7.7	10.6	6.7
May	1,078.5	4,174.3	5,627.9	15,661.3	2.0	7.5	10.3	6.7
June	1,078.4	4,198.3	5,670.6	15,746.7	.6	7.5	9.9	6.8
July	1,076.0	4,215.7	5,691.1	15,832.7	.3	7.1	8.9	6.9
Aug	1,072.6	4,241.0	5,746.8	15,915.2	–.7	6.8	9.6	6.8
Sept	1,075.0	4,284.6	5,810.1	15,992.6	–1.1	7.7	9.7	6.4
Oct	1,080.8	4,325.9	5,872.0	16,077.2	–.3	8.2	10.2	6.4
Nov	1,089.3	4,364.4	5,936.9	16,170.4	2.0	9.1	11.0	6.5
Dec	1,093.7	4,401.4	5,995.7	16,250.4	2.8	9.7	11.5	6.4
1999: Jan	1,091.4	4,425.4	6,017.4	16,336.6	2.9	9.9	11.5	6.4
Feb	1,093.1	4,446.0	6,065.1	16,427.2	3.8	9.7	11.1	6.4
Mar	1,102.4	4,455.9	6,059.7	16,542.5	5.1	8.0	8.6	6.9
Apr	1,108.8	4,488.9	6,104.5	16,646.0	5.2	7.5	7.9	7.1
May	1,105.2	4,506.9	6,133.5	16,719.4	2.9	6.5	6.6	6.8
June	1,101.5	4,523.7	6,166.4	16,795.6	1.4	5.6	5.7	6.7
July	1,100.0	4,545.1	6,192.5	16,873.9	1.6	5.4	5.8	6.6
Aug	1,102.9	4,567.2	6,216.4	16,967.9	1.8	5.5	5.0	6.6
Sept	1,094.0	4,586.5	6,247.4	17,066.8	–1.5	5.9	6.2	6.3
Oct	1,099.0	4,606.4	6,296.3	17,155.0	–1.8	5.2	6.3	6.1
Nov	1,108.3	4,627.4	6,384.6	17,225.1	.6	5.3	8.2	6.0
Dec*p*	1,125.4	4,662.7	6,484.9	.....	4.3	6.1	10.3	.....

[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–68 for components.

Source: Board of Governors of the Federal Reserve System.

TABLE B–68.—*Components of money stock measures, 1959–99*

[Averages of daily figures; billions of dollars, seasonally adjusted]

Year and month	Currency	Nonbank travelers checks	Demand deposits	Other checkable deposits (OCDs)	Small denomination time deposits [1]	Savings deposits, including money market deposit accounts (MMDAs) [2]
December:						
1959	28.8	0.3	110.8	0.0	11.4	146.5
1960	28.7	.3	111.6	.0	12.5	159.1
1961	29.3	.4	115.5	.0	14.8	175.5
1962	30.3	.4	117.1	.0	20.1	194.8
1963	32.2	.4	120.6	.1	25.5	214.4
1964	33.9	.5	125.8	.1	29.2	235.2
1965	36.0	.5	131.3	.1	34.5	256.9
1966	38.0	.6	133.4	.1	55.0	253.1
1967	40.0	.6	142.5	.1	77.8	263.7
1968	43.0	.7	153.6	.1	100.5	268.9
1969	45.7	.8	157.3	.2	120.4	263.7
1970	48.6	.9	164.7	.1	151.2	261.0
1971	52.0	1.0	175.1	.2	189.7	292.2
1972	56.2	1.2	191.6	.2	231.6	321.4
1973	60.8	1.4	200.3	.3	265.8	326.8
1974	67.0	1.7	205.1	.4	287.9	338.6
1975	72.8	2.1	211.3	.9	337.9	388.9
1976	79.5	2.6	221.5	2.7	390.7	453.2
1977	87.4	2.9	236.4	4.2	445.5	492.2
1978	96.0	3.3	249.5	8.5	521.0	481.9
1979	104.8	3.5	256.6	16.8	634.3	423.8
1980	115.3	3.5	261.2	28.1	728.5	400.3
1981	122.5	3.6	231.4	78.7	823.1	343.9
1982	132.5	3.6	234.1	104.1	850.9	400.1
1983	146.2	4.0	238.5	132.1	784.1	684.9
1984	156.1	4.3	243.4	147.4	888.8	704.7
1985	167.9	4.8	266.9	179.8	885.7	815.3
1986	180.7	5.2	302.8	235.6	858.4	940.9
1987	196.9	5.7	287.6	259.5	921.0	937.4
1988	212.2	6.1	287.0	280.9	1,037.1	926.4
1989	222.6	6.1	278.7	285.1	1,151.3	893.7
1990	247.0	7.0	276.9	293.7	1,173.4	923.2
1991	267.5	7.1	289.7	332.5	1,065.6	1,044.4
1992	292.5	7.5	340.0	384.4	868.1	1,186.7
1993	322.0	7.4	385.4	414.6	782.1	1,219.1
1994	354.2	8.0	383.6	404.1	816.5	1,150.0
1995	372.3	8.5	389.4	356.7	931.7	1,135.1
1996	394.1	8.3	403.0	276.2	947.6	1,272.3
1997	424.5	8.1	396.5	246.2	969.3	1,400.2
1998	459.2	8.2	377.5	248.8	952.0	1,605.0
1999 *P*	516.9	8.2	358.9	241.4	952.4	1,738.8
1998: Jan	427.0	8.0	392.8	246.3	970.8	1,413.8
Feb	430.0	8.0	392.3	246.1	970.1	1,428.5
Mar	432.1	8.1	391.0	249.8	968.9	1,439.4
Apr	434.2	8.1	389.2	250.9	967.6	1,459.3
May	436.4	8.2	387.8	246.2	966.0	1,472.2
June	439.2	8.6	384.7	245.9	965.2	1,485.9
July	442.3	9.1	379.3	245.3	962.4	1,505.8
Aug	444.8	9.0	374.8	244.0	959.7	1,522.5
Sept	449.6	8.7	374.4	242.4	958.7	1,543.7
Oct	453.3	8.6	374.7	244.2	957.9	1,563.1
Nov	456.5	8.3	377.0	247.6	955.7	1,582.6
Dec	459.2	8.2	377.5	248.8	952.0	1,605.0
1999: Jan	462.7	8.2	371.1	249.5	946.5	1,622.7
Feb	467.6	8.1	371.8	245.5	940.7	1,633.1
Mar	472.0	8.2	374.1	248.1	936.6	1,636.0
Apr	476.5	8.2	374.0	250.1	933.7	1,657.1
May	480.9	8.3	369.5	246.5	930.8	1,675.1
June	484.1	8.6	363.0	245.9	926.4	1,694.1
July	487.3	9.0	362.7	240.9	926.3	1,715.9
Aug	490.9	9.0	363.4	239.6	929.1	1,725.8
Sept	495.0	8.7	352.9	237.4	934.3	1,742.8
Oct	499.2	8.5	354.5	236.8	939.5	1,746.0
Nov	505.2	8.2	357.2	237.7	947.0	1,742.2
Dec *P*	516.9	8.2	358.9	241.4	952.4	1,738.8

[1] Small denomination deposits are those issued in amounts of less than $100,000.
[2] Data prior to 1982 are savings deposits only; MMDA data begin December 1982.

See next page for continuation of table.

TABLE B–68.—*Components of money stock measures, 1959–99*—Continued

[Averages of daily figures; billions of dollars, seasonally adjusted]

Year and month	Money market mutual fund (MMMF) balances		Large denomination time deposits[3]	Overnight and term repurchase agreements (RPs) (net)	Overnight and term Eurodollars (net)
	Retail	Institution only			
December:					
1959	0.0	0.0	1.2	0.0	0.7
1960	.0	.0	2.0	.0	.8
1961	.0	.0	3.9	.0	1.5
1962	.0	.0	7.0	.0	1.6
1963	.0	.0	10.8	.0	1.9
1964	.0	.0	15.2	.0	2.4
1965	.0	.0	21.2	.0	1.8
1966	.0	.0	23.1	.0	2.2
1967	.0	.0	30.9	.0	2.2
1968	.0	.0	37.4	.0	2.9
1969	.0	.0	20.4	4.9	2.7
1970	.0	.0	45.2	3.0	2.4
1971	.0	.0	57.7	5.2	2.9
1972	.0	.0	73.3	6.6	3.8
1973	.1	.0	110.9	12.8	5.8
1974	1.7	.2	144.7	14.5	8.5
1975	2.8	.5	129.7	15.0	10.2
1976	2.5	.6	118.1	25.5	15.4
1977	2.6	1.0	145.2	33.5	21.9
1978	6.7	3.5	195.6	45.2	35.3
1979	34.9	10.4	223.1	49.2	52.8
1980	63.5	16.0	260.2	58.2	61.5
1981	152.9	38.2	303.8	67.8	88.9
1982	185.9	48.8	324.8	71.8	104.3
1983	138.1	40.9	316.5	97.3	116.6
1984	167.0	61.8	403.2	107.3	108.9
1985	177.1	64.6	422.4	121.2	104.2
1986	210.4	85.5	420.2	145.8	115.7
1987	224.7	92.7	467.1	178.0	121.5
1988	246.1	92.8	518.3	196.5	131.7
1989	322.3	111.1	541.5	169.1	109.4
1990	358.0	139.6	482.1	151.5	103.3
1991	373.1	187.7	417.6	131.1	92.3
1992	354.7	210.5	354.4	141.6	79.5
1993	357.0	212.5	334.5	172.6	72.7
1994	385.8	204.7	364.4	196.4	86.1
1995	455.5	255.9	421.0	198.7	93.7
1996	522.8	313.3	493.1	211.3	113.9
1997	602.0	379.9	575.7	251.7	149.3
1998	750.7	516.2	629.5	297.8	150.7
1999*p*	846.1	606.7	715.9	329.6	169.9
1998: Jan	612.6	385.9	582.0	258.8	150.0
Feb	625.9	391.3	592.1	253.5	145.4
Mar	636.7	399.8	606.4	267.4	141.8
Apr	645.6	414.4	607.1	268.0	141.9
May	657.5	426.9	612.2	269.1	145.4
June	668.8	437.7	620.3	268.0	146.3
July	671.5	441.9	613.6	270.7	149.2
Aug	686.1	454.5	620.2	277.6	153.5
Sept	707.1	467.8	621.3	282.0	154.4
Oct	724.2	486.7	621.4	282.6	155.5
Nov	736.8	503.8	625.0	289.2	154.5
Dec	750.7	516.2	629.5	297.8	150.7
1999: Jan	764.8	515.0	637.3	292.3	147.3
Feb	779.1	529.9	626.3	309.9	153.1
Mar	780.9	529.1	617.1	298.1	159.4
Apr	789.3	538.4	623.7	289.9	163.5
May	795.8	544.6	621.6	295.4	165.0
June	801.6	548.1	618.2	308.4	168.1
July	802.9	546.0	626.7	308.9	165.7
Aug	809.5	556.4	621.1	310.7	161.1
Sept	815.4	559.3	630.8	310.4	160.3
Oct	821.9	571.0	654.3	307.3	157.3
Nov	829.9	588.8	685.7	317.3	165.5
Dec*p*	846.1	606.7	715.9	329.6	169.9

[3] Large denomination deposits are those issued in amounts of more than $100,000.

Note.—See also Table B–67.

Source: Board of Governors of the Federal Reserve System.

TABLE B–69.—*Aggregate reserves of depository institutions and monetary base, 1959–99*

[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	11,109	10,168	10,168	10,603	40,880	941	.....	.....
1960	11,247	11,172	11,172	10,503	40,977	74	.....	.....
1961	11,499	11,366	11,366	10,915	41,853	133	.....	.....
1962	11,604	11,344	11,344	11,033	42,957	260	.....	.....
1963	11,730	11,397	11,397	11,239	45,003	332	.....	.....
1964	12,011	11,747	11,747	11,605	47,161	264	.....	.....
1965	12,316	11,872	11,872	11,892	49,620	444	.....	.....
1966	12,223	11,690	11,690	11,884	51,565	532	.....	.....
1967	13,180	12,952	12,952	12,805	54,579	228	.....	.....
1968	13,767	13,021	13,021	13,341	58,357	746	.....	.....
1969	14,168	13,049	13,049	13,882	61,569	1,119	.....	.....
1970	14,558	14,225	14,225	14,309	65,013	332	.....	.....
1971	15,230	15,104	15,104	15,049	69,108	126	.....	.....
1972	16,645	15,595	15,595	16,361	75,167	1,050	.....	.....
1973	17,021	15,723	15,723	16,717	81,073	1,298	41	.....
1974	17,550	16,823	16,970	17,292	87,535	727	32	147
1975	17,822	17,692	17,704	17,556	93,887	130	14	12
1976	18,388	18,335	18,335	18,115	101,515	53	13	.....
1977	18,990	18,420	18,420	18,800	110,324	569	55	.....
1978	19,753	18,885	18,885	19,521	120,445	868	135	.....
1979	20,720	19,248	19,248	20,279	131,143	1,473	82	.....
1980	22,015	20,325	20,328	21,501	142,004	1,690	116	3
1981	22,443	21,807	21,956	22,124	149,021	636	54	148
1982	23,600	22,966	23,152	23,100	160,127	634	33	186
1983	25,367	24,593	24,595	24,806	175,467	774	96	2
1984	26,912	23,726	26,330	26,078	187,236	3,186	113	2,604
1985	31,558	30,239	30,739	30,495	203,552	1,318	56	499
1986	38,826	37,999	38,302	37,653	223,426	827	38	303
1987	38,896	38,119	38,602	37,877	239,850	777	93	483
1988	40,435	38,719	39,963	39,374	256,888	1,716	130	1,244
1989	40,469	40,204	40,224	39,528	267,701	265	84	20
1990	41,747	41,422	41,445	40,083	293,240	326	76	23
1991	45,493	45,301	45,301	44,504	317,512	192	38	1
1992	54,388	54,265	54,265	53,235	350,865	124	18	1
1993	60,530	60,448	60,448	59,460	386,451	82	31	0
1994	59,419	59,210	59,210	58,260	418,072	209	100	0
1995	56,454	56,197	56,197	55,164	434,098	257	40	0
1996	50,162	50,008	50,008	48,746	451,373	155	68	0
1997	46,861	46,537	46,537	45,176	478,877	324	79	0
1998	44,902	44,785	44,785	43,319	512,321	117	15	0
1999 *p*	41,537	41,216	41,216	40,225	590,295	[3] 320	67	0
1998: Jan	46,680	46,470	46,470	44,887	481,483	210	18	0
Feb	45,744	45,686	45,686	44,211	483,250	58	12	0
Mar	45,854	45,813	45,813	44,503	485,295	41	22	0
Apr	46,119	46,047	46,047	44,731	487,571	72	41	0
May	45,516	45,363	45,363	44,243	489,571	153	94	0
June	45,410	45,159	45,159	43,794	492,314	251	159	0
July	44,895	44,637	44,637	43,524	494,736	258	215	0
Aug	44,983	44,712	44,712	43,453	497,869	271	242	0
Sept	44,540	44,290	44,290	42,846	502,038	251	178	0
Oct	44,405	44,231	44,231	42,831	505,843	174	107	0
Nov	44,497	44,414	44,414	42,873	509,144	83	37	0
Dec	44,902	44,785	44,785	43,319	512,321	117	15	0
1999: Jan	45,125	44,920	44,920	43,591	516,807	206	7	0
Feb	44,551	44,435	44,435	43,336	520,843	116	9	0
Mar	43,717	43,652	43,652	42,412	524,233	65	18	0
Apr	43,979	43,812	43,812	42,820	528,741	166	39	0
May	44,360	44,233	44,233	43,105	534,860	127	89	0
June	42,867	42,722	42,722	41,606	537,625	145	127	0
July	41,978	41,669	41,669	40,902	541,203	309	226	0
Aug	42,067	41,723	41,723	40,938	544,415	344	271	0
Sept	42,113	41,774	41,774	40,916	549,560	338	282	0
Oct	40,943	40,661	40,661	39,790	557,154	[3] 281	221	0
Nov	41,198	40,962	40,962	39,864	569,349	[3] 236	71	0
Dec *p*	41,537	41,216	41,216	40,225	590,295	[3] 320	67	0

[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*.

[3] Total includes borrowing under the terms and conditions established for the Century Date Change Special Liquidity Facility in effect from October 1, 1999 through April 7, 2000.

Note.—NSA indicates data are not seasonally adjusted.

Source: Board of Governors of the Federal Reserve System.

TABLE B–70.—*Bank credit at all commercial banks, 1973–99*

[Monthly average; billions of dollars, seasonally adjusted [1]]

Year and month	Total bank credit	Securities in bank credit			Loans and leases in bank credit							
		Total securities	U.S. Government securities	Other securities	Total loans and leases [2]	Commercial and industrial	Real estate			Consumer	Security	Other
							Total	Revolving home equity	Other			
December:												
1973	660.4	180.5	90.5	90.1	479.9	167.3	123.3	.....	123.3	100.9	10.9	77.5
1974	725.4	185.6	88.7	96.9	539.8	198.7	136.7	.....	136.7	104.8	10.4	89.2
1975	758.8	221.8	119.8	102.1	537.0	188.9	141.9	.....	141.9	107.4	12.4	86.4
1976	818.5	245.3	140.1	105.2	573.2	191.5	156.0	.....	156.0	119.0	17.3	89.5
1977	905.7	253.4	140.4	112.9	652.4	211.3	183.8	.....	183.8	141.4	20.3	95.5
1978	1,021.6	259.4	141.7	117.8	762.2	246.2	220.9	.....	220.9	168.3	19.0	107.9
1979	1,133.3	266.6	148.1	118.5	866.7	285.6	252.6	.....	252.6	188.8	17.1	122.6
1980	1,226.4	300.8	174.3	126.4	925.7	317.1	272.9	.....	272.9	182.1	16.8	136.8
1981	1,319.0	313.8	182.4	131.4	1,005.2	356.0	294.5	.....	294.5	185.0	19.6	150.1
1982	1,424.0	339.1	204.5	134.6	1,085.0	397.5	309.1	.....	309.1	190.9	22.9	164.4
1983	1,573.7	402.9	261.7	141.2	1,170.8	419.7	337.5	.....	337.5	215.7	25.5	172.4
1984	1,743.5	406.8	263.1	143.7	1,336.7	480.1	383.4	.....	383.4	256.6	32.7	183.8
1985	1,925.2	453.8	272.7	181.0	1,471.4	505.7	432.3	.....	432.3	296.6	40.8	196.0
1986	2,106.5	506.5	310.4	196.2	1,599.9	541.9	500.8	.....	500.8	316.1	36.7	204.4
1987	2,252.0	534.0	338.6	195.4	1,718.0	570.5	590.7	31.0	559.7	330.2	34.9	191.7
1988	2,431.0	562.6	367.6	195.0	1,868.4	611.4	674.7	42.0	632.8	354.9	39.8	187.7
1989	2,605.3	585.2	400.8	184.3	2,020.1	643.0	770.6	52.8	717.9	375.4	40.4	190.7
1990	2,752.0	634.3	456.4	177.9	2,117.7	645.8	857.9	65.4	792.4	380.9	44.5	188.6
1991	2,857.9	746.0	566.5	179.5	2,111.9	624.3	883.7	73.3	810.3	363.8	53.8	186.4
1992	2,956.6	841.5	664.8	176.7	2,115.1	600.6	906.0	77.4	828.6	356.2	63.9	188.4
1993	3,116.1	915.0	730.3	184.7	2,201.1	591.3	947.7	77.0	870.6	387.7	88.1	186.3
1994	3,322.8	939.8	721.7	218.1	2,383.0	651.4	1,011.0	79.3	931.7	448.1	77.7	194.8
1995	3,606.1	984.7	701.8	282.9	2,621.4	725.1	1,090.0	83.2	1,006.8	491.3	84.6	230.4
1996	3,762.8	978.7	699.1	279.6	2,784.1	789.0	1,141.8	89.4	1,052.4	512.5	76.8	263.9
1997	4,104.8	1,086.0	748.0	337.9	3,018.8	856.3	1,247.4	103.3	1,144.1	502.4	97.0	315.6
1998	4,548.8	1,226.5	793.2	433.4	3,322.2	952.6	1,338.1	102.4	1,235.7	497.8	150.7	383.0
1999	4,782.8	1,267.6	803.7	463.9	3,515.1	1,008.1	1,471.6	106.1	1,365.5	495.6	155.3	384.5
1998: Jan	4,159.6	1,111.3	760.7	350.6	3,048.3	868.7	1,248.6	104.0	1,144.6	498.9	116.6	315.6
Feb	4,188.1	1,113.0	765.4	347.6	3,075.1	875.7	1,262.8	104.0	1,158.8	496.4	119.5	320.7
Mar	4,218.1	1,125.3	777.3	348.0	3,092.8	879.6	1,275.5	104.0	1,171.5	495.2	114.7	327.8
Apr	4,221.2	1,113.0	764.5	348.5	3,108.2	877.5	1,281.1	104.1	1,177.0	498.6	116.7	334.3
May	4,243.3	1,125.5	769.2	356.3	3,117.8	888.6	1,277.7	103.8	1,173.9	497.5	120.2	333.9
June	4,268.0	1,126.2	759.6	366.6	3,141.8	901.9	1,278.2	103.6	1,174.6	495.7	127.9	338.2
July	4,287.9	1,134.6	764.2	370.4	3,153.4	907.2	1,282.8	103.5	1,179.3	489.2	130.7	343.4
Aug	4,347.7	1,160.4	776.9	383.4	3,187.3	915.2	1,292.4	103.3	1,189.1	488.5	136.3	355.0
Sept	4,395.3	1,178.0	772.0	406.0	3,217.3	921.8	1,294.6	103.6	1,191.0	491.2	141.8	367.9
Oct	4,490.5	1,218.8	776.9	441.9	3,271.7	943.8	1,301.4	102.4	1,199.0	493.1	156.6	376.9
Nov	4,529.7	1,222.0	790.0	432.0	3,307.6	954.9	1,323.8	102.6	1,221.2	496.0	150.0	382.9
Dec	4,548.8	1,226.5	793.2	433.4	3,322.2	952.6	1,338.1	102.4	1,235.7	497.8	150.7	383.0
1999: Jan	4,539.4	1,217.2	796.0	421.2	3,322.2	952.8	1,345.8	102.3	1,243.5	499.8	146.4	377.5
Feb	4,524.2	1,206.4	793.3	413.0	3,317.8	952.9	1,347.5	101.8	1,245.7	499.3	139.0	379.1
Mar	4,494.7	1,189.0	801.0	387.9	3,305.7	957.0	1,348.8	102.0	1,246.8	498.6	119.1	382.3
Apr	4,507.6	1,193.1	801.8	391.3	3,314.5	961.6	1,351.3	103.1	1,248.2	499.5	122.1	380.0
May	4,516.9	1,192.6	800.0	392.6	3,324.3	957.3	1,360.6	104.4	1,256.2	495.9	126.8	383.8
June	4,553.8	1,211.7	811.2	400.5	3,342.1	963.4	1,366.2	103.8	1,262.4	491.1	131.0	390.5
July	4,549.7	1,227.0	814.4	412.7	3,322.7	965.3	1,367.7	98.0	1,269.6	481.2	122.4	386.2
Aug	4,582.9	1,242.4	820.1	422.3	3,340.5	972.7	1,379.9	98.7	1,281.3	480.1	122.4	385.3
Sept	4,607.6	1,246.6	817.6	428.9	3,361.1	980.8	1,396.5	98.4	1,298.1	481.0	116.2	386.6
Oct	4,636.5	1,253.5	812.6	440.9	3,383.0	986.1	1,419.0	99.0	1,320.1	481.5	111.0	385.4
Nov	4,704.0	1,249.2	798.8	450.4	3,454.8	1,005.8	1,433.6	100.6	1,333.0	485.1	134.0	396.3
Dec	4,782.8	1,267.6	803.7	463.9	3,515.1	1,008.1	1,471.6	106.1	1,365.5	495.6	155.3	384.5

[1] Data are prorated averages of Wednesday values for domestically chartered commercial banks, branches and agencies of foreign banks, New York State investment companies (through September 1996), and Edge Act and agreement corporations.

[2] Excludes Federal funds sold to, reverse repurchase agreements (RPs) with, and loans to commercial banks in the United States.

Source: Board of Governors of the Federal Reserve System.

TABLE B–71.—*Bond yields and interest rates, 1929–99*

[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	30-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	7.75	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	8.49	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	9.28	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	11.27	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	13.45	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	12.76	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	11.18	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	12.41	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	10.79	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	7.78	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	8.59	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	8.96	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	8.45	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	8.61	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	8.14	8.77	9.80	6.89	9.32	5.85	8.46	5.45	5.69
1992	3.45	3.57	5.30	7.01	7.67	8.14	8.98	6.41	8.24	3.80	6.25	3.25	3.52
1993	3.02	3.14	4.44	5.87	6.59	7.22	7.93	5.63	7.20	3.30	6.00	3.00	3.02
1994	4.29	4.66	6.27	7.09	7.37	7.96	8.62	6.19	7.49	4.93	7.15	3.60	4.21
1995	5.51	5.59	6.25	6.57	6.88	7.59	8.20	5.95	7.87	5.93	8.83	5.21	5.83
1996	5.02	5.09	5.99	6.44	6.71	7.37	8.05	5.75	7.80	5.42	8.27	5.02	5.30
1997	5.07	5.18	6.10	6.35	6.61	7.26	7.86	5.55	7.71	5.62	8.44	5.00	5.46
1998	4.81	4.85	5.14	5.26	5.58	6.53	7.22	5.12	7.07	.....	8.35	4.92	5.35
1999	4.66	4.76	5.49	5.65	5.87	7.04	7.87	5.43	7.04	.....	8.00	4.62	4.97

[1] Rate on new issues within period; bank-discount basis.

[2] Yields on the more actively traded issues adjusted to constant maturities by the Department of the Treasury.

[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.

[4] Bank-discount basis; prior to November 1979, data are for 4–6 months paper. Series no longer published by Federal Reserve (FR). See FR release H.15 *Selected Interest Rates* dated May 12, 1997.

[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.

See next page for continuation of table.

TABLE B–71.—*Bond yields and interest rates, 1929–99*—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	30-year	Aaa	Baa				High-low	High-low	
1995:													
Jan	5.81	6.31	7.66	7.78	7.85	8.46	9.08	6.53	8.18	6.63	8.50–8.50	4.75–4.75	5.53
Feb	5.80	6.10	7.25	7.47	7.61	8.26	8.85	6.24	8.28	6.38	9.00–8.50	5.25–4.75	5.92
Mar	5.73	5.91	6.89	7.20	7.45	8.12	8.70	6.10	8.21	6.30	9.00–9.00	5.25–5.25	5.98
Apr	5.67	5.80	6.68	7.06	7.36	8.03	8.60	6.01	8.15	6.19	9.00–9.00	5.25–5.25	6.05
May	5.70	5.73	6.27	6.63	6.95	7.65	8.20	5.90	7.99	6.07	9.00–9.00	5.25–5.25	6.01
June	5.50	5.46	5.80	6.17	6.57	7.30	7.90	5.83	7.73	5.79	9.00–9.00	5.25–5.25	6.00
July	5.47	5.41	5.89	6.28	6.72	7.41	8.04	5.98	7.78	5.68	9.00–8.75	5.25–5.25	5.85
Aug	5.41	5.40	6.10	6.49	6.86	7.57	8.19	6.07	7.75	5.75	8.75–8.75	5.25–5.25	5.74
Sept	5.26	5.28	5.89	6.20	6.55	7.32	7.93	5.88	7.69	5.66	8.75–8.75	5.25–5.25	5.80
Oct	5.30	5.34	5.77	6.04	6.37	7.12	7.75	5.77	7.58	5.71	8.75–8.75	5.25–5.25	5.76
Nov	5.35	5.29	5.57	5.93	6.26	7.02	7.68	5.61	7.46	5.59	8.75–8.75	5.25–5.25	5.80
Dec	5.16	5.15	5.39	5.71	6.06	6.82	7.49	5.42	7.40	5.43	8.75–8.50	5.25–5.25	5.60
1996:													
Jan	5.02	4.97	5.20	5.65	6.05	6.81	7.47	5.42	7.32	5.23	8.50–8.50	5.25–5.00	5.56
Feb	4.87	4.79	5.14	5.81	6.24	6.99	7.63	5.45	7.20	4.99	8.50–8.25	5.00–5.00	5.22
Mar	4.96	4.96	5.79	6.27	6.60	7.35	8.03	5.82	7.49	5.26	8.25–8.25	5.00–5.00	5.31
Apr	4.99	5.08	6.11	6.51	6.79	7.50	8.19	5.93	7.76	5.38	8.25–8.25	5.00–5.00	5.22
May	5.02	5.12	6.27	6.74	6.93	7.62	8.30	5.98	7.80	5.42	8.25–8.25	5.00–5.00	5.24
June	5.11	5.26	6.49	6.91	7.06	7.71	8.40	6.03	8.05	5.57	8.25–8.25	5.00–5.00	5.27
July	5.17	5.32	6.45	6.87	7.03	7.65	8.35	5.91	8.01	5.67	8.25–8.25	5.00–5.00	5.40
Aug	5.09	5.17	6.21	6.64	6.84	7.46	8.18	5.72	8.08	5.51	8.25–8.25	5.00–5.00	5.22
Sept	5.15	5.29	6.41	6.83	7.03	7.66	8.35	5.86	7.98	5.66	8.25–8.25	5.00–5.00	5.30
Oct	5.01	5.12	6.08	6.53	6.81	7.39	8.07	5.71	7.95	5.45	8.25–8.25	5.00–5.00	5.24
Nov	5.03	5.07	5.82	6.20	6.48	7.10	7.79	5.59	7.80	5.40	8.25–8.25	5.00–5.00	5.31
Dec	4.87	5.02	5.91	6.30	6.55	7.20	7.89	5.62	7.79	5.44	8.25–8.25	5.00–5.00	5.29
1997:													
Jan	5.05	5.11	6.16	6.58	6,83	7.42	8.09	5.72	7.81	5.48	8.25–8.25	5.00–5.00	5.25
Feb	5.00	5.05	6.03	6.42	6.69	7.31	7.94	5.63	7.78	5.42	8.25–8.25	5.00–5.00	5.19
Mar	5.14	5.24	6.38	6.69	6.93	7.55	8.18	5.78	7.88	5.61	8.50–8.25	5.00–5.00	5.39
Apr	5.17	5.35	6.61	6.89	7.09	7.73	8.34	5.88	8.03	5.79	8.50–8.50	5.00–5.00	5.51
May	5.13	5.35	6.42	6.71	6.94	7.58	8.20	5.71	8.01	5.78	8.50–8.50	5.00–5.00	5.50
June	4.92	5.14	6.24	6.49	6.77	7.41	8.02	5.60	7.95	5.69	8.50–8.50	5.00–5.00	5.56
July	5.07	5.12	6.00	6.22	6.51	7.14	7.75	5.41	7.78	5.60	8.50–8.50	5.00–5.00	5.52
Aug	5.13	5.17	6.06	6.30	6.58	7.22	7.82	5.47	7.59	5.59	8.50–8.50	5.00–5.00	5.54
Sept	4.97	5.11	5.98	6.21	6.50	7.15	7.70	5.38	7.61	.....	8.50–8.50	5.00–5.00	5.54
Oct	4.95	5.09	5.84	6.03	6.33	7.00	7.57	5.37	7.54	.....	8.50–8.50	5.00–5.00	5.50
Nov	5.15	5.17	5.76	5.88	6.11	6.87	7.42	5.38	7.40	.....	8.50–8.50	5.00–5.00	5.52
Dec	5.16	5.24	5.74	5.81	5.99	6.76	7.32	5.22	7.40	.....	8.50–8.50	5.00–5.00	5.50
1998:													
Jan	5.09	5.07	5.38	5.54	5.81	6.61	7.19	5.07	7.27	.....	8.50–8.50	5.00–5.00	5.56
Feb	5.11	5.07	5.43	5.57	5.89	6.67	7.25	5.16	7.24	.....	8.50–8.50	5.00–5.00	5.51
Mar	5.03	5.04	5.57	5.65	5.95	6.71	7.32	5.30	7.17	.....	8.50–8.50	5.00–5.00	5.49
Apr	5.00	5.08	5.58	5.64	5.92	6.69	7.33	5.33	7.19	.....	8.50–8.50	5.00–5.00	5.45
May	5.03	5.15	5.61	5.65	5.93	6.69	7.30	5.21	7.18	.....	8.50–8.50	5.00–5.00	5.49
June	4.99	5.12	5.52	5.50	5.70	6.53	7.13	5.13	7.16	.....	8.50–8.50	5.00–5.00	5.56
July	4.96	5.03	5.47	5.46	5.68	6.55	7.15	5.18	7.13	.....	8.50–8.50	5.00–5.00	5.54
Aug	4.94	4.97	5.24	5.34	5.54	6.52	7.14	5.13	7.09	.....	8.50–8.50	5.00–5.00	5.55
Sept	4.74	4.75	4.62	4.81	5.20	6.40	7.09	4.98	6.98	.....	8.50–8.25	5.00–5.00	5.51
Oct	4.08	4.15	4.18	4.53	5.01	6.37	7.18	4.90	6.85	.....	8.25–8.00	5.00–4.75	5.07
Nov	4.44	4.43	4.57	4.83	5.25	6.41	7.34	5.06	6.80	.....	8.00–7.75	4.75–4.50	4.83
Dec	4.42	4.43	4.48	4.65	5.06	6.22	7.23	5.00	6.94	.....	7.75–7.75	4.50–4.50	4.68
1999:													
Jan	4.34	4.36	4.61	4.72	5.16	6.24	7.29	5.04	6.96	.....	7.75–7.75	4.50–4.50	4.63
Feb	4.45	4.43	4.90	5.00	5.37	6.40	7.39	5.03	6.92	.....	7.75–7.75	4.50–4.50	4.76
Mar	4.48	4.52	5.11	5.23	5.58	6.62	7.53	5.10	6.86	.....	7.75–7.75	4.50–4.50	4.81
Apr	4.28	4.36	5.03	5.18	5.55	6.64	7.48	5.07	6.85	.....	7.75–7.75	4.50–4.50	4.74
May	4.51	4.55	5.33	5.54	5.81	6.93	7.72	5.17	6.89	.....	7.75–7.75	4.50–4.50	4.74
June	4.59	4.81	5.70	5.90	6.04	7.23	8.02	5.34	7.03	.....	7.75–7.75	4.50–4.50	4.76
July	4.60	4.62	5.62	5.79	5.98	7.19	7.95	5.36	7.29	.....	8.00–8.00	4.50–4.50	4.99
Aug	4.76	4.88	5.77	5.94	6.07	7.40	8.15	5.59	7.09	.....	8.25–8.00	4.75–4.50	5.07
Sept	4.73	4.91	5.75	5.92	6.07	7.39	8.20	5.70	7.09	.....	8.25–8.25	4.75–4.75	5.22
Oct	4.88	4.98	5.94	6.11	6.26	7.55	8.38	5.92	7.17	.....	8.25–8.25	4.75–4.75	5.20
Nov	5.07	5.17	5.92	6.03	6.15	7.36	8.15	5.85	7.24	.....	8.50–8.25	5.00–4.75	5.42
Dec	5.23	5.43	6.14	6.28	6.35	7.55	8.19	5.93	7.28	.....	8.50–8.50	5.00–5.00	5.30

[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.

TABLE B–72.—*Credit market borrowing, 1990–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998
NONFINANCIAL SECTORS									
DOMESTIC	655.1	465.1	524.2	584.4	575.8	721.0	745.4	787.1	1,024.1
FEDERAL GOVERNMENT	246.9	278.2	304.0	256.1	155.9	144.4	145.0	23.1	–52.6
Treasury securities	238.7	292.0	303.8	248.3	155.7	142.9	146.6	23.2	–54.6
Budget agency securities and mortgages	8.2	–13.8	.2	7.8	.2	1.5	–1.6	–.1	2.0
NONFEDERAL, BY INSTRUMENT	408.2	186.9	220.3	328.3	420.0	576.6	600.3	764.0	1,076.7
Commercial paper	9.7	–18.4	8.6	10.0	21.4	18.1	–.9	13.7	24.4
Municipal securities and loans	49.3	87.8	30.5	74.8	–35.9	–48.2	2.6	71.4	96.8
Corporate bonds	47.1	78.8	67.6	75.2	23.3	91.1	116.3	150.5	218.7
Bank loans n.e.c.	4.3	–42.3	–12.0	6.4	75.2	103.7	70.5	106.5	108.2
Other loans and advances	61.8	–55.4	5.7	–18.9	34.0	67.2	33.5	69.1	74.3
Mortgages	224.1	147.0	113.6	122.4	177.0	205.7	289.7	300.2	486.6
Home	212.9	164.4	169.5	160.1	183.4	180.4	245.3	237.6	367.9
Multifamily residential	–1.8	–3.4	–13.4	–5.1	–2.1	7.6	11.5	10.8	22.4
Commercial	14.6	–14.3	–43.1	–33.6	–6.5	16.2	30.4	48.7	90.2
Farm	–1.6	.3	.5	1.0	2.2	1.6	2.6	3.2	6.2
Consumer credit	11.9	–10.7	6.1	58.4	124.9	138.9	88.8	52.5	67.6
NONFEDERAL, BY SECTOR	408.2	186.9	220.3	328.3	420.0	576.6	600.3	746.0	1,076.7
Household sector	239.4	161.1	166.5	209.4	316.3	350.9	354.0	327.3	471.9
Nonfinancial business	121.6	–59.6	29.6	52.7	150.0	277.2	253.2	380.6	524.5
Corporate	125.1	–46.0	45.6	46.9	142.3	243.7	164.6	297.0	418.5
Nonfarm noncorporate	–4.5	–15.6	–16.4	3.2	3.3	30.6	83.8	77.4	98.4
Farm	1.0	2.0	.5	2.6	4.4	2.9	4.8	6.2	7.7
State and local governments	47.2	85.4	24.1	66.2	–46.2	–51.5	–6.8	56.1	80.3
FOREIGN BORROWING IN THE UNITED STATES	23.9	15.1	24.1	69.8	–13.9	71.1	77.2	57.6	33.6
Commercial paper	12.3	6.8	5.6	–9.6	–26.1	13.5	11.3	3.7	7.8
Bonds	21.4	15.0	16.8	82.9	12.2	49.7	55.8	47.2	25.1
Bank loans n.e.c.	–2.9	3.1	2.3	.7	1.4	8.5	9.1	8.5	6.7
Other loans and advances	–7.0	–9.8	–.6	–4.2	–1.4	–.5	1.0	–1.8	–6.0
NONFINANCIAL DOMESTIC AND FOREIGN BORROWING	678.9	480.2	548.3	654.2	561.9	792.1	822.6	844.7	1,057.7
FINANCIAL SECTORS									
BY INSTRUMENT	213.4	170.9	244.0	294.4	468.4	453.9	548.9	652.2	1,068.8
Federal Government related	167.4	145.7	155.8	165.3	287.5	204.1	231.5	212.8	470.9
Government-sponsored enterprise securities	17.1	9.2	40.3	80.6	176.9	105.9	90.4	98.4	278.3
Mortgage pool securities	150.3	136.6	115.6	84.7	115.4	98.2	141.1	114.5	192.6
U.S. Government loans	–.1	–.0	–.0	.0	–4.8	0	0	0	0
Private financial sectors	46.1	25.1	88.2	129.1	180.9	249.8	317.5	439.4	597.9
Open market paper	8.6	–32.3	–1.1	–5.5	40.5	42.7	92.2	166.7	161.0
Corporate bonds	56.8	86.9	88.6	123.1	121.8	195.9	176.9	209.0	291.8
Bank loans n.e.c.	4.0	7.3	.7	–14.4	–13.7	2.5	12.6	13.2	30.1
Other loans and advances	–23.9	–37.3	–.6	22.4	22.6	3.4	27.9	35.6	90.2
Mortgages	.6	.5	.6	3.6	9.8	5.3	7.9	14.9	24.8
BY SECTOR	213.4	170.9	244.0	294.4	468.4	453.9	548.9	652.2	1,068.8
Commercial banking	–26.8	–13.2	10.0	13.4	20.1	22.5	13.0	46.1	72.9
Savings institutions	–30.9	–44.7	–7.0	11.3	12.8	2.6	25.5	19.7	52.2
Government-sponsored enterprises	17.0	9.1	40.2	80.6	172.1	105.9	90.4	98.4	278.3
Federally related mortgage pools	150.3	136.6	115.6	84.7	115.4	98.2	141.1	114.5	192.6
Asset-backed securities issuers	61.6	68.7	61.9	85.4	76.5	142.4	153.9	200.7	316.3
Finance companies	23.1	16.0	–3.1	–1.4	48.7	50.2	45.9	48.7	43.0
Funding corporations	16.8	–4.0	16.2	6.3	23.1	34.9	64.1	80.7	40.7
Other [1]	2.3	2.2	10.3	14.1	–.3	–2.9	15.2	43.4	72.8
ALL SECTORS									
BY INSTRUMENT	892.3	651.1	792.4	948.6	1,030.3	1,246.0	1,371.5	1,496.9	2,126.5
Open market paper	30.7	–44.0	13.1	–5.1	35.7	74.3	102.6	184.1	193.1
U.S. Government securities	414.4	424.0	459.8	421.4	448.1	348.5	376.5	235.9	418.3
Municipal securities	49.3	87.8	30.5	74.8	–35.9	–48.2	2.6	71.4	96.8
Corporate and foreign bonds	125.2	180.7	172.9	281.2	157.3	336.7	348.9	406.7	535.6
Bank loans n.e.c.	5.5	–31.8	–8.9	–7.2	62.9	114.7	92.1	128.2	145.0
Other loans and advances	30.8	–102.4	4.6	–.8	50.4	70.1	62.5	102.8	158.5
Mortgages	224.7	147.5	114.2	126.0	186.8	211.0	297.6	315.1	511.4
Consumer credit	11.9	–10.7	6.1	58.4	124.9	138.9	88.8	52.5	67.6

[1] Credit unions, life insurance companies, mortgage companies, real estate investment trusts, and brokers and dealers.

See next page for continuation of table.

TABLE B–72.—*Credit market borrowing, 1990–99*—Continued

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Item	1998				1999		
	I	II	III	IV	I	II	III
NONFINANCIAL SECTORS							
DOMESTIC	1,077.3	1,044.2	900.6	1,074.2	1,288.1	886.6	1,130.9
FEDERAL GOVERNMENT	–14.5	–28.4	–113.5	–54.1	–75.2	–112.2	–83.1
Treasury securities	–12.1	–26.9	–113.1	–66.3	–73.7	–112.8	–83.2
Budget agency securities and mortgages	–2.4	–1.4	–.4	12.2	–1.5	.6	.0
NONFEDERAL, BY INSTRUMENT	1,091.8	1,072.6	1,014.1	1,128.3	1,363.3	998.7	1,214.1
Commercial paper	51.1	3.8	85.6	–43.0	64.4	3.4	55.8
Municipal securities and loans	113.5	101.3	82.9	89.6	100.7	48.0	74.8
Corporate bonds	278.8	294.8	108.0	193.2	274.0	287.6	202.8
Bank loans n.e.c.	35.0	169.2	107.8	120.9	70.0	22.2	107.4
Other loans and advances	76.3	40.8	77.7	102.5	151.0	–16.7	85.9
Mortgages	478.2	400.7	472.6	595.1	573.9	594.1	611.9
Home	378.3	289.1	375.2	429.1	415.1	422.9	436.0
Multifamily residential	21.6	21.1	16.1	30.6	35.9	34.7	49.6
Commercial	74.1	83.8	75.9	126.8	119.3	127.5	117.9
Farm	4.1	6.7	5.5	8.6	3.6	9.0	8.4
Consumer credit	58.9	62.1	79.6	69.9	129.2	60.1	75.4
NONFEDERAL, BY SECTOR	1,091.8	1,072.6	1,014.1	1,128.3	1,363.3	998.7	1,214.1
Household sector	465.1	420.3	473.4	528.6	556.4	517.1	566.0
Nonfinancial business	532.5	570.3	470.7	524.6	719.5	445.9	595.3
Corporate	426.9	467.4	365.8	413.7	611.2	332.6	469.3
Nonfarm noncorporate	97.1	95.4	97.6	103.3	101.6	114.2	115.5
Farm	8.4	7.5	7.3	7.5	6.6	–.9	10.5
State and local governments	94.2	82.0	70.0	75.1	87.4	35.7	52.8
FOREIGN BORROWING IN THE UNITED STATES	95.0	97.9	–19.6	–38.9	17.3	–36.4	62.6
Commercial paper	55.3	–25.5	6.2	–4.7	18.3	–27.1	41.4
Bonds	42.5	119.2	–27.2	–34.2	.9	–12.6	29.4
Bank loans n.e.c.	5.2	8.4	3.6	9.8	.9	5.6	–6.6
Other loans and advances	–8.0	–4.2	–2.2	–9.7	–2.8	–2.3	–1.6
NONFINANCIAL DOMESTIC AND FOREIGN BORROWING	1,172.3	1,142.1	881.0	1,035.3	1,305.4	850.1	1,193.5
FINANCIAL SECTORS							
BY INSTRUMENT	931.3	988.9	1,056.3	1,298.7	1,214.2	1,042.9	1,046.5
Federal Government related	249.2	405.4	555.8	673.3	592.2	579.1	653.2
Government-sponsored enterprise securities	142.5	166.4	294.0	510.5	193.0	304.7	407.1
Mortgage pool securities	106.7	239.0	261.7	162.8	399.2	274.4	246.2
U.S. Government loans	.0	.0	.0	.0	.0	.0	.0
Private financial sectors	682.1	583.5	500.5	625.4	622.0	463.8	393.2
Open market paper	236.7	135.6	141.0	130.7	78.3	57.8	89.8
Corporate bonds	346.3	361.8	177.4	281.9	490.8	289.8	148.1
Bank loans n.e.c.	57.3	–9.7	60.2	12.4	–8.8	10.5	–1.2
Other loans and advances	32.7	76.0	82.3	169.9	41.6	117.9	147.2
Mortgages	9.1	19.9	39.6	30.6	20.1	–12.3	9.4
BY SECTOR	931.3	988.9	1,056.3	1,298.7	1,214.2	1,042.9	1,046.5
Commercial banking	82.8	80.8	61.7	66.3	31.1	72.7	111.4
Savings institutions	10.6	31.2	63.7	103.2	58.0	58.6	55.2
Government-sponsored enterprises	142.5	166.4	294.0	510.5	193.0	304.7	407.1
Federally related mortgage pools	106.7	239.0	261.7	162.8	399.2	274.4	246.2
Asset-backed securities issuers	283.0	352.4	294.2	335.7	300.5	335.8	190.5
Finance companies	74.6	91.9	–12.0	17.8	71.2	88.4	–22.7
Funding corporations	139.2	–28.6	11.2	40.9	166.5	–63.8	31.2
Other [1]	92.0	55.8	81.6	61.6	–5.3	–27.6	27.6
ALL SECTORS							
BY INSTRUMENT	2,103.6	2,131.0	1,937.3	2,334.0	2,519.6	1,893.0	2,240.0
Open market paper	343.0	113.8	232.7	83.0	161.1	34.1	187.0
U.S. Government securities	234.7	377.1	442.3	619.1	517.0	467.0	570.1
Municipal securities	113.5	101.3	82.9	89.6	100.7	48.0	74.8
Corporate and foreign bonds	667.6	775.8	258.2	440.9	765.7	564.8	380.2
Bank loans n.e.c.	97.6	167.9	171.6	143.0	62.1	38.3	99.6
Other loans and advances	101.0	112.5	157.8	262.7	189.8	98.9	231.5
Mortgages	487.3	420.5	512.2	625.7	594.0	581.8	621.3
Consumer credit	58.9	62.1	79.6	69.9	129.2	60.1	75.4

Source: Board of Governors of the Federal Reserve System.

TABLE B–73.—*Mortgage debt outstanding by type of property and of financing, 1945–99*

[Billions of dollars]

End of year or quarter	All properties	Farm properties	Nonfarm properties				Nonfarm properties by type of mortgage					
							Government underwritten				Conventional[2]	
								1- to 4-family houses				
			Total	1- to 4-family houses	Multifamily properties	Commercial properties	Total[1]	Total	FHA insured	VA guaranteed	Total	1- to 4-family houses
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	62.3	5.6	56.7	37.3	8.6	10.8	17.1	15.0	6.9	8.1	39.6	22.3
1950	72.7	6.0	66.6	45.1	10.1	11.5	22.1	18.8	8.5	10.3	44.6	26.2
1951	82.1	6.6	75.6	51.6	11.5	12.5	26.6	22.9	9.7	13.2	49.0	28.8
1952	91.4	7.2	84.2	58.6	12.3	13.4	29.3	25.4	10.8	14.6	55.0	33.2
1953	101.3	7.7	93.6	66.2	12.9	14.6	32.1	28.1	12.0	16.1	61.5	38.1
1954	113.7	8.2	105.6	75.8	13.5	16.3	36.2	32.1	12.8	19.3	69.4	43.7
1955	130.1	9.0	121.1	88.4	14.3	18.4	42.9	38.9	14.3	24.6	78.1	49.5
1956	144.7	9.8	134.8	99.2	14.9	20.8	47.8	43.9	15.5	28.4	87.0	55.3
1957	156.7	10.4	146.4	107.8	15.3	23.2	51.6	47.2	16.5	30.7	94.8	60.6
1958	172.0	11.1	160.9	117.9	16.8	26.2	55.2	50.1	19.7	30.4	105.8	67.8
1959	190.9	12.1	178.8	130.9	18.7	29.2	59.3	53.8	23.8	30.0	119.5	77.1
1960	207.6	12.8	194.8	142.0	20.3	32.4	62.3	56.4	26.7	29.7	132.4	85.6
1961	228.1	13.9	214.2	154.7	23.0	36.5	65.6	59.1	29.5	29.6	148.6	95.5
1962	251.6	15.2	236.4	169.4	25.8	41.2	69.4	62.2	32.3	29.9	167.1	107.3
1963	278.7	16.8	261.9	186.6	29.0	46.3	73.4	65.9	35.0	30.9	188.5	120.7
1964	306.2	18.9	287.3	203.6	33.6	50.1	77.2	69.2	38.3	30.9	210.1	134.3
1965	333.7	21.2	312.5	220.8	37.2	54.5	81.2	73.1	42.0	31.1	231.3	147.6
1966	356.9	23.1	333.8	233.3	40.3	60.3	84.1	76.1	44.8	31.3	249.7	157.2
1967	381.7	25.1	356.6	247.7	43.9	64.9	88.2	79.9	47.4	32.5	268.4	167.8
1968	411.6	27.5	384.0	265.2	47.3	71.5	93.4	84.4	50.6	33.8	290.6	180.8
1969	442.3	29.4	412.9	283.6	52.2	77.1	100.2	90.2	54.5	35.7	312.7	193.4
1970	474.4	30.5	444.0	298.0	60.1	85.8	109.2	97.3	59.9	37.3	334.7	200.7
1971	525.1	32.4	492.7	326.6	70.1	96.1	120.7	105.2	65.7	39.5	372.0	221.4
1972	598.3	35.4	562.9	367.2	82.8	112.9	131.1	113.0	68.2	44.7	431.8	254.2
1973	673.6	39.8	633.8	408.6	93.1	132.0	135.0	116.2	66.2	50.0	498.8	292.4
1974	734.0	44.9	689.1	441.5	100.0	147.6	140.2	121.3	65.1	56.2	548.8	320.2
1975	793.5	49.9	743.7	482.8	100.6	160.3	147.0	127.7	66.1	61.6	596.7	355.1
1976	880.3	55.4	824.9	547.1	105.7	172.1	154.1	133.5	66.5	67.0	670.8	413.6
1977	1,012.1	63.9	948.2	643.5	114.0	190.7	161.7	141.6	68.0	73.6	786.4	501.9
1978	1,164.6	72.8	1,091.9	754.5	124.9	212.4	176.4	153.4	71.4	82.0	915.5	601.1
1979	1,330.1	86.8	1,243.4	871.0	134.8	237.5	199.0	172.9	81.0	92.0	1,044.4	698.1
1980	1,464.8	97.5	1,367.3	968.7	140.9	257.7	225.1	195.2	93.6	101.6	1,142.2	773.6
1981	1,590.2	107.2	1,483.0	1,047.7	138.8	296.5	238.9	207.6	101.3	106.2	1,244.1	840.1
1982	1,675.6	111.3	1,564.3	1,094.1	140.6	329.6	248.9	217.9	108.0	109.9	1,315.4	876.2
1983	1,869.3	113.7	1,755.6	1,217.1	153.8	384.7	279.8	248.8	127.4	121.4	1,475.7	968.2
1984	2,113.1	112.4	2,000.7	1,358.0	176.8	465.9	294.8	265.9	136.7	129.1	1,705.8	1,092.1
1985	2,377.2	105.9	2,271.4	1,533.4	205.0	533.0	328.3	288.8	153.0	135.8	1,943.0	1,244.6
1986	2,661.5	95.2	2,566.3	1,737.8	238.1	590.5	370.5	328.6	185.5	143.1	2,195.8	1,409.2
1987	2,998.9	87.7	2,911.2	1,969.8	260.3	681.1	431.4	387.9	235.5	152.4	2,479.7	1,581.9
1988	3,315.6	83.0	3,232.6	2,206.0	276.7	749.9	459.7	414.2	258.8	155.4	2,773.0	1,791.9
1989	3,586.1	80.5	3,505.7	2,443.0	287.2	775.4	486.8	440.1	282.8	157.3	3,018.8	2,002.9
1990	3,800.8	78.9	3,721.9	2,646.6	285.5	789.8	517.9	470.9	310.9	160.0	3,203.9	2,175.7
1991	3,951.8	79.2	3,872.7	2,814.5	282.3	775.9	537.2	493.3	330.6	162.7	3,335.4	2,321.2
1992	4,066.1	79.7	3,986.3	2,984.1	269.1	733.2	533.3	489.8	326.0	163.8	3,453.0	2,494.3
1993	4,206.1	80.7	4,125.4	3,146.5	266.6	712.3	513.4	469.5	303.2	166.2	3,612.0	2,677.0
1994	4,393.0	83.0	4,310.0	3,330.0	267.7	712.3	559.3	514.2	336.8	177.3	3,750.7	2,815.8
1995	4,604.0	84.6	4,519.4	3,510.3	277.0	732.1	584.3	537.1	352.3	184.7	3,935.2	2,973.3
1996	4,901.6	87.1	4,814.4	3,721.9	294.8	797.7	623.2	574.1	379.2	194.9	4,191.2	3,147.8
1997	5,216.8	90.3	5,126.5	3,959.6	310.5	856.5	659.4	608.4	405.7	202.7	4,467.1	3,351.1
1998	5,728.2	96.5	5,631.7	4,328.4	340.8	962.5	677.6	627.3	417.9	209.4	4,954.1	3,701.1
1997: I	4,953.1	87.6	4,865.6	3,765.5	296.0	804.1	631.0	581.4	384.3	197.0	4,234.6	3,184.1
II	5,029.5	88.7	4,940.8	3,819.6	300.9	820.2	640.7	590.3	391.6	198.7	4,300.1	3,229.3
III	5,143.8	89.6	5,054.3	3,914.1	304.2	835.9	647.1	596.6	395.6	201.0	4,407.1	3,317.5
IV	5,216.8	90.3	5,126.5	3,959.6	310.5	856.5	659.4	608.4	405.7	202.7	4,467.1	3,351.1
1998: I	5,328.0	91.3	5,236.6	4,044.0	316.4	876.2	665.3	614.2	410.4	203.8	4,571.3	3,429.8
II	5,439.6	93.0	5,346.6	4,122.8	323.3	900.5	664.2	613.3	410.1	203.3	4,682.4	3,509.5
III	5,574.4	94.4	5,480.0	4,223.4	330.6	926.0	673.8	623.3	417.3	206.0	4,806.3	3,600.1
IV	5,728.2	96.5	5,631.7	4,328.4	340.8	962.5	677.6	627.3	417.9	209.4	4,954.1	3,701.1
1999: I	5,867.3	97.4	5,769.9	4,420.9	351.6	997.3	686.9	636.9	426.8	210.1	5,083.0	3,784.0
II	6,019.1	99.7	5,919.5	4,533.2	359.3	1,027.0	700.2	648.1	435.6	212.5	5,219.3	3,885.0
III[p]	6,181.1	101.8	6,079.3	4,647.9	372.5	1,059.0	718.8	666.3	450.4	215.9	5,360.5	3,981.6

[1] Includes FHA insured multifamily properties, not shown separately.

[2] Derived figures. Total includes commercial properties, and multifamily properties, not shown separately.

Source: Board of Governors of the Federal Reserve System, based on data from various Government and private organizations.

TABLE B–74.—*Mortgage debt outstanding by holder, 1945–99*

[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]
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	62.3	42.9	18.3	11.6	12.9	2.0	17.5
1950	72.7	51.7	21.9	13.7	16.1	2.6	18.4
1951	82.1	59.5	25.5	14.7	19.3	3.3	19.3
1952	91.4	67.0	29.8	16.0	21.3	3.9	20.4
1953	101.3	75.2	34.9	17.0	23.3	4.4	21.7
1954	113.7	85.8	41.1	18.7	26.0	4.7	23.2
1955	130.1	99.5	48.9	21.2	29.4	5.3	25.3
1956	144.7	111.4	55.5	22.9	33.0	6.2	27.1
1957	156.7	120.0	61.2	23.6	35.2	7.7	29.1
1958	172.0	131.7	68.9	25.8	37.1	8.0	32.3
1959	190.9	145.6	78.1	28.2	39.2	10.2	35.1
1960	207.6	157.7	87.0	28.9	41.8	11.5	38.4
1961	228.1	172.7	98.0	30.6	44.2	12.2	43.1
1962	251.6	192.7	111.1	34.7	46.9	12.6	46.3
1963	278.7	217.4	127.2	39.6	50.5	11.8	49.5
1964	306.2	241.3	141.9	44.3	55.2	12.2	52.7
1965	333.7	265.0	154.9	50.0	60.0	13.5	55.2
1966	356.9	281.2	161.8	54.8	64.6	17.5	58.2
1967	381.7	299.3	172.3	59.5	67.5	20.9	61.4
1968	411.6	320.4	184.3	66.2	70.0	25.1	66.1
1969	442.3	339.8	196.4	71.4	72.0	31.1	71.4
1970	474.4	356.7	208.3	74.1	74.4	38.3	79.4
1971	525.1	395.2	236.2	83.4	75.5	46.4	83.6
1972	598.3	450.9	273.7	100.2	76.9	54.6	92.8
1973	673.6	506.4	305.0	120.1	81.4	64.8	102.4
1974	734.0	544.1	324.2	133.6	86.2	82.2	107.7
1975	793.5	582.9	355.8	137.9	89.2	101.1	109.6
1976	880.3	649.3	404.6	153.1	91.6	116.7	114.4
1977	1,012.1	747.0	469.4	180.8	96.8	140.5	124.6
1978	1,164.6	849.8	528.0	215.7	106.2	170.6	144.3
1979	1,330.1	939.9	574.6	246.9	118.4	216.0	174.3
1980	1,464.8	998.6	603.1	264.5	131.1	256.8	209.4
1981	1,590.2	1,042.8	618.5	286.5	137.7	289.4	258.0
1982	1,675.6	1,023.4	578.1	303.4	142.0	355.4	296.8
1983	1,869.3	1,110.0	626.7	332.3	151.0	433.4	325.8
1984	2,113.1	1,247.8	709.7	381.4	156.7	490.6	374.7
1985	2,377.2	1,363.5	760.5	431.2	171.8	581.9	431.8
1986	2,661.5	1,476.5	778.0	504.7	193.8	733.7	451.3
1987	2,998.9	1,667.6	860.5	594.8	212.4	858.9	472.3
1988	3,315.6	1,834.4	924.6	676.9	232.9	937.8	543.5
1989	3,586.8	1,935.2	910.3	770.7	254.2	1,067.3	583.6
1990	3,800.8	1,918.8	801.6	849.3	267.9	1,258.9	623.0
1991	3,951.8	1,846.2	705.4	881.3	259.5	1,422.5	683.2
1992	4,066.1	1,770.5	628.0	990.5	242.0	1,558.1	737.4
1993	4,206.1	1,770.1	598.4	947.8	223.9	1,682.8	753.2
1994	4,393.0	1,824.7	596.2	1,012.7	215.8	1,787.7	780.6
1995	4,604.0	1,900.1	596.8	1,090.2	213.1	1,879.1	824.8
1996	4,901.6	1,981.9	628.3	1,145.4	208.2	2,006.6	913.1
1997	5,216.8	2,084.0	631.8	1,245.3	206.8	2,112.0	1,020.8
1998	5,728.2	2,194.8	644.0	1,337.2	213.6	2,311.1	1,222.3
1997: I	4,953.1	1,993.4	626.4	1,160.1	206.9	2,029.3	930.4
II	5,029.5	2,033.2	629.1	1,196.5	207.7	2,048.8	947.4
III	5,143.8	2,064.3	631.4	1,227.1	205.8	2,075.9	1,003.6
IV	5,216.8	2,084.0	631.8	1,245.3	206.8	2,112.0	1,020.8
1998: I	5,328.0	2,114.7	637.1	1,271.1	206.5	2,134.0	1,079.3
II	5,439.6	2,122.0	632.4	1,281.9	207.7	2,196.1	1,121.6
III	5,574.4	2,137.4	634.3	1,295.8	207.4	2,262.9	1,174.1
IIV	5,728.2	2,194.8	644.0	1,337.2	213.6	2,311.1	1,222.3
1999: I	5,867.3	2,202.2	646.5	1,336.7	219.1	2,400.5	1,264.5
II	6,019.1	2,242.5	656.5	1,361.4	224.6	2,470.8	1,305.8
III *p*	6,181.1	2,322.0	676.3	1,418.5	227.2	2,535.4	1,323.7

[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), Federal Deposit Insurance Corporation, Resolution Trust Corporation (through 1995), 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–75.—*Consumer credit outstanding, 1950–99*

[Amount outstanding (end of month); millions of dollars, seasonally adjusted]

Year and month	Total consumer credit [1]	Revolving	Nonrevolving [2]
December:			
1950	23,229.2	.....	23,229.2
1951	24,628.0	.....	24,628.0
1952	29,685.6	.....	29,685.6
1953	33,696.9	.....	33,696.9
1954	35,028.3	.....	35,028.3
1955	41,869.0	.....	41,869.0
1956	45,448.2	.....	45,448.2
1957	48,078.3	.....	48,078.3
1958	48,394.3	.....	48,394.3
1959	56,010.7	.....	56,010.7
1960	60,025.3	.....	60,025.3
1961	62,248.5	.....	62,248.5
1962	68,126.7	.....	68,126.7
1963	76,581.4	.....	76,581.4
1964	85,959.6	.....	85,959.6
1965	95,954.7	.....	95,954.7
1966	101,788.2	.....	101,788.2
1967	106,842.6	.....	106,842.6
1968	117,379.5	2,022.0	115,357.5
1969	127,114.3	3,563.0	123,551.3
1970	131,492.0	4,901.9	126,590.1
1971	146,937.8	8,253.0	138,684.8
1972	166,201.8	9,392.0	156,809.9
1973	190,063.1	11,319.0	178,744.1
1974	198,909.5	13,233.0	185,676.6
1975	204,014.7	14,508.0	189,506.7
1976	225,828.5	16,596.0	209,232.5
1977	259,327.5	36,689.0	222,638.5
1978	304,705.4	45,202.0	259,503.4
1979	346,858.2	53,357.0	293,501.2
1980	349,444.9	55,111.2	294,333.8
1981	366,658.6	61,069.5	305,589.1
1982	383,595.5	66,453.8	317,141.6
1983	432,587.5	79,088.3	353,499.2
1984	511,721.4	100,355.2	411,366.2
1985	593,244.2	124,742.1	468,502.1
1986	646,758.3	141,186.2	505,572.0
1987	676,383.9	160,884.1	515,499.8
1988 [3]	718,797.1	184,567.6	534,229.5
1989	778,772.3	211,175.0	567,597.3
1990	789,322.9	238,589.8	550,733.1
1991	777,402.3	263,735.3	513,667.0
1992	782,483.1	278,416.3	504,066.8
1993	839,165.1	309,958.3	529,206.8
1994	960,748.9	365,618.1	595,130.8
1995	1,096,007.0	443,195.7	652,811.3
1996	1,182,438.6	499,531.6	682,907.0
1997	1,234,122.2	531,294.5	702,827.7
1998	1,300,490.8	560,652.9	739,838.0
1998: Jan	1,235,357.8	532,349.5	703,008.3
Feb	1,240,122.6	534,761.6	705,360.9
Mar	1,248,538.8	539,529.8	709,009.0
Apr	1,251,343.2	541,425.0	709,918.2
May	1,254,395.9	541,218.1	713,177.8
June	1,263,753.7	545,243.4	718,510.4
July	1,268,908.0	544,424.0	724,484.0
Aug	1,275,460.4	548,647.9	726,812.5
Sept	1,283,336.3	551,927.9	731,408.5
Oct	1,292,807.3	557,185.4	735,621.9
Nov	1,298,276.5	556,912.4	741,364.1
Dec	1,300,490.8	560,652.9	739,838.0
1999: Jan	1,315,828.6	564,979.7	750,848.9
Feb	1,325,481.9	566,745.9	758,736.0
Mar	1,332,798.2	567,116.0	765,682.2
Apr	1,332,661.8	569,860.4	762,801.4
May	1,343,426.5	571,957.0	771,469.5
June	1,347,831.0	578,529.9	769,301.1
July	1,356,404.4	583,308.5	773,095.9
Aug	1,363,184.4	584,523.0	778,661.4
Sept	1,366,575.2	584,512.0	782,063.2
Oct	1,371,818.4	584,287.1	787,531.4
Nov *p*	1,387,432.3	588,706.7	798,725.6

[1] Covers most short- and intermediate-term credit extended to individuals. Credit secured by real estate is excluded.

[2] Includes automobile loans and all other loans not included in revolving credit, such as loans for education, boats, trailers, or vacations. These loans may be secured or unsecured.

[3] 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–76.—*Federal receipts, outlays, surplus or deficit, and debt, selected fiscal years, 1939–2001*

[Billions of dollars; fiscal years]

Fiscal year or period	Total			On-budget			Off-budget			Federal debt (end of period)		Addendum: Gross domestic product [1]
	Receipts	Outlays	Surplus or deficit (–)	Receipts	Outlays	Surplus or deficit (–)	Receipts	Outlays	Surplus or deficit (–)	Gross Federal	Held by the public	
1939	6.3	9.1	–2.8	5.8	9.2	–3.4	0.5	–0.0	0.5	48.2	41.4	88.9
1940	6.5	9.5	–2.9	6.0	9.5	–3.5	.6	–.0	.6	50.7	42.8	96.5
1941	8.7	13.7	–4.9	8.0	13.6	–5.6	.7	.0	.7	57.5	48.2	113.9
1942	14.6	35.1	–20.5	13.7	35.1	–21.3	.9	.1	.8	79.2	67.8	144.2
1943	24.0	78.6	–54.6	22.9	78.5	–55.6	1.1	.1	1.0	142.6	127.8	180.0
1944	43.7	91.3	–47.6	42.5	91.2	–48.7	1.3	.1	1.2	204.1	184.8	209.0
1945	45.2	92.7	–47.6	43.8	92.6	–48.7	1.3	.1	1.2	260.1	235.2	221.4
1946	39.3	55.2	–15.9	38.1	55.0	–17.0	1.2	.2	1.0	271.0	241.9	222.9
1947	38.5	34.5	4.0	37.1	34.2	2.9	1.5	.3	1.2	257.1	224.3	234.9
1948	41.6	29.8	11.8	39.9	29.4	10.5	1.6	.4	1.2	252.0	216.3	256.6
1949	39.4	38.8	.6	37.7	38.4	–.7	1.7	.4	1.3	252.6	214.3	271.7
1950	39.4	42.6	–3.1	37.3	42.0	–4.7	2.1	.5	1.6	256.9	219.0	273.6
1951	51.6	45.5	6.1	48.5	44.2	4.3	3.1	1.3	1.8	255.3	214.3	321.3
1952	66.2	67.7	–1.5	62.6	66.0	–3.4	3.6	1.7	1.9	259.1	214.8	348.9
1953	69.6	76.1	–6.5	65.5	73.8	–8.3	4.1	2.3	1.8	266.0	218.4	373.1
1954	69.7	70.9	–1.2	65.1	67.9	–2.8	4.6	2.9	1.7	270.8	224.5	378.0
1955	65.5	68.4	–3.0	60.4	64.5	–4.1	5.1	4.0	1.1	274.4	226.6	395.3
1956	74.6	70.6	3.9	68.2	65.7	2.5	6.4	5.0	1.5	272.7	222.2	427.6
1957	80.0	76.6	3.4	73.2	70.6	2.6	6.8	6.0	.8	272.3	219.3	450.5
1958	79.6	82.4	–2.8	71.6	74.9	–3.3	8.0	7.5	.5	279.7	226.3	460.6
1959	79.2	92.1	–12.8	71.0	83.1	–12.1	8.3	9.0	–.7	287.5	234.7	491.8
1960	92.5	92.2	.3	81.9	81.3	.5	10.6	10.9	–.2	290.5	236.8	519.8
1961	94.4	97.7	–3.3	82.3	86.0	–3.8	12.1	11.7	.4	292.6	238.4	530.9
1962	99.7	106.8	–7.1	87.4	93.3	–5.9	12.3	13.5	–1.3	302.9	248.0	568.6
1963	106.6	111.3	–4.8	92.4	96.4	–4.0	14.2	15.0	–.8	310.3	254.0	600.2
1964	112.6	118.5	–5.9	96.2	102.8	–6.5	16.4	15.7	.6	316.1	256.8	642.3
1965	116.8	118.2	–1.4	100.1	101.7	–1.6	16.7	16.5	.2	322.3	260.8	688.2
1966	130.8	134.5	–3.7	111.7	114.8	–3.1	19.1	19.7	–.6	328.5	263.7	757.2
1967	148.8	157.5	–8.6	124.4	137.0	–12.6	24.4	20.4	4.0	340.4	266.6	811.7
1968	153.0	178.1	–25.2	128.1	155.8	–27.7	24.9	22.3	2.6	368.7	289.5	870.0
1969	186.9	183.6	3.2	157.9	158.4	–.5	29.0	25.2	3.7	365.8	278.1	949.4
1970	192.8	195.6	–2.8	159.3	168.0	–8.7	33.5	27.6	5.9	380.9	283.2	1,013.7
1971	187.1	210.2	–23.0	151.3	177.3	–26.1	35.8	32.8	3.0	408.2	303.0	1,081.7
1972	207.3	230.7	–23.4	167.4	193.8	–26.4	39.9	36.9	3.1	435.9	322.4	1,178.5
1973	230.8	245.7	–14.9	184.7	200.1	–15.4	46.1	45.6	.5	466.3	340.9	1,313.6
1974	263.2	269.4	–6.1	209.3	217.3	–8.0	53.9	52.1	1.8	483.9	343.7	1,441.7
1975	279.1	332.3	–53.2	216.6	271.9	–55.3	62.5	60.4	2.0	541.9	394.7	1,559.2
1976	298.1	371.8	–73.7	231.7	302.2	–70.5	66.4	69.6	–3.2	629.0	477.4	1,735.9
Transition quarter	81.2	96.0	–14.7	63.2	76.6	–13.3	18.0	19.4	–1.4	643.6	495.5	459.2
1977	355.6	409.2	–53.7	278.7	328.5	–49.8	76.8	80.7	–3.9	706.4	549.1	1,974.6
1978	399.6	458.7	–59.2	314.2	369.1	–54.9	85.4	89.7	–4.3	776.6	607.1	2,219.5
1979	463.3	504.0	–40.7	365.3	404.1	–38.7	98.0	100.0	–2.0	829.5	640.3	2,504.9
1980	517.1	590.9	–73.8	403.9	476.6	–72.7	113.2	114.3	–1.1	909.1	711.9	2,731.8
1981	599.3	678.2	–79.0	469.1	543.1	–74.0	130.2	135.2	–5.0	994.8	789.4	3,060.3
1982	617.8	745.8	–128.0	474.3	594.4	–120.1	143.5	151.4	–7.9	1,137.3	924.6	3,231.1
1983	600.6	808.4	–207.8	453.2	661.3	–208.0	147.3	147.1	.2	1,371.7	1,137.3	3,441.7
1984	666.5	851.9	–185.4	500.4	686.1	–185.7	166.1	165.8	.3	1,564.7	1,307.0	3,846.5
1985	734.1	946.4	–212.3	547.9	769.6	–221.7	186.2	176.8	9.4	1,817.5	1,507.4	4,141.6
1986	769.2	990.5	–221.2	569.0	807.0	–238.0	200.2	183.5	16.7	2,120.6	1,740.8	4,398.3
1987	854.4	1,004.1	–149.8	641.0	810.3	–169.3	213.4	193.8	19.6	2,346.1	1,889.9	4,653.9
1988	909.3	1,064.5	–155.2	667.8	861.8	–194.0	241.5	202.7	38.8	2,601.3	2,051.8	5,016.6
1989	991.2	1,143.7	–152.5	727.5	932.8	–205.2	263.7	210.9	52.8	2,868.0	2,191.0	5,406.6
1990	1,032.0	1,253.2	–221.2	750.3	1,028.1	–277.8	281.7	225.1	56.6	3,206.6	2,411.8	5,738.4
1991	1,055.0	1,324.4	–269.4	761.2	1,082.7	–321.6	293.9	241.7	52.2	3,598.5	2,689.3	5,927.9
1992	1,091.3	1,381.7	–290.4	788.9	1,129.3	–340.5	302.4	252.3	50.1	4,002.1	3,000.1	6,221.7
1993	1,154.4	1,409.5	–255.1	842.5	1,142.9	–300.5	311.9	266.6	45.3	4,351.4	3,248.8	6,560.9
1994	1,258.6	1,461.9	–203.3	923.6	1,182.5	–258.9	335.0	279.4	55.7	4,643.7	3,433.4	6,948.8
1995	1,351.8	1,515.8	–164.0	1,000.8	1,227.2	–226.4	351.1	288.7	62.4	4,921.0	3,604.8	7,322.6
1996	1,453.1	1,560.6	–107.5	1,085.6	1,259.7	–174.1	367.5	300.9	66.6	5,181.9	3,734.5	7,700.1
1997	1,579.3	1,601.3	–22.0	1,187.3	1,290.7	–103.4	392.0	310.6	81.4	5,369.7	3,772.8	8,182.8
1998	1,721.8	1,652.6	69.2	1,306.0	1,336.0	–30.0	415.8	316.6	99.2	5,478.7	3,721.6	8,636.3
1999	1,827.5	1,703.0	124.4	1,383.0	1,382.3	.7	444.5	320.8	123.7	5,606.1	3,632.9	9,115.4
2000 [2]	1,956.3	1,789.6	166.7	1,479.5	1,460.6	18.9	476.8	328.9	147.8	5,686.3	3,475.9	9,571.9
2001 [2]	2,019.0	1,835.0	184.0	1,519.1	1,494.8	24.4	499.9	340.3	159.6	5,769.0	3,305.0	10,041.3

[1] Revised GDP data for years prior to 1960 are not yet available from the Bureau of Economic Analysis. GDP (and related percentages) for years prior to 1960 estimated by Office of Management and Budget.

[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 2001*, February 2000, for additional information.

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

TABLE B–77.—*Federal budget receipts, outlays, surplus or deficit, and debt, as percent of gross domestic product, fiscal years 1934–2001*

[Percent; fiscal years]

Fiscal year or period	Receipts	Outlays		Surplus or deficit (–)	Federal debt (end of period)	
		Total	National defense		Gross Federal	Held by public
1934	4.8	10.7	.....	–5.9	.....	.....
1935	5.2	9.2	.....	–4.0	.....	.....
1936	5.0	10.5	.....	–5.5	.....	.....
1937	6.1	8.6	.....	–2.5	.....	.....
1938	7.6	7.7	.....	–.1	.....	.....
1939	7.1	10.3	.....	–3.2	54.2	46.6
1940	6.8	9.8	1.7	–3.0	52.5	44.3
1941	7.6	12.0	5.6	–4.3	50.5	42.3
1942	10.1	24.4	17.8	–14.2	54.9	47.0
1943	13.3	43.6	37.1	–30.3	79.2	71.0
1944	20.9	43.7	37.9	–22.8	97.6	88.4
1945	20.4	41.9	37.5	–21.5	117.5	106.2
1946	17.6	24.8	19.1	–7.1	121.6	108.5
1947	16.4	14.7	5.5	1.7	109.5	95.5
1948	16.2	11.6	3.5	4.6	98.2	84.3
1949	14.5	14.3	4.8	.2	93.0	78.9
1950	14.4	15.6	5.0	–1.1	93.9	80.1
1951	16.1	14.2	7.3	1.9	79.5	66.7
1952	19.0	19.4	13.2	–.4	74.3	61.6
1953	18.7	20.4	14.2	–1.7	71.3	58.5
1954	18.4	18.7	13.0	–.3	71.6	59.4
1955	16.6	17.3	10.8	–.8	69.4	57.3
1956	17.4	16.5	9.9	.9	63.8	52.0
1957	17.8	17.0	10.1	.8	60.4	48.7
1958	17.3	17.9	10.2	–.6	60.7	49.1
1959	16.1	18.7	10.0	–2.6	58.5	47.7
1960	17.8	17.7	9.3	.1	55.9	45.6
1961	17.8	18.4	9.3	–.6	55.1	44.9
1962	17.5	18.8	9.2	–1.3	53.3	43.6
1963	17.8	18.5	8.9	–.8	51.7	42.3
1964	17.5	18.5	8.5	–.9	49.2	40.0
1965	17.0	17.2	7.4	–.2	46.8	37.9
1966	17.3	17.8	7.7	–.5	43.4	34.8
1967	18.3	19.4	8.8	–1.1	41.9	32.8
1968	17.6	20.5	9.4	–2.9	42.4	33.3
1969	19.7	19.3	8.7	.3	38.5	29.3
1970	19.0	19.3	8.1	–.3	37.6	27.9
1971	17.3	19.4	7.3	–2.1	37.7	28.0
1972	17.6	19.6	6.7	–2.0	37.0	27.4
1973	17.6	18.7	5.8	–1.1	35.5	26.0
1974	18.3	18.7	5.5	–.4	33.6	23.8
1975	17.9	21.3	5.5	–3.4	34.8	25.3
1976	17.2	21.4	5.2	–4.2	36.2	27.5
Transition quarter	17.7	20.9	4.8	–3.2	35.0	27.0
1977	18.0	20.7	4.9	–2.7	35.8	27.8
1978	18.0	20.7	4.7	–2.7	35.0	27.4
1979	18.5	20.1	4.6	–1.6	33.1	25.6
1980	18.9	21.6	4.9	–2.7	33.3	26.1
1981	19.6	22.2	5.1	–2.6	32.5	25.8
1982	19.1	23.1	5.7	–4.0	35.2	28.6
1983	17.4	23.5	6.1	–6.0	39.9	33.0
1984	17.3	22.1	5.9	–4.8	40.7	34.0
1985	17.7	22.9	6.1	–5.1	43.9	36.4
1986	17.5	22.5	6.2	–5.0	48.2	39.6
1987	18.4	21.6	6.1	–3.2	50.4	40.6
1988	18.1	21.2	5.8	–3.1	51.9	40.9
1989	18.3	21.2	5.6	–2.8	53.0	40.5
1990	18.0	21.8	5.2	–3.9	55.9	42.0
1991	17.8	22.3	4.6	–4.5	60.7	45.4
1992	17.5	22.2	4.8	–4.7	64.3	48.2
1993	17.6	21.5	4.4	–3.9	66.3	49.5
1994	18.1	21.0	4.1	–2.9	66.8	49.4
1995	18.5	20.7	3.7	–2.2	67.2	49.2
1996	18.9	20.3	3.5	–1.4	67.3	48.5
1997	19.3	19.6	3.3	–.3	65.6	46.1
1998	19.9	19.1	3.1	.8	63.4	43.1
1999	20.0	18.7	3.0	1.4	61.5	39.9
2000 [1]	20.4	18.7	3.0	1.7	59.4	36.3
2001 [1]	20.1	18.3	2.9	1.8	57.5	32.9

[1] Estimates.

Note.—See footnote 1 and Note, Table B–76.

Sources: Department of the Treasury and Office of Management and Budget.

TABLE B–78.—*Federal receipts and outlays, by major category, and surplus or deficit, fiscal years 1940–2001*

[Billions of dollars; fiscal years]

Fiscal year or period	Receipts (on-budget and off-budget)					Outlays (on-budget and off-budget)										Surplus or deficit (–) (on-budget and off-budget)
	Total	Individual income taxes	Corporation income taxes	Social insurance and retirement receipts	Other	Total	National defense		International affairs	Health	Medicare	Income security	Social security	Net interest	Other	
							Total	Department of Defense, military								
1940	6.5	0.9	1.2	1.8	2.7	9.5	1.7		0.1	0.1		1.5	0.0	0.9	5.3	–2.9
1941	8.7	1.3	2.1	1.9	3.3	13.7	6.4		.1	.1		1.9	.1	.9	4.1	–4.9
1942	14.6	3.3	4.7	2.5	4.2	35.1	25.7		1.0	.1		1.8	.1	1.1	5.4	–20.5
1943	24.0	6.5	9.6	3.0	4.9	78.6	66.7		1.3	.1		1.7	.2	1.5	7.0	–54.6
1944	43.7	19.7	14.8	3.5	5.7	91.3	79.1		1.4	.2		1.5	.2	2.2	6.6	–47.6
1945	45.2	18.4	16.0	3.5	7.3	92.7	83.0		1.9	.2		1.1	.3	3.1	3.1	–47.6
1946	39.3	16.1	11.9	3.1	8.2	55.2	42.7		1.9	.2		2.4	.4	4.1	3.6	–15.9
1947	38.5	17.9	8.6	3.4	8.5	34.5	12.8		5.8	.2		2.8	.5	4.2	8.2	4.0
1948	41.6	19.3	9.7	3.8	8.8	29.8	9.1		4.6	.2		2.5	.6	4.3	8.5	11.8
1949	39.4	15.6	11.2	3.8	8.9	38.8	13.2		6.1	.2		3.2	.7	4.5	11.1	.6
1950	39.4	15.8	10.4	4.3	8.9	42.6	13.7		4.7	.3		4.1	.8	4.8	14.2	–3.1
1951	51.6	21.6	14.1	5.7	10.2	45.5	23.6		3.6	.3		3.4	1.6	4.7	8.4	6.1
1952	66.2	27.9	21.2	6.4	10.6	67.7	46.1		2.7	.3		3.7	2.1	4.7	8.1	–1.5
1953	69.6	29.8	21.2	6.8	11.7	76.1	52.8		2.1	.3		3.8	2.7	5.2	9.1	–6.5
1954	69.7	29.5	21.1	7.2	11.9	70.9	49.3		1.6	.3		4.4	3.4	4.8	7.1	–1.2
1955	65.5	28.7	17.9	7.9	11.0	68.4	42.7		2.2	.3		5.1	4.4	4.9	8.9	–3.0
1956	74.6	32.2	20.9	9.3	12.2	70.6	42.5		2.4	.4		4.7	5.5	5.1	10.1	3.9
1957	80.0	35.6	21.2	10.0	13.2	76.6	45.4		3.1	.5		5.4	6.7	5.4	10.1	3.4
1958	79.6	34.7	20.1	11.2	13.6	82.4	46.8		3.4	.5		7.5	8.2	5.6	10.3	–2.8
1959	79.2	36.7	17.3	11.7	13.5	92.1	49.0		3.1	.7		8.2	9.7	5.8	15.5	–12.8
1960	92.5	40.7	21.5	14.7	15.6	92.2	48.1		3.0	.8		7.4	11.6	6.9	14.4	.3
1961	94.4	41.3	21.0	16.4	15.7	97.7	49.6		3.2	.9		9.7	12.5	6.7	15.2	–3.3
1962	99.7	45.6	20.5	17.0	16.5	106.8	52.3	50.1	5.6	1.2		9.2	14.4	6.9	17.2	–7.1
1963	106.6	47.6	21.6	19.8	17.6	111.3	53.4	51.1	5.3	1.5		9.3	15.8	7.7	18.3	–4.8
1964	112.6	48.7	23.5	22.0	18.5	118.5	54.8	52.6	4.9	1.8		9.7	16.6	8.2	22.6	–5.9
1965	116.8	48.8	25.5	22.2	20.3	118.2	50.6	48.8	5.3	1.8		9.5	17.5	8.6	25.0	–1.4
1966	130.8	55.4	30.1	25.5	19.8	134.5	58.1	56.6	5.6	2.5	0.1	9.7	20.7	9.4	28.5	–3.7
1967	148.8	61.5	34.0	32.6	20.7	157.5	71.4	70.1	5.6	3.4	2.7	10.3	21.7	10.3	32.1	–8.6
1968	153.0	68.7	28.7	33.9	21.7	178.1	81.9	80.4	5.3	4.4	4.6	11.8	23.9	11.1	35.1	–25.2
1969	186.9	87.2	36.7	39.0	23.9	183.6	82.5	80.8	4.6	5.2	5.7	13.1	27.3	12.7	32.6	3.2
1970	192.8	90.4	32.8	44.4	25.2	195.6	81.7	80.1	4.3	5.9	6.2	15.7	30.3	14.4	37.2	–2.8
1971	187.1	86.2	26.8	47.3	26.8	210.2	78.9	77.5	4.2	6.8	6.6	22.9	35.9	14.8	40.0	–23.0
1972	207.3	94.7	32.2	52.6	27.8	230.7	79.2	77.6	4.8	8.7	7.5	27.7	40.2	15.5	47.3	–23.4
1973	230.8	103.2	36.2	63.1	28.3	245.7	76.7	75.0	4.1	9.4	8.1	28.3	49.1	17.3	52.8	–14.9
1974	263.2	119.0	38.6	75.1	30.6	269.4	79.3	77.9	5.7	10.7	9.6	33.7	55.9	21.4	52.9	–6.1
1975	279.1	122.4	40.6	84.5	31.5	332.3	86.5	84.9	7.1	12.9	12.9	50.2	64.7	23.2	74.8	–53.2
1976	298.1	131.6	41.4	90.8	34.3	371.8	89.6	87.9	6.4	15.7	15.8	60.8	73.9	26.7	82.7	–73.7
Transition quarter	81.2	38.8	8.5	25.2	8.8	96.0	22.3	21.8	2.5	3.9	4.3	15.0	19.8	6.9	21.4	–14.7
1977	355.6	157.6	54.9	106.5	36.6	409.2	97.2	95.1	6.4	17.3	19.3	61.1	85.1	29.9	93.0	–53.7
1978	399.6	181.0	60.0	121.0	37.7	458.7	104.5	102.3	7.5	18.5	22.8	61.5	93.9	35.5	114.7	–59.2
1979	463.3	217.8	65.7	138.9	40.8	504.0	116.3	113.6	7.5	20.5	26.5	66.4	104.1	42.6	120.2	–40.7
1980	517.1	244.1	64.6	157.8	50.6	590.9	134.0	130.9	12.7	23.2	32.1	86.6	118.5	52.5	131.3	–73.8
1981	599.3	285.9	61.1	182.7	69.5	678.2	157.5	153.9	13.1	26.9	39.1	99.7	139.6	68.8	133.5	–79.0
1982	617.8	297.7	49.2	201.5	69.3	745.8	185.3	180.7	12.3	27.4	46.6	107.7	156.0	85.0	125.4	–128.0
1983	600.6	288.9	37.0	209.0	65.6	808.4	209.9	204.4	11.8	28.6	52.6	122.6	170.7	89.8	122.2	–207.8
1984	666.5	298.4	56.9	239.4	71.8	851.9	227.4	220.9	15.9	30.4	57.5	112.7	178.2	111.1	118.6	–185.4
1985	734.1	334.5	61.3	265.2	73.1	946.4	252.7	245.2	16.2	33.5	65.8	128.2	188.6	129.5	131.8	–212.3
1986	769.2	349.0	63.1	283.9	73.2	990.5	273.4	265.5	14.2	35.9	70.2	119.8	198.8	136.0	142.2	–221.2
1987	854.4	392.6	83.9	303.3	74.6	1,004.1	282.0	274.0	11.6	40.0	75.1	123.3	207.4	138.7	126.1	–149.8
1988	909.3	401.2	94.5	334.3	79.3	1,064.5	290.4	281.9	10.5	44.5	78.9	129.4	219.3	151.8	139.7	–155.2
1989	991.2	445.7	103.3	359.4	82.8	1,143.7	303.6	294.9	9.6	48.4	85.0	136.1	232.5	169.0	159.5	–152.5
1990	1,032.0	466.9	93.5	380.0	91.5	1,253.2	299.3	289.8	13.8	57.7	98.1	147.1	248.6	184.4	204.2	–221.2
1991	1,055.0	467.8	98.1	396.0	93.1	1,324.4	273.3	262.4	15.9	71.2	104.5	170.3	269.0	194.5	225.8	–269.4
1992	1,091.3	476.0	100.3	413.7	101.4	1,381.7	298.4	286.9	16.1	89.5	119.0	197.0	287.6	199.4	174.7	–290.4
1993	1,154.4	509.7	117.5	428.3	98.9	1,409.5	291.1	278.6	17.2	99.4	130.6	207.3	304.6	198.7	160.6	–255.1
1994	1,258.6	543.1	140.4	461.5	113.7	1,461.9	281.6	268.6	17.1	107.1	144.7	214.1	319.6	203.0	174.7	–203.3
1995	1,351.8	590.2	157.0	484.5	120.1	1,515.8	272.1	259.4	16.4	115.4	159.9	220.5	335.8	232.2	163.6	–164.0
1996	1,453.1	656.4	171.8	509.4	115.4	1,560.6	265.8	253.2	13.5	119.4	174.2	226.0	349.7	241.1	171.0	–107.5
1997	1,579.3	737.5	182.3	539.4	120.2	1,601.3	270.5	258.3	15.2	123.8	190.0	230.9	365.3	244.0	161.5	–22.0
1998	1,721.8	828.6	188.7	571.8	132.7	1,652.6	268.5	256.1	13.1	131.4	192.8	233.2	379.2	241.2	193.2	69.2
1999	1,827.5	879.5	184.7	611.8	151.5	1,703.0	274.9	261.4	15.2	141.1	190.4	237.7	390.0	229.7	223.9	124.4
2000 [1]	1,956.3	951.6	192.4	650.0	162.3	1,789.6	290.6	277.5	17.1	154.2	202.5	251.3	406.6	220.3	246.9	166.7
2001 [1]	2,019.0	972.4	194.8	682.1	169.8	1,835.0	291.2	277.5	19.6	166.7	220.5	259.7	425.7	208.3	243.2	184.0

[1] Estimates.

Note.—See Note, Table B–76.

Sources: Department of the Treasury and Office of Management and Budget.

TABLE B–79.—*Federal receipts, outlays, deficit, and debt, fiscal years 1995–2001*

[Millions of dollars; fiscal years]

Description	Actual					Estimates	
	1995	1996	1997	1998	1999	2000	2001
RECEIPTS AND OUTLAYS:							
Total receipts	1,351,830	1,453,062	1,579,292	1,721,798	1,827,454	1,956,252	2,019,031
Total outlays	1,515,837	1,560,572	1,601,282	1,652,611	1,703,040	1,789,562	1,835,033
Total surplus or deficit (–)	–164,007	–107,510	–21,990	69,187	124,414	166,690	183,998
On-budget receipts	1,000,751	1,085,570	1,187,302	1,305,999	1,382,986	1,479,489	1,519,136
On-budget outlays	1,227,173	1,259,668	1,290,656	1,336,007	1,382,262	1,460,633	1,494,777
On-budget surplus or deficit (–)	–226,422	–174,098	–103,354	–30,008	724	18,856	24,359
Off-budget receipts	351,079	367,492	391,990	415,799	444,468	476,763	499,895
Off-budget outlays	288,664	300,904	310,626	316,604	320,778	328,929	340,256
Off-budget surplus or deficit (–)	62,415	66,588	81,364	99,195	123,690	147,834	159,639
OUTSTANDING DEBT, END OF PERIOD:							
Gross Federal debt	4,921,005	5,181,921	5,369,694	5,478,711	5,606,087	5,686,338	5,768,957
Held by Government accounts	1,316,208	1,447,392	1,596,862	1,757,090	1,973,160	2,210,478	2,463,977
Held by the public	3,604,797	3,734,529	3,772,832	3,721,621	3,632,927	3,475,860	3,304,980
Federal Reserve System	374,114	390,924	424,507	458,131	488,865	.....	.....
Other	3,230,683	3,343,605	3,348,324	3,263,490	3,144,062	.....	.....
RECEIPTS: ON-BUDGET AND OFF-BUDGET	1,351,830	1,453,062	1,579,292	1,721,798	1,827,454	1,956,252	2,019,031
Individual income taxes	590,244	656,417	737,466	828,586	879,480	951,586	972,410
Corporation income taxes	157,004	171,824	182,293	188,677	184,680	192,395	194,770
Social insurance and retirement receipts	484,473	509,414	539,371	571,831	611,833	650,021	682,080
On-budget	133,394	141,922	147,381	156,032	167,365	173,258	182,185
Off-budget	351,079	367,492	391,990	415,799	444,468	476,763	499,895
Excise taxes	57,484	54,014	56,924	57,673	70,414	68,384	76,676
Estate and gift taxes	14,763	17,189	19,845	24,076	27,782	30,486	32,304
Customs duties and fees	19,301	18,670	17,928	18,297	18,336	20,875	20,871
Miscellaneous receipts:							
Deposits of earnings by Federal Reserve System	23,378	20,477	19,636	24,540	25,917	32,452	29,520
All other[1]	5,183	5,057	5,829	8,118	9,012	10,053	10,400
OUTLAYS: ON-BUDGET AND OFF-BUDGET	1,515,837	1,560,572	1,601,282	1,652,611	1,703,040	1,789,562	1,835,033
National defense	272,066	265,753	270,505	268,456	274,873	290,636	291,202
International affairs	16,434	13,496	15,228	13,109	15,243	17,078	19,607
General science, space and technology	16,724	16,709	17,174	18,219	18,125	18,853	19,638
Energy	4,936	2,839	1,475	1,270	912	–1,640	–651
Natural resources and environment	21,915	21,524	21,227	22,300	23,968	24,479	24,973
Agriculture	9,778	9,159	9,032	12,206	23,011	31,988	22,414
Commerce and housing credit	–17,808	–10,472	–14,624	1,014	2,647	5,598	2,945
On-budget	–15,839	–10,292	–14,575	797	1,626	4,100	2,498
Off-budget	–1,969	–180	–49	217	1,021	1,498	447
Transportation	39,350	39,565	40,767	40,335	42,531	46,709	49,532
Community and regional development	10,749	10,745	11,055	9,776	11,870	11,115	10,177
Education, training, employment, and social services	54,263	52,001	53,008	54,954	56,402	63,397	67,544
Health	115,418	119,378	123,843	131,442	141,079	154,227	166,686
Medicare	159,855	174,225	190,016	192,822	190,447	202,513	220,515
Income security	220,493	225,967	230,899	233,202	237,707	251,286	259,724
Social security	335,846	349,676	365,257	379,225	390,041	406,625	425,738
On-budget	5,476	5,807	6,885	9,156	10,828	11,678	9,850
Off-budget	330,370	343,869	358,372	370,069	379,213	394,947	415,888
Veterans benefits and services	37,890	36,985	39,313	41,781	43,212	46,796	46,449
Administration of justice	16,216	17,548	20,173	22,832	25,924	26,771	31,408
General government	13,998	12,004	12,891	15,709	15,758	15,035	15,429
Net interest	232,169	241,090	244,016	241,153	229,735	220,314	208,312
On-budget	265,474	277,597	285,230	287,783	281,806	279,970	276,450
Off-budget	–33,305	–36,507	–41,214	–46,630	–52,071	–59,656	–68,138
Allowances	.....	.....	.....	.....	.....	843	–993
Undistributed offsetting receipts	–44,455	–37,620	–49,973	–47,194	–40,445	–43,061	–45,616
On-budget	–38,023	–31,342	–43,490	–40,142	–33,060	–35,201	–37,675
Off-budget	–6,432	–6,278	–6,483	–7,052	–7,385	–7,860	–7,941

[1] Beginning 1984, includes universal service fund receipts.

Note.—See Note, Table B–76.

Sources: Department of the Treasury and Office of Management and Budget.

TABLE B–80.—*Federal and State and local government current receipts and expenditures, national income and product accounts (NIPA), 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Total government			Federal Government			State and local government			Addendum: Grants-in-aid to State and local governments
	Current receipts	Current expenditures	Current surplus or deficit (–) (NIPA)	Current receipts	Current expenditures	Current surplus or deficit (–) (NIPA)	Current receipts	Current expenditures	Current surplus or deficit (–) (NIPA)	
1959	122.1	115.1	7.0	87.0	83.8	3.2	38.9	35.1	3.8	3.8
1960	131.2	119.9	11.3	92.8	85.8	7.1	42.4	38.1	4.3	4.0
1961	135.8	129.1	6.8	94.4	92.0	2.5	45.9	41.6	4.3	4.5
1962	147.0	139.4	7.6	102.3	100.0	2.4	49.7	44.5	5.2	5.0
1963	157.9	147.0	10.9	110.2	105.0	5.2	53.4	47.7	5.7	5.6
1964	162.1	154.9	7.2	110.2	109.3	.8	58.4	52.0	6.4	6.5
1965	175.4	165.7	9.7	119.3	116.1	3.2	63.3	56.8	6.5	7.2
1966	197.8	187.3	10.5	136.3	133.6	2.7	71.5	63.8	7.7	10.1
1967	212.1	213.4	–1.4	144.9	153.2	–8.3	78.9	71.9	7.0	11.7
1968	245.3	239.2	6.2	168.5	169.8	–1.3	89.5	82.1	7.5	12.7
1969	276.3	258.7	17.6	190.1	180.5	9.6	100.7	92.8	8.0	14.6
1970	279.6	286.9	–7.3	184.3	198.6	–14.4	114.6	107.5	7.1	19.3
1971	295.9	316.3	–20.4	189.8	216.6	–26.8	129.3	122.9	6.4	23.2
1972	338.1	345.0	–6.9	217.5	240.0	–22.5	152.3	136.7	15.6	31.7
1973	380.3	375.8	4.5	248.5	259.7	–11.2	166.6	150.9	15.7	34.8
1974	419.6	424.2	–4.6	277.3	291.2	–13.9	178.5	169.2	9.3	36.3
1975	430.5	497.4	–66.9	276.1	345.4	–69.3	199.6	197.2	2.4	45.1
1976	492.6	538.3	–45.7	318.9	371.9	–53.0	224.5	217.2	7.3	50.7
1977	552.8	584.8	–32.0	359.9	405.0	–45.2	249.5	236.4	13.1	56.6
1978	626.0	634.3	–8.2	417.3	444.2	–26.9	274.3	255.6	18.7	65.5
1979	702.7	701.1	1.7	478.3	489.6	–11.4	290.8	277.8	13.0	66.3
1980	767.1	812.0	–44.9	522.8	576.6	–53.8	316.6	307.8	8.8	72.3
1981	877.6	923.7	–46.2	605.6	659.3	–53.7	344.4	336.9	7.5	72.5
1982	890.3	1,025.1	–134.8	599.5	732.1	–132.6	360.3	362.5	–2.3	69.5
1983	944.5	1,113.5	–169.1	623.9	797.8	–173.9	392.1	387.3	4.8	71.6
1984	1,047.8	1,192.1	–144.2	688.1	856.1	–168.1	436.4	412.6	23.8	76.7
1985	1,135.8	1,290.7	–154.9	747.4	924.6	–177.1	469.2	447.0	22.3	80.9
1986	1,206.7	1,378.1	–171.4	786.4	978.5	–192.1	507.9	487.2	20.8	87.6
1987	1,322.5	1,458.2	–135.7	870.5	1,018.4	–147.9	536.0	523.8	12.2	83.9
1988	1,410.9	1,532.7	–121.8	928.9	1,066.2	–137.4	573.7	558.1	15.6	91.6
1989	1,530.9	1,641.6	–110.7	1,010.3	1,140.3	–130.0	618.9	599.6	19.3	98.3
1990	1,607.7	1,778.0	–170.3	1,055.7	1,228.7	–173.0	663.4	660.8	2.6	111.4
1991	1,656.6	1,879.7	–223.1	1,072.3	1,287.6	–215.3	716.0	723.8	–7.8	131.6
1992	1,744.4	2,046.9	–302.5	1,121.3	1,418.9	–297.5	777.2	777.2	–4.9	149.1
1993	1,857.9	2,130.5	–272.7	1,197.3	1,471.5	–274.1	823.2	821.7	1.5	162.6
1994	1,993.0	2,196.7	–203.7	1,293.7	1,506.0	–212.3	873.8	865.2	8.6	174.5
1995	2,117.1	2,293.7	–176.7	1,383.7	1,575.7	–192.0	917.9	902.5	15.3	184.5
1996	2,269.1	2,384.5	–115.4	1,499.1	1,635.9	–136.8	960.4	939.0	21.4	190.4
1997	2,440.5	2,461.8	–21.3	1,627.2	1,676.0	–48.8	1,009.0	981.5	27.5	195.7
1998	2,611.8	2,523.1	88.7	1,750.7	1,703.8	46.9	1,070.4	1,028.7	41.7	209.3
1999 *p*	.....	2,619.7	.....	.....	1,754.9	.....	.....	1,089.0	.....	224.2
1994: I	1,924.4	2,161.3	–236.9	1,243.7	1,481.2	–237.5	852.0	851.4	.6	171.3
II	1,993.4	2,177.1	–183.6	1,297.6	1,488.2	–190.5	867.0	860.1	6.9	171.2
III	2,008.1	2,210.9	–202.8	1,303.5	1,515.5	–212.0	879.8	870.6	9.2	175.1
IV	2,046.0	2,237.6	–191.5	1,329.9	1,539.3	–209.4	896.6	878.7	17.8	180.4
1995: I	2,069.8	2,262.2	–192.3	1,348.2	1,556.4	–208.3	906.8	890.8	15.9	185.1
II	2,113.7	2,288.0	–174.4	1,385.7	1,574.6	–188.9	914.3	899.7	14.6	186.3
III	2,129.8	2,309.8	–180.0	1,391.7	1,589.3	–197.6	923.4	905.8	17.5	185.2
IV	2,155.0	2,314.9	–159.9	1,409.2	1,582.4	–173.2	927.0	913.8	13.3	181.3
1996: I	2,201.9	2,361.4	–159.4	1,446.9	1,623.4	–176.5	940.4	923.4	17.0	185.5
II	2,263.8	2,373.6	–109.8	1,495.6	1,632.6	–137.0	962.2	935.0	27.2	194.0
III	2,276.5	2,384.3	–107.8	1,503.4	1,633.5	–130.1	966.1	943.8	22.3	193.0
IV	2,334.2	2,418.7	–84.5	1,550.5	1,654.2	–103.7	972.9	953.6	19.3	189.2
1997: I	2,372.3	2,433.8	–61.5	1,573.8	1,661.2	–87.4	991.3	965.5	25.9	192.8
II	2,414.1	2,453.6	–39.5	1,609.0	1,672.2	–63.2	997.4	973.7	23.7	192.2
III	2,468.6	2,465.6	3.0	1,648.0	1,675.9	–27.9	1,016.5	985.6	30.9	195.9
IV	2,507.1	2,494.2	13.0	1,677.8	1,694.6	–16.8	1,031.1	1,001.3	29.7	201.7
1998: I	2,544.8	2,488.0	56.9	1,704.8	1,680.0	24.9	1,042.1	1,010.1	32.0	202.1
II	2,586.8	2,512.4	74.4	1,734.4	1,690.9	43.5	1,053.2	1,022.3	30.9	200.8
III	2,635.3	2,525.9	109.5	1,770.3	1,710.7	59.6	1,085.3	1,035.4	49.9	220.2
IV	2,680.2	2,566.3	113.9	1,793.3	1,733.5	59.7	1,101.1	1,046.9	54.2	214.2
1999: I	2,716.6	2,570.3	146.3	1,826.5	1,728.9	97.6	1,110.0	1,061.2	48.7	219.9
II	2,754.4	2,598.7	155.7	1,853.1	1,735.0	118.1	1,117.0	1,079.4	37.6	215.7
III	2,800.5	2,617.8	182.7	1,883.1	1,749.3	133.8	1,148.0	1,099.1	48.9	230.6
IV *p*	.....	2,692.0	.....	.....	1,806.3	.....	.....	1,116.4	.....	230.7

Note.—Federal grants-in-aid to State and local governments are reflected in Federal current expenditures and State and local current receipts. Total government current receipts and expenditures have been adjusted to eliminate this duplication.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–81.—*Federal and State and local government current receipts and expenditures, national income and product accounts (NIPA), by major type, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Current receipts					Current expenditures								Addendum:
									Net interest paid			Less: Dividends received by government [2]	Subsidies less current surplus of government enterprises	Current surplus or deficit (–) (NIPA)	Grants-in-aid to State and local governments
	Total	Personal tax and nontax receipts	Corporate profits tax accruals	Indirect business tax and nontax accruals	Contributions for social insurance	Total [1]	Consumption expenditures	Transfer payments	Total	Interest paid	Less: Interest received by government [2]				
1959	122.1	42.8	23.6	41.9	13.8	115.1	83.2	24.7	7.1	.....	.....	.....	0.1	7.0	3.8
1960	131.2	46.6	22.7	45.5	16.4	119.9	85.5	26.3	7.9	10.4	2.5	.....	.2	11.3	4.0
1961	135.8	47.9	22.8	48.1	17.0	129.1	90.2	30.2	7.5	10.2	2.6	.....	1.2	6.8	4.5
1962	147.0	52.3	24.0	51.7	19.1	139.4	98.9	30.9	8.2	11.1	2.9	.....	1.4	7.6	5.0
1963	157.9	55.3	26.2	54.7	21.7	147.0	104.9	32.4	8.9	12.0	3.1	.....	.9	10.9	5.6
1964	162.1	52.8	28.0	58.8	22.4	154.9	110.5	33.4	9.6	12.9	3.3	.....	1.4	7.2	6.5
1965	175.4	58.4	30.9	62.7	23.4	165.7	118.2	36.0	10.0	13.7	3.7	.....	1.7	9.7	7.2
1966	197.8	67.3	33.7	65.4	31.3	187.3	134.0	39.7	10.7	15.1	4.4	.....	3.0	10.5	10.1
1967	212.1	74.2	32.7	70.4	34.9	213.4	151.6	47.5	11.5	16.4	4.9	.....	2.9	–1.4	11.7
1968	245.3	88.3	39.4	79.0	38.7	239.2	168.1	54.9	13.1	18.8	5.7	0.0	3.0	6.2	12.7
1969	276.3	105.9	39.7	86.6	44.1	258.7	180.2	60.6	14.5	20.7	6.2	.0	3.5	17.6	14.6
1970	279.6	104.6	34.4	94.3	46.4	286.9	192.4	73.5	16.2	23.4	7.1	.0	4.8	–7.3	19.3
1971	295.9	103.4	37.7	103.6	51.2	316.3	207.0	87.5	17.0	24.5	7.5	.0	4.9	–20.4	23.2
1972	338.1	125.6	41.9	111.4	59.2	345.0	223.7	97.0	18.4	26.3	7.9	.0	6.1	–6.9	31.7
1973	380.3	134.5	49.3	121.0	75.5	375.8	238.5	110.5	21.2	31.3	10.0	.0	5.6	4.5	34.8
1974	419.6	153.3	51.8	129.3	85.2	424.2	264.9	131.5	23.1	35.6	12.5	.0	4.2	–4.6	36.3
1975	430.5	150.3	50.9	140.0	89.3	497.4	296.5	166.4	26.9	40.0	13.1	.0	7.7	–66.9	45.1
1976	492.6	175.5	64.2	151.6	101.3	538.3	318.1	180.4	33.1	46.3	13.2	.0	6.9	–45.7	50.7
1977	552.8	201.2	73.0	165.5	113.1	584.8	347.8	192.0	35.5	50.8	15.3	.0	9.7	–32.0	56.6
1978	626.0	233.5	83.5	177.8	131.3	634.3	378.5	206.1	39.3	60.2	20.9	.1	10.6	–8.2	65.5
1979	702.7	273.3	88.0	188.7	152.7	701.1	415.0	230.2	44.8	72.9	28.2	.1	11.0	1.7	66.3
1980	767.1	304.2	84.8	212.0	166.2	812.0	469.4	275.0	53.2	89.1	35.9	.1	14.5	–44.9	72.3
1981	877.6	351.5	81.1	249.3	195.7	923.7	524.5	311.8	71.6	116.7	45.1	.1	16.1	–46.2	72.5
1982	890.3	361.6	63.1	256.7	208.9	1,025.1	572.1	348.5	86.6	138.9	52.4	.2	18.1	–134.8	69.5
1983	944.5	360.9	77.2	280.3	226.0	1,113.5	613.1	376.4	99.4	156.9	57.5	.2	24.3	–169.1	71.6
1984	1,047.8	387.2	94.0	309.1	257.5	1,192.1	661.5	387.4	120.7	187.3	66.6	.2	22.9	–144.2	76.7
1985	1,135.8	428.5	96.5	329.4	281.4	1,290.7	719.5	414.2	136.5	211.5	75.0	.2	20.4	–154.9	80.9
1986	1,206.7	449.9	106.5	346.8	303.4	1,378.1	769.1	440.4	145.1	226.1	81.1	.2	23.6	–171.4	87.6
1987	1,322.5	503.0	127.1	369.3	323.1	1,458.2	813.6	458.0	156.7	236.5	79.8	.2	30.1	–135.7	83.9
1988	1,410.9	519.7	137.2	392.6	361.5	1,532.7	850.7	486.5	168.3	253.7	85.4	.2	27.4	121.8	91.6
1989	1,530.9	583.5	141.5	420.7	385.2	1,641.6	902.6	529.6	187.0	276.9	90.0	.2	22.6	–110.7	98.3
1990	1,607.7	609.6	140.6	447.3	410.1	1,778.0	965.7	583.1	204.3	297.8	93.6	.2	25.3	–170.3	111.4
1991	1,656.6	610.5	133.6	482.3	430.2	1,879.7	1,015.2	620.1	223.1	314.6	91.5	.2	21.5	–223.1	131.6
1992	1,744.4	635.8	143.1	510.6	455.0	2,046.9	1,047.4	745.4	232.0	316.3	84.3	.2	22.4	–302.5	149.1
1993	1,857.9	674.6	165.4	540.1	477.8	2,130.5	1,072.1	793.2	235.8	316.0	80.2	.2	29.6	–272.7	162.6
1994	1,993.0	722.6	186.7	575.3	508.4	2,196.7	1,102.3	825.4	244.0	326.9	82.9	.2	25.2	–203.7	174.5
1995	2,117.1	778.3	211.0	594.6	533.2	2,293.7	1,133.9	869.9	268.0	357.5	89.5	.3	22.2	–176.7	184.5
1996	2,269.1	869.7	223.6	620.0	555.8	2,384.5	1,171.8	916.0	274.4	366.6	92.2	.3	22.6	–115.4	190.4
1997	2,440.5	968.3	238.3	645.8	588.2	2,461.8	1,222.9	944.5	275.7	369.2	93.5	.3	19.0	–21.3	195.7
1998	2,611.8	1,072.6	240.2	677.0	621.9	2,523.1	1,261.0	965.2	276.4	368.4	92.0	.3	20.8	88.7	209.3
1999 *p*	.....	1,152.0	.....	715.6	658.1	2,619.7	1,332.3	999.1	262.2	356.8	94.6	.3	26.4	.....	224.2
1994: I	1,924.4	695.4	165.4	565.3	498.2	2,161.3	1,087.6	811.2	235.0	315.2	80.2	.2	27.6	–236.9	171.3
II	1,993.4	732.2	182.8	572.2	506.2	2,177.1	1,093.8	816.9	241.4	322.8	81.5	.2	25.1	–183.6	171.2
III	2,008.1	724.3	194.4	578.7	510.9	2,210.9	1,114.8	826.1	246.6	330.1	83.5	.2	23.6	–202.8	175.1
IV	2,046.0	738.5	204.1	584.9	518.5	2,237.6	1,112.9	847.5	253.1	339.5	86.4	.2	24.3	–191.1	180.4
1995: I	2,069.8	751.8	203.1	589.3	525.6	2,262.2	1,124.2	855.9	260.5	349.4	88.9	.2	21.8	–192.3	185.1
II	2,113.7	780.5	208.8	594.1	530.4	2,288.0	1,133.8	865.5	266.9	357.1	90.1	.2	22.0	–174.4	186.3
III	2,129.8	781.6	218.7	593.6	535.9	2,309.8	1,141.9	874.5	271.2	360.6	89.4	.3	22.5	–180.0	185.2
IV	2,155.0	799.5	213.3	601.3	540.9	2,314.9	1,135.6	883.8	273.3	362.7	89.4	.3	22.5	–159.9	181.3
1996: I	2,201.9	830.7	219.7	606.8	544.7	2,361.4	1,154.3	909.4	274.7	365.0	90.3	.3	23.3	–159.4	185.5
II	2,263.8	872.5	225.3	613.2	552.9	2,373.6	1,170.0	908.6	272.5	363.9	91.4	.3	22.9	–109.8	194.0
III	2,276.5	877.3	224.0	615.7	559.5	2,384.3	1,173.5	914.5	274.7	367.8	93.2	.3	22.0	–107.8	193.0
IV	2,334.2	898.1	225.6	644.3	566.1	2,418.7	1,189.5	931.3	275.9	369.7	93.8	.3	22.2	–84.5	189.2
1997: I	2,372.3	934.2	228.9	632.5	576.6	2,433.8	1,203.8	935.8	273.8	367.9	94.1	.3	20.9	–61.5	192.8
II	2,414.1	954.4	233.2	643.0	583.4	2,453.6	1,220.7	940.0	274.7	369.3	94.6	.3	18.5	–39.5	192.2
III	2,468.6	978.6	246.8	652.0	591.2	2,465.6	1,228.6	944.1	276.4	369.9	93.6	.3	16.8	3.0	195.9
IV	2,507.1	1,006.0	244.1	655.4	601.5	2,494.2	1,238.5	958.1	278.0	369.7	91.7	.3	19.9	13.0	201.7
1998: I	2,544.8	1,031.2	239.9	663.5	610.3	2,488.0	1,236.6	955.8	277.9	369.1	91.2	.3	18.0	56.9	202.1
II	2,586.8	1,058.0	241.1	670.1	617.6	2,512.4	1,260.1	957.6	277.9	370.1	92.2	.3	17.1	74.4	200.8
III	2,635.3	1,088.3	244.3	676.6	626.1	2,525.9	1,265.2	966.7	277.4	368.8	91.4	.3	16.9	109.5	220.2
IV	2,680.2	1,113.0	235.6	697.8	633.8	2,566.3	1,282.1	980.7	272.5	365.6	93.2	.3	31.4	113.9	214.2
1999: I	2,716.6	1,124.8	248.0	696.6	647.2	2,570.3	1,299.4	985.3	265.0	358.1	93.1	.3	21.0	146.3	219.9
II	2,754.4	1,139.4	254.4	706.7	653.8	2,598.7	1,313.7	993.3	264.1	358.6	94.5	.3	27.9	155.7	215.7
III	2,800.5	1,160.4	259.4	718.3	662.3	2,617.8	1,341.5	1,000.1	259.2	354.3	95.1	.3	17.3	182.7	230.6
IV *p*	.....	1,183.2	.....	740.6	669.0	2,692.0	1,374.5	1,017.9	260.5	356.3	95.8	.3	39.4	.....	230.7

[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–82.—*Federal Government current receipts and expenditures, national income and product accounts (NIPA), 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Current receipts					Current expenditures								Current surplus or deficit (–) (NIPA)
							Consumption expenditures		Transfer payments					
	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)	Grants-in-aid to State and local governments	Net interest paid	Subsidies less current surplus of government enterprises	
1959	87.0	38.5	22.5	12.6	13.4	83.8	52.0	42.2	18.6	1.8	3.8	6.4	1.2	3.2
1960	92.8	41.9	21.4	13.5	16.0	85.8	51.5	42.8	19.9	1.8	4.0	7.1	1.5	7.1
1961	94.4	42.7	21.5	13.7	16.5	92.0	53.2	44.3	23.1	2.1	4.5	6.6	2.5	2.5
1962	102.3	46.6	22.5	14.7	18.6	100.0	59.5	48.3	23.5	2.1	5.0	7.1	2.8	2.4
1963	110.2	49.2	24.6	15.4	21.0	105.0	62.4	50.1	24.6	2.1	5.6	7.7	2.5	5.2
1964	110.2	46.0	26.1	16.3	21.7	109.3	64.2	50.3	25.2	2.1	6.5	8.4	3.0	.8
1965	119.3	51.1	28.9	16.6	22.7	116.1	67.4	52.4	27.3	2.0	7.2	8.9	3.3	3.2
1966	136.3	58.7	31.4	15.7	30.5	133.6	77.2	61.4	29.9	2.2	10.1	9.8	4.5	2.7
1967	144.9	64.4	30.0	16.5	34.0	153.2	88.3	71.5	36.2	2.1	11.7	10.5	4.4	–8.3
1968	168.5	76.5	36.1	18.2	37.8	169.8	97.0	79.0	41.6	1.9	12.7	12.1	4.5	–1.3
1969	190.1	91.8	36.1	19.2	43.1	180.5	100.0	80.1	45.6	1.8	14.6	13.6	5.0	9.6
1970	184.3	88.9	30.6	19.5	45.3	198.6	100.4	78.7	55.5	1.9	19.3	15.3	6.2	–14.4
1971	189.8	85.9	33.5	20.5	50.0	216.6	103.7	79.3	65.9	2.3	23.2	15.3	6.3	–26.8
1972	217.5	102.9	36.6	20.1	57.9	240.0	109.9	82.3	72.6	2.5	31.7	16.1	7.7	–22.5
1973	248.5	109.7	43.3	21.5	74.0	259.7	111.6	82.6	84.0	2.4	34.8	19.9	7.0	–11.2
1974	277.3	126.6	45.1	22.1	83.5	291.2	120.4	87.5	103.1	3.1	36.3	22.9	5.0	–13.9
1975	276.1	120.9	43.6	24.2	87.5	345.4	131.2	93.4	132.2	3.4	45.1	25.6	7.9	–69.3
1976	318.9	141.4	54.6	23.8	99.1	371.9	138.0	97.9	142.7	3.6	50.7	29.9	7.1	–53.0
1977	359.9	162.3	61.6	25.6	110.3	405.0	151.3	105.8	151.7	3.3	56.6	32.5	9.8	–45.2
1978	417.3	189.1	71.4	28.9	127.9	444.2	164.3	114.2	161.7	3.6	65.5	38.5	10.7	–26.9
1979	478.3	224.8	74.4	30.1	148.9	489.6	180.0	125.3	182.1	3.9	66.3	47.0	10.3	–11.4
1980	522.8	250.2	70.3	39.7	162.6	576.6	209.0	145.3	219.0	4.8	72.3	58.5	12.9	–53.8
1981	605.6	290.8	65.7	57.3	191.8	659.3	239.9	168.9	249.9	4.8	72.5	79.1	13.3	–53.7
1982	599.5	295.7	49.0	49.9	204.9	732.1	265.3	193.6	281.1	6.1	69.5	93.9	16.1	–132.6
1983	623.9	287.2	61.3	53.5	221.8	797.8	288.0	210.6	302.5	7.0	71.6	104.6	23.7	–173.9
1984	688.1	302.5	75.2	57.6	252.8	856.1	312.0	234.9	307.1	9.1	76.7	127.5	24.0	–168.1
1985	747.4	337.2	76.3	57.5	276.5	924.6	339.0	254.9	325.8	11.1	80.9	144.4	23.3	–177.1
1986	786.4	351.4	83.8	53.7	297.5	978.5	358.3	269.3	344.0	12.1	87.6	150.5	26.1	–192.1
1987	870.5	394.5	103.2	56.8	315.9	1,018.4	374.6	284.8	357.0	10.2	83.9	159.8	32.9	–147.9
1988	928.9	405.7	111.1	58.9	353.1	1,066.2	382.8	294.6	377.5	10.3	91.6	172.1	31.9	–137.4
1989	1,010.3	454.6	117.2	62.3	376.3	1,140.3	399.6	300.5	409.8	10.4	98.3	193.5	28.7	–130.0
1990	1,055.7	473.6	118.1	63.9	400.1	1,228.7	419.9	308.9	445.3	10.0	111.4	210.5	31.6	–173.0
1991	1,072.3	465.2	109.9	78.5	418.6	1,287.6	439.1	321.1	492.4	–29.0	131.6	225.2	28.2	–215.3
1992	1,121.3	479.4	118.8	81.3	441.8	1,418.9	445.8	316.9	549.1	16.2	149.1	229.2	29.6	–297.5
1993	1,197.3	509.9	138.5	85.3	463.7	1,471.5	442.6	309.2	581.1	16.7	162.6	230.2	38.2	–274.1
1994	1,293.7	547.8	156.7	95.2	493.9	1,506.0	439.7	301.1	603.2	15.3	174.5	239.6	33.6	–212.3
1995	1,383.7	591.8	179.3	93.0	519.6	1,575.7	439.2	297.5	642.3	9.8	184.5	267.5	32.4	–192.0
1996	1,449.1	670.0	190.6	95.1	543.3	1,635.9	445.3	302.4	678.1	13.6	190.4	273.6	35.1	–136.8
1997	1,627.2	750.9	204.2	94.9	577.2	1,676.0	457.0	304.5	706.6	10.0	195.7	276.3	30.4	–48.8
1998	1,750.7	835.7	206.5	97.3	611.2	1,703.8	453.5	299.9	720.0	10.4	209.3	278.4	32.1	46.9
1999 *p*	.....	900.1	.....	100.9	647.0	1,754.9	475.0	310.9	744.1	10.5	224.2	263.0	38.1	.....
1994: I	1,243.7	526.8	138.9	94.4	483.6	1,481.2	437.6	298.1	597.9	10.2	171.3	229.3	34.9	–237.5
II	1,297.6	558.1	153.4	94.5	491.6	1,488.2	435.3	299.7	599.9	11.8	171.2	236.2	33.8	–190.5
III	1,303.5	548.0	163.1	96.1	496.4	1,515.5	447.2	308.7	603.4	14.6	175.1	242.7	32.4	–212.0
IV	1,329.9	558.4	171.5	95.9	504.1	1,539.3	438.7	297.8	611.8	24.7	180.4	250.2	33.3	–209.4
1995: I	1,348.2	569.4	172.6	95.6	511.6	1,556.4	439.2	298.2	631.3	10.5	185.1	259.2	31.1	–208.3
II	1,385.7	596.3	177.5	95.3	516.6	1,574.6	441.3	299.3	639.5	9.3	186.3	266.4	31.9	–188.9
III	1,391.7	593.3	185.9	90.0	522.5	1,589.3	444.6	301.2	645.9	9.5	185.2	271.1	32.9	–197.6
IV	1,409.2	608.3	181.3	92.0	527.7	1,582.4	431.8	291.2	652.4	10.0	181.3	273.3	33.6	–173.2
1996: I	1,446.9	637.5	187.3	90.4	531.8	1,623.4	441.8	298.4	670.0	16.8	185.5	273.9	35.4	–176.5
II	1,495.6	674.4	192.0	89.0	540.2	1,632.6	447.0	304.1	676.1	8.6	194.0	271.5	35.4	–137.0
III	1,503.4	675.6	190.9	89.7	547.2	1,633.5	442.9	301.4	680.2	9.0	193.0	273.7	34.7	–130.1
IV	1,550.5	692.6	192.3	111.3	554.2	1,654.2	449.4	305.6	685.9	19.9	189.2	275.1	34.8	–103.7
1997: I	1,573.8	723.0	196.2	89.4	565.2	1,661.2	452.7	301.7	702.6	6.7	192.8	273.6	32.7	–87.4
II	1,609.0	740.1	199.9	96.7	572.4	1,672.2	461.6	308.2	705.6	7.1	192.2	275.2	30.5	–63.2
III	1,648.0	759.0	211.5	97.2	580.4	1,675.9	458.1	305.0	708.3	7.4	195.9	277.1	29.1	–27.9
IV	1,677.8	781.5	209.3	96.2	590.8	1,694.6	455.6	303.0	709.8	18.8	201.7	279.4	29.2	–16.8
1998: I	1,704.8	803.3	206.2	95.8	599.5	1,680.0	445.1	292.4	716.8	7.6	202.1	279.8	28.6	24.9
II	1,734.4	824.0	207.2	96.4	606.9	1,690.9	457.4	301.2	718.0	6.2	200.8	280.0	28.4	43.5
III	1,770.3	847.3	209.9	97.7	615.4	1,710.7	451.4	302.5	721.9	9.1	220.2	279.6	28.5	59.6
IV	1,793.3	868.1	202.6	99.6	623.1	1,733.5	460.0	303.4	723.5	18.7	214.2	274.3	42.9	59.7
1999: I	1,826.5	877.9	212.6	99.5	636.5	1,728.9	467.0	304.6	736.6	6.8	219.9	266.0	32.6	97.6
II	1,853.1	892.1	218.1	100.0	642.9	1,735.0	465.2	300.8	740.5	9.2	215.7	264.8	39.5	118.1
III	1,883.1	908.0	222.4	101.5	651.2	1,749.3	475.0	312.1	746.4	8.5	230.6	259.9	29.0	133.8
IV *p*	.....	922.3	.....	102.7	657.5	1,806.3	492.7	326.1	752.8	17.6	230.7	261.2	51.3	.....

[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–83.—*State and local government current receipts and expenditures, national income and product accounts (NIPA), 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Current receipts						Current expenditures					Current surplus or deficit (–) (NIPA)
	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]	Consumption expenditures	Transfer payments to persons	Net interest paid less dividends received	Subsidies less current surplus of government enterprises	
1959	38.9	4.2	1.2	29.3	0.4	3.8	35.1	31.1	4.3	0.7	–1.1	3.8
1960	42.4	4.7	1.2	32.0	.5	4.0	38.1	34.0	4.6	.8	–1.2	4.3
1961	45.9	5.1	1.3	34.4	.5	4.5	41.6	37.0	5.0	1.0	–1.3	4.3
1962	49.7	5.7	1.5	37.0	.5	5.0	44.5	39.4	5.3	1.1	–1.4	5.2
1963	53.4	6.1	1.7	39.4	.6	5.6	47.7	42.4	5.7	1.2	–1.6	5.7
1964	58.4	6.8	1.8	42.6	.7	6.5	52.0	46.3	6.2	1.2	–1.6	6.4
1965	63.3	7.3	2.0	46.1	.8	7.2	56.8	50.8	6.7	1.1	–1.7	6.5
1966	71.5	8.7	2.2	49.7	.8	10.1	63.8	56.8	7.6	1.0	–1.6	7.7
1967	78.9	9.7	2.6	53.9	.9	11.7	71.9	63.2	9.2	1.0	–1.5	7.0
1968	89.5	11.8	3.3	60.8	.9	12.7	82.1	71.1	11.4	1.0	–1.5	7.5
1969	100.7	14.1	3.6	67.4	1.0	14.6	92.8	80.2	13.2	.8	–1.4	8.0
1970	114.6	15.7	3.7	74.8	1.1	19.3	107.5	92.0	16.1	.9	–1.5	7.1
1971	129.3	17.5	4.3	83.1	1.2	23.2	122.9	103.4	19.3	1.7	–1.3	6.4
1972	152.3	22.8	5.3	91.2	1.3	31.7	136.7	113.8	22.0	2.3	–1.5	15.6
1973	166.6	24.7	6.0	99.5	1.5	34.8	150.9	126.9	24.1	1.3	–1.4	15.7
1974	178.5	26.7	6.7	107.2	1.7	36.3	169.2	144.5	25.3	.2	–.8	9.3
1975	199.6	29.5	7.3	115.8	1.8	45.1	197.2	165.4	30.8	1.3	–.2	2.4
1976	224.5	34.1	9.6	127.8	2.2	50.7	217.2	180.1	34.1	3.2	–.2	7.3
1977	249.5	38.8	11.4	139.9	2.8	56.6	236.4	196.5	37.0	3.0	–.1	13.1
1978	274.3	44.3	12.1	148.9	3.4	65.5	255.6	214.3	40.8	.7	.0	18.7
1979	290.8	48.4	13.6	158.6	3.9	66.3	277.8	235.0	44.3	–2.3	.6	13.0
1980	316.6	53.9	14.5	172.3	3.6	72.3	307.8	260.5	51.2	–5.5	1.6	8.8
1981	344.4	60.6	15.4	192.0	3.9	72.5	336.9	284.6	57.1	–7.6	2.8	7.5
1982	360.3	65.9	14.0	206.8	4.0	69.5	362.5	306.8	61.2	–7.5	2.1	–2.3
1983	392.1	73.7	15.9	226.8	4.1	71.6	387.3	325.1	66.9	–5.4	.7	4.8
1984	436.4	84.8	18.8	251.5	4.7	76.7	412.6	349.5	71.2	–6.9	–1.1	23.8
1985	469.2	91.3	20.2	272.0	4.9	80.9	447.0	380.5	77.3	–8.1	–2.8	22.3
1986	507.9	98.6	22.7	293.1	6.0	87.6	487.2	410.8	84.4	–5.7	–2.5	20.8
1987	536.0	108.5	23.9	312.4	7.2	83.9	523.8	439.0	90.8	–3.3	–2.8	12.2
1988	573.7	114.0	26.0	333.7	8.4	91.6	558.1	467.9	98.6	–4.0	–4.5	15.6
1989	618.9	128.9	24.2	358.5	9.0	98.3	599.6	503.0	109.5	–6.8	–6.1	19.3
1990	663.4	136.0	22.5	383.4	10.0	111.4	660.8	545.8	127.8	–6.5	–6.3	2.6
1991	716.0	145.3	23.6	403.8	11.6	131.6	723.8	576.1	156.6	–2.3	–6.6	–7.8
1992	772.2	156.4	24.4	429.2	13.1	149.1	777.2	601.6	180.1	2.6	–7.2	–4.9
1993	823.2	164.7	26.9	454.8	14.1	162.6	821.7	629.5	195.4	5.4	–8.6	1.5
1994	873.8	174.8	30.0	480.1	14.5	174.5	865.2	662.6	206.9	4.2	–8.5	8.6
1995	917.9	186.5	31.7	501.6	13.6	184.5	902.5	694.7	217.8	.2	–10.2	15.3
1996	960.4	199.6	33.0	524.9	12.5	190.4	939.0	726.5	224.3	.6	–12.5	21.4
1997	1,009.0	217.4	34.0	550.9	11.0	195.7	981.5	765.9	227.9	–.9	–11.4	27.5
1998	1,070.4	236.9	33.8	579.6	10.7	209.3	1,028.7	807.5	234.8	–2.3	–11.3	41.7
1999[P]	.....	251.9	.....	614.6	11.1	224.2	1,089.0	857.3	244.6	–1.0	–11.7	.....
1994: I	852.0	168.6	26.5	470.9	14.6	171.3	851.4	650.0	203.2	5.5	–7.3	.6
II	867.0	174.0	29.4	477.7	14.6	171.2	860.1	658.6	205.3	4.9	–8.7	6.9
III	879.8	176.3	31.3	482.6	14.5	175.1	870.6	667.6	208.1	3.7	–8.8	9.2
IV	896.6	180.1	32.6	489.0	14.4	180.4	878.7	674.2	210.9	2.7	–9.1	17.8
1995: I	906.8	182.4	30.5	494.7	14.0	185.1	890.8	685.0	214.1	1.1	–9.4	15.9
II	914.3	184.2	31.2	498.8	13.8	186.3	899.7	692.6	216.7	.4	–9.9	14.6
III	923.4	188.3	32.9	503.5	13.5	185.2	905.8	697.3	219.1	–.2	–10.4	17.5
IV	927.0	191.3	32.1	509.3	13.2	181.3	913.8	703.8	221.3	–.3	–11.1	13.3
1996: I	940.4	193.2	32.4	516.4	12.9	185.5	923.4	712.5	222.6	.5	–12.1	17.0
II	962.2	198.1	33.3	524.2	12.6	194.0	935.0	723.0	223.9	.7	–12.6	27.2
III	966.1	201.7	33.1	526.0	12.3	193.0	943.8	730.6	225.3	.7	–12.7	22.3
IV	972.9	205.5	33.3	533.0	11.9	189.2	953.6	740.0	225.6	.5	–12.5	19.3
1997: I	991.3	211.2	32.7	543.1	11.4	192.8	965.5	751.0	226.5	–.1	–11.9	25.9
II	997.4	214.3	33.3	546.4	11.1	192.2	973.7	759.1	227.3	–.8	–11.9	23.7
III	1,016.5	219.6	35.3	554.8	10.8	195.9	985.6	770.5	228.5	–1.1	–12.3	30.9
IV	1,031.1	224.5	34.8	559.3	10.7	201.7	1,001.3	782.8	229.5	–1.6	–9.3	29.7
1998: I	1,042.1	227.8	33.7	567.7	10.8	202.1	1,010.1	791.5	231.4	–2.1	–10.6	32.0
II	1,053.2	234.0	33.9	573.8	10.7	200.8	1,022.3	802.7	233.4	–2.5	–11.3	30.9
III	1,085.3	241.0	34.4	579.0	10.7	220.2	1,035.4	813.8	235.7	–2.5	–11.6	49.9
IV	1,101.1	244.9	33.1	598.2	10.7	214.2	1,046.9	822.2	238.5	–2.1	–11.6	54.2
1999: I	1,110.0	246.9	35.4	597.1	10.7	219.9	1,061.2	832.4	241.9	–1.3	–11.6	48.7
II	1,117.0	247.3	36.4	606.8	10.9	215.7	1,079.4	848.4	243.6	–1.0	–11.6	37.6
III	1,148.0	252.4	37.0	616.8	11.2	230.6	1,099.1	866.5	245.3	–.9	–11.7	48.9
IV[P]	.....	260.9	.....	637.8	11.5	230.7	1,116.4	881.8	247.5	–.9	–11.9	.....

[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–84.—*State and local government revenues and expenditures, selected fiscal years, 1927–96*

[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	230,722	87,858	22,528	28,156	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	343,236	64,944	74,247	36,932	12,128	75,164	79,821	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	834,818	288,148	61,057	110,518	375,095
1990–91	902,207	167,999	185,570	109,341	22,242	154,099	262,955	908,108	309,302	64,937	130,402	403,467
1991–92	979,137	180,337	197,731	115,638	23,880	179,174	282,376	981,253	324,652	67,351	158,723	430,526
1992–93	1,041,567	189,793	209,649	123,235	26,417	198,591	293,932	1,033,167	342,287	68,370	170,705	451,805
1993–94	1,100,441	197,140	223,628	128,810	28,320	215,445	307,098	1,077,665	353,287	72,067	183,384	468,917
1994–95	1,169,505	203,451	237,268	137,931	31,406	228,771	330,677	1,149,863	378,273	77,109	196,703	497,779
1995–96	1,222,821	209,440	248,993	146,844	32,009	234,891	350,645	1,193,276	398,859	79,092	197,354	517,971

[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 government administration, interest on general debt, and general expenditures, n.e.c.

Note.—Data for fiscal years listed from 1962–63 to 1995–96 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–85.—*Interest-bearing public debt securities by kind of obligation, 1967–99*

[Billions of dollars]

End of year or month	Total interest-bearing public debt securities	Marketable						Nonmarketable				
		Total [1]	Treasury bills	Treasury notes	Treasury bonds	Treasury inflation-indexed		Total	U.S. savings securities [2]	Foreign series [3]	Government account series	Other [4]
						Notes	Bonds					
Fiscal year:												
1967	322.3	[5] 210.7	58.5	49.1	97.4	.....	.....	111.6	51.2	1.5	56.2	2.7
1968	344.4	226.6	64.4	71.1	91.1	.....	.....	117.8	51.7	3.7	59.5	2.8
1969	351.7	226.1	68.4	78.9	78.8	.....	.....	125.6	51.7	4.1	66.8	3.1
1970	369.0	232.6	76.2	93.5	63.0	.....	.....	136.4	51.3	4.8	76.3	4.1
1971	396.3	245.5	86.7	104.8	54.0	.....	.....	150.8	53.0	9.3	82.8	5.8
1972	425.4	257.2	94.6	113.4	49.1	.....	.....	168.2	55.9	19.0	89.6	3.7
1973	456.4	263.0	100.1	117.8	45.1	.....	.....	193.4	59.4	28.5	101.7	3.7
1974	473.2	266.6	105.0	128.4	33.1	.....	.....	206.7	61.9	25.0	115.4	4.3
1975	532.1	315.6	128.6	150.3	36.8	.....	.....	216.5	65.5	23.2	124.2	3.6
1976	619.3	392.6	161.2	191.8	39.6	.....	.....	226.7	69.7	21.5	130.6	4.9
1977	697.6	443.5	156.1	241.7	45.7	.....	.....	254.1	75.4	21.8	140.1	16.8
1978	767.0	485.2	160.9	267.9	56.4	.....	.....	281.8	79.8	21.7	153.3	27.1
1979	819.0	506.7	161.4	274.2	71.1	.....	.....	312.3	80.4	28.1	176.4	27.4
1980	906.4	594.5	199.8	310.9	83.8	.....	.....	311.9	72.7	25.2	189.8	24.2
1981	996.5	683.2	223.4	363.6	96.2	.....	.....	313.3	68.0	20.5	201.1	23.7
1982	1,140.9	824.4	277.9	442.9	103.6	.....	.....	316.5	67.3	14.6	210.5	24.1
1983	1,375.8	1,024.0	340.7	557.5	125.7	.....	.....	351.8	70.0	11.5	234.7	35.6
1984	1,559.6	1,176.6	356.8	661.7	158.1	.....	.....	383.0	72.8	8.8	259.5	41.8
1985	1,821.0	1,360.2	384.2	776.4	199.5	.....	.....	460.8	77.0	6.6	313.9	63.3
1986	2,122.7	[1] 1,564.3	410.7	896.9	241.7	.....	.....	558.4	85.6	4.1	365.9	102.8
1987	2,347.8	[1] 1,676.0	378.3	1,005.1	277.6	.....	.....	671.8	97.0	4.4	440.7	129.8
1988	2,599.9	[1] 1,802.9	398.5	1,089.6	299.9	.....	.....	797.0	106.2	6.3	536.5	148.0
1989	2,836.3	[1] 1,892.8	406.6	1,133.2	338.0	.....	.....	943.5	114.0	6.8	663.7	159.0
1990	3,210.9	[1] 2,092.8	482.5	1,218.1	377.2	.....	.....	1,118.2	122.2	36.0	779.4	180.6
1991	3,662.8	[1] 2,390.7	564.6	1,387.7	423.4	.....	.....	1,272.1	133.5	41.6	908.4	188.5
1992	4,061.8	[1] 2,677.5	634.3	1,566.3	461.8	.....	.....	1,384.3	148.3	37.0	1,011.0	188.0
1993	4,408.6	[1] 2,904.9	658.4	1,734.2	497.4	.....	.....	1,503.7	167.0	42.5	1,114.3	179.9
1994	4,689.5	[1] 3,091.6	697.3	1,867.5	511.8	.....	.....	1,597.9	176.4	42.0	1,211.7	167.8
1995	4,950.6	[1] 3,260.4	742.5	1,980.3	522.6	.....	.....	1,690.2	181.2	41.0	1,324.3	143.8
1996	5,220.8	[1] 3,418.4	761.2	2,098.7	543.5	.....	.....	1,802.4	184.1	37.5	1,454.7	126.1
1997	5,407.5	[1] 3,439.6	701.9	2,122.2	576.2	24.4	.....	1,967.9	182.7	34.9	1,608.5	141.9
1998	5,518.7	[1] 3,331.0	637.6	2,009.1	610.4	41.9	17.0	2,187.7	180.8	35.1	1,777.3	194.4
1999	5,647.2	[1] 3,233.0	653.2	1,828.8	643.7	67.6	24.8	2,414.2	180.0	31.0	2,005.2	198.1
1998: Jan	5,450.0	[1] 3,398.1	688.8	2,065.5	587.3	41.4	.....	2,051.9	181.1	36.1	1,677.3	157.4
Feb	5,482.1	[1] 3,424.1	705.1	2,063.9	598.7	41.4	.....	2,057.9	181.3	35.9	1,678.6	162.2
Mar	5,535.3	[1] 3,467.1	720.1	2,091.9	598.7	41.5	.....	2,068.2	181.2	36.4	1,681.5	169.1
Apr	5,492.8	[1] 3,399.2	657.9	2,077.7	598.7	41.5	8.4	2,093.6	181.3	36.2	1,698.8	177.4
May	5,464.5	[1] 3,353.0	647.8	2,041.5	598.7	41.6	8.4	2,111.5	180.7	36.2	1,713.6	181.0
June	5,540.2	[1] 3,369.5	641.1	2,064.6	598.7	41.7	8.4	2,170.7	180.7	36.0	1,769.1	185.0
July	5,520.1	[1] 3,350.8	638.1	2,040.3	598.7	41.8	16.9	2,169.3	180.6	35.7	1,765.4	187.6
Aug	5,557.0	[1] 3,384.6	676.4	2,023.9	610.4	41.8	16.9	2,172.5	180.7	35.5	1,768.2	188.1
Sept	5,518.7	[1] 3,331.0	637.6	2,009.1	610.4	41.9	17.0	2,187.7	180.8	35.1	1,777.3	194.4
Oct	5,515.4	[1] 3,308.9	651.4	1,964.6	610.4	50.4	17.0	2,206.6	181.2	32.8	1,798.6	194.0
Nov	5,584.5	[1] 3,363.4	685.5	1,974.3	621.2	50.5	17.0	2,221.2	181.5	34.4	1,811.9	193.4
Dec	5,605.4	[1] 3,355.5	691.0	1,960.7	621.2	50.6	17.0	2,249.9	180.3	34.3	1,840.0	195.3
1999: Jan	5,568.1	[1] 3,292.8	662.7	1,917.7	621.2	59.1	17.0	2,275.3	180.4	34.1	1,866.3	194.5
Feb	5,580.2	[1] 3,294.5	667.5	1,903.4	632.5	59.1	17.0	2,285.7	180.6	33.9	1,875.9	195.2
Mar	5,643.1	[1] 3,361.3	725.5	1,912.0	632.5	59.2	17.1	2,281.8	180.6	33.5	1,870.2	197.4
Apr	5,577.4	[1] 3,272.6	650.1	1,891.2	632.5	59.3	24.5	2,304.8	180.8	32.9	1,889.4	201.7
May	5,563.1	[1] 3,240.6	648.5	1,860.6	632.5	59.5	24.5	2,322.5	180.0	31.8	1,908.3	202.4
June	5,629.5	[1] 3,248.5	647.8	1,868.5	632.5	59.9	24.7	2,381.0	180.0	30.9	1,967.5	202.6
July	5,599.1	[1] 3,223.7	654.8	1,829.3	632.5	67.4	24.7	2,375.4	180.1	30.9	1,964.8	199.6
Aug	5,663.4	[1] 3,281.0	689.9	1,840.3	643.7	67.4	24.7	2,382.4	180.0	30.7	1,973.1	198.5
Sept	5,647.2	[1] 3,233.0	653.2	1,828.8	643.7	67.6	24.8	2,414.2	180.0	31.0	2,005.2	198.1
Oct	5,640.6	[1] 3,211.2	663.0	1,789.5	643.7	67.8	32.3	2,429.4	180.3	31.0	2,022.2	196.0
Nov	5,684.7	[1] 3,243.7	687.9	1,796.6	643.7	68.1	32.5	2,441.0	180.4	31.0	2,032.7	197.0
Dec	5,766.1	[1] 3,281.0	737.1	1,784.5	643.7	68.2	32.5	2,485.1	179.3	31.3	2,078.7	195.7

[1] Includes Federal Financing Bank securities, not shown separately, in the amount of 15,000 million dollars.

[2] Series previously shown as U.S. savings bonds. Beginning January 1997, includes U.S. retirement plan bonds, U.S. individual retirement bonds, and U.S. savings notes previously included in "other" nonmarketable interest-bearing public debt securities in this table. Data prior to January 1997 do not reflect this change.

[3] Nonmarketable certificates of indebtedness, notes, bonds, and bills in the Treasury foreign series of dollar-denominated and foreign-currency denominated issues.

[4] 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. See footnote 2.

[5] 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–86.—*Maturity distribution and average length of marketable interest-bearing public debt securities held by private investors, 1967–99*

End of year or month	Amount outstanding, privately held	Maturity class					Average length [1]	
		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
1992	2,363,802	808,705	866,329	295,921	84,706	308,141	5	11
1993	2,562,336	858,135	978,714	306,663	94,345	324,479	5	10
1994	2,719,861	877,932	1,128,322	289,998	88,208	335,401	5	8
1995	2,870,781	1,002,875	1,157,492	290,111	87,297	333,006	5	4
1996	3,011,185	1,058,558	1,212,258	306,643	111,360	322,366	5	3
1997	2,998,846	1,017,913	1,206,993	321,622	154,205	298,113	5	4
1998	2,856,637	940,572	1,105,175	319,331	157,347	334,212	5	8
1999	2,728,011	915,145	962,644	378,163	149,703	322,356	5	9
1998: Jan	2,954,877	1,011,181	1,139,318	338,503	155,193	310,681	5	6
Feb	2,978,212	1,029,311	1,147,184	326,495	154,836	320,386	5	6
Mar	3,010,826	1,040,573	1,173,036	326,381	152,471	318,365	5	5
Apr	2,925,886	970,975	1,153,410	324,973	151,116	325,411	5	6
May	2,895,190	964,171	1,113,080	335,515	162,395	320,029	5	8
June	2,894,829	952,967	1,132,460	333,666	159,368	316,369	5	7
July	2,886,700	945,246	1,117,403	335,330	161,250	327,471	5	7
Aug	2,918,259	982,323	1,121,554	320,287	159,382	334,713	5	7
Sept	2,856,637	940,572	1,105,175	319,331	157,347	334,212	5	8
Oct	2,837,432	945,953	1,069,335	327,268	159,593	335,283	5	8
Nov	2,884,352	981,135	1,068,719	335,700	164,364	334,433	5	8
Dec	2,887,273	986,500	1,072,170	368,435	123,614	336,554	5	6
1999: Jan	2,825,086	953,672	1,035,290	376,570	123,614	335,940	5	7
Feb	2,820,023	954,337	1,021,966	374,166	141,265	328,289	5	9
Mar	2,879,622	1,010,698	1,027,821	373,913	140,849	326,341	5	6
Apr	2,783,211	928,597	1,007,440	373,146	140,587	333,441	5	8
May	2,745,144	926,147	982,625	369,372	135,759	331,241	5	9
June	2,747,670	920,996	989,891	369,607	135,759	331,415	5	8
July	2,725,180	919,082	962,199	376,718	135,759	331,421	5	8
Aug	2,774,834	950,892	973,938	378,017	149,703	322,284	5	8
Sept	2,728,011	915,145	962,644	378,163	149,703	322,356	5	9

[1] Treasury inflation-indexed notes (first offered in 1997) and bonds (first offered in 1998) are excluded from the average length calculation.

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–87.—*Estimated ownership of U.S. Treasury securities, 1989–99*

[Billions of dollars]

End of month	Total public debt [1]	Federal Reserve and Government accounts [2]	Held by private investors									
			Total privately held	Depository institutions [3]	U.S. savings bonds [4]	Pension funds		Insurance companies	Mutual funds [6]	State and local governments	Foreign and international [7]	Other investors [8]
						Private [5]	State and local governments					
1989: Mar	2,740.9	837.5	1,903.4	239.0	112.2	109.3	127.3	119.7	118.5	355.9	373.5	348.1
June	2,799.9	890.8	1,909.1	218.2	114.0	115.9	127.9	120.6	116.5	358.6	366.4	371.1
Sept	2,857.4	899.1	1,958.3	205.4	115.7	122.9	129.4	121.2	120.4	359.8	391.8	391.7
Dec	2,953.0	935.6	2,017.4	204.2	117.7	131.5	128.6	123.9	124.9	369.1	426.1	391.4
1990: Mar	3,052.0	935.4	2,116.6	218.8	119.9	121.6	139.0	132.3	142.7	401.1	445.4	395.8
June	3,143.8	1,003.8	2,140.0	214.2	121.9	128.4	144.6	133.7	141.2	405.0	451.0	399.9
Sept	3,233.3	1,026.0	2,207.3	214.8	123.9	133.2	146.4	136.4	147.6	407.3	463.8	434.0
Dec	3,364.8	1,059.5	2,305.3	206.5	126.2	137.2	144.5	138.2	162.8	410.6	487.1	492.3
1991: Mar	3,465.2	1,104.6	2,360.6	222.5	129.7	131.2	153.4	147.2	186.1	415.6	492.0	482.9
June	3,538.0	1,139.1	2,398.9	231.5	133.2	132.0	155.0	156.8	180.1	416.8	502.0	491.5
Sept	3,665.3	1,166.9	2,498.4	251.7	135.4	136.2	140.2	171.4	199.5	430.2	506.3	527.6
Dec	3,801.7	1,223.2	2,578.5	271.5	138.1	137.7	141.7	181.8	221.8	435.5	520.9	529.5
1992: Mar	3,881.3	1,215.5	2,665.8	300.5	142.0	128.5	140.7	188.4	227.9	460.0	536.4	541.4
June	3,984.7	1,272.3	2,712.4	315.1	145.4	129.3	146.7	192.8	235.2	435.6	558.2	554.1
Sept	4,064.6	1,282.4	2,782.2	337.1	150.3	133.3	166.4	194.8	245.1	429.3	562.8	563.2
Dec	4,177.0	1,329.7	2,847.3	348.3	157.3	135.3	172.3	197.5	259.5	418.2	576.7	582.2
1993: Mar	4,230.6	1,328.6	2,902.0	362.6	163.6	127.2	171.2	208.0	261.5	434.0	585.9	588.1
June	4,352.0	1,400.6	2,951.4	361.0	166.5	127.4	176.9	217.8	269.2	441.2	596.8	594.6
Sept	4,411.5	1,422.2	2,989.3	366.2	169.1	141.8	188.7	229.4	283.9	434.0	619.1	557.2
Dec	4,535.7	1,476.1	3,059.6	373.0	171.9	136.8	186.3	234.5	294.0	447.8	650.3	565.0
1994: Mar	4,575.9	1,476.0	3,099.9	397.4	175.0	138.0	195.0	233.4	278.0	443.4	661.1	578.6
June	4,645.8	1,547.5	3,098.3	383.9	177.1	145.0	193.4	238.1	271.6	425.2	659.9	604.2
Sept	4,692.8	1,562.8	3,130.0	364.0	178.6	131.7	191.9	243.7	265.3	398.2	682.0	674.6
Dec	4,800.2	1,622.6	3,177.6	339.6	180.5	157.9	192.1	240.1	273.0	370.0	667.3	757.1
1995: Mar	4,864.1	1,619.3	3,244.8	352.9	181.4	162.8	203.1	244.2	273.0	350.5	707.0	770.0
June	4,951.4	1,690.1	3,261.3	340.0	182.6	166.6	197.2	245.0	263.9	313.7	762.5	790.0
Sept	4,974.0	1,688.0	3,286.0	330.8	183.5	170.6	193.0	245.2	272.6	304.3	820.4	765.6
Dec	4,988.7	1,681.0	3,307.7	315.4	185.0	176.5	191.7	241.5	286.5	289.8	835.2	786.1
1996: Mar	5,117.8	1,731.1	3,386.7	322.1	185.8	180.4	198.9	239.4	310.4	283.6	908.1	758.0
June	5,161.1	1,806.7	3,354.4	318.7	186.5	183.9	208.2	229.5	306.5	283.3	929.7	708.1
Sept	5,224.8	1,831.6	3,393.2	310.9	186.8	186.9	202.4	226.8	308.4	263.8	993.4	713.8
Dec	5,323.2	1,892.0	3,431.2	296.6	187.0	189.2	203.5	214.1	315.8	257.0	1,102.1	665.9
1997: Mar	5,380.9	1,928.7	3,452.2	317.3	186.5	192.4	203.7	182.2	310.6	250.6	1,157.6	651.3
June	5,376.2	1,998.9	3,377.3	300.2	186.3	195.9	209.3	183.6	305.4	243.3	1,182.7	570.6
Sept	5,413.1	2,011.5	3,401.6	292.8	186.2	199.7	219.7	187.3	311.4	237.7	1,230.5	536.2
Dec	5,502.4	2,087.8	3,414.6	300.3	186.5	204.1	216.9	176.6	321.5	239.3	1,241.6	527.9
1998: Mar	5,542.4	2,104.9	3,437.5	308.2	186.3	198.7	211.9	170.1	325.1	238.1	1,250.5	548.6
June	5,547.9	2,198.6	3,349.3	290.7	186.0	204.8	214.8	161.9	319.4	258.5	1,256.0	457.2
Sept	5,526.2	2,213.0	3,313.2	244.4	186.0	208.2	211.2	150.7	319.7	266.4	1,224.2	502.4
Dec	5,614.2	2,280.2	3,334.0	237.3	186.7	218.1	216.6	144.5	343.2	269.3	1,278.7	439.6
1999: Mar	5,651.6	2,324.0	3,327.6	247.7	186.6	220.0	218.3	143.8	352.8	272.5	1,272.1	413.8
June	5,638.8	2,439.5	3,199.3	240.6	186.6	226.6	222.5	142.5	335.4	279.1	1,257.4	308.6
Sept	5,656.3	2,480.7	3,175.6	240.6	186.3	228.3	216.6	138.2	332.6	271.6	1,281.3	280.1

[1] Face value.

[2] Federal Reserve holdings exclude Treasury securities held under repurchase agreements.

[3] Includes commercial banks, savings institutions, and credit unions.

[4] Current accrual value.

[5] Includes U.S. Treasury securities held by the Federal Employees Retirement System Thrift Savings Plan "G Fund."

[6] Includes money market mutual funds, mutual funds, and closed-end investment companies.

[7] Includes nonmarketable foreign series Treasury securities and Treasury deposit funds. Excludes Treasury securities held under repurchase agreements in custody accounts at the Federal Reserve Bank of New York.

Estimates reflect the 1984 benchmark to December 1989, the 1989 benchmark to December 1994, and 1994 benchmark to date.

[8] Includes individuals, Government-sponsored enterprises, brokers and dealers, bank personal trusts and estates, corporate and noncorporate businesses, and other investors.

Source: Department of the Treasury.

TABLE B–88.—*Corporate profits with inventory valuation and capital consumption adjustments, 1959–99*

[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	53.7	23.6	30.0	12.6	17.5
1960	52.3	22.7	29.6	13.4	16.3
1961	53.4	22.8	30.6	13.9	16.7
1962	61.5	24.0	37.5	15.0	22.5
1963	67.6	26.2	41.4	16.2	25.1
1964	74.7	28.0	46.8	18.2	28.6
1965	85.9	30.9	55.0	20.2	34.8
1966	91.8	33.7	58.2	20.7	37.5
1967	89.4	32.7	56.8	21.5	35.3
1968	96.3	39.4	57.0	23.5	33.4
1969	93.4	39.7	53.8	24.2	29.5
1970	81.3	34.4	46.9	24.3	22.6
1971	94.8	37.7	57.0	25.0	32.0
1972	109.4	41.9	67.5	26.8	40.7
1973	123.5	49.3	74.3	29.9	44.3
1974	114.0	51.8	62.2	33.2	29.0
1975	132.5	50.9	81.6	33.0	48.7
1976	160.1	64.2	95.9	39.0	56.9
1977	190.5	73.0	117.5	44.8	72.7
1978	216.8	83.5	133.3	50.8	82.5
1979	221.9	88.0	133.9	57.5	76.4
1980	197.7	84.8	112.9	64.1	48.8
1981	218.0	81.1	136.8	73.8	63.1
1982	200.2	63.1	137.1	76.2	60.9
1983	253.0	77.2	175.8	83.6	92.2
1984	308.7	94.0	214.6	91.0	123.6
1985	321.3	96.5	224.8	97.7	127.1
1986	299.5	106.5	193.0	106.3	86.7
1987	345.3	127.1	218.2	112.2	106.0
1988	403.5	137.2	266.4	129.6	136.8
1989	394.2	141.5	252.8	155.0	97.8
1990	407.4	140.6	266.8	165.6	101.2
1991	430.2	133.6	296.6	178.4	118.2
1992	451.9	143.1	308.7	185.5	123.2
1993	509.7	165.4	344.3	203.1	141.2
1994	572.5	186.7	385.8	234.9	150.8
1995	668.3	211.0	457.3	254.2	203.1
1996	753.9	223.6	530.2	297.7	232.5
1997	837.9	238.3	599.6	333.7	265.9
1998	846.1	240.2	605.8	348.6	257.2
1994: I	497.6	165.4	332.1	220.0	112.1
II	568.3	182.8	385.5	229.7	155.8
III	597.9	194.4	403.6	240.5	163.1
IV	626.0	204.1	421.9	249.4	172.4
1995: I	629.4	203.1	426.4	248.6	177.8
II	654.9	208.8	446.1	251.1	195.0
III	692.4	218.7	473.7	252.1	221.6
IV	696.4	213.3	483.1	265.0	218.1
1996: I	737.2	219.7	517.6	286.2	231.3
II	748.9	225.3	523.6	290.7	232.9
III	754.8	224.0	530.8	302.7	228.1
IV	774.5	225.6	548.9	311.3	237.7
1997: I	803.6	228.9	574.7	320.6	254.1
II	831.6	233.2	598.4	330.6	267.9
III	862.8	246.8	616.0	338.8	277.2
IV	853.5	244.1	609.4	344.8	264.6
1998: I	858.3	239.9	618.3	346.5	271.9
II	847.9	241.1	606.8	347.3	259.5
III	843.8	244.3	599.5	348.4	251.1
IV	834.3	235.6	598.7	352.2	246.5
1999: I	882.0	248.0	634.0	356.4	277.6
II	875.5	254.4	621.0	361.5	259.5
III	879.2	259.4	619.8	367.3	252.4

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–89.—*Corporate profits by industry, 1959–99*

[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 trade	Retail trade	Other	
1959	53.4	50.7	7.4	0.7	6.6	43.3	26.5	7.1	2.8	3.3	3.6	2.7
1960	51.4	48.2	8.1	.9	7.2	40.1	23.8	7.5	2.5	2.8	3.6	3.1
1961	51.7	48.4	8.1	.8	7.3	40.4	23.3	7.9	2.5	3.0	3.6	3.3
1962	56.9	53.1	8.2	.9	7.4	44.9	26.2	8.5	2.8	3.4	3.9	3.8
1963	62.0	57.9	8.0	1.0	7.1	49.9	29.6	9.5	2.8	3.6	4.4	4.1
1964	68.4	64.0	8.4	1.1	7.2	55.6	32.4	10.2	3.4	4.5	5.1	4.5
1965	78.7	74.0	9.0	1.3	7.6	65.0	39.7	11.0	3.8	4.9	5.7	4.7
1966	84.4	79.8	10.4	1.7	8.7	69.5	42.5	12.0	4.0	4.9	6.2	4.5
1967	81.7	77.0	10.8	2.0	8.9	66.1	39.1	10.9	4.1	5.7	6.5	4.8
1968	88.5	82.9	12.4	2.5	9.9	70.5	41.7	11.0	4.6	6.4	6.9	5.6
1969	85.2	78.6	13.3	3.1	10.3	65.3	37.1	10.7	4.9	6.4	6.3	6.6
1970	74.0	66.9	15.0	3.5	11.4	52.0	27.2	8.3	4.4	6.0	6.1	7.1
1971	87.9	80.0	17.3	3.3	14.0	62.7	34.8	8.9	5.2	7.2	6.7	7.9
1972	100.7	91.2	18.8	3.3	15.4	72.4	41.5	9.5	6.8	7.4	7.2	9.5
1973	114.6	99.7	20.3	4.5	15.8	79.4	46.8	9.1	8.2	6.6	8.7	14.9
1974	108.5	91.1	19.7	5.7	14.0	71.4	41.0	7.6	11.5	2.3	9.0	17.5
1975	134.3	119.6	19.7	5.6	14.1	100.0	54.9	11.0	13.8	8.2	12.1	14.6
1976	164.5	148.0	24.2	5.9	18.3	123.8	71.0	15.3	12.9	10.5	14.2	16.5
1977	193.3	174.2	30.7	6.1	24.6	143.5	78.8	18.6	15.6	12.4	18.2	19.1
1978	221.2	198.4	37.7	7.6	30.0	160.7	89.7	21.8	15.7	12.4	21.1	22.9
1979	229.9	195.3	38.4	9.4	29.0	156.9	88.4	17.0	19.0	10.0	22.6	34.6
1980	209.3	173.8	32.3	11.8	20.5	141.5	76.3	18.4	17.1	6.4	23.3	35.5
1981	216.3	186.6	27.1	14.4	12.7	159.6	88.5	20.4	22.3	10.1	18.2	29.7
1982	188.0	155.2	25.8	15.2	10.6	129.4	63.8	23.1	19.7	13.8	8.9	32.7
1983	223.9	188.5	35.2	14.6	20.6	153.3	72.2	29.6	21.7	19.1	10.8	35.5
1984	262.0	225.1	33.8	16.4	17.3	191.3	87.9	40.1	30.2	21.5	11.6	37.0
1985	255.2	216.8	44.5	16.3	28.2	172.3	81.5	33.9	23.9	22.4	10.7	38.4
1986	250.5	210.7	55.8	15.5	40.3	154.9	54.1	36.0	24.1	23.7	17.0	39.8
1987	298.4	250.4	57.1	15.7	41.4	193.3	83.1	42.0	17.7	23.4	27.1	48.0
1988	359.8	303.1	67.9	17.6	50.3	235.2	116.1	48.4	19.6	20.6	30.4	56.7
1989	360.4	296.1	76.8	20.2	56.7	219.3	105.7	43.5	21.5	21.2	27.4	64.2
1990	388.6	315.9	91.6	21.4	70.2	224.3	109.2	44.4	19.1	21.0	30.6	72.7
1991	421.1	346.7	120.2	20.3	99.9	226.5	93.5	53.2	22.0	27.7	30.0	74.3
1992	448.8	380.1	124.8	17.8	107.0	255.2	93.9	58.5	25.9	33.7	43.2	68.7
1993	506.4	429.6	127.9	16.1	111.7	301.7	108.4	69.6	28.2	39.7	55.9	76.7
1994	561.0	483.7	114.7	17.8	97.0	369.0	139.6	82.9	33.1	46.6	66.8	77.2
1995	650.2	558.2	154.3	22.2	132.1	403.8	166.1	85.8	29.4	44.1	78.5	92.0
1996	729.4	628.6	165.3	21.8	143.5	463.3	181.2	91.4	42.6	52.9	95.2	100.9
1997	803.2	695.1	184.2	23.3	160.9	510.9	185.6	104.7	46.8	63.7	110.1	108.1
1998	802.8	702.8	191.3	24.6	166.7	511.5	168.4	109.0	47.2	69.8	117.1	100.0
1994: I	506.6	431.5	87.5	16.1	71.4	344.0	131.3	74.1	30.8	42.8	65.1	75.1
II	552.5	476.6	116.0	16.8	99.2	360.6	131.4	82.2	37.0	46.4	63.7	75.9
III	579.7	501.4	127.7	18.2	109.5	373.6	140.8	84.8	32.1	47.8	68.1	78.3
IV	605.1	525.4	127.8	20.0	107.8	397.6	154.8	90.5	32.4	49.4	70.5	79.7
1995: I	610.7	522.5	140.9	21.6	119.3	381.5	154.6	84.1	26.2	43.2	73.4	88.2
II	637.1	541.1	154.9	22.6	132.3	386.3	160.2	83.9	24.2	42.6	75.3	96.0
III	673.7	588.0	166.6	22.4	144.1	421.4	173.8	89.1	32.9	44.2	81.5	85.6
IV	679.2	581.0	154.9	22.1	132.8	426.1	175.6	86.1	34.3	46.5	83.7	98.2
1996: I	715.3	616.6	168.6	21.6	147.0	448.0	175.5	88.0	41.6	50.9	92.0	98.7
II	724.7	628.7	170.1	21.7	148.4	458.5	181.6	93.6	37.2	53.0	93.2	96.0
III	729.6	631.1	166.4	21.8	144.6	464.8	181.8	90.4	41.4	54.9	96.3	98.4
IV	748.1	637.8	156.0	22.1	133.9	481.8	185.7	93.6	50.2	52.9	99.4	110.3
1997: I	772.6	670.7	176.6	22.6	154.0	494.0	179.0	100.1	48.9	62.4	103.6	101.9
II	797.7	684.7	181.9	23.0	158.9	502.8	186.6	101.8	48.0	60.9	105.5	113.1
III	827.0	717.3	186.5	23.6	162.9	530.7	195.4	108.2	47.4	66.1	113.6	109.8
IV	815.5	708.0	191.8	24.2	167.7	516.1	181.4	108.8	42.8	65.4	117.8	107.6
1998: I	818.4	710.5	194.9	24.5	170.4	515.6	170.8	110.9	47.9	71.0	115.0	107.8
II	805.6	698.2	192.2	24.4	167.8	506.0	169.2	105.0	50.1	69.7	111.9	107.4
III	799.9	713.2	189.5	24.7	164.8	523.7	171.9	113.0	49.7	69.3	119.9	86.6
IV	787.4	689.1	188.6	24.7	163.9	500.6	161.7	106.9	41.2	69.0	121.7	98.3
1999: I	831.4	727.1	205.3	24.3	180.9	521.9	171.0	111.9	43.4	75.7	119.8	104.3
II	822.2	718.9	198.3	24.5	173.7	520.6	167.8	107.9	44.3	75.4	125.2	103.3
III	827.1	719.0	203.9	25.5	178.4	515.1	163.1	117.3	39.1	67.7	127.9	108.1

[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–90 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–90.—*Corporate profits of manufacturing industries, 1959–99*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Corporate profits with inventory valuation adjustment and without capital consumption adjustment												
		Durable goods							Nondurable goods				
	Total manufacturing	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	11.6	2.0	.8	1.8	1.3	3.0	2.7	12.1	2.2	3.1	2.6	4.2
1961	23.3	11.3	1.6	1.0	1.9	1.3	2.5	2.9	12.0	2.4	3.3	2.2	4.2
1962	26.2	14.0	1.6	1.2	2.4	1.5	4.0	3.4	12.2	2.4	3.2	2.2	4.4
1963	29.6	16.4	2.0	1.3	2.6	1.6	4.9	3.9	13.2	2.7	3.7	2.2	4.7
1964	32.4	18.0	2.5	1.5	3.3	1.7	4.6	4.4	14.4	2.7	4.1	2.4	5.3
1965	39.7	23.2	3.1	2.1	4.0	2.7	6.2	5.2	16.5	2.9	4.6	2.9	6.1
1966	42.5	24.0	3.6	2.4	4.6	3.0	5.2	5.2	18.5	3.3	4.9	3.4	6.9
1967	39.1	21.2	2.7	2.5	4.2	3.0	4.0	4.9	17.9	3.3	4.3	3.9	6.4
1968	41.7	22.4	1.9	2.3	4.2	2.9	5.5	5.6	19.3	3.2	5.3	3.7	7.1
1969	37.1	19.1	1.4	2.0	3.7	2.3	4.8	4.9	18.0	3.1	4.6	3.3	7.0
1970	27.2	10.4	.8	1.1	3.0	1.3	1.3	2.9	16.8	3.2	3.9	3.6	6.1
1971	34.8	16.5	.8	1.5	3.0	2.0	5.1	4.1	18.3	3.5	4.5	3.7	6.6
1972	41.5	22.6	1.7	2.2	4.4	2.8	5.9	5.5	19.0	3.0	5.2	3.2	7.6
1973	46.8	25.0	2.3	2.6	4.8	3.2	5.9	6.2	21.8	2.5	6.1	5.2	7.9
1974	41.0	15.2	5.0	1.8	3.3	.5	.7	3.9	25.8	2.6	5.2	10.7	7.2
1975	54.9	20.6	2.8	3.3	5.0	2.6	2.2	4.6	34.3	8.6	6.4	9.9	9.4
1976	71.0	31.3	2.1	3.9	6.9	3.8	7.4	7.3	39.6	7.1	8.2	13.3	11.1
1977	78.8	37.7	1.0	4.5	8.5	5.9	9.3	8.5	41.1	6.8	7.8	12.9	13.6
1978	89.7	45.1	3.6	5.0	10.5	6.7	9.0	10.4	44.6	6.1	8.2	15.5	14.7
1979	88.4	36.6	3.5	5.2	9.2	5.5	4.6	8.5	51.8	5.8	7.1	24.5	14.5
1980	76.3	18.3	2.6	4.4	7.7	5.2	–4.3	2.7	57.9	6.0	5.5	33.6	12.9
1981	88.5	18.9	3.1	4.5	8.6	5.1	.4	–2.7	69.6	9.0	7.7	38.6	14.3
1982	63.8	3.8	–4.8	2.7	2.6	1.6	–.2	1.9	60.0	7.2	4.7	33.4	14.7
1983	72.2	17.8	–5.0	3.1	3.1	3.4	5.1	8.1	54.3	6.1	7.0	22.4	18.9
1984	87.9	37.7	–.5	4.6	5.1	5.1	8.9	14.4	50.2	6.6	7.7	16.1	19.8
1985	81.5	28.8	–1.0	4.8	4.9	2.6	7.3	10.1	52.7	8.6	6.2	17.4	20.5
1986	54.1	24.5	.7	5.1	–.3	2.5	4.4	12.0	29.6	7.3	7.1	–5.8	21.1
1987	83.1	39.3	2.5	5.4	4.5	5.6	3.7	17.6	43.8	11.2	13.9	–2.6	21.3
1988	116.1	51.0	6.0	6.4	9.6	7.3	5.7	16.1	65.1	11.8	18.2	11.9	23.2
1989	105.7	48.3	6.2	6.3	10.7	9.0	2.2	13.8	57.4	10.8	17.6	5.4	23.6
1990	109.2	41.6	3.4	6.0	10.5	8.4	–2.2	15.6	67.6	14.2	16.3	15.4	21.8
1991	93.5	32.1	1.4	5.2	4.2	9.7	–5.4	16.9	61.5	18.0	15.6	6.3	21.6
1992	93.9	37.6	–.2	6.1	5.9	10.1	–1.2	17.0	56.3	17.9	15.4	–2.0	24.9
1993	108.4	51.8	.2	7.3	5.6	14.9	5.2	18.7	56.6	16.0	15.3	1.6	23.8
1994	139.6	70.6	2.1	10.9	7.6	22.5	7.3	20.2	69.0	19.5	22.2	–.1	27.5
1995	166.1	77.6	6.9	11.8	12.9	21.4	–.3	24.9	88.5	26.7	26.7	5.5	29.5
1996	181.2	87.0	5.4	14.4	15.0	20.2	3.7	28.4	94.2	21.6	25.5	13.3	33.7
1997	185.6	93.3	5.1	16.7	13.5	22.1	4.9	30.9	92.3	22.1	26.0	16.0	28.2
1998	168.4	95.1	5.4	17.3	14.6	18.2	7.5	32.2	73.3	17.0	20.6	8.3	27.3
1994: I	131.3	69.3	1.2	10.3	5.7	19.3	13.8	18.9	62.0	18.3	18.8	–1.8	26.7
II	131.4	66.6	1.5	9.8	7.2	20.7	8.6	18.9	64.8	18.1	21.3	–3.8	29.3
III	140.8	68.3	2.5	10.8	7.5	23.9	3.5	20.2	72.5	20.0	22.5	2.5	27.4
IV	154.8	78.2	3.5	12.9	10.0	26.1	3.2	22.7	76.6	21.6	26.1	2.5	26.5
1995: I	154.6	77.1	6.5	11.6	11.8	22.2	2.0	23.1	77.5	24.2	23.8	.9	28.5
II	160.2	73.6	7.8	12.2	11.7	19.6	–1.9	24.2	86.6	27.1	27.2	4.9	27.4
III	173.8	78.7	6.5	11.4	13.5	21.8	–.1	25.5	95.1	27.8	28.6	9.4	29.3
IV	175.6	80.8	6.7	11.8	14.6	21.9	–1.1	27.0	94.9	27.7	27.3	7.0	32.9
1996: I	175.5	81.7	5.4	13.8	17.9	17.3	.7	26.6	93.8	22.8	27.0	8.8	35.2
II	181.6	89.3	4.9	12.9	15.4	20.5	6.0	29.5	92.4	18.9	26.9	13.1	33.4
III	181.8	88.1	6.0	15.2	13.5	20.0	6.9	26.4	93.7	20.3	24.7	14.7	34.0
IV	185.7	88.8	5.1	15.7	13.0	22.8	1.1	31.0	96.9	24.6	23.5	16.7	32.2
1997: I	179.0	84.1	4.3	15.6	9.5	21.7	4.8	28.2	94.9	21.8	25.9	17.3	29.9
II	186.6	92.1	4.9	16.2	13.6	21.6	3.3	32.5	94.5	21.1	25.6	18.1	29.7
III	195.4	104.4	6.0	18.0	16.4	24.4	7.4	32.2	91.1	21.3	27.0	15.3	27.4
IV	181.4	92.6	5.4	17.2	14.7	20.6	4.1	30.5	88.8	24.5	25.5	13.1	25.7
1998: I	170.8	87.3	6.1	15.1	8.8	18.3	7.8	31.2	83.5	19.5	24.6	11.3	28.1
II	169.2	89.7	5.4	17.0	14.6	16.2	5.7	30.9	79.5	20.1	18.8	11.0	29.5
III	171.9	97.2	5.0	19.9	15.7	16.9	6.6	33.1	74.7	21.3	19.0	6.8	27.5
IV	161.7	106.3	5.0	17.0	19.4	21.4	9.8	33.7	55.5	7.1	20.0	4.1	24.2
1999: I	171.0	100.5	1.7	19.4	16.6	20.5	10.7	31.6	70.5	17.2	25.1	–.9	29.0
II	167.8	100.7	1.2	19.0	18.6	19.6	10.4	32.0	67.0	18.6	20.8	–.3	28.0
III	163.1	94.4	.4	19.4	17.1	20.8	9.5	27.2	68.7	18.7	17.4	3.6	29.0

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. In the 1972 SIC, the categories shown here as "industrial machinery and equipment" and "electronic and other electric equipment" were identified as "machinery, except electrical" and "electric and electronic equipment," respectively.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–91.—*Sales, profits, and stockholders' equity, all manufacturing corporations, 1952–99*

[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	
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[3]	2,596.2	215.3	153.8	957.6	1,284.7	91.6	66.9	468.7	1,311.5	123.7	86.8	488.9
1989	2,745.1	187.6	135.1	999.0	1,356.6	75.1	55.5	501.3	1,388.5	112.6	79.6	497.7
1990	2,810.7	158.1	110.1	1,043.8	1,357.2	57.3	40.7	515.0	1,453.5	100.8	69.4	528.9
1991	2,761.1	98.7	66.4	1,064.1	1,304.0	13.9	7.2	506.8	1,457.1	84.8	59.3	557.4
1992[4]	2,890.2	31.4	22.1	1,034.7	1,389.8	–33.7	–24.0	473.9	1,500.4	65.1	46.0	560.8
1993	3,015.1	117.9	83.2	1,039.7	1,490.2	38.9	27.4	482.7	1,524.9	79.0	55.7	557.1
1994	3,255.8	243.5	174.9	1,110.1	1,657.6	121.0	87.1	533.3	1,598.2	122.5	87.8	576.8
1995	3,528.3	274.5	198.2	1,240.6	1,807.7	130.6	94.3	613.7	1,720.6	143.9	103.9	627.0
1996	3,757.6	306.6	224.9	1,348.0	1,941.6	146.6	106.1	673.9	1,816.0	160.0	118.8	674.2
1997	3,920.0	331.4	244.5	1,462.7	2,075.8	167.0	121.4	743.4	1,844.2	164.4	123.1	719.3
1998	3,952.9	314.2	234.4	1,482.5	2,171.5	174.7	127.9	779.5	1,781.4	139.5	106.5	703.0
1997: I	935.2	82.5	60.6	1,429.3	487.7	38.9	27.0	722.7	447.5	43.6	33.6	706.5
II	987.8	92.4	66.9	1,458.6	527.8	49.5	36.3	736.7	460.1	42.8	30.5	721.9
III	986.0	86.9	62.5	1,483.8	519.5	42.0	29.5	758.4	466.6	44.9	33.0	725.4
IV	1,011.0	69.6	54.5	1,479.3	540.9	36.6	28.5	755.9	470.1	33.0	26.0	723.4
1998: I	958.9	96.8	74.7	1,495.2	522.1	56.3	44.8	766.7	436.9	40.5	29.9	728.5
II	997.9	76.5	54.7	1,469.7	547.4	37.2	25.8	774.7	450.5	39.4	29.0	695.1
III	986.3	82.4	61.2	1,479.2	537.4	39.5	28.1	784.2	448.9	42.9	33.1	694.9
IV	1,009.8	58.4	43.8	1,486.0	564.7	41.7	29.2	792.5	445.2	16.7	14.6	693.5
1999: I	970.8	81.5	59.8	1,498.2	539.4	47.4	33.6	804.4	431.5	34.1	26.2	693.7
II	1,040.8	92.7	66.8	1,529.7	580.6	55.0	39.7	836.7	460.2	37.7	27.1	692.9
III	1,053.4	92.5	69.3	1,562.8	574.5	47.5	35.0	857.4	478.8	45.0	34.4	705.4

[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).

[3] Beginning 1988, profits before and after income taxes reflect inclusion of minority stockholders' interest in net income before and after income taxes.

[4] Data for 1992 (most significantly 1992:I) reflect the early adoption of Financial Accounting Standards Board Statement 106 (Employer's Accounting for Post-Retirement Benefits Other Than Pensions) by a large number of companies during the fourth quarter of 1992. Data for 1993:I also reflect adoption of Statement 106. Corporations must show the cumulative effect of a change in accounting principle in the first quarter of the year in which the change is adopted.

Note.—Data are not necessarily comparable from one period to another due to changes in accounting principles, 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–92.—*Relation of profits after taxes to stockholders' equity and to sales, all manufacturing corporations, 1947–99*

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[2]	16.1	14.3	17.8	5.9	5.2	6.6
1989	13.5	11.1	16.0	4.9	4.1	5.7
1990	10.6	7.9	13.1	3.9	3.0	4.8
1991	6.2	1.4	10.6	2.4	.5	4.1
1992[3]	2.1	–5.1	8.2	.8	–1.7	3.1
1993	8.0	5.7	10.0	2.8	1.8	3.7
1994	15.8	16.3	15.2	5.4	5.3	5.5
1995	16.0	15.4	16.6	5.6	5.2	6.0
1996	16.7	15.7	17.6	6.0	5.5	6.5
1997	16.7	16.3	17.1	6.2	5.8	6.7
1998	15.8	16.4	15.2	5.9	5.9	6.0
1997: I	17.0	15.0	19.0	6.5	5.5	7.5
II	18.3	19.7	16.9	6.8	6.9	6.6
III	16.8	15.5	18.2	6.3	5.7	7.1
IV	14.7	15.1	14.4	5.4	5.3	5.5
1998: I	20.0	23.4	16.4	7.8	8.6	6.8
II	14.9	13.3	16.7	5.5	4.7	6.4
III	16.5	14.3	19.0	6.2	5.2	7.4
IV	11.8	14.7	8.4	4.3	5.2	3.3
1999: I	16.0	16.7	15.1	6.2	6.2	6.1
II	17.5	19.0	15.6	6.4	6.8	5.9
III	17.7	16.3	19.5	6.6	6.1	7.2

[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.
[2] See footnote 3, Table B–91.
[3] See footnote 4, Table B–91.

Note.—Based on data in millions of dollars.
See Note, Table B–91.

Source: Department of Commerce, Bureau of the Census.

TABLE B–93.—*Common stock prices and yields, 1957–99*

Year or month	Common stock prices [1]							Common stock yields (S&P) (percent) [4]	
	New York Stock Exchange indexes (Dec. 31, 1965=50) [2]					Dow Jones industrial average [2]	Standard & Poor's composite index (1941–43=10) [2]	Dividend-price ratio [5]	Earnings-price ratio [6]
	Composite	Industrial	Transportation	Utility [3]	Finance				
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	90.81	44.45	873.60	85.26	3.40	6.63
1967	50.77	51.97	53.51	90.86	49.82	879.12	91.93	3.20	5.73
1968	55.37	58.00	50.58	88.38	65.85	906.00	98.70	3.07	5.67
1969	54.67	57.44	46.96	85.60	70.49	876.72	97.84	3.24	6.08
1970	45.72	48.03	32.14	74.47	60.00	753.19	83.22	3.83	6.45
1971	54.22	57.92	44.35	79.05	70.38	884.76	98.29	3.14	5.41
1972	60.29	65.73	50.17	76.95	78.35	950.71	109.20	2.84	5.50
1973	57.42	63.08	37.74	75.38	70.12	923.88	107.43	3.06	7.12
1974	43.84	48.08	31.89	59.58	49.67	759.37	82.85	4.47	11.59
1975	45.73	50.52	31.10	63.00	47.14	802.49	86.16	4.31	9.15
1976	54.46	60.44	39.57	73.94	52.94	974.92	102.01	3.77	8.90
1977	53.69	57.86	41.09	81.84	55.25	894.63	98.20	4.62	10.79
1978	53.70	58.23	43.50	78.44	56.65	820.23	96.02	5.28	12.03
1979	58.32	64.76	47.34	76.41	61.42	844.40	103.01	5.47	13.46
1980	68.10	78.70	60.61	74.69	64.25	891.41	118.78	5.26	12.66
1981	74.02	85.44	72.61	77.81	73.52	932.92	128.05	5.20	11.96
1982	68.93	78.18	60.41	79.49	71.99	884.36	119.71	5.81	11.60
1983	92.63	107.45	89.36	93.99	95.34	1,190.34	160.41	4.40	8.03
1984	92.46	108.01	85.63	92.89	89.28	1,178.48	160.46	4.64	10.02
1985	108.09	123.79	104.11	113.49	114.21	1,328.23	186.84	4.25	8.12
1986	136.00	155.85	119.87	142.72	147.20	1,792.76	236.34	3.49	6.09
1987	161.70	195.31	140.39	148.59	146.48	2,275.99	286.83	3.08	5.48
1988	149.91	180.95	134.12	143.53	127.26	2,060.82	265.79	3.64	8.01
1989	180.02	216.23	175.28	174.87	151.88	2,508.91	322.84	3.45	7.42
1990	183.46	225.78	158.62	181.20	133.26	2,678.94	334.59	3.61	6.47
1991	206.33	258.14	173.99	185.32	150.82	2,929.33	376.18	3.24	4.79
1992	229.01	284.62	201.09	198.91	179.26	3,284.29	415.74	2.99	4.22
1993	249.58	299.99	242.49	228.90	216.42	3,522.06	451.41	2.78	4.46
1994	254.12	315.25	247.29	209.06	209.73	3,793.77	460.42	2.82	5.83
1995	291.15	367.34	269.41	220.30	238.45	4,493.76	541.72	2.56	6.09
1996	358.17	453.98	327.33	249.77	303.89	5,742.89	670.50	2.19	5.24
1997	456.54	574.52	414.60	283.82	424.48	7,441.15	873.43	1.77	4.57
1998	550.26	681.57	468.69	378.12	516.35	8,625.52	1,085.50	1.49	3.46
1999	619.16	774.78	491.60	473.73	530.86	10,464.88	1,327.33	1.25	.....
1998: Jan	504.13	624.61	458.49	332.50	479.81	7,808.35	963.36	1.62	.....
Feb	532.15	660.91	485.73	341.91	508.97	8,323.61	1,023.74	1.55	.....
Mar	560.70	693.13	508.06	367.48	539.47	8,709.47	1,076.83	1.48	3.59
Apr	578.05	711.89	523.73	378.92	563.07	9,037.44	1,112.20	1.43	.....
May	574.46	712.39	505.02	372.62	551.28	9,080.07	1,108.42	1.45	.....
June	569.76	704.14	492.98	376.51	548.57	8,872.96	1,108.39	1.45	3.44
July	586.39	718.54	503.89	388.78	579.67	9,097.14	1,156.58	1.39	.....
Aug	539.16	665.66	441.36	372.48	511.22	8,478.52	1,074.62	1.48	.....
Sept	506.56	629.51	408.75	372.33	454.28	7,909.79	1,020.64	1.59	3.75
Oct	511.49	636.62	396.61	390.17	448.12	8,164.47	1,032.47	1.59	.....
Nov	564.26	704.46	442.95	412.59	501.45	9,005.75	1,144.43	1.43	.....
Dec	576.05	717.00	456.70	431.14	510.31	9,018.68	1,190.05	1.37	3.07
1999: Jan	595.43	741.43	479.72	449.50	523.38	9,345.86	1,248.77	1.30	.....
Feb	588.70	736.20	477.47	436.49	514.75	9,322.94	1,246.58	1.32	.....
Mar	603.69	751.93	491.25	436.23	544.08	9,753.63	1,281.66	1.30	2.98
Apr	627.75	780.84	523.08	456.96	564.99	10,443.50	1,334.76	1.24	.....
May	635.62	791.72	537.88	470.40	562.66	10,853.87	1,332.07	1.24	.....
June	629.53	783.96	520.66	482.71	546.43	10,704.02	1,322.55	1.25	2.99
July	648.83	809.33	528.72	501.00	557.92	11,052.22	1,380.99	1.20	.....
Aug	621.03	778.82	492.13	483.68	521.59	10,935.47	1,327.49	1.25	.....
Sept	607.87	769.47	462.33	475.42	493.37	10,714.03	1,318.17	1.27	3.43
Oct	599.04	753.94	450.13	478.19	490.92	10,396.88	1,300.01	1.28	.....
Nov	634.22	791.41	474.78	502.59	539.20	10,809.80	1,391.00	1.21	.....
Dec	638.17	808.28	461.04	511.64	510.99	11,246.36	1,428.68	1.18	.....

[1] Averages of daily closing prices, except NYSE data through May 1964 are averages of weekly closing prices.

[2] Includes stocks as follows: for NYSE, all stocks listed (more than 3,500); for Dow-Jones industrial average, 30 stocks; and for S&P composite index, 500 stocks.

[3] Effective April 1993, the NYSE doubled the value of the utility index to facilitate trading of options and futures on the index. Annual indexes prior to 1993 reflect the doubling.

[4] Based on 500 stocks in the S&P composite index.

[5] 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.

[6] 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 (NYSE), Dow Jones & Co., Inc., and Standard & Poor's (S&P).

TABLE B–94.—*Business formation and business failures, 1955–98*

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
1955	96.6	139,915	42	10,969	10,113	856	449.4	206.4	243.0
1956	94.6	141,163	48	12,686	11,615	1,071	562.7	239.8	322.9
1957	90.3	137,112	52	13,739	12,547	1,192	615.3	267.1	348.2
1958	90.2	150,781	56	14,964	13,499	1,465	728.3	297.6	430.7
1959	97.9	193,067	52	14,053	12,707	1,346	692.8	278.9	413.9
1960	94.5	182,713	57	15,445	13,650	1,795	938.6	327.2	611.4
1961	90.8	181,535	64	17,075	15,006	2,069	1,090.1	370.1	720.0
1962	92.6	182,057	61	15,782	13,772	2,010	1,213.6	346.5	867.1
1963	94.4	186,404	56	14,374	12,192	2,182	1,352.6	321.0	1,031.6
1964	98.2	197,724	53	13,501	11,346	2,155	1,329.2	313.6	1,015.6
1965	99.8	203,897	53	13,514	11,340	2,174	1,321.7	321.7	1,000.0
1966	99.3	200,010	52	13,061	10,833	2,228	1,385.7	321.5	1,064.1
1967	100.0	206,569	49	12,364	10,144	2,220	1,265.2	297.9	967.3
1968	108.3	233,635	39	9,636	7,829	1,807	941.0	241.1	699.9
1969	115.8	274,267	37	9,154	7,192	1,962	1,142.1	231.3	910.8
1970	108.8	264,209	44	10,748	8,019	2,729	1,887.8	269.3	1,618.4
1971	111.1	287,577	42	10,326	7,611	2,715	1,916.9	271.3	1,645.6
1972	119.3	316,601	38	9,566	7,040	2,526	2,000.2	258.8	1,741.5
1973	119.1	329,358	36	9,345	6,627	2,718	2,298.6	235.6	2,063.0
1974	113.2	319,149	38	9,915	6,733	3,182	3,053.1	256.9	2,796.3
1975	109.9	326,345	43	11,432	7,504	3,928	4,380.2	298.6	4,081.6
1976	120.4	375,766	35	9,628	6,176	3,452	3,011.3	257.8	2,753.4
1977	130.8	436,170	28	7,919	4,861	3,058	3,095.3	208.3	2,887.0
1978	138.1	478,019	24	6,619	3,712	2,907	2,656.0	164.7	2,491.3
1979	138.3	524,565	28	7,564	3,930	3,634	2,667.4	179.9	2,487.5
1980	129.9	533,520	42	11,742	5,682	6,060	4,635.1	272.5	4,362.6
1981	124.8	581,242	61	16,794	8,233	8,561	6,955.2	405.8	6,549.3
1982	116.4	566,942	88	24,908	11,509	13,399	15,610.8	541.7	15,069.1
1983	117.5	600,420	110	31,334	15,572	15,762	16,072.9	635.1	15,437.8
1984	121.3	634,991	107	52,078	33,527	18,551	29,268.6	409.8	28,858.8
1985	120.9	664,235	115	57,253	36,551	20,702	36,937.4	423.9	36,513.5
1986	120.4	702,738	120	61,616	38,908	22,708	44,724.0	838.3	43,885.7
1987	121.2	685,572	102	61,111	38,949	22,162	34,723.8	746.0	33,977.8
1988	124.1	685,095	98	57,097	38,300	18,797	39,573.0	686.9	38,886.1
1989	124.8	676,565	65	50,361	33,312	17,049	42,328.8	670.5	41,658.2
1990	120.7	647,366	74	60,747	40,833	19,914	56,130.1	735.6	55,394.5
1991	115.2	628,604	107	88,140	60,617	27,523	96,825.3	1,044.9	95,780.4
1992	116.3	666,800	110	97,069	68,264	28,805	94,317.5	1,096.7	93,220.8
1993	121.1	706,537	109	86,133	61,188	24,945	47,755.5	947.6	46,807.9
1994	125.5	741,778	86	71,558	50,814	20,744	28,977.9	845.0	28,132.9
1995	[3]	766,988	82	71,128	49,495	21,633	37,283.6	866.1	36,417.4
1996	[3]	786,482	80	71,931	49,667	22,264	29,568.7	914.9	28,653.8
1997	[3]	798,779	88	83,384	56,050	27,334	37,436.9	1,111.3	36,325.6
	Seasonally adjusted								
1997: Jan	[3]	72,992	.....	7,359	4,956	2,403	3,526.2	92.1	3,434.2
Feb	[3]	69,265	.....	6,793	4,532	2,261	1,220.9	88.2	1,132.7
Mar	[3]	63,587	.....	7,435	4,933	2,502	1,405.5	99.4	1,306.2
Apr	[3]	67,587	.....	7,645	5,074	2,571	2,782.8	108.4	2,674.4
May	[3]	65,354	.....	7,181	4,824	2,357	1,574.0	97.2	1,476.8
June	[3]	62,756	.....	6,890	4,684	2,206	1,225.4	94.5	1,130.8
July	[3]	72,707	.....	7,265	4,843	2,422	3,180.0	98.3	3,081.7
Aug	[3]	60,465	.....	6,825	4,690	2,135	1,822.2	86.4	1,735.8
Sept	[3]	66,819	.....	7,146	4,785	2,361	3,292.9	94.1	3,198.7
Oct	[3]	69,945	.....	7,426	5,071	2,355	1,406.7	99.2	1,307.5
Nov	[3]	58,154	.....	6,000	4,013	1,987	1,685.7	80.9	1,604.9
Dec	[3]	69,041	.....	5,231	3,563	1,668	1,817.8	72.5	1,745.3
1998: Jan	[3]	66,415	.....	6,229	4,574	1,655	2,985.4	65.3	2,920.0
Feb	[3]	66,178	.....	5,847	4,624	1,223	2,472.8	47.8	2,425.0
Mar	[3]	63,408	.....	6,345	4,817	1,528	1,033.0	60.1	972.9
Apr	[3]	64,585	.....	6,560	4,286	2,274	1,114.6	87.4	1,027.2
May	[3]	59,452	.....	5,904	3,962	1,942	1,392.4	83.7	1,308.7
June	[3]	63,983	.....	6,281	4,151	2,130	1,311.2	85.9	1,225.3
July	[3]	70,724	.....	6,575	4,378	2,197	2,535.4	89.7	2,445.8
Aug	[3]	58,827	.....	5,810	3,944	1,866	1,613.3	76.8	1,536.5
Sept	[3]	61,446	.....	5,682	3,715	1,967	2,578.6	81.1	2,497.4
Oct	[3]	.....	.....	6,501	4,245	2,256	3,373.0	95.4	3,277.6
Nov	[3]	.....	.....	5,171	3,379	1,792	1,410.6	75.8	1,334.8

[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. Series is under revision. Data are as last available and are subject to revision.

[2] Failure rate per 10,000 listed enterprises.

[3] Series discontinued in 1995.

Sources: Department of Commerce (Bureau of Economic Analysis) and The Dun & Bradstreet Corporation.

TABLE B–95.—*Farm income, 1945–99*

[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]		
		Total	Livestock and products	Crops			
1945	25.4	21.7	12.0	9.7	–0.4	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
1960	38.6	34.0	19.0	15.0	.4	27.4	11.2
1961	40.5	35.2	19.5	15.7	.3	28.6	12.0
1962	42.3	36.5	20.2	16.3	.6	30.3	12.1
1963	43.4	37.5	20.0	17.4	.6	31.6	11.8
1964	42.3	37.3	19.9	17.4	–.8	31.8	10.5
1965	46.5	39.4	21.9	17.5	1.0	33.6	12.9
1966	50.5	43.4	25.0	18.4	–.1	36.5	14.0
1967	50.5	42.8	24.4	18.4	.7	38.2	12.3
1968	51.8	44.2	25.5	18.7	.1	39.5	12.3
1969	56.4	48.2	28.6	19.6	.1	42.1	14.3
1970	58.8	50.5	29.5	21.0	.0	44.5	14.4
1971	62.1	52.7	30.5	22.3	1.4	47.1	15.0
1972	71.1	61.1	35.6	25.5	.9	51.7	19.5
1973	98.9	86.9	45.8	41.1	3.4	64.6	34.4
1974	98.2	92.4	41.3	51.1	–1.6	71.0	27.3
1975	100.6	88.9	43.1	45.8	3.4	75.0	25.5
1976	102.9	95.4	46.3	49.0	–1.5	82.7	20.2
1977	108.8	96.2	47.6	48.6	1.1	88.9	19.9
1978	128.4	112.4	59.2	53.2	1.9	103.2	25.2
1979	150.7	131.5	69.2	62.3	5.0	123.3	27.4
1980	149.3	139.7	68.0	71.7	–6.3	133.1	16.1
1981	166.3	141.6	69.2	72.5	6.5	139.4	26.9
1982	164.1	142.6	70.3	72.3	–1.4	140.3	23.8
1983	153.9	136.8	69.6	67.2	–10.9	139.6	14.2
1984	168.0	142.8	72.9	69.9	6.0	142.0	26.0
1985	161.2	144.1	69.8	74.3	–2.3	132.6	28.6
1986	156.1	135.4	71.6	63.8	–2.2	125.2	30.9
1987	168.4	141.8	76.0	65.8	–2.3	131.0	37.4
1988	177.9	151.2	79.6	71.6	–4.1	139.9	38.0
1989	191.9	160.8	83.9	76.9	3.8	146.7	45.3
1990	198.0	169.5	89.2	80.3	3.3	153.3	44.7
1991	191.9	167.9	85.8	82.1	–.2	153.3	38.7
1992	200.5	171.3	85.6	85.7	4.2	152.6	47.9
1993	204.8	177.9	90.4	87.4	–4.2	160.2	44.5
1994	216.1	181.3	88.2	93.1	8.3	166.8	49.2
1995	210.7	188.1	87.1	101.0	–5.0	173.5	37.2
1996	235.7	199.1	93.0	106.2	8.0	180.8	54.9
1997	238.7	207.6	96.5	111.1	.5	190.0	48.6
1998	233.1	196.8	94.5	102.2	–1.0	189.0	44.1
1999*p*	239.1	191.9	96.9	95.1	–1.4	191.1	48.1

[1] Cash marketing receipts and inventory changes plus Government payments, other farm cash income, and nonmoney income produced by farms.

[2] Physical changes in end-of-period inventory of crop and livestock commodities valued at average prices during the period.

Note.—Data include net Commodity Credit Corporation loan transactions and operator residences.

Source: Department of Agriculture, Economic Research Service.

TABLE B–96.—*Farm business balance sheet, 1950–98*

[Billions of dollars]

End of year	Assets								Claims			
	Total assets	Physical assets					Financial assets		Total claims	Real estate debt [5]	Non-real estate debt [6]	Proprietors' equity
		Real estate	Nonreal estate				Investments in cooperatives	Other [4]				
			Livestock and poultry [1]	Machinery and motor vehicles	Crops [2]	Purchased inputs [3]						
1950	121.6	75.4	17.1	12.3	7.1	.....	2.7	7.0	121.6	5.2	5.7	110.7
1951	136.1	83.8	19.5	14.3	8.2	.....	2.9	7.3	136.1	5.7	6.9	123.7
1952	133.0	85.1	14.8	15.0	7.9	.....	3.2	7.1	133.0	6.2	7.1	119.7
1953	128.7	84.3	11.7	15.6	6.8	.....	3.3	7.0	128.7	6.6	6.3	115.8
1954	132.6	87.8	11.2	15.7	7.5	.....	3.5	6.9	132.6	7.1	6.7	118.8
1955	137.0	93.0	10.6	16.3	6.5	.....	3.7	6.9	137.0	7.8	7.3	121.9
1956	145.7	100.3	11.0	16.9	6.8	.....	4.0	6.7	145.7	8.5	7.4	129.8
1957	154.5	106.4	13.9	17.0	6.4	.....	4.2	6.6	154.5	9.0	8.2	137.3
1958	168.7	114.6	17.7	18.1	6.9	.....	4.5	6.9	168.7	9.7	9.4	149.6
1959	173.0	121.2	15.2	19.3	6.2	.....	4.8	6.2	173.0	10.6	10.7	151.7
1960	174.3	123.3	15.6	19.1	6.4	.....	4.2	5.8	174.3	11.3	11.1	151.9
1961	181.6	129.1	16.4	19.3	6.5	.....	4.5	5.9	181.6	12.3	11.8	157.5
1962	188.9	134.6	17.3	19.9	6.5	.....	4.6	5.9	188.9	13.5	13.2	162.2
1963	196.7	142.4	15.9	20.4	7.4	.....	5.0	5.7	196.7	15.0	14.6	167.1
1964	204.2	150.5	14.5	21.2	7.0	.....	5.2	5.8	204.2	16.9	15.3	172.1
1965	220.8	161.5	17.6	22.4	7.9	.....	5.4	6.0	220.8	18.9	16.9	185.0
1966	234.0	171.2	19.0	24.1	8.1	.....	5.7	6.0	234.0	20.7	18.5	194.8
1967	246.0	180.9	18.8	26.3	8.0	.....	5.8	6.1	246.0	22.6	19.6	203.9
1968	257.2	189.4	20.2	27.7	7.4	.....	6.1	6.3	257.2	24.7	19.2	213.3
1969	267.8	195.3	22.8	28.6	8.3	.....	6.4	6.4	267.8	26.4	20.0	221.4
1970	278.9	202.4	23.7	30.4	8.7	.....	7.2	6.5	278.9	27.5	21.2	230.2
1971	301.7	217.6	27.3	32.4	10.0	.....	7.9	6.7	301.7	29.3	24.0	248.5
1972	339.9	243.0	33.7	34.6	12.9	.....	8.7	6.9	339.9	32.0	26.7	281.2
1973	418.5	298.3	42.4	39.7	21.4	.....	9.7	7.1	418.5	36.1	31.6	350.9
1974 [7]	449.2	335.6	24.6	48.5	22.5	.....	11.2	6.9	449.2	40.8	35.1	373.3
1975	510.8	383.6	29.4	57.4	20.5	.....	13.0	6.9	510.8	45.3	39.7	425.8
1976	590.7	456.5	29.0	63.3	20.6	.....	14.3	6.9	590.7	50.5	45.6	494.7
1977	651.5	509.3	31.9	69.3	20.4	.....	13.5	7.0	651.5	58.4	52.4	540.7
1978	767.4	601.8	50.1	68.5	23.8	.....	16.1	7.1	767.4	66.7	60.7	640.0
1979	898.1	706.1	61.4	75.4	29.9	.....	18.1	7.3	898.1	79.7	71.8	746.6
1980	983.3	782.8	60.6	80.3	32.8	.....	19.3	7.4	983.3	89.7	77.1	816.5
1981	982.3	785.6	53.5	85.5	29.5	.....	20.6	7.6	982.3	98.8	83.6	799.9
1982	944.6	750.0	53.0	86.0	25.9	.....	21.9	7.8	944.6	101.8	87.0	755.8
1983	943.4	753.4	49.5	85.8	23.7	.....	22.8	8.1	943.4	103.2	87.9	752.4
1984	857.0	661.8	49.5	85.0	26.1	2.0	24.3	8.3	857.0	106.7	87.1	663.2
1985	772.7	586.2	46.3	82.9	22.9	1.2	24.3	9.0	772.7	100.1	77.5	595.1
1986	724.8	542.4	47.8	81.9	16.3	2.1	24.4	10.0	724.8	90.4	66.6	567.9
1987	756.5	563.7	58.0	78.7	17.8	3.2	25.3	9.9	756.5	82.4	62.0	612.1
1988	788.0	582.3	62.2	81.0	23.7	3.5	25.1	10.4	788.0	77.8	61.7	648.5
1989	813.7	600.1	66.2	84.1	23.9	2.6	26.3	10.4	813.7	76.0	61.9	675.9
1990	840.6	619.1	70.9	86.3	23.2	2.8	27.5	10.9	840.6	74.7	63.2	702.6
1991	844.2	624.8	68.1	85.9	22.2	2.6	28.7	11.8	844.2	74.9	64.3	705.0
1992	868.3	640.8	71.0	85.4	24.2	3.9	29.4	13.6	868.3	75.4	63.6	729.3
1993	910.2	677.6	72.8	86.5	23.3	3.8	31.0	15.3	910.2	76.0	65.9	768.3
1994	935.5	704.1	67.9	87.5	23.3	5.0	32.1	15.5	935.5	77.7	69.1	788.7
1995	966.7	740.5	57.8	88.5	27.4	3.4	34.1	15.0	966.7	79.3	71.5	815.9
1996	1,003.9	769.5	60.3	88.9	31.7	4.4	34.9	14.1	1,003.9	81.7	74.4	847.8
1997	1,051.6	808.4	67.1	89.0	32.2	5.1	35.7	14.0	1,051.6	85.4	80.1	886.1
1998	1,064.3	822.8	62.0	88.6	30.1	5.3	41.2	14.2	1,064.3	89.6	83.2	891.4

[1] Excludes commercial broilers; excludes horses and mules beginning 1959; excludes turkeys beginning 1986.
[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] Currency and demand deposits.
[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 exclude operator households.
Beginning 1959, data include Alaska and Hawaii.

Source: Department of Agriculture, Economic Research Service.

TABLE B–97.—*Farm output and productivity indexes, 1948–96*

[1992=100]

Year	Farm output						Productivity indicators[3]	
			Crops					
	Total[1]	Livestock and products	Total[2]	Feed crops	Food grains	Oil crops	Farm output per unit of total factor input	Farm output per unit of farm labor
1948	45	49	43	47	47	17	43	13
1949	45	52	40	43	41	15	40	14
1950	44	54	39	44	38	18	40	14
1951	46	57	40	43	37	16	41	15
1952	48	58	42	44	48	16	43	16
1953	48	59	42	43	44	16	43	17
1954	48	61	41	45	39	18	45	18
1955	50	62	42	47	37	20	44	18
1956	50	64	42	46	38	23	45	19
1957	50	63	42	51	36	23	45	20
1958	52	64	46	54	53	29	47	23
1959	54	67	46	54	43	25	47	23
1960	54	66	48	57	51	27	48	24
1961	56	69	48	53	47	31	50	26
1962	56	69	49	54	43	32	51	26
1963	58	72	51	56	45	33	52	28
1964	58	74	49	52	50	34	53	29
1965	59	71	52	59	52	40	55	31
1966	59	72	52	58	52	43	54	33
1967	62	75	54	64	59	45	56	36
1968	63	75	55	62	62	51	58	38
1969	63	75	57	64	57	52	59	39
1970	63	78	55	60	54	53	59	40
1971	67	79	61	72	63	59	63	43
1972	68	80	61	71	60	59	63	44
1973	71	81	65	73	66	71	64	45
1974	67	79	60	61	70	57	61	46
1975	71	75	68	72	84	71	66	49
1976	72	79	68	73	83	60	64	50
1977	76	80	74	78	78	82	69	55
1978	77	80	76	84	73	87	67	59
1979	82	82	83	89	85	105	70	64
1980	79	85	75	76	94	81	66	64
1981	87	87	87	91	111	93	74	70
1982	87	86	87	93	108	101	76	72
1983	76	88	68	61	92	76	69	64
1984	86	87	85	90	101	87	78	74
1985	89	89	89	100	95	96	84	82
1986	87	90	84	95	83	89	85	86
1987	88	92	86	84	84	88	87	87
1988	83	93	75	62	76	72	83	80
1989	89	94	86	85	83	88	90	86
1990	94	95	92	88	107	87	93	92
1991	94	98	92	86	82	94	92	89
1992	100	100	100	100	100	100	100	100
1993	94	100	90	76	96	85	94	98
1994	107	108	106	102	97	115	105	111
1995	101	110	96	83	90	99	100	110
1996	106	109	103	98	93	107	106	106

[1] Gross production.
[2] Includes items not included in groups shown.
[3] See Table B–98 for farm inputs.

Source: Department of Agriculture, Economic Research Service.

TABLE B–98.—*Farm input use, selected inputs, 1948–99*

Year	Farm population, April[1]		Farm employment (thousands)[3]			Crops harvested (millions of acres)[5]	Selected indexes of input use (1992=100)							
	Number (thousands)	As percent of total population[2]	Total	Self-employed and unpaid workers[4]	Hired workers		Total	Farm labor	Farm real estate	Durable equipment	Energy	Agricultural chemicals[6]	Feed, seed, and purchased livestock[7]	Other purchased inputs
1948	24,383	16.6	10,363	8,026	2,337	356	104	335	101	62	71	31	58	46
1949	24,194	16.2	9,964	7,712	2,252	360	111	328	102	74	78	33	60	78
1950	23,048	15.2	9,926	7,597	2,329	345	110	315	104	85	80	39	60	78
1951	21,890	14.2	9,546	7,310	2,236	344	112	302	106	95	83	38	62	83
1952	21,748	13.9	9,149	7,005	2,144	349	112	293	107	103	86	40	62	85
1953	19,874	12.5	8,864	6,775	2,089	348	110	277	108	107	89	39	63	81
1954	19,019	11.7	8,651	6,570	2,081	346	107	270	109	112	88	40	58	78
1955	19,078	11.5	8,381	6,345	2,036	340	112	274	110	114	91	42	66	80
1956	18,712	11.1	7,852	5,900	1,952	324	112	259	110	115	91	46	68	80
1957	17,656	10.3	7,600	5,660	1,940	324	111	242	110	113	89	45	71	83
1958	17,128	9.8	7,503	5,521	1,982	324	111	231	110	111	87	45	75	86
1959	16,592	9.3	7,342	5,390	1,952	324	114	230	110	111	88	52	76	100
1960	15,635	8.7	7,057	5,172	1,885	324	113	224	110	112	89	54	76	99
1961	14,803	8.1	6,919	5,029	1,890	302	111	218	107	110	91	59	72	97
1962	14,313	7.7	6,700	4,873	1,827	295	111	216	106	108	93	53	75	99
1963	13,367	7.1	6,518	4,738	1,780	298	111	210	107	108	94	57	77	98
1964	12,954	6.7	6,110	4,506	1,604	298	109	198	106	110	96	63	75	97
1965	12,363	6.4	5,610	4,128	1,482	298	108	193	106	112	97	66	74	97
1966	11,595	5.9	5,214	3,854	1,360	294	109	180	105	115	99	74	80	98
1967	10,875	5.5	4,903	3,650	1,253	306	109	171	107	119	98	79	80	99
1968	10,454	5.2	4,749	3,535	1,213	300	107	165	106	124	98	63	81	97
1969	10,307	5.1	4,596	3,419	1,176	290	108	162	105	126	100	68	86	93
1970	9,712	4.7	4,523	3,348	1,175	293	108	160	105	127	100	71	89	90
1971	9,425	4.5	4,436	3,275	1,161	305	107	157	107	129	98	73	86	89
1972	9,610	4.6	4,373	3,228	1,146	294	108	155	105	129	97	79	88	90
1973	9,472	4.5	4,337	3,169	1,168	321	110	156	108	131	99	85	88	95
1974	9,264	4.3	4,389	3,075	1,314	328	110	144	110	139	94	90	88	100
1975	8,864	4.1	4,331	3,021	1,310	336	108	145	109	144	110	81	83	99
1976	8,253	3.8	4,363	2,992	1,371	337	111	143	110	148	124	90	88	102
1977	[8]6,194	[8]2.8	4,143	2,852	1,291	345	109	138	110	152	130	88	83	103
1978	[8]6,501	[8]2.9	3,937	2,680	1,256	338	115	132	109	156	136	96	96	122
1979	[8]6,241	[8]2.8	3,765	2,495	1,270	348	118	128	110	161	124	105	103	129
1980	[8]6,051	[8]2.7	3,699	2,401	1,298	352	119	123	112	166	121	119	109	117
1981	[8]5,850	[8]2.5	[9]3,582	[9]2,324	[9]1,258	366	116	124	112	166	116	110	103	111
1982	[8]5,628	[8]2.4	[9]3,466	[9]2,248	[9]1,218	362	113	120	110	163	109	90	106	104
1983	[8]5,787	[8]2.5	[9]3,349	[9]2,171	[9]1,178	306	110	118	102	155	106	86	108	106
1984	5,754	2.4	[9]3,233	[9]2,095	[9]1,138	348	110	116	108	147	110	99	97	108
1985	5,355	2.2	3,116	2,018	1,098	342	106	108	107	139	98	97	99	99
1986	5,226	2.2	2,912	1,873	1,039	325	102	101	104	130	91	105	99	88
1987	4,986	2.1	2,897	1,846	1,051	302	101	101	100	120	102	100	97	95
1988	4,951	2.1	2,954	1,967	1,037	297	100	103	100	113	102	91	96	99
1989	4,801	2.0	2,863	1,935	928	318	100	104	102	108	101	95	91	103
1990	4,591	1.9	2,891	2,000	892	322	101	102	101	105	100	95	99	103
1991	4,632	1.9	2,877	1,968	910	318	102	106	100	103	101	100	99	104
1992	.....	.....	2,810	1,944	866	319	100	100	100	100	100	100	100	100
1993	.....	.....	2,800	1,942	857	308	101	96	98	97	100	105	101	110
1994	.....	.....	2,767	1,925	842	321	102	96	99	94	103	106	102	117
1995	.....	.....	2,836	1,967	869	314	101	92	98	92	109	90	109	121
1996	.....	.....	2,842	2,010	832	326	100	100	99	89	104	97	95	117
1997	.....	.....	2,867	1,990	877	333	.....	.....	.....	.....	.....	.....	.....	.....
1998	.....	.....	2,827	1,947	880	327	.....	.....	.....	.....	.....	.....	.....	.....
1999 *p*	.....	.....	2,977	2,048	929	328	.....	.....	.....	.....	.....	.....	.....	.....

[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 8. Series discontinued in 1992.

[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–33) because of differences in the method of approach, in concepts of employment, and in time of month for which the data are collected.

[4] Prior to 1982 this category was termed "family workers" and did not include nonfamily unpaid workers.

[5] Acreage harvested plus acreages in fruits, tree nuts, and farm gardens.

[6] Fertilizer, lime, and pesticides.

[7] Includes purchases of broiler- and egg-type chicks and turkey poults and livestock imports for purposes other than immediate slaughter.

[8] 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.

[9] 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 (Economic Research Service) and Department of Commerce (Bureau of the Census).

TABLE B–99.—*Indexes of prices received and prices paid by farmers, 1975–99*

[1990–92=100, except as noted]

Year or month	Prices received by farmers			Prices paid by farmers												Addendum: Average farm real estate value per acre (dollars)[3]
				All commodities, services, interest, taxes, and wage rates[1]	Production items										Wage rates	
	All farm products	Crops	Livestock and products		Total[2]	Feed	Livestock and poultry	Fertilizer	Agricultural chemicals	Fuels	Farm machinery	Farm services		Rent		
1975	73	88	62	47	55	83	39	87	72	40	38	48			44	340
1976	75	87	64	50	59	83	47	74	78	43	43	52			48	397
1977	73	83	64	53	61	82	48	72	71	46	47	57			51	474
1978	83	89	78	58	67	80	65	72	66	48	51	60			55	531
1979	94	98	90	66	76	89	88	77	67	61	56	66			60	628
1980	98	107	89	75	85	98	85	96	71	86	63	81			65	737
1981	100	111	89	82	92	110	80	104	77	98	70	89			70	819
1982	94	98	90	86	94	99	78	105	83	97	76	96			74	823
1983	98	108	88	86	92	107	76	100	87	94	81	82			76	788
1984	101	111	91	89	94	112	73	103	90	93	85	86			77	801
1985	91	98	86	86	91	95	74	98	90	93	85	85			78	713
1986	87	87	88	85	86	88	73	90	89	76	83	83			81	640
1987	89	86	91	87	87	83	85	86	87	76	85	84			85	599
1988	99	104	93	91	90	104	91	94	89	77	89	85			87	632
1989	104	109	100	96	95	110	93	99	93	83	94	91			95	668
1990	104	103	105	99	99	103	102	97	95	100	96	96		96	96	683
1991	100	101	99	100	100	98	102	103	101	104	100	98		100	100	703
1992	98	101	97	101	101	99	96	100	103	96	104	103		104	105	713
1993	101	102	100	104	104	102	104	96	109	93	107	110		100	108	736
1994	100	105	95	106	106	106	94	105	112	89	113	110		108	111	798
1995	102	112	92	109	108	103	82	121	116	89	120	115		117	114	844
1996	112	127	99	115	115	129	75	125	119	102	125	116		128	117	887
1997	107	116	98	118	119	125	94	121	121	106	128	116		136	123	926
1998	101	106	97	115	113	110	88	112	122	84	132	115		120	129	974
1999	95	96	95	115	112	101	95	105	122	97	134	115		117	135	992
1998: Jan	103	109	95	117	116	123	94	116	123	96	131	115		120	131	974
Feb	101	109	94	117	116	122	95	115	123	92	131	115		120	131	.....
Mar	102	111	95	116	114	118	91	115	123	86	131	115		120	131	.....
Apr	104	114	95	116	114	114	94	114	122	89	132	115		120	129	.....
May	103	112	96	116	114	112	92	115	122	91	132	115		120	129	.....
June	102	106	98	115	113	110	88	114	123	85	132	116		120	129	.....
July	102	107	96	115	113	112	83	113	122	82	132	116		120	125	.....
Aug	101	103	99	114	112	107	83	112	124	79	132	116		120	125	.....
Sept	99	101	98	113	110	102	80	110	120	82	132	116		120	125	.....
Oct	99	100	98	114	110	100	86	109	122	81	134	115		120	131	.....
Nov	99	101	97	114	111	103	86	108	122	79	134	114		120	131	.....
Dec	98	100	97	114	110	104	85	107	122	69	134	114		120	131	.....
1999: Jan	97	97	96	115	111	104	90	107	122	69	134	114		117	137	992
Feb	96	98	94	115	111	103	94	106	120	66	134	114		117	137	.....
Mar	96	98	95	115	111	101	92	107	121	72	134	114		117	137	.....
Apr	96	103	90	115	111	102	92	107	121	88	135	114		117	135	.....
May	98	104	93	115	111	102	89	106	120	91	135	115		117	135	.....
June	97	100	95	115	111	101	93	105	121	91	135	116		117	135	.....
July	95	95	94	115	111	98	92	104	121	100	135	116		117	131	.....
Aug	98	99	97	115	112	99	91	104	122	111	135	116		117	131	.....
Sept	96	95	98	116	112	99	94	104	124	116	132	116		117	131	.....
Oct	91	88	96	117	113	100	101	105	124	114	132	116		117	135	.....
Nov	93	89	98	117	114	100	105	104	123	120	133	115		117	135	.....
Dec	92	90	95	118	115	101	110	105	123	124	133	115		117	135	.....

[1] Includes items used for family living, not shown separately.
[2] Includes other production items not shown separately.
[3] Average for 48 States. Annual data are: March 1 for 1975, February 1 for 1976–81, April 1 for 1982–85, February 1 for 1986–89, and January 1 for 1990–99.

Note.—Data on a 1990–92 base prior to 1975 have not been calculated by Department of Agriculture.

Source: Department of Agriculture, National Agricultural Statistics Service.

TABLE B–100.—*U.S. exports and imports of agricultural commodities, 1940–99*

[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	1.7	3.8	4.2	.9	23.8
1981	43.3	9.4	9.6	9.6	2.3	1.5	4.2	16.9	2.0	3.5	2.9	.9	26.4
1982	36.6	6.4	7.9	9.1	2.0	1.5	3.9	15.3	2.3	3.7	2.9	.7	21.3
1983	36.1	7.3	7.4	8.7	1.8	1.5	3.8	16.5	2.3	3.8	2.8	.8	19.6
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	40.1	7.7	7.1	6.3	2.2	1.3	6.4	21.9	4.2	5.0	2.4	1.0	18.2
1990	39.5	7.0	4.8	5.7	2.8	1.4	6.7	22.9	4.9	5.6	1.9	1.1	16.6
1991	39.4	5.7	4.2	6.4	2.5	1.4	7.1	22.9	4.8	5.5	1.9	1.1	16.5
1992	43.1	5.7	5.4	7.2	2.0	1.7	8.0	24.8	4.9	5.7	1.7	1.1	18.3
1993	42.9	5.0	5.6	7.3	1.5	1.3	8.1	25.2	5.0	5.9	1.5	1.0	17.7
1994	46.2	4.7	5.3	7.2	2.7	1.3	9.3	27.1	5.4	5.8	2.5	1.0	19.1
1995	56.3	8.2	6.7	8.9	3.7	1.4	11.0	30.3	5.9	6.0	3.3	1.1	26.0
1996	60.4	9.4	7.4	10.8	2.7	1.4	11.3	33.7	6.9	6.1	2.8	1.4	26.7
1997	57.2	6.0	5.2	12.1	2.7	1.6	11.5	36.3	7.2	6.5	3.9	1.5	20.9
1998	51.8	5.0	5.0	9.5	2.5	1.5	10.7	37.1	7.9	7.0	3.4	1.7	14.7
Jan–Nov:													
1998	47.0	4.5	4.6	8.5	2.2	1.3	9.8	33.9	7.1	6.4	3.2	1.5	13.1
1999	43.9	5.1	4.3	7.3	.8	1.2	9.3	34.5	8.1	6.6	2.6	1.4	9.4

[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, Economic Research Service.

TABLE B–101.—*U.S. international transactions, 1946–99*

[Millions of dollars; quarterly data seasonally adjusted, except as noted. Credits (+), debits (–)]

Year or quarter	Goods[1]			Services			Balance on goods and services	Income receipts and payments			Unilateral current transfers, net[3]	Balance on current account
	Exports	Imports	Balance on goods	Net military transactions[2,3]	Net travel and transportation receipts	Other services, net		Receipts	Payments	Balance on income		
1946	11,764	–5,067	6,697	–424	733	310	7,316	772	–212	560	–2,991	4,885
1947	16,097	–5,973	10,124	–358	946	145	10,857	1,102	–245	857	–2,722	8,992
1948	13,265	–7,557	5,708	–351	374	175	5,906	1,921	–437	1,484	–4,973	2,417
1949	12,213	–6,874	5,339	–410	230	208	5,367	1,831	–476	1,355	–5,849	873
1950	10,203	–9,081	1,122	–56	–120	242	1,188	2,068	–559	1,509	–4,537	–1,840
1951	14,243	–11,176	3,067	169	298	254	3,788	2,633	–583	2,050	–4,954	884
1952	13,449	–10,838	2,611	528	83	309	3,531	2,751	–555	2,196	–5,113	614
1953	12,412	–10,975	1,437	1,753	–238	307	3,259	2,736	–624	2,112	–6,657	–1,286
1954	12,929	–10,353	2,576	902	–269	305	3,514	2,929	–582	2,347	–5,642	219
1955	14,424	–11,527	2,897	–113	–297	299	2,786	3,406	–676	2,730	–5,086	430
1956	17,556	–12,803	4,753	–221	–361	447	4,618	3,837	–735	3,102	–4,990	2,730
1957	19,562	–13,291	6,271	–423	–189	482	6,141	4,180	–796	3,384	–4,763	4,762
1958	16,414	–12,952	3,462	–849	–633	486	2,466	3,790	–825	2,965	–4,647	784
1959	16,458	–15,310	1,148	–831	–821	573	69	4,132	–1,061	3,071	–4,422	–1,282
1960	19,650	–14,758	4,892	–1,057	–964	639	3,508	4,616	–1,238	3,379	–4,062	2,824
1961	20,108	–14,537	5,571	–1,131	–978	732	4,195	4,999	–1,245	3,755	–4,127	3,822
1962	20,781	–16,260	4,521	–912	–1,152	912	3,370	5,618	–1,324	4,294	–4,277	3,387
1963	22,272	–17,048	5,224	–742	–1,309	1,036	4,210	6,157	–1,560	4,596	–4,392	4,414
1964	25,501	–18,700	6,801	–794	–1,146	1,161	6,022	6,824	–1,783	5,041	–4,240	6,823
1965	26,461	–21,510	4,951	–487	–1,280	1,480	4,664	7,437	–2,088	5,350	–4,583	5,431
1966	29,310	–25,493	3,817	–1,043	–1,331	1,497	2,940	7,528	–2,481	5,047	–4,955	3,031
1967	30,666	–26,866	3,800	–1,187	–1,750	1,742	2,604	8,021	–2,747	5,274	–5,294	2,583
1968	33,626	–32,991	635	–596	–1,548	1,759	250	9,367	–3,378	5,990	–5,629	611
1969	36,414	–35,807	607	–718	–1,763	1,964	91	10,913	–4,869	6,044	–5,735	399
1970	42,469	–39,866	2,603	–641	–2,038	2,330	2,254	11,748	–5,515	6,233	–6,156	2,331
1971	43,319	–45,579	–2,260	653	–2,345	2,649	–1,303	12,707	–5,435	7,272	–7,402	–1,433
1972	49,381	–55,797	–6,416	1,072	–3,063	2,965	–5,443	14,765	–6,572	8,192	–8,544	–5,795
1973	71,410	–70,499	911	740	–3,158	3,406	1,900	21,808	–9,655	12,153	–6,913	7,140
1974	98,306	–103,811	–5,505	165	–3,184	4,231	–4,292	27,587	–12,084	15,503	[4] –9,249	1,962
1975	107,088	–98,185	8,903	1,461	–2,812	4,854	12,404	25,351	–12,564	12,787	–7,075	18,116
1976	114,745	–124,228	–9,483	931	–2,558	5,027	–6,082	29,375	–13,311	16,063	–5,686	4,295
1977	120,816	–151,907	–31,091	1,731	–3,565	5,680	–27,246	32,354	–14,217	18,137	–5,226	–14,335
1978	142,075	–176,002	–33,927	857	–3,573	6,879	–29,763	42,088	–21,680	20,408	–5,788	–15,143
1979	184,439	–212,007	–27,568	–1,313	–2,935	7,251	–24,565	63,834	–32,961	30,873	–6,593	–285
1980	224,250	–249,750	–25,500	–1,822	–997	8,912	–19,407	72,606	–42,532	30,073	–8,349	2,317
1981	237,044	–265,067	–28,023	–844	144	12,552	–16,172	86,529	–53,626	32,903	–11,702	5,030
1982	211,157	–247,642	–36,485	112	–992	13,209	–24,156	91,690	–56,572	35,118	–17,139	–6,177
1983	201,799	–268,901	–67,102	–563	–4,227	14,124	–57,767	90,050	–53,703	36,347	–17,778	–39,198
1984	219,926	–332,418	–112,492	–2,547	–8,438	14,404	–109,073	108,958	–73,977	34,981	–20,661	–94,753
1985	215,915	–338,088	–122,173	–4,390	–9,798	14,483	–121,880	98,736	–73,156	25,580	–22,762	–119,062
1986	223,344	–368,425	–145,081	–5,181	–8,779	19,254	–139,786	97,274	–81,907	15,368	–24,818	–149,236
1987	250,208	–409,765	–159,557	–3,844	–8,010	18,658	–152,753	108,428	–94,273	14,155	–24,047	–162,645
1988	320,230	–447,189	–126,959	–6,320	–3,013	20,836	–115,455	137,000	–118,452	18,548	–26,139	–123,046
1989	362,120	–477,365	–115,245	–6,749	3,551	26,934	–91,509	161,566	–141,842	19,724	–27,116	–98,900
1990	389,307	–498,337	–109,030	–7,599	7,501	29,189	–79,939	172,078	–143,649	28,429	–27,821	–79,332
1991	416,913	–490,981	–74,068	–5,274	16,561	33,299	–29,484	149,558	–125,608	23,950	9,819	4,284
1992	440,352	–536,458	–96,106	–1,448	19,969	40,559	–37,025	132,523	–110,253	22,269	–35,873	–50,629
1993	456,832	–589,441	–132,609	1,385	19,714	41,571	–69,940	134,621	–111,445	23,176	–38,522	–85,286
1994	502,398	–668,590	–166,192	2,570	16,305	48,922	–98,395	165,968	–150,061	15,907	–39,192	–121,680
1995	575,845	–749,574	–173,729	4,600	21,772	49,818	–97,539	212,233	–192,823	19,410	–35,437	–113,566
1996	612,057	–803,327	–191,270	4,707	24,969	57,276	–104,318	224,619	–207,409	17,210	–42,187	–129,295
1997	679,715	–876,366	–196,651	5,863	21,948	64,110	–104,730	258,663	–255,432	3,231	–41,966	–143,465
1998	670,246	–917,178	–246,932	4,314	10,405	67,931	–164,282	258,324	–270,529	–12,205	–44,075	–220,562
1997:												
I	162,979	–212,187	–49,208	1,314	5,956	15,326	–26,612	61,603	–60,542	1,061	–9,347	–34,898
II	169,895	–217,773	–47,878	2,096	5,465	16,128	–24,189	65,430	–63,218	2,212	–9,494	–31,471
III	173,447	–222,362	–48,915	1,509	5,387	16,296	–25,723	66,580	–66,376	204	–10,096	–35,615
IV	173,394	–224,044	–50,650	944	5,143	16,362	–28,201	65,050	–65,297	–247	–13,030	–41,478
1998:												
I	170,665	–225,541	–54,876	1,508	3,471	16,559	–33,338	66,458	–66,211	247	–9,927	–43,018
II	165,198	–228,698	–63,500	1,428	2,997	17,114	–41,961	66,574	–67,127	–553	–9,886	–52,400
III	164,259	–229,228	–64,969	703	1,685	16,857	–45,724	62,209	–69,174	–6,965	–10,787	–63,476
IV	170,124	–233,711	–63,587	675	2,251	17,399	–43,262	63,081	–68,014	–4,933	–13,474	–61,669
1999:												
I	164,292	–238,495	–74,203	837	1,947	17,445	–53,974	64,028	–68,368	–4,340	–10,340	–68,654
II	165,862	–250,274	–84,412	506	1,770	17,051	–65,085	66,857	–71,469	–4,612	–11,212	–80,909
III *p*	173,578	–265,723	–92,145	407	826	17,087	–73,825	69,563	–74,483	–4,920	–11,204	–89,949

[1] Adjusted from Census data for differences in valuation, coverage, and timing; excludes military.
[2] Quarterly data are not seasonally adjusted.
[3] Includes transfers of goods and services under U.S. military grant programs.

See next page for continuation of table.

TABLE B–101.—*U.S. international transactions, 1946–99*—Continued

[Millions of dollars; quarterly data seasonally adjusted, except as noted]

Year or quarter	Capital account[2]	Financial account							Statistical discrepancy	
		U.S.-owned assets abroad, net [increase/capital outflow (–)]				Foreign-owned assets in the U.S., net [increase/capital inflow (+)]				
		Total	U.S. official reserve assets[2 5]	Other U.S. Government assets[2]	U.S. private assets	Total	Foreign official assets[2]	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		–8,470	3,348	–1,589	–10,229	6,359	6,908	–550	–219	
1971		–11,758	3,066	–1,884	–12,940	22,970	26,879	–3,909	–9,779	
1972		–13,787	706	–1,568	–12,925	21,461	10,475	10,986	–1,879	
1973		–22,874	158	–2,644	–20,388	18,388	6,026	12,362	–2,654	
1974		–34,745	–1,467	[4]366	–33,643	35,341	10,546	24,796	–2,558	
1975		–39,703	–849	–3,474	–35,380	17,170	7,027	10,143	4,417	
1976		–51,269	–2,558	–4,214	–44,498	38,018	17,693	20,326	8,955	
1977		–34,785	–375	–3,693	–30,717	53,219	36,816	16,403	–4,099	
1978		–61,130	732	–4,660	–57,202	67,036	33,678	33,358	9,236	
1979		–64,915	6	–3,746	–61,176	40,852	–13,665	54,516	24,349	
1980		–85,815	–7,003	–5,162	–73,651	62,612	15,497	47,115	20,886	
1981		–113,054	–4,082	–5,097	–103,875	86,232	4,960	81,272	21,792	
1982	199	–127,825	–4,965	–6,131	–116,729	96,578	3,593	92,986	37,224	
1983	209	–66,423	–1,196	–5,006	–60,222	88,783	5,845	82,938	16,630	
1984	235	–40,515	–3,131	–5,489	–31,896	117,973	3,140	114,833	17,059	
1985	315	–44,946	–3,858	–2,821	–38,268	146,452	–1,119	147,570	17,242	
1986	301	–111,933	312	–2,022	–110,224	230,345	35,648	194,696	30,524	
1987	365	–79,540	9,149	1,006	–89,694	249,016	45,387	203,629	–7,196	
1988	493	–106,860	–3,912	2,967	–105,915	246,948	39,758	207,190	–17,535	
1989	336	–175,662	–25,293	1,233	–151,602	225,307	8,503	216,804	48,920	
1990	–6,579	–81,570	–2,158	2,317	–81,729	142,028	33,910	108,118	25,454	
1991	–4,479	–64,732	5,763	2,924	–73,419	111,332	17,389	93,944	–46,405	
1992	612	–74,877	3,901	–1,667	–77,111	171,815	40,477	131,338	–46,921	
1993	–88	–201,014	–1,379	–351	–199,284	283,230	71,753	211,477	3,157	
1994	–469	–176,586	5,346	–390	–181,542	307,306	39,583	267,723	–8,571	
1995	372	–330,675	–9,742	–984	–319,949	467,552	109,880	357,672	–23,683	
1996	672	–380,762	6,668	–989	–386,441	574,847	127,390	447,457	–65,462	
1997	292	–465,296	–1,010	68	–464,354	751,661	18,119	733,542	–143,192	
1998	617	–292,818	–6,784	–429	–285,605	502,637	–21,684	524,321	10,126	
1997:										
I	135	–144,665	4,480	–76	–149,069	185,303	27,524	157,779	–5,875	4,724
II	56	–91,124	–236	–298	–90,590	152,767	–6,177	158,944	–30,228	–682
III	19	–112,578	–730	377	–112,225	188,126	23,260	164,866	–39,952	–10,546
IV	82	–116,929	–4,524	65	–112,470	225,466	–26,488	251,954	–67,141	6,500
1998:										
I	143	–59,599	–444	–81	–59,074	96,817	11,004	85,813	5,657	5,915
II	160	–120,517	–1,945	–483	–118,089	162,466	–10,551	173,017	10,291	528
III	148	–62,097	–2,026	185	–60,256	93,547	–46,489	140,036	31,878	–10,582
IV	166	–50,607	–2,369	–50	–48,188	149,805	24,352	125,453	–37,695	4,144
1999:										
I	166	–15,148	4,068	119	–19,335	88,860	4,708	84,152	–5,224	5,264
II	178	–154,713	1,159	–392	–155,480	274,271	–628	274,899	–38,827	276
III *p*	166	–101,483	1,950	–673	–102,760	207,153	12,106	195,047	–15,887	–10,209

[4] Includes extraordinary U.S. Government transactions with India.

[5] 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–102.—*U.S. international trade in goods by principal end-use category, 1965–99*

[Billions of dollars; quarterly data seasonally adjusted]

Year or quarter	Exports							Imports						
			Nonagricultural products							Nonpetroleum products				
	Total	Agricultural products	Total	Industrial supplies and materials	Capital goods except automotive	Automotive	Other	Total	Petroleum and products	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	34.2	47.5	15.2	15.3	176.0	42.6	133.4	40.7	19.3	25.0	48.4
1979	184.4	35.5	149.0	52.2	60.2	17.9	18.7	212.0	60.4	151.6	47.5	24.6	26.6	52.8
1980	224.3	42.0	182.2	65.1	76.3	17.4	23.4	249.8	79.5	170.2	53.0	31.6	28.3	57.4
1981	237.0	44.1	193.0	63.6	84.2	19.7	25.5	265.1	78.4	186.7	56.1	37.1	31.0	62.4
1982	211.2	37.3	173.9	57.7	76.5	17.2	22.4	247.6	62.0	185.7	48.6	38.4	34.3	64.3
1983	201.8	37.1	164.7	52.7	71.7	18.5	21.8	268.9	55.1	213.8	53.7	43.7	43.0	73.3
1984	219.9	38.4	181.5	56.8	77.0	22.4	25.3	332.4	58.1	274.4	66.1	60.4	56.5	91.4
1985	215.9	29.6	186.3	54.8	79.3	24.9	27.2	338.1	51.4	286.7	62.6	61.3	64.9	97.9
1986	223.3	27.2	196.2	59.4	82.8	25.1	28.9	368.4	34.3	334.1	69.9	72.0	78.1	114.2
1987	250.2	29.8	220.4	63.7	92.7	27.6	36.4	409.8	42.9	366.8	70.8	85.1	85.2	125.7
1988	320.2	38.8	281.4	82.6	119.1	33.4	46.3	447.2	39.6	407.6	83.1	102.2	87.9	134.4
1989	362.1	42.2	319.9	91.8	138.9	34.9	54.3	477.4	50.9	426.5	84.5	112.2	87.4	142.5
1990	389.3	40.2	349.1	96.9	152.5	36.5	63.2	498.3	62.3	436.1	82.9	116.1	88.5	148.6
1991	416.9	40.1	376.8	101.7	166.5	40.0	68.6	491.0	51.7	439.2	81.2	120.8	85.7	151.5
1992	440.4	44.0	396.3	101.7	176.1	47.0	71.5	536.5	51.6	484.9	89.0	134.3	91.8	169.8
1993	456.8	43.7	413.1	105.0	182.1	52.5	73.5	589.4	51.5	538.0	101.0	152.3	102.4	182.3
1994	502.4	47.1	455.3	112.6	205.2	57.8	79.8	668.6	51.3	617.3	113.7	184.4	118.3	201.0
1995	575.8	57.2	518.6	135.5	233.8	61.8	87.5	749.6	56.2	693.4	128.9	221.4	123.8	219.3
1996	612.1	61.5	550.6	138.0	253.3	65.0	94.3	803.3	72.7	730.6	136.7	228.1	128.9	236.8
1997	679.7	58.4	621.3	147.7	295.7	74.0	103.8	876.4	71.8	804.6	145.6	253.3	139.8	265.9
1998	670.2	53.1	617.1	138.5	300.1	73.2	105.4	917.2	50.9	866.3	152.2	269.6	149.1	295.5
1997: I	163.0	14.5	148.5	36.0	69.5	17.6	25.4	212.2	19.4	192.8	35.9	59.3	35.0	62.7
II	169.9	14.5	155.4	37.7	73.3	18.3	26.0	217.8	17.7	200.1	37.1	62.6	34.6	65.8
III	173.4	14.4	159.1	36.9	77.0	19.1	26.1	222.4	17.6	204.8	36.0	65.5	35.4	67.9
IV	173.4	15.1	158.3	37.0	76.0	19.0	26.3	224.0	17.1	206.9	36.5	65.9	34.9	69.6
1998: I	170.7	14.0	156.6	36.2	75.2	19.3	26.0	225.5	13.6	211.9	37.7	66.7	36.3	71.2
II	165.2	13.2	152.0	34.5	72.9	18.1	26.5	228.7	13.4	215.3	38.4	67.3	36.3	73.3
III	164.3	12.3	152.0	33.7	74.8	17.1	26.5	229.2	12.5	216.8	38.6	67.0	36.1	75.0
IV	170.1	13.6	156.5	34.2	77.3	18.7	26.3	233.7	11.5	222.3	37.4	68.5	40.3	76.0
1999: I	164.3	11.8	152.5	32.2	75.4	17.9	26.9	238.5	10.6	227.9	36.4	69.8	42.9	78.8
II	165.9	12.3	153.6	33.2	74.9	18.8	26.8	250.3	15.9	234.4	37.3	72.9	43.8	80.3
III *p*	173.6	12.9	160.6	35.0	79.7	19.0	27.0	265.7	19.6	246.1	40.4	75.6	46.5	83.6

[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 goods exports were redefined to include reexports; beginning with data for 1978, reexports (exports of foreign goods) are assigned to detailed end-use categories in the same manner as exports of domestic goods.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–103.—*U.S. international trade in goods by area, 1990–99*

[Billions of dollars]

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 first 3 quarters at annual rate[1]
EXPORTS	389.3	416.9	440.4	456.8	502.4	575.8	612.1	679.7	670.2	671.6
Industrial countries	253.8	261.3	265.1	270.6	295.2	338.1	355.7	386.5	389.8	396.6
Canada	83.5	85.9	91.4	101.2	114.8	127.6	135.2	152.1	156.8	164.8
Japan	47.8	47.2	46.9	46.7	51.8	63.1	66.0	64.6	56.6	55.9
Western Europe[2]	111.4	116.8	114.5	111.3	115.3	132.5	138.0	153.0	159.1	160.4
Australia, New Zealand, and South Africa	11.2	11.4	12.4	11.5	13.2	15.0	16.6	16.9	17.2	15.4
Australia	8.3	8.3	8.7	8.1	9.6	10.5	11.7	11.9	11.8	11.1
Other countries, except Eastern Europe	130.6	150.4	169.5	179.8	201.7	232.0	249.1	285.5	273.1	269.7
OPEC[3]	12.7	18.4	19.7	18.7	17.1	18.3	20.2	24.2	23.4	17.0
Other[4]	117.9	132.0	149.8	161.1	184.6	213.7	228.9	261.3	249.7	252.7
Eastern Europe[2]	4.3	4.8	5.6	6.2	5.3	5.7	7.3	7.7	7.4	5.4
International organizations and unallocated	.6	.4	.1	.2	.1	.....	.....	.....	.....	.....
IMPORTS	498.3	491.0	536.5	589.4	668.6	749.6	803.3	876.4	917.2	1,006.0
Industrial countries	299.9	294.3	316.3	347.8	389.8	425.4	443.2	476.5	501.7	545.1
Canada	93.1	93.0	100.9	113.3	131.1	147.1	158.7	170.1	175.8	198.0
Japan	90.4	92.3	97.4	107.2	119.1	123.5	115.2	121.7	121.9	128.2
Western Europe[2]	109.2	102.0	111.4	120.9	132.9	147.7	161.7	175.8	194.0	208.7
Australia, New Zealand, and South Africa	7.3	7.0	6.6	6.4	6.7	7.1	7.7	9.0	10.1	10.1
Australia	4.4	4.1	3.7	3.3	3.2	3.4	3.9	4.9	5.4	5.3
Other countries, except Eastern Europe	196.1	194.9	218.2	238.1	272.9	317.2	353.2	391.4	404.5	449.7
OPEC[3]	37.0	33.4	32.4	32.6	31.7	34.3	42.7	44.0	33.9	39.2
Other[4]	159.1	161.5	185.8	205.4	241.3	282.9	310.5	347.4	370.6	410.5
Eastern Europe[2]	2.3	1.8	2.0	3.5	5.8	7.0	7.0	8.5	10.9	11.2
International organizations and unallocated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BALANCE (excess of exports +)	–109.0	–74.1	–96.1	–132.6	–166.2	–173.7	–191.3	–196.7	–246.9	–334.3
Industrial countries	–46.1	–33.0	–51.2	–77.2	–94.6	–87.3	–87.5	–90.0	–112.0	–148.5
Canada	–9.6	–7.1	–9.5	–12.2	–16.3	–19.6	–23.5	–18.0	–19.0	–33.2
Japan	–42.6	–45.0	–50.5	–60.5	–67.3	–60.3	–49.2	–57.1	–65.3	–72.3
Western Europe[2]	2.2	14.8	3.1	–9.7	–17.6	–15.2	–23.6	–22.8	–34.9	–48.3
Australia, New Zealand, and South Africa	3.9	4.4	5.8	5.2	6.6	7.9	8.9	7.9	7.2	5.3
Australia	3.9	4.2	5.0	4.8	6.4	7.1	7.8	7.0	6.4	5.8
Other countries, except Eastern Europe	–65.5	–44.5	–48.7	–58.3	–71.2	–85.2	–104.1	–105.9	–131.4	–180.0
OPEC[3]	–24.3	–15.0	–12.7	–14.0	–14.6	–15.9	–22.4	–19.9	–10.5	–22.1
Other[4]	–41.2	–29.5	–36.0	–44.3	–56.6	–69.2	–81.6	–86.1	–120.9	–157.8
Eastern Europe[2]	2.1	3.0	3.7	2.7	–.5	–1.3	.3	–.7	–3.5	–5.8
International organizations and unallocated	.6	.4	.1	.2	.1	.....	.....	.....	.....	.....

[1] Preliminary; seasonally adjusted.

[2] The former German Democratic Republic (East Germany) included in Western Europe beginning fourth quarter 1990 and in Eastern Europe prior to that time.

[3] Organization of Petroleum Exporting Countries, consisting of Algeria, Ecuador (through 1992), Gabon (through 1994), Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

[4] 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–104.—*U.S. international trade in goods on balance of payments (BOP) and Census basis, and trade in services on BOP basis, 1974–99*

[Billions of dollars; monthly data seasonally adjusted]

Year or month	Goods: Exports (f.a.s. value) [1] [2]							Goods: Imports (customs value, except as noted) [5]							Services (BOP basis)	
		Census basis (by end-use category)							Census basis (by end-use category)							
	Total, BOP basis [3]	Total, Census basis [3] [4]	Foods, feeds, and beverages	Industrial supplies and materials	Capital goods except automotive	Automotive vehicles, parts, and engines	Consumer goods (nonfood) except automotive	Total, BOP basis	Total, Census basis [4]	Foods, feeds, and beverages	Industrial supplies and materials	Capital goods except automotive	Automotive vehicles, parts, and engines	Consumer goods (nonfood) except automotive	Exports	Imports
	F.a.s. value [2]							F.a.s. value [2]								
1974	98.3	99.4	.....	.....	.....	.....	.....	103.8	103.3	.....	.....	.....	.....	.....	22.6	21.4
1975	107.1	108.9	.....	.....	.....	.....	.....	98.2	99.3	.....	.....	.....	.....	.....	25.5	22.0
1976	114.7	116.8	.....	.....	.....	.....	.....	124.2	124.6	.....	.....	.....	.....	.....	28.0	24.6
1977	120.8	123.2	.....	.....	.....	.....	.....	151.9	151.5	.....	.....	.....	.....	.....	31.5	27.6
1978	142.1	145.8	.....	.....	.....	.....	.....	176.0	176.1	.....	.....	.....	.....	.....	36.4	32.2
1979	184.4	186.4	.....	.....	.....	.....	.....	212.0	210.3	.....	.....	.....	.....	.....	39.7	36.7
1980	224.3	225.6	.....	.....	.....	.....	.....	249.8	245.3	.....	.....	.....	.....	.....	47.6	41.5
								Customs value								
1981	237.0	238.7	.....	.....	.....	.....	.....	265.1	261.0	.....	.....	.....	.....	.....	57.4	45.5
1982	211.2	216.4	31.3	61.7	72.7	15.7	14.3	247.6	244.0	17.1	112.0	35.4	33.3	39.7	64.1	51.7
1983	201.8	205.6	30.9	56.7	67.2	16.8	13.4	268.9	258.0	18.2	107.0	40.9	40.8	44.9	64.3	55.0
1984	219.9	224.0	31.5	61.7	72.0	20.6	13.3	332.4	[6] 330.7	21.0	123.7	59.8	53.5	60.0	71.2	67.7
1985	215.9	[7] 218.8	24.0	58.5	73.9	22.9	12.6	338.1	[6] 336.5	21.9	113.9	65.1	66.8	68.3	73.2	72.9
1986	223.3	[7] 227.2	22.3	57.3	75.8	21.7	14.2	368.4	365.4	24.4	101.3	71.8	78.2	79.4	85.4	80.1
1987	250.2	254.1	24.3	66.7	86.2	24.6	17.7	409.8	406.2	24.8	111.0	84.5	85.2	88.7	97.6	90.8
1988	320.2	322.4	32.3	85.1	109.2	29.3	23.1	447.2	441.0	24.8	118.3	101.4	87.7	95.9	110.0	98.5
1989	362.1	363.8	37.2	99.3	138.8	34.8	36.4	477.4	473.2	25.1	132.3	113.3	86.1	102.9	126.2	102.5
1990	389.3	393.6	35.1	104.4	152.7	37.4	43.3	498.3	495.3	26.6	143.2	116.4	87.3	105.7	146.8	117.7
1991	416.9	421.7	35.7	109.7	166.7	40.0	45.9	491.0	488.5	26.5	131.6	120.7	85.7	108.0	163.0	118.5
1992	440.4	448.2	40.3	109.1	175.9	47.0	51.4	536.5	532.7	27.6	138.6	134.3	91.8	122.7	175.6	116.5
1993	456.8	465.1	40.6	111.8	181.7	52.4	54.7	589.4	580.7	27.9	145.6	152.4	102.4	134.0	185.0	122.3
1994	502.4	512.6	42.0	121.4	205.0	57.8	60.0	668.6	663.3	31.0	162.1	184.4	118.3	146.3	199.7	131.9
1995	575.8	584.7	50.5	146.2	233.0	61.8	64.4	749.6	743.5	33.2	181.8	221.4	123.8	159.9	217.6	141.4
1996	612.1	625.1	55.5	147.7	253.0	65.0	70.1	803.3	795.3	35.7	204.5	228.1	128.9	172.0	237.7	150.8
1997	679.7	689.2	51.5	158.2	294.5	74.0	77.4	876.4	869.7	39.7	213.8	253.3	139.8	193.8	258.8	166.9
1998	670.2	682.1	46.4	148.3	299.6	73.2	79.3	917.2	911.9	41.2	200.1	269.6	149.1	216.5	263.7	181.0
1998: Jan	57.7	58.4	4.1	13.3	25.3	6.4	6.6	74.9	74.3	3.3	17.1	21.9	11.8	17.4	21.6	14.4
Feb	56.5	57.3	4.2	12.7	24.9	6.4	6.5	74.0	73.8	3.5	16.8	22.1	11.9	16.9	21.5	14.7
Mar	56.4	57.3	4.0	12.7	24.6	6.5	6.5	76.6	76.1	3.4	16.7	22.7	12.6	18.0	22.0	14.6
Apr	55.3	56.0	3.8	12.4	24.1	6.3	6.6	76.2	75.9	3.4	17.3	22.1	12.1	18.1	22.7	15.1
May	54.9	55.6	3.8	12.5	24.0	6.0	6.5	77.1	76.8	3.4	17.5	22.9	12.4	18.0	22.3	14.9
June	55.0	55.9	3.9	12.0	24.7	5.8	6.7	75.4	75.1	3.5	16.7	22.3	11.8	18.1	21.7	15.1
July	54.2	55.1	3.7	11.9	24.9	5.1	6.7	75.2	74.9	3.5	16.6	22.3	11.0	18.3	21.7	15.3
Aug	54.6	55.9	3.7	12.1	24.3	5.9	6.7	76.9	76.2	3.4	16.9	22.3	12.3	18.1	21.6	15.2
Sept	55.5	56.4	3.3	12.0	25.5	6.1	6.7	77.1	76.5	3.4	16.5	22.4	12.8	18.3	21.8	15.3
Oct	57.2	58.4	4.0	12.4	26.1	6.2	6.6	78.2	77.6	3.4	16.5	22.9	13.0	18.4	22.4	15.8
Nov	56.9	58.5	3.9	12.5	25.7	6.3	6.6	78.5	77.9	3.4	16.2	23.1	13.4	18.5	22.2	15.3
Dec	56.0	57.2	4.0	11.8	25.5	6.2	6.5	77.1	76.8	3.5	15.3	22.5	13.9	18.4	22.2	15.3
1999: Jan	55.3	56.2	3.6	11.3	25.6	6.0	6.6	78.6	78.4	3.5	15.5	23.1	14.0	18.9	22.6	15.4
Feb	54.7	55.8	3.6	11.4	24.9	6.0	6.8	79.9	79.7	3.5	15.4	23.6	14.3	19.4	22.3	15.7
Mar	54.3	55.4	3.6	11.4	24.9	5.8	6.5	80.0	79.8	3.4	16.0	23.0	14.6	18.9	22.7	16.4
Apr	55.3	56.3	3.7	11.6	25.1	6.2	6.7	80.6	80.3	3.5	17.0	23.3	13.7	19.4	22.8	16.3
May	55.1	56.3	3.7	11.7	25.0	6.1	6.5	83.0	82.8	3.6	18.0	24.2	14.6	18.9	22.8	16.4
June	55.5	56.7	3.8	11.7	24.8	6.5	6.5	86.7	86.4	3.8	18.2	25.5	15.5	19.9	23.1	16.6
July	55.9	56.9	3.8	11.5	25.7	6.1	6.7	87.3	87.1	3.7	18.7	25.5	15.5	20.2	22.9	16.8
Aug	59.1	60.0	3.9	12.5	27.4	6.7	6.6	89.3	88.8	3.7	19.9	25.1	15.7	20.2	23.0	16.9
Sept	58.9	60.1	4.0	13.1	26.7	6.2	6.9	89.1	88.3	3.7	20.3	24.9	15.4	20.3	23.1	17.0
Oct	58.9	59.8	4.0	13.3	26.4	6.3	6.7	90.7	90.2	3.6	20.8	25.8	15.1	20.9	23.4	17.2
Nov[p]	59.5	60.2	3.8	13.9	26.6	6.2	7.0	92.0	91.1	3.7	20.8	26.2	15.5	21.2	23.3	17.4

[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] F.a.s. (free alongside ship) value basis at U.S. port of exportation for exports and at foreign port of exportation for imports.

[3] Includes undocumented exports to Canada through 1988. Beginning 1989, undocumented exports to Canada are included in the appropriate end-use category.

[4] Total includes "other" exports or imports, not shown separately.

[5] Total arrivals of imported goods other than intransit shipments.

[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.—Goods on a Census basis are adjusted to a BOP basis by the Bureau of Economic Analysis, in line with concepts and definitions used to prepare international and national accounts. The adjustments are necessary to supplement coverage of Census data, to eliminate duplication of transactions recorded elsewhere in international accounts, and to value transactions according to a standard definition.

Data include trade of the U.S. Virgin Islands.

Source: Department of Commerce (Bureau of the Census and Bureau of Economic Analysis).

TABLE B–105.—*International investment position of the United States at year-end, 1990–98*

[Billions of dollars]

Type of investment	1990	1991	1992	1993	1994	1995	1996	1997	1998
NET INTERNATIONAL INVESTMENT POSITION OF THE UNITED STATES:									
With direct investment at current cost	–240.6	–301.6	–421.1	–295.3	–300.5	–500.2	–578.7	–968.2	–1,239.2
With direct investment at market value	–166.8	–263.1	–454.6	–180.4	–174.3	–422.6	–547.5	–1,066.3	–1,537.5
U.S.-OWNED ASSETS ABROAD:									
With direct investment at current cost	2,150.0	2,254.5	2,298.6	2,718.4	2,956.8	3,405.8	3,958.5	4,508.6	4,930.9
With direct investment at market value	2,291.7	2,468.4	2,464.2	3,055.3	3,276.1	3,869.7	4,544.5	5,288.9	5,948.0
U.S. official reserve assets	174.7	159.2	147.4	164.9	163.4	176.1	160.7	134.8	146.0
Gold [1]	102.4	92.6	87.2	102.6	100.1	101.3	96.7	75.9	75.3
Special drawing rights	11.0	11.2	8.5	9.0	10.0	11.0	10.3	10.0	10.6
Reserve position in the International Monetary Fund	9.1	9.5	11.8	11.8	12.0	14.6	15.4	18.1	24.1
Foreign currencies	52.2	45.9	40.0	41.5	41.2	49.1	38.3	30.8	36.0
U.S. Government assets, other than official reserves	82.0	79.1	80.7	81.0	80.1	81.1	82.0	82.0	82.4
U.S. credits and other long-term assets	81.4	77.5	79.1	79.1	77.8	78.5	79.6	79.6	80.2
Repayable in dollars	80.0	76.3	78.0	78.1	77.3	78.1	79.3	79.3	79.9
Other	1.3	1.2	1.1	1.0	.5	.4	.4	.3	.3
U.S. foreign currency holdings and U.S. short-term assets	.6	1.6	1.6	1.9	2.3	2.5	2.4	2.4	2.2
U.S. private assets:									
With direct investment at current cost	1,893.3	2,016.1	2,070.5	2,472.5	2,713.3	3,148.6	3,715.7	4,291.8	4,702.5
With direct investment at market value	2,035.1	2,230.0	2,236.0	2,809.3	3,032.6	3,612.5	4,301.7	5,072.1	5,719.6
Direct investment abroad:									
At current cost	590.0	613.7	633.1	690.7	748.5	843.3	940.2	1,004.2	1,123.4
At market value	731.8	827.5	798.6	1,027.5	1,067.8	1,307.2	1,526.2	1,784.5	2,140.5
Foreign securities	342.3	455.8	515.1	853.5	948.7	1,169.6	1,468.0	1,739.4	1,969.0
Bonds	144.7	176.8	200.8	309.7	321.2	392.8	465.1	538.4	561.8
Corporate stocks	197.6	279.0	314.3	543.9	627.5	776.8	1,002.9	1,201.0	1,407.1
U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	265.3	256.3	254.3	242.0	323.0	367.6	450.0	562.4	596.2
U.S. claims reported by U.S. banks, not included elsewhere	695.7	690.4	668.0	686.2	693.1	768.1	857.5	985.8	1,013.9
FOREIGN-OWNED ASSETS IN THE UNITED STATES:									
With direct investment at current cost	2,390.5	2,556.1	2,719.7	3,013.7	3,257.3	3,905.9	4,537.2	5,476.8	6,170.1
With direct investment at market value	2,458.6	2,731.4	2,918.8	3,235.7	3,450.4	4,292.3	5,092.0	6,355.2	7,485.4
Foreign official assets in the United States	373.3	398.5	437.3	509.4	535.2	671.7	799.0	835.7	836.1
U.S. Government securities	291.2	311.2	329.3	381.7	407.2	497.8	610.5	614.5	620.2
U.S. Treasury securities	285.9	306.0	322.6	373.1	396.9	482.8	590.7	589.8	589.0
Other	5.3	5.2	6.7	8.6	10.3	15.0	19.8	24.7	31.3
Other U.S. Government liabilities	17.2	18.6	20.8	22.1	23.7	23.6	23.3	21.5	18.3
U.S. liabilities reported by U.S. banks, not included elsewhere	39.9	38.4	55.0	69.7	73.4	107.4	113.1	135.4	123.9
Other foreign official assets	24.9	30.3	32.2	35.9	31.0	43.0	52.2	64.3	73.5
Other foreign assets in the United States:									
With direct investment at current cost	2,017.2	2,157.5	2,282.5	2,504.3	2,722.1	3,234.2	3,738.2	4,641.1	5,334.0
With direct investment at market value	2,085.3	2,332.9	2,481.5	2,726.3	2,915.2	3,620.6	4,293.0	5,519.4	6,649.4
Direct investment in the United States:									
At current cost	471.6	493.7	497.1	546.4	564.7	619.4	674.3	764.0	878.7
At market value	539.6	669.1	696.2	768.4	757.9	1,005.7	1,229.1	1,642.4	2,194.1
U.S. Treasury securities	152.5	170.3	197.7	221.5	235.7	358.5	502.6	662.2	727.3
U.S. currency	85.9	101.3	114.8	133.7	157.2	169.5	186.8	211.6	228.3
U.S. securities other than U.S. Treasury securities	460.6	546.0	599.4	696.4	739.7	971.4	1,199.5	1,578.7	2,021.8
Corporate and other bonds	238.9	274.1	299.3	355.8	368.1	481.2	588.0	715.2	900.7
Corporate stocks	221.7	271.9	300.2	340.6	371.6	490.1	611.4	863.5	1,121.1
U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	213.4	208.9	220.7	229.0	239.8	300.4	346.7	453.6	460.8
U.S. liabilities reported by U.S. banks, not included elsewhere	633.3	637.2	652.7	677.1	784.9	815.0	828.2	971.0	1,017.1

[1] Valued at market price.

Note.—For details regarding these data, see *Survey of Current Business*, July 1999.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–106.—*Industrial production and consumer prices, major industrial countries, 1975–99*

Year or quarter	United States	Canada	Japan	European Union[1]	France	Germany[2]	Italy	United Kingdom
	Industrial production (Index, 1992=100)[3]							
1975	63.4	71.6	51.1	72.6	75.7	68.8	64.6	77.4
1976	69.3	76.2	56.7	77.0	82.4	75.1	72.7	80.0
1977	74.9	78.9	59.0	79.0	83.7	76.5	73.5	84.1
1978	79.3	82.2	62.8	80.0	85.6	78.6	74.9	86.5
1979	82.0	86.2	67.4	83.8	89.4	82.4	79.9	89.9
1980	79.7	83.5	70.5	84.2	91.3	82.9	84.3	84.0
1981	81.0	84.0	71.2	82.8	90.5	81.3	82.4	81.3
1982	76.7	77.4	71.4	81.7	89.8	78.7	79.9	82.9
1983	79.5	81.4	73.8	82.4	89.2	79.2	78.1	85.9
1984	86.6	91.7	80.6	84.3	89.5	81.6	80.6	86.0
1985	88.0	96.6	83.6	86.9	91.3	85.5	80.7	90.7
1986	89.0	96.0	83.5	88.7	91.9	87.0	84.0	92.9
1987	93.2	100.2	86.4	90.5	93.1	87.4	86.2	96.6
1988	97.4	106.3	94.5	94.5	97.3	90.5	92.1	101.3
1989	99.1	105.8	99.9	98.4	100.9	95.1	95.7	103.4
1990	98.9	102.9	104.1	101.6	102.4	99.9	101.7	103.1
1991	97.0	98.9	106.1	101.3	101.2	102.3	101.3	99.7
1992	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1993	103.4	104.5	96.5	96.5	96.1	92.4	97.9	102.2
1994	109.1	111.3	97.7	101.4	100.0	95.6	103.9	107.7
1995	114.4	116.3	100.9	104.8	102.0	96.8	109.2	109.5
1996	119.4	118.3	103.2	105.2	102.2	97.4	107.1	110.7
1997	127.1	124.8	107.0	109.3	106.2	100.8	111.1	111.8
1998	132.4	127.7	99.9	113.1	110.9	105.0	112.3	112.6
1999*p*	137.2	.....	.....	.....	.....	.....	.....	.....
1998: I	130.9	127.3	103.2	112.8	109.8	105.3	113.4	111.8
II	131.9	127.4	99.0	113.5	111.4	105.4	114.0	113.0
III	132.8	127.0	99.1	114.0	111.1	106.0	113.4	113.0
IV	133.9	129.0	98.4	113.2	111.3	104.4	111.9	112.2
1999: I	134.6	130.3	98.9	113.1	110.8	104.5	112.0	111.6
II	136.1	131.5	98.1	113.8	112.0	105.5	111.3	112.4
III	137.7	135.1	101.8	115.2	114.5	107.3	113.2	113.8
IV*p*	139.9	.....	.....	.....	.....	.....	.....	.....
	Consumer prices (Index, 1982–84=100)							
1975	53.8	50.1	65.9	43.7	43.9	71.1	28.8	40.2
1976	56.9	53.9	72.2	48.8	48.1	74.2	33.6	46.8
1977	60.6	58.1	78.1	54.7	52.6	76.9	40.1	54.2
1978	65.2	63.3	81.4	59.5	57.5	79.0	45.1	58.7
1979	72.6	69.2	84.4	65.7	63.6	82.2	52.1	66.6
1980	82.4	76.1	90.9	74.5	72.2	86.7	63.2	78.5
1981	90.9	85.6	95.3	83.4	81.8	92.2	75.4	87.9
1982	96.5	94.9	98.1	92.4	91.7	97.1	87.7	95.4
1983	99.6	100.4	99.8	100.1	100.3	100.3	100.8	99.8
1984	103.9	104.7	102.1	107.4	108.0	102.7	111.5	104.8
1985	107.6	109.0	104.1	114.1	114.3	104.8	121.1	111.1
1986	109.6	113.5	104.8	118.2	117.2	104.7	128.5	114.9
1987	113.6	118.4	104.8	122.1	121.1	104.9	134.4	119.7
1988	118.3	123.2	105.6	126.7	124.3	106.3	141.1	125.6
1989	124.0	129.3	108.1	133.2	128.7	109.2	150.4	135.3
1990	130.7	135.5	111.4	140.9	132.9	112.2	159.6	148.2
1991	136.2	143.1	115.0	148.2	137.2	116.2	169.8	156.9
1992	140.3	145.3	116.9	154.9	140.4	122.1	178.8	162.7
1993	144.5	147.9	118.4	160.5	143.4	127.6	186.4	165.3
1994	148.2	148.2	119.3	165.4	145.8	131.1	193.7	169.4
1995	152.4	151.4	119.1	170.6	148.4	133.3	204.1	175.1
1996	156.9	153.8	119.3	174.8	151.4	135.2	212.0	179.4
1997	160.5	156.3	121.4	178.4	153.2	137.8	215.9	185.0
1998	163.0	157.8	122.1	181.5	154.2	139.1	219.8	191.4
1999*p*	166.6	160.5	.....	.....	155.0	139.9	223.4	194.3
1998: I	161.9	157.3	121.7	180.3	153.8	138.7	218.6	188.2
II	162.8	157.8	122.3	181.6	154.6	139.1	219.7	191.7
III	163.4	158.0	121.6	182.0	154.2	139.5	220.2	192.3
IV	164.0	158.2	122.8	182.1	154.1	139.0	221.0	193.2
1999: I	164.6	158.6	121.6	182.3	154.2	139.0	221.6	192.4
II	166.2	160.3	122.1	183.7	155.1	139.8	223.0	194.4
III	167.2	161.4	121.6	184.2	155.0	140.4	223.9	194.6
IV*p*	168.3	161.9	.....	.....	155.7	140.3	225.3	196.0

[1] Consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom.
[2] Prior to 1991 data are for West Germany only.
[3] All data exclude construction. Quarterly data are seasonally adjusted.

Sources: National sources as reported by Department of Commerce (International Trade Administration, Office of Trade and Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Board of Governors of the Federal Reserve System.

TABLE B–107.—*Civilian unemployment rate, and hourly compensation, major industrial countries, 1975–99*

[Quarterly data seasonally adjusted]

Year or quarter	United States	Canada	Japan	France	Germany [1]	Italy	United Kingdom
	Civilian unemployment rate (Percent) [2]						
1975	8.5	6.9	1.9	4.2	3.4	3.4	4.6
1976	7.7	7.2	2.0	4.6	3.4	3.9	5.9
1977	7.1	8.1	2.0	5.2	3.4	4.1	6.4
1978	6.1	8.4	2.3	5.4	3.3	4.1	6.3
1979	5.8	7.5	2.1	6.1	2.9	4.4	5.4
1980	7.1	7.5	2.0	6.5	2.8	4.4	7.0
1981	7.6	7.6	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	11.9	2.7	8.6	[3] 6.9	5.9	11.8
1984	7.5	11.3	2.8	10.0	7.1	5.9	11.7
1985	7.2	10.5	2.6	10.5	7.2	6.0	11.2
1986	7.0	9.6	2.8	10.6	6.6	[3] 7.5	11.2
1987	6.2	8.9	2.9	10.8	6.3	7.9	10.3
1988	5.5	7.8	2.5	10.3	6.3	7.9	8.6
1989	5.3	7.5	2.3	9.6	5.7	7.8	7.2
1990	[3] 5.6	8.1	2.1	9.1	5.0	7.0	6.9
1991	6.8	10.4	2.1	9.6	[3] 5.6	[3] 6.9	8.8
1992	7.5	11.3	2.2	[3] 10.4	6.7	7.3	10.1
1993	6.9	11.2	2.5	11.8	7.9	[3] 10.2	10.5
1994	[3] 6.1	10.4	2.9	12.3	8.5	11.3	9.7
1995	5.6	9.5	3.2	11.8	8.2	12.0	8.7
1996	5.4	9.7	3.4	12.5	8.9	12.1	8.2
1997	4.9	9.2	3.4	12.4	9.9	12.3	7.0
1998	4.5	8.3	4.1	11.7	9.4	12.3	6.3
1999	4.2	.....	.....	.....	.....	.....	.....
1998: I	4.7	8.6	3.7	12.0	9.9	12.2	6.4
II	4.4	8.4	4.2	11.7	9.5	12.3	6.3
III	4.5	8.3	4.3	11.7	9.1	12.4	6.3
IV	4.4	8.0	4.4	11.5	9.1	12.4	6.3
1999: I	4.3	7.8	4.7	11.3	9.0	12.3	6.3
II	4.3	8.0	4.8	11.2	9.0	12.1	6.1
III	4.2	7.6	4.8	11.1	9.1	.....	5.9
IV	4.1	.....	.....	.....	.....	.....	.....
	Manufacturing hourly compensation in U.S. dollars (Index, 1992=100) [4]						
1975	35.5	34.6	17.5	26.3	23.1	22.1	19.0
1976	38.4	40.8	18.8	27.0	24.3	21.6	17.9
1977	41.8	42.0	23.0	29.8	28.8	24.0	19.6
1978	45.2	42.1	31.5	36.7	35.8	28.8	25.1
1979	49.6	44.5	32.0	44.0	42.0	35.6	33.0
1980	55.6	49.2	32.8	51.1	46.1	40.5	43.7
1981	61.1	53.7	36.1	46.0	39.3	36.9	44.1
1982	67.0	58.6	33.5	45.1	38.8	36.5	42.0
1983	68.8	62.5	36.1	43.0	38.6	38.1	39.0
1984	71.2	61.7	37.2	40.7	36.3	37.8	37.2
1985	75.1	61.8	38.5	42.9	37.2	39.1	39.0
1986	78.5	63.0	57.3	57.9	52.4	52.1	47.8
1987	80.7	68.6	68.3	69.2	66.0	63.3	60.2
1988	84.0	76.4	78.4	72.5	70.4	65.5	68.3
1989	86.6	84.1	77.3	71.4	69.1	68.1	67.7
1990	90.8	92.7	79.3	88.0	86.4	86.8	81.7
1991	95.6	99.9	90.3	90.2	89.4	92.9	90.5
1992	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1993	102.7	93.3	119.3	96.0	100.0	84.2	88.7
1994	105.6	88.8	132.4	100.2	107.6	82.4	92.3
1995	107.9	91.2	147.7	114.3	128.3	85.3	95.9
1996	109.3	91.1	129.3	113.2	128.4	96.5	95.6
1997	113.4	93.1	119.5	101.9	114.0	91.1	104.6
1998	119.4	90.3	111.3	102.3	113.3	88.5	111.9

[1] For unemployment rate, data beginning 1991 are for unified Germany; for prior years, data are for West Germany. For manufacturing hourly compensation, data are for West Germany only.

[2] Civilian unemployment rates, approximating U.S. concepts. Quarterly data for France and Germany should be viewed as less precise indicators of unemployment under U.S. concepts than the annual data.

[3] There are breaks in the series for Germany (1983 and 1991), France (1992), Italy (1986, 1991, and 1993), and United States (1990 and 1994). Based on the prior series, the rate for Germany was 7.2 percent in 1983, and 4.3 percent in 1991 for West Germany only, the rate for France was 10.5 in 1992, 11.9 in 1993, 12.7 in 1994 and 12.3 in 1995, and the rate for Italy was 6.3 percent in 1986 and 6.6 in 1991. The break in 1993 raised Italy's rate by approximately 1 percentage point. For details on break in series in 1990 and 1994 for United States, see footnote 5, Table B–33.

[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, Canada, Japan, France, Germany, and United Kingdom, and to all employees (wage and salary earners) in Italy. For Canada, 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–108.—*Foreign exchange rates, 1979–99*

[Currency units per U.S. dollar, except as noted; certified noon buying rates in New York]

Period	Canada (dollar)	EMU Members (euro) [1 2]	Belgium (franc) [1]	France (franc) [1]	Germany (mark) [1]	Italy (lira) [1]	Netherlands (guilder) [1]	Japan (yen)	Sweden (krona)	Switzerland (franc)	United Kingdom (pound) [2]
March 1973	0.9967	.....	39.408	4.5156	2.8132	568.17	2.8714	261.90	4.4294	3.2171	2.4724
1979	1.1713	.....	29.342	4.2567	1.8343	831.11	2.0073	219.02	4.2893	1.6644	2.1224
1980	1.1693	.....	29.238	4.2251	1.8175	856.21	1.9875	226.63	4.2310	1.6772	2.3246
1981	1.1990	.....	37.195	5.4397	2.2632	1138.58	2.4999	220.63	5.0660	1.9675	2.0243
1982	1.2344	.....	45.781	6.5794	2.4281	1354.00	2.6719	249.06	6.2839	2.0319	1.7480
1983	1.2325	.....	51.122	7.6204	2.5539	1519.32	2.8544	237.55	7.6718	2.1007	1.5159
1984	1.2952	.....	57.752	8.7356	2.8455	1756.11	3.2085	237.46	8.2708	2.3500	1.3368
1985	1.3659	.....	59.337	8.9800	2.9420	1908.88	3.3185	238.47	8.6032	2.4552	1.2974
1986	1.3896	.....	44.664	6.9257	2.1705	1491.16	2.4485	168.35	7.1273	1.7979	1.4677
1987	1.3259	.....	37.358	6.0122	1.7981	1297.03	2.0264	144.60	6.3469	1.4918	1.6398
1988	1.2306	.....	36.785	5.9595	1.7570	1302.39	1.9778	128.17	6.1370	1.4643	1.7813
1989	1.1842	.....	39.409	6.3802	1.8808	1372.28	2.1219	138.07	6.4559	1.6369	1.6382
1990	1.1668	.....	33.424	5.4467	1.6166	1198.27	1.8215	145.00	5.9231	1.3901	1.7841
1991	1.1460	.....	34.195	5.6468	1.6610	1241.28	1.8720	134.59	6.0521	1.4356	1.7674
1992	1.2085	.....	32.148	5.2935	1.5618	1232.17	1.7587	126.78	5.8258	1.4064	1.7663
1993	1.2902	.....	34.581	5.6669	1.6545	1573.41	1.8585	111.08	7.7956	1.4781	1.5016
1994	1.3664	.....	33.426	5.5459	1.6216	1611.49	1.8190	102.18	7.7161	1.3667	1.5319
1995	1.3725	.....	29.472	4.9864	1.4321	1629.45	1.6044	93.96	7.1406	1.1812	1.5785
1996	1.3638	.....	30.970	5.1158	1.5049	1542.76	1.6863	108.78	6.7082	1.2361	1.5607
1997	1.3849	.....	35.807	5.8393	1.7348	1703.81	1.9525	121.06	7.6446	1.4514	1.6376
1998	1.4836	.....	36.310	5.8995	1.7597	1736.85	1.9837	130.99	7.9522	1.4506	1.6573
1999	1.4858	1.0653	.....	.....	.....	.....	.....	113.73	8.2740	1.5045	1.6172
1998: I	1.4298	.....	37.558	6.0957	1.8190	1792.04	2.0505	128.23	8.0172	1.4767	1.6465
II	1.4469	.....	37.022	6.0162	1.7944	1770.03	2.0218	135.68	7.8181	1.4934	1.6541
III	1.5136	.....	36.348	5.9091	1.7623	1739.18	1.9874	140.01	8.0011	1.4703	1.6531
IV	1.5430	.....	34.309	5.5758	1.6630	1645.88	1.8749	119.40	7.9753	1.3602	1.6758
1999: I	1.5120	1.1204	.....	.....	.....	.....	.....	116.67	8.0098	1.4288	1.6321
II	1.4733	1.0567	.....	.....	.....	.....	.....	120.80	8.4258	1.5143	1.6061
III	1.4865	1.0493	.....	.....	.....	.....	.....	113.15	8.3087	1.5274	1.6019
IV	1.4724	1.0368	.....	.....	.....	.....	.....	104.31	8.3404	1.5447	1.6295

	Trade-weighted value of the U.S. dollar						
	Nominal				Real [7]		
	G–10 index (March 1973=100) [3]	Broad index (January 1997=100) [4]	Major currencies index (March 1973=100) [5]	OITP index (January 1997=100) [6]	Broad index (March 1973=100) [4]	Major currencies index (March 1973=100) [5]	OITP index (March 1973=100) [6]
1979	88.1	33.5	94.9	3.7	87.0	88.0	84.5
1980	87.4	34.6	94.8	4.0	89.1	90.9	85.1
1981	103.4	38.2	103.6	4.6	95.5	100.0	87.0
1992	116.6	44.3	114.2	5.8	104.7	108.4	97.4
1983	125.3	49.8	118.1	7.7	108.7	109.9	105.7
1984	138.2	56.7	125.8	10.0	115.5	117.2	111.8
1985	143.0	63.8	130.5	13.4	120.7	121.1	119.6
1986	112.2	59.7	107.2	16.6	106.0	98.8	123.3
1987	96.9	58.1	94.8	19.9	97.6	88.4	120.7
1988	92.7	58.8	88.2	23.9	91.1	83.3	110.8
1989	98.6	64.8	91.9	29.4	92.5	87.4	105.9
1990	89.1	70.0	87.9	40.0	90.1	84.3	105.0
1991	89.8	73.2	86.4	46.7	88.6	82.6	104.1
1992	86.6	76.0	84.9	53.1	86.8	81.5	100.9
1993	93.2	82.9	87.1	63.6	87.7	84.2	98.4
1994	91.3	90.5	85.6	81.1	87.3	83.8	98.1
1995	84.2	92.5	80.8	92.6	84.8	79.9	97.4
1996	87.3	97.4	84.6	98.3	86.7	85.0	94.7
1997	96.4	104.4	91.2	104.7	91.3	92.3	95.9
1998	98.8	116.5	95.8	126.0	99.3	97.3	108.5
1999	.....	116.9	94.1	129.9	98.7	96.7	107.7
1998: I	100.3	115.3	95.3	124.1	99.1	96.5	108.9
II	100.3	115.9	96.6	123.2	99.1	97.8	107.0
III	100.2	119.2	98.2	128.6	101.6	100.0	110.3
IV	94.5	115.5	93.0	128.3	97.6	94.7	107.8
1999: I	.....	116.7	93.5	130.8	98.3	95.6	108.1
II	.....	117.6	95.5	129.2	99.4	98.1	107.5
III	.....	117.1	94.5	129.7	99.2	97.4	107.9
IV	.....	116.0	92.7	130.1	98.0	95.8	107.2

[1] European Economic and Monetary Union members include Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain.

[2] Value is U.S. dollars.

[3] G–10 comprises the countries shown in this table. Discontinued after December 1998.

[4] The broad index is a weighted average of the foreign exchange value of the dollar against the currencies of a broad group of U.S. trading partners.

[5] Subset of the broad index. Includes currencies of the euro area (see footnote 1), Australia, Canada, Japan, Sweden, Switzerland, and the United Kingdom.

[6] Subset of the broad index. Includes other important U.S. trading partners (OITP) whose currencies are not heavily traded outside their home markets.

[7] Adjusted for changes in the consumer price index.

Source: Board of Governors of the Federal Reserve System.

TABLE B–109.—*International reserves, selected years, 1952–99*

[Millions of SDRs; end of period]

Area and country	1952	1962	1972	1982	1992	1997	1998	1999	
								Oct	Nov
All countries	49,388	62,851	146,658	361,239	752,566	1,284,101	1,279,543	1,308,401	.....
Industrial countries [1]	39,280	53,502	113,362	214,025	424,229	603,332	581,081	560,152	.....
United States	24,714	17,220	12,112	29,918	52,995	52,817	59,379	.....	.....
Canada	1,944	2,561	5,572	3,439	8,662	13,317	16,640	19,060	20,778
Euro area [1]	.....	.....	.....	.....	.....	.....	.....	197,568	.....
Austria	116	1,081	2,505	5,544	9,703	14,903	22,661	11,397	.....
Belgium	1,133	1,753	3,564	4,757	10,914	12,535	13,310	8,244	.....
Finland	132	237	664	1,420	3,862	6,294	6,955	5,738	.....
France	686	4,049	9,224	17,850	22,522	25,788	35,054	31,424	.....
Germany	960	6,958	21,908	43,909	69,489	60,835	56,737	47,519	.....
Ireland	318	359	1,038	2,390	2,514	4,849	6,690	3,667	.....
Italy	722	4,068	5,605	15,108	22,438	43,644	24,144	18,996	.....
Netherlands	953	1,943	4,407	10,723	17,492	19,376	16,395	8,334	.....
Portugal	603	680	2,129	1,179	14,474	12,169	11,942	6,765	.....
Spain	134	1,045	4,618	7,450	33,640	51,241	39,929	24,836	.....
Australia	920	1,168	5,656	6,053	8,429	12,575	11,032	13,769	15,293
Japan	1,101	2,021	16,916	22,001	52,937	163,641	153,878	197,277	198,564
New Zealand	183	251	767	577	2,239	3,299	2,986	2,849	.....
Denmark	150	256	787	2,111	8,090	14,233	10,916	16,865	16,655
Greece	94	287	950	916	3,606	9,462	12,526	14,024	13,438
Iceland	8	32	78	133	364	286	305	347	.....
Norway	164	304	1,220	6,273	8,725	17,385	13,256	13,258	13,696
Sweden	504	802	1,453	3,397	16,667	8,188	10,178	11,248	13,227
Switzerland	1,667	2,919	6,961	16,930	27,100	31,840	32,169	28,797	28,203
United Kingdom	1,956	3,308	5,201	11,904	27,300	24,596	23,682	.....	.....
Developing countries: Total [2]	9,648	9,349	33,295	147,213	328,337	680,768	698,463	748,248	.....
By area:									
Africa	1,786	2,110	3,962	7,737	13,044	29,042	30,365	31,528	.....
Asia [2]	3,793	2,772	8,130	44,490	190,363	384,420	413,058	458,622	.....
Europe	269	381	2,680	5,359	16,006	72,914	72,608	77,377	.....
Middle East	1,183	1,805	9,436	64,039	44,149	68,465	70,059	69,982	.....
Western Hemisphere	2,616	2,282	9,089	25,563	64,774	125,927	114,362	110,739	.....
Memo:									
Oil-exporting countries	1,699	2,030	9,956	67,108	46,144	63,751	67,471	70,549	.....
Non-oil developing countries [2]	7,949	7,319	23,339	80,105	282,193	617,017	630,991	677,699	.....

[1] Includes data for Luxembourg.
[2] Includes data for Taiwan Province of China.

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.
U.S. dollars per SDR (end of period) are: 1952 and 1962—1.00000; 1972—1.08571; 1982—1.10311; 1992—1.37500; 1997—1.3493; 1998—1.4080; October 1999—1.3807; and November 1999—1.3696.

Source: International Monetary Fund, *International Financial Statistics.*

TABLE B–110.—*Growth rates in real gross domestic product, 1981–99*

[Percent change at annual rate]

Area and country	1981–90	1991	1992	1993	1994	1995	1996	1997	1998	1999 [1]
World	3.4	1.8	2.5	2.7	4.0	3.8	4.3	4.2	2.5	3.0
Advanced economies	3.1	1.2	2.0	1.3	3.2	2.6	3.2	3.2	2.2	2.8
Major industrial countries	2.9	.8	1.8	1.1	2.8	2.2	3.0	2.9	2.2	2.6
United States [2]	2.9	–.9	2.7	2.3	3.5	2.3	3.4	3.9	3.9	3.7
Japan	4.0	3.8	1.0	.3	.6	1.5	5.0	1.4	–2.8	1.0
Germany [3]	2.3	5.0	2.2	–1.1	2.3	1.7	.8	1.8	2.3	1.4
France	2.4	.8	1.2	–1.3	2.8	2.1	1.6	2.3	3.2	2.5
Italy	2.2	1.4	.8	–.9	2.2	2.9	.9	1.5	1.3	1.2
United Kingdom [4]	2.7	–1.5	.1	2.3	4.4	2.8	2.6	3.5	2.2	1.1
Canada	2.8	–1.9	.9	2.3	4.7	2.8	1.7	4.0	3.1	3.6
Other advanced economies	3.7	2.9	2.5	2.0	4.5	4.3	3.9	4.2	2.1	3.5
Developing countries	4.2	4.9	6.7	6.5	6.8	6.1	6.6	5.8	3.2	3.5
Africa	2.5	1.8	.2	.7	2.4	3.0	5.9	3.1	3.4	3.1
Asia	6.9	6.6	9.5	9.3	9.6	9.1	8.2	6.6	3.7	5.3
Middle East and Europe	2.8	2.7	7.1	3.9	.7	3.7	4.7	4.5	3.2	1.8
Western Hemisphere	1.6	3.9	3.3	3.9	4.9	1.5	3.6	5.3	2.2	.1
Countries in transition	2.2	–7.6	–13.8	–7.1	–7.1	–.5	–.3	2.2	–.2	.8
Central and eastern Europe	.....	–9.9	–8.5	–3.7	–2.9	1.6	1.6	3.0	2.2	1.0
Russia	.....	–5.4	–19.4	–10.4	–11.6	–2.4	–3.4	.9	–4.6	.....
Transcaucasus and central Asia	.....	–7.0	–14.4	–9.6	–10.4	–4.4	1.6	2.5	2.2	2.0

[1] All figures are forecasts as published by the International Monetary Fund.

[2] Data for United States as published in the National Income and Product Account benchmark revisions released by the Department of Commerce in October 1999 show the following real GDP growth rates: for the 1981–90 period, 3.2 percent (annual rate); for 1991, –.2 percent; for 1992, 3.3 percent; for 1993, 2.4 percent; for 1994, 4.0 percent; for 1995, 2.7 percent; for 1996, 3.7 percent; for 1997, 4.5 percent; and for 1998, 4.3 percent. The preliminary estimate released by the Department of Commerce for 1999 is 4.0 percent.

[3] Through 1991 data are for West Germany only.

[4] Average of expenditure, income, and output estimates of GDP at market prices.

Sources: Department of Commerce (Bureau of Economic Analysis) and International Monetary Fund.

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